

Malvern, OH (PWS 1000112)

Public Water System Lead (Pb) Components

Prepared February 2017

To comply with Section 6109.21 of the Ohio Revised Code, enacted in September 2016, the Village of Malvern, in Carroll County, Ohio has created the following report and attached maps to identify known and potential components of its public water system that contain lead (Pb).

RCAP staff and the Malvern water department met on February 14th, 2017 to review possible presence of lead in the service area. No applicable historical maintenance or operational records were available to be consulted. A limited number historical waterline maps were available. Existing mapping and historical maintenance knowledge are the base of the institutional memory for the water distribution system. Structure age information from the Carroll County Auditor's Office was also used to evaluate the possibility of lead. Lead component findings were identified by Malvern water operators and recorded in a GIS database.

Service Lines and Ownership

The Malvern water department distributes water to 540 customers. The system owns and maintains service lines from the water distribution main to the curb stop valve. The length of service line from the curb stop valve into the meter is owned and maintained privately by the consumer account holder. The majority of publicly owned and the private portions of service line are a mix of copper and galvanized. While the system dates back to the early 1900s there are not believed to be any lead service lines on either the publicly owned or private portions of the services lines.

The Village of Malvern has regulations in place that require new service lines to be installed using type K copper, or other material approved by the water department (CTS plastic pipe is the only other material to have been approved). The current regulations were adopted in 1962, along with a resolution to raise water rates and establish uniform rules for water 'rents' (see Malvern, Ohio Water Works Rules and Regulations, 1962). Experienced operators currently in charge of maintaining the water distribution system replace lead service lines when they are exposed for repairs or main line replacement projects. While it is possible that some private service lines were constructed using lead lines, experienced operators currently in charge of maintaining the water distribution system have done replacement projects and repair work in all areas of the village and never uncovered any service line made of lead. Based on institutional knowledge and available information from installation inspections, the Village of Malvern considers the chance of the existence of lead service lines to be minimal, and believes all of its customers to have a low probability of having a lead service line. Areas where service lines come off the original 1908 cast iron mains have the slightly higher chance of having a lead service line, however, the probability is still considerably low to

moderate in these areas. The attached map shows the probability of each service address having a lead water service line.

Distribution System

Malvern produces treated ground water and distributes potable water through approximately 12 miles of water main lines. The water distribution system was constructed between the 1908 and 2016. The system was constructed using copper, cast iron, ductile iron, galvanized steel, transite, and c900 PVC water pipe (all piping between 1" and 12"). Much of the original cast iron has been replaced and the system is gradually transitioning to plastic pipe. The remaining cast iron that was installed in 1908 was most likely constructed using leaded joints. This section accounts for about ten percent of the total length of active water mains.

Water Meters and Indoor Plumbing

Some of the customer water meters may contain lead. While none of the meters are believed to contain fully lead components, it is possible that the brass alloy housings contain greater than 8 percent lead. The Village of Malvern does meter rebuilding and replacement as needed. While a few meters have been replaced in recent years, some older meters are still in use throughout the system. All meters used are *Sensus* brand. New units utilize plastic components and brass alloys that meet or exceed current lead standards.

Buildings in Ohio built prior to 1998 or that use plumbing material or solder manufactured before 1998 may have materials with greater than 8% lead and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998. Buildings built and plumbing materials manufactured after 2014 were required to have less than 0.25% lead by weight and have the lowest risk for contributing lead to the drinking water.

It should be noted however that, although prohibited, some use of leaded solder or leaded components may have occurred after the prohibitions became effective. Less than 5 new structures have been built in Malvern since 2014. Those few structures should be completely free of plumbing with components containing greater than 0.25% lead, however, nearly all other buildings in Malvern may have some percentage of lead in the plumbing components. Many of the buildings in Malvern have been renovated since their original construction. Since records are difficult to obtain for older renovation projects, the village is encouraging its residents to inspect their plumbing and report any potential lead to the water department.

Customer Self-Reporting

The information on this map regarding privately owned service lines is based on the limited information from the water system staff and Carroll County building and parcel data. Property owners are encouraged to inspect their own service lines entering the building if these are in anyway exposed, and notify the Village of Malvern water department if they have determined whether or not a lead service line exists. Please contact the Malvern water department by calling (330) 863 – 4900, or faxing (330) 863 – 1546, or emailing MalvernWater@frontier.com. A representative from the water department will contact you to confirm and update this information for the next map release.

