

2019 ; WATERMANS
SPECIFICATIONS FOR WATER SERVICE LINE PROTECTION PROGRAM
SECTION C6.0

1. General

1.1. Background: The Water Service Line Protection Program (WSLPP) provides owners of residential properties an option for affordable protection against the significant costs of repair or replacing leaking or frozen water service lines. In addition to providing a valuable service to Owatonna Public Utilities (OPU) customers, the program is intended to minimize disruption and public hazard due to leaks which would not otherwise be repaired in a timely manner.

1.2. See OPU Policies for additional information of Eligibility and Coverage information.

1.3 Purpose: The purpose of this specification is:

1.3.1. To establish and communicate working parameters and expectations for the Contractor, OPU and the property owner in regards to the WSLPP.

1.3.2. To provide Property Owners and Contractors with information to properly fulfill the requirements of the WSLPP.

1.4 Responsibility: The Owatonna Public Utilities at 208 South Walnut Street, Owatonna, Minnesota, the authority having jurisdiction in charge of the “municipal” water system, shall be responsible for administering the WSLPP.

2. Definitions: The following definitions shall apply to this specification. These definitions shall be used in conjunction with definitions and guidelines of the Minnesota Plumbing Code “Chapter 4715”.

2.1. Contractor: The term “contractor” shall mean the business or entity that has entered into a contract with the Property Owner.

2.2. Customer: The term “customer” shall mean the person(s) that are purchasing the water that is supplied by the Owatonna Public Utilities.

2.3. Emergency Repair: The term “emergency repair” shall mean the repair of a defective water service line necessary to relieve immediate danger to health, safety or welfare of the public. OPU has the discretion to determine if an emergency exists.

2.4. Water Leak (leak): The term “water leak” or “leak” shall mean the loss of potable water to the outside of the carrier pipe, fitting or valve.

2.5. Private Property: The term “private property” shall mean the land area on the house side of the property line. Also, items under the ownership of the property owner.

- 2.6. Property Owner: The term “property owner” shall mean the actual owner of the property as indicated in the County Recorder’s Office.
- 2.7. Public Property: The term “public property” shall mean the land area on the street side of the property line. Also, items under the ownership of OPU or another public entity.
- 2.8. Right of Way (R/W): The term “right of way” or “R/W” shall mean the land area on the street side of the property line.
- 2.9. Subcontractor: The term “subcontractor” shall mean any business or entity that has entered into a contract to complete all or part of the scope of work that is the Contractor’s responsibility.
- 2.10. Water Service Line: The term “water service line” shall mean the water line that extends from the water main to the water inlet side of the water meter. This shall include the water corporation stop and/or saddle on the main, curb stop and box and the inlet meter valve.
- 2.11. Water Service Owner: The term “water service owner” shall mean the property owner in which the water service line supplies water to.
- 2.12. Water User: The term “water user” shall mean the person(s) that will be consuming or using the water at the point of use, (i.e., consumer).

3. Owner and Contractor Requirements and Limitations

3.1. Property Owner Requirements and Program Limitations

3.1.1. Contractor -

The Owner shall be responsible for coordinating with and employing a Contractor to complete the repair work. The Owner shall make payment to the Contractor and receive reimbursement from OPU for the portion of work meeting the WSLPP requirements and limitations.

The Contractor completing the work shall comply with section 3.2.1.. The Owner shall be responsible for making the Contractor aware of the WSLPP requirements.

3.1.2. Access -

The Owner shall make the property where the work needs to take place available for access at all reasonable times to authorized representatives of OPU for inspection of the issue and repair work.

3.1.3. Notification and Inspection of Leak –

The Owner shall notify OPU of a water leak as soon as reasonably possible to help mitigate lost water. The Owner shall contact OPU to have a representative of OPU complete an inspection of the leak prior to any work taking place. Failure to complete the notification and inspection process may void payment for the repair of the water leak.

3.1.4. Water Service Line Repair Application -

The Owner shall submit a signed Water Service Line Repair Application to the OPU Engineering Department with the request for reimbursement. This application along with WSLPP specifications will be provided at the time of inspection.

3.1.5. Account Status –

The account(s) for which the affected service is attached to must be current on their payments for the Program to be in effect.

