



BENSENVILLE
DEPARTMENT OF PUBLIC WORKS

Contract Document Number

Capital Projects # 13.2.01

Request for Proposal (RFP) for
Water Meter Replacement Program

Proposals Due:

10:00 AM, February 15, 2013
Public Works Building
717 E. Jefferson Street, Bensenville

January 25, 2013

Obtain information from and submit proposals to:

Joseph M. Caracci, P.E.
Director of Public Works
Village of Bensenville
717 E. Jefferson Street
Bensenville, Illinois 60106
(630) 350-3435

Note: This cover sheet is an integral part of the contract documents and is, as are all of the following documents, part of the contract executed between the Village of Bensenville and any successful firm.

REQUEST FOR PROPOSAL

WATER METER REPLACEMENT PROGRAM

INTRODUCTION

Purpose of Request

The Village of Bensenville is seeking proposals from qualified firms, experienced in the supply and installation of water meters for measuring potable water usage and in the installation, implementation and use of fixed base automatic water meter reading systems. A fixed base automatic water meter reading system hereinafter shall be referred to as (the "AMI"), Automated Metering Infrastructure, is to be purchased by the Village. All constraints/limitations associated thereto will be the responsibility of the selected firm to manage in order to deliver a "turnkey" project within the awarded schedule of prices, as well as within the approved installation time frame. The scope of the work should be completed within nine months from the execution of the contract.

Background

The Village supplies potable water to residents through a network of pipes, pump stations and storage reservoirs. Water usage is measured for each customer through a water meter located at each customer's property. There are approximately 4,800 meters throughout the Village for residential, commercial and industrial customers. A majority of these meters were installed over 20 years ago and are nearing the end of their useful life.

Currently, the Village utilizes a drive-by read Water Meter Reading System and is seeking to upgrade to a Fixed Base Automatic Water Meter Reading System with two-way communication capabilities. Upon review of the Request for Proposal (RFPs), the Village anticipates purchasing an AMI including all collectors, transmitters, hardware, software and all necessary appurtenances to secure all water meter readings for the entire Village service area.

Project Description

The Village is requesting proposals for (1) the supply and installation of water meters throughout the Village and (2) supply and installation of a fixed based automatic water meter reading system according to the specifications contained herein. The Village shall own the entire infrastructure from the collectors down to the meters and meter interface units (MIU). Village personnel must be able to access all collected data at any time in order to perform daily operations, provide customer support, and to do research. The finished System shall also provide for advanced data analysis.

Project Objective

It is the intent of the Village to issue a single contract to the selected firm to provide all necessary services to install and implement the system according to the specifications contained herein. This will be a “turnkey” project, functioning under a single contract. There will be no independent contracts issued by the Village to any other contractor. The contractor will be responsible for adhering to all requirements of the specifications and for the performance of all sub-contractor(s).

The supplied water meters shall be of the highest quality, capable of reading to best accuracy possible, and be constructed to last a minimum of 20 years. The AMI shall be functional, efficient and of high quality to the maximum extent possible. Installation services shall be performed in a professional and courteous manner from initial appointment setup to final installation of the meter. Customer Service is of the utmost importance to this project.

Project Timeline

The timing of this project is of the utmost importance. Upon award of the contract, the selected firm will be required to install the AMI infrastructure within 90 days. Installation of all industrial / commercial / residential meters must be installed within 9 months of the award letter. It is the intent of the Village to have this project completed prior to December 31, 2013. The Village understands that this is a very aggressive schedule, and asks that those firms that are not in a position to meet this deadline not submit for this request for proposal.

Professional Services Required

The selected firm must provide all services necessary to meet the objectives of this project. Further information on the services that the Village of Bensenville anticipates will be needed for this project is contained in the Scope of Services section. Any work that is to be sub-contracted or performed by others shall be clearly defined. All sub-contractor(s) are subject to the Village’s review and approval.

The Village also seeks to have the installation contractor perform a cursory “Clear Water” inspection intended to identify illegal connections to the sanitary sewer system. Focus will be on obvious cross connections within internal plumbing, sump pump connections to sanitary sewer system, and downspout connections to sanitary sewer system.

