TORONTO WATER
Metro Hall
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Toronto, Ontario M5V 3C6

Requirements for Modification or Replacement of Short Length Watermain

A Short Length Watermain (SLW) is a watermain that is 6.1 meters in length or less.

The modification or replacement of an existing SLW or a SLW section of existing watermain (hereafter, SLW work) is exempt from the requirements that i) the design be prepared by a Professional Engineer (P.Eng.) and ii) a P.Eng. verify on the Form 1 – Record Of Watermains Authorized As A Future Alteration, Part 3, item No. 1, as per the City of Toronto's (City's) Drinking Water Works Permit (DWWP), Schedule B, Condition 3.7, if the SLW work meets all of the following:

1) does not constitute maintenance or repair of the drinking water system,
2) presents limited risk in the installation to the City and/or the public, and
3) does not meet the approval exemption requirements under Ontario Regulation 170/03, Section 9,

and if a P.Eng. has conducted all of the following:

1) inspected the SLW work prior to it being put into service,
2) prepared a SLW report (in accordance with minimum requirements in **Appendix A**) confirming that the SLW work satisfies the Form 1, Part 3, items No. 2, 3 and 4, and
3) appended the report to the completed Form 1 form after sign-off by the P.Eng..

For greater certainty, the exemption in the DWWP Condition 3.7 does not apply to the replacement of an existing watermain or section of watermain if two or more sections of pipe, each of which is 6.1 meters in length or less, are joined together, if the total length of replacement pipes joined together is greater than 6.1 meters.

Applicants may choose to have a P.Eng. conduct above or design a SLW work. No completed Form 1 application is needed.

The table below summarizes the required documentation to be submitted to Toronto Water, Approval and Partnerships (DWWP-ECA@toronto.ca) for Acceptance for a SLW work, including circumstances that require design drawings.

Table 1: Submission requirements for SLW work

Types of SLW Work	**Required Documentation**		
	Completed Form 1 form	***SLW Report ****	***Plan & Profile Drawings ****
SLW with P. Eng. inspection	√	√	
SLW with P.Eng. design	√		√
SLW considered as an addition or extension of drinking water system	√		√
SLW required as part of a project that includes sewage works for which Environmental Compliance Approval is required	√		√
SLW required as part of a development project for which engineer sealed drawings are required	√		√

* Shall be stamped, signed and dated by a licensed Professional Engineer in Ontario.

Appendix A: Minimum requirements for a report for the modification or replacement of an existing watermain or section of watermain 6.1 meters long or less

As a minimum, a SLW report shall:

1. Confirm that the design of the watermain modification or replacement:
    i) is 6.1m in length or less and has been inspected prior to it being put into service.
    ii) has been designed only to transmit water and has not been designed to treat water. (Form 1, Part 3, Item No. 2))
    iii) satisfies the design criteria set out in the Ministry of the Environment, Conservation and Parks publication "Watermain Design Criteria for Future Alterations Authorized under a Drinking Water Works Permit – June 2012", as amended from time to time. (Form 1, Part 3, Item No. 3))
    iv) is consistent with or otherwise addresses the design objectives contained within the Ministry of the Environment, Conservation and Parks publication "Design Guidelines for Drinking Water Systems, 2008", as amended from time to time. (Form 1, Part 3, Item No. 4))
2. Include a key plan with the following requirements:
    i) All information shown on 8.5 x 11" pages.
    ii) North Arrow at top of page.
    iii) Street Labels.
    iv) Tie-in dimensions to from proposed watermain end point to centreline of nearest street(s).
    v) Proposed watermain length, diameter, pipe material, and pipe class.
    vi) Existing tie-in watermain pipe material and diameter.
    vii) Minimum clearance dimension from proposed watermain to proposed plant.
    viii) Minimum cover over proposed watermain, and/or elevations.
    ix) Proposed insulation (if applicable).
    x) Location, degree and direction of proposed bends with dimension from watermain end point.
    xi) Locations where the existing assets are capped, abandoned, etc.
    xii) Source water point for chlorination and disinfection.
3. Include digital photographs taken prior to backfilling of the trench.
4. Confirm that contaminating material has not entered the watermain during construction by ensuring an air gap of 150 mm under the watermain pipe.
5. Confirm that a spray disinfection method is utilized according to Table 1 of TS 7.30.
6. Confirm that the contractor installed a 25 mm corporation stop and new 25 mm copper sampling pipe to grade. This sampling point is to allow Toronto Water to take one water sample.
7. Confirm that sampling from the short filler piece is performed in accordance with TS 7.30.09.04.