

**CITY OF ANN ARBOR  
AMENDMENT NUMBER 1 TO THE  
PROFESSIONAL SERVICES  
AGREEMENT BETWEEN  
BLACK & VEATCH LTD OF MICHIGAN  
AND THE CITY OF ANN ARBOR FOR  
Design the Ultraviolet (UV) Disinfection System Replacement Project**

This Amendment Number 1 ("Amendment") to the Professional Services Agreement (PSA) between the City of Ann Arbor, ("City") and BLACK & VEATCH LTD OF MICHIGAN, ("Contractor") for Professional Engineering Services, dated 10-13-2022 ("Agreement"). City and Contractor agree to amend the Agreement as follows:

1. III. Services, A is amended to read as follows:

The Contractor agrees to provide professional engineering services ("Services") in connection with the Project as described in Exhibits A and A1. The City retains the right to make changes to the quantities of service within the general scope of the Agreement at any time by a written order. If the changes add to or deduct from the extent of the services, the compensation shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.

2. V. Compensation of the Contractor is amended to read as follows:

The Contractor shall be paid in the manner set forth in Exhibits B and B1. Payment shall be made monthly, unless another payment term is specified in Exhibits B or B1, following receipt of invoices submitted by the Contractor, and approved by the Contract Administrator.

3. The attached Exhibit A1 supersedes and replaces the previous Exhibit A.
4. The attached Exhibit B1 supersedes and replaces the previous Exhibit B.

All terms, conditions, and provisions of the Agreement, unless specifically amended above, shall apply to this Amendment and are made a part of this Amendment as though expressly rewritten, incorporated, and included herein.

City and Contractor agree that for this Amendment and any documents related to the Agreement: 1) signatures may be delivered electronically in lieu of an original signature; 2) to treat electronic signatures as original signatures that bind them; and 3) signatures may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

This Amendment to the Agreement shall be binding on the Parties' heirs, successors, and assigns.

**[SIGNATURE PAGE FOLLOWS]**

**BLACK & VEATCH LTD OF MICHIGAN**

By: DocuSigned by:  
David S. Koch  
E8229A2062E147B...

Name: David S. Koch

Title: Associate Vice President

Date: 6/6/2023

**CITY OF ANN ARBOR**

By: DocuSigned by:  
Milton Dohoney Jr.  
82ABAD6BD386491...

Name: Milton Dohoney Jr.

Title: City Administrator

Date: 6/6/2023

**Approved as to substance:**

By: DocuSigned by:  
Brian Steglitz  
56AE51CAD738483...

Name: Brian Steglitz

Title: Public Services Area  
Administrator

Date: 6/6/2023

**Approved as to form:**

By: DocuSigned by:  
Atleen Kaur  
627306898F804DD...

Name: Atleen Kaur

Title: City Attorney

Date: 6/6/2023

*(Signatures continue on following page)*

**CITY OF ANN ARBOR**

By: DocuSigned by:  
*Christopher Taylor*  
0E264966DB464DA...

Name: Christopher Taylor

Title: Mayor

Date: 6/6/2023

By: DocuSigned by:  
*Jacqueline Beaudry*  
5CFB24E59BD641E...

Name: Jacqueline Beaudry

Title: City Clerk

Date: 6/7/2023

**AMENDMENT 1 TO  
PROFESSIONAL SERVICES AGREEMENT  
SCOPE OF WORK FOR  
CITY OF ANN ARBOR WASTEWATER TREATMENT PLANT  
ULTRAVIOLET (UV) DISINFECTION SYSTEM REPLACEMENT PROJECT  
DESIGN AND BID PHASE SERVICES**

This Amendment No. 1 to the Professional Services Agreement, Dated October 13, 2021, is made between the City of Ann Arbor (“City”) and Black & Veatch Ltd. of Michigan (“Engineer”). to perform Engineering design and bid phase services. This Amendment No. 1 incorporates Scope of Work for additional services associated with the Wastewater Treatment Plant (WWTP) Ultraviolet (UV) Disinfection System Replacement Project described herein.