Prevailing Wage Requirements

This project is considered a Public Works Project and therefore is subject to all the latest Prevailing Wage requirements as they relate to both DuPage County and Cook County. It is the proposer’s responsibility to assure that all Prevailing Wage requirements are met.

Proposal Evaluations

Submitted proposals will be evaluated on a pre-determined point scale in order to determine the Most Qualified Firm (MQF) to perform the work. The MQF will be recommended to the Village Board for approval.

The Village reserves the right to select the firm that provides the best “package” for the project. The Village anticipates heavy interest in this project and that there will be pros and cons to each package submitted. The Village also puts great value in the infrastructure component of the project. A breakdown of the evaluation criteria and weighting is shown below.

Criteria	Weight	Points
Small Meters (5/8” – 1”)	10%	100
Medium Meters (1 ½” & 2”)	10%	100
Large Meters (3”, 4”, 6”)	10%	100
Automatic Meter Read Infrastructure (AMI)	30%	300
Installation Process / Procedures / Experience	10%	100
Cost	30%	300
Total	100%	1,000

Pre-Proposal Meeting

A Pre-Proposal Meeting will be held on Friday February 1, 2013 at 10:00 am at the Public Works Facility located at 717 E. Jefferson Street, Bensenville, IL 60106. The purpose of this meeting is to provide a brief overview of the project and to answer any questions from prospective firms.

Village of Bensenville Contacts

Primary Contact:

Mr. Joseph M. Caracci, P.E.
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 Bensenville, IL 60106
 (630) 350-3431
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Secondary Contact:

Mr. Rick Radde
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Deadline of Receipt of Proposals and Submittal Address

The deadline for receipt of proposal packets (one (1) original and two (2) copies of the complete proposal, and one electronic copy of the complete proposal on CD/DVD/Jump Drive) is:

Friday, February 15, 2013 at 10:00 am.

Please submit proposals to:

Village of Bensenville
Department of Public Works
Attn: Mr. Joseph M. Caracci, P.E.
717 E. Jefferson Street
Bensenville, IL 60106

Proposal Schedule

The proposed schedule for issuance, acceptance, evaluation, recommendation, and approval of a contract is as follows:

Task	Date
“Request for Proposal” Issued	January 25, 2013
Pre-Proposal Meeting	February 1, 2013
Issuance of any necessary Addenda	As necessary
Proposals Due	February 15, 2013
Staff Evaluation	February 18-20, 2013
Recommendation to Infrastructure & Environment Committee	February 26, 2013
Recommendation to Village Board	March 12, 2013

TECHNICAL SPECIFICATIONS

T1. Water Meters

The Village realizes that there are a number of manufacturers that provide good quality meters for municipal water systems. It is the desire of the Village of Bensenville to get the best meters and most current technology available in order assure a great quality product for years to come.

All meters must meet or exceed the latest AWWA Standards for metering accuracy. Better accuracy meters will be evaluated higher than lower accuracy meters. The Village also desires its meters to be tamper resistant with the ability to send an alert if the meter is altered in any way.

The Village desires to have a magnetic meter with no moving parts for its smaller (<1") residential meters, however, all meter types will be evaluated accordingly. Medium size meters (1 ½" and 2") shall be residential style meters. Manufacturers that can supply both residential and compound meters are encouraged to submit specifications for both residential (base) and compound meters (alternate) and an add/deduct cost for the compound meter.

Meter accuracy and battery life will also play an important role in the evaluation process. The Village desires to have a minimum 20 year warranty on the meter and battery.

All Meters shall have imprinted on them, the size and direction of water flow through the meter.

The body shall be completely lead-free and meet the AB1953, ANSI/NSF Standard 61 requirement.

When a meter is to be installed in a vault or pit set installation, screw terminal connections are not acceptable. The register shall utilize a magnetic coupling technology to connect a 3-wire cable to a touch read, radio read, or fixed base meter reading system. The magnetic coupling shall be completely water proof and warranted against water intrusion.

Meters shall operate up to a working pressure of 150 pounds per square inch (psi), without leakage or damage to any parts. The accuracy shall not be affected by variation in pressure up to 150 psi.

