

**CITY OF LORAIN
DIVISION OF WATER
SERVICE CONNECTION
POLICIES**

Table of Contents

Types of Service Connections	2
Approval and Inspection of Service Connections	2
Standard Details.....	2
Service Taps 2” and smaller	2
Service Taps larger than 2”	3
Domestic Supply to multi-unit buildings (Splitting water service)	3
Depth of Service Pipe.....	3
Copper and Brass Couplings	3
Service Pipe Material Two Inch and Less.....	3
Service Pipe Material Greater than Two-Inches	4
Polyethylene Wrap.....	4
Water Mains designated as Transmission mains.....	4
Minimum Size of Service Tap	4
Maximum Size of Service Tap	4
Bends on Service Pipe	4
Size of Curb Valves	4
Location of Curb Valves	5
More than One Domestic Service Line to a Single Building.....	5
Fire Supply for More than One Building on a Single Parcel	5
Backflow Vault for Fire Service	5
Service Lines Crossing Property Lines	5
Service Connections along Frontage of Property	5
Casing for Service Connections.....	5
Single Feed-dual Service Connections	5
Reusing Existing Public Portion of Service Connection.....	6
No Connections off Circulation Mains	6
Distance between Taps.....	6
Distance between Water Service and Sanitary Service	6
Tap Size as it related to Service Connection and Curb Valve Size	6
Location of Meter Vaults	7
Metered Domestic and Fire Service.....	7
All Metered services to be controlled by unique Curb Valve	7
Sub Metering.....	7
Placement of Meter	8
Meter Bypass Settings Inside Buildings	8
Multiplex Connections	8
Variances.....	8

Types of Service Connections

Lorain Water has three types of services and connections:

- **Domestic Service:** A metered water service for all water uses. Typically, metered services are used to measure flow for water and sewer billing.
- **Irrigation service:** Water irrigation service is also metered. The City of Lorain does not permit sewer exempt connections, however, Irrigation service can be configured water-only service. Contact Guy Singer at Engineering (440-204-2003) for details.
- **Fire service:** Water service which is unmetered. Service is solely for the purpose of providing standby fire suppression. Fire service can provide fire protection by means of an internal fire suppression system, private, on site fire hydrants or both.

Approval and Inspection of Service Connections

All new water services for residential or commercial properties require a permit from the Engineering Department. A site plan shall be submitted indicating the following:

- Pipe alignment, position, material, and/or size
- Meter type, location, and/or size
- Backflow prevention device type, location, and/or size,

The Division of Water reserves the right to change any components shown on the site plan to comply with all Division of Water regulations.

The Division of Water will inspect all new and modified water service connections, meter settings, and backflow devices to ensure the standards outlined in this document, Lorain Water Standard Details, and other requirements provided for on the service connection quote are met. Such inspections are in addition to any Lorain Building Department or other local plumbing inspections.

Please note that the Division of Water must inspect the lines while the trench is open. If the excavation is backfilled before the Division of Water has been allowed to inspect, the customer will be required to excavate and expose the connection to allow for inspection. It is the responsibility of the customer and their designated contractor to call for inspections, once the inspection fee is paid. Contact Water Distribution for inspection appointments at 440-204-2275 at least 24 hours in advance.

Standard Details

When installing service connections, vaults, meter settings, and backflows, contractors shall conform to Lorain's Standard Details as applicable. Site Plans for new water service connections shall include applicable details. The latest versions may be found on the City of Lorain website at: [City of Lorain Standards](#). In the event a standard detail does not exist for proposed work, please supply a proposed drawing for approval.

Service Taps 2" and smaller

All service taps for services 2" in diameter and smaller will be performed by the Lorain Division of Water. Customers are required to pay all applicable fees associated with the tap and water service installation. The Division of Water will furnish and install all service material from the tap location to and including the curb valve and curb valve box.

Service Taps larger than 2”

For water service taps larger than 2” in diameter, the Division of Water will perform all taps, unless otherwise instructed by the Division of Water. An approved water builder must perform all other work including the following:

- Procure, mount and test the tap valve.
- Procure and install other materials including:
 - Service piping from the main to the curb valve.
 - Curb valve and valve box

All contractor work shall be inspected by the Lorain Division of Water.

Inspections appointments can be made with Jason Fuqua (440-204-2275).

Domestic Supply to multi-unit buildings (Splitting water service)

In general, a single domestic service line shall supply a building. In the case where an owner would like to set up their “Doubles”/”Duplexes”/Multi-family home or building to be metered individually, the following must occur:

- The Division of Water will install a Manifolds or “wye/splitters” to split a single connection into two (2) connections. Each leg will require the installation of curb valve, allowing shut-off to each building unit individually.
- Property owners will have to:
 - Install the additional service line from the curb valve into the unit without a meter
 - Purchase a second meter from the Division of Water
 - Plumb a meter setting per Division of Water standards
 - Ensure that there are no interconnections between units. The Division of Water will not entertain billing disputes based on interconnections between units.

