



June 25, 2021

Mr. Aaron Soderlund, P.E.
City of Duluth
411 West First Street, RM 211
Duluth, MN 55802

Re: Proposal for Construction Related Engineering Services for the
Construction of Middle Booster Station Improvements

Dear Mr. Soderlund:

MSA Professional Services, Inc. (MSA) is pleased to submit this proposal for construction related services for the proposed Middle Booster Station Improvements. The MSA team will provide services limited to technical support during the construction phase.

SCOPED A/E SERVICES TO BE PROVIDED BY MSA:

- Attend Pre-Construction meeting.
- Provide up to 274 hours to review Shop Drawings. A single review of each submitted shop drawing is included within this scope of services.
- Coordinate/respond to contractor questions. Respond to up to four (4) RFI/CB in 2021, and up to two (2) in 2022.
- Provide up to 56 hours of assistance for the contractor with construction staking and layout in 2021. Provide 32 hours of as-built surveying in 2022. Staking will be placed once, as requested by contractor.
- Provide up to 648 hours of resident project representative services in 2021; Provide up to 720 hours of resident project representative services in 2022; RPR services are further described in the attached.
- Provide review of up to four (4) contractor pay applications in 2021, and up to seven (7) in 2021.
- Prepare and implement up to two (2) Change Orders in 2021, and up to two (2) in 2022.
- Attend up to six (6) progress meetings in 2021, and up to six (6) in 2022.
- Witness and document equipment start up and performance tests required to demonstrate compliance with contract documents.
- Provide up to fifty (50) hours for review of Operation and Maintenance.
- Submittals. A single review of each submitted O&M submittal drawing is included within this scope of services.
- Conduct final walk-through and develop a punch list.
- Conduct site visit to confirm completion of the punch list.

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- Complete an 11-month warranty review. To be scheduled approximately 11 months after the substantial completion of the project.
- Provide up to 56 hours of operator training and assistance.
- Develop as-built drawings from contractor record drawings depicting the nature of the construction modifications.
- Develop Record Drawing, O&Ms, and close out documents per City standards.
- Provide overall project management.

A/E DELIVERABLES:

- Shop Drawing Reviews
- RPR Field Reports
- O&M Reviews
- Punch list
- Email confirmation that punch list is complete
- Record drawings conforming to City of Duluth standards
- O&M conforming to City of Duluth standards
- Close-out Documents conforming to City of Duluth standards

Attached is a schedule of estimated time and expenses for the proposed services described above assumed to be provided in 2021 and 2022. The total estimated fee is \$349,428 time and materials (T&M) for the construction services. Our proposal to proceed is based on time and material during the construction phase of the project.

We look forward to working with you to construct the Middle Booster Station Improvements. If you have any questions about our proposal, please call me at (608) 355-8868 or my cell phone at (608) 963-6527.

Sincerely,
MSA Professional Services, Inc.



Scott R. Chilson, P.E.
Senior Project Engineer

SRC:

Enc.

Engineering Services Middle Booster Station Construction Related Services - City Project 1779

Phase		2021		2022	
		TOTAL HOURS	COST	DIRECT EXPENSE	COST
Phase No.	Task / Deliverable	(hours)	(dollars)	(hours)	(dollars)
2#000	Constuction Contract Administration	18	\$ 3,246	0	\$ -
2#100	Construction Admininstration	426	\$ 61,664	246	\$ 40,236
2#200	Construction Inspection	772	\$ 101,285	831	\$ 114,607
2#300	Operational Phase			210	\$ 28,390
Annual Totals		1,216	\$ 166,195	1,287	\$ 183,233
Total				2,503	\$ 349,428

