# **RECORD OF RESOLUTIONS**

Resolution No. 7-2024

Passed: January 23 2024

A RESOLUTION AUTHORIZING THE CITY MANAGER TO SUBMIT PAPERWORK AND ENTER INTO A LOAN AGREEMENT WITH THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) AND THE OHIO WATER DEVELOPMENT AUTHORITY (OWDA) FOR THE DESIGN OF THE WASTEWATER TREATMENT PLANT UPGRADE PROJECT.

WHEREAS, the City of West Carrollton (hereinafter referred to as the "LGA") is designing the Wastewater Treatment Plant Upgrade project; and

WHEREAS, the LGA desires to obtain a loan from the Ohio Environmental Protection Agency (hereinafter referred to as the "OEPA") and the Ohio Water Development Authority (hereinafter referred to as the "OWDA") to finance costs of the design of such facilities on the terms set forth in the Cooperative Agreement (defined below); and

WHEREAS, the OEPA and the OWDA have indicated their willingness to make a loan for that purpose and on those terms;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF WEST CARROLLTON, MONTGOMERY COUNTY, OHIO:

<u>Section 1</u>: That the City Manager and Finance Director are hereby authorized to submit a loan application and enter into a Cooperative Agreement with the OEPA and the OWDA for the Wastewater Treatment Plant Upgrade project and to provide such information as may be requested by the OEPA and the OWDA and to receive the funds described therein.

<u>Section 2</u>: That the City Manager is further authorized to execute a design contract with Strand Associates, Inc. for the design of the Wastewater Treatment Plant Upgrade project as set forth in Exhibit A.

<u>Section 3</u>: That it is found and determined that all formal actions of this Council concerning and relating to the passage of this Resolution were passed in an open meeting of this Council, and that all deliberations of this Council and of any of its committees that resulted in such formal action, were in meetings open to the public, in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

<u>Section 4</u>: That this Resolution shall take effect from and after the earliest period allowed by law.

# **RECORD OF RESOLUTIONS**

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	Passed: January 23, 2024  Passed: January 23, 2024  Attest: January 23, 2024  Effective Date: January 23, 2024
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# OWNER REVIEW

Strand Associates, Inc.®
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Cincipnati, OH 45202
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Task Order No. 23-07
City of West Carrollton, Ohio (OWNER)
and Strand Associates, Inc.® (ENGINEER)
Pursuant to Agreement for Technical Services dated March 9, 2022

# **Project Information**

Project Name: Wastewater Treatment Plant (WWTP) Modifications

Project Description: Implement the WWTP modifications described in the WWTP Master Plan and Facilities Plan prepared by ENGINEER.

Services Description: Design, permitting assistance, and bidding-related services.

## Scope of Services

ENGINEER will provide the following services to OWNER.

### **Preliminary Design Services**

- 1. Attend a kickoff meeting with OWNER.
- 2. Perform a topographic survey within the existing property at OWNER's WWTP (located at 601 West Central Avenue, West Carrollton, Ohio 45449) to supplement the existing survey conducted under Task Order 22-03, as appropriate. Correspond with the private utility marking company hired by OWNER to locate underground facilities prior to topographic survey.
- 3. Provide one area-velocity flow meter and one rain gauge. Install the flow meter in OWNER's 24-inch influent sewer. Download meter data and clean sensors biweekly. Remove the flow meter after 90 days of data collection. Additional time can be accommodated via an amendment to this Task Order, if additional data is needed. Compare the data from depth-velocity flow meters and summarize influent flows to the WWTP.
- 4. Conduct a visual site structural review of existing structural elements, such as doors, windows, roofs, masonry, and concrete structures.
- 5. Conduct a visual site electrical review of the approximate age, apparent condition, and capacity of existing electrical power, lighting, and control equipment.
- 6. Prepare a Preliminary Engineering Report to summarize potential modifications for the following components within the existing WWTP.
  - a. Replacement of the following items within the WWTP:
    - (1) Headworks and Administration Building
      - (a) Piping insulation in screening area.
      - (b) Influent pump bubbler level sensing device to be replaced with radar transducer.
      - (c) Spiral stair replacement.

