ASSOCIATED TECHNICAL SERVICES LTD | **321 E KENILWORTH AVENUE VILLA PARK IL**

www.ATSLimited.com | **Office: 630.834.1558 / Fax: 630.834.5501**

Established 1979

December 19, 2022

City of Aurora
Engineering Division
44 E. Downer Place
Aurora, Illinois 60507

Attn: Mr. John D. Hoffmann
Engineering Coordinator

RE: 2023-25 Water Distribution System Leak Survey Proposal - QBS 22-62

Dear Mr. Hoffmann,

We are pleased to present our qualifications to perform another **"Comprehensive Leak Detection and Location Surveys"** for the **City of Aurora** over the next three years. For over 40 years, ***ATS*** has enjoyed a successful relationship with the ***City of Aurora***.

INTRODUCTION: **Our mission goal for Aurora is simple. Highly skilled and experienced ATS Specialists will accurately discover every detectable leak in your water system, and accurately pinpoint every one of those leaks using state of the art equipment.** ***ATS*** will help ensure that ***Aurora*** is able to conserve water by repairing those leaks as efficiently and cost-effectively as possible while recovering the maximum amount of lost water and revenue.

ATS and the City of Aurora: A History of Success

- **January 1980:** ***ATS*** completed our training with the inventor of the leak noise correlator, Dr. Allen Anway, PhD. Thanks to the relationship of my father's engineering firm and the City of Aurora and Mt. Prospect, Ralph L Gross was allowed to conduct full time field research on the first correlator while developing the techniques and field procedures that remain the standards of our profession.
- **May,1980:** ***ATS*** performed our first emergency call out on Downer Place. We nailed it.
- **1980-2020:** ***ATS*** has accurately detected and pinpointed in excess of **2,500 leaks** during over **500** Scheduled and Emergency Leak Location Callouts: During **16** Street Resurfacing Leak Surveys and **13** System-Wide Leak Surveys. ***ATS*** **knows Aurora's system very well.**
- ***ATS*** created the "industry standard" for correlator-based strategic leak survey techniques and methodology. ***ATS*** also created "Street Resurfacing Leak Survey Programs". ***ATS*** helps cities ensure that pre-existing water leaks don't get covered up a with a new street surface.

Throughout the past **42 years**, the ***Aurora Water Department*** has relied on ***ATS*** for timely and accurate leak detection and location services. As a result, ***Aurora's water department and ATS*** are excellent partners by providing valuable assistance to us under demanding circumstances. This history of successes together will enhance our effort in providing ***Aurora*** with the best possible leak survey program. The assumption that every leak detection company will detect the same number of leaks and pinpoint them with the same accuracy, doesn't hold water in the real world, and it can be a very costly assumption.

COMPREHENSIVE ATS LEAK SURVEYS ARE ACCOMPLISHED AS FOLLOWS

- **Pre-Survey Meeting** – Once our proposal has been submitted and approved, am **Annual Pre-Survey Meeting** with the ***ATS Survey Project Manager*** and The City to discuss all aspects of the project from methodology, equipment, documentation, timelines, milestone data and mutual cooperation activities.

- **Prepare a Survey Completion Schedule -** We would like to start your survey within a timely manner after receiving City approval barring no unforeseen mandatory delays such as the Covid Pandemic. While no one can predict how many leaks currently exist under your designated streets, ***ATS*** will work with you and mobilize the necessary manpower to sequence our surveying to coincide with your paving schedule.

- **The Designated "survey areas"** are established by the City and highlighted on the water atlas so ***ATS can develop a strategic plan for efficiently surveying each area.***

- **ATS Crews will check in with the City at the start of every survey workday.** Work will be performed Monday through Friday until completion You'll know where we'll be that day and the progress we're making. ***ATS Crews are available 24 hours a day / 365 days a year***.

- **Ultrasonic Leak Detection Phase** of every mainline appurtenance in each survey area. We will log monitored appurtenances, every detected suspect leak site, map discrepancies and any inaccessible points that need to be found or exposed so they can be surveyed.

- **Develop List of Inaccessible Points.** Valves that we are unable to readily locate or access. ***We*** never know when we're going to encounter a leak can only be heard at one hydrant or valve. Therefore, a "list of inaccessible points" is given to the **City** to prepare for ***ATS*** as needed so that every available access point can be surveyed for leak sounds.

- **Map Discrepancies -** All appurtenances that are shown incorrectly or omitted on your maps will be logged on our survey sheets. Upon request, ***ATS*** can locate them with our GPS systems for a nominal fee so your GIS Database and water atlas can be updated.

- **Computerized Electronic Leak Location Phase** – Thoroughly Re-survey and analyze every suspect leak site and then accurately pinpoint every confirmed leak.

- **Leak Location Reports** are submitted daily as leaks are located. Leak locations are marked, diagramed and documented in detail and located with GPS upon request. The ***City*** will fill in leak repair data and fax copies of completed repaired leak reports to ***ATS*** for calculations.

- **Interim Progress Reports** - Area by area progress summary by phase, total leak types and calculated water and revenue recovery to date. They are typically prepared and submitted monthly by request anytime you need an update on the survey's status.

- **Re-monitor All Repaired Leak Sites** and pinpoint all subsequently detected Leaks.

- **Final Survey Report** - Gather Leak Repair Data, Recovery calculations, Maps displaying Leak Locations and assemble **Final Report**. Present the comprehensive **Final Survey Report** to the **City**

SCOPE OF WORK

City of Aurora 3-Year Comprehensive Leak Survey Program: Our mission is to make every effort and take the time that is necessary to accurately discover and pinpoint every existing detectable leak. As a water system gets "tighter", there is more emphasis on the surveyor to have to dig deeper to find the leaks that are not making obvious leak sounds. This fact makes monitoring every valve essential to finding these tough leaks. Valves, Hydrant Auxiliary Valves and Hydrants are the highest quality listening points. ***ATS*** strives to survey every one of them. The thoroughness of our intensified survey techniques ensures that every detectable leak is discovered and accurately pinpointed for the maximum return on your investment in ***ATS*** surveys.

The City has designated that the entire water distribution system be surveyed over a three-year period during 2023, 2024 and 2025. The City has divided the system into thirds, with approximately 1.3 million lineal feet of water main to be surveyed each year.

