



Sherwood Industrial Park – Service Connection Instructions

1.0 Introduction

The RM of Sherwood No 159 (the RM) will be providing a potable watermain for properties in the Sherwood Industrial Park. This work is currently underway and will continue for the next several years. Following completion of this work, the properties with frontages onto the watermain will be required to make a connection as per RM's *Waterworks Bylaw 17-17*, and *Amendment 22-17*.

2.0 Connection Requirements

The RM requires each property owner to connect a potable water service from the watermain to the property line complete with curb box as per the specifications provided. If a property owner requires a potable water service line larger than 50mm, a dedicated fire protection line, or a line connecting to a building sprinkler system, a detailed engineering design method and plans must be submitted to the RM. The detailed design may include National Plumbing Code sizing calculations, peak demands, NFPA 1142 fire flow calculations, and connection details. Contact the RM prior to design to confirm submission requirements.

If a 50mm water service line is adequate, the property owner will be required to follow the procedure below:

1. Submit a Connection Application to the RM. This application will include:
 - a. Site Plan
 - b. Service connection and curb box location
 - c. Water meter sizing form
 - d. Length from property line to water meter

Pending approval of the Connection Application and prior to construction;

2. Submit a Construction Permit Application. The Contractor must be approved to complete watermain connections by the RM.

The water service connection will provide varying levels of service depending on the water distribution system designed for each building. Factors affecting the level of service include:

- Developed length - Distance from the property line to the most remote water outlet
- Number and type of water fixtures

Buildings with a developed length less than 122m will be able to accommodate at least 205 fixture units with 50mm diameter internal plumbing, assuming the building meets plumbing code.

Buildings with a developed length up to 213m will be able to accommodate a minimum 123 fixture units with 50mm diameter internal plumbing, assuming the building meets plumbing code.

“Table 2.6.3.2.- A” of the National Plumbing Code should be used as reference. The table assigns the number of fixture units per water fixture. It is up to the individual property owner to ensure the water distribution system designed for the building does not total more fixture units than identified above, given the developed length.

All properties are required to install backflow prevention devices within the water distribution system immediately downstream of the water meter.

3.0 Standard 50mm Service Connection Specifications

1. PRODUCTS

.1 Pipe

Water Service Pipe to be 50mm HDPE DR11 to AWWA C901 (PE3408) with a minimum pressure rating of 1100 kPa.

.2 Service Saddles

Service saddles to be full circle type, constructed of fully passivated T304 stainless steel with BUNA-N or EPDM gaskets and T304 stainless steel bolts with rolled threads and nuts. ROBAR Series 2600 or as approved.

.3 Curb Stops

Curb Stops and Boxes to be bronze or brass body, stop and waste design, globe or ball valve style, with compression type end connections designed for HDPE. Mueller Type H 15219, Mueller Type H15182, Ford Model B44, Cambridge Brass Model 203 or as approved.

Curb boxes and top extensions -Sch. 40 Type 304 stainless steel pipe complete with polymer boot.

Curb box covers - Mueller Type A808 ribbed cover complete with standard pentagon plug No. 143469 or as approved.

Curb box rods - Type 304L stainless steel, 13 mm diameter with standard pigtail to fit standard 25 mm I.D. curb box.

Cold forge u-shape complete with hole for brass cotter pin to fit 50 mm curb stops.

.4 Corporation stops

Corporation stops shall be Mueller Type H 25008 for sizes 40 mm and 50 mm; Ford Model F1000 or FB1000; Cambridge Brass Model 301; or as approved. Standard brass

or bronze construction with Mueller tapping thread and compression type joint compatible with type of pipe used.

.5 Backflow Prevention

Backflow preventers shall be sourced based on the premise protection requirements. The hydraulics and health hazard should be assessed as outlined in the Canadian Cross Connection Control Manual. Backflow preventers shall conform to 2.2.10.10. of the National Plumbing Code 2015. All products must carry certification by CSA or USC-FCCCHR. Approved manufacturers include Conbraco, Watts, Zurn/Wilkins, and Febco.

2. EXECUTION

.1 Trenching

Water services piping up to and including 50 mm may be installed in a common trench with the sanitary sewer service line. It is desirable that a clear separation of at least 300 mm is maintained between these lines.

Whenever common trenched service lines must be installed at different elevations, install the higher service on a shelf of undisturbed ground. If shelving the higher service line is not possible, re-establish the foundation of the higher utility with compacted backfill.

Leave trenches open until connections have been completed and visually inspected while they are under pressure. Ensure corporation stops are in the open position before backfilling.

Unless otherwise specified, tap corporation stops into the watermain using an approved tapping machine while the main is under normal operating pressure. After completion of each tapping connection, backfill to 75 mm above the top of service pipe with in-situ material.

Provide minimum 2.7 m of cover over the full length of service lines.

Whenever water service lines cross existing roadways, install the pipe using trenchless methods to ensure the roadway is preserved during construction. Maintain a minimum 3.0m clearance from excavation pit to the shoulder of the roadway.

.2 Corporation Stops

Use an approved tapping sleeve. Tapping size used on PVC pipe shall be at least one (1) nominal pipe size smaller than the watermain being connected to.

Refer to City of Regina Standard Drawing W-17. Install the corporation stop in the horizontal position.

Do not tap corporation stops into watermains within 600 mm of a pipe joint, fitting or valve. Space multiple taps a minimum of 450 mm on centre.

Tighten corporation stops into PVC watermains (cast iron O.D. only) with 35 to 40 Newton-Meters of torque.

Wrap the thread of the corporation stops used on PVC and ductile iron watermains with three to four wrappings of teflon pipe thread tape before installation of the corporation stop.

.3 Curb Stops

Install a curb stop and waste at the property line.

Install curb stop and waste valves with the drain port on the private property side, extend a short length of pipe from it and crimp or plug the end. Refer to City of Regina Standard Drawing W-17.

Install services to existing buildings along a line that will best suit the interior plumbing.

Support each curb stop and waste on a 75 mm x 200 mm x 250 mm concrete block as shown on City of Regina Standard Drawing W-17.

In fine-grained or clay soils construct a 0.2 m³ volume drainage sump below and around each curb stop and waste.

When curb stops or valves are installed and the boxes are to be installed later, mark the curb stop or valve above ground as shown on City of Regina Standard Drawing W-17.

Adequately secure the curb extension rod to each curb stop and waste. Set the service box plumb with the upper sections of the service box adjusted to grade elevation. Install the lower section of the service box and the extension rod a minimum 300 mm below ground elevation to prevent heavy loads being transmitted to the curb stop. Leave the curb stops closed.

For sites storing hazardous material or petroleum products, install a trench plug of impermeable plug of bentonite clay or other approved material as shown on City of Regina Standard Drawing S-28. Plug to be not less than the width of the utility trench at the property line on all utility service trenches on all properties that are used, or have been used, for the storage of liquid hazardous materials and/or petroleum products.

.4 Backflow Prevention

Backflow preventers to be installed in compliance with CSA Standards B64.10-11/B64.10.1-11 (Selection and installation of backflow preventers/Maintenance and field testing of backflow preventers) by qualified journeyman plumbers or pipefitters. Testing will be carried out by the RM upon completion.

For more information, please contact the RM Office at (306) 525-5237 or by email and info@rmofsherwood.ca.