Customers are required to pay all applicable fees associated with the manifold installation, access to water, inspection and account set-up.

Depth of Service Pipe

Depth of service pipe from the water main to the curb valve and from the curb valve to the point of entry into a home/building shall not be less than 54 inches from the established grade.

Copper and Brass Couplings

Mechanical joints/fittings such as flared, threaded, or mechanically crimped/pressed connections shall be required before the meter. Soldered/sweat and compression connections shall not be permitted before the meter. No plastic fittings shall be used as part of a meter setting. The Division of Water does not govern material type downstream of (after) the meter.

Service Pipe Material Two Inch and Less

All service pipes from the curb valve to the home or building with a nominal diameter of two inch and less shall be Type K Copper or C-901 High-density polyethylene (HDPE) SDR 9.

Service Pipe Material Greater than Two ½ Inches

All service pipes from the curb valve to the home or building with a nominal diameter greater than two inch shall be Class 52 Cement Lined Ductile Iron Pipe, C-900 PVC Pipe or C-909 PVC pipe.

The PVC pipe shall be SDR 18 or thicker as per ASTM 02241 manufactured for potable water applications and tested in accordance with AWWA Standard C900 or C909 for Polyvinyl Chloride (PVC) pressure pipe and fabricated fittings, four-inch through twelve-inch (100 mm through 300 mm), for water distribution, or AWWA standard C909 for Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe, four-inch through twelve-inch (100 mm through 300 mm), for water distribution and clearly marked as such. PVC water pipe shall be certified to NSF International Standard No. 61.

All material between the curb valve and the house or building is the responsibility of the property owner. Where PVC Pipe is used, Lorain Water recommends that the owner install a tracer tape system so that their connection can be located in the future and that the 54-inch depth requirements are strictly adhered to so that the line is not susceptible to freezing as PVC cannot be thawed by Lorain Water.

All service line material and installation procedures must also meet local building and fire code criteria where applicable.

Polyethylene Wrap

Polyethylene Wrap (“Polywrap”) is required for use on all ductile iron pipe on the city (public) side of the connection. Polywrap is also recommended on the customer side.

Water Mains designated as Transmission mains

Water mains designated as a transmission main by Lorain Water, shall not be tapped for service connections unless otherwise approved by the Engineering Department.

Minimum Size of Service Tap

Taps less than one-inch in diameter shall not be approved.

Maximum Size of Service Tap

No service connection shall be larger than the water main which it is intended to be connected to. Tapping sleeves are not permitted to be used in equal size to the tapped main (i.e. no 8” tapping sleeves on 8” mains or 6” tapping sleeves on 6” mains). Customers requiring a connection of equal size to the tapped main shall be required to cut in a tee at the customer’s expense, with plans submitted to and approved by Lorain Water. No service taps larger than the 12 inches are permitted in any case.

Bends on Service Pipe

No horizontal bends or fittings are permitted on the service pipe prior to (upstream of) the curb valve unless otherwise approved by the Engineering Department.

Size of Curb Valves

Curb Valves shall be equal in size to the connection at the main.

Location of Curb Valves

All service connections require curb valves that shall be located in the right of way approximately three feet behind the face of curb. For water mains in easements, curb valves shall be located approximately three feet from the water main unless otherwise directed by Lorain Water. If no curb exists, criteria shall be established from edge of pavement. In cases where the water main is located placed outside of pavement, curb valves shall be placed as close as possible to the tap locations as possible for short-side service connections.

More than One Domestic Service Line to a Single Building

Only one domestic service line may supply a home or building unless written variance is sought and approved in writing by the Division of Water.

Fire Supply for More than One Building on a Single Parcel

A fire service line shall supply no more than one building. If the local fire department requires looping of the fire line then Lorain Water will evaluate these situations on a case by case basis.

Backflow Vault for Fire Service

All private fire service connections require an approved backflow device. A backflow vault for the fire service is required if the distance between the existing right-of-way and the service line point of entry into the building is more than 50 feet. The backflow vault must be placed in the right-of-way or in an easement adjacent to either the right-of-way or a standard water main easement.

Service Lines Crossing Property Lines

Under no circumstances shall a service line cross property lines unless one parcel is landlocked and therefore has no frontage to the water main. In cases such as these, a copy of the easement agreement between the impacted property owners must be sent to the Engineering Office at City Hall.

