

# **TOWN OF TEWKSBURY**

## **Department of Public Works**



## **Water Regulations & Fees**

**Effective July 1, 2006**

Revised October 12, 2012

# **Tewksbury DPW Requirements for Water Service Connection**

## **1.0 AUTHORITY AND PURPOSE**

- 1.1 The Requirements for Water Service Connection prescribe to owners, customers, developers and contractors the conditions, under which Tewksbury DPW would allow any connection, extensions, or alteration to the town water distribution system.
- 1.2 The following Requirements shall supersede all previous town regulations regarding this matter, including but not limited to Chapter 401 Water Rules and Regulation of the Town by-law.

## **2.0 DEFINITIONS:**

- 2.1 “Owner” and/or “Customer” shall mean any person, firm, corporation or organization, supplied with water by the Tewksbury Public Works department or applying for water service.
  - 2.1.1. “Tewksbury Department of Public Works” and/or “DPW” means Director of Public Works or his designee.
  - 2.1.2. “Town of Tewksbury” and/or “Town” means Board of Selectmen, Town Manager or his designee.
  - 2.1.3. “Water Service” means any pipe installed to transmit, distribute, or provide potable water to the customer.
  - 2.1.4. “Water Main” means a pipe, from which the service connection are made to supply water to the customer.
  - 2.1.5. “Service Connection” and/or “Building Connection” means a pipe running from water main (corporation stop) to the meter installed on the premises of the customer.

## **3.0 PERMITS**

3. The Owner must obtain all necessary permits from the Tewksbury Community Development Office before any work is started. Any application for permit shall include drawing(s) of proposed water service, showing all pipes, valves, means and materials involved in the project.
  - 3.1 The permit application shall be accompanied with the applicable fees.
    - 3.1.1 APPLICATION FOR CAPACITY
      - 3.1.2 For any development larger than two (2) single family houses or equivalent, written application for capacity for such water service shall be made by each customer or their duly authorized agent on a form provided by the Town DPW, and shall be signed by the customer or their duly authorized agent.

- 3.1.3 All requests for capacity for water service, or for changes that may affect said capacity, shall be subject to analysis by the Town hydraulic computer model to ensure that sufficient and adequate water pressure and volume exist to supply said request for capacity and to provide for reasonable fire suppression. This application, if approved, shall be good for two (2) years from the date of approval. There will be no extensions of this time period. The applicant must resubmit all appropriate plans and specifications for re-review after expiration date of the permit. The applicant shall be responsible for any additional fees required for the re-evaluation.
- 3.1.4 An application for capacity shall provide for the location of the service, estimated average monthly usage and maximum daily peak demand, size of service, and the name of the contractor performing installation.

### 3.2 APPLICATION FOR SERVICE

- 3.2.1 An application for new water service, or for change to existing service, including, but not limited to service connection, shall be made on a form, approved by the DPW, and shall be made only by the owner of the real estate served, or to be served, or by an agent authorized by the owner, in writing, to act on his/her/its behalf.
- 3.2.2 An application for any water service for industrial establishment shall include information regarding projected diurnal demand pattern (a curve presenting change in water demand during the day).
- 3.3 An application for the Street and Sidewalk Opening Permit (commonly known as Road Opening Permit) shall be filed separately in accordance with the Town Rules and Regulations.
- 3.4 An application for a Physical Alteration Permit shall be filed in case if the installation of water service modify, alter or otherwise amend driveway(s). Refer to the “Town Rules and Regulations Concerning Permission for Use of Town Roadways and Rights-of-Ways” for requirements and procedures regarding this permit.

## 4.0 MATERIALS

- 4.1 All materials to be incorporated into the work shall be new, purchased specifically for this contract. These materials shall also meet the requirements of the Tewksbury DPW standards listed below.

### 4.2 PIPE AND FITTINGS

- 4.2.1 All water mains installed in town must be ductile iron pipe, no exception. Ductile iron pipe for buried water distribution pipelines shall be minimum 8-inch in diameter (except 6-inch hydrant connections) in accordance with the specifications below.
- 4.2.2 The ductile iron pipe shall be double cement lined and coated ductile iron pipe push-on or restrained joints, as specified, and pressure rating of 350 psi, Thickness Class 52, unless shown otherwise on contract drawings, in accordance with ANSI/AWWA

C-151/A21.51, WW-P-421-d ANSI/AWWA C-151/A21.50, latest edition. Pipe shall not be furnished in less than eighteen (18) foot lengths.

