Chapter 334

WATER

ARTICLE I
General Provisions

ARTICLE II
User Responsibilities

ARTICLE III
Meters

ARTICLE IV
House Plumbing

ARTICLE V
Distribution System

[HISTORY: Adopted by the Department of Public Services (Water and Sewer Division) (now Department of Public Works) of the Town of Ashland 1991. Amendments noted where applicable.]

GENERAL REFERENCES

Plumbing — See Ch. 218.
Wells — See Ch. 300.
Water supplies — See Ch. 312.
Sewers — See Ch. 326.
Water use restrictions — See Ch. 270.
Private and semipublic water supplies — See Ch. 312.
Street excavations — See Ch. 330.
Subdivision of land — See Ch. 344.
Fees — See Ch. A352.

ARTICLE I
General Provisions

§ 334-1. Rules and regulations to be part of contract. [Amended 10-18-2000 ATM, Art. 14]

The following rules and regulations shall be considered a part of the contract with every consumer supplied with water from the Ashland Department of Public Works, Water and Sewer Division, herein called the "WSD," and every person or property owner taking water shall be considered as having expressed his consent to be thereby bound.

§ 334-2. Water permits.

A. All applications for the use of water must be made at the office of the WSD and state fully the purpose for which it is intended to be used.

B. The water permit shall be void after ninety (90) days if not used.

C. For renewal of water permits, there shall be a charge as contained in the billing section of this chapter.[1]

§ 334-3. Liability for violations.

Failure to enforce or to have knowledge of violations in whole or part of this chapter does not relieve property owners from liability or penalties for failing to abide by the same.

§ 334-4. Modification. [Amended 10-18-2000 ATM, Art. 14]

This chapter may be modified by the Department of Public Works, Water and Sewer Division.

ARTICLE II
User Responsibilities

§ 334-5. Fire protection systems.

Parties using water for domestic or manufacturing purposes may erect hydrants, standpipes or sprinkler systems to be used only as protection against fire, subject to inspection and approval by the Superintendent.

1. Editor's Note: See Article VIII, Fees and Billing.

§ 334-6. Cross-connections; independent sources.

A. There shall be no connection between a public water supply and any nonpotable water source unless the public water system is protected by a method meeting the requirements of the Department of Environmental Protection (DEP), WSD rules and regulations and local building codes relative to cross-connections between public water supplies and fire and industrial water supplies.

B. An independent source of supply shall be permitted subject to approval by the Superintendent.

§ 334-7. Liability for damage under certain conditions.

The WSD shall not be held responsible or liable to any person or persons for any loss or damage from water service interruptions or from any excess or deficiency in the pressure, volume or supply of water due to any causes whatsoever. Massachusetts General Laws state that a minimum pressure of twenty (20) pounds per square inch shall be maintained under all operating conditions.

§ 334-8. Waste of water.

When unnecessary waste of water occurs, the occupant of any premises shall be notified in writing. If said waste is not prevented within two (2) days of said notice, the water shall be shut off. The occupant shall be subject to all costs as determined under the billing section of this chapter.[2] Second offenders shall not have water turned on again until approved by the Superintendent.

§ 334-9. Operation of hydrants.

A. No person shall operate any hydrant of the waterworks system without written permission from the Superintendent, except for the Chief of the Fire Department or persons acting under his stead in a case of fire or practice.

B. Unauthorized hydrant use. Fine: one hundred dollars ($100) per incident. **[Added 5-26-1993 ATM, Art. 8]**

§ 334-10. Moving of hydrants.

Persons requesting to have a hydrant moved shall do so in writing. The cost of moving the hydrant shall be the responsibility of the requesting party.

§ 334-11. Contaminated water.

The WSD shall not be held liable to any person or persons for any damage caused by contaminated water resulting from the opening or closing of valves or hydrants, the breaking

---

2. **Editor's Note: See Article VIII, Fees and Billing.**

of any pipe or fixture, heavy demand or from any other cause whatsoever. Backflow prevention shall be utilized that satisfies Massachusetts DEP and WSD requirements.

§ 334-12. Restriction, limitation or shutoff of water.

The WSD reserves the right to restrict, limit or shut off water in all cases when it becomes necessary to do so for repairs. nonpayment of water bills, violation of the regulations or whenever it deems expedient.

§ 334-13. Leaks.

The property owner is responsible to guard against leaks occurring whenever a house is closed for any length of time. The property owner is responsible for prevention and correction of any leakage from the curb stop onward within the property. Failure to correct leakage within ten (10) days of notification by the WSD will result in the water service being shut off. Service will not be restored until leakage has been repaired to the satisfaction of the Superintendent and a fee as contained in the billing section of this chapter[3] has been received.

§ 334-14. Requirements for turn-on of service.

No water service shall be turned on until a record has been entered at the WSD office stating that approval has been granted, an as-built plan has been provided, an inspection by the WSD's representative has been made and all moneys due have been paid in full.

§ 334-15. Charges for inspection.

Inspection of a water service shall be made free of charge. Additional inspection of the same service shall carry a charge as contained in the billing section of this chapter.[4]

§ 334-16. Use of private fire connections; maintenance.

All persons or firms having private fire connections for sprinklers and private hydrants on the premises or in buildings are forbidden to use the water for any other purpose excepting fires, except where metered. Maintenance of hydrants and/or sprinkler systems on private property shall be the responsibility of the property owner.

§ 334-17. Service lines connected into sprinkler water main.

All service lines connected into a sprinkler water main shall be tapped outside the building and provided with a curb box and shutoff in order to isolate the meter and to provide fire protection if the service line is shut off.

---

3. **Editor's Note: See Article VIII, Fees and Billing.**

4. **Editor's Note: See Article VIII, Fees and Billing.**

ARTICLE III
Meters

§ 334-18. Meters required.

Every water service shall be metered and shall be of a design and size as approved by the Superintendent.

§ 334-19. Installation; sealing; replacement.

All meters on new services shall be furnished and installed by a licensed pipelayer at the property owner's expense and sealed by the WSD's representative against tampering or alteration. The breaking of the seal shall result in a fine as contained in the billing section of this chapter.[5] Replacement meters up to and including three-fourths (3/4) inch will be replaced by the WSD. The cost of replacement and repair will be borne by the WSD.

§ 334-20. Certain meters to be maintained by WSD; exceptions.

All three-fourths-inch meters shall be kept in repair by the WSD, free of charge, except when damage is done through neglect or maliciously by freezing, steam, frost or by hot water. The cost for this repair shall be borne by the consumer.

§ 334-21. Loss.

The consumer or property owner shall be responsible for any loss of a meter that is registered to his property.

§ 334-22. Remote water meter registers.

Remote water meter registers shall be installed at the expense of the property owner and connected to all privately owned meters installed in new property or new accounts.

§ 334-23. Liability for charges.

A. All landlords or property owners shall be liable for billing, repair and any other charges for the use of meters and water in accordance to the billing section of this chapter.[6]

§ 334-24. Certain meters to be tested annually.

All meters over one (1) inch shall be tested annually by a testing company approved by the WSD with results furnished to the Superintendent.

---

5. **Editor's Note: See Article VIII, Fees and Billing.**

6. **Editor's Note: See Article VIII, Fees and Billing.**

§ 334-25. Alterations.

Alteration or changes in any pipe, fittings or meters shall be made by persons authorized by the WSD.

§ 334-26. Access to property.

All property owners shall grant access to a representative of the WSD to all buildings and premises supplied with water for the purpose of making repairs and inspection of pipes, stopping the waste of water and for reading, repairing or changing water meters.

§ 334-27. Location of meters.

Whenever feasible, the water meter shall be set at a point where the service enters the building in full cellars or utility rooms and shall be easily accessible for inspection and removal. The location is to be approved by the Superintendent. Subcellars, half cellars or trap doors shall not be approved. Where it is not practicable to set the meter in the building, the meter shall be set in a pit furnished by the property owner. If, in the opinion of the Superintendent, the meter location should be changed, the right is reserved to have it done at the expense of the property owner. All meter locations shall be approved by the Superintendent.

§ 334-28. Devices on street side.

No valves or devices of any sort shall be set on the street side of the meter, except an approved type of shutoff.