Each meter will be paid for at the unit prices indicated in the schedule of prices. The unit price includes the cost of the meter, meter interface unit (MIU), installation of the meter, new wiring between the meter and the MIU, and any other items necessary for the delivery, supply, coordination, and installation of new water meters at individual properties. The pay item for the water meter will be based on the size of the meter. Not included in the cost of the meter supply and installation is any additional plumbing work necessary to install the water meter such as the addition of a shut off valve.

Additional plumbing work necessary for the installation of the water meter shall meet all applicable plumbing codes.

All work to be performed by a licensed plumber including the installation of the meter.

T2. Fixed Base Automatic Meter Read System / Infrastructure (AMI)

The Village currently reads meters monthly utilizing a drive-by read Water Meter Reading System and is seeking to upgrade to a Fixed Base Automatic Water Meter Reading System with two-way communication capabilities.

The main goals of the new AMI and the firm providing the AMI are:

- Perform water meter reading in the most cost effective manner possible
- Improve customer service through the effective use of customer usage data, customer leak detection, and off cycle meter readings
- Improve utility operations and enhanced revenue generation
- Increase meter reading efficiency throughout the service territory
- Store and transmit pertinent meter reading, data logging information and tamper data from electronic meter registers
- Provide customer service tools that will notify the Village of tampering, leak detection, unusual usage, trending, etc.
- Provide a fixed network data collection system to collect readings, usage, leak and tamper information from the transmitter modules, and provide the data to the Finance Billing Department or Management
- Provide manufacturer-supplied software and customer support necessary to provide upload billing data files to Village owned MUNIS software program
- Provide customer support services including assistance with software operation, troubleshooting and reconciling failed devices, network growth and the addition of new devices, training, recurrent software upgrades, and other activities to sustain proper operation of the AMI
- Provide the installation of all necessary infrastructure equipment and appurtenances
- Provide an AMI system capable of acquiring daily reads (The ideal system will have the ability to record hourly reads and have the capability to retrieve “on demand” reads in “real time”)
- Due to our proximity to O’Hare Airport, it is our desire to have a primary frequency license for the AMI System outside the ISM Band (902 – 928 MHz).
- The Buyer shall furnish a list, including street addresses, of all structures (towers, tanks, etc.) used to accomplish meter reading for the service area to be attached to

this RFP. Information such as height of structure, type of structure, indoor or outdoor hardware. Proposer shall submit a detailed propagation study with their response which shall outline modeled coverage and number and location of collection devices. The Proposer must present a Statement of Work with their response outlining that given the proposed collection system, the utility coverage area will be able to read 100% of the water meters in the Village.

- Any systems and services proposed must cover the requirements stated below, and must have the flexibility to read other meters as well as the potential for other applications in the future. Further, companies are expected to propose systems and equipment with sufficient redundancy, such that if a failure of any major system component or part thereof does occur, it will not interrupt the flow of meter reading information to customer revenue systems. The proposal shall contain an explicit comply/exception assessment of whether the system meets each requirement and, whenever necessary, description of compliance to each point. If the system or any part of the system fails to meet any of the following requirements, explain the reasoning that substantiates that the variation from these requirements is not critical. Please note that all answers must reflect current capabilities. Any future capabilities must be stated as such and outlined with a development schedule.

System Description

Briefly describe the data flow in the system, listing each component and how they interface. Detail the proposed system configuration.

The system shall be full two-way communication to the water meter transmitter, allowing for not only demand and special reads but programming of the endpoint remotely. The Village of Bensenville also requires that the proposed AMI system be able to communicate with and operate a future remote shut-off valve and communicate with Home Area Network devices.

The system shall ensure accurate time recordings for all readings.

The user interface shall support multiple users across the enterprise.

The system shall be capable of identifying and quantifying customer leaks (after the meter).

The system shall be capable of supporting acoustical leak detection to identify potential leaks in the Village's water distribution system.

Give the specifications of the transmitter module (i.e. size, weight, etc.).

List the environmental specifications of the transmitter module and describe its ability to withstand heat/cold and water intrusion.

Indicate the expected product life of the transmitter module and any engineering data to support the claim.