Year 1 / 2023: 1,305,746 Lineal Feet or 252.39 lineal miles of water main

Year 2 / 2024: 1,346,180 Lineal Feet or 258.11 lineal miles of water main

Year 3 / 2025: 1,220,135 Lineal Feet or 238.51 lineal miles of water main

Airport System: 16,305 Lineal Feet or 3.09 lineal miles of water main

Total: 3,971,106 Lineal Feet or 752.10 lineal miles of water main

The **City of Aurora** water system serves a population of **±180,542** residents through **±49,485 metered** residential and commercial water service lines. This is significant because water service line leaks are the most common leak that ***ATS Leak Surveys*** discover**.** While service leaks are routinely detected using hydrants and valves for listening points, curb stops are not good detection points for surveying. Curb-Stops typically surveyed during the location phase when a suspect leak has been detected, or where PVC pipe exists. Leaking service lines are detected and located by our skilled field technicians up to the curb stop. Leaks located on the property owner's side of the curb stop will be documented as such. Property owner side service leaks require direct access to the service line inside the building with assistance by the City..

Monitored System Appurtenances in the section designated for survey will include:

- **Every fire hydrant and every accessible fire hydrant auxiliary valve = 9,629 HYDRANTS plus approximately 9,000 hydrant auxiliary valves**
- **Every accessible main line valve in valve vaults and valve boxes = 11,917 VALVES**
- **Strategically located service line curb stop valves *(aka B-Boxes)*. est. 500 or more**
- **Every effort will be made to accurately locate every existing leak in the survey areas**

Leak Repair Prioritization: A preliminary leak size and type classification is made during the detection phase. Thanks to our superior technique and experience, ATS can prioritize leak pinpointing so you can repair what appears to be the most serious leaks first, especially when we detect main breaks. Suspect main breaks are always immediately located and submitted.

ESTIMATE OF COST

ATS Incentive-Based Comprehensive Leak Survey Programs

The ***ATS Comprehensive Leak Surveys*** are the most thorough and successful leak survey programs in the business on two fronts – ***Superior results and Superior Accuracy***.

The City has designated a 752.10 lineal miles total for survey during the 2023, 2024 and 2025 budget years. Approximately one third of the water system will be surveyed annually for leaks until the City of Aurora's entire water distribution system has been completed.

Leak Survey Objective – *Accurately detect and pinpoint every detectable leak.*

2023 Survey Program

Detection Phase: **1,305,746 lineal feet of water main @ $ 0.0375 per LF = $ 49,065.47**

Location Phase: **$ 425.00 for Every Pinpointed Main Line and Service Line Leak.**

$ 100.00 for Every Fire Hydrant Leak and Main Line Valve Leak.

2024 Survey Program

Detection Phase: **1,346,180 lineal feet of water main @ $ 0.04 per LF = $ 53,847.20**

Location Phase: **$ 450.00 for Every Pinpointed Main Line and Service Line Leak.**

$ 110.00 for Every Fire Hydrant Leak and Main Line Valve Leak.

2025 Survey Program

Detection Phase: **1,220,135 lineal feet of water main @ $ 0.0425 per LF = $ 51,855.74**

Airport System: **16,305 lineal feet of water main @ $ 0.0425 per LF = $ 692.96**

Location Phase: **$ 500.00 for Every Pinpointed Main Line and Service Line Leak.**

$ 120.00 for Every Fire Hydrant Leak and Main Line Valve Leak.

Annual Cost: **Total annual cost will be based upon actual total amount of surveyed water main that year, plus the actual total number and types of leaks that detected and pinpointed.**

Preferred Client Callout Savings

Discounted Location Callouts for Survey Clients - While your leak survey is underway any leak or utility location callout that can be scheduled while we are in town or the next weekday during normal work hours, will discounted to that year's leak survey leak location fee. This discount represents a significant savings from our normal callout charges with round trip mileage**. Please note**: After-Hour, Emergency, Holiday, Weekend and unscheduled Weekday Service Calls will be charged per our normal standard basic schedule of prices which we has been previously submitted to the City. Over the years the City has saved thousands of dollars by taking advantage of this valuable exclusive benefit this is our pleasure to extend to Aurora.

Scope of Work

Project Scheduling: ***ATS*** has performed many surveys for **Aurora**. Subsequently we have excellent knowledge of your water system throughout the **City**. There is not a stretch of water main that we haven't surveyed many times over. While no one can predict the types and number of leaks that currently exist in your water system, ***ATS*** will work with you and mobilize the necessary manpower to sequence our surveying to coincide with your schedule. We will schedule a timely start of your leak survey after receiving the City's approval.

Survey Completion Time: We estimate the ***Detection Phase*** of each annual survey can be completed in approximately **50** workdays or less by one full time survey crew. The duration of the ***Location Phase*** will depend upon the number of suspect leak sites to investigate and actual number, type and location of those pinpointed leaks. Based upon our experience in Aurora, another **40** workdays for pinpointing is possible. It's impossible to accurately predict the number type of leaks that we will detect or their locations. Weather is an unpredictable factor. We will assign additional crews to assist our primary crew whenever possible to expedite the survey. In addition, the City will often call upon out crews to investigate leaks that occur while we're intown. While we are pleased to get these opportunities to be of service to the City, these emergency and unscheduled service callouts will temporarily interrupt the progress of the leak survey.

STEP 1 - Ultrasonic Leak Detection: **The existence and general neighborhood of every suspect leak is detected with *FCS S-30 Ultrasonic Leak Detection Equipment*. Every fire hydrant, accessible hydrant auxiliary valve, and every mainline valve will be monitored for leak sounds.** The Aurora Water Distribution System primarily consists of diameter Gray Cast Iron, Ductile Iron Water Main and some PVC water main.

Detection Survey Records: **Every accessible fire hydrant, hydrant auxiliary valve and mainline valve that is monitored for suspect leak sounds will be documented.** Valuable survey and system data are collected and logged. ***This data includes:*** Appurtenance Type, Accessibility and Location, General Conditions Encountered, Map Errors and Leak Sound Data.

Inaccessible Points & Map Discrepancies: **A listing of all appurtenances that are found to be inaccessible or visually un-locatable will be submitted to the *City* so *ATS* can return to check it. Once that point has been located and/or prepared for us.** We never know when we will encounter a leak that is only detectable at one listening point. All leaks that we detect during this step will be accurately pinpointed, document and submitted to the City.

STEP 2 - Computerized Leak Analysis & Pinpointing: **Every suspect leak site, no matter how slight the sound, is electronically confirmed with one of our computerized *FCS Tri-Corr and Sewerin SeCorr Correlator Systems.*** The pinpointing phase begins with ultrasonically resurveying every suspect leak site, electronic Correlator analysis of every suspect leak site to either eliminate a suspect leak site or accurately confirm the presence of the leak and pinpoint its exact location. By analyzing, timing and measuring leak sound waves simultaneously from two monitoring points, the leak's exact location is pinpointed with unmatched consistent accurately.