2021 Engineering Services Middle Booster Station Construction Related Services - City Project 1779

Phase	Project Manager Chilson	Engineering Technician Lockett	Project Manager Mikonowicz	Water Lead Miller	Survey Lead Schley	Survey Technician Thannum	Lead Arch. Szymanski	Struct./Arch. h. Project Engineer Wastlund	Arch. Engineer Good	Mech. Engineer Feudner	Process Engineer Przybylski	Elec. Project Engineer Braun	Electrical Engineer Lutz	Admin. Lead Benner	Admin. Marcott	Admin. Pribbenow	TOTAL HOURS	LABOR COST	DIRECT EXPENSE	SUB- CONSULTANTS	TOTAL ACTUAL COST		
2021 Hourly Rate		\$195.00	\$114.00	\$170.00	\$245.00	\$146.00	\$76.00	\$175.00	\$150.00	\$85.00	\$95.00	\$95.00	\$160.00	\$105.00	\$123.00	\$80.00	\$80.00						
Phase No.	Task / Deliverable	Task No.	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours						
21000	Constuction Contract Administration		10	0	2	2	0	0	0	0	0	0	0	0	2	0	2	18	\$ 3,186	\$ 60	\$ -	\$ 3,246	
	Contract Processing	21002	2														2	4	\$ 550	\$ 30		\$ 580	
	Contract Admin	21004	8		2	2												14	\$ 2,636	\$ 30		\$ 2,666	
21100	Construction Admininstration		173	15	0	0	0	0	44	14	14	23	4	111	4	24	0	426	\$ 61,457	\$ 207	\$ -	\$ 61,663.80	
	Preconstruction Conference Meeting	21102	8	4											4			16	\$ 2,508	\$ 27		\$ 2,535	
	Project Administration	21104	48															48	\$ 9,360	\$ 6		\$ 9,366	
	Correspondance	21106	24					7						7				38	\$ 6,465	\$ 6		\$ 6,471	
	Shop Draing and Submittal Review	21108	72					30	12	12	20	4	96		18			264	\$ 34,760	\$ 150		\$ 34,910	
	O&M Submittal Review	21110	4					1	1	1	1	4	4		2			14	\$ 1,785	\$ -		\$ 1,785	
	Pay Request (up to 4)	21112	9	7														16	\$ 2,553	\$ 6		\$ 2,559	
	RFI's (up to 2)	21114	4					2	1	1	2		4		2			16	\$ 2,030	\$ 6		\$ 2,036	
	Change Orders (up to 2)	21116	4	4				4							2			14	\$ 1,996	\$ 3		\$ 1,999	
	Project Closeout	21118																0	\$ -	\$ 3		\$ 3	
21200	Construction Inspection		102	630	0	0	12	28	0	0	0	0	0	0	0	0	0	772	\$ 95,590	\$ 1,695	\$ 4,000	\$ 101,285	
	Staking	21202		16			12	28										56	\$ 5,704	\$ 1,034		\$ 6,738	
	Inspection	21204	40	608														648	\$ 77,112	\$ -	\$ 4,000	\$ 81,112	
	Progress Meeting (up to 6)	21206	56															56	\$ 10,920	\$ 560		\$ 11,480	
	Startup Services	21208																0	\$ -	\$ 34		\$ 34	
	Coordination with MN Power	21210	6	6														12	\$ 1,854	\$ 67		\$ 1,921	
21300	Operational Phase		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	
	Operator Training	21302																0	\$ -	\$ -		\$ -	
	Operation and Maintenance Manual	21304																0	\$ -	\$ -		\$ -	
	Record Drawings	21306																0	\$ -	\$ -		\$ -	
	11 Month Warrenty Review	21308																0	\$ -	\$ -		\$ -	
GRAND TOTAL			285	645	2	2	12	28	0	44	14	14	23	4	111	6	24	2	1216	\$ 160,233	\$ 1,962	\$ 4,000	\$ 166,195

