



## **CITY OF WASHINGTON, ILLINOIS**

### **City Council Agenda Communication**

**Meeting Date:** September 19, 2022

**Prepared By:** Dennis Carr – City Engineer

**Agenda Item:** Water Treatment Plant 1 – Chlorine Improvement Engineering Agreement

**Background:** City staff had previously contracted CMT to perform a water quality study due to the fact that our two water treatment plants use different types of chlorination to treat the water. There was area in the middle of the two plants that was seeing a blending of the two types. The study showed that the best path forward for the city was to increase the amount of chlorine being used in Water Treatment Plant 1 to push the plant into a Free Chlorine disinfectant process to match WTP 2.

CMT has been doing most of the work for our water plants recently and with their background with the water quality study, they would seem to be the best fit to do the plant design work.

**Fiscal Impact:** The engineering agreement with CMT is for an amount not to exceed \$78,500.

Staff budgeted \$45,000 for design engineering. The increase from the original estimate is due to additional pipe harvesting work that IEPA is requiring for permit approval. Staff budgeted an additional \$18,000 to perform construction engineering, but due to IEPA's review time, construction will likely not take place until late spring of 2023.

**Staff Recommendation:** Staff recommends approval of the Engineering Services Agreement with CMT to assemble the bid documents for the chlorine improvement project at Water Treatment Plant #1.

**Action Requested:** Approval of the CMT proposal to assemble the bid documents for the chlorine improvement project at Water Treatment Plant #1.

## **2022 STANDARD AGREEMENT FOR PROFESSIONAL SERVICES**

**THIS AGREEMENT** made between City of Washington, whose address is 301 Walnut Street, Washington, IL 61571, hereinafter called the **CLIENT** and Crawford, Murphy & Tilly, Inc., Consulting Engineers, 203 Harrison Street, Peoria, Illinois 61602, hereinafter called the **ENGINEER**.

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

**Water Treatment Plant #1 Chlorination Improvement Project in accordance with the Scope of Services described in Exhibit A. Attached to and incorporated with this Agreement is a Standard Schedule of Hourly Charges (Exhibit B).**

**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 Schedule of Hourly Charges (Exhibit B) 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.
- ☐ 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:**

**ENGINEER** shall provide professional engineering services in general conformance with the Scope of Services (**Exhibit A**). The cost for professional engineering services shall not exceed **\$78,500.00** without additional authorization from the **CLIENT**.

Design Engineering Services are anticipated to require a period of 6 months to complete.

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 \_\_\_\_, 2022.

**CLIENT:**

\_\_\_\_\_  
(Client Name)


\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name and Title)

\_\_\_\_\_  
Date

**ENGINEER:**

**CRAWFORD, MURPHY & TILLY, INC.**

  
(Signature)

Ty, Besalke, PE, Water Group Manager  
(Name and Title)

09/08/2022  
Date

**CMT Job No.** \_\_\_\_\_

**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 documents including Drawings and Specifications prepared by **ENGINEER** pursuant to this Agreement are instruments of service. They are not intended or represented to be suitable for reuse by **CLIENT** or others on extensions of the Project or on any other project. Any reuse without written verification or adaptation by **ENGINEER** for the specific purpose intended will be at **CLIENT'S** sole risk and without liability or legal exposure to **ENGINEER**; and **CLIENT** shall indemnify and hold harmless **ENGINEER** from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom.

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, and for the completion of such services and records as are necessary to place the **ENGINEER'S** files in order and/or to protect its professional reputation.

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

The **ENGINEER** shall not be responsible for the means, methods, procedures, techniques, or sequences of construction, nor for safety on the job site, nor shall the **ENGINEER** be responsible for the contractor's failure to carry out the work in accordance with the contract documents.

6. Payment

Payment for services rendered shall be made monthly in accordance with invoices rendered by the **ENGINEER**. If payment is to be on a lump sum basis, monthly payments will be based on the portion of total services completed during the month. Invoices, or any part thereof, which are not paid within 30 days after the date of issue shall bear interest at the rate of 1-1/2% for each month or fraction thereof from the date 30 days after issue to time of payment. **CLIENT** will pay on demand all collection costs, legal expenses and attorneys' fees incurred or paid by **ENGINEER** in collecting payment, including interest, for services rendered.

7. Indemnification for Release of Pollutants

If this project does not involve pollutants, this provision will not apply. This provision may not be deleted if the project involves pollutants.

If, due to the nature of the service covered under this Agreement including the potential for damages arising out of the release of pollutants, **CLIENT** agrees that in the event of one or more suits or judgments against **ENGINEER** in favor of any person or persons, or any entity, for death or bodily injury or loss of or damage to property or for any other claimed injury or damages arising from services performed by **ENGINEER**, **CLIENT** will indemnify and hold harmless **ENGINEER** from and against liability to **CLIENT** or to any other persons or entities irrespective of Engineer's compensation and without limitation. It is understood that the total aggregate liability of **ENGINEER** arising from services performed by **ENGINEER** shall in no event exceed \$50,000 or the total compensation received under this agreement whichever is greater, irrespective of the number of or amount of such claims, suits, or judgments.

8. Risk Allocation ☐ Check box if this does not apply

The total liability, in the aggregate, of the **ENGINEER** and **ENGINEER'S** officers, directors, employees, agents and consultants, and any of them, to **CLIENT** and anyone claiming by, through or under **CLIENT**, for any and all injuries, claims, losses, expenses or damages arising out of the **ENGINEER'S** services, the project or this agreement, including but not limited to the negligence, errors, omissions, strict liability or breach of contract of **ENGINEER** or **ENGINEER'S** officers, directors, employees, agents or consultants, or any of them, shall not exceed the total compensation received by **ENGINEER** under this agreement, or the total amount of \$50,000, whichever is greater.