Water Main, Water Service and Valve Location: **Accurately locate and trace the water main and service lines in the vicinity of suspect leak locations.** Tracing out the water main and service lines, helps ensure that every survey leak is pinpointed as accurately as possible. All utility line location work is expertly performed with ***Radiodetection RD7100 and RD8100 Series High Performance Utility Location Systems and Schonstedt Ferromagnetic Locators.***

STEP 3 - Leak Location Reports: **This is an individual report form that details the exact location and characteristics of each pinpointed leak.** These forms are submitted daily as the leaks are pinpointed. The ***City*** then updates and faxes or emails each ***Leak Report*** with actual leak repair information which is used to calculate water loss and revenue recovery data for the ***Final Report***. **This repair data greatly expedites interim and final report preparations.**

"X" Marks The Spot! **The pinpointed location of every mainline, service line and valve leak will marked in the field with spray marking paint with an *"X".*** The exceptions are homeowner's side service leaks and hydrant leaks.

Property owner's side service leaks cannot be pinpointed without access inside the building which requires an additional scheduled visit. Our crew must be accompanied by the City. There is an additional charge to pinpoint leaks between the curb stop and where the service enters the building. It is the responsibility of the City to contact the property owner and ideally schedule several appoints on a mutually agreeable days so the property owner and the City can be present to accompany our crew. A ***"Leak Location Report"*** form documents the location and type, characteristics of every pinpointed leak**.**

Overnight (24-Hour) Correlation Equipment (As-Needed): Whenever conditions dictate that this type of equipment can be useful, ***ATS*** can employ ***FCS SoundSens Leak Location Systems*** for 24 hour unmanned surveillance. With this advanced technology ***ATS*** has the capability of placing 2 to 8 correlating remote sensors in a strategic pattern where leakage is suspected. Each Sensor can be programmed to run a correlation between it and any combination of Sensors to determine if and where leaks may exist. This is useful in more precarious areas where safety could be an issue at night or high traffic and industrial areas where ambient noise and noise from within buildings can prohibit accurate detection of a leak during normal weekday business hours.

STEP 4 - Interim Survey Status Reports: Survey Status Reports are typically submitted monthly, or upon request whenever you would like an up to date status report. This report concisely summarizes all of our survey activities and findings, breakdowns of the number and type of leaks found in each area; plus, revenue recovery calculations for each leak you've already repaired. This report gives you all the essential information you need so you'll know the exact status of your survey with area-by-area completion percentages and water recovery.

STEP 5 – Final Report: Three (3) copies of a comprehensive ***"Leak Detection & Location Survey - Final Report"*** will be submitted after the completion of the survey. Additional copies are available upon request. These reports concisely detail all of our survey activities and findings; estimated & calculated leak sizes; revenue recovery calculations for each leak; area maps showing leak locations, leak location reports; general observations and recommendations.

Final Survey Reports are also digitally available in your choice of Microsoft Word or PowerPoint; or PDF formats, that can be printed, emailed or recorded on digital media upon request. The ***Final Report*** will be submitted within 30 days of the completion of our field work and upon request, can be amended and updated when all leak repairs have been completed.

KEY ATS STAFF MEMBERS FOR AURORA SURVEY PROGRAMS

Ralph L. Gross: President - **In 1979, Ralph received his instruction in Leak Correlator Operations from Dr. Allen Anway, PhD. who is the physicist that invented the first Leak Noise Correlator System.** Subsequently, ***ATS*** became the first company in the world to exclusively conduct ultrasonic leak surveys with a leak noise correlator system. Ralph has conducted speaking engagements, educational seminars and training classes all over the country about Water Conservation and Correlator Based Leak Surveys. Among his students are several key personnel with FCS – Fluid Conservations Systems. Not least of which was FCS' longtime President, Thomas J. McGee who started his career with ***ATS*** in 1983. Incidentally, Tom's father, Thomas C. McGee, retired in 2005 after 26 years with ***ATS*** as a Project Manager and Crew Chief. Ralph and his staff oversee the progress of every ***ATS Leak Survey*** thereby ensuring that your survey is performed to best of our abilities, on time and accurately to yield the highest possible water and revenue recovery for our clients.

Kathleen S. Grisz: Finance Manager of Accounts Payable and Receivable - Kathy has decades of experience at ATS. Any questions about billing can be directed to Kathy by calling our office (630) 834-1558 between 8:00 am – 5:00 pm, or by email at Kathy@ATSLimited.com.

Paul J. Gross: Director of Field Operations / Instructor - Paul started with ATS in 1980 as a Field Assistant. Paul eventually became a Field Crew Chief, Survey Project Manager, as well as an instructor for utility location systems and leak location correlator operator training for well over a hundred municipalities. Paul has conducted hundreds of municipal leak surveys over the past 34 years. Paul oversees the progress of every leak survey that ATS has underway on a daily basis.

John P. Gross: Survey Project Manager / Crew Chief / Instructor - John started with ATS in 1980. John eventually became a Field Crew Chief and Survey Project Manager, as well as an Instructor for utility location systems and correlator operator training. John has conducted hundreds of municipal leak surveys over the past 34 years including two partial surveys of Glen Ellyn. John oversees the progress of every leak survey that ATS has underway on a daily basis.

Marcie Kapler: Survey Project Manager / Crew Chief - Marcie started with ATS in 1989. Marcie eventually became a Field Crew Chief and Survey Project Manager. Marcie has conducted hundreds of leak surveys over the past 25 years.

Jason Green: Survey Project Manager / Crew Chief - Jay started with ATS in 1999. Jay eventually became a Field Crew Chief, Survey Project Manager. Jay has conducted hundreds of leak and utility location surveys over the past 15 years.

Survey Project Teams: In addition to our expert personnel mentioned above, ***ATS*** has additional experienced ***ATS Survey Crew Chiefs*** and ***ATS Field Techs*** that work with them. A **Survey Project Manager will be assigned to each Village**. They will be directly involved with the survey on a daily basis. Your ***ATS Survey Project Manager*** will report directly to the City with daily survey status. They will be available for immediate and ongoing contact on a 24 / 7 basis.

Each survey crew consists of two experienced and fully trained survey technicians. Each Crew Chief assigned to the survey will report to our Project Manager for their daily instructions so that the survey remains on track and is accurately performed. Additional survey crews can mobilize as needed during the detection and location survey phases.

There are good reasons why your selection of ATS makes excellent business sense.