Describe all tamper sensors/indicators available with the transmitter module. The transmitter module must support cut cable tamper and reprogram detection.

The transmitter shall utilize two-way communications with the data collector to allow for wireless communications between the two devices for re-programming and time synchronization. The transmitter shall be configurable via wireless communications.

The transmitter will have a fixed factory set non-programmable identification number to insure absolute identity of the transmitter within the radio AMI system.

The transmitter will provide multiple transmissions per day at a minimum of (4) per day, with hourly readings. The transmitter shall have the ability for time synchronization. In addition, if the transmitter is configured in hourly usage /consumption profile mode, the transmitter shall also provide the daily meter reading data packet with hourly consumption data for the previous 24 hours.

Firm's solution must provide the same functionality for both indoor water meters and those located in pit settings. Module proposed for pit setting must be able to withstand the harsh pit environment and have no exposed electrical connections.

A dual input transmitter module must be available for connecting meters with two registers.

Provide the specifications of Fixed Network Data Collection Device (i.e. size, weight, etc.).

Each tower collection device shall provide a live, two-way connection with the back-end computer system.

Define the performance characteristics of the data collection device (read rate, accuracy, etc.).

The AMI must verify data integrity in every message.

Define any applicable warranties associated with the data collection device.

The data collection device must have the capability to receive software upgrades via the network.

The data collection device must be capable to interface to a Windows 7 supported computer.

The data collection device must provide diagnostics capability to allow troubleshooting via the network.

Describe the range of the data collectors indicating radius from the collector.

Specify the manufacturer, product name and product version of the operating system and database that the AMI operates on.

The proposed AMI must provide the ability to store a minimum of 40 days of meter reading data including hourly data logging information for up to 50,000 transmitter modules.

The Village must be able to submit customer data (name, address) to the AMI via a standard file format (for access and search options in the user interface).

Provide software upgrades to the data collection devices and system software as required by the AMI (must also be included in the cost of the proposal).

Describe the customer support for the AMI system inclusive of phone support, communications, trouble shooting and proactive network monitoring.

Daily consumption reads must be collected, time stamped, and available to the Village for all water customers daily. The time must be provided by the transmitter module, must be a real time clock, and must be synchronized daily to a Village acceptable standard.

If a FCC license is required, the company must assist in acquiring the license. Please define timetable for acquiring FCC license.

Specify the warranty period on all applicable products.

State how long the company has supported existing AMI product lines.

AMR/AMI Company must have sold, installed and put into operation the AMI that is being proposed to the Village of Bensenville to assure knowledge and familiarity with the proposed AMI system. The AMR/AMI Firm shall comply with all AWWA Industry Standards.

Company must supply 24-hour per day customer support, 7 days a week. Specify details of the company's support package.

Please include any assumptions made in the proposed solution and pricing.

Provide company profile and background.

It is preferred but not mandatory that the majority of the components be produced in the United States in a manner that complies with the Buy American Requirements.

A list of locations where the proposed AMI system is fully operational within the United States must be included in the System Description.

The Village is interested in obtaining information for both Village hosted data management and a manufacturer hosted "Cloud" data management system. Base bids shall assume a Village hosted system. Manufacturers with "Cloud" hosted systems are encouraged to explain their systems and provide the appropriate alternate pricing schedule in their proposal.

Technical Specifications must be provided on the attached forms. Please be complete and accurate in filling out the forms. Failure to fill out any section of the form will result in the item being void and no points will be assigned for that item in the evaluation process.

T3. Installation

The scope of work includes scheduling appointments, coordinating with water meter suppliers for delivery, removal of existing water meter, installation of new water meter, installation of touch read module, and proper documentation of installation on Village approved forms. Prices include all labor to perform these functions, plus any wire, gaskets, seals and accessories necessary to successfully install new meter. The cost of installation is included in the unit price for each meter.

The installation of all water meters is to be performed by a plumbing contractor licensed by the State of Illinois. All site installation personnel employed on this project will be subject to background checks and shall at all times carry a suitable photo ID and/or other identification approved by the Village. All vehicles used by the successful bidder shall at all times display the name and phone number of the company performing the site installation.