3.1.6. Coordination and Scheduling of Work -

The Owner shall be responsible for coordinating and scheduling the required work to be completed. For any work that involves OPU personnel the work shall occur during normal business hours and be coordinated a minimum of 2 business days in advance.

3.1.7. Scope of Work –

3.1.7.1. Meter Valve Replacements: See also section 3.2.,4., and 6.. Meter valve replacements shall include the replacement of all pipe, fittings and quarter turn ball valve from the termination of the stub through the floor to the inlet side of the meter. In general all items from the termination of the stub through the floor to the inlet side of the meter shall be part of a standard repair.

3.1.7.2. Service Line Repairs: See also section 3.2 and 4.. Service line repairs shall include the repair or replacement of all leaking pipe, fittings, curb stop, corporation stop, saddle or other appurtenances located on the service line from the water main to the inlet side of the water meter. In general the repair will be isolated to the segment of the service that is leaking. The exact scope of replacement shall be approved by the OPU Engineering Department prior to completing the work. OPU must authorize any work to occur that is outside the scope of work.

3.1.8. Owner Utilities -

The Owner shall mark the location of private utility lines, in ground irrigation systems and electronic pet fences prior to excavation. This includes systems that are on private property as well as within the public property. The protection, repair or replacement of damaged private utility lines shall be exempt from reimbursement for the WSLP Program.

3.1.9. Restoration on Private Property –

For areas located on private property the Contractor shall backfill the excavation area to a finished grade level with excavation materials.

The Owner is responsible for the restoration and cost of all surface and sub-surface improvements that are affected by the replacement or repair work of the water service that is located on private property. This restoration work shall not be included within the request for reimbursement.

3.1.10. Restoration of Surface Improvements – Located in the Right of Way-

The Owner shall obtain a City of Owatonna Right of Way (R/W) permit for all work within the R/W. Wherever any surface improvements such as pavement, driveways, curbing, pedestrian walks, retaining wall, fencing, landscaping or turf have been removed, damaged or otherwise disturbed by the repair operations, they shall be repaired or replaced to abide by all City of Owatonna R/W permit requirements. The Owner’s Contractor shall take reasonable precautions for the protection of these items and limit the extent of the work area. The cost of items damaged or disturbed due to negligence or excess working limits shall be borne by the Owner. Restoration reimbursement shall be on a time and material basis. Restoration items shall be clearly defined with costs broken out by location and type of work within the request for reimbursement.

3.1.11. Restoration of Subsurface Improvements – Located in the Right of Way -

The Owner shall obtain a City of Owatonna Right of Way (R/W) permit for all work within the R/W. Existing sewers, tiles or other items damaged or otherwise disturbed by the Contractor's operations during construction shall be reported to the City. The Contractor shall take reasonable precautions for the protection of these items and limit the extent of the work area. The cost of items damaged or disturbed due to negligence or excess working limits shall be borne by the Owner. The items shall be replaced in the same kind and structure as the pre-existing condition and/or as directed by the City of Owatonna Right of Way permit requirements. The soil shall be tamped below, around and above the item to the satisfaction of the City. It may be required to bed and backfill the replaced section with aggregate material. Restoration payment shall be on a time and material basis. Restoration items shall be clearly defined with costs broken out by location and type of work within the request for reimbursement.

3.1.12. Water Line Thawing –

Water lines may be unthawed a maximum of 1 occurrence per calendar year for each Customer. Reimbursement for thawing work shall be capped at 8 hours. Thawing via electric current is not a permitted method and shall not be covered under this Program. The Customer shall complete and submit the “Water Line Thawing Acknowledgement form” as part of the reimbursement submittal. Contractors that are employed by the Customer shall comply with section 3.2..

It is the Customers responsibility to protect or run water to a level and time frame that prevents a future frozen water line. In the event of a second occurrence within a calendar year it is the Customers responsibility to privately coordinate and pay for the thawing of the water line.

3.1.13. Payment -

The Owner shall receive reimbursement for work contracted within 21 days of OPU receiving a complete and accurate request for reimbursement and OPU approval of the work.

3.1.14. Completion Inspection –

3.1.14.1. For water service line repairs or replacements; The Owner and/or Contractor shall coordinate an inspection of the repairs and/or replacements before backfilling takes place. Contact OPU at 507-451-1616 to schedule the inspection.