§ 334-29. Access to meters.

The consumer shall be responsible for free access to the meter by the WSD at all times. Failure to remove any obstruction preventing access shall constitute a cause for shutting off the water within three (3) days.

§ 334-30. Failure of meter.

If for any cause the meter of any water taker breaks or the indicator thereon fails to record the amount of water used for any quarter, the quantity used shall be determined by the WSD, and in determining the quantity, the WSD shall make reasonable reference to the quantity used in the corresponding quarter of preceding years.

§ 334-31. Certain systems and lines to be independent.

Fire sprinkler systems and water service lines must be independent, with a minimum horizontal spacing of six (6) feet.

ARTICLE IV
House Plumbing

§ 334-32. Accessibility.

All apparatus and places supplied with water by the WSD must be accessible at all times to allow for the WSD to examine the pipes and fixtures and to ascertain the quantity and manner of water used.

§ 334-33. Maintenance; liability.

A. All consumers taking water must keep water pipes and fixtures in good repair and protected from frost at their expense. Consumers shall be held liable for any damages resulting in failure to do so.

B. Provisions shall be made in plumbing and heating systems to prevent the return of hot water to the meter when water system pressure fails due to whatever reason, The water system must not be employed in any manner to provide against excessive plumbing pressures from steam, hot water or heating systems.

C. The WSD shall not be held liable or responsible for any loss or damage to any piping system due to reasons mentioned previously in this chapter.

§ 334-34. Protection from damage when water is shut off.

If the water is shut off, a faucet should be left open until the water is turned on. This will prevent damage to the piping and hot water tank.

§ 334-35. Air-conditioning systems.

All air-conditioning systems shall require a recirculating condenser.

§ 334-36. Protection from cross-connections.

A. Provisions shall be made to prevent back-siphonage into the town's water system as required by the State Plumbing Code and the Town of Ashland's regulations contained in Appendix C.[7]

B. Fines. **[Added 5-26-1993 ATM, Art. 8]**

(1) Unauthorized septage dumping. Fine: three hundred dollars ($300) per incident.

(2) Backflow prevention; failure to comply within time limits. Fine: one hundred dollars ($100) per day.

---

7. **Editor's Note: Appendix C is included at the end of this chapter.**

C. Unless otherwise provided by law, the authority to issue citations pursuant to this section shall be vested in such enforcement persons designated in writing by the Town Manager. **[Added 5-26-1993 ATM, Art. 8]**

§ 334-37. Use of water-saving fixtures.

The use of water-saving fixtures is strongly encouraged.

ARTICLE V
Distribution System

§ 334-38. General regulations.

A. No subdivision water supply main shall be connected to any public water supply main of the WSD except as specifically directed, inspected and approved by the Superintendent.

B. The approval of any private subdivision water supply system shall in no way make the WSD, its agents or the Town of Ashland responsible or liable for the operation, maintenance or satisfactory performance of the installation. Such responsibility shall rest with the applicant and/or property owner until the town accepts by vote in Town Meeting the same as part of the public water system of the Ashland Department of Public Works, Water and Sewer Division. **[Amended 10-18-2000 ATM, Art. 14]**

C. All supply mains and appurtenances for private subdivisions shall be installed strictly in conformity with the standards and specifications of the American Water Works Association and those as determined by the Superintendent. All work shall be performed by a licensed pipelayer.

D. Parties using water for domestic or manufacturing purposes may erect hydrants on their own grounds or standpipes on their buildings to be used only as a protection against fire, subject to approval by the WSD. The entire cost shall be borne by the property owner of the premises.

E. Wherever the subdivision water main connects to the town's system, said connection shall be made by sleeves and valves located within the town's boundary lines.

F. Water mains at all street intersections and the beginning and end of easements shall have valves installed on all sides of each tee or cross, fitted with gate boxes adjusted to the finished grade. Gate boxes shall have at least a six-inch overlap between vertical sections.

G. Sectional isolating valves shall be installed in all lines of the water mains at eight-hundred-foot intervals.

H. Approved fire hydrants shall be installed at intervals of not more than five hundred (500) feet by way of proposed streets and where designated by the WSD.

I. No one shall operate valves in water mains except the WSD. Violators shall be prosecuted according to law.

J. No dead ends shall be permitted. On dead-end streets, the full size water main shall be extended through easements to connect with existing water mains. On approved dead-end water mains, a valve shall be located with a hydrant within fifteen (15) feet of the dead end.

K. If a manhole is required in place of a valve box for access to the operating nut on a valve, the expense shall be borne by the property owner.

L. The WSD may designate a member of the WSD or duly authorized agent to supervise, inspect or approve work in accordance with the foregoing regulations. All expenses shall be borne by the applicant.

M. The minimum size for water mains shall be eight (8) inches in diameter. The material shall be cement-lined Class 52 ductile iron.

§ 334-39. Subdivisions.

A. There shall be no water main permit issued unless a water main construction application with the following information is provided in duplicate to the WSD at least forty-five (45) days prior to start of work. Any disapproval will be made within thirty (30) days.

(1) The full name and address of the property owner of all properties involved.

(2) The names of proposed streets.

(3) The length, type and size of pipe to be installed.

(4) The number, distance between and type of hydrants to be installed.

(5) The number of house lots to be serviced by the new water main.

(6) Any such data as required by the WSD.

(7) The plan shall be at a scale of forty (40) feet to the inch, showing the exact locations of all new roads, proposed location of the water mains, valves, hydrants, services, points of junction with the public water supply system and any other information that may be required by the WSD. As-built drawings certified by a professional engineer shall be provided to the WSD before any services are activated. As-builts shall show ties to all fittings and valves. A Mylar and two (2) copies are required prior to occupancy permits being signed by the WSD's representative.

(8) The name and address of the contractor who shall install water mains and appurtenances.

(9) The name and address of the manufacturer of all materials which shall conform to the specification section of this chapter.

B. Wherever the subdivision main connects with the town's system, connection shall be made by sleeves and butterfly valves located within the town's street lines.

C. An impact study report (paid for by the developer) shall accompany each set of plans. The study shall include calculations of estimated average-day and maximum-day water demands for the proposed development, fire flow requirements [based on Insurance Services Office (I.S.O.) guidelines] and water pipeline sizes. The report shall also address what effects these water demands would have on the existing service area, including system pressures and fire flow capabilities.

D. Final approval shall be granted only after submission review by the WSD's consulting engineer, which expense shall be borne by the developer.

§ 334-40. Approval.

A. If approval to proceed with construction is not granted, the WSD shall inform the applicant of the disapproval and shall specify what measures, if any, must be taken to obtain approval.

B. Approval of the completed installation shall not be granted until the WSD's representative has inspected installation of water mains, services and appurtenances at an opened trench. One (1) inspection shall be granted by the WSD free of charge during normal working hours. Additional inspections of the same job or inspections requested to be conducted outside normal working hours shall be charged according to the billing section of this chapter.[8]

C. Upon completion of the construction of all water mains and appurtenances, the applicant shall certify, in writing, to the WSD that the installation complies in all respects to its rules and regulations.

D. The WSD shall notify the applicant, in writing, that the installation has been approved, and water service shall be turned on by the WSD's representative only if all billing charges have been paid and the work approved.

E. All contractors working on the Highway Division's roads shall comply with the town's rules and regulations regarding permits, bonding, cross trenches, police protection and all safety requirements.

§ 334-41. Work to be performed by licensed pipelayers; licenses; insurance.

A. Licenses to perform work such as installation of water service pipes and public water mains or work in relation thereto will be issued only to experienced and competent licensed pipelayers. All applications for licenses must be accompanied by an application fee in the amount stipulated in the billing section of this chapter.[9] Licenses must be renewed each calendar year.

---

8. **Editor's Note: See Article VIII, Fees and Billing.**

9. **Editor's Note: See Article VIII, Fees and Billing.**

B. This license fee is separate and distinct from any other application fees (or entrance fees) outlined previously or from license fees associated with sewer construction in the Town of Ashland.

C. Pipelayers doing work hereunder shall maintain minimum insurance coverage as follows:

(1) Public liability: fifty thousand/one hundred thousand dollars ($50,000/$100,000).

