

STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT made between the City of Aurora, whose address is 44 E. Downer Place, Aurora, Illinois 60507 hereinafter called the **CLIENT** and Crawford, Murphy & Tilly, Inc., Consulting Engineers, 2750 West Washington Street, Springfield, Illinois 62702, hereinafter called the **ENGINEER**.

WITNESSETH, that whereas the **CLIENT** desires the following described professional engineering, land surveying or architectural services:

Professional final design, bidding and construction phase engineering services for the Normal Pressure System Insertion Meter Vaults at the Water Treatment Plant (WTP) as described in the attached Exhibit A – Scope of Services.

NOW THEREFORE, the **ENGINEER** agrees to provide the above described services and the **CLIENT** agrees to compensate the **ENGINEER** for these services in the manner checked below:

☒ On a time and expense basis in accordance with the attached Exhibit C - Schedule of Hourly Charges which is subject to change at the beginning of each calendar year. Reimbursable direct expenses will be invoiced at cost. Professional or Subconsultant services performed by another firm will be invoiced at cost plus ten percent. Note that no Professional or Subconsultant services are anticipated to be furnished to the **ENGINEER** by another firm on this project.

☐ At the lump sum amount of \$____.

IT IS MUTUALLY AGREED THAT, payment for services rendered shall be made monthly in accordance with invoices rendered by the **ENGINEER**.

IT IS FURTHER MUTUALLY AGREED:

That the compensation for design phase engineering services for the Normal Pressure System Insertion Meter Vaults at the WTP shall not exceed \$61,550, per the attached Exhibit B without further authorization from the **CLIENT**.

The **CLIENT** and the **ENGINEER** each binds himself, his partners, successors, executors, administrators and assignees to each other party hereto in respect to all the covenants and agreements herein and, except as above, neither the **CLIENT** nor the **ENGINEER** shall assign, sublet or transfer any part of his interest in this **AGREEMENT** without the written consent of the other party hereto. This **AGREEMENT**, and its construction, validity and performance, shall be governed and construed in accordance with the laws of the State of Illinois. This **AGREEMENT** is subject to the General Conditions attached hereto.

IN WITNESS WHEREOF, the parties hereto have affixed their hands and seals this ____ day of ____, 2021.

CLIENT:

CITY OF AURORA

(Client Name)

(Signature)

(Name and Title)

CMT Job No. _____

ENGINEER:

CRAWFORD, MURPHY & TILLY, INC.

(Signature)

Theresa O'Grady, Vice President

(Name and Title)

STANDARD GENERAL CONDITIONS
Crawford, Murphy & Tilly, Inc.

1. Standard of Care

In performing its professional services hereunder, the **ENGINEER** will use that degree of care and skill ordinarily exercised, under similar circumstances, by members of its profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the **ENGINEER'S** undertaking herein or its performance of services hereunder.

2. Reuse of Document

All Reports, Drawings, Specifications, other documents, and electronic media prepared or furnished by **ENGINEER** pursuant to this Agreement are instruments of service in respect to the Project and shall be the property of the **CLIENT**. **ENGINEER** shall retain the right of reuse of said documents and electronic media by and at the discretion of the **ENGINEER** whether or not the Project is completed. Reproducible copies of **ENGINEER'S** documents and electronic media of the Project and **ENGINEER's** documents shall be delivered to the **CLIENT**; however, Project and **ENGINEER's** documents and electronic media are not intended or represented to be suitable for reuse by the **CLIENT** or others on additions or extensions of the Project, or on any other project.

3. Termination

This Agreement may be terminated by either party upon seven days prior written notice. In the event of termination, the **ENGINEER** shall be compensated by the client for all services performed up to and including the termination date, including reimbursable expenses.

4. Parties to the Agreement

The services to be performed by the **ENGINEER** under this Agreement are intended solely for the benefit of the **CLIENT**. Nothing contained herein shall confer any rights upon or create any duties on the part of the **ENGINEER** toward any person or persons not a party to this Agreement including, but not limited to any contractor, subcontractor, supplier, or the agents, officers, employees, insurers, or sureties of any of them.

5. Construction and Safety

This project will be completed with **CLIENT** staff working alongside **ENGINEER** staff. The **ENGINEER** shall be responsible for the safety of their own personnel working on the job site. The **CLIENT** shall be responsible for the safety of their own personnel working on the job site.