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- (d) Backflow preventer with new reduced pressure backflow preventor.
- (e) Steel door replacement with aluminum doors.
- (f) Upper level lighting replacement.
- (g) Overhead door.
- (h) Fine screen discharge piping replacement.
- (i) Heating, ventilation, and air conditioning (HVAC) modifications, including existing makeup air units, ducting, unit heaters, and boiler, as appropriate.
- (2) Equalization Tank
  - (a) Plug valves.
  - (b) Handrail.
  - (c) Walkway.
- (3) Sludge Pump Building
  - (a) One return activated sludge (RAS) pump.
  - (b) RAS pump variable frequency drives (VFDs) replacement and controls, including a supervisory control center and flow meter.
  - (c) Building lights.
  - (d) Windows.
  - (e) HVAC modifications, including ventilation.
- (4) Grit pump and grit tank equipment with like equipment.
- (5) Splitter structure replacement of stop plates with slide gates.
- (6) Aeration Tanks
  - (a) Fine bubble membrane diffusers with like diffusers.
  - (b) Drain valves.
  - (c) Replace stop plates with slide gates.
- (7) Polymer Feed Building
  - (a) Windows.
  - (b) Doors.
  - (c) HVAC modifications, including unit heater.
- (8) Ultraviolet (UV) Control Building

HVAC modifications, including unit heaters, supply fans, and ventilation.

- (9) Digested Sludge Pump Building
  - (a) Windows.
  - (b) HVAC modifications, including ventilation review.
- (10) Secondary Clarifiers
  - (a) Fiber reinforced plastic (FRP) weirs.
  - (b) FRP baffles.

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- (11) Aerobic Digesters
  - (a) Blowers with new positive displacement blowers.
  - (b) Diffused aeration system.
  - (c) Valves.
- (12) Standby power generator, automatic transfer switch, and appurtenances.
- b. Rehabilitation of the following items within the WWTP:
  - (1) Headworks and Administration Building
    - (a) Influent pump pipe painting.
    - (b) Wash press and conveyor drain piping.
  - (2) Outfall pipe modifications and bank stabilization.
  - (3) Aeration Tanks

Concrete rehabilitation and repairs, conversion of Aeration Tank 4 to permanent aeration tank.

- (4) Aeration Digesters
  - (a) Concrete rehabilitation and repairs.
  - (b) Pipe painting.
- (5) Secondary Clarifiers
  - (a) Mechanism rebuilds, including the replacement of items, as recommended by clarifier manufacturer.
  - (b) Replacement of secondary clarifier scum breaches and skimmers.
- (6) UV tank modifications to modify plant hydraulics.

UV tank modifications shall include the replacement of the floor slab within the existing UV channel. UV equipment will be reused and reinstalled at the revised channel elevations within the existing structure.

- c. Addition of the following items within the WWTP:
  - (1) Effluent pumping station

The new effluent pumping station will be a submersible pumping station, including a wet well and valve vault. No buildings will be constructed as part of this pump station.

- (2) A storage building of approximately 2,500 square feet. This new storage building is anticipated to be post frame construction.
- (3) Internal recycle pump, baffle walls, and mixers to the aeration tanks.
- (4) Chemical containment in the Polymer Feed Building.
- 7. Develop preliminary design criteria, equipment listing, and updated process schematic depicting both existing WWTP and related modifications.

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- 8. Communicate project parameters with equipment manufacturers representatives to collect preliminary budgetary and scope proposals from manufacturers.
- 9. Design WWTP electrical controls and instrumentation associated with the replacement of equipment and additions of supervisory control and data acquisitions (SCADA) systems.
- 10. Perform regulatory and building code review related to wastewater treatment, HVAC, electrical, and fire protection standards and summarize applicable criteria and potential modifications, if appropriate, for existing spaces. Summarize Ohio Environmental Protection Agency (OEPA) regulatory and permit standards for potential modifications.
- 11. Develop basic process control and instrumentation description for existing and new equipment in conjunction with OWNER.
- 12. Develop preliminary design details for the SCADA system, electrical system upgrades (as needed), and interior lighting design.
- Develop an opinion of probable construction cost (OPCC) for the OWNER-selected modifications.
- 14. Provide 15 percent design drawings depicting potential modifications in plan view with a draft site plan.
- 15. Address questions from OEPA regarding the Facilities Plan (previously prepared by ENGINEER and submitted to OEPA by OWNER), as appropriate.
- Attend meeting with OWNER to discuss draft preliminary engineering report and design.