Superior Results - ***Like anything in life, the person who practices their craft every day is going to have distinct and measurable advantages over the person that doesn't do it as often, and subsequently, as well.*** Since January,1980, ***ATS*** has been out in the field everyday performing leak surveys, utility locations and leak pinpointing. Subsequently our listening skills are going to be that much more acute. Your survey is more effectively accomplished while we detect more leaks and pinpoint them with more consistent accuracy than anyone in the business

Superior Experience - ***ATS helped introduce leak location correlators, and subsequently started to specialize in leak detection in 1979.*** As a result, ***ATS*** has performed more leak surveys and pinpointed more leaks with this technology than anyone. ***ATS*** developed the leak survey techniques, correlator survey specs and field strategies that have become the standards for the industry. Over the years many of ***FCS – Fluid Conservation Systems'*** top people including Regional Managers, Sales Staff, Instructors and their longtime Director of Operations also received training from ***ATS***. ***FCS*** also uses ***ATS*** for Beta testing new equipment innovations plus software upgrades and developments.

Conserving Municipal Manpower and Resources - Many public works departments are already stretched to their limit, providing quality services to your citizens. **With our tremendous amount of municipal leak survey experience, *ATS* frees up your staff so that they can concentrate on their normal duties without distraction.** Municipal involvement is normally answering questions, and freeing up inaccessible points \ during the location phase on an *"as-needed basis"*

24 Hour Emergency Callout Services and Customer Support During and After the Survey **– *ATS never has less than two crews on call 24 hours a day / 365 days a year. ATS has a fleet of 12 Correlator Equipped "ATS Leakmobiles****" out in the field five days a week.* Every mobile van is fully equipped with an experienced and trained two-person crew capable of handling any leak location or utility location situation you will ever have. **While many Chicago area municipalities have to typically wait several hours or more for our competitors to arrive, *ATS* is always on the scene in 60 - 90 minutes or less of your call for help*.***

Cost Effectiveness - Compare the actual survey results found by ***ATS*** verses the other firms. Call on our references. We've highlighted those municipalities that have used ***ATS*** and our competition. The differences in the survey findings between ***ATS*** and the others is substantial.

- **No one listens more intently to every accessible access point as *ATS*.** Therefore, we detect more suspect leak sounds than anyone else.
- **No one works a suspect leak site more aggressively than *ATS*.** Therefore, we turn more suspect leak sounds into confirmed leak locations than anyone else.
- **No one spends more time analyzing a suspect leak site as thoroughly as *ATS*. Therefore no one pinpoints more leaks as accurately as *ATS* does.** For our clients, more precise leak pinpointing means less digging and less restoration costs.
- ***ATS* spends more time performing your leak survey so that every detectable leak is accurately pinpointed so you can spend less time and expense repairing them so the City gets a greater return in recovering precious water and reducing your non-revenue generating water loss**.

If reducing water non-revenue generating water losses due to leakage is your goal, then ***ATS*** is your best choice for achieving that objective. We've proven ourselves time and time again throughout the City of Aurora. We are proud of our history of success in **Aurora** and valuable partnership that we've enjoyed with **Aurora's** excellent staff over the decades. We stand ready to continue to serve you and the **City of Aurora** to the best of our abilities.

Yours Truly,
ASSOCIATED TECHNICAL SERVICES LTD.

Ralph L. Gross
President

Questions? *Please contact me anytime day or night. I would be pleased to meet with you at your convenience at the location of your choice.*

Email: ***RalphLGross@gmail.com***

Cellular: ***630.935.3435 (24-hour Call or Text)***

Associated Technical Services Ltd

321 East Kenilworth Avenue

Villa Park, Illinois 60181

Office: 630.834.1558 (24-hour hotline)

Fax: 630.834.5501

AGREEMENT

This Agreement made and entered into this _____ day of _____ ***, 2023*** by and between the ***CITY OF AURORA , ILLINOIS,*** a municipal Corporation hereinafter referred to as the ***"OWNER",*** and **ASSOCIATED TECHNICAL SERVICES LTD.,** 321 E. Kenilworth Avenue, Villa Park, Illinois, an Illinois Corporation, hereinafter referred to as ***"ATS",*** covers **LEAK DETECTION and LOCATION SERVICES** to be performed in an area designated by the **"OWNER"** as:

ATS Project # _____ ; CITY P.O. # _____

Perform Comprehensive Leak Detection and Leak Location Surveys of the entire City of Aurora Municipal Water Distribution System as detailed in the City's QBS 22-62 documents and the ATS proposal. The City has divided the entire water system into three survey areas that will be surveyed in annual phases over a three-year period from 2023 – 2025.

Year 2023 / Phase 1 / Area 1 : 1,305,746 lineal feet or 247.30 lineal miles of water main

Year 2024 / Phase 2 / Area 2 : 1,346,180 lineal feet or 254.96 lineal miles of water main

Year 2025 / Phase 3 / Area 3 : 1,220,135 lineal feet or 231.09 lineal miles of water main

Airport System: 16,305 lineal feet or 3.08 lineal miles

Final billing will be based upon actual total amount of surveyed water main plus the total number and types of pinpointed leaks as described herein.

Now therefore, in consideration of the premises, covenants, and agreements set forth and made part of this agreement by attachments hereto, namely the **"BASIC SCHEDULE OF PRICES" and "GENERAL CONDITIONS"**, it is mutually agreed that for all services stipulated herein to be provided by **ATS**, compensation by the **OWNER** to **ATS** will be a sum of money based upon the rates specified under **"LEAK DETECTION AND LOCATION SURVEYS** and any applicable direct costs (i.e. additional written reports, lodging and subsistence), as specified in the attached **"BASIC SCHEDULE OF PRICES"**. The survey quantities and / or unit costs will not be exceeded without supplemental authorization by the **OWNER** or their representatives, such supplemental authorization will be considered a modification to this **AGREEMENT.**

ATS / Associated Technical Services Ltd., does not guarantee the detection and / or pinpointing of a leak or leaks, but does assure that a BEST EFFORT, in that regard will be put forward.

Execution of this agreement by the representatives of the **OWNER** shall serve as authorization and simultaneous notice to proceed. In witness whereof the parties have hereunto set their hands this day and year first written.

ASSOCIATED TECHNICAL SERVICES LTD. **CITY OF AURORA, IL**

_____ _____

Ralph L. Gross **Signature of authorized representative**

President

_____

Title

BASIC SCHEDULE OF PRICES

LEAK DETECTION & LOCATION SURVEYS

1 A) **2023 Survey Program**

Detection Phase: **1,305,746 lineal feet of water main @ $ 0.0375 per LF = $ 49,065.47**

Location Phase: **$ 425.00 for Every Pinpointed Main Line and Service Line Leak.**

$ 100.00 for Every Fire Hydrant Leak and Main Line Valve Leak.