6. Payment

CLIENT shall be invoiced once each month for work performed during the preceding period. **CLIENT** agrees to approve and pay such invoices in the manner provided by the Local Government Prompt Payment Act, 50 ILCS 505/1 et. seq. **CLIENT** further agrees to pay interest on all amounts approved and not paid at the interest rate permitted under the Local Government Prompt Payment Act.

7. Insurance

ENGINEER shall indemnify and save harmless **CITY**, its officers and employees, from suits, actions or claims of any character brought because of any injuries or damages received or sustained by any person, persons, or property resulting from any negligent act, error or omission on the part of **ENGINEER**.

During the term of this AGREEMENT, **ENGINEER** shall provide the following types of insurance with no less than the following specified amounts.

- a. Comprehensive general liability – combined single limit amount of \$1,000,000 per incident, \$2,000,000 general aggregate limit.
- b. Auto Liability – combined single limit amount of \$1,000,000 per incident on any vehicle driven by an R.I. while engaged in any activity within the scope of this AGREEMENT.
- c. Professional Liability - \$5,000,000;
- d. Worker's Compensation – Statutory Limit; the policy shall include a "Waiver of Subrogation" clause;
- e. "Umbrella Coverage" - \$5,000,000.

ENGINEER shall furnish to **CITY** satisfactory proof of coverage of the above insurance requirements by a reliable company or companies, before commencing any work. Such proof shall consist of a current certificate executed by the insurance company(s) and shall be filed with **CITY**. Said certificate shall name the city of Aurora as additional, non-contributory insured and contain a clause which requires that no change shall be made to the coverage and there shall be no cancellation or lapse of such coverage unless **CITY** receives written notification from the insurance company providing coverage at least thirty (30)-days in advance of said cancellation or change in coverage.

CITY OF AURORA NORMAL PRESSURE SYSTEM MASTER METER REPLACEMENT BIDDING AND CONSTRUCTION PHASE SERVICES

EXHIBIT A - SCOPE OF SERVICES

August 18, 2021

Background

The City of Aurora distributes water to two pressure zones within the city, the Normal Pressure Zone and the High Pressure Zone. Within the Water Treatment Plant (WTP) property, the transmission main to the Normal Pressure Zone branches, with a 24" main transporting water to the north (and then west) and a 36" main transporting water to the southeast. The flow meter in the WTP Pump Station that measures discharge into the Normal Pressure Zone is non-functional, and the City has been relying on a temporary flow meter to monitor flow into that zone.

CMT completed pre-final design for the installation of two insertion flow meters in concrete vaults, one on each branch of the Normal Pressure Zone transmission main in early 2020. The project was then put on hold until funding was available for construction of the project. The City now wishes to proceed with design completion and construction of the project.

Project Tasks

The goal of this project is to finalize the existing design for bidding and perform bidding assistance, construction management, and part-time construction observation for the construction of the project.

The following tasks are anticipated to provide final design phase engineering services for this project:

1. Prepare final drawings and specifications for bidding based on City comments. Submit PDFs and five paper copies to the City.
2. Apply for a Construction Permit from the Illinois Environmental Protection Agency (IEPA) Division of Public Water Supplies.
3. Update the Opinion of Probable Construction Costs.
4. Verify construction schedule based on lead times provided by flow meter manufacturers.

The following tasks are anticipated to provide bidding phase engineering services for this project:

1. Provide final drawings and specifications to the City for publication through the City of Aurora Purchasing Division.
2. Conduct pre-bid meeting, prepare and distribute meeting minutes, and respond to contractor's questions.
3. Respond to bidder's questions. Prepare and issue addenda (as necessary).
4. Attend bid opening and prepare bid tabulation.
5. Perform review of bids, prepare recommendation for award.

The following tasks are anticipated to provide construction phase engineering services for this project:

1. Issue Notice of Award.

2. Prepare five contracts for execution. Send to the Contractor for execution. Review returned contracts prior to signature by the City.
3. Issue Notice to Proceed.
4. Conduct pre-construction meeting and prepare meeting minutes.
5. Review shop drawings (assume 15).
6. Perform full-time construction observation during installation of the meters, vaults, and electrical construction activities (assume 6 weeks – 240 hours). Perform part-time construction observation during non-critical construction such as turf restoration (assume 3 weeks – 30 hours). This includes on-site assistance from the design team as needed during critical construction events.
7. Review and recommend submitted pay requests (assume 2 in addition to final pay request noted in #10).
8. Review submitted change order requests and requests for interpretation.
9. Conduct punchlist inspection and prepare punchlist.
10. Review and recommend final payment.
11. Prepare project close out documents including record drawings and O&M manuals. Submit pdf and electronic copies of record drawings to the City.

