

## Notes :

- 1. All water meters shall be installed in the horizontal position. By-pass piping may be installed in either the horizontal or vertical position around the water meter. The inlet tee must be installed within 600 mm of the point of entry on the floor or wall where the private water service pipe enters the building. No building control valve shall be installed before the inlet tee.
- 2. Water meters shall be installed with a minimum 1.2 m unobstructed clearance in front of water meter to nearest wall and 500 mm unobstructed clearance behind the water meter to the nearest wall. Water meters shall not be installed at a height greater than 550 mm above the floor.
- By-pass piping shall be installed with a minimum 500 mm unobstructed clearance from the outside 3. wall of the by-pass pipe to the nearest ceiling or wall.
- 4. The working space in front of the meter shall have a minimum of 2 m unobstructed head clearance.
- All joints shall be soldered, welded, threaded or flanged. Victaulic couplings is not permitted. 5. Acid core type solder is not permitted.
- All piping, including by-pass pipe, tees, bends and valves, except for the tee on the drainage 6. valve shall be the same diameter as the private water service pipe. Pipe reducers required to accommodate a smaller water meter than the private water service pipe shall only be installed between the inlet and outlet valves and shall be attached directly to the valves. All pipe reducers shall be concentric type reducers.
- 7. From the time of the installation of the water meter, the by-pass and flushing valves shall remain closed at all times and shall be sealed by the City.
- Only gate valves shall be permitted for inlet, outlet, by-pass or flushing valves. No ball valves or butterfly valves shall be permitted. All valves and fittings shall be with rated working pressure of 1035 kPa. Valves shall be brass or bronze gate valves. 8.
- 9. Drainage valve shall be a brass ball valve with brass plug.
- All piping shall be either type "L" copper (certified to ASTM B88) or stainless steel pipe rated to a minimum working pressure of 1035 kPa. For stainless steel pipe, all pipe flanges shall be welded to the pipe. Galvanized, polyethylene, PVC and other plastic pipe or fittings are not 10. permitted.
- All check valves, backflow preventers, pressure reducing valves, cross connection control devices and all other such devices shall be located downstream of the outlet tee. No other fittings 11. or connections shall be allowed upstream of such devices.
- 12. All water meter installations shall conform with the manufacturer's installation instructions.
- The by-pass valve shall be connected to the inlet tee, the flushing valve shall be connected to 13. the outlet tee and the drainage valve shall be connected to the flushing valve. The drain port tee shall be connected to the upstream side of the outlet valve. All valves shall be configured such that their handles shall not interfere with each other and all valves shall be readily accessible for operation, repair or replacement.
- Any insulation placed on or around any water meter shall be easily removable and replaceable 14. and shall not contain asbestos or any other toxic or hazardous materials. Such insulation shall not cover or obstruct the water meter register. Insulation shall be installed after final inspection. The City shall not be responsible for any damage to such insulation during any removal or replacement of such insulation.

| l dimensions are in millin | NOTES netres unless otherwise shown.                              | CONTINI | JE ON SHEET 3 | OF 3     |
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|                            | ENGINEERING & CONSTRUCTION SERVICES STANDARD DRAWI                | NG      | REV 4         | SEP 2018 |
| 1 Toronto                  | INSTALLATION DETAILS FOR<br>37 mm AND 50 mm POSITIVE DISPLACEMENT |         | T-1107.04-1   |          |
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NOTES CONTINUED FROM SHEET 2

- 15. The room where the water meter is located shall be positioned in the building such that it is adjacent to the outside wall of the building at the point where the private water service pipe enters the building.
- 16. The room where the water meter is located shall have a door with a minimum opening of one metre wide and 2.2 m high. The floor shall be constructed of waterproof materials. The walls and ceiling shall be constructed of water-resistant materials.
- 17. The private water service pipe shall be flushed prior to and after the installation of the water meter.
- 18. For remote readout device wire and conduit installation, refer to City of Toronto specifications.

All dimensions are in millimetres unless otherwise shown.

| M Toronto | ENGINEERING & CONSTRUCTION SERVICES STANDARD DRAWING              |     | SEP 2018    |  |
|-----------|---|-----|-------------|--|
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