Contacts and Resources

If you have questions about known and potential lead components within the Village of Malvern Public Water System, please contact:

Malvern Water Department

Phone – (330) 863 – 4900

Fax - (330) 863 – 1546

Email – MalvernWater@frontier.com

For more information about lead service lines and their removal, we recommend the following resources:

- **The Lead Service Line Replacement Collaborative**
<http://www.lslr-collaborative.org/resources-for-concerned-consumers.html>
- **Ohio EPA ‘Learn About Lead’ page**
<http://epa.ohio.gov/pic/lead.aspx>
- **US EPA Lead in Drinking Water Information Page**
<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

Village of Malvern Public Water Distribution System Lead Components and Lead Service Lines Map

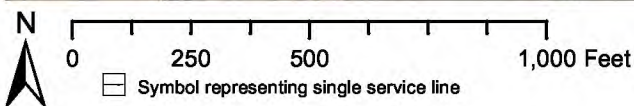
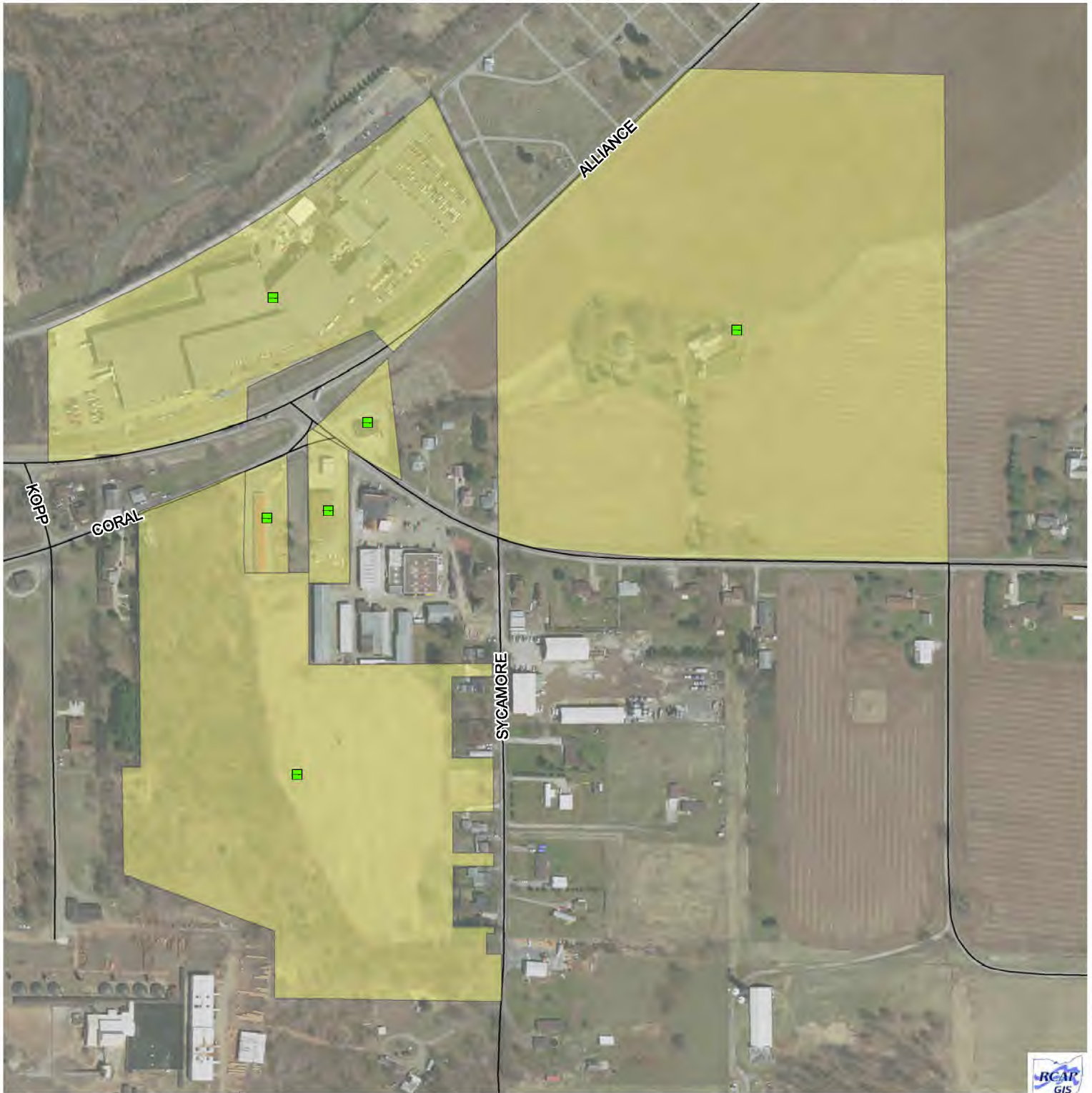
The following map(s) does not verify the presence of lead in any of the lines or structures shown. This map only shows the probable or possible locations based on the year that the structure was built, historical maintenance and operation records, and customer or utility staff verification.