Whereas, during the course of contract performance it has become necessary for Engineer to perform additional work related to professional services for detailed design efforts which will increase the overall cost of the Purchase Order by \$97,358.00 to an amount not to exceed \$404,829.00.

**SCOPE OF SERVICES**

**Design Phase Services**

Detailed descriptions of the amended services that will be performed by the Engineer for the UV Disinfection System Replacement Project - UV System Enclosure are included below. Engineer will perform mechanical, architectural, electrical, and structural design services associated with the UV system enclosure.

Task 401 – Design and Bidding Documents Development

Engineer will prepare 50-percent, 90-percent and 100-percent final design drawings and specifications for mechanical, electrical, structural, and architectural design associated with the UV Enclosure. Mechanical scope includes heating, ventilation and air conditioning (HVAC). HVAC design will be based on a primarily unoccupied space with a design heating temp of 55-60 degrees F and ventilation to meet code requirements. Air conditioning of the enclosure is not included. The mechanical team will provide the appropriate drawings and details for a complete design. Electrical design services include drawings and details associated with lighting and electrical supply required for HVAC components and overhead coiling doors. The structural scope includes designing the conventional steel-framed enclosure in accordance with applicable codes, within the existing UV system concrete footprint. Architectural design services include life safety plan, enclosure finish and material selection, schedules, details, and roof-top skylights for use as future equipment removal points.

The 50-percent and 90-percent deliverables will be reviewed by senior engineers for quality assurance. The review will cover conformance to standards, completeness, adherence to sound engineering practices, and constructability.

Additional deliverables are listed below:

50-Percent/BDM Design Deliverable

- Additional discipline sections to cover architectural and building mechanical (HVAC) design in BDM to summarize existing conditions, recommendations and design criteria.
- Additional paragraphs in the structural and electrical design criteria outlined in the BDM.
- Architectural Legend and General Notes, Life Safety Plan, Architectural Plans, Schedules, Sections and Details
- Structural Plans, Sections and Details
- Building Mechanical Legend and General Notes, Plans, Schedules, Sections and Details
- Electrical One-Line Diagram, Lighting Plans and Details
  - The following Electrical drawings are included in the base scope: Legend and Notes, Site Plan
- Technical Specifications including architectural finishes, lighting, and building mechanical appurtenances
- Additional disciplines and components for Opinion of Probable Construction Cost

90-Percent Design Deliverable

- Architectural Legend and General Notes, Life Safety Plan, Architectural Plans, Schedules, Sections and Details
- Structural Plans, Sections and Details
- Building Mechanical Legend and General Notes, Plans, Schedules, Sections and Details
- Electrical One-Line Diagram, Lighting Plans and Details
  - The following Electrical drawings are included in the base scope: Legend and Notes, Site Plan
- Technical Specifications including architectural finishes, lighting, and building mechanical appurtenances
- Additional disciplines for Opinion of Probable Construction Cost

Final 100-Percent Design Deliverable

- Architectural Legend and General Notes, Life Safety Plan, Architectural Plans, Schedules, Sections and Details
- Structural Plans, Sections and Details

- Building Mechanical Legend and General Notes, Plans, Schedules, Sections and Details
- Electrical One-Line Diagram, Lighting Plans and Details
  - The following Electrical drawings are included in the base scope: Legend and Notes, Site Plan
- Technical Specifications including architectural finishes, lighting, and building mechanical appurtenances

#### Task 402 – Opinion of Probable Construction Cost

Engineer will prepare AACE Level 5 Engineer's Opinion of Probable Construction Cost for up to three (3) enclosure options. Engineer will prepare AACE Level 2 Engineer's Opinion of Probable Construction Cost for construction of the UV System Enclosure at the 50-percent Design deliverable. Engineer will prepare an AACE Level 1 Engineer's Opinion of Probable Construction Cost for the UV System Enclosure as the final cost opinion at the 90-percent design deliverable. This will be prepared and delivered to the City prior to the Bid opening.

#### Task 403 – Project Management and Administration

Engineer will provide project management, supervision, and coordination with the City and Subconsultant to evaluate enclosure options, budget cost estimates, and detailed design. Project management and administration services include additional coordination of activities, budget and schedule control through Detailed Design. Engineer shall discuss and receive written approval for any scope changes from the City prior to proceeding.

