

# **Auburn Water District**

## **Rules and Regulations**

### **INTRODUCTION**

The Auburn Water District of Auburn, in the Commonwealth of Massachusetts, hereinafter referred to as the “District” was established by the acceptance of Chapter 585 of the Acts of 1947 and as amended by Chapter 150 of the Acts of 1981. The Act sets forth the corporate powers and the duties of the District. The following Rules and Regulations are supplementary to and in accordance with Section 12 of the Act.

These Rules and Regulations are subject to change by a vote of the Board of Water Commissioners at any publicly posted Commissioner’s meeting.

By the Auburn Water District Board of Commissioners:

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## **Article I. DEFINITIONS**

**Account:** shall mean the agreement between a property owner and the District for water service.

**Applicant:** shall mean a person, persons or corporation who applies for an account or permit as described in these rules and regulations.

**Authorized Representative:** a person chosen by the property owner to have legal authority to act on behalf of the property owner.

**Backflow:** shall mean the flow of water or other fluids, mixtures, or substances into the distribution pipes of a potable supply of water from any source or sources other than its intended source.

**Backflow Prevention Device:** shall mean a valve designed to prevent the flow of water from a building into the Public Water System.

**Commissioners:** shall mean the duly elected members of the Board of Water Commissioners of the Auburn Water District or their authorized employee, agent or representative.

**Cross-Connection:** shall mean any actual or potential connection between a distribution pipe of potable water supplied by the District and any waste pipe, soil pipe, drain or any other unapproved source. Without limiting the generality of the foregoing, the term “cross connection” shall also include any bypass arrangement, jumper connection, removal section, swivel or changeover connection and any other temporary or permanent connection through which backflow can or may occur.

**Customer:** shall mean any person, partnership, firm, corporation, or organization who is the legal title holder of the property responsible for payment of bills for charges for water and miscellaneous service to a property whether or not the premises are occupied by the Customer or the Customer’s authorized representative.

**District:** shall mean the Auburn Water District.

**Disconnect/Connect Service:** shall mean the process of shutting off the curb-stop valve and/or the house shut-off valve and removing the water meter, as well as the reverse process.

**Dwelling Unit:** A dwelling unit shall be defined as a single-family home, or an apartment or condominium unit in a multifamily structure, including duplexes, apartment buildings, townhouses, condominium buildings.

**Easement:** shall mean an acquired legal right for the specific use of land for water and other utilities that is owned and maintained by others, whether recorded or by prescription.

**Irrigation Systems:** shall mean any equipment that conveys water for irrigation purposes and that is permanently connected to the public water supply.

**MADEP:** shall mean the Massachusetts District of Environmental Protection, which is the

regulatory agency for the Federal Safe Drinking Water Act.

**Main:** shall mean the water supply pipe laid in the right of way from which service connections are made.

**Meter:** shall mean a device installed for the measurement of water quantities to be used as a basis for determining charges for water service.

**Multi-Family home:** shall be a building that is designed for and occupied exclusively as a residence and containing two (2) or more dwelling units, such as apartment houses, apartment complexes, hotels, motels, trailer parks, etc.

**Private Fire Protection:** shall mean private water mains, fire pipes and other appurtenances installed for the purpose of fire protection/suppression at a particular premise.

**Private Hydrant:** shall mean a hydrant installed by an owner for the purpose of private fire protection/suppression at a particular premise.

**Private Water Main:** shall mean a water main that is not owned by the District, which is located on private property such as condominium complexes and industrial business parks.

**Public Fire Protection:** shall mean the public water mains, hydrants and appurtenances installed for the purpose of fire protection in a public way, District-owned easement, whether recorded or by prescription, or private way open to public travel.

**Public Water Main:** shall mean the piping and associated valves, hydrants, and appurtenances owned by the District, installed in a public way, publicly owned easements whether recorded or by prescription, or private way open to public travel, for the purpose of supplying water to one or more Customers or for public fire protection.

**Public Water System:** shall mean a system for the provision to the public of piped water for human consumption. The District is a public water system.

**Service Connection:** shall mean all the lines and materials from the water main to the Customer's water system and is equivalent to 'water service'.

**Service Line:** shall mean the pipe running from the main in the street including a corporation stop at the main, a curb-stop and box at the property line, an interior shut-off valve, meter and meter connection usually inside the building or foundation wall.

**Shut-Off of Service:** shall mean the turning of a valve in the service line so that water no longer flows to the Customer.

**Superintendent:** Superintendent, or appointed designee, of the Auburn Water District.

**Termination:** shall mean the cessation of water service.

**Town:** shall mean the Town of Auburn, Massachusetts.

**Water Service:** shall mean all the lines and equipment from the water main to the Customer's water system and is equivalent to 'service connection'.

## **Article II. USE OF THE WATER SYSTEM**

### **Section 2.01 Power to Establish Regulations**

The Commissioners may establish, change and amend the Rules and Regulations for the introduction and use of water at any duly noticed meeting of the Commissioners by a majority vote.

All prior rules, customs or alleged agreements on behalf of the Auburn Water Company, unless in writing and signed by a duly authorized officer of the District, are null and void.

### **Section 2.02 Conditions of Service**

#### **(a) General**

No Customers shall operate apparatus' on their water lines, water meter or elsewhere on their premises that will adversely affect the operating conditions of the District's system or its equipment or its ability to serve other Customers.

No person shall tap any water main or connect any service pipe therewith, nor set, take off, or repair meters, nor turn-on or shut-off the water from any main or hydrant without permission of the District.

Customers are responsible for notifying the District if they want to have a service shut-off to a building for any reason. Customers are responsible for keeping all activated water services from freezing.

The District is not responsible for discolored water, clogged water lines on private property caused by excessive use, hydrant flushing, line breaks or for firefighting purposes.