3.1.14.2. For meter valve replacements; The Owner and/or Contractor shall either take a picture of the repair work and email it to OPU at the email address of waterinspection@owatonnautilities.com or coordinate an onsite inspection during normal business hours at 507-451-1616.

3.1.14.3. For water service line thawing; No inspection is required.

3.1.15. Request for Reimbursement -

The Owner must include the following items when submitting for payment:

3.1.15.1. A detailed invoice of time, materials and equipment used on the project. This invoice shall only include items and restoration for work that is covered under the WSLP Program. Labor, Equipment and Excavation Time shall be for the actual working time only. Overtime, Weekend or Holiday extra compensation rates for equipment will not be allowed. Down time while waiting for other operations to be completed shall not be paid. Restoration items shall be clearly defined with costs broken out by location and type of work within the request for reimbursement. Materials shall be paid at actual cost plus a 35% mark up.

3.1.15.2. A signed copy of the Water Service Line Repair Application.

3.1.15.3. A copy of the license(s) for the person(s) completing the work.

3.1.15.4. A Water Line Thawing Acknowledgement form (if applicable).

3.1.16. Pre-Existing Conditions -

Properties having water service lines which OPU determines in its sole discretion are improperly installed, damage has been allowed due to no heat, are in a state of disrepair, or have adverse pre-existing conditions (e.g. existing leaks, habitually freeze, etc.) shall not be covered under this Program. An on premise survey/inspection shall be completed prior to the Program taking effect.

3.1.17. On-Premise Survey/Inspection -

The Owatonna Public Utilities shall require an on premise survey prior to being able to be allowed to participate in the Program. The Customer must make available the property for inspection during OPU's normal business hours. Access into the water meter area will be required. This survey is required to evaluate the presence of any pre-existing conditions. This requirement is waived for all customers who entered the program prior to January 1, 2016.

3.2 Program Contractor Requirements

3.2.1. The following are minimum requirements:

3.2.1.1. Plumbers and Pipe Layers shall have completed a minimum amount of training as required by the State of Minnesota Department of Labor and Industry.

3.2.1.2. Plumbers and Pipe Layers shall hold a valid license from the State of Minnesota Department of Labor and Industry. A copy of the license(s) for the person(s) completing the work shall be provided with the request for reimbursement.

3.2.1.3. Installation, maintenance and repair work on water lines inside a structure to a point 2 feet outside of a structure shall be performed by a licensed master plumber, or a licensed journeyman plumber under the supervision of a master plumber. Installation, maintenance and repair work on water lines from a point 2 feet outside of a structure to the main shall be performed by a licensed master plumber, or a licensed journeyman plumber under the supervision of a master plumber, or a licensed Pipe Layer.

3.2.1.4. The 2015 Minnesota Plumbing Code shall apply to all aspects of this specification.

3.2.2. Fair and reasonable charges -

The charges for work completed shall be fair and reasonable compared to similar work scope and locations. Excess charges or price gouging above industry norm will not be allowed.

3.2.3. OPU Contractor Safety Program -

All Contractors and Subcontractors may complete the OPU Contractor Safety Program prior to completing any work for the Customer. If you would like to take advantage of this Program please contact OPU Safety Manager at 507-451-2480 to coordinate the completion of the Safety Program.

3.2.4. Work Completion Deadlines -

The Contractor shall complete the work in the timeline as coordinated with the property owner.

4. General Construction Requirements and Limitations

4.1. Interruption of Water Service-

No interruption of water mains will be allowed unless approved by OPU. The Owner or Contractor shall coordinate water system shut downs with OPU a minimum of 2 business days in advance of the requested time. The exact date, time and length of the outage must be approved by OPU. It is the Owner's responsibility to give written notice to customers of the required shut down. The Owner shall provide the date, time and proposed length of the outage to the customer along with a 24-hour contact for them to call. OPU will provide a map of the affected customers at the time of coordination. All

watermain valves that are required to be opened or closed shall be operated by OPU or under the direction of OPU only.

The Owner or Contractor is responsible for turning curb stops. Curb stops shall be operated to shut off the water supply to a property in all possible cases. If the curb stop is not accessible sufficient attempts shall be made to make it accessible. Temporarily freezing of water service stubs shall be considered in lieu of water system shut downs.