Assumptions:

- Environmental soils testing has not been included. CMT will coordinate with the City of Aurora Water Production Division for soils testing and reporting and will include Clean Construction Demolition Debris disposal requirements in the specifications.

Schedule

The schedule for the project is based on the intent to have the meters installed after the summer peak demand in 2022. A tentative schedule follows:

Final Design Notice to Proceed: early October 2021

Final Bid Documents and Permit Application: early November 2021

Advertise for Bids: early November 2021

Bid Opening: late November 2021

IEPA Permit Issued: early February 2022

Construction Notice to Proceed: early February 2022

Construction Mobilization: June 2022

Meter Installation: early September 2022

Construction Final Completion: October 2022

Based on similar water meter vault installations, it has been assumed that onsite construction for critical items (meter and vault installation, testing/disinfecting, and electrical construction) will take approximately 6 weeks. This assumes that the Contractor will construct each vault and install each meter consecutively as a precaution to avoid the need to shut down both water mains at the same. It has been assumed that the onsite construction for non-critical items (site mobilization, turf restoration) will take 3 weeks. Meter installation is anticipated to occur after the summer peak demand.

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT A - 2021 PROFESSIONAL SERVICES COST ESTIMATE
 CLIENT City of Aurora

PROJECT NAME Normal Pressure System Master Meter Replacement - Bidding and Construction
 CMT JOB NO. TBD

Prep By	MRP
DATE	08/18/21
Approved by	TLO
DATE	08/18/21

TASK NO.	TASKS \ CLASSIFICATIONS	Principal	Engineer/Manager	Senior Project Engineer/Manager	Senior Engineer	Senior Technical Manager	GIS Specialist	Engineer	Planner	Registered Surveyor	Senior Technician	Technician II	Technician I	MAN HOURS & LABOR SUMMARY
	City of Aurora Hourly Rates 2021	\$222.43	\$193.46	\$164.37	\$116.54	\$143.64	\$95.38	\$92.66	\$138.10	\$118.93	\$116.12	\$90.06	\$70.67	TOTAL
	Final Design													
1	Prepare Final Bid Documents		2		8			8						18
2	Apply for Construction Permit				4									4
3	Prepare Opinion of Probable Construction Costs				8									8
4	Verify Construction Schedule				4									4
	Bidding Phase Services													
5	Provide Bid Documents to City				2									2
6	Conduct pre-bid meeting and prepare minutes		2		6									8
7	Respond to bidder's questions, prepare addenda				4			4						8
8	Attend Bid Opening				4									4
9	Perform review of bids, prepare recommendation for award				2			4						6
	Construction Phase Services													
10	Issue Notice of Award				2									2
11	Contract execution				2								4	6
12	Issue Notice to Proceed				2									2
13	Conduct pre-construction meeting, prepare minutes		2		4			2						8
14	Review shop drawings (assume 15)		2		16			16						34
15	Construction Observation		16		16			270						302
16	Review pay requests (assume 2)				8			4						12
17	Review submitted change order requests and RFIs				8									8
18	Conduct punchlist inspection and prepare punchlist		2		4									6
19	Review and recommend final payment				6			2						8
20	Prepare project close out documents				8						8			16
21	Project Management		42											42
	TOTAL MAN HOURS	0	68	0	118	0	0	310	0	0	8	0	4	508
	SUBTOTAL - BASE LABOR EFFORT	\$0	\$13,155	\$0	\$13,752	\$0	\$0	\$28,725	\$0	\$0	\$929	\$0	\$283	\$56,843

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT A - 2021 PROFESSIONAL SERVICES COST ESTIMATE
 CLIENT City of Aurora

Prep By	MRP
DATE	08/18/21

PROJECT NAME Normal Pressure System Master Meter Replacement - Bidding and Construction
 CMT JOB NO. TBD

