Consulting Scope of Services & Cost Estimate

PROJECT NAME:	Missoula Water - N. 2nd and Cottonwood Replacement	$75	$95	$95	$110	$140	$150	$150	$120	$180	DATE:	July 6, 2021	
100 Series - Preliminary Project Assessment and Planning		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	IMEG Services	Direct Expenses	Agency Review Fees
100	Project Management	IMEG project meetings, schedule, and project coordination associated with this portion of work.					4					$ 560.00		
107	Pre-Design Meeting with Client	Project Manager and select team members will meet with the Client to discuss project goals and project coordination. Initial meeting with Missoula Water to review as-builts of the main plus service ditch cards and discuss tie in options. Review preliminary survey research.				6	2					$ 940.00		
119	Review Right-of-Way, Plats & COS's	Time included to research the status of the adjacent right of ways (ROWs). Time included to research at Records Room concerning ROW. Assumes ROW will not be determined to be exact as improvements will take place within the road right of ways and service lines will be run into the existing boulevard.							2			$ 300.00		
197	Preliminary Alignment Review - Stage 2	Based on the information gained through the initial feasibility tasks and field work, IMEG will prepare a preliminary alignment and connection options of the water main replacement. IMEG will submit preliminary alignment to Missoula Water for review/comment as part of the Stage 2 submittal process.		12		6	2					$ 2,080.00		
		Series 100 Total	0	12	0	12	8	0	2	0	0	$ 3,880.00	$ -	$ -
200 Series - Field Work & Surveying			Admin	CAD	Technician	Production	Project Manager	Senior Staff		Survey Crew		IMEG Services	Direct Expenses	Agency Review Fees
200	Project Management	IMEG project meetings, schedule, and project coordination associated with this portion of work.					3					$ 420.00		
202	General Site Visit	Engineering staff member to walk site to get general understanding of topography and existing features. Become familiar with the previously unidentified potential challenges to the project and take photos of the site. Assumes time included to research and dip sewer mains in the project area.			2	4						$ 630.00		
241	Limited R/W Survey & Utility/Topographic Mapping	IMEG will request a utility locate five business days prior to the survey crew being on site. The visible, above ground utilities and respective underground utility locations will be tied by the survey crew for future placement on to the site map. Time included for a drafter to reduce the mapping into a site map. IMEG survey crews will visit the site and ties structures, improvements, cultural features and ground elevations sufficient to create an accurate map of the site. Contours will be generated at one-foot intervals based upon the collected data, creating a surface suitable for design. Cultural features include, but are not limited to: mail boxes, utility lines, fences, power poles, wells, pathways, driveways and signs. Mapping will be completed and referenced to the Montana State Plane coordinate system and the vertical datum will be referenced to NAVD88. In addition to topographic features, limited R/W ties will be made to existing monumentation & surveys/plats of record. Mapping information will be depicted in relation to the R/W. Survey control will also be placed in areas out of the construction area that can be used during the construction staking phase of the project. Assumes 3 days of survey crew field work. Project survey area is 1st Street from Walnut to Hickory, Hickory from 1st to 2nd, 2nd Street from Hickory to Orange, and Cottonwood from 2nd to 3rd.	2	12			2		2	48		$ 7,630.00	$ 300.00	
		Series 200 Total	2	12	2	4	5	0	2	48	0	$ 8,680.00	$ 300.00	$ -

500 Series - MDEQ: Applications, Sewer Designs; Water Designs; Subdivision Drainage Design			Admin	CAD	Technician	Production	Project Manager	Senior Staff		Survey Crew		IMEG Services	Direct Expenses	Agency Review Fees
500	Project Management	IMEG project meetings, schedule, and project coordination associated with this portion of work.					6					$ 840.00		
575	DEQ 1 Water System, Report - Exhibits	Develop the water system collection maps for this vicinity and gather hydrant test data. Assumes that Missoula Water will provide the hydrant test data to IMEG if needed.			2	1						$ 300.00		
577	DEQ 1 Water System, Report - Produce	Given that the involved parties are familiar with this type of water main replacement work, the MDEQ Certified Checklist for water mains will be used. This checklist requires a thorough review of the plans against MDEQ's Circular DEQ-1 for compliance. In addition, a simple design report will be prepared in accordance with Circular DEQ-1. This includes getting certification from the Client that they will retain a PE to certify the improvements and review by the governing body's Engineering staff for the main replacement plans. Assumes there will be one Deviation request.			6	1						$ 680.00		$ 300.00
580	DEQ 1 Water System, Construction Plans - Plan/Profile	Complete Construction Plans will be prepared depicting plan and profile of the water main replacement for the following areas: 1st Street from Walnut to Hickory, Hickory from 1st to 2nd, 2nd Street from Hickory to Orange, and Cottonwood from 2nd to 3rd. The plans will include water main with valves, bends, blow-off, services, and fire hydrant. Includes one solicitation of preliminary review from system Owner. Assumes up to five sheets will be required for plan and profile.		38		8	4					$ 5,050.00		
582	DEQ 1 Water System, Construction Plans - Details	Prepare cover sheet and up to two detail sheets including water service table and typical details for water main construction. Additional coordination with the system Owner is not anticipated for details since this is a standard water main construction.		8		4	2					$ 1,480.00		
588	City of Missoula Stage 3 and Stage 4 Checklists	Assumes that the Stage 3 and Stage 4 Checklist will need to be completed for the City of Missoula. Time included to complete these 2 checklist and submit to the City for their review and approval.		3	12	6	2					$ 2,365.00		
591	MDEQ Submittal	Finalize packet, copy, and send in. Assumes no review fees as project will be an SRF project.				2	1	4				$ 960.00		
594	Address Reviewer Questions	As these are simple main projects with the Certified Checklist, it is assumed that there will be no MDEQ requests for additional information.										$ -		
		Series 500 Total	0	49	20	22	15	4	0	0	0	$ 11,675.00	$ -	$ 300.00