4.2. Existing Utilities-

Prior to any excavation the Contractor shall notify “Gopher State One Call” in advance of proposed excavations and have the project area field located for utility presence.

The Contractor shall have sole responsibility for providing temporary support and for protecting and maintaining all existing utilities in the project area during the entire period of construction, including but not limited to the period of excavation, backfill and compaction. The cost of working around existing utilities shall be considered as part of the excavation costs without additional compensation to the Contractor.

4.3. Installation / Repair of Water Service Lines-

Water service lines, curb stops and boxes shall be installed / repaired as required by the City of Owatonna, following current State Plumbing Codes.

Corporation stops shall be tapped into the main only when full of water under pressure. No taps shall be made into a dry pipe. Corporation stops shall be turned into the pipe until tight and shall not be turned back to facilitate having the operation nut on the top. See section on Tapping of Water Mains.

Locations and routes are to be set so as to minimize pipe length, to limit destruction of existing surface and subsurface improvements, existing vegetation and landscaping, and to avoid conflicts with other structures

All pipe, fittings and appurtenances shall be kept in a clean disinfected state until it's placement into the water distribution system. All new piping must be chlorinated during installation. At no time may ground water, trench water, or backfill be allowed to enter the inside of the clean pipe. All tools, containers, rags, etc. shall be clean and sanitary prior to use.

4.4. Pipe Alignment and Grade -

All new/replacement water lines shall have a minimum of 7-0' of cover to finish grade. OPU may waive this depth requirement if it is more feasible to pull a new line in with the old line. The Contractor must get approval from OPU prior to deviating from the 7-0' depth requirement. If site conditions do not allow the pipe to be installed to the minimum cover the Contractor shall notify OPU to determine if the installation of insulation may be required.

4.5. Excavation -

The trench shall have a bottom conforming to the grade to which the pipe is to be laid. The pipe shall be laid upon sound soil, cut true and even so that the barrel of the pipe will have a bearing for its full length. If the excavation is inadvertently made below the

bottom conforming to grade, it shall be backfilled with well-tamped pit run sand or fine gravel.

Ledge rock boulders, and large stones shall be removed to provide a clearance of at least twelve (12) inches below outside barrel of the pipe, valves, or fittings, and to a clear width of twelve (12) inches on each side of all pipe and appurtenances.

4.6. Dewatering of Trenches -

No water pipe or appurtenances shall be placed in any trench containing standing water. The pipe bed shall be made water free prior to pipe placement by means of pumping, shoring, well points, replacements of saturated soils, or other approved methods. The cost of dewatering shall be considered as part of the excavation costs without additional compensation to the Contractor.

4.7. Insulation -

Insulation shall be used for service lines as directed by OPU. Sheets shall be staggered to prevent joints from being aligned when thickness is greater than 2". No broken sheets or pieces may be used. 3" of leveled and compacted sand cushion shall be placed below the insulation. Insulation shall be paid for on a time and material basis.

4.8. Tapping of Water Mains -

Taps 1" diameter on ductile iron and cast iron mains are to be direct taps. Tapping clamps or saddles will be required on all PVC mains and on all taps larger than 1" on cast iron and ductile iron mains. All clamps or saddles will be cast iron O.D. in size. Watermain taps must be inspected by OPU prior to being backfilled.

4.9. Corporation Cocks -

All corporation cocks shall conform to A.W.W.A. Standards with A.W.W.A. threaded inlet and A.W.W.A. copper service pipe outlet. Corporation cocks shall be Mueller #H15000, Ford F 600 or approved equal. Corporation cocks on six inch (6") ductile iron pipe shall be a maximum one inch (1") in size.

Tapping clamps and saddles used must be one of the following (or equal determined by OPU):

Approved clamps or tapping saddles for 1", 1-1/4", 1-1/2", 2" taps:

Ford Meter Box Company Inc.

Style FS303W for standard and/or 900 PVC pipe w/ cc threads.

Flush Body Tapered Gasket Only

Cascade Mfg. Co.

Style C.S.C.2 for standard and/or 900 PVC pipe-double bolt saddle clamp w/ cc threads.

Approved large clamps for 4", 6", 8", 10", 12", 16" taps:

Ford Meter Box Company Inc.