2021 Engineering Services Middle Booster Station Construction Related Services - City Project 1779

		Prints / Copies	Mileage	Plots	Postage	Survey GPS	Survey Truck	Misc (Postage, survey supplies)	Misc (Postage, survey supplies)	TOTAL EXPENSE
Phase		Unit Cost	\$0.10	\$0.560	\$1.00	\$1.00	\$40.00	\$0.70	\$1.00	
Phase No.	Task / Deliverable <i>Subtasks/Task notes & details</i>	Unit Task	Each	Miles	Each	Dollars	Hours	Miles	Dollars	Dollars
21000	Construction Contract Administration		200	0	40	0	0	0	\$ -	\$ -
	Contract Processing	21002	100		20					\$ 30.00
	Contract Admin	21004	100		20					\$ 30.00
21100	Construction Administration		1900	30	0	0	0	0	\$ -	\$ -
	Preconstruction Conference Meeting	21102	100	30						\$ 26.80
	Project Administration	21104	60							\$ 6.00
	Correspondance	21106	60							\$ 6.00
	Shop Draing and Submittal Review	21108	1500							\$ 150.00
	O&M Submittal Review	21110								\$ -
	Pay Request (up to 4)	21112	60							\$ 6.00
	RFI's (up to 2)	21114	60							\$ 6.00
	Change Orders (up to 2)	21116	30							\$ 3.00
	Project Closeout	21118	30							\$ 3.00
21200	Construction Inspection		40	1220	20	0	24	40	0	\$ 4,000.00
	Staking	21202	40	40	20		24	40		\$ 1,034.40
	Geo-Tect and testing Sub-Consultant Allowan	21202E							\$ 4,000.00	\$ 4,000.00
	Inspection	21204		1000						\$ 560.00
	Progress Meeting (up to 6)	21206		60						\$ 33.60
	Startup Services	21208		120						\$ 67.20
	Coordination with MN Power	21210								\$ -
21300	Operational Phase		0	0	0	0	0	0	\$ -	\$ -
	Operator Training	21302								\$ -
	Operation and Maintenance Manual	21304								\$ -
	Record Drawings	21306								\$ -
	11 Month Warrenty Review	21308								\$ -
			2140	1250	60	0	24	40	0	\$ 4,000.00
										\$ 5,962.00

2022 Engineering Services Middle Booster Station Construction Related Services - City Project 1779																							
Phase		Project Manager Chilson	Engineering Technician Lockett	Project Manager Mikonowicz	Water Lead Miller	Survey Lead Schley	Survey Technician Thannum	Lead Arch. Szymanski	Struct./Arch. Project Engineer Wastlund	Arch. Engineer Good	Mech. Engineer Feudner	Process Engineer Przybylski	Elec. Project Engineer Braun	Electrical Engineer Lutz	Admin. Lead Benner	Admin. Marcott	Admin. Pribbenow	TOTAL HOURS	LABOR COST	DIRECT EXPENSE	SUB- CONSULTANTS	TOTAL ACTUAL COST	
2022 Hourly Rate		\$200.00	\$120.00	\$175.00	\$255.00	\$151.00	\$81.00	\$180.00	\$155.00	\$95.00	\$100.00	\$100.00	\$165.00	\$110.00	\$128.00	\$85.00	\$85.00						
Phase No.	Task / Deliverable	Task No.	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours					
22000	Constuction Contract Administration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -
	Contract Processing	22002																	0	\$ -	\$ -	\$ -	\$ -
	Contract Admin	22004																	0	\$ -	\$ -	\$ -	\$ -
22100	Construction Admininstration		139	9	0	0	0	0	26	2	2	2	0	34	0	32	0	246	\$ 39,960	\$ 276	\$ -	\$ 40,236	
	Preconstruction Cenfrence Meeting	22102																	0	\$ -	\$ -	\$ -	\$ -
	Project Administration	22104	56																56	\$ 11,200	\$ 8	\$ -	\$ 11,208
	Correspondance	22106	36						6					6					48	\$ 8,790	\$ 7	\$ -	\$ 8,797
	Shop Draing and Submittal Review	22108	8						2										10	\$ 1,910	\$ 20	\$ -	\$ 1,930
	O&M Submittal Review	22110	8						2	2	2	2		16		4			36	\$ 4,600	\$ 120	\$ -	\$ 4,720
	Pay Request (up to 7)	22112	7	7															14	\$ 2,240	\$ 7	\$ -	\$ 2,247
	RFI's (up to 2)	22114	4						4					4		2			14	\$ 2,030	\$ 4	\$ -	\$ 2,034
	Change Orders (up to 2)	22116	4	2					4					4		2			12	\$ 1,830	\$ 2	\$ -	\$ 1,832
	Project Closeout	22118	16						8					8		24			56	\$ 7,360	\$ 108	\$ -	\$ 7,468
22200	Construction Inspection		126	681	0	0	8	16	0	0	0	0	0	0	0	0	0	831	\$ 109,424	\$ 1,183	\$ 4,000	\$ 114,607	
	Staking	22202		8			8	16											32	\$ 3,464	\$ 366	\$ -	\$ 3,830
	Inspection	22204	48	672															720	\$ 90,240	\$ 672	\$ 4,000	\$ 94,912
	Progress Meeting (up to 6)	22206	60																60	\$ 12,000	\$ 34	\$ -	\$ 12,034
	Startup Services	22208	16																16	\$ 3,200	\$ 112	\$ -	\$ 3,312
	Coordination with MN Power	22210	2	1															3	\$ 520	\$ -	\$ -	\$ 520
22300	Operational Phase		60	44	0	0	0	0	8	12	12	16	0	32	0	26	0	210	\$ 28,190	\$ 200	\$ -	\$ 28,389.80	
	Operator Training	22302	24	32															56	\$ 8,640	\$ 56	\$ -	\$ 8,696.00
	Operation and Maintenance Manual	22304	16																40	\$ 5,240	\$ 15	\$ -	\$ 5,255.00
	Record Drawings	22306	12	4					8	12	12	16		32					96	\$ 11,580	\$ 110	\$ -	\$ 11,690.00
	11 Month Warrenty Review	22308	8	8															18	\$ 2,730	\$ 19	\$ -	\$ 2,748.80
	GRAND TOTAL		325	734	0	0	8	16	0	34	14	14	18	0	66	0	58	1287	\$ 177,574	\$ 1,659	\$ 4,000	\$ 183,233	