- 4.2.3 Ductile iron fittings shall be pressure rating of 350 psi, short body, conforming to AWWA C153. Fittings shall have an asphalted outside coating in accordance with ANSI/AWWA 153/A21.53. Fittings shall be double cement lined and seal coated as per ANSI/AWWA C104/A21.4.
- 4.2.4 Restrained Joint Pipe and Fittings: The joint restraint devices shall be suitable for a working pressure of at least 250 psi with a minimum safety factor of 2:1 and shall be EBBA Iron, Inc. MEGALUG for restraining mechanical pipe joints or approved equal. All fittings must be restrained.
- 4.2.5 Restrained joint pipe shall be TR-Flex by US pipe or equal.
- 4.2.6 Rubber gaskets for pipes and fittings shall be in accordance with AWWA specification designation C-111 or ANSI A21.111.
- 4.2.7 Transitional connection to existing pipe shall be made with restrained solid sleeves.
- 4.2.8 The pipe shall be installed 5 feet below finished grade, measuring to the crown of the pipe, with 6" of sand below and above the main. The remaining backfill must be free of trash, debris, asphalt or bituminous concrete, and stone, larger than 6" in diameter. Under road pavements, sidewalks, driveways and parking lots, one-inch clean backfill shall be compacted to 95 percent of maximum dry density.
- 4.2.9 The water service must be pressure tested in accordance with AWWA C600 and chlorinated using continuous method specified in AWWA C651. Before connecting the new service to the town system the results of water quality analyses shall be submitted to the DPW in accordance with Massachusetts regulations.

#### 4.3 VALVES

- 4.3.1 The valves for water distribution system shall be gate valves size 6" to 12" and butterfly valves size 16" and larger, unless specifically authorized by the town. All valves shall be **open left** (counterclockwise). All valves shall be mechanical joint.
- 4.3.2 Gate valves shall be resilient seated gate valves in accordance with AWWA C-509. No double disk valve is allowed. Valve shall be epoxy coated ductile iron body, bronze mounted, 2 inch square cast iron operating nut, and non-rising stem. All valves shall be suitable for 250 psig maximum working pressure and 400 psi test pressure.
- 4.3.3 Wedge rubber shall be molded in place and bonded to the ductile iron portion, and shall not be mechanically attached with screws, rivets, or similar fasteners. Wedge shall seat against seating surfaces arranged symmetrically about the centerline of the operating stem, so that seating is equally effective regardless of direction of pressure unbalance across the wedge. All bolts and nuts shall be stainless steel.

- 4.3.4 Stem shall be sealed by at least two O-rings; all stem seals shall be replaceable with valve wide open and while subjected to full rated pressure.
- 4.3.5 Gate valves shall be A2362 by Mueller, or similar manufactured by Kennedy or American Darling.
- 4.3.6 Butterfly valves shall be by Henry Pratt. Specifications will be provided by Town upon request.

#### 4.4 TAPPING SLEEVES AND VALVES

- 4.4.1 All tapping sleeves shall comply with AWWA Standard C-110.
- 4.4.2 Tapping sleeve and tapping valve shall be of the same manufacturer.
- 4.4.3 Tapping valves shall comply with Section 4.3 Valves, except one end shall be flanged and the other mechanical type joint. Outlet flange shall be Class 125C, ANSI B16.1.
- 4.4.4 Tapping sleeves shall have totally confined end gaskets and be designed to withstand a minimum of 200 psi working pressure.

#### 4.5 VALVE BOXES

- 4.5.1 Cast iron valve boxes shall be three-piece adjustable style, slip type, as manufactured by Ford, Clow, Mueller, or equal. Barrel inside diameter shall be minimum 4½ inches, with dome base suitable for installation on buried valves. The top section shall be 26-inch and bottom section shall be 48-inch long.
- 4.5.2 Covers shall be cast iron, 5¼ inch, with the word "**WATER**" imprinted thereon. The boxes and covers shall be compatible with the valves to which they attach.
- 4.5.3 Valve boxes shall be manufactured in North America.

#### 4.6 SERVICE CONNECTIONS

- 4.6.1 Service connections shall be minimum 1" Type K copper tubing. No union fittings shall be installed between corporation and curb stop or between curb stop and the house, unless the service is longer than 100 feet. All existing non-copper tubing shall be replaced with copper tubing if disturbed or leaking, unless specifically directed otherwise by DPW. Service pipe shall be installed at the depth of 5 feet.
- 4.6.2 Corporation stop shall be bronze ball valve, AWWA CC x CTS compression type connection. For the standardization reason the following model are accepted: Ford FB1000, McDonald 4701BT, and Mueller B-25008.
- 4.6.3 Curb stop and box shall be installed at the property line. Curb stop shall be bronze ball valve, compression x compression, non-drainable. For the standardization reason the following model are accepted: Ford B-44, McDonald 6100-22, and Mueller B-

25209. All existing curb stops shall be replaced with the new 1" minimum curb stop if any work is done on the service.

- 4.6.4 Curb box shall be "buffalo" slide type, arch pattern, plug style with standard pentagon bolt. Extended length shall be minimum 6-foot long. Curb boxes shall be manufactured in North America.

