MEMO

To: City Manager, Mayor & Common Council
From: Arthur Smolinski, Acting Water Superintendent
Date: February 14, 2025
Subject: Leak Survey

The City of Oneida Water Department over the last month has been looking for leaks within the distribution system. The Department has repaired four (4) leaks in the distribution system this year. The pumps at Lake Street were operated in January to refill the tanks as we were unable to maintain a level on gravity flow. This was the first time they were operated on in January in 20 years. The Electric cost to operate the pumps for 6 days to refill the tanks was $6,000. The 2024 budget did not include a Leak Survey. The last survey was conducted in 2021, four years ago. The unaccounted-for water loss in the system for 2024 was 201 million gallons, the highest since 2011.

The Capital project to update Lake Street Pump Station is ongoing. The station will be **offline** for two (2) months while the electrical system and pumps are replaced. It is urgent that leakage within the system is minimized as we will not be able to fill the tanks by pumping when the pump station is offline.

Unaccounted for water loss can be generally attributed to the following: under registration of meters, **undetected water leakage**, unmetered connections, flushing, overflowing tanks, firefighting and practicing. Conducting a Leak detection Survey on the Cities distribution will hopefully reduce unaccounted water loss in the system. If the survey does detect unknown underground leakage - some overtime costs may be diverted by undertaking repairs during normal business hours, reducing treatment costs and advert the need to pump.

I received a quote from GPRS who acquired New York Leak Detection, the firm who had previously performed leak detection services in the City. I have prepared the following resolution for consideration at the next Common Council meeting.

PROPOSAL

CITY OF ONEIDA WATER DEPARTMENT

GPRS

GPRS is the nation's premier company specializing in the detection of underground utilities and underground storage tanks, video pipe inspection, leak detection and the imaging of concrete structures. Our services enable your projects to stay safe, on time and on budget.

SIM-CERTIFIED FIELD STAFF

Our SIM-Certified Project Managers are equipped with the latest technology, industry leading training and a methodology that has produced over 99.8% accuracy on over 300,000 projects. Visit SIMSPEC.ORG today for details.

NATIONWIDE FOOTPRINT

GPRS is the largest company of our kind. With highly trained Project Managers across America we can provide rapid response to your job site — wherever it may be located.

CONSULTATIVE APPROACH

GPRS Project Managers are trained to help you remove barriers that could impact your project being safe, on time and on budget. They provide industry-leading deliverables such as CAD, 3D drawings, NASSCO reports, and a .KMZ and .PDF map is included with every utility locating project which accelerates planning, organizes operations and increases communication.

VISUALIZING THE BUILT WORLD™

ABOVE AND BELOW GROUND

GPRSINC.COM

February 14, 2025
Client: CITY OF ONEIDA WATER DEPARTMENT
Project Address: 109 N. Main Street Oneida, NY 13421
Quote Number: GPRSQUOTE-183288
GPRS Opportunity Name/Number: 109 N. Main Street Oneida NY 13421 - Leak

Submitted By:
Zach Falor
To schedule, please email:
newyorkinfo@gprsinc.com

GPRS appreciates the opportunity to provide this proposal. We encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed. Our insurance certificate and W-9 can also be downloaded here. Please feel free to contact us if you have any questions or need additional information. Visit for an overview of our industry-leading best practices.

SCOPE OF WORK

Leak Survey: We understand the scope of work on this project is to locate a known or suspected water leak in your system. Please mark the boundaries of the work area on the surface before our arrival on site, or provide a representative to meet and advise us regarding the scope of work and desired work areas. We will listen for leaks at the nearest contact points and then locate the leak using a correlator and ground microphone as needed. Our ability to locate the leak will depend on various factors such as depth, pipe material, and noise interference from traffic, machinery, etc. If the project area is in a noisy environment, GPRS may need to schedule a return trip at night for an additional fee. Please visit www.simspec.org for an overview of our industry-leading best practices that will be applied to this project.

- GPRS is not responsible for housekeeping. Any debris, equipment, or other obstructions in the area at the time of scanning could potentially block out needed data.
- A thorough utility search can only be completed if GPRS is given access to all utility structures, interior and exterior. This service is never a replacement for the use of the state One Call system (811).
- All of our technicians have OSHA-10 safety training or greater. Site-specific safety training is not included in this quote. Please notify us if this project requires additional safety training.

