

TOPSFIELD WATER DEPARTMENT

Standard Procedures For The Installation Of Water Service Lines

PREAMBLE

The *Property Owner* shall be held responsible for insuring that the following procedures and requirements are observed:

- No connections shall be made to the Town's water mains, services, or hydrants without the permission of the Water Department.
- All new homes require an occupancy permit signed by various departments of the Town. No occupancy permit shall be issued without the approval of the Water Superintendent to insure that all Water Department rules and regulations have been complied with.
- All fittings for copper pipe shall be of the compression or flared type. All fittings for plastic pipe shall be of the compression type only. All valves shall open left (counter-clockwise). All fittings and valves shall be approved by the Water Superintendent prior to their installation.
- The following instructions as to methods and materials for the furnishing and installation of service lines from water mains to house connections are hereby issued as a guide to and a requirement for all individuals and private contractors engaged in this type of work and shall be followed unless otherwise approved by the Superintendent.

1. GENERAL

A) Permit for Service Connection

Before proceeding with the work, a Connection Permit shall be applied for and obtained at the office of the Water Department at the Town Hall and the required fee shall be paid.

B) Permit to Excavate in a Public Way

A Road Opening Permit shall be obtained from the Board of Selectmen to excavate in any public way in the Town for purposes of constructing a water service line. Any decision relative to the exact location for such service line shall be approved by the Superintendent of the Water Department.

C) Protections

Insurance certificates shall be furnished by the petitioner as may be required by the Board of Water Commissioners, in order to save the Town and its employees harmless from all claims, demands, suits, and actions for or on account of any injuries or damages occasioned by acts or neglects in doing work.

The petitioner shall furnish and maintain all barricades, signs, warning lights, and other safety devices to protect the public from accidents or injuries on account of operations.

Wherever it is deemed necessary on heavily traveled ways to direct traffic around excavations, in the opinion of the Chief of Police, the Owner shall, at his own expense, obtain the services of police officers at such times as may be designated.

D) Excavation and Backfilling in Public Ways

Excavation and backfilling in public ways shall be done in accordance with the "Conditions" and "Rules and Standards" sections outlined in the Road Opening Permit. The replacement of street surfaces shall be as directed by the Highway Superintendent, and shall be approved by him before leaving the site. No backfilling shall be started until the pipe installation has been approved by the Superintendent of the Water Department.

E) Notification to the Superintendent

The Superintendent of the Water Department shall be notified at least two working days before the work is to commence, Saturdays, Sundays, and Holidays excluded.

F) Final Approval of Service Installation

The water shall not be turned on until the installation has been approved by the Superintendent of the Water Department, who shall be properly notified that the work is complete and ready for inspection.

G) Special Conditions

Special Conditions encountered at the site which may be at variance with the requirements as set forth herein, shall be referred to the Superintendent who shall decide on the methods and operations to be followed. In general, water service lines will not be approved if installed on private property under paved areas such as sidewalks, driveways, or in exposed locations subject to freezing or possible disturbance.

2. MATERIAL DETAILS

A. General

A sketch of a typical water service installation is available at the Water Department Office.

B. Materials

1. Saddle Clamp: Direct pressure taps for service connections are permitted for Ductile Iron Class 52 water pipe only. Saddle clamps for Asbestos-Cement, Cast Iron, and Ductile Iron pipe shall be "Ford" #F202 double strap service saddles or approved equal. For Filament Wound Reinforced Thermosetting Resin pipe saddle clamps shall be as recommended in the manufacturers installation guide (stainless steel wrap around type).
2. Corporation Stop shall be a ball valve type and be equal to those made by "Ford". The size shall be as directed by the Water Superintendent.
3. Curb Stop shall be "Ford" #B44-444SW or approved equal and shall be of size directed by the Superintendent.
4. Curb Box shall be extra heavy duty, sliding type with a three and one half inch inside diameter shaft, length for specified trench depths, and as manufactured by Buffalo Pipe Foundry or approved equal.
5. Couplings between the curb stop and the cellar shut-off valve are not permitted unless approved in advance by the Superintendent. Couplings shall be equal to "Ford" #C-44.
6. Sleeves shall be furnished and installed through foundation walls wherever possible, to receive piping for water service; said sleeves shall be of a size sufficient to allow the pipe to pass easily through without forcing or binding. Sleeves may be of clay pipe, plastic pipe, or other non-metallic material. The inside and outside orifices around the water service line shall be sealed with a non-corrosive material as approved.
7. Cellar Valve shall be a ball valve and approved in advance by the Superintendent. Valves shall be equal to "Ford", lever handle cellar stop #B11-444.
8. The Water Meter will be furnished and installed by the Water Department in a location as selected by the Superintendent. No meter shall be installed in a location subject to *freezing or damage*. Cellar Valves and Meters are not to be boxed in by the Homeowner and should be accessible at all times.
9. Pipe for Water Service Line shall be Type "K" soft temper copper tubing or Class 200 Polyethylene pipe. If plastic pipe is used then it shall be marked with traceable early warning tape for its entire length and stainless steel insert stiffeners shall be used at all connections. All pipes shall be marked to show type and character. Minimum size shall be not less than one-inch nominal diameter. Details for connections larger than one inch shall be approved by the Superintendent.

3. CONSTRUCTION DETAILS

A) Depth of Cover

Depth of cover for all service water lines and connections shall be a minimum of five feet. Water service lines must be run in a separate trench at least five feet away from *storm drain lines, electric lines, telephone lines, gas lines*, and ten feet away from *septic lines*.

B) Pipe Details

The installer shall use copper service pipe to connect the corporation to the curb stop. There shall not be any couplings installed between the corporation and the curb stop. All service lines shall come off the water main and come into the curb box at a ninety-degree angle.

Either copper or plastic service pipe may be used to connect the curb stop to the house. If plastic pipe is used then it shall be bedded in clean sand, from two inches below the pipe to one foot above, and marked for the entire length by traceable warning tape buried above the service line no more than two feet below grade.

C) Backfilling of trenches

Backfilling of trenches over water service lines shall be by hand for a depth of at least one foot using clean, sharp, fine material free from large stones, frozen earth, etc. Materials used for bedding pipe shall receive the approval of the Superintendent or Inspector. Backfilling from at least one foot above the pipe to the surface shall be done in layers of not more than eight inches in depth and thoroughly compacted. No large stones or boulders greater than twelve inches in diameter shall be used in backfilling the trenches.

D) Setting the Curb Box

All curb boxes shall be set to the *finished ground level* and shall be backfilled by hand and tamped as set forth above. It is the responsibility of the Owner to insure that the top of the box easily accessible and at the surface of the ground at all times.

E) Meter Installation Details

There shall be at least three feet of undisturbed service pipe between the inside of the foundation and the cellar valve. If plastic service pipe is used then it shall be firmly secured to the foundation maintaining at least four inches clearance between the pipe and wall. The Water Department will provide meter couplings and a temporary meter spacer that will be installed by the Owner's plumber. The Water Department will install a permanent water meter and reclaim the meter spacer prior to final inspection. The Water Department will supply one $5/8$ " x $3/4$ " meter per service connection. The Water Department will determine the size and number of meters required. If additional meters or a larger meter is required, they are to be supplied at the owner's expense.

F) Long/Large Diameter Services

Services longer than one hundred fifty feet (150') or greater than 1 ½" in diameter may require the installation of a meter pit. The size and location of the pit shall be as directed by the Superintendent.

Voted and accepted by the Board of Water Commissioners, July 19, 2000.