At no time shall the installer start an installation and then leave it unfinished. At no time shall the installer leave a site installation lacking water service.

Prior to an installation, the installer shall determine if additional plumbing work is required beyond the specified scope of the contract. If so, the installation shall be rescheduled and both the property owner and the Village shall be notified. Arrangements for the additional plumbing shall remain the property owner's responsibility. Once the additional plumbing work has been completed the installation will be rescheduled.

Bidder shall be required to leave the installation site in a clean and neat condition, equal to, or better, than the original condition for the site. The installer shall remove the replaced equipment from the site and will be responsible for its proper disposal. The old meter shall become the property of the contractor. **The unit price for the meters should reflect any salvage value for the old meters.**

The installer will be required to document the installation with the property owner. A form will be developed that will include the name, address, and phone number of the property owner as well as the serial number of the new meter, the date and time of the installation, final meter read, and other relevant data the Village may need. The property owner will sign off the data sheet and verify the final reading as an indication that the work was performed without incident.

The installation shall require the installer to test the new equipment to make sure it is functioning properly. The installer will be sure that there are no leaks at the site that are related to the installation.

Any non-standard installation, including missing or tampered meter, or flagrant code violations observed by the installers is to be reported to the Village immediately.

Bidder shall conduct installations by route, or group of routes. Route groups should be based on geographic proximity and logistics, and neighborhoods determined by the

Village in discussion with the Proposer. The Village retains the right to prioritize neighborhoods, or to reorganize priorities, both before the program begins, and during the program. Unless approved in writing by the Village, the Bidder shall complete at least 90 percent of the installations in one route or group of routes before commencing installation on the next route. Exceptions to the requirement to complete an installation may be granted by the Village.

All meters shall be grounded in accordance with AWWA standards and local electrical codes. The cost for providing proper grounding shall be included in the cost of installing the meter.

Bidder shall be responsible for scheduling all appointments for installation with Village residents and businesses. Approval of the method used must be granted by the Village before contact is made. The Bidder shall make, at a minimum, three appointment attempts in writing before notifying the Village and requesting assistance.

The Village and the Bidder shall establish an overall schedule for installation of the entire project. On the first work day of each week, the Bidder will provide the Village an updated schedule of where work is planned for the next 3 weeks.

Bidder shall propose normal work hours, which must be approved by the Village. Installers must be available for evening and Saturday installations, as well as for installations that must be conducted at other times because of special needs. Hours must include evenings until 8:00 p.m. Bidder must anticipate significant workloads during weekend and evening hours to accommodate customer's desires to avoid taking time off from work. Contractor should expect that some meter replacements will occur in the evenings and on weekends. No additional compensation will be provided for appointments that occur in the evening or on weekends.

A listing of all installation appointments to be visited by Bidder's installation each day shall be electronically transmitted to the Village each work day prior to 7:00 a.m. At the end of the day, the Bidder shall transmit electronically to the Village information on work performed in a Village approved file format.

The successful bidder will be responsible for providing the Village with monthly status reports detailing the number of installations performed, problems encountered, work remaining and any schedule adjustments.

Perform a cursory "Clear Water" inspection intended to identify illegal connections to the sanitary sewer system. Focus will be on obvious cross connections within internal plumbing, sump pump connections to sanitary sewer system, and downspout connections to sanitary sewer system. Village will provide carbon copy inspection form.

For 90 days after the Village was notified of a given installation, Bidder must respond to calls from the customer associated with that installation or Village concerning leaks, loss

of service, low pressure, and other problems associated with installation on a 24-hour-per-day basis. Bidder must respond within one (1) hour of receiving the call and arrive at customer's premises ready to correct any problems within three (3) hours of receiving the call. If Bidder fails to respond, the Village will assess liquidated damages of \$300 plus \$100 per hour until the proposer responds or the Village makes repairs, plus Village's direct costs to make repairs. Such penalties and costs to be deducted from the amount owed to the Bidder. Bidder shall provide this access for a minimum of 90 days after complete of the project. Bidder shall maintain a log of all such calls and their resolution, and provide to the Village a copy of the log daily, using e-mail or another mutually accepted electronic means.