Customers are advised to provide workable vacuum safety devices on hot water tanks.

#### **(b) Pressure, Capacity and Color**

The District does not guarantee a sufficient or uniform pressure, or an uninterrupted supply of water and Customers are cautioned to provide sufficient storage of water where an absolutely uninterrupted storage supply must be assured, such as steam boilers, domestic hot water systems, gas engines, medical equipment, etc.

Variations in water pressure may arise from unusual or extraordinary conditions, or arise from the operation of the Customer's own fixtures or appliances. It is the Customer's responsibility to install suitable equipment to protect private piping, equipment and property from variations in water

pressure.

The District shall have the right to reserve sufficient supply of water at all times to provide fire, health and sanitary requirements, whenever the public welfare may require it.

The District shall not be held liable or responsible for loss or damage from dirty water resulting from, repairs, modifications, hydrant flushing or maintenance to the water distribution system, or for any other reason.

No Customer shall be entitled to damages, or to have payment refunded, for any interruption of supply or by shutting off for the purpose of additions or repairs to the works, or by the stoppage or shortage of supply due to causes beyond the control of the District, such as excessive drought, excessive use of and waste of water by other Customers, or by leaks or defects in the pipes or appliances owned by him or other Customers.

**(a) Temporary Interruption of Service**

The District reserves the right to interrupt service temporarily in order to perform maintenance or repairs on the water system. Whenever possible, the District will notify Customers of scheduled interruptions. However, in case of an emergency, the District reserves the right to interrupt service without first giving notice of such action if, in the District's opinion, it is necessary to do so in order to facilitate the making of repairs or alterations, or other necessary purposes. All Customers and property owners are warned to equip plumbing, tanks and appliances with proper safety devices, such as vacuum valves, as the District shall not be responsible for collapsed water tanks or for any damage which may occur due to variation of pressure or loss of water supply, or for the shutting off of water for the purpose of making repairs. In such cases, no person shall be entitled to receive damages or refunds of payments because of any such interruption or any consequent conditions.

**Section 2.03 Right of Entry**

The owners or occupants of any premises served by the District's water system shall, upon presentation by District personnel of their credentials, authorize entry to their premises during normal business hours, as provided for under the Massachusetts General Laws Chapter 165, Section 11D, for the purpose of inspecting and surveying their water system for new installations or cross connections, or to remove, repair or replace any water meter, or to conduct water quality sampling and testing.

When such access is refused, the water shall be shut-off after proper notice has been provided until such access has been allowed and fees have been paid for shutting off and turning on the water.

Duly authorized employees of the District, bearing proper credentials and identification, shall be permitted to enter all private properties through which the District holds an easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the water works lying within said easement. All entry and subsequent work, if any, on said easement shall be done in full accordance with the terms of the easement pertaining to the private property involved.

## **Section 2.04 Meters**

### **(a) General**

All services shall be metered. An individual meter shall be required for each premises and each separate service connection. All water flowing through and recorded by the water meter is billable.

Each new residential meter shall be purchased and installed by the District at the Customer's expense. All meters measuring one and one-half inches in diameter and larger including an automatic reading device shall be installed by the owner at its expense and inspected by the District. The meter shall be of such size and design as reasonably necessary to serve the Customer involved. Ownership of the meter shall be at all times in the District and the District shall be responsible for maintenance of each meter at its own expense, except to the extent that the meter is damaged by the willful act or negligence of the Customer.

If any meter is required within a premise in addition to the District's entrance meter, it will be installed, maintained and read by and at the expense of the Customer.

The quantity of water recorded by the meter shall be accepted as conclusive by both the Customer and the District, except when the meter has been found to be registering inaccurately, or has ceased to register. In any such case, the quantity may be determined by the average registration of the meter for the three previous billing periods, or by the average registration of the new meter, whichever method is more representative of the conditions existing during the period in question.

The Customer shall permit no one other than an agent of the District to remove, inspect, or tamper with the meter. As soon as it comes to his knowledge, the Customer shall notify the District of any injury to or malfunction of the meter.

All meters must be installed horizontally to provide optimal operation. Water meters installed shall have a ball valve located before and after the meter for the purpose of isolating the meter for repair and replacement. Both ball valves are the property of, and the responsibility for proper functioning, the property owner.

### **(b) Location**

All meters shall be installed at the nearest point practical to where the service connection enters the premises, unless the Superintendent requires the installation of a meter pit. Furthermore, it is the responsibility of the Customer to maintain unobstructed access to the meter so that it may be read and maintained. The meter shall be protected from freezing at all times.

A shutoff valve at the meter inlet shall be the first fitting inside a serviced building.

Any change in the location of a meter shall be by the approval of the Superintendent and at the Customer's expense.



**(c) Meter Pits**

Installation and repair of meter pits must be approved by the Superintendent and shall be done at the Customer's expense.

**(d) Size, Type and Manufacture of Meter**

The Superintendent shall approve the size, type and manufacture of the meter required for any service. If, in the opinion of the Superintendent, a meter does not fit the conditions of the service, the District has the right to require a change such meter.

The size of meters will be based on the estimated peak demand for water in cubic feet per minute as determined by plumbing fixtures in the building, or as required for standby fire protection (if the Auburn Fire Department approves using the same service connection for both purposes). If the building contains an irrigation system or non-standard water-using fixtures or appliances, then the owner shall calculate the peak demand for water in cubic feet per minute and the average daily demand for water to the satisfaction of the Superintendent for the purpose of sizing the meter.

**(e) Access to Meters and Fire Hydrants**

It shall be the responsibility of every Customer to ensure that meters and private fire hydrants are readily accessible to District personnel, regardless of where the meters are located. Failure to remove obstructions which prevent access to the meter and fire hydrants within three days after being notified by the District shall be cause for the water to be shut-off to the premises and it shall not be turned on until all obstructions are removed, all regulations are complied with, and all expenses for shutting off and turning on the water are paid.