2024 Survey Program

Detection Phase: **1,346,180 lineal feet of water main @ $ 0.04 per LF = $ 53,847.20**

Location Phase: **$ 450.00 for Every Pinpointed Main Line and Service Line Leak.**

$ 110.00 for Every Fire Hydrant Leak and Main Line Valve Leak.

2025 Survey Program

Detection Phase: **1,220,135 lineal feet of water main @ $ 0.0425 per LF = $ 51,855.74**

Airport System: **16,305 lineal feet of water main @ $ 0.0425 per LF = $ 692.96**

Location Phase: **$ 500.00 for Every Pinpointed Main Line and Service Line Leak.**

$ 120.00 for Every Fire Hydrant Leak and Main Line Valve Leak.

Annual Cost: **Total annual cost will be based upon actual total amount of surveyed water main that year, plus the actual total number and types of leaks that detected and pinpointed.**

1 B) **Additional Leak Location Callout Savings: Discounted Leak Pinpointing for Survey Clients**

While your leak survey is underway **any leak or utility location callout,** that can be scheduled while we are in town or the next weekday during normal work hours, **will discounted to that year's survey rate for leak location.** This discount represents a significant savings from our normal callout charges with round trip mileage. After-hour, Emergency, Holiday, Unscheduled Weekday and Weekend service calls are charged per our normal basic schedule of prices.

2) **MOBILIZATION & MILEAGE:** ***- Only applied to leak callout services.***

$ 2.00 per mile - round trip from ***ATS*** Office to the Project Site unless ***ATS*** is already in town.

TERMS: Upon receipt of invoice, Owner shall have 30 days to review and approve. Payment is due within 30 days of approval of invoice. If payment is not made within 30 days of approval, ***ATS*** may charge an interest penalty of 1% of any amount approved, per month, until the balance is paid in full.

PLEASE NOTE: All prices are based upon utmost cooperation and advance preparation by the ***Owner***. Such as accurate plans and knowledge of the water system and making all needed appurtenances accessible to our survey crews. See Section II of the attached ***"General Conditions for Leak Surveys"*** for a detailed listing of responsibilities of ***ATS*** and the ***Owner***. ***ATS*** reserves the right to adjust the ***"Basic Schedule of Prices"*** if preliminary field investigation of the survey reveals extraordinary, hazardous or otherwise adverse conditions. ***Please forward any questions directly to Ralph L. Gross.***

GENERAL CONDITIONS

LEAK DETECTION & LOCATION SURVEYS

Responsibility of ATS / Associated Technical Services Ltd.

A) Two-Person crew qualified to operate the *ATS Leak Detection & Location System*.

B) The *"ATS Leak Detection & Location System"* consists of:

- ***FCS S30 Ultrasonic Leak Surveyor Instruments*** *(Leak Detection Phase)*
- ***FCS/Fluid Conservation Systems and Sewerin Leak Noise Correlators*** *(Leak Location Phase)*
- ***FCS and Sewerin Ultrasonic Preamplifiers*** *(Leak Location Phase)*
- ***FCS, Wilcoxen, Vibrometer, Sewerin Accelerometers, Gas Sensors, Hydrophone Sensors***
- ***Radcom FCS SoundSens Programmable Leak Correlation / Localization System***
- ***Radiodetection RD7100 and RD8100 Utility Location Systems; Schonstedt Ferro Magnetic Location Equipment for buried valve enclosures.***

***C) "ATS Leakmobile"* -** Mobile Van with self-contained power supply and /or capability of operating from an alternate VAC 60 Hz source, or suitable alternate vehicle at the discretion of ***ATS*.**

D) Mobilization / Mileage – Round Trip, Portal-to-Portal and On-Site**.**

E) On-Site Consultation *with Owner* or their representatives as necessary**.**

F)* The entire area designated by the *Owner* shall be surveyed for leakage.** Detected leaks shall be pinpointed only on that part of the water system maintained by the ***Owner*.** Unless it is previously specified and ordered, customer service line leaks will only be pinpointed up to the municipal side of the curb stop without additional charges. Leaks on the customer side of the curb stop typically require appointments arranged by the City so ***ATS can directly contact the service line within the building.

G) Only those leaks that are detected by the ***ATS Leak Survey*** are to be included in the pinpointing phase of this contract. Unless other previous arrangements are made, any pinpointing of any incidentally or coincidentally occurring leakage, main breaks or previously known leakage that was not initially included in our proposal or as a part of this agreement shall be charged at our normal rates for scheduled / emergency service call-outs**.**

H) If the ***"Re-monitoring of Repaired Leak Sites"*** service is specified, included in our proposal and ordered, this agreement, leak repairs to that site must be completed within 30 days after that leak's location report was submitted to the ***Owner*.** The ***Owner*** then must notify ***ATS*** at the time of repairs so re-monitoring can be scheduled. All subsequently detected leakage will be located**.**

I) ***ATS*** will establish and mark the location of a leak or leaks in the field with either marking paint, a field stake and / or written individual ***"ATS Leak Location Report".***

J) ***ATS*** will provide basic traffic warning equipment and traffic control and re-direction with flagmen on an ***as-needed basis***, whenever conditions dictate the necessity of these safety precautions. ***ATS Work Zone Safety Equipment*** includes but is not limited to safety vests, vehicle arrow boards, strobe warning lights and safety cones that are used whenever our vehicles are parked during the course of the leak survey on residential and other light or slower traffic areas.

City of Aurora **December 19, 2022**
2023-25 Leak Survey Programs

GENERAL CONDITIONS FOR LEAK SURVEYS

RESPONSIBILITY OF OWNER

The ***Owner*** will insure easy access to all main line valves, valve boxes or other strategically necessary access points. This may also include exposing and cleaning out auxiliary valves and b-boxes on an as-needed basis if they will facilitate the accurate confirmation and pinpointing of a detected leak. ***This could include*** breaking loose needed valve covers; pumping water out all valve vaults and boxes and, if necessary, removing debris from those enclosures to make the valves and adjoining pipelines accessible. The ***Owner*** will also make access available to any point or location strategically needed by ***ATS*** to perform said work at the discretion of ***ATS***.

- If the ***Owner*** orders leak pinpointing between the curb stop and the customer's building, the ***Owner*** shall be responsible for making contact with the customer. Pinpointing can be performed on a weekday from 7:00 AM to 4:00 PM without incurring overtime charges.

- The ***Owner*** will make available to ***ATS*** any and all available location maps, schematics, as-built drawings, final reports from previous leak surveys, and any other data pertaining to the area being surveyed. Access to your "IDNR LMO-2" Annual Water Audit Reports provides very useful data.