EQUIPMENT

- **Underground Scanning GPR Antenna.** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real-time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8' or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3' or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator.** This receiver can passively detect the signals from live AC power or radio signals traveling along some conductive utilities. Operators can connect a transmitter directly to accessible metallic pipes, risers, or tracer wires to generate a current at a specific frequency. The receiver can then detect the resulting signal along the pipe or tracer wire. Various factors may impact this device's effectiveness, including (but not limited to) access to the utility, conductivity, grounding, and interference from other utilities. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Traceable Rodder.** The rodder consists of a copper wire encased in fiberglass. This device is pushed through a pipe with direct access, such as a sewer line at a cleanout or a storm drain catch basin. Operators then induce a current on the wire and trace the signal from the surface. The maximum traceable depth is 10' depending on the soil conditions, and the maximum distance is 200'. Inserting the rodder into deeper pipes within manholes may not be feasible depending on site conditions. GPRS will not access electrical conduits. The signal is not detectable through metallic pipes. For more information, please visit: Link
- **GPS.** This handheld unit offers accuracy down to 4 inches; however, the accuracy achieved will depend on the satellite environment at the time of collection and is not considered survey-grade. Features can be collected as points, lines, or areas and then exported as a KML/KMZ or overlaid on a CAD drawing. For more information, please visit: Link
- **Leak Noise Amplification.** The Leak Noise Amplification system consists of a control unit, a microphone, and headphones. It is used to listen for leak noise at water system contact points (valves, hydrants, etc.) to identify a general location of a potential water leak. This system may also be used with a ground microphone to attempt to pinpoint the leak from the surface. Various factors may affect its effectiveness, such as pipe size and material, water pressure, leak size, soil type, and noise interference from traffic, machinery, etc.

- **Leak Noise Correlator.** The Leak Noise Correlator consists of sensors placed on water system contact points. The device will process sound signals between the contact points to provide a position of the leak between the two points. The Leak Noise Correlator's accuracy depends on the feasibility of locating the pipe and requires accurate information from the client regarding pipe attributes such as size and material.

PROJECT COSTS

SERVICE	DESCRIPTION
FIELD SERVICES	Described on Page 2
JOB SUMMARY REPORT	PDF including a brief description of equipment used, findings, limitations, and site photos sent at the conclusion of every job.
TOTAL	**$15,400.00**

GENERAL TERMS & CONDITIONS

This proposal is subject to the General Terms and Conditions for Services of Ground Penetrating Radar Systems, LLC posted at Link (the "Terms and Conditions") and is hereby incorporated by reference into and made a part of this proposal. Customer acknowledges it has read and agrees to be bound by such Terms and Conditions. In the event of any conflict between the terms of this proposal and the Terms and Conditions, the Terms and Conditions will prevail. Customer also acknowledges that Ground Penetrating Radar Systems, LLC may, from time to time and at its discretion, modify the Terms and Conditions and Customer agrees to be bound by such Terms and Conditions as modified.

1. Customer agrees to meet and perform all requirements described in this document and has fully read and understands all items listed within this document.
2. It is the customer's responsibility to prepare the site for scanning, including clearly identifying areas to be scanned, securing access to all areas required for scanning, removing and keeping these areas clear and free of obstructions. Delays caused by customer's failure to do so may result in an increased price.
3. GPRS does not conduct an investigation, analysis, or interpretation of soil composition, soil/concrete conditions, or geophysical, geological, engineering, or land surveying information. The customer acknowledges understanding that we are merely reporting retrieved data and that we do NOT provide geophysical, geological, engineering, or land surveying services. Customer should contact a professional in those fields if such services are needed. Data collected during may only be suitable for use within the scope of this proposal.
4. If any work to be performed is within a road or street, unless specifically included by GPRS within this proposal, it is the customer's responsibility to provide adequate traffic control to allow GPRS' personnel to safely and efficiently work in the road/street.
5. Time-on-site in excess of 8-hours will be billed at overtime rates.
6. This price assumes that we will be given access to perform the work during normal, weekday business hours. Work performed outside of 6am-5pm Monday-Friday will be billed at overtime rates.
7. These rates assume that there are no certified payroll or prevailing wage requirements for this work. If GPRS receives notice that any of these conditions exist, there will be additional costs.
8. If this proposal is not accepted within 90 days of February 14, 2025, then the pricing may be subject to review.
9. If for some reason the technician arrives on site and the work is cancelled there will be a charge of $500 per requested technician.
10. If your project is in WV, SD, NM, or HI: State sales tax is not included in the total on this proposal, but will be included on the invoice.
11. Payment Terms are Net 30; or as specified if a current Master Service Agreement is in place.

ACCEPTED AND AGREED

Print Name:_____ Signature:_____ Date:_____

Company Phone/Email:_____ PO #:_____ Job #:_____