Approved by	TLO
DATE	08/18/21

	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES										TOTAL EXPENSE	TOTAL FEE
			TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP		
	Final Design													
1	Prepare Final Bid Documents	\$2,061											\$0	\$2,061
2	Apply for Construction Permit	\$466											\$0	\$466
3	Prepare Opinion of Probable Construction Costs	\$932											\$0	\$932
4	Verify Construction Schedule	\$466											\$0	\$466
	Bidding Phase Services												\$0	\$0
5	Provide Bid Documents to City	\$233			\$150								\$150	\$383
6	Conduct pre-bid meeting and prepare minutes	\$1,086	\$6										\$6	\$1,092
7	Respond to bidder's questions, prepare addenda	\$837											\$0	\$837
8	Attend Bid Opening	\$466	\$6										\$6	\$472
9	Perform review of bids, prepare recommendation for award	\$604											\$0	\$604
	Construction Phase Services												\$0	\$0
10	Issue Notice of Award	\$233											\$0	\$233
11	Contract execution	\$516											\$0	\$516
12	Issue Notice to Proceed	\$233											\$0	\$233
13	Conduct pre-construction meeting, prepare minutes	\$1,038	\$6										\$6	\$1,044
14	Review shop drawings (assume 15)	\$3,734											\$0	\$3,734
15	Construction Observation	\$29,978	\$162										\$162	\$30,140
16	Review pay requests (assume 2)	\$1,303											\$0	\$1,303
17	Review submitted change order requests and RFIs	\$932											\$0	\$932
18	Conduct punchlist inspection and prepare punchlist	\$853	\$6										\$6	\$859
19	Review and recommend final payment	\$885											\$0	\$885
20	Prepare project close out documents	\$1,861											\$0	\$1,861
21	Project Management	\$8,125											\$0	\$8,125
	TOTALS	\$56,843	\$186	\$0	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$336	\$57,179
	TIME PERIOD OF PROJECT	2021	2022	2023	2024	TOTAL	EST % OF OT HRS INCLUDED ABOVE AVERAGE OVERTIME RATE PREMIUM OT ADJUSTMENT FACTOR					0%	MULTI-YEAR + OT MLTPLR & AMT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR	10%	90%	0%	0%	100%						15%		
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT	0.1000	0.9450	0.0000	0.0000	1.0450						0.0000		
	ESTIMATED CONTINGENCY												3%	\$1,790
	ROUNDING													\$8
	TOTAL FEE	MATH CROSS CHECK IS OK												\$61,550

**EXHIBIT C
CITY OF AURORA
RESIDENT INSPECTION AND ENGINEERING SERVICES**

CLASS NO.	CLASSIFICATION	2019 AVG DIRECT LABOR RATE	2020 AVG DIRECT LABOR RATE (2019 Rate x 3.25%)	2020 BILLING RATE (Dir Labor x 2.95 Multiplier)	2021 BILLING RATE (2020 Rate x CCI Increase)
10	Principal (IDOT Cap is \$75)	75.00	75.00	221.25	222.43
20	Project Engineer II	63.18	65.23	192.44	193.46
30	Project Engineer I	53.68	55.42	163.50	164.37
36	Project Structural Engineer I	48.46	50.03	147.60	148.39
40	Sr. Engineer I	38.06	39.30	115.93	116.54
42	Technical Manager II	46.91	48.43	142.88	143.64
44	GIS Specialist	31.15	32.16	94.88	95.38
47	Sr. Structural Engineer I	38.83	40.09	118.27	118.90
50	Engineer I	30.26	31.24	92.17	92.66
56	Structural Engineer I	30.00	30.98	91.38	91.86
60	Planner I	45.10	46.57	137.37	138.10
62	Environmental Specialist I	30.29	31.27	92.26	92.75
65	Technical Manager I	26.60	27.46	81.02	81.45
70	Land Surveyor	38.84	40.10	118.30	118.93
80	Sr. Technician I	37.92	39.15	115.50	116.12
81	Sr. Technician II	45.58	47.06	138.83	139.57
90	Technician II	29.41	30.37	89.58	90.06
100	Technician I	23.08	23.83	70.30	70.67
110	Administrative/Accounting Assistant	21.46	22.16	65.36	65.71

Computation of Billing Rate Multiplier:

Direct labor factor	1.0000
Audited overhead rate	1.683
Subtotal	2.6830
Profit factor	1.10
Total	2.95

Overhead and rate calculation is based on AASHTO guidelines for all US DOT's nationwide.