### **SUPPLEMENTAL SERVICES**

Contractor will provide supplemental services for additional fee upon request by the City in support of the UV Disinfection System Replacement Project. Such services will be provided based on terms and fees as mutually agreed upon by the parties, and may include, but are not limited to, the following:

- Participation in additional meetings other than those specified herein or in the original Agreement.
- Development of demolition-specific drawings.
- Development and evaluation of alternatives beyond the three alternatives that have been included herein.

### **COMPENSATION**

For professional services described in the Proposed Scope of Work for the WWTP UV Disinfection System Replacement Project Amendment No. 1 for UV Enclosure Design Services, the City agrees to pay Contractor in accordance with the project Fee Rate Table on a time and expenses basis based on the billing rates listed in the Original Agreement and as attached. The compensation for the work shall not exceed \$97,358.00.

Invoices for the WWTP UV Disinfection System Replacement Project Design and Bid Phase Services will be submitted by the Contractor on or about the first of each month. The City agrees to process payment in accordance with the Agreement. For time and expenses work, Contractor shall be reimbursed for the actual cost of expenses incurred in connection with the Work as defined in the Agreement.

### SCHEDULE

Engineering services described in the Scope of Services for Amendment 1 for the UV Disinfection System Replacement Project for UV Enclosure Design Services will be completed by the Contractor concurrent with the original project scope.

See table below for milestone schedule.

<b>Task 401 Activity</b>	<b>Date</b>
50% Deliverable/Draft Basis of Design Memorandum (BDM)	May 2023
90% Deliverable (to City of AA, AA Twp, EGLE)	June 2023
100% Deliverable (Final Bidding Documents)	July 2023
Bid Advertisement	August 2023
Bid Evaluation and Recommendation	August - September 2023

**City of Ann Arbor**  
**WWTP UV Disinfection Study and Design - Amendment No. 1**  
**RFP 22-22**  
**Black & Veatch Team Level of Effort**

Staff Name/Billing Rate Classification	Billing Rate (\$)	Task 401 - Detailed Design	Hours	Labor	Expenses and Subconsultant Markup	Total
<b>Black &amp; Veatch</b>						
Heather Cheslek / Sr Project Manager	270	2	2	\$ 540.00	\$ -	\$ 540.00
Emily Schlanderer / Project Manager	200	10	10	\$ 2,000.00	\$ -	\$ 2,000.00
Britton Evans / Engineering Manager	185	16	16	\$ 2,960.00	\$ -	\$ 2,960.00
Architect	160	114	114	\$ 18,240.00	\$ -	\$ 18,240.00
Sr. Architect / QA-QC	200	26	26	\$ 5,200.00	\$ -	\$ 5,200.00
Patrick Powers / Sr. Electrical Engineer	175	20	20	\$ 3,500.00	\$ -	\$ 3,500.00
Mechanical Engineer	175	92	92	\$ 16,100.00	\$ -	\$ 16,100.00
Mechanical QA-QC	260	18	18	\$ 4,680.00	\$ -	\$ 4,680.00
Electrical Technician	130	26	26	\$ 3,380.00	\$ -	\$ 3,380.00
Sr CAD/BIM Technician	150	18	18	\$ 2,700.00	\$ -	\$ 2,700.00
Designer/Technician	95	97	97	\$ 9,215.00	\$ -	\$ 9,215.00
Sr. Estimator	200	16	16	\$ 3,200.00	\$ -	\$ 3,200.00
Finance and Administration	130	3	3	\$ 390.00	\$ -	\$ 390.00
Expenses			-	\$ -		\$ -
<b>Moore &amp; Bruggink/JDH Engineering</b>						
Moore & Bruggink				\$ 24,050.00		\$ 24,050.00
Expenses			0	\$ -		\$ -
Subconsultant Markup (5%)			0		\$ 1,203.00	\$ 1,203.00
<b>TOTAL</b>		<b>458</b>	<b>458</b>	<b>\$ 96,155.00</b>	<b>\$ 1,203.00</b>	<b>\$ 97,358.00</b>