#### 4.7 HYDRANTS

- 4.7.1 Hydrants must be American Darling, 5 ¼" model B-84-B open **left** (counterclockwise) only, with the following features:

- a) one 4 ½ inch steamer nozzle and two 2 ½ inch hose nozzles, NST,
- b) cap chains for all nozzle caps,
- c) arrow and word "open" indicating direction to turn stem,
- d) number tag "Hydra-Tag" by Assured Flow Sales, Inc. or similar brass product
- e) base connection: 6" MJ
- f) color: red, with yellow field painted nozzle and cover caps
- g) 5 ½ -foot bury, unless otherwise specified.

- 4.7.2 The hydrant connection shall be 6" restrained pipe with gate valve. Anchor tee must be used to connect to water main. Installation shall be in accordance with standard detail available at DPW and shall include concrete or stone block and a ¾" stone pack for drain at the base of the hydrant.

#### 4.8 HOUSE PLUMBING

- 4.8.1 For residential services, inside of the building, at the connection of the 1" inlet pipe to 5/8" meter, the angle ball meter valve to be installed. For the standardization the meter valve shall be Ford BA43-341W, with a HT-3 or HT-4 handle (factory assembled) only.
- 4.8.2 For commercial or industrial services, the size of meter and installation layout shall be recommended by manufacturer and approved by the DPW.
- 4.8.3 No meter pit installation is allowed.
- 4.8.4 No connection shall be made prior to the meter. The property owner is to provide an area for the water meter installation. Water meters shall be physically assessable by the DPW personnel for the purpose of maintenance, repair and/or replacement. The Town shall not be responsible for repairs and replacement of building materials that block or hinder reasonable access to the water meter.
- 4.8.5 An approved backflow prevention device shall be installed downstream of the water meter.

## **5.0 CONNECTION PROCEDURE**

- 5.1 The Owner must notify the DPW Office 72 hour prior actual work begins. DPW fees must be paid, as applicable and all related to the project permits must be in-place.
- 5.2 The Town DPW is not responsible for tapping water mains and/or installation of services. The Owner shall hire a DPW approved contractor to install and tap the service. The DPW provides a list of local contractors, certified to make connections to the Town water distribution system.
- 5.3 All materials, means, and methods used for installation must comply with the Town specifications and requirements. The DPW representative will inspect and approve installation before it is backfilled. The contractor must perform any corrections requested by the DPW representative to comply with Town regulations and standards. The contractor shall submit tie card in the approved format to the DPW representative at the time of inspection.
- 5.4 The valves will open or closed by the DPW personnel, unless specific written permission granted to the contractor to operate valves.
- 5.5 The water meter shall be provided by the town after the customer pays for it and shall be installed by DPW personnel.
- 5.6 In case the water service is to be terminated, the service must be shut down at the main: the corporation valve shall be closed, the service pipe cut and removed, the curb stop and box removed and backfilled.

## **6.0 INSPECTION**

- 6.1 No trench is to be backfilled and no water service is to be granted until the line has been inspected and approved by the DPW.
- 6.2 It is the responsibility of the Owner or his/her representative to timely contact DPW and to arrange necessary inspection(s).

## **7.0 BACKFILL AND SURFACE RESTORATION**

- 7.1 Backfill and surface restoration within Public Right-of-Ways shall be performed in accordance with the Street and Sidewalk Opening Permit and Section 4.2.8 of this document.
- 7.2 If the work is located within existing or proposed driveway, the Town Rules and Regulations Concerning Permission for Use of Town Roadways and Rights-of-Ways, adopted on March 23, 2004, or superseding, are applicable.
- 7.3 In all cases the pavement shall be performed in compliance with Massachusetts Highway Department Highway design manual (Specifications for Highway and Bridges), latest edition.

