



MONROE COUNTY WATER AUTHORITY PROJECT INFORMATION BULLETIN 2017 Cement Lining Program



Eng. No. 16-023

March 2017

Background

Each year MCWA renews selected assets in our distribution system. This year we will be cleaning and lining or replacing certain sections of water main in your neighborhood. This work will be performed by a contractor hired by MCWA. This bulletin is designed to provide information about the project, answer frequently asked questions and let you know who to contact if you have any other questions or questions during the work in your neighborhood. A map of the proposed work area is attached.

Cleaning and Lining Mains

Before the 1950's cast-iron water mains did not have a cement mortar lining applied to the interior. When an unlined pipe rusts, it forms hard deposits called tuberculation on the interior of the pipe. If this material is dislodged, it can result in diminished water quality. Our contractor will first remove all tuberculation and then place a cement mortar lining on the inside of the pipe to prevent further corrosion. Along with improved water quality, the ability to maintain pressures and flow for firefighting purposes is enhanced because of the much smoother pipeline interior.

There is a significant cost advantage to cleaning and lining instead of replacing mains that allows MCWA to economically address problems associated with unlined mains. With a cleaning and lining project it is only necessary to excavate small holes to access the main at about 500 foot intervals and at locations where water mains intersect. When evaluating whether to line an existing main, or install a new main, we consider its structural integrity. Only the mains that are structurally sound are lined. All or portions of the existing water mains on Beechwood Drive, West Avenue, Magnolia Avenue, East Elm Street, East Chestnut Street, East Avenue, Cedar Place, Wilson Avenue, East Spruce Street, East Hickory Street, Main Street, East Ivy Street, Northwood Avenue, East Filbert Street, Park Drive, Filbert Place, East Commercial Street and Madison Street will be cleaned and lined.

Replacing Mains

The existing water main on Madison Street between East Spruce Street and East Filbert Street and between East Avenue and East Elm Street will be replaced in conjunction with this project. As part of this work, the existing hydrants and valves will be replaced. Service connections will be replaced as necessary. The new water main will be 6" ductile iron and will be installed within the street right-of-way.

Work Details

Preliminary Work (currently underway)

Prior to beginning the cleaning and lining and main replacement work, MCWA has been marking the location of existing water services in the project area. Both MCWA and a contractor are then checking operation of all existing customer shut-off valves and making repairs as necessary.

Cleaning and cement mortar lining work is generally completed in four phases:

1. Temporary bypass pipe installation,
2. Cleaning and Lining,
3. Appurtenance installation and testing,
4. Final restoration.

The first step of the contractor's work is to lay **temporary bypass piping**. The temporary bypass pipe will be used to supply water to you while the water main work is in progress. After these temporary bypass pipes have been chlorinated and flushed, and water samples have been approved by the Department of Health, each existing customer's home is temporarily connected by a hose to the bypass system for the duration of the lining process. If you have a **water softener system** in your house, please contact our Customer Service Department so that we can check your plumbing and determine how to connect you to the bypass.

At this time the contractor also calls in a stakeout which is a request to have the existing utilities in the project area marked out. You may see small flags or paint marks delineating the location of existing utilities. For example, the Water Authority uses blue paint and flags to mark out its facilities. Please do not remove these markers as they are needed so that the contractor can avoid damaging the existing facilities. If you have private underground facilities, such as an invisible fence or a lawn irrigation system, on your property near the road right-of-way, please contact our Customer Service Department, and they will have a project representative contact you.

After all customers in an area are connected to the temporary bypass system, excavations are made at selected locations, and the main is cut to allow access for preparation and lining work. A scraper is pulled through the pipeline until all tuberculation is removed, and then the main is flushed clean. Next, the contractor coats the main using a special machine, which applies the cement mortar lining. If conditions warrant, old fire hydrants and valves are replaced.

After the mortar sets, the lining is inspected with a video camera and then the main is pressure tested. Before any customers are returned to the refurbished main, it is chlorinated, flushed, and **tested by the Department of Health**. While testing is going on, you may notice that there are fewer workers on the site.

The **final restoration** work completes the project. After the cleaned and lined main is put back in service, the temporary bypass system is removed. Disturbed areas are then restored to their pre-construction condition. Temporary asphalt used on excavations is removed and replaced with permanent asphalt. Lawn areas are graded and seeded and new hydrants are painted. The contractor is responsible for getting all seeded areas to grow properly.

Main Replacement work is also completed in four phases:

1. Main installation
2. Main/hydrant testing

3. Service transfers and main abandonments, and
4. Final restoration.

The first phase of the work is **main installation**. Again the contractor calls in a stakeout to have the existing utilities in the project area staked out. Once the stakeout is complete, the contractor can begin excavating to install the water main, valves and hydrants. At the end of each work day, the trench is backfilled. In paved areas, the backfilled trench is topped with temporary asphalt until permanent asphalt can be installed.

After installation, the **new water main is tested**. Testing usually takes about one week. First the main is pressure tested to check for leaks. If any leaks are found, they are corrected. Then the main is flushed out and disinfected. After disinfection, the main is flushed again and water samples are taken for testing by the Department of Health. While testing is going on, you may notice that there are fewer workers on the site.