2022 Engineering Services Middle Booster Station Construction Related Services - City Project 1779

		Prints / Copies	Mileage	Plots	Postage	Survey GPS	Survey Truck	Misc (Postage, survey supplies)	Misc (Postage, survey supplies)	TOTAL EXPENSE
Phase	Unit Cost	\$0.10	\$0.560	\$1.00	\$1.00	\$40.00	\$0.70	\$1.00		
Phase No.	Task / Deliverable <i>Subtasks/Task notes & details</i>	Unit Task	Each	Miles	Each	Dollars	Hours	Miles	Dollars	Dollars
22000	Construction Contract Administration		0	0	0	0	0	0	\$ -	\$ -
	Contract Processing	21002								\$ -
	Contract Admin	21004								\$ -
22100	Construction Administration		760	0	200	0	0	0	\$ -	\$ -
	Preconstruction Conference Meeting	22102								\$ -
	Project Administration	22104	80							\$ 8.00
	Correspondance	22106	70							\$ 7.00
	Shop Draing and Submittal Review	22108	200							\$ 20.00
	O&M Submittal Review	22110	200		100					\$ 120.00
	Pay Request (up to 4)	22112	70							\$ 7.00
	RFI's (up to 2)	22114	40							\$ 4.00
	Change Orders (up to 2)	22116	20							\$ 2.00
	Project Closeout	22118	80		100					\$ 108.00
22200	Construction Inspection		20	1470	10	0	8	40	0	\$ 4,000.00
	Staking	22202	20	10	10		8	40		\$ 365.60
	Geo-Tect and testing Sub-Consultant Allowan	21202E							\$ 4,000.00	\$ 4,000.00
	Inspection	22204		1200						\$ 672.00
	Progress Meeting (up to 6)	22206		60						\$ 33.60
	Startup Services	22208		200						\$ 112.00
	Coordination with MN Power	22210								\$ -
22300	Operational Phase		270	130	100	0	0	0	0	\$ -
	Operator Training	22302		100						\$ 56.00
	Operation and Maintenance Manual	22304	150							\$ 15.00
	Record Drains	22306	100		100					\$ 110.00
	11 Month Warrenty Review	22308	20	30						\$ 18.80
			1050	1600	310	0	8	40	0	\$ 4,000.00
										\$ 5,659.00