Each installation will be accepted by the Village conditioned upon:

- Electronic submission of a list of completed installations containing for that installation the premise identification number, address, old and new meter serial numbers, old and new meter readings, MIU serial number, location of meter and MIU, installer's name, Proposer's inspector's name, and all other information relevant to the installation; and,
- Receipt or access to required digital photographs;
- At its option, satisfactory inspection by the Village; and,
- Confirmation that MIU ID numbers, meter register numbers, and other information have been correctly captured in the automatic reading system database and/or the Village's project management database for each customer's premises; and,
- Successful capture of 95 percent of the scheduled readings over 2 days for meters reading hourly or more frequently, or 95 percent of the scheduled readings over 5 days for meters being read less frequently. The readings shall be gathered by the Village operating the system in a normal way.

If the Village finds discrepancies in the conditions of acceptance for 12 months after the date it was notified of installation, the Village shall remand the work to the Bidder for correction.

Data logging time slots must be time synchronized and programmable for 15 minutes, 30 minutes, 60 minutes, or daily.

T4. Miscellaneous

The Village also requests, as part of the proposal package, unit prices for miscellaneous items that may arise during installation, but are not included in the price of meter installation. These items must be approved by the Village prior to use on the contract. These items include:

- Installation of 1/2" ball valve before meter with flared fittings

- Installation of 3/4" ball valve before meter with flared fittings
- Installation of 1" ball valve before meter with flared fittings
- Additional cost to install 3/4", 1", or 1 1/2" meter in pit location
- Replace/Retrofit existing MIU with new MIU for existing meters that are not being replaced
- Installation of grounding straps

SCOPE OF SERVICES

The selected company shall manage the acquisition of equipment from the manufacturer and oversee all sub-contractor(s) as awarded. Furthermore, all materials, methods, and workmanship shall be in conformance with all related standard practices of the construction industry, Federal, State, County and Village standards. The selected company must provide all services necessary to meet the goals and objectives of this project.

Companies are required to complete the attached Equipment Details and Proposed Prices forms and submit them in connection with their response to the RFP.

TECHNICAL SPECIFICATIONS DATA SHEETS

ITEM	DESCRIPTION
METERS-SMALL-5/8" to 1"	
Manufacturer / Model No(s).	
Meter Type-(example-magnetic, nutating disc, oscillating piston, etc.)	
Precision / Accuracy	
Low Flow Accuracy-5/8"	
Low Flow Accuracy-3/4"	
Low Flow Accuracy-1"	
Pressure Loss-5/8"	
Pressure Loss-3/4"	
Pressure Loss-1"	
Maximum Operating Pressure	
Meter Alerts	
Reverse Flow Meter Alerts (Yes or No)	
Internal or with AMR?	
Tamper Alerts (Yes or No)	
Internal or with AMR?	
Durability / Warranty / Guarantee	
Is the meter guaranteed?	
How many years? Gallons?	
Is the battery guaranteed?	
How many Years? Proration schedule?	
Is the meter accuracy guaranteed?	
How many years? Accuracy Level?	
Internal Memory	
Does the meter have data logging?	
What is the data interval?	
How long will the meter retain the data?	

TECHNICAL SPECIFICATIONS DATA SHEETS

ITEM	DESCRIPTION
METERS-MEDIUM-1 1/2" & 2" (RESIDENTIAL METER)	
Manufacturer / Model No(s).	
Meter Type-(example-magnetic, nutating disc, oscillating piston, etc.)	
Precision / Accuracy	
Low Flow Accuracy-1 1/2"	
Low Flow Accuracy-2"	
Pressure Loss-1 1/2"	
Pressure Loss-2"	
Maximum Operating Pressure	
Meter Alerts	
Reverse Flow Meter Alerts (Yes or No)	
Internal or with AMR?	
Tamper Alerts (Yes or No)	
Internal or with AMR?	
Durability / Warranty / Guarantee	
Is the meter guaranteed?	
How many years? Gallons?	
Is the battery guaranteed?	
How many Years? Proration schedule?	
Is the meter accuracy guaranteed?	
How many years? Accuracy Level?	
Internal Memory	
Does the meter have data logging?	
What is the data interval?	
How long will the meter retain the data?	