(2) Property damage liability: fifty thousand/one hundred thousand dollars ($50,000/$100,000).

D. Certificates of insurance acceptable to the WSD shall be filed with the WSD prior to the commencement of the work. These certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days' prior written notice has been given to the WSD.

E. The WSD reserves the authority to revoke the license of any pipelayer if, in the WSD's opinion, his construction methods or materials are not in strict compliance with this chapter.

§ 334-42. Performance bonds required for construction.

Licensed pipelayers proposing to construct an extension to an existing water main, construction of water service piping or any other work in relation thereto which will be done within the limits of the Town of Ashland roadway takings, easements or other land under the control of the Town of Ashland shall be required to submit with the application for water main construction permit a performance bond of five thousand dollars ($5,000), made out to the Town of Ashland.

ARTICLE VI
House Services

§ 334-43. Responsibility for maintenance.

The property owner is responsible for the house service from the curb box and shutoff to the house. The WSD is responsible from the curb box to the water main.

§ 334-44. Service taps.

No one except the WSD shall tap the water main pipe for service connections unless prior written approval is received from the Superintendent of the WSD. The property owner shall pay all expenses incurred for making the tap.

§ 334-45. Requirements for turning on water service.

There shall be no water turned on to any property until a meter and outside register has been installed, along with a shutoff on the discharge side of the meter and the hookup approved by

the Superintendent. Materials from the main to the building shall be supplied by the applicant. Compliances with all the WSD's rules and regulations must be made.

§ 334-46. Inspections.

One (1) inspection of a house service shall be made by the WSD during normal working hours. Additional inspections of the same service or inspections requested to be performed outside normal working hours shall be chargeable according to the billing section of this chapter.[10]

§ 334-47. Location of services.

The location of all water services must be planned to avoid the placing of service valves and boxes in driveways or sidewalks. Water shall not be supplied to services located otherwise.

§ 334-48. Cost of water main.

All expense from the water main to house or building shall be borne by the property owner.

§ 334-49. Sizes of service pipes.

The sizes of service pipes shall be approved by the Superintendent. The nomograph illustrated as Figure 1 shall be used to determine the required size of the service pipe.[11]

§ 334-50. Water mains to extend to front of property.

In all cases, water mains shall extend to the front of the property before service connections are constructed.

§ 334-51. Charges.

A. Services shall be subject to all charges according to the billing section of this chapter.[12]

B. A system development charge shall be assessed to all new services as contained in the billing section.

§ 334-52. Services to be inside house foundation.

A. All services shall extend six (6) to twelve (12) inches inside the house foundation.

---

10. **Editor's Note: See Article VIII, Fees and Billing.**

11. **Editor's Note: Figure 1, Service Size Nomograph, is included at the end of this chapter.**

12. **Editor's Note: See Article VIII, Fees and Billing.**

B. No service pipe shall be installed past the curb stop and box before the building foundation has been completed or a permit obtained.

§ 334-53. Turning on or off of service valve.

No one except the WSD's representative shall turn on or off a service valve.

§ 334-54. Number of services per dwelling.

A. There shall be only one (1) supply service for each dwelling.

B. Duplex dwellings shall be supplied by individual metered services to each dwelling.

C. Apartment houses or multiple complexes with four (4) or more bedrooms shall require a new service.

§ 334-55. Extension of existing service required.

The owner of a new home or building erected beyond the existing water main in any town street shall extend the main to the middle of his property before a service is supplied.

ARTICLE VII
Specifications

§ 334-56. Valves, hydrants and appurtenances.

A. General. The property owner (developer/contractor) shall furnish and install valves, hydrants and appurtenances as indicated on the details in Appendix B and as herein specified.[13] The drawings submitted to and approved by the WSD shall contain these details and specifications. **[Amended 10-18-2000 ATM, Art. 14]**

B. Resilient wedge valves.

(1) Resilient wedge valves shall be the products of the Mueller Valve Co., Decatur, Illinois, or Kennedy Valve Manufacturing Co., Elmira, New York, or approved equal. Resilient wedge valves shall only be permitted on hydrant laterals.

(2) Resilient wedge valves shall be iron body, resilient seated type. The valves shall be designed for two hundred (200) pounds per square inch working pressure and four hundred (400) pounds per square inch test pressure. Valves are to have o-ring seals and a nonrising stem. Valves shall have a two-inch operating nut. Valves shall open left.

---

13. **Editor's Note: Appendix B is on file in the office of the Town Clerk, the Department of Public Works, the Planning Office and the office of the Building Inspector and may be examined there during regular business hours.**

(3) Resilient wedge valves shall meet the most recent version of the AWWA standard C501. Resilient wedge valves shall have mechanical joint ends. Valves shall be connected directly to anchor tees on all hydrant branches.

C. Butterfly valves.

(1) The butterfly valves shall have a cast-iron body and shall conform to the AWWA specifications for Rubber-Seated Butterfly Valves, Designation:C504, except as otherwise specified herein. The butterfly valves shall be Model No. 450, manufactured by M&H Valve Co., or approved equal. The valves shall have mechanical joint ends when buried and flanged ends where exposed.

(2) The valves shall be Class 150B and suitable for a nonshock shutoff pressure of one hundred fifty (150) pounds per square inch. The valves shall provide bubble-tight shutoff at two hundred (200) pounds per square inch when tested for leakage in accordance with the above-mentioned AWWA C504. The valve shall be rejected if it does not pass this test.

(3) Butterfly valve designs utilizing continuous lining on the internal body surfaces and extending over the flanges will not be acceptable. Valve disks shall seat at an angle of ninety degrees (90°) to the axis of the pipe.

(4) Valve seats shall be of molded natural rubber. Rubber seats may be attached to the body or the disk. If the rubber seat is attached to the disk, the seat ring on the body shall be of stainless steel. The valve disk shall be of either cast Ni-Resist or cast iron Class 40 conforming to ASTM A48, Specification for Gray Iron Castings.

(5) Rubber seats mounted on the disk shall be securely clamped to the disk. All clamps, retaining rings and their fasteners shall be Series 300 stainless steel.

(6) The valve shaft shall be Type 300 stainless steel or carbon steel with stainless steel joints. The valve disk and shaft connection shall be by means of mechanically secured taper pins extending through the disk and shaft. Taper pins, lock washers and nuts shall be 18-8 stainless steel. The shaft seals shall be designed for the use of standard chevron-type packing or standard o-ring seals.

(7) The manual operating mechanism shall be firmly fixed to the valve body. The operator shall be permanently lubricated and shall be totally enclosed with a cast-iron case, and the hand wheel or two-inch nut for buried valves shall turn counterclockwise to open. The operator for buried valves shall be suitable for submersion. The operator shall be traveling-nut type designed to withstand four hundred fifty (450) foot-pounds of input torque at full open or closed positions without damage to the valve or operator.

D. Installation.

(1) All valves shall be carefully erected and supported in their respective positions free from all distortion and strain. Care shall be taken to prevent damage or injury to the valves or appurtenances during handling and installation.

(2) All material shall be carefully inspected for defects in workmanship and materials, all debris and foreign material shall be cleaned out of valve openings and seats, all operating mechanisms shall be operated to check their proper functioning and all nuts and bolts shall be checked for tightness. Valves and other equipment which do not operate easily or are otherwise defective shall be repaired or replaced at the contractor's expense. Mechanical joints shall be torqued to manufacturer's specifications.

(3) Buried valves and valve boxes shall be set plumb and centered with the valve boxes directly over the valves. Earth fill shall be carefully tamped around the valve box to a distance of four (4) feet on all sides of the box or to undisturbed trench face, if less than four (4) feet.

E. Valve boxes.

(1) Each valve shall be provided with a box. Covers shall have two (2) lifting holes, and the word "WATER" cast on the top. The top of the cover shall be flush with the top of the box rim.

(2) Valve boxes shall be tar-coated cast iron and of the adjustable sliding, heavy pattern type. They shall be so designed and constructed as to prevent the direct transmission of traffic loads to the pipe or valve. The upper or sliding section of the box shall be provided with a flange having sufficient bearing area to prevent undue settlement. The lower section of the box shall be designed to enclose the operating nut and stuffing box of the valve and to rest on the backfill. The boxes shall be adjustable through at least six (6) inches vertically without reduction of the lap between sections to less than six (6) inches.

