

NOTES ON T-709.010 SHEET 2
ARE INTEGRAL PART OF THIS
DRAWING

All dimensions are in millimetres unless otherwise shown.



ENGINEERING & CONSTRUCTION SERVICES STANDARD DRAWING

REV 0

APR 2018

**GROUNDWATER FLOW MEASURING
DEVICE PIPING LAYOUT**

T-709.010


NTS

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Notes:

1. The groundwater flow measuring device shall be digital and non-resettable as approved by the City.
2. All groundwater flow measuring devices shall be installed in the horizontal position between 600 mm and 1200 mm above the finished floor to the top of flow meter.
3. Groundwater flow measuring devices shall be installed with a minimum 1500 mm unobstructed clearance in front of the device to the nearest wall and 600 mm unobstructed clearance behind the device to the nearest wall.
4. Groundwater flow measuring devices shall be installed with a minimum 1200 mm unobstructed working space above the device.
5. All piping shall be fully supported from the floor, and such support shall be suitable for that purpose and shall be supplied and installed by the property owner of the time of the installation of the groundwater flow measuring device.
6. All valves and bends shall be flanged or solder type. Acid core type solder is not permitted.
7. All piping, including bends and valves, shall be the same diameter as the pumped groundwater line.
8. After the groundwater flow measuring device is installed, the drainage valve shall remain closed at all times.
9. All valves shall have a handle showing the open and close directions.
10. Only gate valves shall be permitted for inlet and outlet valves. No ball valves or butterfly valves shall be permitted. Valves shall be designed for a minimum cold water working pressure of 1035 kPa.
11. Drainage valve shall be a brass ball valve with a brass cap and chain.
12. An approved strainer shall be supplied by the property owner and shall be bolted to the upstream side of the groundwater flow measuring device.
13. With the exception of items 14 and 15 herein, all groundwater flow measuring device installations shall be according to the manufacturer's installation instructions, unless the manufacturer's installation instruction call for greater lengths.
14. The minimum distance between the flange on the outlet side of the inlet valve and the flange on the inlet side of the strainer shall be no less than a minimum of eight (8) diameters. No bends or other fittings shall be allow in this pipe section.
15. The minimum distance between the flange on the outlet side of the groundwater flow measuring device and the inlet side of the drainage valve shall be no less than a minimum of two (2) pipe diameters. No bends or other fittings shall be allow in this pipe section.
16. 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.
17. Any insulation placed on or around any groundwater flow measuring device shall be easily removable and replaceable and shall not contain asbestos or any other toxic or hazardous materials. Such insulation shall not cover or obstruct the groundwater flow measuring device register(s). The City shall not be responsible for any damage to such installation during any removal or replacement of such insulation.
18. The pumped groundwater line shall be flushed prior to and after the installation of the groundwater flow measuring device.
19. For remote readout device wire and conduit installation, refer to City specifications.

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