Style F.A.S.T. Ford tapping sleeves

Cascade Mfg. Co.

Style CST-E.X. Extra Heavy

Mueller Co.

Style H-615 mechanical joint tapping sleeve

All taps, clamps, or saddles must be wrapped in plastic before filling ditch.

The Contractor shall give OPU a 24 hour notice prior to any water tap. This notice allows OPU to schedule the inspection of a tap being made by the Contractor.

4.10. Material Handling and Storage -

The Contractor shall be responsible for the safe storage of material furnished by or to the Contractor, and intended for the work, until it has been incorporated in the completed project.

The interior of all pipes, fitting and appurtenances shall be kept free from dirt and foreign matter at all times. Pipe shall be handled in such a manner to protect all coatings and linings from damage. No pipe, fitting or appurtenances shall be dropped any distance while handling the item. Items shall be carefully lowered into the trench.

4.11. Backfilling -

All trenches or excavations shall be backfilled to the original surface of the ground. A bed of Granular Borrow shall be placed a minimum of 4" below the bottom pipe grade, a minimum of 6" each way from the sides of the pipe and a minimum of 12" above the top of the pipe.

The remaining portion of the ditch to the subgrade of the pavement shall be backfilled with selected materials free from rocks, boulders, cinders, ashes, refuse, frozen material, clay lumps larger than 1/3 cubic foot in volume, organic materials or any item that would cause excess settlement of the subgrade. In that portion of the subgrade that is within 6 inches of the road subgrade, there shall be no stones, which would be retained on a 3-inch sieve.

The maximum loose thickness of each backfill layer shall be 8 inches except that 12 inches will be permitted for granular materials placed above an elevation one foot above the top of pipe. Each layer of backfill material shall be compacted effectively, by approved mechanical or hand methods, until there is no further visual evidence of increased consolidation. Compaction of each layer shall be completed acceptably before placing material for a succeeding layer thereon. All valves and tight areas shall be hand tamped with a jumping jack type compactor.

The Contractor shall backfill the excavation area to a finished grade level. Disturbed areas within green areas shall be seeded with a lawn type seed. The Contractor shall add material as required to settled excavations.

4.12. Backfilling Under Utilities -

All backfill materials placed under the Utilities that are exposed during excavation operations shall be thoroughly tamped in place in 6" layers to avoid any future settlement of these utilities.

4.13. Water Valve Operations -

The Contractor shall not operate any valves on the existing OPU water distribution system. All valves that are required to be opened or closed shall be operated by OPU or

under their direction only. The Contractor may operate service valves within their project Scope.

4.14. Flushing of Water Lines -

The Contractor shall flush the new and existing lines as necessary to remove debris and dirty water. The Contractor's plumber shall flush the water within the property until it is in a clean state, this shall be completed in a location before the meter if possible. The plumber shall take all necessary precautions to by-pass customer equipment and ensure all end uses are protected and operating properly.

4.15. Curb Stop Boxes -

Curb stop boxes that are bent, buried, too high or filled with dirt are not covered under the Program. However, the Program will cover their repair, adjustment or cleaning if it is in conjunction with an actual covered service line repair where access is required. The Customer shall seek prior approval to work taking place for it to be covered. Payment shall be on a time and material basis.

4.16. Traffic Control -

Traffic control shall be implemented as directed and required by the City of Owatonna. The cost of traffic control shall be considered as part of the excavation costs without additional compensation to the Contractor.

4.17. Erosion Control -

Pollution of natural resources of air, water, and land shall be prevented, controlled, and abated by the Owner as required by the City of Owatonna. The cost of erosion control shall be considered as part of the excavation costs without additional compensation to the Owner.

4.18. Work Zone Safety -

The Owner and/or Contractor shall be responsible for adherence to all OSHA safety requirements for all operations and employee activities under their direction and control.

4.19. Permits -

All state and local permits that are required to complete the work shall be the responsibility of the Owner and/or Contractor.

4.20. Lead Services -

When lead services are encountered the Contractor shall immediately notify OPU and the Property Owner. The Program does not cover the replacement of lead services unless its condition warrants a replacement. OPU will make a field assessment of the pipe condition to determine the scope of the repair or replacement. OPU encourages Property Owners to replace any lead services encountered.