(3) The inside diameter of boxes shall be at least four and one-half (41/2) inches, and the lengths shall be as necessary to suit the ground elevation [normal pipe cover five and zero-tenths (5.0) feet].

F. Tapping sleeve and valve.

(1) The tapping sleeve and valve shall consist of a split cast-iron sleeve tee with mechanical joint ends on the main and a flange on the branch, and a tapping-type resilient wedge valve with one (1) flanged and one (1) mechanical joint end. The valve shall conform to the requirements hereinbefore specified for resilient wedge valves. The contractor shall be responsible for verifying the outside diameter of the pipe to be tapped.

(2) Before backfilling, all exposed portions of any bolts used to hold the two (2) halves of the sleeve together shall be heavily coated with two (2) coats of bituminous paint comparable to Inertol No. 66 Special Heavy. Sleeves shall be of cast iron conforming to ASTM A-126 Class B, furnished with rubber gaskets. Gaskets shall cover the entire area of flange surfaces.

(3) Tapping sleeves and valves shall be made by Ludlow-Rensselaer Valve Co., Inc., Troy, New York: Eddy-Iowa Div., James B. Clow & Sons, Inc., Chicago, Illinois;

A.P. Smith Mfg. Co., East Orange, New Jersey; Mueller Valve Co., Decatur, Illinois, or be approved equal products.

G. Hydrants.

(1) The hydrants shall conform to the requirements of AWWA Standard for Dry Barrel Fire Hydrants for Ordinary Water Works Service, Designation: C502-80, or latest revision.

(2) The hydrants shall have one (1) pumper of four and one-half (41/2) inches and two (2) hose connections of two and one-half (21/2) inches, NST, with a six-inch mechanical joint shoe. The hydrant shall be equipped with a main valve of five and one-fourth (51/4) inches and shall have bronze-to-bronze seatings and open left. Hydrants shall also have an eight-inch ductile-iron lower barrel and a fusion-bonded epoxy-coated shoe. There will be a travel-stop nut located on the upper stem to prevent damage due to excessive force. Upper stem threads will be lubricated by the use of an all-temperature grease and sealed by double o rings.

(3) For the purpose of standardization, hydrants will be the Waterous Pacer-WB 67 or the U.S. Pipe Metropolitan.

(4) The hydrants shall be thoroughly cleaned and given two (2) shop coats of paint in accordance with the above-mentioned AWWA Specification C502, latest edition. Paint color shall be federal safety red, as manufactured by Hydrant Hyde Paint, with reflective white bonnet and white caps.

(5) The hydrant, with its buried valve and valve box, shall be set plumb and centered with the valve box directly over the valve. Backfill around the hydrant and valve shall be thoroughly compacted to a distance of four (4) feet on all sides of the box or to the undisturbed trench face if less than four (4) feet. The hydrant connecting pipe shall have at least five and one-half (51/2) feet of cover. The hydrant shall be set upon a slab of stone or concrete not less than four (4) inches thick and fifteen (15) inches square. The side of the hydrant opposite the pipe connections shall be firmly wedged against the vertical face of the trench with a poured concrete thrust block as indicated on the standard details. No less than five (5) cubic feet of broken stone shall be placed around the base of the hydrant at the location of the drain holes. Strict attention shall be given to ensure drainage holes are kept free of any concrete. Fifteen-pound roofing felt shall be placed between the concrete thrust block and the hydrant and drainage gravel. Backfill around the hydrant shall be thoroughly compacted to the grade line in a satisfactory manner. The hydrant and valve shall have the interiors cleaned of all foreign matter before installation and shall be inspected in both the open and closed position.

(6) The bury of the hydrant shall be of sufficient length to allow the hydrant to be set at the proper elevation, as shown on the standard details. Extensions shall be furnished and installed at the contractor's expense when required for greater depths.

(7) All hydrants shall be mechanically connected to the water mains using a main line anchoring tee, fitted to take a six-inch resilient wedge valve mechanically connected on the side outlet, and a six-inch mechanical joint cement-lined cast-iron

pipe to the hydrant. Retaining glands shall be used at all joints between the shutoff valve up to and including the hydrant. All bolts shall be torqued to manufacturer's specification.

(8) Before exposure to the weather and after thorough cleaning to remove all rust, dirt, grease and other foreign matter, the equipment and appurtenances specified herein shall be painted in the shop as specified hereinafter. Ferrous surfaces which will be submerged shall be cleaned by sandblasting to remove all foreign matter. Following cleaning, the surfaces shall be painted in the shop as follows: interior and exterior surfaces of valves and valve appurtenances shall be given a shop finish of an asphalt varnish conforming to Federal Specification TT-V-51C, for Varnish Asphalt. Ferrous surfaces obviously not to be painted shall be given a shop coat of grease or other suitable protective coating.

H. Corporation cocks. Corporation cocks shall be bronze and shall be the approved equal of Mueller Valve Co., Decatur, Illinois, or Ford Meter Box Co., Wabash, Indiana, for copper service tube. End joints shall be compression fittings.

I. Tapping saddles. Tapping saddles shall be required on all cast-iron, polyvinyl chloride (PVC) and asbestos-cement (A.C.) pipe. Tapping saddles shall be Model 313, as manufactured by S&W.

J. Curb stops. Curb stops shall be bronze with a lapped, ground key and shall be the approved equal of Mueller Valve Co., Decatur, Illinois, or Ford Meter Box Co., Wabash, Indiana, for copper tube service, compression joint.

K. Copper tubing. For all residential services, type K copper tubing as noted in section M below may be allowed from the water main to the curb stop and to the meter connection for all service connections. **[Amended 11-28-2012 STM, Art. 12]**

L. Meters. For the purposes of standardization, water meters shall be Trident T-10, provided with an ARB external reader and forty (40) feet of cable. Each meter shall be supplied with one (1) bent meter connection and one (1) straight meter connection. Meter connection nuts will have a hole in nut for purposes of sealing.

M. PE Tubing. PE tubing may be allowed from the water main to the curb stop and to the meter connection for all residential service connections. Prior to approval, the applicant shall verify in writing to the Town that no petroleum constituents are present in subsurface soil in the vicinity of the service. If subsurface petroleum constituents are present in the subsurface soil in the vicinity of the service then type K copper tubing shall be required from the water main to the curb stop and to the meter connection for all service connections. Otherwise, plastic water services shall be Polyethylene manufactured of PE3408 materials with SDR-9 minimum wall thickness, as defined in ASTM D3350. Polyethylene pipe shall be blue plastic and pressure class 200 psi. Dimensional and performance characteristics shall conform to the requirements of AWWA C901. The use of polyethylene pipe and tubing may be allowed for water services two (2) inches or under in diameter (4-inch and larger diameter water services shall use cement lined ductile iron water pipe). Polyethylene pipe shall be installed with enough slack to compensate for settlement and compaction and shall be laid on a bed of sand with six inches below, above, and to either side of the tubing. Sand shall meet the specifications

of the Massachusetts Department of Transportation Standard Specifications for Highways and Bridges M1.04.0 Type a. Tubing shall EITHER include an embedded trace wire as provided by Endopoly PE3408/PE4710 High Density Polyethylene Pipe manufactured by Endot Industries, Rockaway, NJ, or approved equal OR shall have a trace wire laid no more than six inches above the pipe. If trace wire is used than the wire shall be continuous, with no splices, from the main to the structure. Trace wire shall be Copperhead Reinforced Tracer Wire by Copperhead Industries, Monticello, MN, or approved equal. **[Added 11-28-2012 STM, Art. 12]**

§ 334-57. Cement-lined ductile-iron pipe and fittings.

A. General.

(1) The contractor shall furnish, handle, haul, lay, joint, test and disinfect all cement-lined Class 52 ductile-iron pipe, including fittings and appurtenant work.

(2) The pipe shall be installed with a minimum of five and one-half (51/2) feet of cover. Where the pipe cannot be reasonably installed with this cover, the contractor shall furnish and install insulation as approved by the Division. The contractor must have permission from the WSD to install any pipe with less than five and one-half (51/2) feet of cover, prior to installation.

