

ONTARIO BUILDING CODE

7.6.1.10. Check Valves

- (1) A check valve shall be installed at the building end of the water service pipe where the pipe is made of plastic that is suitable for cold water use only.

7.6.1.16. Thermal Expansion

- (1) Protection against thermal expansion shall be required when a check valve is required by Article 7.6.1.10., a backflow preventer is required by Article 7.6.2.2., or a pressure reducing valve is required by Article 7.6.3.3.

7.2.11.3. Tracer Wire

- (1) Except as provided in Sentence (2), a 14 gauge TW solid copper light coloured plastic coated tracer wire shall be attached to every non-metallic water service pipe or fire service main.

OBJECTIVE

The use of plastic water service piping has gained popularity in the housing construction industry. Manufacturers have developed piping that is suitable for use with only cold water piping and for use with cold/hot water use. The Building Code is concerned with the installation of cold water use only water service piping and the negative effects of hot water would have on this piping. To prevent damage to the piping, a check valve must be installed downstream of the building control valve when piping approved for cold water only is used.

Additionally, the installation of check valve creates a closed water system and Sentence 7.6.1.16. (1) requires a suitably sized diaphragm expansion tank to accommodate the increase in pressure caused by thermal expansion within the closed water system. The illustration below demonstrates one possible method of compliance.

Once a water service pipe is laid down, a tracer wire is placed along its length and the trench backfilled. The tracer wire can be searched with metal seeking equipment when maintenance on the water service pipe is necessary after the tracer wire is found, an accurate excavation can commence, and site destruction is greatly reduced.