Shrubs, tree and or other obstructions shall not be placed within four (4) feet of fire hydrants.

**(f) Remote Meter Reading**

All meters shall be equipped with remote reading capabilities, determined by the District, and shall be of the type so approved by the District.

The District maintains the right to access the premises in order to verify the consistency of the meter registration with the remote registration. The meter having actual contact with water shall serve as the primary measuring device and shall govern all billing and billing adjustments.

Whenever a discrepancy occurs between the remote reader and the meter installed in the water line, the water line meter will be used as the final determination of water usage.

**(g) Right to Change, Repair or Test Meter**

The District has the right to replace and repair meters or test meters in order to verify or ensure their accuracy. It is the responsibility of the Customer to provide access to the meter for these purposes.

For meters over one-inch in size, if the Customer is unable to sustain a temporary interruption of

service to provide an opportunity to change, repair or test the meter during normal working hours, it is the responsibility of the Customer to provide an acceptable bypass of the meter in order to accomplish replacement, make repairs or conduct in-place testing. All bypasses shall be metered unless the Superintendent waives this requirement.

In the case of a disputed account involving a question as to the accuracy of the meter, such meter will be tested upon written request of the applicant. All meters will be tested for accuracy by a third-party company in accordance with industry standards for the type of meter in use as published by the American Water Works Association. For all meters, the testing fee shall be based on the District's actual third-party cost.

A written report of the meter accuracy test will be provided to the Customer. Based on the test results:

- (i) If meter is found to over-register by an average amount exceeding two percent (2%), a tested meter will be furnished and proper reduction made on water bill, for a period not exceeding twelve (12) months. No charge for the test of a meter in error over 2% will be made to the Customer.
- (ii) If meter does not over-register by an amount exceeding two percent (2%) it will be returned to service. The test charge will be billed to the Customer requesting the test.

Commercial meters shall be replaced at the Owner's expense every 15 years from the date of original installation.

#### **(h) Care of Meters**

The meter is the property of the District and the Customer shall be held responsible for any damage thereto resulting in any way from negligence (including freezing) on the part of the Customer. All persons are prohibited from damaging the meter, bypassing, or tampering with the meter including breaking any seal on the meter.

The owner is responsible for thawing, at its expense, a frozen water service pipe on the owner's portion of the water service pipe. If retained by the Owner, the District will charge for thawing frozen water services.

#### **(i) Master Meters**

The District, at its sole discretion, may require the master metering of more than one water service. In such case, the owner of the premises served shall be responsible for payment of all water charges, all costs, and expenses incident to the installation of the master meter and the acceptance of all related notices.

#### **(j) Temporary Hydrant Meter**

A contractor may apply to the District for a temporary hydrant meter to be installed for construction or temporary service purposes. All temporary hydrant meters will be installed with a testable backflow device (RPZ) to prevent contaminants from entering the potable water supply. The hydrant meter will be billed at the current rate and applicable fees at the end of the required

timeframe or end of the seasonal meter cycle, whichever occurs first. The fee for a temporary hydrant connection is listed on the Rate & Fee Schedule in Appendix A.

## **Section 2.05 Rates and Fees**

### **(a) User Fees**

Owners of property are responsible for payment of all fees for water service. Customers shall be charged fees and held responsible for service until the District is notified in writing that they no longer desire to use the public water supply. The District is not responsible for leaks on the Customer's property. Water passing through a meter shall be considered used by the Customer and will be billed as such.

### **(b) Water Rates and Fee Schedule**

The District has established a water rate schedule upon which Customers will be billed for water usage. The water rates shall be consistent with the costs related to the production of potable water meeting the current requirements of the Safe Drinking Water Act Regulations and the continuous provision of sufficient quantities of water to District Customers at adequate pressure.

Water rates and fees are listed on the Rate & Fee Schedule in Appendix A. Water rates will be reviewed by the Commissioners on an annual basis or at greater frequency.

### **(c) Connection Fee**

The connection fee is for the privilege of a property owner to be allowed to connect to the District's public water system. This fee is used to offset future expenditures related to additional water usage by a new connection. The connection fee does not include any material or labor for the connection to the public water system or for water consumption.

The connection fee for all applicants shall be paid in full at application of service and prior to activation of the service.

For residential connections, the connection fee will apply to each dwelling unit within each building. A connection charge based on the schedule of rates will be paid by the owner for commercial, industrial, multi-family, or public hookups to the water system.

Service connections for multi-family homes shall be considered separate connections to the water main with each dwelling unit having its own connection fee.

### **(d) Penalty Fees**

Whenever a bill remains outstanding after 31 days from the billing date, a penalty charge of \$20.00, shall be added to the amount of the bill. An additional monthly penalty fee of \$20.00 shall be assessed on the account until the account is paid in full.

The District reserves the right to lien outstanding balances and/or terminate water service at the curb-stop until such time as the outstanding balance is paid in full together with the applicable turn-on fee.

**(e) Minimum Charge**

A minimum charge shall be assessed for water service from the date the water is turned on, regardless of the amount of water used, the amount of time the service has been active, or the amount of time the service has been in the name of the account holder, according to the schedule of rates.

**(f) Turning On or Shutting Off**

A charge shall be made for turning water on or shutting water off. If the water has been shut-off for non-payment of bills, it shall not be turned on again until the District is satisfied that there will be no further cause of complaint, the outstanding bill is paid, and the expenses for shutting off and turning on the water are paid in accordance with the schedule of rates.

For seasonal accounts with a meter not located in an insulated meter pit or located in a building that is not heated, service will be turned on no sooner than April 1st and shut-off no later than November 1st.