(3) For buried ductile-iron pipelines, the contractor shall use push-on-joint-type pipe. All fittings for push-on-joint pipe shall have mechanical joint ends. The pipe and fittings shall be cement-lined and coated. The pipe joints shall have rubber gaskets.

(4) In all cases, water mains shall be installed twelve (12) feet from the property line on proposed streets.

B. Standard specifications.

(1) Class 52 ductile-iron pipe shall conform to ANSI A21.50 (AWWA H3) and ANSI A21.51 (AWWA C151).

(2) Class 250 ductile-iron fittings shall conform to ANSI A21.10 (AWWA C110).

(3) Short-bodied Class 350 ductile-iron fittings shall conform to ANSI A21.53 (AWWA C153).

C. Pipe joints. Where required, pipe and fittings shall be furnished with restraining glands, approved lugs or hooks cast integrally for use with bolts or bridle rods and socket clamps to keep the piping from pulling apart under pressure.

(1) Flange joints shall conform to ANS-A21.10, except that special drilling or tapping shall be as necessary to ensure correct alignment and bolting. Flanged pipe shall use long-hub flanges which shall be screwed on tight at the foundry by machine before they are faced and drilled.

(2) Mechanical joints shall conform to ANS-A21.11.

(3) Push-on joints shall conform to ANS-A21.11.

D. Fittings.

(1) Fittings shall be Class 250 ductile iron or cast iron. Class 350 short-bodied fittings may be used at the contractor's option. Unless otherwise indicated, fittings shall have mechanical joint ends.

(2) Flanged fittings shall be faced and drilled in accordance with ANSI-A21.10, except that special drilling or tapping shall be provided as necessary to ensure correct alignment and bolting.

E. Pipe for use with couplings. Pipe for use with sleeve-type couplings shall be as specified above, except that the ends shall be plain (without bells or beads).

F. Sleeve-type couplings.

(1) To ensure correct fitting of pipe and couplings, all solid sleeve-type couplings and accessories shall be furnished by the supplier of the pipe and shall be Class 350, ductile iron through twelve-inch diameter and Class 250 ductile iron for greater than twelve-inch diameter.

(2) Couplings for buried pipe shall be iron and shall be solid, mechanical joint sleeve. The couplings shall be provided with epoxy-coated galvanized-steel bolts and nuts.

(3) All couplings shall be provided with gaskets.

G. Split couplings. For connecting cast-iron pipe, split couplings may be used instead of sleeve-type couplings. Split couplings shall be made of malleable iron and shall be suitable for use with grooved-end or shouldered-end cast-iron pipe. They shall be Victaulic Couplings made by the Victaulic Co. of America, Elizabeth, New Jersey; Gruvagrip couplings made by Gustin-Bacon Mfg. Co., Kansas City, Missouri; Groove couplings made by Eastern Malleable Iron Co., Pittsburgh, Pennsylvania; or approved equal products.

H. Lining and coating.

(1) All pipe and fittings shall be lined and coated as specified below.

(2) The inside of pipes and fittings shall be given a cement lining and bituminous seal coat in accordance with ANSI-A21.4.

(3) The outside of pipe and fittings shall be coated with the standard bituminous coating specified under the appropriate ANSI standard specification for the pipe and fittings.

(4) Machined surfaces shall be cleaned and coated with a suitable rust-preventative coating at the shop immediately after being machined.

I. Inspection and testing.

(1) All pipe and fittings shall be inspected and tested at the foundry as required by the standard specifications to which the material is manufactured. The contractor shall furnish, in duplicate, to the WSD sworn certificates of such tests.

(2) In addition, the WSD reserves the right to have any or all pipe, fittings and special castings inspected and/or tested by an independent service at either the manufacturer's plant or elsewhere. Such inspection and/or tests shall be at the WSD's expense.

(3) Pipes and fittings shall be subjected to a careful inspection and a hammer test just before being laid or installed.

J. Handling and cutting pipe.

(1) The contractor's attention is directed to the fact that cast-iron fittings and cement linings are comparatively brittle. Every care shall be taken in handling and laying pipe and fittings to avoid damaging the pipe and linings, scratching or marring machined surfaces and abrasion of the pipe coating or lining.

(2) Any fitting or pipe showing a crack or which has received a severe blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the work.

(3) In any pipe showing a distinct crack or deformity and in which it is believed there is no incipient deformity beyond the limits of the visible deformity, the deformed portions, if so approved, may be cut off by and at the expense of the contractor before the pipe is laid so that the pipe used may be perfectly sound. The cut shall be made in the sound barrel at a point at least twelve (12) inches from the visible limits of the deformity. Edges of pipe at the cut shall be beveled to eliminate all sharp edges.

(4) Except as otherwise approved, all cutting shall be done with a machine suitable for cutting ductile-iron pipe.

(5) Hydraulic squeeze cutters are not acceptable for cutting ductile iron pipe. Travel-type cutters and guillotine or rotary-type abrasive saws may be used. All cut ends shall be examined for possible defects caused by cutting.

(6) The contractor's attention is directed to the fact that damage to the lining or pipe or fittings will render them unfit for use; he shall use the utmost care in handling and installing lined and coated pipe and fittings to prevent damage. Protective guards shall not be removed until the pipe is to be installed.

(7) Lined and coated pipe and fittings shall be installed as and assembled with approved packing or gaskets of the type recommended by the pipe manufacturer for the particular lining used.

K. Installing pipe and fittings.

(1) No defective pipe or fittings shall be laid or placed in the trench, and any piece discovered to be defective after having been laid or placed shall be removed and replaced by a sound and satisfactory piece.

(2) Each pipe and fitting shall be cleared of all debris, dirt, etc., before being laid and shall be kept clean until accepted in the complete work.

(3) Pipe and fittings shall be laid accurately to the lines and grades indicated on the drawings or as required. Care shall be taken to ensure a good alignment both horizontally and vertically. The pipe shall be laid on wood blocks, with two (2) blocks required for each length of pipe for support.

(4) In buried pipelines, each pipe shall have a firm bearing along its entire length.

(5) The deflection of alignment at a joint shall not exceed the appropriate permissible deflection as specified in the tabulation titled "Pipe Deflection Allowances."

Pipe Deflection Allowances

Maximum Permissible Deflection*
(inches)

Size of Pipe (inches)	Push-on-Joint
8	19
10	19
12	19
16	15

* NOTE: Maximum permissible deflection for eighteen-foot length. Maximum permissible deflections for other lengths shall be in proportion of such lengths.

(6) Castings to be encased in masonry shall be accurately set with the bolt holes, if any, carefully aligned.

(7) Immediately prior to being set, castings shall be thoroughly cleaned of all rust, scale and other foreign material.

L. Assembling push-on-joint pipe.

(1) Joining of push-on-joint pipe shall conform to the American Water Works Association AWWA Standard Specifications, Designation: C600, latest revision.

(2) If effective sealing of the joint is not attained, the joint shall be disassembled, thoroughly cleaned, a new gasket inserted and the joint reassembled.

M. Assembling mechanical joint fittings. Assembling of fittings with mechanical joint ends shall conform to AWWA Standard Specification: C600, latest revision. Thrust blocks and retainer glands shall be used at all valves, hydrants, fittings and bends in excess of forty-five degrees (45°) and shall be of the size and type as shown on the Hydrant Setting Detail and the Thrust Block Detail in the Standard Details. Precast concrete blocks may be used as thrust blocks, provided that they meet the same criteria as poured-in-place concrete and are acceptable to the WSD.

N. Temporary plugs. At all times when pipe laying is not actually in progress, the open ends of pipe shall be closed by temporary watertight plugs or other approved means. If water

is in the trench when work is resumed, the plug shall not be removed until all danger of water entering the pipe has passed.

O. Bolted joints.

(1) Materials for bolted joints shall be as hereinbefore specified.

(2) Before the pieces are assembled, rust-preventative coatings shall be removed from machined surfaces. Pipe ends, sockets, sleeves, housings and gaskets shall be thoroughly cleaned, and all burrs and other defects shall be carefully smoothed.