# Final Design Services

- 1. Prepare final design drawings and technical specifications based on the ENGINEER-prepared Preliminary Engineering Report. Design will include process, hydraulic, structural, architectural, electrical power/lighting/controls, mechanical, and site design.
- 2. Assist OWNER with selection of geotechnical engineer for hire by OWNER.
- 3. Prepare 30, 60 and 90 percent design drawings, technical specifications, and OPCC for OWNER review.
- 4. Attend meeting with OWNER to discuss 30, 60, and 90 percent design submittals.
- 5. Incorporate OWNER's comments from the 30, 60, and 90 percent meetings, as appropriate.
- 6. Prepare design drawings using AutoCAD 2020 Software.
- 7. Develop technical specifications in Construction Specifications Institute six-digit format.
- 8. Prepare Bidding Documents using OWNER provided front ends. Front-end documents shall require the contractor to name ENGINEER as an additional insured on the contractor's General Liability and Automotive Liability insurance policies and to indemnify ENGINEER to the same extend that the contractor insurances and indemnifies OWNER.

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9. Communicate with OEPA's Division of Environmental and Financial Assistance (DEFA) throughout the project to discuss project components, OPCC, anticipated bidding schedule, and funding. Assist OWNER with funding application.

# Permitting Application Assistance

- 1. Prepare Permit to Install Application (PTI) for review by OEPA and submit the application along with the requested supporting forms and documentation to OEPA.
- 2. Prepare earth disturbing permit for submittal and submit to Montgomery County.
- 3. Prepare floodway permit application and submit to the local authority having jurisdiction.
- 4. Incorporate agency and OWNER comments into the Bidding Documents, as appropriate. Submit three revised copies of the Bidding Documents to OWNER and OEPA.
- 5. Prepare and assist OWNER with submittal of applicable electrical and building permits.
- 6. Correspond with the OEPA DEFA regarding financing for the project.

# **Bidding-Related Services**

- 1. Provide Bidding Documents to OWNER for distribution. Submit Advertisement to Bid to OWNER for publishing.
- 2. Conduct a prebid meeting, prepare the agenda, record questions and requests for additional information, and issue responses and additional information. Prepare meeting minutes and distribute to attendees.
- 3. Attend bid opening, tabulate and analyze bid results, and assist OWNER in the award of the Construction Contract.
- 4. Assist with DEFA communication as it relates to the award of the Construction Contract.
- 5. Prepare five sets of Contract Documents for signature.
- 6. Prepare applicable DEFA loan program post-bid packets for submittal by OWNER, as applicable.

### Compensation

OWNER shall compensate ENGINEER for Services under this Task Order a lump sum of \$746,000, allocated as follows:

Scope Item		Compensation
Preliminary Design Services		\$164,000
Final Design Services		\$530,000
Permitting Application Assistance		\$ 27,000
Bidding-Related Services		\$ 25,000
-	Total	\$746,000

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#### Schedule

Services will begin upon execution of this Task Order, which is anticipated the week of February 19, 2024. Services are scheduled for completion on December 29, 2025.

#### **OWNER's Responsibilities**

In addition to those items listed in the associated Agreement for Technical Services, OWNER shall be responsible for the following:

- 1. Collect influent samples five days per week for three months and have samples analyzed for biochemical oxygen demand, total suspended solids, total Kjeldahl nitrogen, NH<sub>3</sub>, and phosphorus.
- 2. Pay application fees associated with OEPA DEFA funding application(s).
- 3. Pay all costs associated with the PTI submittal and applicable electrical and building permit submittals.
- 4. Distribute Bidding Documents and submit Advertisement to Bid. Pay newspaper publishing costs associated with the Advertisement to Bid.

TASK ORDER AUTHORIZATION AND ACCEPTANCE:

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**ENGINEER:** 

OWNER:

STRAND ASSOCIATES, INC.®

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Richard D. Norton Service Director

Date

Joseph M. Bunker Corporate Secretary

Date