



## Agenda Memo

Crest Hill, IL

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<b>Meeting Date:</b>	10/3/2022
<b>Submitter:</b>	Mark Siefert, Director of Public Works
<b>Department:</b>	Public Works
<b>Agenda Item:</b>	To enter into an agreement with Core and Main to purchase, install, and implement a fixed base water meter reading system.

### Summary:

Staff is requesting Council to approve a contract with Core and Main to design/install/implement a fixed base water meter reading system as well as an agreement with Sensus for the use of their proprietary software for water reading. This is currently an expenditure in the FY23 Budget. Staff would be requesting a contract with Core and Main for a not to exceed amount of \$168,520.00. Below are the benefits of the fixed base water reading system.

#### Benefits of the fixed base water reading system:

- Two-way communication with all services in town. This will allow for final reads, automatic shut offs of our Alley meters as well as demand reads.
- Access to daily reports to help with customer service and water loss. Including service leaks (meters with continuous usage), consumption reporting (we can add the usage from our seven well meters and add all our meters in town and compare totals), High and low usage meters, meters with alarms that have been triggered (reverse flow, dry pipe, tamper, broken pipe, low battery), active and inactive meter totals.
- Zone usage. For example, we can divide Crest Hill into 4 quadrants. In each quadrant we place a virtual meter and add up all your meters in real time to compare the virtual meter. We may find that two quadrants show little water loss while the other two show thousands of gallons loss. This would allow us to put resources and time towards those two areas of town to reduce loss.
- Meters are read every hour. The system will give us an 18-month history of hourly reads. Along with giving us a usage read every hour, the system performs a "health check" of each meter. If a meter were to have an unforeseen issue such as a low battery or bad electrodes for example, the system will alert you that the meter needs to be replaced and warrantied. This is a much more proactive way of fixing an issue before it becomes a problem with a resident or business.
- The system works off a Sensus owned radio frequency. This is extremely important. Towns like Oak Forest and Evanston had systems that operated either on a cellular system or a third party frequency. In a cellular environment you may have 4G radios on all of your meters. When the cellular providers (Verizon, AT&T etc.) decide to move towards a new technology (5G) your

radios become obsolete and need replacing. In the end, this is probably the most important component of the system.

Once the AMI is up and running and we feel comfortable navigating the system, we can add all sorts of software and services. For example, we can add a customer portal. Customers can log onto their account and check their hourly usage if they have a question about their bill, set alerts sent to them if they reach a usage threshold.

Other options include putting a \$120 module on any city owned streetlights and controlling them through the same antenna reading your water meters. You can dim the lights, flash the lights in emergencies. Get an alert if a light is burnt out.

Another piece of software offered is a hidden revenue locator. This service monitors all of your meters in town and looks at trends and usage to see if a meter is under registering due to age etc. It will give us a projection of how much water you are under registering and give you a real dollar amount the city is losing.

While the AMI system is a very efficient and quick way to get your meter reads, it provides a lot more than that. The amount of data that will be at our fingertips is so much more than a once a month read in a drive by system. This will make our EPA reporting much more accurate and less of a guessing game.

**Recommended Council Action:**

To enter into an agreement with Core and Main to purchase, install, and implement a fixed base water meter reading system.

**Financial Impact:**

**Funding Source:** Water/Sewer

**Budgeted Amount:** \$900,000

**Cost:** \$168,520.00

**Attachments:**

Core and Main Agreement

Core and Main Quote