(3) If effective sealing of the joint is not attained at the recommended maximum torque, the joint shall be disassembled and thoroughly cleaned, then reassembled. Bolts shall not be overstressed to tighten a leaking joint. A torque wrench shall be used.

P. Pressure and leakage tests.

(1) Except as otherwise directed, all pipelines shall be given combined pressure and leakage tests in sections of approved length. The contractor shall furnish and install suitable temporary testing plugs or caps; all necessary pressure pumps, pipe connections, meters, gates and other necessary equipment; and all labor required. The WSD shall have the privilege of using its own gauges.

(2) Subject to approval and provided that the tests are made within a reasonable time considering the progress of the project as a whole and the need to put the section into service, the contractor may make the tests when he desires, utilizing a testing company approved by the WSD. However, pipelines in excavation or embedded in concrete shall be tested prior to the backfilling of the excavation or placing of the concrete, and exposed piping shall be tested prior to field painting.

(3) Unless it has already been done, the section of pipe to be tested shall be filled with water of approved quality, and all air shall be expelled from the pipe. If hydrants or blowoffs are not available at high points for releasing air, the contractor shall make the necessary excavations and do the necessary backfilling and make the necessary taps at such points and shall plug said holes after completion of the test.

(4) The section under test shall be maintained full of water for a period of twenty-four (24) hours prior to the combined pressure and leakage test being applied.

(5) The pressure and leakage test shall consist of first raising the water pressure (based on the elevation of the lowest point of the section under test and corrected to the gauge location) to a pressure of two hundred (200) pounds per square inch. If the contractor cannot achieve the specified pressure and maintain it for a period of one (1) hour, the section shall be considered as having failed to pass the pressure test.

(6) Following or during the pressure test, the contractor shall make a two-hour leakage test by metering the flow of water into the pipe while maintaining in the section being tested a pressure of one hundred fifty (150) pounds per square inch. If the average leakage is equal to or less than that allowed under AWWA Standard C600,

latest revision, for installation of that specific pipe, the section shall be considered as having passed the leakage test.

(7) If the section fails to pass the pressure and leakage tests, the contractor shall do everything necessary to locate, uncover and repair or replace the defective pipe, fitting or joint, all at his own expense. Additional tests and repairs shall be made until the section passes the specified test.

Q. Disinfecting and flushing.

(1) The contractor shall disinfect all pipelines he has installed.

(2) The contractor shall furnish all equipment and materials necessary to do the work of disinfecting and shall perform the work in accordance with the procedure outlined in the AWWA Standard for Disinfecting Water Mains, Designation: C651, latest revision, as approved by the WSD's representative. The chlorine dosage shall be such as to produce not less than ten (10) milligrams per liter residual after a contact time of twenty-four (24) hours. During the disinfection period, care shall be exercised to prevent contamination of water in existing mains.

(3) After disinfecting treatment, the main shall be flushed with clean water until the residual chlorine content does not exceed zero and two-tenths (0.2) milligrams per liter.

(4) The contractor shall dispose of the water used in disinfecting and flushing in an approved manner.

(5) A bacteriological sample shall be taken and submitted to a laboratory approved by the WSD's representative with all costs borne by the contractor. Test results from the laboratory are to be sent directly to the Ashland Water and Sewer Division, Box 9, Ashland, Massachusetts, 01721, by the laboratory.

R. Failure of system.

(1) The contractor will be required to make test excavations to ascertain that the proposed position of the connections to existing mains will be clear of joints, fittings or other obstructions.

(2) If any failure occurs in connecting to existing mains, service shall be restored in the shortest possible time, the contractor working around the clock, if necessary. He shall cooperate with the WSD in notifying the consumers or supplying emergency water. If required by the WSD, the contractor shall make connections to water mains during night hours, on Sunday or at another off-peak time for the demand for water. The contractor shall be responsible for maintaining all existing services and repairing any damages to existing utilities.

§ 334-58. Backfilling, paving and materials.

A. Backfilling pipe trenches.

(1) As soon as practicable after the pipes have been laid, backfilling shall be started. The contractor's attention is directed to backfilling trenches at pipe joints. At his own risk, the contractor may backfill the entire trench, including backfill at joints. He shall, however, be responsible for removing and replacing such backfill, at his own expense, in order to locate, repair or replace leaking or defective joints or pipe.

(2) Tree stumps or roots twelve (12) inches or longer will be considered unsuitable material for backfilling of trenches. No stone, rock or pieces of bituminous pavement larger than twelve (12) inches in greatest dimension shall be placed in the backfill nor shall large masses of backfill be dropped into the trench in such a manner as to endanger the pipeline.

(3) Should a sufficient quantity of excavated material be classified by the WSD as unsuitable for backfilling such that backfilling of the trench cannot be completed with the excavated material, the contractor shall supply gravel borrow to complete the backfilling.

(4) Backfill of the trench up to a level of twelve (12) inches above the top of the pipe shall be done by hand shovel with earth fill free from stones having any dimension greater than three (3) inches.

(5) This area of backfill is considered the zone around the pipe and shall be thoroughly compacted before the remainder of the trench is backfilled. Compaction of the zone around the pipe shall be done by use of power-driven tampers weighing at least twenty (20) pounds. Care shall be taken that material close to the bank, as well as in all other portions of the trench, is thoroughly compacted to a density of ninety-five percent (95%).

(6) The remainder of the trench above the zone around the pipe shall be backfilled and compacted. Compaction of backfill in the remainder of the trench shall be done in layers not exceeding twelve (12) inches in depth and by use of power-driven tampers weighing at least twenty (20) pounds. Water jetting shall be used only when approved by the WSD.

B. Restoring trench surface. Where the trench occurs adjacent to paved streets in shoulders, sidewalks or in cross-country areas, the contractor shall thoroughly consolidate the backfill and shall maintain the surface as the work progresses. If settlement takes place, he shall immediately deposit additional fill to restore the level of the ground. Adjacent to streets and highways, the top twelve-inch layer of trench backfill shall consist of compacted gravel. If, in the opinion of the WSD, the top twelve-inch layer is unsuitable for use as subgrade or shoulder material, it may order the contractor to remove this layer and to provide gravel subbase. The contractor shall maintain repair of the trench for one (1) year from the date of surfacing or backfilling.

C. State highway paving. Work to be done on roads designated as state highways shall conform to the following subsections. References are made to sections and terms of the state highway specifications.

(1) The gravel subbase shall conform to that as specified under Section 2E-8, Gravel Subbase, of the state specifications. The subbase shall be a minimum of twenty (20) inches, compacted measure, and shall be entirely new gravel subbase.

(2) After backfilling has been completed and subgrades reestablished, a two-inch bituminous concrete Type I-1 temporary pavement shall be installed and maintained by the contractor. Permanent pavement shall not be placed until a period of at least ninety (90) days has elapsed from the time of trench backfilling.

(3) When directed by the Superintendent or the Massachusetts Department of Public Works, the contractor shall remove the temporary pavement and regrade the gravel subbase for installation of permanent pavement. The permanent pavement shall consist of a six-inch cement concrete slab, a two-inch binder course and a one-half-inch-to-three-fourths-inch top course.

(4) The concrete slab shall be cast-in-place conforming to Massachusetts standard specifications for Class F cement concrete and shall be high early strength. The slab shall be reinforced as required.

(5) The binder course shall be Class I bituminous concrete pavement, Type I-1, and shall be in accordance with Section 460 of the standard specifications.

(6) Upon completion of the binder course, the contractor shall install the surface treatment or top course which shall consist of Class I dense bituminous concrete, Type ST, machine laid. In the case of a transverse trench, the top course shall extend thirty (30) feet beyond the limits of each edge of the trench and vary in depth from three-fourths (3/4) inch to one-half (1/2) inch.

(7) The contractor shall notify the District 4 Office of the Department of Public Works twenty-four (24) hours prior to the start of work. The District 4 Office is located at 519 Appleton Street, Arlington, Massachusetts, 02174, telephone number 648-6100. All work shall be done as directed by and to the satisfaction of the engineer from the Massachusetts Department of Public Works.

