

## *Proudly Providing Services for 70 Years*

### **J&A Hosts WACC Perking Up Event**



J&A is proud to have hosted the Waterford Area Chamber of Commerce (WACC) July Perking Up morning business networking event, which provides an opportunity to meet and greet fellow Chamber members. Approximately 40 people attended and learned about the full range of services we provide such as: surveying; sanitary and storm sewer and water system design and analysis; municipal water and wastewater treatment design and analysis, engineering related to site development; SCADA system and control design; and Geographic Information System (GIS) services.

### **Recently Awarded Projects**

- City of Rochester – Watermain, Roads & Parks Cityworks Integration
- Sand Beach Township – Rock Falls & Holy Name of Mary Parish Cemetery Management/GIS
- Saginaw County Road Commission – Hart Road Design
- City of Wyoming – Water Reliability Study
- City of Pontiac – Geospatial and Asset Management
- City of Pontiac – Paddock Street Watermain Replacement

### **Water Asset Management Plan (WAMP) Updates**

MDEQ has recently released new rules (Part 16 of Public Act 399) for community water systems serving more than 1,000 people. The rule states that a Water Asset Management Plan (WAMP) shall be implemented by January 1, 2018.

MDEQ describes the components of the Asset Management Plan to include:

- Developing an **Asset Inventory**, mapping these assets, and identifying the condition of these assets;
- Developing **Level of Service Goals** in how you want the utility to perform over the long term;
- Determining the **Criticality** of these assets;
- Developing a **Revenue Structure** or rate methodology to determine rates and charges to cover operation, maintenance, replacement, capital improvement projects, and debt costs; and
- Developing a 5 to 20-year **Capital Improvement Project Plan** to identify the utility's needs for the future. This Plan may have been completed as part of your Reliability Study.

MDEQ has developed some guidance regarding these new rules, which can be found on the MDEQ website at:

[http://www.michigan.gov/documents/deq/deq-ess-mfs-formsguidance-DWassetmngmntguide\\_426744\\_7.pdf](http://www.michigan.gov/documents/deq/deq-ess-mfs-formsguidance-DWassetmngmntguide_426744_7.pdf)

For specific questions or additional information, please contact Terry Biederman, P.E. at: (248) 681-7800.

## Project Highlights

### West Bloomfield Township Franklin Valley Pre-Chlorinated Pipe Bursting



*During Construction*

J&A provided design and construction engineering services for the replacement of water main within the Franklin Valley Subdivision, located in the Charter Township of West Bloomfield, totaling approximately 12,400 feet. Pre-chlorinated pipe bursting using high density polyethylene (HDPE) pipe was the selected method. Pipe bursting consists of utilizing a pre-assembled length of HDPE pipe that is literally pulled through existing cast iron pipes with a burst head. The burst head breaks apart the old pipe, leaving the new pipe in its place.

Pre-chlorinated means that all pressure and bacterial testing of the water main pipes is performed above ground prior to installation. This eliminates the need for running temporary water lines and services along the road to each resident. With this process, residents are removed from the old water main and connected to the new water main in the same day with only a short interruption of their water service.

This construction method is new to Michigan and utilizes trenchless technology in an area where leaving a minimal footprint during construction is paramount. The operation involved a day of preparation or exposing the existing pipe and then pulling in a new HDPE pipe that had passed a pressure test and bacteriological test.

The process began by:

- Exposing the existing water main in pits where the sectional rods were introduced into the existing water main, and
- Existing water services were also excavated and fenced for protection.

Approximately 400 feet of HDPE pipe that would be pulled into the existing pipe was fused, pressure tested, pre-chlorinated, and bacterial tested prior to being connected to the bursting head. Hydrant and gate valve spacing was improved to meet current standards. Once the new pipe was pulled into place, new service connections were made to the new HDPE water main. Minimal restoration was required at the new water service connections, gate valves, and hydrants.



*Minimal restoration needed following construction*

### Port Huron Township Lapeer Road Non-Motorized Path

The Charter Township of Port Huron was recently awarded Transportation Alternatives Program (TAP) funding for fiscal year 2017 to install a 10 foot wide non-motorized pathway along Lapeer Road from Michigan Road east to 32<sup>nd</sup> Street. J&A applied for the TAP Grant on behalf of the Township. Construction of this project (which is anticipated in Spring/Summer 2017) is in conjunction with a road resurfacing and reconstruction project by the St. Clair County Road Commission. The project's main goal is to promote non-motorized transportation by improving accessibility for pedestrians, bicyclists, and other non-motorized traffic to St. Clair County's scenic parks, campground, and waterways. It also aims to improve connectivity to previously funded bicycle paths and shared-use paths in the area. Construction costs are estimated at \$263,000.00.



*Proposed pathway location*

## Project Highlights

### Egelston Township SAW Grant Application & Implementation

Johnson & Anderson was contracted by Egelston Township to prepare an application for and implement a Michigan Department of Environmental Quality (MDEQ) Stormwater, Asset Management, and Wastewater (SAW) Grant. The Township was successfully awarded a SAW Grant for their Wastewater System in Round 1 of funding (March 2014).

The J&A project team is performing the following tasks:

- **Asset Inventory** of all existing manholes and pump stations using Global Positioning System (GPS) to establish State Plane Coordinates (northing, easting, and elevation).
- **Condition Assessment** of sanitary sewer manholes while documenting existing conditions using the National Association of Sewer Service Companies (NASSCO) guidelines.
- **Asset Inventory** and **Condition Assessment** of the sanitary sewer mains using Video inspection (CCTV) following NASSCO guidelines.
- **Asset Inventory** and **Condition Assessment** of all the Township's wastewater pump stations.
- Development of **Level of Service** (LOS) goals for measuring utility performance.
- Development of a **Business Risk Evaluation** (BRE) for assets of the wastewater system to outline critical system components.
- Development of a 5 to 20-year comprehensive **Capital Improvement Project Plan** (CIP) to identify utility future needs.
- Development of a comprehensive **Revenue Structure** or rate methodology to determine rates and charges to cover future operation, maintenance, replacement, and capital improvement projects cost.
- Development of a smart utility network with the implementation of Sedaru<sup>®</sup>, a web-based sanitary sewer resource management tool.
- Development of a Wastewater System **Asset Management Plan** (AMP).



*Egelston Township CCTV*



*Sedaru<sup>®</sup> Command Center*

The project is slated to be completed in Spring 2017.

**Contact us today to find out how we can assist you.**

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