

EXHIBIT A

TASK ORDER NO. 21

Task Order

In accordance with the Standard Form of Agreement Between Owner and GHD for services on a Task Order Basis, dated November 11, 2013, ("Agreement"), Owner and GHD agree as follows:

1. Specific Project Data

- A. Title: Water System Hydraulic Model and GIS Map Updates (2024)
- B. Description: Provide updates to the GIS Water System Map to include the recently completed water system improvements. Update and calibrate the existing water system hydraulic model to reflect the current system conditions.

2. Services of GHD

- A. GIS map and hydraulic model updates provided by GHD: As requested by Owner, the following professional engineering services:
- GIS Map Updates:
 - Update the existing GIS water system map, previously developed by GHD, issued February 12, 2016. The GIS map will be updated to reflect the watermain improvements completed in 2020, as reflected in the Record Drawings, dated April 7, 2022.
 - The updates will include changes made to watermains, hydrants, and valves. The GIS map will not include water services.
 - The revised printed map will show isolation valves, as long as they can be displayed legibly at the map scale.
 - Deliverables: The deliverable to the Village will be electronic ESRI shape files of the GIS data, two hardcopies of the updated map, and one electronic (pdf) copy of the updated map. GHD will utilize our existing software license to create the map and no additional software will be purchased.
 - Water System Hydraulic Model Updates:
 - Field Work: Perform eight (8) hydrant flow tests at strategic locations in the distribution system. Assistance from the Owner will be required during hydrant flow testing to operate valves and hydrants. We anticipate performing all of the hydrant flow tests in one day. A summary plan of the testing locations will be reviewed with the Village prior to commencing testing.
 - After completion of hydrant flow tests, GHD will require SCADA data for the time period encompassing the hydrant flow tests. SCADA data parameters to be provided include: booster pump run status, pump station discharge flow rate, pump station discharge pressure, water storage tank level, confirmation of valve positions for the transmission main connections from the Pump Station to the storage tanks.
 - Review the piping and valve network in the existing water system hydraulic model and make any changes needed to reflect current conditions as reflected in the Record Drawings, dated April 7, 2022.

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- The hydraulic model will be calibrated using Bentley WaterGEMS/WaterCAD software, the same software used previously to develop the existing model.
- The model extents will terminate at the Village-Town municipal boundary. Where there are connections to the Town of Skaneateles, the model will include a demand nodes representing the estimated Town water demands at those locations.
- Hydraulic Model Calibration: The model will be calibrated using the data obtained from the field work specified herein and SCADA data received from the Village. The model will be calibrated under steady-state average daily flow conditions. The steady-state simulation will be calibrated with a goal of ± 10 percent of field measured values for pressures over 50 psi and a goal of ± 5 psi for pressures under 50 psi.
- Fire Flow Analysis: Once the model has been deemed calibrated, the model will be used to estimate available fire flow at all hydrants in the system.
- Deliverables: GHD will provide a Technical Memorandum to include:
 - Brief summary of the model updates and calibration effort
 - Hydrant flow test data summary.
 - Comparison of model outputs to the field data (calibration accuracy)
 - Comparison of the model's estimated available fire flows, to the "needed fire flows" as available that were most recently published by the Insurance Services Office (ISO) for the Village of Skaneateles water system.
 - Three figures showing the models estimates of (1) water system pressures under average daily demands, (2) water system pressures during estimated peak hour demands, (3) available fire flow at each hydrant in the water system.

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in the Agreement.

4. Times for Rendering Services

Scope Item	Schedule
Perform Hydrant Flow Testing:	Within 14 days of Notice to Proceed
Deliver Updated GIS Map:	Within 30 days of Notice to Proceed
Deliver Calibrated Model and Technical Memorandum:	Within 50 days of Notice to Proceed

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5. Payments to GHD

A. Owner shall pay GHD for services rendered as follows:

<u>Category of Services</u>	<u>Compensation Method</u>	<u>Fee</u>
Water System GIS Map and Model Update	Lump Sum	\$17,400

B. The terms of payment are set forth in Articles 7 and 8 of the Agreement.

7. **Attachments:** None

8. Documents Incorporated By Reference

Terms and Conditions: Execution of this Task Order by Owner and GHD shall make it subject to the terms and conditions of the Agreement, which Agreement is incorporated by this reference. GHD is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is _____, 2024.

VILLAGE OF SKANEATELES, NEW YORK

GHD CONSULTING SERVICES INC.

By: _____

By: Kevin Castro

Name: Mary Sennett

Name: Kevin Castro PE

Title: Mayor

Title: President

Engineer License or Firm's Certificate No. 070882

State of: New York

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: Tom Posella, P.E.

Name: Nicholas J. Hyde, P.E.

Title: Director of Municipal Operations

Title: Senior Project Manager

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