TECHNICAL SPECIFICATIONS DATA SHEETS

ITEM	DESCRIPTION
METERS-MEDIUM-1 1/2" & 2" (COMPOUND METER) IF APPLICABLE	
Manufacturer / Model No(s).	
Meter Type-(example-magnetic, nutating disc, oscillating piston, etc.)	
Precision / Accuracy	
Low Flow Accuracy-1 1/2"	
Low Flow Accuracy-2"	
Pressure Loss-1 1/2"	
Pressure Loss-2"	
Maximum Operating Pressure	
Meter Alerts	
Reverse Flow Meter Alerts (Yes or No)	
Internal or with AMR?	
Tamper Alerts (Yes or No)	
Internal or with AMR?	
Durability / Warranty / Guarantee	
Is the meter guaranteed?	
How many years? Gallons?	
Is the battery guaranteed?	
How many Years? Proration schedule?	
Is the meter accuracy guaranteed?	
How many years? Accuracy Level?	
Internal Memory	
Does the meter have data logging?	
What is the data interval?	
How long will the meter retain the data?	

TECHNICAL SPECIFICATIONS DATA SHEETS

ITEM	DESCRIPTION
METERS-LARGE-3", 4" & 6"	
Manufacturer / Model No(s).	
Meter Type-(example-magnetic, nutating disc, oscillating piston, etc.)	
Precision / Accuracy	
Low Flow Accuracy-3"	
Low Flow Accuracy-4"	
Low Flow Accuracy-Up to 6"	
Pressure Loss-3"	
Pressure Loss-4"	
Pressure Loss-6"	
Maximum Operating Pressure	
Meter Alerts	
Reverse Flow Meter Alerts (Yes or No)	
Internal or with AMR?	
Tamper Alerts (Yes or No)	
Internal or with AMR?	
Durability / Warranty / Guarantee	
Is the meter guaranteed?	
How many years? Gallons?	
Is the battery guaranteed?	
How many Years? Proration schedule?	
Is the meter accuracy guaranteed?	
How many years? Accuracy Level?	
Internal Memory	
Does the meter have data logging?	
What is the data interval?	
How long will the meter retain the data?	

TECHNICAL SPECIFICATIONS DATA SHEETS

ITEM	DESCRIPTION
AMI SYSTEM	
Manufacturer / Name / Model No.	
Meter Interface Unit(MIU)	
Meter Interface Unit(MIU) - Model No.	
Meter Interface Unit(MIU) - Transmitter Signal Strength	
Capital Infrastructure System	
Number of Collectors/Antennas Needed	
Licensing	
Is the system protected with FCC licensing?	
What is the broadcast frequency?	
Two Way Capability	
Does the system have two-way capability (Yes or No)?	
Secondary System	
Secondary system if primary fails(If yes, what type-drive-by, walk-by)	
MUNIS Interface	
Is there an interface to the Village's billing system (MUNIS)	
Leak Detection	
Does the system have the ability to read external water main leak detection modules?	
Training	
Is on-site training included? How many days?	
Customer Service	
Does the software have ability to notify Village of tampering daily?	
Does the software have ability to notify Village of unusual usage daily?	
Does the software have ability to notify Village of zero reads daily?	
Does the software have ability to notify Village of leak detection daily?	
MIU Battery Life / Guarantee	
What is the MIU/Transmitter battery life?	
Is the MIU/Transmitter battery guaranteed? How long?	
Miscellaneous	
Does your system have dual port MIUs/Transmitters?	
Are software updates included in Annual Maintenance?	
How often does the system send reads to the host?	