5. Thawing of Frozen Water Lines Requirements and Limitations -

5.1. Pipe Fitting -

All pipe fitting shall be completed by a licensed plumber as required within the Minnesota State Plumbing Code.

5.2. Electric Current Thawing -

Thawing via electric current is not a permitted method and shall not be covered under this Program.

5.3. Cross Connection Water Thawing Methods -

Frozen water line thawing methods that employ the use of a direct cross connection of a non-potable source into the potable water line are considered a direct cross connection to the public water supply and are in violation of our Cross Connection and Backflow Prevention Policy. Two such known methods are either a flow of heated water through the line to melt the ice or one that utilizes high pressure jetting equipment to cut through the ice. As we have determined this to be an emergency condition, we have waived these methods as a violation to our policy if the following guidelines and conditions are met. If additional methods are employed the plumber shall contact OPU prior to completing the work for approval.

OPU has outlined the following minimum guidelines that shall be followed when creating a cross connection in efforts to re-establish a frozen water line. The contractor completing the work is ultimately responsible to assure that they are not introducing materials into the public potable water supply that may be detrimental to public health. If you choose to complete this work you must be aware of the responsibility and liability that you are taking on.

- 1.) OPU shall be notified **prior** to the work taking place to inform us that you are going to be creating a cross connection. **You can call 507-451-1616 – 24hrs/day.**
- 2.) The water that is being injected into the water line must be sanitary and come from a potable water source. The water may not contain any chemicals other than a chlorine bleach solution. The water must be chlorinated to a level of 200ppm with standard 5% household bleach. The 200ppm may be achieved by using 1gal of household bleach to 200 gallons of water. Please refer to manufactures directions for exact mixing directions, precautions and protective equipment that may be necessary when working with this chemical and at these elevated levels.
- 3.) The hose and nozzles that are used for this process must be dedicated for use with water lines. The hose and nozzles must not have ever been used for other applications including sanitary and storm sewers.
- 4.) The hose and nozzles must be sanitized with 100% household bleach in a clean tote or tub by either a complete immersion or by a course spray from a pump sprayer. This hose shall be sanitized immediately prior to insertion into the pipe and shall remain in the tote at all times. The hose shall not be allowed to be fed from the floor or ground.
- 5.) The technician shall wear disposable plastic gloves while handling the sanitized hose and take care in maintaining the gloves sanitary condition. New clean gloves shall be put on anytime that the technician is required to handle unsanitary tools or equipment.
- 6.) After the line has been de-iced and the line is flowing, the water line shall be flushed for a minimum of 10 minutes to remove the concentrated chlorine solution and ice particles. The line shall be flushed before the meter to avoid damage to the meter and the customer equipment.

It is your responsibility to take the necessary precautions while working with the equipment and chemicals. You must follow all manufactures recommendations and safety requirements. OPU does not assume any liability for damage to either person or property in the use of these guidelines.

6. Replacement of Meter Shut Off Valves Requirements and Limitations -

6.1. Licensed Plumber -

All work shall be completed by a licensed plumber as required within the Minnesota State Plumbing Code.

6.2. Curb Stop Operation -

The Contractor shall be responsible for the operation of the curb stop. Care shall be taken in the operation of the curb stop to prevent damage. The Contractor shall have his own curb stop wrench.

6.3. Inlet/Outlet Meter Valve -

This program only covers the replacement of the meter valve on the inlet side (water service side) of the water meter. The downstream valve is the customers and is part of the house piping. In general all items from the termination of the stub through the floor to the inlet side of the meter shall be part of a standard repair.

6.4. Materials -

Meter valves shall be of the same size as the water service line. The valves shall be a quarter turn, full port ball valve meeting the current lead free plumbing standards. All piping between the water service and the meter shall be new meeting the MN Plumbing Codes. All pipe and fittings shall be kept in a clean disinfected state until it's placement into the water system. All tools, containers, rags, etc. shall be clean and sanitary prior to use.

6.5. Meter Location -

The Owner shall keep the meter in a readily accessible location that allows for free and unencumbered pipe fitting. The meter shall not be built into an enclosure or behind an access panel. The Program does not pay for the relocation of the water meter in instances that do not meet the above requirements. This relocation shall be the responsibility of the owner. OPU will pay for the meter valve replacement portion only.