After the main has successfully passed all tests, the contractor begins to **transfer service connections** from the old main to the new main. After all services are transferred, the old main is abandoned. This is the last of the work which requires excavating.

The **final restoration** work completes the project. Disturbed areas are restored to their pre-construction condition. Temporary asphalt is removed, and permanent asphalt is installed in paved areas. Lawn areas are graded and seeded. The contractor is responsible for getting all seeded areas to grow properly.

Schedule

Project duration depends on a number of factors. However, the contractor is expected to start work in late March and be complete by November.

You may be on the temporary bypass system for 10 to 12 weeks during this project.

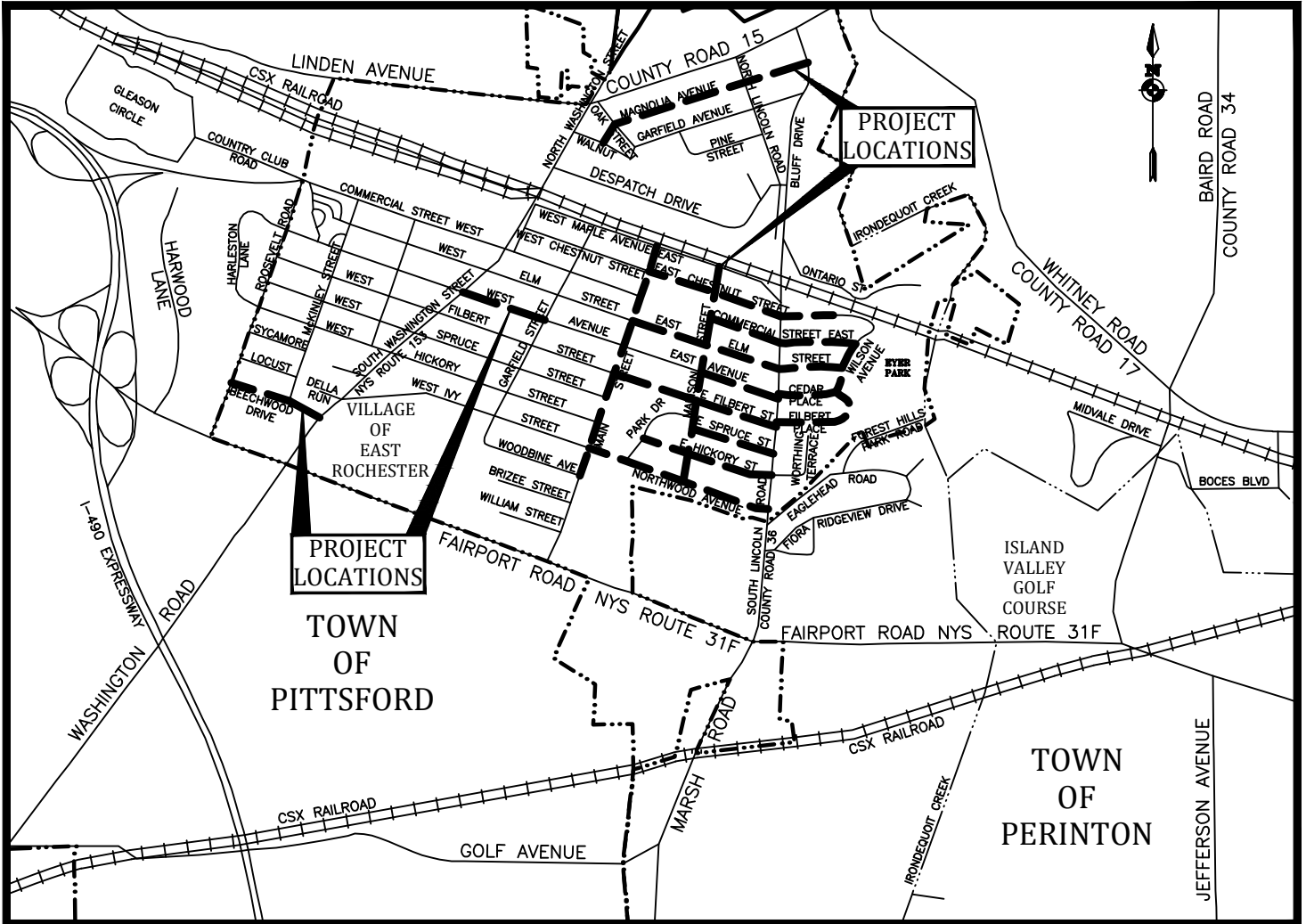
Common Concerns

<u>Concern</u>	<u>Action</u>
1. Warm water	Let cold faucet run until water is cool
2. Air in water	Let cold faucet run until water is clear
3. No water or leaking bypass	Call MCWA or contact MCWA's inspector

Questions

A MCWA inspector will be on-site throughout the project. All of our inspectors carry a photo ID card, wear MCWA uniforms, and drive a vehicle with a Water Authority logo on it. You can also contact our Customer Service representatives at 442-7200 weekdays from 8:30 a.m. to 4:30 p.m., or our Dispatcher at 442-2009 weekdays before 8:30 a.m., after 4:30 p.m., and on weekends and holidays.

LOCATION MAP



NOT TO SCALE