Meters can be removed in the event a Customer's long-term absence. There is a charge for the removal, but not for the reconnection.

**(g) Payment of Bills**

No Customer who owes an overdue bill for water charges shall be entitled to the further use of water at the same or any other premises served by the District until such water charges are paid in full, together with costs.

**(h) Claims for Adjustments**

All claims for adjustments of water bills shall be made to the District in writing within 30 days of receipt of the bill. No abatement shall be made for leaks or for water wasted by improper or damaged service pipes or fixtures belonging to the Customer, or for water services left on due to vacancy. Abatement requests must be submitted using the District-provided form.

**(i) Broken Meters**

If a meter fails due to negligence or the District finds the homeowner to be at fault for a broken meter, i.e. frozen meter or tampering, the homeowner will be charged a fee to replace the meter based on the schedule of rates.

## **Section 2.06 Final Readings**

In the case of the sale of property, owners of property are responsible for notifying the District of the date of the sale, the meter reading, the name of the new owner, as well as the names and contact information of the respective closing attorneys. The required information must be provided no later than seven days prior to the closing. Failure of a seller to notify the District of a change of ownership does not relieve the responsible party for any charges due to the District.

## **Section 2.07 Shut-off of Service**

The District has the right to shut-off the service for non-payment of bills, willful waste of water or refusal of reasonable access to property, to meter, or to a backflow device. Water service may also be discontinued upon reasonable notice for any one of the following reasons involving safety or health:

- (1) tampering with meters or meter seals;
- (2) property is vacant, furnishings removed and whereabouts of owner unknown; and
- (3) cross connecting District service with any other supply source.

Requests by the Customer for turning on or shutting off a water service shall be made in writing, signed by the property owner or his agent at least three (3) business days in advance, except in the case of an emergency. Only District personnel shall open or close curb-stops or gate valves. Charges for such services shall be in accordance with the schedule of rates.

When water has been turned off for any of the above reasons, or because of an unpaid bill, or upon order of the Customer, a charge will be made for restoring service in the amount set forth in Appendix A. The reconnection will only be done during the District's normal business hours.

Only domestic water supplies will be shut-off. Fire protection supplies will not be shut-off without permission from the proper insurance companies and the Fire Department.

Unless a violation of one or more of these regulations included herein is causing or may cause an emergency condition, the District shall provide the Customer with Notice of Discontinuance (Shut-off Notice) 10 days in advance of the actual termination of service. In situations where a violation of any one of these Regulations is causing or may cause a condition which threatens the safe operation of the public water system, the Superintendent may terminate service to a dwelling after making reasonable attempts to notify the occupants of the premises affected.

An owner may discontinue water service to a building for the purpose of demolition by notifying the District in writing at least five (5) working days in advance of the date on which water service is to be discontinued. Upon receiving notification that the service is to be discontinued, the District shall shut-off the water service at the curb-stop and remove the water meter. When water service has been discontinued for a period of one year or more, the District may, at its sole discretion require the owner to disconnect, at the owner's expense, the water service pipe from the public water main.

When a building is vacant and the water is shut-off at the street, no minimum water charge will be made during the time service is shut-off.

The District shall not be responsible for any damage resulting from the shut-off or subsequent turn-on of water, including but not limited to bursting or collapse of boilers supplied by direct pressure; damage by debris in dirty water; the breaking of any pipes, fixtures, control valves or fire pipe gates; stoppage or interruption of water supply.

The District shall also have no responsibility for any consequential damages (including, but not limited to, food or housing costs) incurred by an owner, Customer, or user as a result of the shut-off or subsequent turn-on of water.

### **Section 2.08 Renewal of Service**

When water service to any premises has been terminated or abandoned for any reason other than temporary vacancy it will be renewed only after the acceptance of a new application and when the conditions, circumstances or practices which caused the water service to be discontinued are corrected to the satisfaction of the District, and upon the payment of all charges due and payable by the owner in accordance with the Fee Schedule.

A payment plan on overdue charges can be arranged if so desired.

Any water use greater than the original or grandfathered approved use shall require the payment of additional entrance fees.

### **Section 2.09 Terms of Payment**

The District will issue quarterly water bills to its Customers. If the District is unable to obtain an actual meter reading through the automated reading system, the bill will clearly indicate that the bill is an estimate. All bills shall be due and payable by the due date which is equal to thirty (30) days after the bill is posted and/or printed by the District or its authorized agent. Bills not paid after the due date will be subject to late payment charges under applicable law or these Regulations.

Each bill for service will be rendered to the property owner of record, and, in the absence of special agreement, he/she will be held responsible for the payment of the bill.

A Customer who cannot pay the full amount due to the District for charges may be permitted to enter into a payment plan with the District. Failure to adhere to the agreement will result in the resumption of late fees and termination of the Customer's water service pursuant to these Regulations.

### **Section 2.10 Public & Private Hydrants**

The Auburn Fire Department shall have control of the hydrants in case of fire or for necessary training. In no other case will any other person be allowed to operate hydrants without the permission of the District and without an agent of the District present.

The Auburn Fire Department shall notify the District at least two (2) days in advance of any planned use of hydrants for training and as soon as practically possible after using a hydrant for

emergency operations.

No water will be delivered from a hydrant to any person or organization by hoses, tank truck, or any other method for any purpose other than firefighting. Prohibited activities include filling swimming pools or operating irrigation systems.

Fire hydrants and water mains on private property shall be inspected periodically by the District. Any repairs necessary for proper operation of hydrants or the proper functioning of water mains on private property shall be the responsibility of the property owner. Such repairs shall be completed within 30 days after due notice has been given in writing to the owner by the District.