D. Temporary pavement (non-state highways).

(1) Where directed by the WSD and immediately after backfilling, the contractor shall place temporary bituminous pavement between the edges of the existing pavement. It shall consist of Class I bituminous concrete pavement, Type I-1, two (2) inches thick, in accordance with Section 460 of the Standard Specifications for Highways and Bridges of the Department of Public Works of the Commonwealth of Massachusetts, dated 1973, and all amendments thereto.

(2) The temporary pavement shall be repaired as necessary to maintain the surface of the pavement until replaced by the permanent pavement. When so directed by the WSD, the contractor shall remove the temporary pavement and regrade the subbase for installation of permanent pavement.

E. Permanent pavement (non-state highways).

(1) The bituminous paving mixture, equipment, methods of mixing and placing and the precautions to be observed as to weather condition of base, etc., shall be in accordance with Section 460 of the Standard Specifications for Highways and Bridges of the Massachusetts Department of Public Works.

(2) The bituminous concrete pavements shall consist of Class I bituminous concrete, Type I-1, as shown in Section 460 of the Standard Specifications for Highways and Bridges of the Massachusetts Department of Public Works.

(3) The edges of the existing pavement shall be trimmed back to a reasonably smooth line subject to the approval of the Ashland Highway Division. Immediately prior to installing the binder course, the trimmed edges shall be stable and unyielding, free of loose or broken pieces, and all edges shall be thoroughly broom cleaned. The contact surfaces of bridge curbings, manholes, catch basins or other appurtenant structures in pavement shall be painted thoroughly with a thin uniform coating of bitumen (Specifications C-8) just before any mixture is placed against them.

(4) The binder course shall be two and one-half (21/2) inches thick, compacted, and the mixture shall be within the composition limits of binder course as shown in Section M3.11.00 of Massachusetts Department of Public Works Standards. It shall be placed only between the edges of the existing pavement.

(5) The top course of pavement shall be one and one-half (11/2) inches thick, compacted, and the mixture shall be within the composition limits of top course as shown in Section M3.11.00 of Massachusetts Department of Public Works Standards.

F. Pavement maintenance and repair. If points of settlement or holes appear in the temporary pavement, binder course pavement or top course pavement, the contractor shall repair the same within twenty-four (24) hours of notification by the WSD. In emergency situations, the contractor shall make repairs immediately.

G. Sidewalk and curbing replacement.

(1) Where the replacement of sidewalks is required, the contractor shall construct either bituminous concrete sidewalks or cement concrete sidewalks, as determined in the field, to the required lines and grades and in accordance with these specifications.

(2) If applicable, the contractor shall restore gravel sidewalks to a condition at least equal to that before the work was started.

H. Unsuitable material.

(1) If material unsuitable for use in trenches is found (peat, muck, wood, tree stumps, roots, etc.), the contractor shall remove such material to the required width and depth and replace it with thoroughly compacted bank-run gravel as directed.

(2) Material shall be sand or small stone gravel or, in the case of installation below the water table, bedding shall be one-fourth-by-three-fourths-inch approximate-sized stone from a depth of six (6) inches below the bottom of the water main to a point

equal to the top of the water main and the full width of the trench. The trench shall be dewatered to allow the bedding stone to be placed on a firm bottom and the pipe to be installed without getting trench water in the pipe.

ARTICLE VIII
Fees and Billing

§ 334-59. Billing address. [Amended 10-18-2000 ATM, Art. 14]

Consumers shall be responsible for furnishing the WSD with the correct billing address and names.[14] All changes in billing addresses shall be in writing.

§ 334-60. Failure to receive bill.

Failure to receive bills shall not constitute a reason for extension of time for payment.

§ 334-61. Explanation of fees.

A. The index presented below should be used to assist the consumer in finding the reference that explains fees associated with services performed by the Water and Sewer Division.

Subject	Reference
New house services	Subsections B(1) and (2)
Water rates	Subsection B(2)
New subdivisions	Subsections B(1) and (3)
New sprinkler systems	Subsection B(4)
Testing meter	Subsection B(5)
Resealing meter	Subsection B(6)
Frozen meter reset	Subsection B(7)
Turn water on and off	Subsection B(8)
Cross-connection device test	Subsection B(9)
Final meter readings	Subsection B(10)
Replace water meter valves	Subsection B(11)
Fine for second estimated bill	Subsection B(12)
Inspection charges	Subsection B(13)
License fees	Subsection C(1)
Road reconstruction	Subsection C(2)

14. **Editor's Note: At the 3-5-1924 ATM it was voted that after December 31, 1924, the water rates be collected from the landlord or owner of the property. A copy of the notice to this effect is a part of Appendix A of this chapter. Said Appendix A, including such notice, is on file in the office of the Town Clerk, the Department of Public Works, the Planning Office and the office of the Building Inspector and may be examined there during regular business hours.**

B. House services; building services.[15] **[Amended 10-18-2000 ATM, Art. 14]**

(1) New water service, complete, from water main to edge of property, including water main tap: as set by the Department of Public Works.

(2) Water rates: as set by the Department of Public Works.

(3) Water main tapping fees: as set by the Department of Public Works.

(4) Sprinkler connections: as set by the Department of Public Works.

(5) Test meter at customer's request: as set by the Department of Public Works.

(6) Resealing meter that has been tampered with: as set by the Department of Public Works.

(7) Frozen meter reset, up to one-inch (over one-inch is property owner's responsibility): as set by the Department of Public Works.

(8) Turning on or off water: as set by the Department of Public Works.

(9) Cross-connection test fee, per device: as set by the Department of Public Works.

(10) Final meter readings: as set by the Department of Public Works.

(11) Replace water meter valves within homes: as set by the Department of Public Works.

(12) Fine for second estimated water and sewer bill: as set by the Department of Public Works.

(13) Inspection charges: as set by the Department of Public Works.

C. Other charges.[16] **[Amended 10-18-2000 ATM, Art. 14]**

(1) Drain layer's license:

(a) Including one (1) copy of WSD rules and regulations: as set by the Department of Public Works.

(b) Additional copies of rules and regulations: as set by the Department of Public Works.

(2) Road reconstruction: as set by the Department of Public Works.

---

15. **Editor's Note: For a complete listing of fees, see Ch. A352.**

16. **Editor's Note: For a complete listing of fees, see Ch. A352.**

ARTICLE IX
Powers and Authority of Inspectors

§ 334-62. Right to enter property.

The WSD and other duly authorized employees of the town bearing proper credentials and identification shall be permitted to enter all properties for the purposes of inspection, observation and meter reading in accordance with the provisions of this chapter.

§ 334-63. Liability.

While performing the necessary work on private properties referred to above, the WSD or duly authorized employees of the town shall observe all safety rules applicable to the premises established by the property owner, and the property owner shall be held harmless for injury or death to the town employees, and the town shall indemnify the property owner against loss or damage to its property by town employees and against liability claims and demands for personal injury or property damage asserted against the property owner and growing out of inspection or meter reading operations, except as such may be caused by negligence or failure of the property owner to maintain safe conditions.

ARTICLE X
Enforcement

§ 334-64. Service of notice.

Any person found to be violating any provision of this chapter shall be served by the town with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations.

§ 334-65. Violations and penalties.

A. Any person who shall continue any violation beyond the time limit provided for in the notice shall be guilty of a misdemeanor and, on conviction thereof, shall be fined in the amount not exceeding one hundred dollars ($100) for each violation. Each day in which any such violation shall continue shall be deemed a separate offense.

B. Any person violating any of the provisions of this chapter shall become liable to the town for any expense, loss or damage occasioned by the town by reason of such violation.

ARTICLE XI
Repealer; Severability; When Effective

§ 334-66. Repealer.

All ordinances or parts of ordinances in conflict herewith are hereby repealed.

§ 334-67. Severability.

The invalidity of any section, clause, sentence or provision of this chapter shall not affect the validity of any other part of this chapter which can be given effect without such invalid part or parts.

