



# Plastic Water Service Pipe

The Building Standards Department issues Builder Tips as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at 905.475.4848 extension 2189

## 7.6.1.5. 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.

### 7.6.1.11. Thermal Expansion

(1) Where thermal expansion can occur, protection shall be provided for

- (a) check valves required by Article 7.6.1.5.,
- (b) backflow preventers required by Sentence 7.6.2.1.(3) and
- (c) pressure-reducing valves required by Article 7.6.3.3.

(See Note A-7.6.1.11.(1))

## 7.2.11.3. Tracer Wire

(1) Except as provided in Sentence (2), every non-metallic water service pipe or fire service main shall have attached to it

- (a) a 14 gauge TW solid copper light coloured plastic coated tracer wire, or
- (b) a 12 gauge copper clad steel light coloured plastic coated tracer wire.

(2) Where a water service pipe or fire service main is detectable without the tracer wire referenced in Sentence (1) the tracer wire may be omitted.

## 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 7.6.1.11. (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.