Private hydrants will be operated and flushed as a part of the District's Uni-directional Flushing Program. Flushing frequency and schedule will be determined by the Superintendent and may vary from year-to-year. As much as possible, private hydrant owners will be notified in advance of the approximate flushing schedule.

Property owners of private hydrants shall be responsible to maintain a clear and unobstructed area of four (4) feet in diameter around each fire hydrant.

### **Section 2.11 Flow Testing**

All requests for a flow test will be made at least ten (10) days in advance in writing. Flow testing will not commence until a District representative is present. All flow tests will be performed during working hours of 8:00 A.M. to 1:00 P.M. on Mondays through Fridays not including Holidays. The company performing the flow test is responsible for providing all equipment necessary to complete the flow test with the exception of hydrant wrenches. The company is also responsible for determine the flow and gauge hydrant where the test will be completed. Copies of the test results shall be provided to the District.

### **Section 2.12 Cross Connection Control**

No water service connection to any premises will be installed or maintained by the District unless the water supply is protected as required by Massachusetts State Law, drinking water regulations 310 CMR 22.22 and the District's Cross Connection Rules & Regulations (Appendix B). Where cross connections exist, an approved backflow prevention device must be installed at the owner's expense and tested in accordance with the drinking water regulations of Massachusetts and the requirements of this regulation.

The design and installation of backflow prevention devices shall be approved by the Superintendent, their appointed designee, and, if testable, shall be tested by the method prescribed in the MADEP Regulations.

The property owner shall be responsible for applying for and obtaining all necessary approvals and permits for the maintenance of cross connections and for installation of the backflow prevention devices. The owner shall inform the District of any proposed or modified cross connection and any existing cross connection of which the owner is aware.

Any existing backflow preventer shall be allowed by the District to continue in service unless the degree of hazard is such as to exceed the effectiveness of the present backflow preventer or result in an unreasonable risk to the public health. Where a change in use increases the degree of hazard, any existing backflow preventer must be upgraded.

Backflow prevention devices must be installed on the owner's side of the water meter within any premises where, in the judgment of the Superintendent, the nature of the activities on the premises or the materials used or stored on the premises present a hazard or potential hazard should a cross connection occur, or where it is impractical to determine whether or not dangerous cross connections exist because of intricate piping arrangements, or because entry into all portions of the premises for inspection of piping is not practical.

### **Article III. CONNECTIONS TO AND WORK ON THE WATER SYSTEM**

#### **Section 3.01 Water Service Connections**

##### **(a) Application for Service**

All applications for water service must be made in writing on a form provided by the District. The application for service must be made by or on behalf of the property owner.

No agreement will be entered into by the District with any applicant until all arrears and charges due from the applicant, including (if a business entity) any affiliate of such applicant or other entity under common ownership, at any premises now or heretofore occupied by such applicant, have been paid.

When accepted by the District, the application shall constitute a contract between the District and the applicant, obligating both parties to comply with these Rules and Regulations.

Applications for service installations will be accepted subject to there being an existing main in a street or right-of-way abutting on the premises to be served. The contract in no way obligates the District to extend its mains to service the premises under consideration.

When a prospective Customer has made application for a new service, or has applied for the reinstatement of an existing service, damage caused by any deficiency in the plumbing which the service will supply will be at the risk of the Customer, and the District will be liable only for its own negligence.

##### **(b) Connections**

The owner shall at his or her own expense, provide and install a service line, of the type specified by the District, from the water main to the point at which the meter is to be located, and shall provide and install a curb-stop valve at the owners property line abutting the Town's right of way. Such installation by the homeowner shall be subject to the inspection and approval of the District.

The service line installed by the owner will not be put into service until the installations by the owner have been inspected and approved by the District, and all connection fees have been paid.



The owner shall, at all times, and at his or her expense, own and maintain the service line from the curb-stop to the meter, the owner will also be responsible for the line that runs from the main to the curb-stop for one year after the turn-on date if anyone but District personnel installed the service line. At that time the District will assume responsibility for said line.

No water service shall be turned on until the owner has signed the necessary forms stating his or her intent to have the water service turned on and be responsible for payment of all future water bills in full.

### **(c) New Water Mains (Extensions) or Large Water Users**

Any person making application to: a) extend mains or b) create service lines to provide water use having a design demand for water of 267 cubic feet a day (2,000 gallons per day) or more may be required to submit a water use impact report and conservation plan to the District if requested by the Superintendent. This report shall define the proposed water use impact on the District's current and future demand for water and set down actions the applicant will take to mitigate the effects of this impact. Approval of an application to provide water service to large users may be conditional, requiring periodic review of measures taken by the Customers to mitigate the impact of their demand for water on the public water supply. All reasonable costs associated with reviewing the report will be borne by the applicant. A copy of the Water Impact Statement is provided in Appendix C.

### **Section 3.02 Customer Responsibility for Water Service**

Customers shall keep their service line and fixtures in good repair and protected from frost at their own expense. They shall be responsible for any damage resulting from their failure to do so.

In case of a leak in the Customer's service connection or water system, such leak must be repaired as soon as possible upon discovery by the Customer or upon report to the Customer by the District, as a condition of continued service. Failure to do so shall be justification for shutting off the service until repairs are made, after which all expenses for shutting off the water will be required to be paid before service can be turned back on.

Service lines or fixtures of any description that are connected with the mains of the District will not under any circumstances be connected to any other sources of supply.

### **Section 3.03 Private Water Mains**

All private water mains in the District that convey water from public water mains owned by the District shall be controlled by the District, but shall be constructed, installed, repaired, operated, and maintained by their owners at the owner's expense. The District may direct the owner to repair or replace a private water main, if in the judgment of the District such action will reduce the quantity of water lost through leaks from that main or where such leaks may jeopardize the operation of the public water system. Repairs to private water mains shall be made by and at the expense of the owner. The District shall inspect and approve the connection of the private water main to the District's public water main.