- The ***Owner*** will make available knowledgeable, qualified personnel for consultation and assistance regarding the **Owner's** water system.

- Identify the authorized representatives of the ***Owner*** to act on behalf of the ***Owner*** and sign ***ATS*** agreements, purchase orders and additional work orders.

- Give ***ATS*** right of access, and necessary identification required, and notify appropriate authorities (Police, Fire Dept., Public Works Dept., Public Safety etc.) as needed of program underway.

- The ***Owner*** will at its option, provide **Traffic Warning Equipment, Traffic Control** and **Re-Direction with Flagmen** on an ***as-needed basis***, should conditions dictate the necessity of this safety precaution. Instances such as a lane closure in a heavy traffic area may require hiring the services of a **Work Zone Safety Vendor** to provide the necessary traffic control equipment such as barricades, warning lights, arrow panels and temporary barriers. The ***Owner*** must approve any use of a Work Zone Safety Vendor in advance. ***Owner*** will be responsible for the costs of the **Work Zone Safety Vendor.**

- **Owner's** repair crews shall make a reasonable effort to provide ***ATS*** with accurate leak repair information whenever this data is available. ***Repair data should detail the following:*** Date of repair; type of leak; approximate size and shape of the leak orifice; approximate water pressure; and method of repair. This information is necessary for ***ATS*** to make leak size, water loss and revenue recovery calculations for a comprehensive **"Leak Survey Final Report".**

Please Note: **ATS does not guarantee the detection or accurate pinpointing of a leak or leaks but does assure that a best effort in that regard will be put forward.**

Certain input data to the ***ATS Leak Detection & Location System*** is based upon information received from the ***Owner***. The accuracy of the **Owner's** data will directly affect the results of the Leak Survey. ***ATS*** will attempt to verify such data by consultation with the ***Owner*** and thereupon will have a right to rely upon the accuracy of the **Owner's** data. ***ATS*** is not liable for any costs to the Owner as a result of incomplete or inaccurate data supplied by the ***Owner*** or their representatives

ATS Experience, Manpower and Equipment

- **In 1979, *ATS* became the first company in the United States to use leak noise correlators.**
- ***ATS*** developed the ***correlator-based leak pinpointing and survey procedures*** that are considered to standard of the industry and are subsequently taught by ***FCS*** and ***ATS***.
- Every ***ATS Field Technician*** is Fully Trained and Experienced in a wide range of applications. We only use ***Top of the Line – State of the Art Equipment*** for All Phases of Leak Detection and Location Procedures; Field Strategies and Locating All Types of Underground Utilities.
- ***ATS Crew Chiefs*** average over **15 years** of Correlator Based Leak Survey Experience.
- Leading correlator manufacturers, ***FCS/Fluid Conservation Systems, Metravib*** *and* ***Palmer***, have relied on ***ATS*** to perform beta testing of new equipment and software. ***ATS*** has trained some of ***FCS'*** key staff members and provides training assistance for new personnel.
- All phases of an ***ATS Leak Survey*** are performed with a Two-Person Crew.
- ***ATS*** **has Ten Complete Correlator Systems and dedicated Surveyor Vans** ***(ATS Leakmobiles)*** that are fully equipped with correlator systems; Utility Location Equipment and every tool needed to perform leak detection and location in all types of conditions.
- **No other Leak Surveyor matches up to *ATS'* Level of Experience, Accuracy and Results.**

Leak Survey Equipment: ***ATS uses the best equipment available on the market today. Here are some of the key components that are used to equip every "ATS Leakmobile".***

Leak Detection Phase

FCS S-30 Ultrasonic Leak Surveyors
infraMAP Database Documentation Software
Radcom SoundSens Programmable System

Leak Location Phase

FCS TriCorr Touch Leak Noise Correlators
FCS Accu-Corr Correlators
FCS TriCorr Leak Noise Correlators
Sewerin SeCorr Correlators
Radcom SoundSens Programmable System

Transducers (Sensors)

Various piezo-electric accelerometers, Hydrophones and Gas Sensors are used depending upon the situation and sensitivity that is needed to find the leak.

Correlator Preamplifiers

FCS Tri-Corr Preamplifiers
FCS MP90 Ultrasonic Preamplifiers
Sewerin SeCorr 08 Preamplifiers

Utility Location Equipment

All suspect water main and adjacent water service lines are electronically traced during every leak location to ensure accuracy.

Trimble TDS Recon	GPS Locators
Radiodetection RD8100	Receivers
Radiodetection RD7100	Receivers
Radiodetection RDT10watt	Transmitters
Schonstedt Ferromagnetic	Metal Locators

Valve Operation & Assessment Systems

EH Wachs ERV-750 / TM-7 / VMT-1 Systems
On-Board Survey-Grade Trimble GPS Wachs
VITALS Database Software
infraMAP Database Documentation Software

Fire Hydrant Assessment, Flow Testing, Exercising; and Water Main Flushing

Little Hose Monster: Flows of 1,500 GPM or less
Hose Monster HM4: Flows up to 2,800 GPM
infraMAP Database Documentation Software

ASSOCIATED TECHNICAL SERVICES LTD
www.ATSLimited.com
524 W. ST. CHARLES RD. VILLA PARK, IL
Office: 630.834.1558 / Fax: 630.834.5501

KNOWN BY THE COMPANY WE KEEP

The clients that ***ATS*** has served provide the best reference as to the expertise of ***ATS*** manpower, superior results and unmatched accuracy of ***ATS Leak Detection & Location Surveys***. Listed is the year of ***ATS Leak Survey*** and other firms they've hired. We can provide additional references and details about any ***ATS Leak Survey*** that's listed and those not listed. Other surveys: **Elgin, IL (310 leaks), Arlington Heights (255 leaks) and Aurora, IL for whom *ATS* conducted 13 system-wide surveys from 1999 - 2021 that accurately detected and located over 2,750 leaks**

Lake County Public Works (S)
Heather Galan PE, Senior Engineer
847.377.7500 – ***290.5 miles of main***
(Annual Surveys: 12 water systems: 2012 - 2019)

Illinois American Water Company (O,S)
Brent Oest, Non-Revenue Water Supervisor
309.566.4135 - ***Peoria 2015;*** Tom Harrell, Operations Supervisor 630.739.8870 - ***Bolingbrook 2016 - 2018***

Village of Plainfield
Alan Persons, Director of Public Works
815.436.3577– ***225 miles of main***
(ATS Annual Surveys: 1985 – 2010, 2015, 2016, 2018)

Village of Bridgeview (S)
Nick Caprio, Water Superintendent
708.372.7078
(ATS Annual Surveys: 2006, 2008, 2016, 2019, 2020)