This map is not intended for design engineering, surveying, or construction purposes. Information and data contained or accessed within this map emanates from various public and private sources and may contain errors and omissions

All data, information and documentation within this map are provided "as is" without warranty of any kind, either expressed or implied. The suitability of the data and information contained in this map is not guaranteed, and the user assumes all risk for such uses. WSOS Community Action and its employees, affiliates, agents and licensors cannot and do not warrant the accuracy, completeness, non-infringement, merchantability or fitness of any information contained within this map.

GIS Data Sources: OGRIP, OSIP, Village of Malvern, Carroll County Auditor, RCAP GIS. Datum/Projection: NAD 1983 Ohio State Plane North (ft) Date: 3/1/2017

Village of Malvern, OH Probability of Lead Service Lines in Water Distribution System



Symbol representing single service line

Ownership of Line
Public
Private

Probability of Lead Service Line
Determined by historical records

Moderate
Low

Material of Service
Line Known

Lead
Non-Lead

Malvern Water Service Area

Service Area Overview



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1 of 5

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By RCAP GIS Team
March 3, 2017

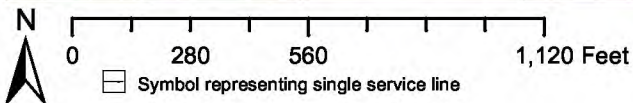
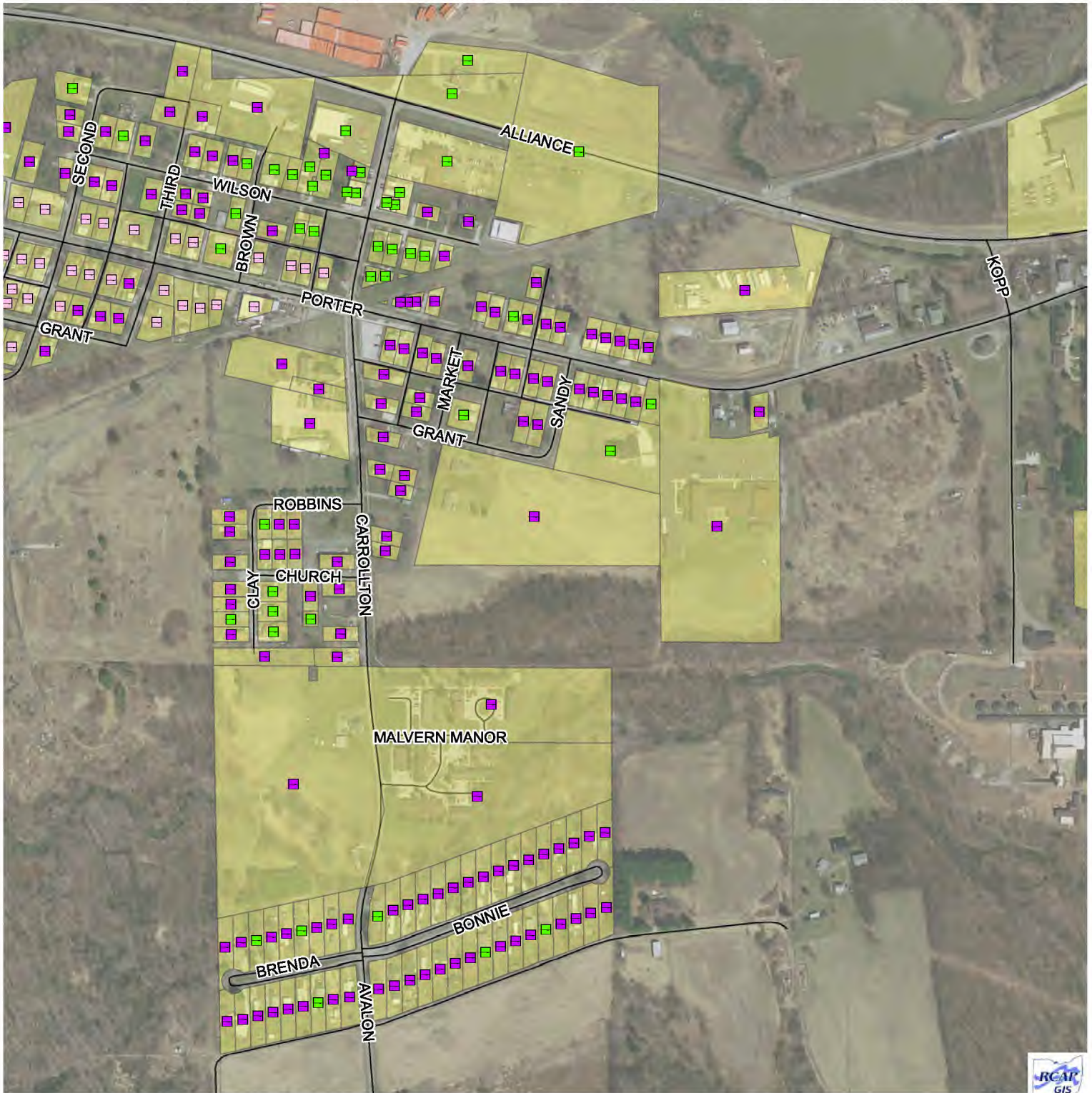
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Coordinate System:

NAD 1983 StatePlane Ohio North FIPS 3401 Feet
Data Sources:
Village of Malvern, Carroll County, RCAP GIS Team,
ESRI, OGRIP, OSIP, TIGER Lines

Village of Malvern, OH Probability of Lead Service Lines in Water Distribution System



Ownership of Line
Public
Private

Probability of Lead Service Line Determined by historical records

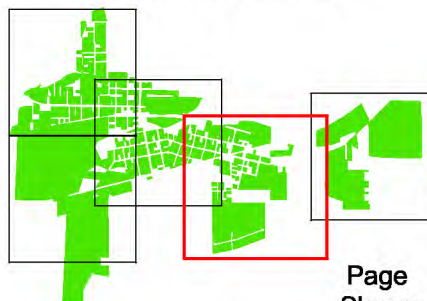
Moderate
Low

Material of Service Line Known

Lead
Non-Lead

Malvern Water Service Area

Service Area Overview



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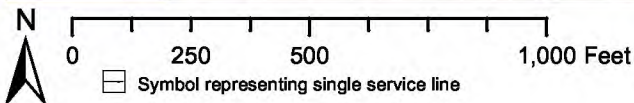
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Data Sources:

Village of Malvern, Carroll County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines

Village of Malvern, OH Probability of Lead Service Lines in Water Distribution System