TECHNICAL SPECIFICATIONS DATA SHEETS

Number of Seats per Software License	
% of system components assembled in the USA?	
Number of Working Systems in the Midwest	

TECHNICAL SPECIFICATIONS DATA SHEETS

ITEM	DESCRIPTION
INSTALLATION	
Miscellaneous	
What firm will be installing the meters?	
How many full system meter installs have they performed?	
Does the firm have the ability to perform cursory clear water inspections as defined in Technical Specifications (Yes or No)?	
Miscellaneous	
What firm will be installing the AMI infrastructure?	
How many full system AMI installs have they performed?	
OTHER ITEMS (LIST)	
Miscellaneous	

SCHEDULE OF PRICES			
ITEM	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
WATER METERS	UNIT		
Supply and install 5/8" Water Meter including Meter Interface Unit (This line item includes both 5/8" x 1/2" and 5/8" x3/4" water meters as determined by the owner. Cost for either meter will be the same.)	4020 (EACH)	\$	\$
Supply and install 1" Water Meter including Meter Interface Unit	315 (EACH)	\$	\$
Supply and install 1 1/2" Water Meter including Meter Interface Unit (Residential Meter)	355 (EACH)	\$	\$
Supply and install 2" Water Meter including Meter Interface Unit (Residential Meter)	129 (EACH)	\$	\$
Supply and install 3" Water Meter including Meter Interface Unit	38 (EACH)	\$	\$
Supply and install 4" Water Meter including Meter Interface Unit	11 (EACH)	\$	\$
Supply and install 6" Water Meter including Meter Interface Unit	2 (EACH)	\$	\$
SUBTOTAL WATER METERS		\$	
AUTOMATIC METER READ INFRASTRUCTURE (AMI)	UNIT		
Supply, install, configure and test collector, collector antenna, mounting hardware, computer equipment, software and all other items necessary for the complete installation of a fixed based network automatic water meter reading infrastructure system per the technical specifications.	1 (LUMP SUM)	\$	\$
Hand held device to communicate with individual MIU	1 (EACH)	\$	\$
SUBTOTAL AUTOMATIC METER READ INFRASTRUCTURE (AMI)		\$	
TOTAL (BASE PACKAGE)		\$	

SCHEDULE OF PRICES

ITEM	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
ADDITIONAL UNIT PRICE ITEMS	UNIT		
Supply and install 3/4" Water Meter including Meter Interface Unit	1 (EACH)	\$	\$
Installation of 1/2" ball valve before meter with flared fittings	1 (EACH)	\$	\$
Installation of 3/4" ball valve before meter with flared fittings	1 (EACH)	\$	\$
Installation of 1" ball valve before meter with flared fittings	1 (EACH)	\$	\$
Additional cost to install 3/4", 1", or 1 1/2" meter in pit location	1 (EACH)	\$	\$
Replace/Retrofit existing MIU with new MIU for existing meters that are not being replaced (MIU only)	1 (EACH)	\$	\$
Replace/Retrofit existing MIU with new MIU for existing meters that are not being replaced (MIU and new wiring)	1 (EACH)	\$	\$
Installation of grounding wiring and grounding straps (per Illinois Electrical Code)	1 (EACH)	\$	\$
Annual Maintenance Service Contract for Equipment and Software (5 year guarantee price)	1 (EACH YEAR)	\$	\$
ADDITIONAL MANUFACTURER SUBMITTED ITEMS (LIST BELOW)			
		\$	\$
		\$	\$
		\$	\$
		\$	\$
		\$	\$

SCHEDULE OF PRICES			
ITEM	ADD	DEDUCT	TOTAL COST
ALTERNATE ITEMS / OTHER OPTIONAL ITEMS	CIRCLE ONE		
Remote "CLOUD BASED" Data Management System	ADD	DEDUCT	\$
Annual Maintenance Service Contract for Equipment and Software (5 year guarantee price) – "CLOUD BASED"	ADD	DEDUCT	\$
Supply and install 1 1/2" Water Meter including Meter Interface Unit (Compound Meter)	ADD	DEDUCT	\$
Supply and install 2" Water Meter including Meter Interface Unit (Compound Meter)	ADD	DEDUCT	\$
ADDITIONAL MANUFACTURER SUBMITTED ITEMS (LIST BELOW)			
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$
	ADD	DEDUCT	\$

THIS PROPOSAL IS BEING SUBMITTED BY THE FOLLOWING:

Name of Company	
Address 1	
Address 2	
City, State, Zip Code	
Contact Person	
Contact Person Phone	
Contact Person Email	
Date of Submittal	
Signature	



Village of Bensenville