800 Series - Construction Administration, Inspections, and Staking			Admin	CAD	Technician	Production	Project Manager	Senior Staff		Survey Crew		IMEG Services	Direct Expenses	Agency Review Fees
800	Project Management	Time included for project meetings and project coordination.					8					$ 1,120.00		
801	Contract Documents and Specifications - Including SRF Documentation	IMEG 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, SRF Requirements, and IMEG Special Provisions. The contract documents will also include the Final Construction Drawings.			12	8	6					$ 2,860.00		
803	Quantity Estimates	Based on Construction Drawings IMEG will determine quantities of work items for an Engineers Cost Estimate.		4		8						$ 1,260.00		
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					$ 1,160.00		
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, IMEG 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	4					$ 2,320.00		
813	Pre-Construction Public Meeting	IMEG 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 IMEG staff member will be present. Assumes minimal time to assist with a power point presentation on the project if needed.					2					$ 280.00		

815	Contract Administration	IMEG 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. IMEG will issue Notice to Proceed, review payment applications and process change orders. Assumes no more than one change order will be processed.			24	8	6					$ 4,000.00		
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.			6				1			$ 720.00		
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.			6		4		1		20	$ 4,880.00	$ 200.00	
871	Construction Inspection and Material Testing	IMEG will provide construction oversight in order to ensure Contractor is completing project in substantial compliance with the Plans and Specifications. IMEG 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 IMEG contract as a reimbursable expense. Assumes asphalt testing on patch back will occur on this project. 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	36	12					$ 24,640.00	$ 8,000.00	
875	Certificate of Substantial Completion and Final Walkthrough	IMEG will process Substantial Completion form at request of Contractor. IMEG 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					$ 940.00		
		Series 800 Total	0	4	248	90	46	0	2	0	20	$ 44,180.00	$ 8,200.00	$ -
900 Series - Final Project Documentation			Admin	CAD	Technician	Production	Project Manager	Senior Staff		Survey Crew		IMEG Services	Direct Expenses	Agency Review Fees
911	Construction As-Builts - Water	IMEG will utilize field notes and photos to prepare as-built plans for certification of the water main replacement.			12	2	1					$ 1,500.00		
914	Construction Certifications - Water(DEQ & Stage 6)	IMEG 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. Time included for IMEG to complete the City of Missoula Stage 6 Checklist submittal. It is assumed that Stage 5 submittal is not needed as the City will be involved through the Construction phase of this project.	1	8	16	3	1					$ 2,825.00		
		Series 900 Total	1	8	28	5	2	0	0	0	0	$ 4,325.00	$ -	$ -

Project Summary			Technician	Production	Project Manager	Senior Staff		Survey Crew		IMEG Services	Direct Expenses	Agency Review Fees
Item No. - Description	Admin	Lead Drafter	EI/Other	PE/EI	PE	PE	PLS	GPS	Total Station			
100 Series - Preliminary Project Assessment and Planning	0	12	0	12	8	0	2	0	0	$ 3,880.00	$ -	$ -
200 Series - Field Work & Surveying	2	12	2	4	5	0	2	48	0	$ 8,680.00	$ 300.00	$ -
500 Series - MDEQ: Applications, Sewer Designs; Water Designs; Subdivision Drainage Design	0	49	20	22	15	4	0	0	0	$ 11,675.00	$ -	$ 300.00
800 Series - Construction Administration, Inspections, and Staking	0	4	248	90	46	0	2	0	20	$ 44,180.00	$ 8,200.00	$ -
900 Series - Final Project Documentation	1	8	28	5	2	0	0	0	0	$ 4,325.00	$ -	$ -
1000 Series - 5% Additional Services - TBD By City's Project Manager										$ 3,600.00		
Total Consulting and Reimbursable to Obtain Approvals	**3**	**85**	**298**	**133**	**76**	**4**	**6**	**48**	**20**	**$ 76,340.00**	**$ 8,500.00**	**$ 300.00**
Total Estimate including Reimbursable											**$85,140.00**	