### **Section 3.04 Installation**

The approved materials and installation methods are outlined in the District's Standards and Specifications, attached as Appendix D.

The following specifications are minimum specifications and the District reserves the right to require other methods of installations, types and size of service lines, and materials as the District may determine to be required in any particular installation.

Installation of services extending beyond the end of an existing water main shall not be allowed. The District shall approve all service materials and installation activities. All service lines must be inspected by the District before backfilling the associated trench.

All such water main extensions shall be constructed by applicants at their expense under the supervision of the District and in accordance with its specifications. The main shall be extended (including necessary hydrants and appurtenances) to the furthest limit of the property to be served by water.

No existing service connections shall be altered without the written permission of the Superintendent.

The owner or contractor shall excavate all trenches to a depth, which upon backfilling, will provide a minimum of five (5) feet or at maximum six (6) feet over the pipe installed therein. Coverage of the service shall consist of one (1) foot of sand below as well as one foot of sand above and around the installed water pipe.

At the time of installation, if finish grading has not been completed, the owner shall certify to the District, in writing, that upon completion of finish grading there will be at minimum five (5) feet to a maximum of six (6) feet of cover over the installed service.

For all excavations made in existing roadways, the District will direct the contractor as to the appropriate backfill material to be placed above the sand, which may include flowable fill or approved compacted gravel in lifts.

No water pipe shall be installed less than ten (10) feet horizontally away from any septic tank, cesspool, leaching field, or sewer line. No water pipe shall be installed under a sewage line without proper encasement of the water pipe, as directed and approved by the District.

No service pipe shall be laid in the same trench with gas pipe, electric or telephone wires or any other facility of a public service company.

Curb-stops shall be located on the homeowner's property line abutting the Town's right of way. The District reserves the right to require additional curb-stops for service lines in excess of 300 feet from the first curb-stop. Curb-stops for multi-family dwellings, when required by the District, shall be placed in front of the respective residence.

The District is not responsible for any damage to pipes or other property which may be attributed to the electrical ground wires attached to any water pipes.

All new subdivisions will be required to have 3-way valves installed for the supply of water to the development.

Water main extensions by private parties through the subdivision process shall be terminated with a hydrant tee and main line valve to facilitate future connection to said water main extension. The District reserves the right to require additional sections of pipe be installed to facilitate the termination.

Curb-stops will not be used by the Customer or his agent for turning on or shutting off the water supply. Curb valves are for the exclusive use of the District.

The standard sized main shall have an inside diameter of eight inches, but the District may require a larger size at the owner's expense if in the District's judgment such larger size is deemed necessary by reason of the distance involved or the size of the property to be served.

### **Section 3.05 Standby Fire Protection**

#### **(a) General**

The private fire service connection is furnished for the purpose of supplying water for the extinguishment of fires only and no use of water from such connection for any other purpose shall be made without approval of the District.

Water services for fire protection shall be separate service connections to the water main, unless the Superintendent and Auburn Fire Department specifically authorizes otherwise. Water services and appurtenances that are to be used for fire protection shall have appropriate backflow prevention devices.

All pipes and equipment must be arranged so that District personnel can easily inspect them. Whenever it is considered necessary for the protection of the water supply and in the interest of the District, the Superintendent shall have the right to require the installation of meters, flow switches, alarms or other equipment. The installation and upkeep of such equipment shall be at the Customer's expense.

No fire service shall be allowed to be installed or tapped into a water main until the District has received written notice from the Auburn Fire Department that the fire service is of the appropriate sized based on their review of the sprinkler system.

A gate valve controlling the entire supply will be placed on the fire service between the main and the property line of the premises being served. Any valve pit or vault, which is required, will be furnished at the expense of the Customer.

No test of Fire Services shall be permitted without approval by the District. The District may elect to have a representative present. The test shall be scheduled to cause the least possible

inconvenience to the District's Customers.

The Customer shall notify the District within a period of seventy-two (72) hours after any usage of the sprinkler system.

Fire pumps and booster pumps of any nature may be connected to private fire services only after notification to the District and District approval and shall be constructed in such a manner to prevent cross connections and vacuum. The Customer is liable for any and all damages of the District property or other Customer's property during installation and operation.

### **Section 3.06 Completion of Main Extension or Subdivision**

Upon completion of a main extension or subdivision, all gate and curb boxes must be flush with the surface of the road or ground.

An as-built design and details of service lines to the building and ties to all hydrants, gates boxes, curb-stops, curb-stop to main distance, water main to property bounds, lot number, street number, etc. shall be furnished to the District.

### **Section 3.07 Developer System Extensions**

The design of any proposed water system addition must be approved by the Commissioners prior to issuance of permits for construction. Water system construction must be inspected and approved by the District and the cost of engineering inspection of the construction shall be paid by the developer or other sponsoring parties or agencies.

1. The applicant and owner of the property shall pay all costs relating to the laying of water main and appliances.
2. The applicant shall perform all work in accordance with these Rules and Regulations and with current Standards & Specifications (Appendix D) of the District.
3. Water mains shall be constructed by a competent licensed contractor and shall be cleaned, disinfected, flushed and tested before connection of the water system addition to the District's water system.
4. The applicant shall hold the District harmless and indemnify the District against any liability resulting from any defective materials, workmanship, or operation in connection with said installation. When working in public ways the applicant and/or contractors shall maintain Public Liability Insurance in the amount not less than one million dollars (\$1,000,000) for injuries, including wrongful death to any one person, subject to the same limit for each person in an amount not less than one million dollars (\$1,000,000) on account of an accident.
5. The applicant shall agree to pay for the privilege of connecting a water system addition to the District's water system in accordance with current Rates and Fees.

