

## Crossing of Transmission Watermain – GN118SS

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The standard operating procedure for crossing under any cast iron transmission watermain is as follows:

1. Contractor shall submit the proposed schedule of crossing to the Contract Administrator for review and contact Toronto Water, Water Treatment and Supply at 416-397-0187 or send an e-mail message to [trunkwater@toronto.ca](mailto:trunkwater@toronto.ca) 14 Days in advance of the proposed start of construction so that the required watermain can be de-pressurized systematically in conjunction with the installation of the proposed works. The Contractor shall make arrangements and co-ordinate for valve operation by Toronto Water required for the work. Costs could be incurred at the Contractor's expense for operating the valves to isolate the watermain and subsequent flushing of the main. The timing of the work shall be during the low water demand period between October 1 and March 31.
2. At the point of crossing a cast iron watermain, the Contractor shall expose the top of the watermain by hand digging the final one metre of the overburden. The depth of the trench shall temporarily terminate at the top of the main. The top of the watermain shall be exposed and cleaned for inspection.
3. City inspector shall inspect the exposed portion of the watermain to confirm if there is a joint within the width of the trench and 300 mm beyond the trench walls.
4. Contract Administrator can stop work at any time if there is a concern for watermain integrity.
5. If a joint exists and is in sound condition, the Contractor shall widen the trench, excavate and provide the necessary shoring to permit the installation of a restraining system or any other joint replacement by the City.
6. Any existing damage or leaks to the watermain discovered by the Contractor and confirmed not to have been caused by the Contractor, shall be repaired by the City. Any leaks or damage caused by the Contractor shall be repaired by the City at the Contractor's cost. The Contractor shall widen the trench, excavate and provide the necessary shoring to permit the replacement by the City. The minimum time required to do this work is 14 Days.
7. The Contractor shall not proceed with further excavation underside of the watermain until the City has completed the work as outlined above, and the temporary support is in place.
8. Once the proposed structure is installed, the Contractor shall backfill the trench from the base to the top of the watermain with unshrinkable fill according to TS 13.10. The Contractor shall not cut or remove the steel cables temporarily supporting the watermain

until the Unshrinkable fill has set. Reference should be made on the Contract Drawings indicating the method of supporting the watermain.

- 9.** The Contractor shall backfill above the top of the watermain with unshrinkable fill. Backfilling should only be completed after the City has re-pressurized the watermain and confirmed that there is no leakage.
- 10.** All shoring adjacent to the transmission watermain at the crossing shall be left in place.