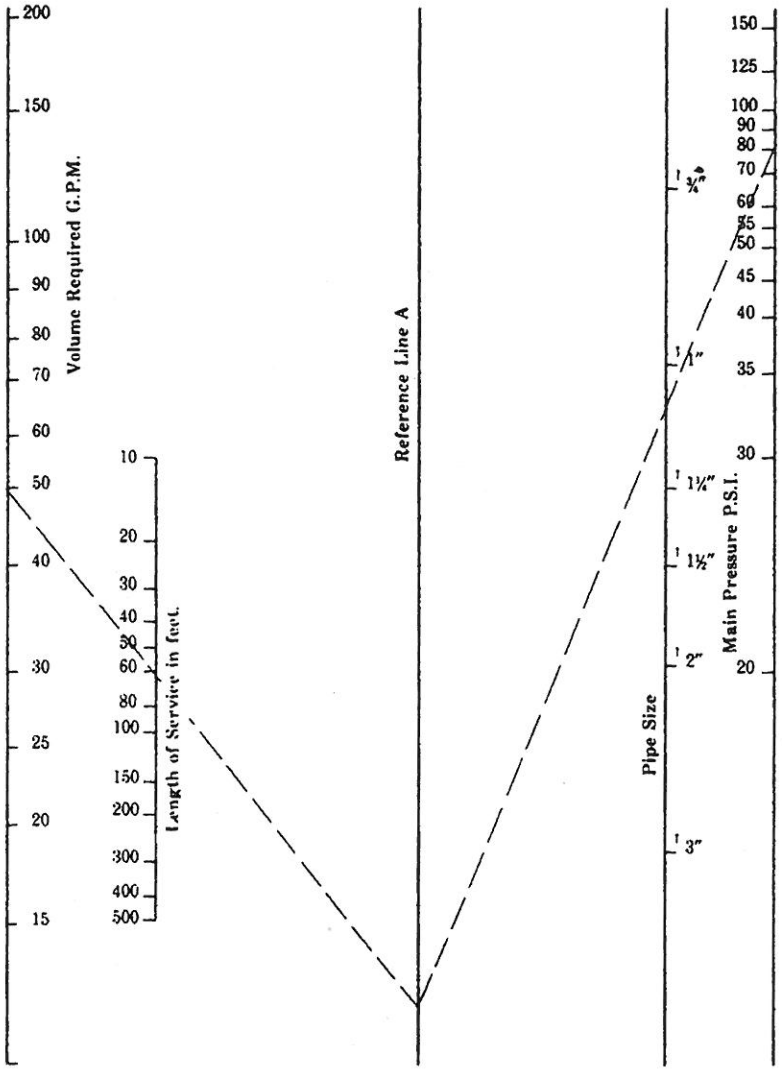
§ 334-68. When effective.

This chapter shall be in full force and effect from and after its passage, approval, recording and publication, as provided by law.

334 Attachment 1

Town of Ashland

Figure 1
Service Size Nomograph



Example:

Customer requirements:	50 gallons per minute.
Length of service:	60 feet.
Street pressure:	80 pounds per square inch.

Draw line from 50 gallons per minute thru 60 feet length of service to Reference Line A. From Reference Line A to 80 pounds per square inch. Line will intersect pipe size line to indicate that service pipe of 1¼ inches is recommended.

334 Attachment 2

Town of Ashland

Appendix C
Ashland Water and Sewer Division
Cross-Connection Control Regulations

1.0 Purpose.

The purpose of these regulations is to:

A. Protect the public potable water supply of the Town of Ashland from the possibility of contamination or pollution by isolating such contaminants or pollutants which could backflow or backsiphon into the public water supply system.

B. Promote the elimination or control of cross-connections, actual or potential, between a customer's in-plant potable water system and nonpotable water systems, plumbing fixtures and industrial piping systems.

C. Provide for the maintenance of a continuing program of cross-connection control which will systematically and effectively prevent the contamination or pollution of all potable water systems from cross-connections.

2.0 Authority.

As provided in the Federal Safe Drinking Water Act of 1974 (Public Law 93-523) and the Commonwealth of Massachusetts Drinking Water Regulations, 310 CMR 22.22, the water purveyor has the primary responsibility for preventing water from unapproved sources or any other substances from entering the public water system.

3.0 Responsibility.

The Ashland Water and Sewer Division shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or back-siphonage of contaminants or pollutants through a potable water service connection. If, as a result of a survey of the premises, the Water and Sewer Division determines that an approved backflow prevention device is required at the town's water service connection or as in-plant protection on any customer's premises for the safety of a potable water system, the Water and Sewer Division shall give notice, in writing, to said customer to install an approved backflow prevention device as required. The customer shall, within the same time frame determined by the Water and Sewer Division, install such approved backflow prevention device or devices at his or her own expense. Failure, refusal or inability on the part of the customer to install said device or devices within the specified time frame shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed.

4.0 Policy.

A. No water service connection to any premises shall be installed or maintained by the Water and Sewer Division unless the water distribution system is protected as required by Massachusetts State Law 310 CMR 22.22 and this regulation. Service of water to any premises shall be discontinued by the Water and Sewer Division if a backflow prevention device required by this regulation is not installed and properly maintained or if it is found that a backflow prevention device has been removed or bypassed or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

B. All industrial and commercial establishments attached to the Ashland public water supply system will be required to install at the service entrance either a state-approved reduced pressure backflow preventer or a state-approved double check valve assembly.

C. An approved backflow prevention device required by Subsection B of this section shall be installed on the service line to a customer's water system at or near the property line, immediately inside the building being served or immediately downstream from the water meter, but in all cases before the first drawoff or branch line leading off the service line.

D. All backflow prevention devices required by the Massachusetts Drinking Water Regulation shall be tested and maintained as required in 310 CMR 22.22, Section 9.

E. All backflow prevention devices required by Subsection B of this section shall be tested by the Ashland Water and Sewer Division or its delegated agent at a minimum of once per year.

F. All decisions relating to the determination of backflow devices with regards to said cross-connection control program will be made by the Superintendent of the Ashland Water and Sewer Division. Failure to comply with any directive from this office will result in termination of water service.

G. All costs resulting from the implementation and operation of said cross-connection control program shall be the responsibility of the customer.

H. All fees for tests performed on backflow devices by the Ashland Water and Sewer Division or its delegated agent will be assessed to the owner of the device.

5.0 Definitions.

As used in this regulation unless the context indicates otherwise, the following words shall have the following meanings:

APPROVED BACKFLOW PREVENTION DEVICE - A method to prevent backflow approved by the Massachusetts Department of Environmental Protection and/or the Ashland Water and Sewer Division.

BACKFLOW - The flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply from a source other than the intended source.

BACK-SIPHONAGE - A form of backflow due to reduced or subatmospheric pressure within a water system.

CONTAMINATION or CONTAMINANT - Any physical, chemical, biological or radiological substance or matter in water.

CROSS-CONNECTION - Any actual or potential connection between a distribution pipe of potable water from a public water system and any waste pipe, soil pipe, sewer drain or other unapproved source. Without limiting the generality of the foregoing, the term "cross-connection" shall also include any bypass arrangements, jumper connections, removal section, swivel or changeover connection and other temporary or permanent connection through which backflow can occur.

HEALTH HAZARD - An actual or potential threat of contamination to the potable water system which, in the opinion of the Massachusetts Department of Environmental Protection (DEP) or the Ashland Water and Sewer Division, could endanger health.

IN-PLANT PROTECTION - The location of an approved backflow prevention device in a manner which provides the protection of the potable water system within the premises.

OWNER or OCCUPANT - Any person maintaining a cross-connection installation or owning or occupying premises on which cross-connections can or do exist.

POLLUTION - The presence of any foreign substance (organic, inorganic or biological) in water which tends to degrade its quality so as to constitute a hazard or to impair the usefulness or quality of water to a degree which does not create an actual hazard to the public health, but which does adversely and unreasonably affect such waters for domestic use.

POTABLE WATER - Water from a source which has been approved by the Massachusetts DEP for human consumption.

PUBLIC WATER SUPPLY - A system for the provision to provide the public water for human consumption.

UNAPPROVED SOURCE - The source or distribution system for any water or other liquid or substances which has not been approved by the Massachusetts DEP as being of safe and sanitary quality for human consumption.

WATER AND SEWER DIVISION - The Superintendent or governing body of the municipal water system with whom has been vested the authority and responsibility for the implementation of the cross-connection control program and for the enforcement of the provisions of this regulation.