When any subdivision as determined by the Commissioners requires wells, pump standpipes, booster station, etc., the cost of each such installation shall be borne by the applicant.

The applicant shall file a Deed of Easement and Right of Way naming the District, for placement of water mains and pipe prior to the acceptance of water mains by the Commissioners and before the water is turned on for the project.

All public system additions, i.e., mains, branches, hydrants, valves, wells, pumps, standpipes, etc. shall become the deeded property of the District.

All work performed, material, and equipment will be warranted to the District for one (1) year, from the date of acceptance by the Commissioners, by the contractor who installed said equipment. This will include the cost to replace the defective work, material, or equipment.

Whenever possible, any extensions will have the mains looped to prevent dead ends in the water system. This should also include the possibility of providing two (2) flow paths for supplying water.

All main extensions will have corporations and curb-stops installed for each house lot and dwelling located along the new main route. The cost of each such installation shall be borne by the applicant.

#### **Article IV. PROTECTION OF PUBLIC WATER SYSTEM**

##### **Section 4.01 Damage**

No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance, or equipment which is a part of the water system. Any person violating this provision shall be prosecuted to the full extent of the law and liable for all repair costs and other damages as determined by the District.

##### **Section 4.02 Restrictions**

The District shall have the right to restrict the use of lawn hoses, sprinklers, irrigation systems or place any other restrictions on the use of water in any and all parts of the service area if it is deemed necessary for the purpose of maintaining adequate pressure for public health, fire protection or for conservation of the water, as detailed in Appendix E – Water Use Restriction Regulations.

The District reserves the right to refuse or curtail service wherever excessive demand for water results in inadequate service to its existing customers.

#### **Article V. PENALTIES**

##### **Section 5.01 Notice**

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

### **Section 5.02 Unauthorized Use**

No person will turn-on or tamper with a water main or hydrant or other device, used for water supply. Any person violating said section will be fined not more than \$1,000.00 for each offense, which will inure to the District or recovered by indictment or on complaint before the District Court or by non-criminal disposition in accordance with Section 21D of Chapter 40 of the Massachusetts General Laws, every day that such violation continues will constitute a separate offense.

### **Section 5.03 Extended Use**

No water user shall supply water purchased from the District to parties not entitled to its use except by written permission of the Superintendent.

### **Section 5.04 Liability**

Any person violating any of the provisions of these Rules and Regulations shall become liable to the District for any expense, loss, or damage occasioned the District by reason of such violation.

## **APPENDICES**

Appendix A.	Rate & Fee Schedule
Appendix B.	Cross Connection Control Rules & Regulations
Appendix C.	Water Impact Statement
Appendix D.	Standards & Specifications
Appendix E.	Water Use Restriction Regulation

# Auburn Water District Rate & Fee Schedule

Effective July 19, 2023

<b>Water Rates (Cubic Feet)</b>			
Minimum Charge	0 – 600 CF	\$49.50	
	601 – 4,999 CF	\$49.50 plus \$8.13 per 100 CF over 601 CF	
	≥ 5,000 CF	\$407.22 plus \$10.94 per 100 CF over 5,000 CF	
<b>Annual Fire Protection Charges (replaces sprinkler charge)</b>			
Pipe Diameter	Charge	Pipe Diameter	Charge
2-inch	\$180	6-inch	\$540
2.5-inch	\$225	8-inch	\$720
3-inch	\$270	10-inch	\$900
4-inch	\$360		
<b>Private Fire Hydrant Charges</b>			
\$25 per hydrant per quarter			
<b>Entrance Fees</b>			
<b>Domestic Services</b>		<b>Fire Protection Services</b>	
¾-inch and 1-inch	\$3,500	4-inch	\$6,500
1.5-inch	\$4,000	6-inch	\$8,500
2-inch	\$4,500	8-inch	\$10,500
4-inch	\$6,500	10-inch	\$12,500
All domestic services over 1-inch require backflow protection.			
All Fire Protection Services systems require backflow protection.			
All underground irrigation systems require backflow protection.			
<b>Miscellaneous Fees</b>			
Application for Connection (First Dwelling or Commercial Unit served by a single meter)	\$3,500	Covers ability to connect only, does not include inspection, meter or other fees. 1-inch domestic connection fee.	
Application for Connection (Each Additional Dwelling or Commercial Unit served by the same meter)	\$3,500	Covers ability to connect only, does not include inspection, meter or other fees. 1-inch domestic connection fee.	
Service Call (regular business hours)	\$60	Per call.	
Remove/Install a Seasonal Meter	\$60	Fee to remove and store, no charge to re-install.	
Labor Rate (regular business hours)	\$60	Per employee per hour, billed in half hour intervals.	
Labor Rate (outside regular business hours)	\$90	Per employee per hour, 2-hour minimum charge, then billed in half hour intervals.	
Backhoe Rate (regular business hours)	\$65	Per hour, billed in half hour intervals.	
Backhoe Rate (outside regular business hours)	\$130	Per hour, billed in half hour intervals.	



## Auburn Water District Rate & Fee Schedule

Effective July 19, 2023

Shutoff or Turn on Service (leaks, non-payment, owners request)	\$60	Per visit to site (one charge to turn off, one charge to turn on).
Damaged Water Meter Replacement	Meter + service call rate	Meter prices fluctuate based on size and are subject to change at any time.
Miscellaneous Repairs and Service	Parts + Labor	Parts prices fluctuate and subject to change at any time.
Hydrant Meter Rental	\$2,100 deposit +backflow test + water usage	Deposit returned minus payment of water usage plus any repair parts / labor if damaged. \$100 for backflow test & insp.
Backflow Test	\$75	Per test, pass or fail.
Late Fee	\$20	Monthly water bill late fee.
Returned Check / Insufficient Funds	\$30	Returned check, insufficient funds for electronic payment.