Service Connections along Frontage of Property

A service connection to a water main shall be permitted only if the water main extends across the full frontage of the premises. On corner lots or lots that are adjacent to more than one street, a service connection will be permitted only if the lot has a water main that is extended across the full frontage as well as across the property limits on the other adjacent street(s) or if a variance is granted by Lorain Water and the local community containing the parcel.

Casing for Service Connections

Casings are permitted on service connections between the water main and curb valve, on a case by case basis as directed by Engineering Department.

Single Feed² dual Service Connections

A domestic service connection that comes off the fire service connection must be teed off in the right-of-way before either service line enters the meter or the backflow vault. The fire service line is not permitted to tee off a domestic service line.

Reusing Existing Public Portion of Service Connection

An existing service connection can be reused only if:

- The existing service is adjacent to the frontage of the property requesting service
- The new service pipe after (downstream of) the curb valve is of the same nominal diameter or smaller than the public portion of the service connection to be reused.
- The service line has been unused for the less than one year and has no known maintenance issues.

For connections that have been left unused for more than one year and have no current maintenance issues, the property owner may reuse the service connection if they are willing to assume maintenance responsibilities for the public portion of the service line for a period of two (2) years. An agreement must be signed by the property owner and will be kept on record by the City.

Lead water service connections are not permitted to be reused under any circumstances.

If a connection cannot be reused, a new connection must be purchased and the existing connection must be plugged at the customer's expense.

No Connections off Circulation Mains

No service connection can be tapped off a designated circulation main. A circulation main is defined as a main installed for the purpose of providing circulation and installed in a circulation easement. This restriction shall include the portion of the circulation main in the public right of way.

Distance between Taps

One-inch connections shall have a minimum distance of five feet between taps when the taps are made on the same side of the water main. One-inch connections made on opposite sides of the water main require a minimum horizontal separation of eighteen inches. Connections larger than one-inch require a minimum distance of five feet between taps. A minimum distance of five feet is required between the tap and a hydrant tee or valves. A minimum distance of two feet is required between a tap and any bell or fitting.

Distance between Water Service and Sanitary Service

For new installations, the horizontal spacing between water service and sanitary service lateral shall be no less than six (6) feet.

Tap Size as it related to Service Connection and Curb Valve Size

The size of the tap must correspond to the size of the public portion of the service piping and the curb valve. Any reduction in size shall be made after (downstream of) the curb valve on the private property portion of the service. Additional reducers or fittings shall be furnished by the owner.

The Division of Water may not connect the private portion of the service. The tap size must also correspond to the size of the connection throughout its length unless permission is granted in writing by the Division of Water.

Location of Meter Vaults

Meter vaults may be used when in the opinion of the Division of Water, the meter cannot be placed inside the home or building, or when no home/building exist, such as in the case of an irrigation system for a vacant lot. Meter vaults are to be installed in the right-of-way or within a meter vault easement contiguous to the right-of-way or water.

Metered Domestic and Fire Service

A combined service is defined as one pipe that carries water for both domestic and fire protection purposes. Combined service is permitted on a case by case basis by the Lorain Division of Water or Engineering Department when it is determined that the cost of installing multiple service lines is cost prohibitive. Where approved, the customer must purchase an approved UL/FM meter.

All Metered services to be controlled by unique Curb Valve

Every metered connection must have a curb valve in a location within the public right-of-way. Individual curb valves are required so that an individual metered service can be shut off for non-payment or at the customer's request without impacting other metered services. Curb valves shall be installed approximately two (2) feet from the curb when possible but shall always installed within the public Right- of- waty.

Sub Metering

Lorain Water will not sub meter any property. While customer can purchase and install additional meters for the purpose of submetering, customer bills will always be determined by the primary meter and billed to the property owner.

Placement of Meter

A meter vault is required if the distance between the existing right-of-way and the domestic service point of entry into the building is more than 250 feet or when the service line between the curb valve and point of entry into the building is . The meter must be installed immediately after the service line enters the building in a horizontal position a maximum of 36 inches from the basement floor. The backflow device, if required, is to be installed immediately after the meter unless another location is specified by Lorain Water.

Meter Bypass Settings Inside Buildings

Bypass lines are not permitted on meter setters inside buildings or in vaults accessible from the interior of the building.

Multiplex Connections

Two-plex / Duplex connections using a manifold or wye-splitter are permitted on a case by case basis. When approved, owner shall ensure that each metered unit intended to be serviced by an individual feed and meter shall limit flow to that unit. Any interconnections of shared plumbing shall be severed. Curb valves for each metered connection must be located within the right-of-way.

Variances

Any deviation from these requirements must be approved in writing by the Director of Utilities or their designee. Approval must be in the form of a letter, email, or recorded as part of the service connection quote.