9. Project Schedule and Scope

Based on the schedule objectives provided by **CLIENT**, **ENGINEER** will develop a schedule of important milestones as necessary for the project for **CLIENT'S** review and approval. **ENGINEER** will monitor performance of services for conformance with the schedule and will notify **CLIENT** of any necessary changes to or deviations from the schedule. Where required by approved project schedule, **ENGINEER** will present the required deliverables and complete the required tasks at the appropriate intervals for **CLIENT'S** review and approval prior to payment.

**EXHIBIT A**  
**City of Washington, Illinois**  
**Water Treatment Plant #1**  
**Chlorination Improvement Project**

**SCOPE OF SERVICES**

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The **Scope of the Improvements** for the **Water Treatment Plant #1 Chlorination Improvement Project** includes the following items:

- New Makeup Water Tap and RPZ
- New connection to the Reaction Basin
- New Pre- Treatment Chlorine Feed (chlorinator, 2-vacuum regulators, and a 2-cylinder scale)
- New Post- Treatment Chlorine Feed (chlorinator, 2-vacuum regulators, 2-cylinder scale, and booster pump)
- 150lb Chlorine Scrubber (located on top of existing and abandoned reaction basin)
- On-line Chlorine Analyzer
- Rehab Existing Chlorine Room (new door and high-performance coatings)
- Misc. HVAC improvements (new louver, exhaust fan and duct work in the chlorine room)
- Misc. SCADA/Alarm Improvements (connect the chlorine scales, analyzer and scrubber to the existing SCADA monitoring system)

The **Scope of Services** for **Design Phase** shall consist of the following tasks:

1. Kickoff Meeting
2. Site Visit to perform field measurements of the existing chlorine room and
3. Water Service Line – Scale Investigation (By Cornwell Engineering Group)
  - a. City of Washington will harvest 2 copper service lines. CMT will ship the harvested service lines to Cornwell Engineering Group for analysis
  - b. Cornwell Engineering Group will analyze the existing scale and make recommendations on how to manage the scale through the water chemistry transition.
4. Water Chemistry Review
  - a. Verify Chlorine Breakpoint Testing
  - b. Disinfection By-product testing
5. Complete detailed design
  - a. Chlorination Equipment
  - b. Booster Pump
  - c. Chlorine Scrubber (Manufacturer Coordination)
  - d. Structural Design of Chlorine Scrubber Pad
  - e. HVAC
  - f. Electrical
6. Construction Plans
  - a. Cover Sheet
  - b. General Notes
  - c. Structural Plan Sheets

**EXHIBIT A**  
**City of Washington, Illinois**  
**Water Treatment Plant #1**  
**Chlorination Improvement Project**

**SCOPE OF SERVICES**

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- d. HVAC Plan Sheet
  - e. Mechanical Plan Sheets
  - f. Electrical Plan Sheets
  - g. Misc. Details
- 7. Bidding Documents, Contracting Documents, and Technical Specifications
  - 8. IEPA Construction Permit Application
  - 9. Develop a Preliminary Opinion of Project Costs
  - 10. QA/QC Review
  - 11. Project Management
    - a. One Meeting with Washington Staff (75% Design)
    - b. One Meeting with Public Works Committee
    - c. One Meeting with City Council
    - d. Project Management

**Budgeted Cost and Estimated Schedule**

The estimated completion for the construction plans and specifications is approximately 6 months after receipt of a signed Agreement for Engineering Services authorizing CMT to proceed on a time and expense basis for an amount not to exceed Seventy-Eight Thousand Five Hundred Dollars and No Cents (\$78,500.00).

**Additional Services not included in the Upper Limit of Compensation**

- Field Surveys
- Construction phase services
- Easements Documents
- Permit Fees
- SCADA System Integration/Programming
- Architectural Services (No-Building Expansion)

**EXHIBIT B**  
**CRAWFORD, MURPHY & TILLY, INC.**  
**STANDARD SCHEDULE OF HOURLY CHARGES**  
**JANUARY 1, 2021**

<b>Classification</b>	<b>Regular Rate</b>
Principal	\$ 230
Project Engineer II Project Architect II Project Manager II Project Environmental Scientist II	\$ 220
Project Engineer I Project Architect I Project Manager I Project Environmental Scientist I Project Structural Engineer I	\$ 190
Sr. Structural Engineer II	\$ 175
Sr. Technician II	\$ 160
Aerial Mapping Specialist	\$ 155
Sr. Engineer I Sr. Architect I Sr. Structural Engineer I Land Surveyor	\$ 150
Technical Manager II Environmental Scientist III	\$ 140
Sr. Technician I	\$ 135
Sr. Planner I GIS Specialist Engineer I Architect I Structural Engineer I	\$ 130
Environmental Scientist II Technician II	\$ 115
Planner I Technical Manager I Environmental Scientist I Technician I Project Administrative Assistant	\$ 95
Administrative/Accounting Assistant	\$ 60

If the completion of services on the project assignment requires work to be performed on an overtime basis, labor charges above are subject to a 15% premium. These rates are subject to change upon reasonable and proper notice. In any event this schedule will be superseded by a new schedule effective January 1, 2022.

Out of pocket direct costs will be added at actual cost for blueprints, supplies, transportation and subsistence and other miscellaneous job-related expenses directly attributable to the performance of services. A usage charge may be made when specialized equipment is used directly on the project.

Subconsultant services furnished to CMT by another company will be invoiced at actual cost, plus ten percent.