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Client Newsletter

J&A / Charter Township of West Bloomfield Earns 2 Local Prestigious Awards



Bursting head and HDPE pipe at entrance pit

The Charter Township of West Bloomfield and its engineering consultant, Johnson & Anderson, Inc., recently received two prestigious regional awards for the **Pre-Chlorinated Pipe Bursting** project:

- *Engineering Merit Award*, American Council of Engineering Companies of Michigan; and
- *Project of the Year Award, Environment \$1-\$5 Million*, APWA Detroit Metro Branch Executive Board.

West Bloomfield Township needed to replace 60 year old 6- and 8-inch diameter cast iron water main that had experienced multiple costly breaks in recent years. J&A provided design engineering, construction inspection, and contract administration for the rehabilitation of 11,910 feet of water

main on 8 residential streets within various plats of the 1950s developed subdivision, Franklin Valley. J&A researched trenchless technology methods and presented the pros and cons of each method to the Township Water & Sewer Utilities Department. Methods researched included Cured-in-Place Pipe (CIPP) lining, directional drilling with high density polyethylene (HDPE) pipe, pipe bursting, and pre-chlorinated pipe bursting. After much consideration and deliberation, it was decided to complete the project using pre-chlorinated pipe bursting.

The pre-chlorinated pipe bursting construction method is new to Southeast Michigan. The method utilizes trenchless technology in an area where leaving a minimal footprint during construction is paramount. The goal at the start of the project was to use a construction technique that involved minimal restoration and did not require temporary water supply to the residents during the course of the project. The installation involved a day of preparation, exposing the existing pipe at key locations, and fusing the required length of HDPE pipe, pressure testing the pipe, chlorinating the pipe, and completing bacteriological testing. Once the new pipe passes the testing, it is pulled through the existing pipe (usually the next day). Customers were without water on the day the new water main was installed for approximately 8 hours. There was minimal disturbance to yards, landscaping, and the aging paved roads within the project area. The affected customers were very pleased with the overall project cleanliness, speed of construction, and attention to detail by the contractor. The project was completed one month ahead of the projected schedule. It was estimated that there was approximately a 10% cost savings over open cut installation. The new HDPE water main is expected to remain in service for at least 50 years before needing replacement.



ACEC Awards Banquet, March 2017

J&A/Laketon Township Awarded MDNR Trust Fund Grant

Laketon Township, located in Muskegon County, has recently been awarded \$300,000 for their **Horton Park Improvements Project**, through the Michigan Department of Natural Resources (MDNR) Trust Fund Grant.

Development at Horton Park, on the shores of Bear Lake, includes: construction of an ADA accessible kayak launch, playground and walkways, covered pavilion, and parking to accommodate both personal vehicles and vehicles with boat trailers, boat launch area improvements, and installation of additional lighting for safety and security.

J&A performed the grant writing for the application submitted in March 2016. J&A has begun preliminary engineering/permitting, with construction scheduled to commence in mid to late 2017. This is the second MDNR Trust Fund Grant awarded to the Township in the last 4 years. Congratulations to Laketon Township and our J&A team!



Existing boat launch/ramp, facing west



Existing beach and playground area

Project Highlights

OCWRC Residential Equivalent Unit (REU) Study

The Oakland County Water Resources Commissioner's Office (WRC) has a published document titled "Oakland County Drain Commissioner - Schedule of Unit Assignment Factors" dated July 1, 1998. This document is utilized by the WRC and many of the communities within the County for determination of water and sewer use factors for different development types. The document uses a Single Family Residential property as the baseline for all comparisons by assigning a unit factor of 1.0 to this use.

WRC commissioned J&A to update the Schedule by evaluating actual billing data for actual water consumption throughout the County for the purpose of quantifying a modern usage based REU quantification and to update the business classes and REU unit factors outlined in the 'old' Schedule.

The calculation of a new REU factor based on actual domestic usage will assist the WRC in improving the accuracy of an updated Schedule of Unit Assignment Factors to more accurately predict projected non-residential REU quantities and to avoid future disputes over rates and charges.

The 'new' Schedule is still in draft form and is anticipated to be finalized later this summer, once WRC has an opportunity to meet with all County communities and their representatives.

Project Highlights (continued)

Port of Monroe Intermodal Terminal, River Dock & Dredging



Aerial view of future dredging operations

J&A has been contracted by the Port of Monroe to provide civil engineering, contract administration, and oversight services for the largest capital improvement project at the Port of Monroe in nearly 30 years. The improvements will not only promote new cargo opportunities, but also will serve to ship and receive materials for the Port's existing tenants.

The project involves the construction of a new 240 foot long dock on the River Raisin downstream of the Turning Basin, and for dredging of nearly 30,000 cubic yards of contaminated sediments to deepen and widen the River Raisin adjacent to the new dock.

The project will be financed by a \$3 Million loan from the Michigan Strategic Fund (MSF) (through the Michigan Economic Development Corporation), and a \$602,550 brownfield grant from the Michigan Department of Environmental Quality (MDEQ). The MSF loan will provide for the dredging of the river sediment and for construction of the new dock. The MDEQ grant will provide for the transport and disposal of contaminated dredge material. The City of Monroe Brownfield Redevelopment Authority (BRA) also submitted an Act 381 Brownfield Work Plan for the approval of local and school tax capture for Brownfield activities related to the project. The money from the BRA tax capture will be used to repay the MSF loan.

This assignment will involve significant coordination with AKT Peerless Environmental & Energy Services, the Port of Monroe's environmental and grant administration consultant. Dredging is scheduled to commence later this spring.

Recently Awarded Projects

- Muskegon Charter Township – SAW Grant Implementation
- City of Bay City – Construction Engineering Services for Vermont/Midland Street Resurfacing
- City of Bay City – Water Asset Management Plan
- Charter Township of Waterford – Clinton River Walk Phase IV
- Charter Township of West Bloomfield – Water Asset Management Plan

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

Waterford
248.681.7800

Muskegon
231.780.3100

Port Huron
810.987.7820

Flint
810-820-9159