Village of Palatine (P)
Jim Vlcek, Coordinator – Utilities Division
847.705.5200
(ATS Annual Surveys: 2002 – 2010, 2016)

Village of Elmwood Park (P)
Dino Braglia, Water Superintendent
708.452.7300
(ATS Annual Surveys: 1986-1989, 2005 - 2020)

City of St. Charles (S, W)
Tim Wilson, Environmental Services Manager
630.377.4463 ***– 228 miles of water main***
(ATS Annual Surveys: 1990 – 2020)

Aqua Illinois, Inc.
Kyle McKay, Distribution Manager
815.614.2026
Systems: Kankakee '14, North Maine (Glenview) '15

City of Darien (E, P, W)
Dan Gombac, Director of Public Works
630.353.8106
(ATS Surveys: 1996, Annually 1999 – 2019)

Village of Barrington
Phil Freund, Utility Supervisor
847.304.3360
(ATS Annual Surveys: 1993-96, 2001-2007, 2011-21)

Village of Hillside
Joe Pisano, Director of Public Works
708.449.6450
(ATS Bi-Annual Surveys: 1988 - 2020)

Village of Wauconda (O)
Jacob Mann, Foreman – Water Division
847.526.9704
(ATS Survey: 2010, 2011, 2012, 2013, 2017,2020)

Village of Villa Park (E,S,P,W)
Vydas Juskellis, PE, Director of Public Works
630.834.8505
(ATS Annual Surveys: 1992-96, 2000-05, 2011-12, 2018)

Village of New Lenox
Wayne Rassman, Water Superintendent
815.485.7589
(ATS Surveys: 1999, Annually 2010 – 2015, 2021)

Village of Rolling Meadows
Dan Seveska, Utilities Foreman
847.963.0500 ext. 7022
(ATS Annual Surveys: 1982 – 2021)

Village of Streamwood (W)
Matt Mann, Director of Public Works
630.736.3850
(ATS Survey: 1982, 2014, 2015, 2016, 2017, 2018)

Village of Norridge (P,S,O)
Joe Spain, Supt of Public Works
708.906.9033 cell
(ATS Surveys: 1982, 1983, 2018, 2019)

Village of LaGrange (S,P,W)
Mike Bojovic, Asst. Director of Public Works
708.579.2325
(ATS Surveys: 1989,'94,'98, 2000,'01,'11,'13,'14,'17-'20)

Legend: (E) = Earth Tech *(Rust Environmental)****; (S) = ME Simpson; (W) = Water Services; (O) = Others***
(P) = ADS Environmental Services *(Pitometer, Severn Trent)* ***ATS Survey*** always found significantly more leakage with better accuracy than any competitor's survey found on the same water system. ***Please note the highlighted cities that have had experience with "other firms" besides ATS.*** In every town, the ***ATS Survey*** has always found much more leakage with greater accuracy than the competitor's survey found for the same town.

ASSOCIATED TECHNICAL SERVICES LTD

www.ATSLIMITED.com

524 W. ST. CHARLES RD. VILLA PARK, IL 60181

Office: 630.834.1558 I Fax: 630.834.5501

Established 1979

"KNOWN BY THE COMPANY WE KEEP"

The following companies have benefited from the same professional high technology services that ATS can provide for you. We therefore proudly list these fine companies as references.

AT&T Bell Laboratories
Abbott Laboratories
Albertsons
Alberto Culver Co
Alcoa Aluminum
Allstate Insurance Co.
Amway Corp.
American Airlines
Amoco Chemical Corp.
Amtrak
Argonne National Laboratories
Arlington Park Int'l Race Track
Benjamin Moore & Co.
Bennett & Kahnweiler
Bliss & Laughlin Steel Co.
Borden, Inc.
Borg Warner
Brookfield Zoo
Brach & Sons Candy Co.
Burlington Northern R.R.
Cambridge Homes
Canfield's Beverage Co.
Cargill Inc.
Carson Pine Scott & Co.
Carus Chemical Co.
Center Point Properties
Chicago Bridge & Iron
Chicago & Northwestern P.R.
Clorox Co.
College of DuPage
College of Lake County
Commonwealth Edison
Comcast
Corn Products
Del Webb Communities
Dominic's Finer Foods
Dow Chemical
Dresden Nuclear Power Station
DuPont
Electro-Motive Div. of GM
Exelon Corporation
Exxon Corporation
Federal Aviation Administration
Factory Mutual Insurance
Fermilab Accelerator Laboratory
Field Museum of Natural History
Ford Motor Company
Fort Sheridan Military Base
First Brands Corp.
FSC Paper Co.
General Electric
General Foods
General Mills
General Motors Corporation
Gould Electronics Inc.
Governors State University
Great Lakes Naval Training Ctr.
Grinner Fire Protection
Helene Curtis Industries
Harper Rainey College
Hines VA Hospital
Holiday Inn Corp.
Hyatt Hotels
Illinois E.P.A.
Illinois American Water Co.
Industrial Risk Insurance
Inland Steel
Inland Const. & Development
Jewel Food Stores
Kemper Insurance
Kinder Morgan
Kraft Foods
La Rabida Children's Hospital
Lewis University
Lincoln Park Zoo - Chicago
Lockheed Air Terminals, Inc.
Loyola University
Loyola University Medical Ctr.
LW Steel & LTV Aerospace
Lucent Technologies
Macy's Inc.
Masonite Corporation
McDonald's Corporation
M&M Mars Candy Inc.
Marathon Oil Company
Marriot Hotels
McGraw Edison Company
USGA & PGA Championships
Merck Pharmaceutical
Michael Reese Hospital
Midway Airport
Midwest Generation
Mobil Oil Corporation
Morton Arboretum
Motorola
Museum of Science & Industry
Nabisco
Nalco Chemical Co.
Navy Pier, Chicago
Nestle
NICOR
Northrop Grumman Corporation
Northern Telecom
Northwestern University
Northwestern Univ. Medical Ctr.
O'Hare International Airport
Olin Corporation
Palos Community Hospital
Pepper Construction
Pepsi Co.
Pfizer Inc.
Praxair Inc.
Purdue University
PPG Industries
Quaker Oats Co.
Reynolds Metals
Revere Ware Corp.
Rockwell
Rust-Oleum Corporation
Safety Kleen
Sante Fe Railway
Scott Airforce Base
S-K Hand Tool Corp.
Sargent Welch Scientific
John G. Shed Aquarium
Sherwin Williams Co.
Shell Oil Company
State Farm Insurance
Tootsie Roll Inc.
Toys R Us
Toyota Motors Corp.
Trammell Crow Corp.
Unichema
Unicom Thermo Technologies
Union Carbide Corp.
Union Pacific Railroad
United Airlines
United Parcel Service
Unocal Crop.
US Gypsum
US Steel
US Postal Service
US Army
US Air Force
US Navy
University of Chicago
University of Illinois
University of Wisconsin
Von Maur Department Stores
Walgreens
Waste Management
US Cellular Field (White Sox)
Wrigley Field (Cubs)
Wrigley Gum Co.
Xerox Corporation
Zenith Electronics Corp.