Symbol representing single service line

Ownership of Line
Public
Private

Probability of Lead Service Line
Determined by historical records

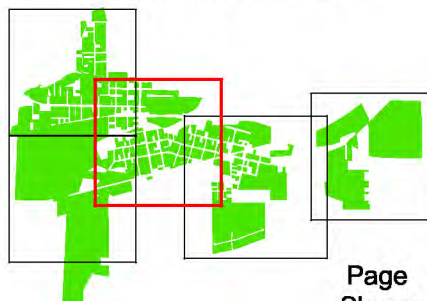
Moderate
Low

Material of Service
Line Known

Lead
Non-Lead

Malvern Water Service Area

Service Area Overview



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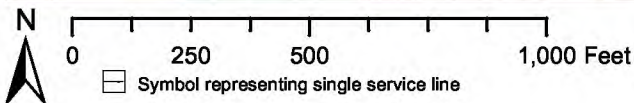
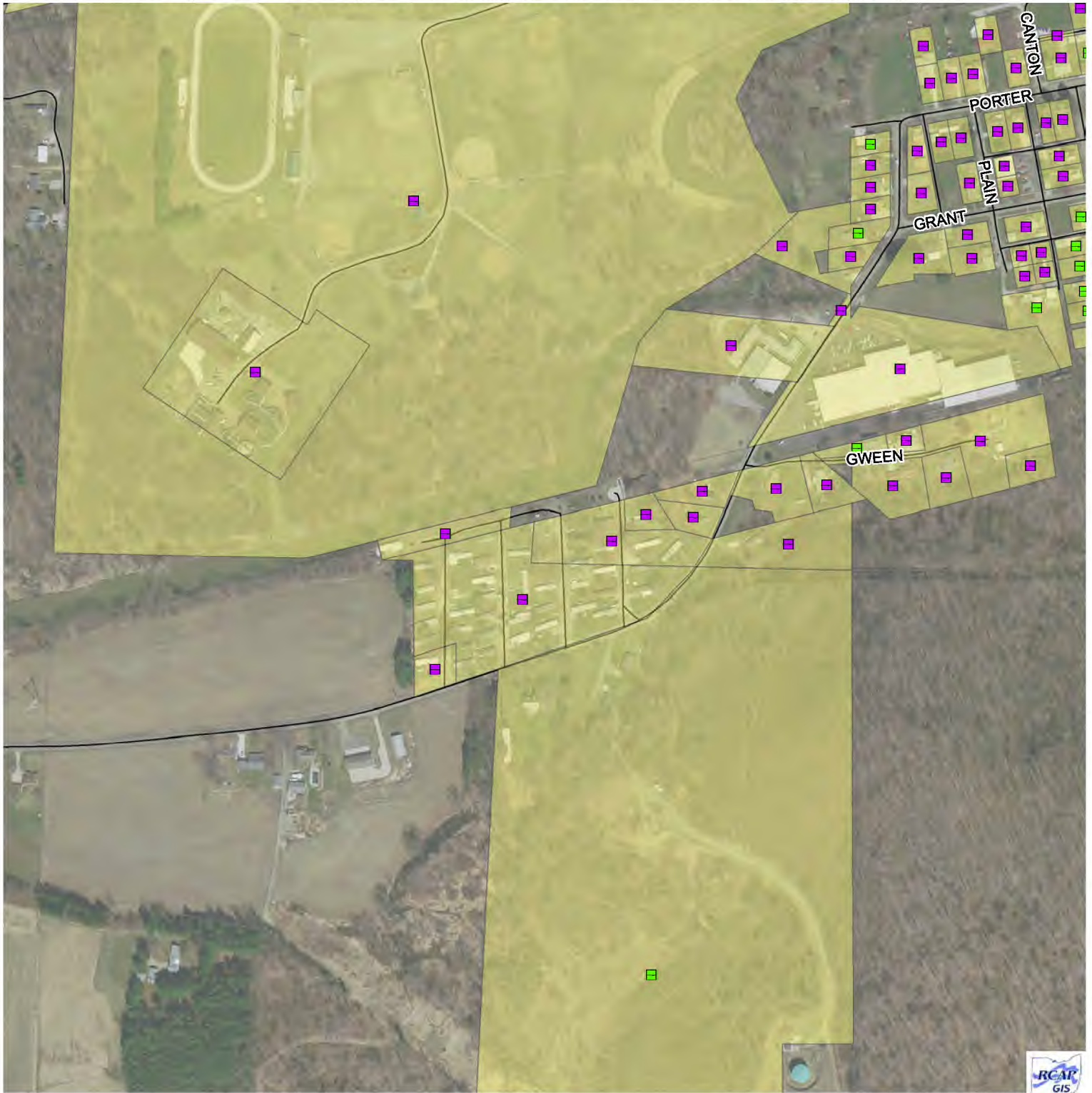
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Village of Malvern, Carroll County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines

Village of Malvern, OH Probability of Lead Service Lines in Water Distribution System



Symbol representing single service line

Public
Private Ownership of Line

Probability of Lead Service Line
Determined by historical records

Moderate
Low

Material of Service
Line Known

Lead
Non-Lead

Malvern Water Service Area

Service Area Overview



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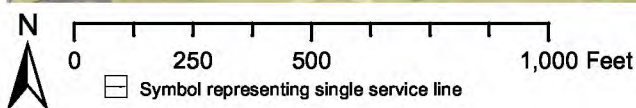
Coordinate System:

NAD 1983 StatePlane Ohio North FIPS 3401 Feet

Data Sources:

Village of Malvern, Carroll County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines

Village of Malvern, OH Probability of Lead Service Lines in Water Distribution System



Public
Private

Ownership of Line

Probability of Lead Service Line
Determined by historical records

Moderate
 Low

Material of Service Line Known

Lead
 Non-Lead

Malvern Water Service Area

Service Area Overview



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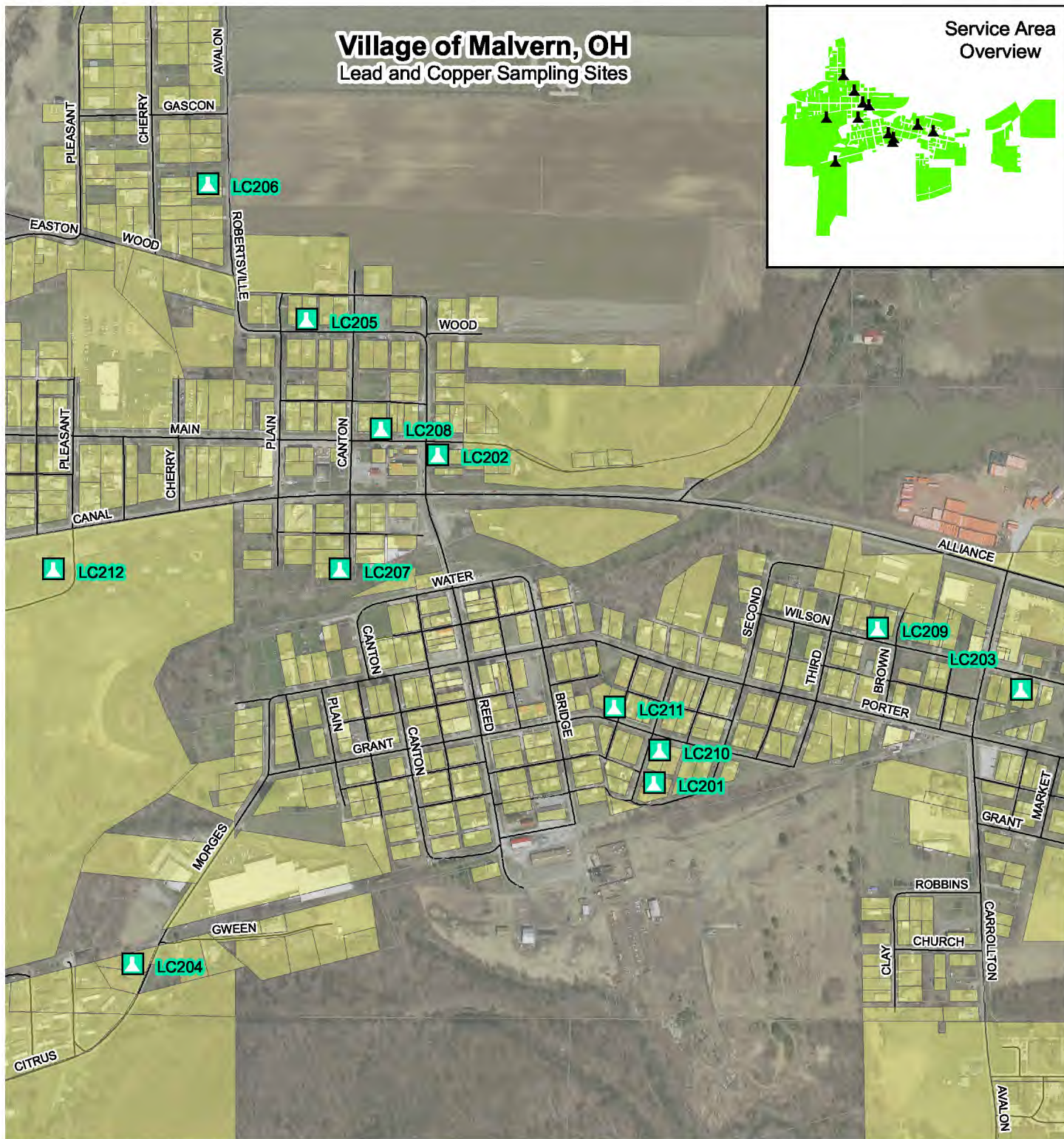
Data Sources:

Village of Malvern, Carroll County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines

Village of Malvern, OH

Lead and Copper Sampling Sites

Service Area
Overview



0 375 750 1,500 Feet



Lead & Copper Sample Sites



Malvern Service Area

Created for use by The Village of Malvern, By RCAP GIS Team, March 3, 2017

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Data Sources: Village of Malvern, Carroll County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines



MALVERN
OHIO

WATER
WORKS

Rules and
Regulations

Adopted Jan. 1, 1962

By The
Board of Trustees of
Public Affairs

RESOLUTION 12-1-61

A RESOLUTION FOR AN INCREASE OF QUARTERLY WATER RATES AND CHANGE OF TAP ON OR SERVICE CONNECTIONS AS ESTABLISHED BY THE BOARD OF TRUSTEES OF PUBLIC AFFAIRS OF MALVERN, COUNTY OF CARROLL, OHIO.

Section 1. The term water works shall mean the entire system of water works owned, operated and controlled by the Village of Malvern, Ohio, and include all grounds, pipelines, wells, tools, buildings, reservoirs, hydrants, pumping station, machinery, service lines, meters, and any and all fixtures of any kind belonging to said village.

Section 2. When any person, firm or company desires to make water connections to the mains, or have water turned on where connections are already made, either the property owner or his authorized agent must apply to the Clerk in writing and get a permit for the same.

Section 3. Any person, firm or company desiring to use water from the mains for building or any special purpose shall make application in writing for a permit for such use; such application shall specify the amount of brick, stone, concrete or plastering to be contained in the structure, or for the special purpose used. When the amount assessed for such service is paid for, a permit will be granted and on completion of such special purpose a certified statement of the actual amounts of such work for which water

~~already~~ made, either the property owner or his authorized agent must apply ~~to the~~ Water Department in writing and request a permit for the same. Upon ~~approval~~ of the application by the Water Department, a permit shall be ~~issued~~ and the fee will be deposited according to the Village deposit policy.

Whenever an application for water service is filed with the Water Department, it is assumed that the piping and fixtures in the property to be ~~applied~~ are sufficient and in proper order to receive the same. The Water Department shall not be liable in any event for accident, breakage or leakage ~~arising~~ in any manner in connection with the supply of water, or failure of ~~supply~~.

SECTION III INSTALLATION OF SERVICE LINES AND SPECIFICATIONS

The property owner must have a contractor who has registered with the ~~Village~~ of Malvern and has showed a certificate of insurance to the Water Department make the connections at the curb box and the meter.

The customer agrees to abide by the following regulations for installation ~~of the~~ water service line:

- (a) Type K copper pipe must be used.
- (b) No solder joints are permitted.
- (c) If a union is used, it must be of a swedge or compression type.
The union must be made where it can be readily excavated.
- (d) No unions are permitted under basement floors or paved driveways.
- (e) The main shut off valve, before and after the meter, preferably must be a ball valve or a stop waste valve. This valve must be installed immediately inside the basement wall with at least 3" copper pipe exposed.
- (f) All water service lines must be buried a minimum of four (4) feet, and left open for inspection by a representative of the Water Department.

SECTION IV SPECIAL PURPOSES

The Water Department undertakes to use reasonable care and diligence to ~~provide~~ a constant supply of water at a reasonable pressure. The Water Department reserves the right at any time, without notice to shut off