## **8.0 OWNERSHIP**

- 8.1 Any water service installed within Public Right-of-Ways and/or private streets, and internal condominium roads, shall become a property of the Town and will be maintained as such by the DPW. Construction of water distribution system within private properties, condominiums etc shall be in full compliance with these Rules and Regulations, all materials shall be approved by the DPW, inspection of the installation shall be requested and paid by the contractor and performed by DPW personal.
- 8.2 Any new private property, residential, commercial or industrial, including residential and commercial condominium units, shall have separate water meter. Any remodeled condominium unit or any unit subject to change ownership, or any unit converted from rental use to ownership use, must be equipped with a separate water meter.
- 8.3 Separate water meters shall be installed for each apartment in new apartment building construction, except assistant living housing and other buildings that will not be subject to future condominiums conversion to by deed restriction. A water meter shall be installed in any apartment complex to be converted to condominiums before such conversion takes place.
- 8.4 Any water service installed within private property shall be maintained by the owner(s) of the property.
- 8.5 Any curb stop, valve or hydrant installed within a private property just outside of Public Right-of-Way shall remain a property of the Town, and shall as such be maintained and operated by the DPW.
- 8.6 Water meters along with meter valves (installed by DPW) shall be Town property and shall be maintained by the DPW.
- 8.7 Ownership over any water main and/or service connection between water mains and curb stops shall be turned over to the Town at the time of final inspection and approval by DPW. The developer/contractor shall maintain these services during warranty period and make all necessary repairs or alterations at no cost to the Town.
- 8.8 At the direction of the Town for reasons such as malfunctioning water meters or a program of replacing water meters, the property owner of a commercial/industrial water user shall replace its water meter at its own cost within thirty days of notice requiring the replacement. The new water meter shall be purchased through the Town to insure that the meter meets the Town's requirements for measuring water use and billing. The Town may direct the property owner to use the Town's installer.

## **9.0 FEES**

- 9.1 No Permit will be issued until all fees have been paid. As of January 1, 2010 existing multi-family units that have not installed separate water meters for each unit in a multi family dwelling shall not be billed on a separate unit basis if they had been billed in that manner previously.

9.2 Street and Sidewalk Opening Permit, Physical Alteration Permit shall be applied for and paid separately.

9.3 Some miscellaneous charges may apply during installation. The table below includes all fees, fines and charges, pertinent to usage and alteration of water services in Town. Refer to the table below for applicable permit and miscellaneous fees:

<b>FEE</b>	<b>RESIDENTAL</b>	<b>COMMERCIAL</b>
1. Return Check Fee (Insufficient Funds Charge)	\$25.00 or 1% of check face value which ever is larger	
2. Application for Capacity	\$250	\$500
3. Application for Service	\$85	\$125
4. Street and Sidewalk Opening Permit (see permit application for details)	\$110 application fee, \$50 inspection fee \$1000 refundable security deposit \$5000 License Permit Bond Certificate of General Liability	
5. Physical Alteration Permit	\$110	\$260
6. Curb stop shut off during normal working hours	\$50	\$50
7. Same- after hours	\$75	\$100
8. Construction Inspection fees (paid if inspector attendance is necessary longer than ½ hour)	\$50 per hour, or \$2.50/LF of water main installed which is grater	
9. New Account Charge	N/A	\$50
10. Illegal Water Use Charge - Including broken meter lock or seal, Use of water without permit , Installation without permit etc.	\$250 first offense \$500 second offence	\$2500 first offense \$5000 second offence
	In case of the third offence water is shut off and legal action is taken.	
11. Remove Meter Charge - delinquent account request of customer	\$50	\$100
12. Turn off or on at Main Charge or plug, per customer request	\$75	\$100
13. Relocate Meter 5/8" Meter size 1" - 2" 2" - 4" over 4"	\$150	\$150 \$300 \$500 \$750
14. Meter Test at Customer request 5/8"	\$ 150	

1" - 2" 3" or larger	\$ 250 Actual cost to Town	
15. Cross Connection Device Test/Retest per request	\$35 per device	\$100 per device
16. Cross Connection Survey - locate and classify cross connections as per CMR 22.22	\$35 per hour	\$35 per hour
17. Water Sales - Fire Hydrants Non-metered usage (is permitted)	Actual Use \$50 per day	
18. Sale of Blueprints or maps	\$3	\$3
19. Replacement of damaged fire hydrant	\$3000	\$3000
20. Replacement of damaged meter or meter transmitting unit (MTU)	Actual Cost	Actual Cost
21. Connection Fee (Tap) 1" 1 ¼" 1 ½" 2" larger	\$900 \$1200 \$1500 \$2000 \$2500	
22. Service Line Thawing	\$250	
23. Sprinkler Lines Fees 6" 8" 10"	N/A	\$150 \$250 \$450