WATER CONSERVATION SPECIALISTS

LEAK PINPOINTING • LEAK DETECTION SURVEYS • UTILITY LOCATION • GIS / GPS MAPPING • VALVE EXERCISING PROGRAMS

CCTV INSPECTIONS • HYDRANT FLOW TESTING • WATERMAIN FLUSHING • EQUIPMENT SALES & TRAINING

Comprehensive Leak Detection Survey Programs

Water Conservation Specialists
Established 1979

Leak Surveys • Leak Pinpointing • Utility Location • Hydrant Flow Testing • Water Main Flushing
Valve Assessment Programs • GPS-GIS Mapping Surveys • Location Equipment Sales and Expert Training

Reduce Water Losses and Save Money

Whether you have 1 mile or 1,000 miles of water main, ATS has a Leak Survey to Fit Your Needs.

Custom Tailored Leak Survey Programs

- ***System-Wide Leak Surveys:*** Survey your entire water distribution system for leaks wherever they may be. Every detected leak in your water system *(including service leaks)* will be accurately pinpointed for repair.
- ***Pilot and Target Area Leak Surveys:*** Survey just an area that's causing you suspicions, or a test section. Many cities survey their oldest or a chronically troubling section of the system. You can add areas as you go.
- ***Street Resurfacing Leak Surveys:*** Survey those streets that you've designated for resurfacing with an intensified leak survey. Save yourself from the frustration of digging for an old leak under a recently paved street.
- ***Emergency Leak Surveys:*** This is a very rapidly conducted survey for main breaks that have suddenly put you in a crisis situation. ***ATS*** can mobilize up to 12 emergency survey crews for you at a moment's notice.
- ***On-Site Consultation Services:*** ***ATS*** will consult with you to discuss your needs and available options at no charge. You'll know in advance just what will be needed, so you can develop a solid strategy, time and budget plan.

Accurate, Cost Effective Leak Surveys

- ***ATS Leak Surveys*** are conducted during normal daylight hours with your water system in its daily operating condition.

Step 1. Leak Detection

- ***ATS*** is self-reliant during the survey so your staff is not distracted from their normal duties.
- ***ATS*** ultrasonically surveys up to 40,000 LF of pipe a day while monitoring <u>every</u> Hydrant, Aux Valve & Mainline Valve for leak sounds.
- Leaks of all sizes and types are electronically pinpointed with a leak correlator, documented and marked in the field.
- Leaks are classified by size and type to help you plan and prioritize repairs.

Step 2. Leak Pinpointing

Leak Survey Pricing Options for Every Water System – Anywhere in the USA

Step 3. Another Perfect Pinpoint!

Note our orange paint mark right above the leak, and the hole that this 156,000 GPD leak bored into the adjacent sewer pipe. ATS' 96% accuracy means that your leak will be located right where we mark it.

- ***Incentive-Based Price Proposal:*** **Our most popular leak survey program offers best value.** Only pay for leaks you actually have. The detection phase is priced per mile. Leak pinpointing is a flat rate charge per leak. It's risk free. You won't pay an extra dollar without getting accurately located leaks in return. Since we're paid by the leak, the ***"Incentive"*** is on ***ATS*** to find as many leaks as possible to get you the largest return on your survey dollars and make great impact on reducing water losses.
- ***All-Inclusive (Lump Sum) Proposal:*** One price covers all leak detection and leak pinpointing costs regardless of the total number of leaks that exist in your system. ***ATS*** **surveys average a $35 to $1 return**.
- ***Daily T&M Rates:*** Surveys and Leak Callouts are available at cost-effective half and full day hourly rates to check a suspect area or leak site.
- ***Request Your No-Obligation Leak Survey Budget Quote Today!***

ASSOCIATED TECHNICAL SERVICES LTD.
321 E. Kenilworth Avenue, Villa Park, IL 60181

24-Hour Hot Line (630) 834-1558
www.ATSLimited.com

Water Main Leak Detection Services
2023 through 2025

RETURN WITH BID

(For complete information covering these items, see proposal specifications)

NO.	ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT
2023					
1	Utrasonic Leak Detection for approximately 252.39 miles of water main	Lump Sum	1	$49,065.47	$49,065.47
2	Pin point main line or service leak	EA	40	$425.00	$17,000.00
3	Pinpoint fire hydrant or valve leak	EA	40	$100.00	$4,000.00
4	On-Call Leak Detection (8am to 4pm)	Visits (2 hours Each)	26	$700.00	$18,200.00
5	On-Call Leak Detection (4pm to 8am)	Visits (2 hours Each)	26	$900.00	$23,400.00
				2020 EOPC Total =	**$111,665.47**
2024					
1	Utrasonic Leak Detection for approximately 258.11 miles of water main	Lump Sum	1	$53,847.20	$53,847.20
2	Pin point main line or service leak	EA	40	$450.00	$18,000.00
3	Pinpoint fire hydrant or valve leak	EA	40	$110.00	$4,400.00
4	On-Call Leak Detection (8am to 4pm)	Visits (2 hours Each)	28	$725.00	$20,300.00
5	On-Call Leak Detection (4pm to 8am)	Visits (2 hours Each)	28	$925.00	$25,900.00
				2021 EOPC Total =	**$122,447.20**
2025					
1	Utrasonic Leak Detection for approximately 241.60 miles of water main	Lump Sum	1	$52,548.70	$52,548.70
2	Pin point main line or service leak	EA	40	$500.00	$20,000.00
3	Pinpoint fire hydrant or valve leak	EA	40	$120.00	$4,800.00
4	On-Call Leak Detection (8am to 4pm)	Visits (2 hours Each)	30	$750.00	$22,500.00
5	On-Call Leak Detection (4pm to 8am)	Visits (2 hours Each)	30	$950.00	$28,500.00
				2022 EOPC Total =	**$128,348.70**

$362,461.37

Note: Please refer to ATS Basic Schedule of Prices for Schedule and Emergency Callouts enclosed with the ATS Proposal for a detailing of Weekday, Weekend, Holiday and After Normal Business Hours Service Callout Rates.