**AUBURN WATER DISTRICT**  
**CROSS CONNECTION CONTROL**  
**RULES AND REGULATIONS**

Effective July 20, 2022

**I. Purpose:**

- A. To protect the public potable water supply served by the Auburn Water District from the possibility of contamination or pollution by isolating such contaminants or pollutants, which could backflow or backsiphon into the public water system.
- B. To promote the elimination or control of existing cross connections, actual or potential, between its customers in-plant potable water system, and non- potable systems.
- C. To provide for the maintenance of a continuing program of cross connection control, which will effectively prevent the contamination or pollution of all potable water systems by cross connection.

**II. Authority:**

- A. 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 Auburn Water District has the primary responsibility for preventing water from unapproved sources or any other substances from entering the public potable water system.

**III. Responsibility:**

- A. The Auburn Water District shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or backsiphoning of contaminations or pollutants. If, as a result of a survey of the premises, the Auburn Water District determines that an approved backflow prevention device is required at the District's water service connection or in-plant protection on any customer's premises, the Auburn Water District shall issue a cross connection violation form to said customer to install an approved backflow prevention device.

The customer shall, within a time frame determined by the Auburn Water District, install such approved device or devices at his own expense, and failure

or 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.

#### IV. Definitions:

- A. Air Gap Separation: The method of preventing backflow through the use of an unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle. The vertical distance must be at least 2X the diameter of the pipe or faucet.
- B. Approved: Accepted by the Reviewing Authority as meeting an applicable specification stated or cited in this regulation or as suitable for proposed use.
- C. Approved Backflow Prevention Device or Devices: A method to prevent backflow approved by the Auburn Water District.
- D. Atmospheric Vacuum Breaker: An approved backflow device used to prevent back siphonage, which is not designed for use under static line pressure.
- E. Auxiliary Water Supply: Any water supply of unknown or questionable quality on or available to the premises other than the supplier's approved public potable water supply.
- F. Back Pressure: Pressure created by mechanical means or other means which causes water or other liquids or substances to flow or move in a direction opposite to that which is intended.
- G. Back Siphonage: A form of backflow due to reduced or sub-atmospheric pressure within a water system.
- H. Backflow: The flow of water or liquids, mixtures or substances into the distribution pipes of a potable water supply from any source other than the intended source.
- I. Backflow Preventer with Intermediate Atmospheric Vent: A device having two independently operating check valves separated by an intermediate chamber with a means for automatically venting it to the atmosphere, in which the check valves are force loaded to a normally closed position and the venting means is force loaded to a normally open position.
- J. Barometric Loop: A loop of pipe rising at least 35 feet, at its topmost point, above the highest fixture it supplies.

- K. Contaminant: Any physical, chemical, biological or radiological substance or matter in water.
- L. Cross Connection: Any actual or potential connection between a distribution pipe of potable water from a public water system and waste pipe, soil pipe, sewer, drain or other unapproved source.
- M. Cross Connection Violation Form: A violation form designated by the Auburn Water District, which is sent to the owner by the Auburn Water District with copies sent to the DEP, Plumbing Inspector and Board of Health delineating cross connection violations found on the owner's premises and procedure for corrective action.
- N. DEP: The Massachusetts Department of Environmental Protection.
- O. District: The Auburn Water District.
- P. Double Check Valve Assembly: A backflow prevention device which incorporates an assembly of check valves, with shut-off valves at each end and appurtenances for testing.
- Q. In-Plant Protection: The location of approved backflow prevention devices in a manner which provides simultaneous protection of the public water system and potable water system within the premises.
- R. Owner: Any person maintaining a cross connection installation or owning or occupying premises on which cross connections can or do exist.
- S. Permit: A document issued by the DEP or the District which allows a cross connection installation.
- T. Person: Any individual, corporation, company, association, trust, partnership, the Commonwealth, a municipality, district, or other subdivision or instrumentality of the United States, except that nothing herein shall be constructed to, refer to, or to include any American Indian tribe or the United States Secretary of Interior in his capacity as trustee of Indian lands.
- U. Pressure Vacuum Breaker: An approved backflow prevention device designed to prevent only back siphonage and which is designed for use under static line pressure and which has necessary appurtenances for testing.
- V. Reduced Pressure Backflow Preventer: An approved backflow prevention device incorporating (1) two or more check valves, (2) an automatically operating differential relief valve located between the two checks, (3) two shut-off valves, and (4) necessary appurtenances for testing.

W. Residential Dual Check: An assembly of two spring loaded, independently operating check valves without tightly closing shut-off valves and test cocks. Generally, employed immediately downstream of the water meter to act as a containment device.

X. Reviewing Authority: The DEP and/or the Auburn Water District.

**V. Administration:**

A. The Auburn Water District will operate an active cross connection control program, to include the keeping of necessary records, which fulfills the requirements of the State DEP's Cross Connection Regulations and is approved by the Massachusetts Department of Environmental Protection.

B. The owner shall allow his property to be inspected for possible cross connections and shall follow the provisions of the District's program and the District regulations.

**VI. Requirements:**

A. BOARD OF WATER COMMISSIONERS

1. The Board of Water Commissioners may establish a fee schedule for the required testing and re-testing of backflow prevention devices in the District.
2. The Board of Water Commissioners may establish a fee schedule for the District's review and approval and permitting of Cross Connection installations which require reduced pressure backflow prevention, double check valve assemblies or air gap separations.
3. The Board of Water Commissioners may establish a system of fines to be levied for Cross Connection violations which are not corrected within the time allotted by the District.

B. AUBURN WATER DISTRICT

1. On new installation, the District will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow preventer, if any, that will be required, and notify the owner of plan approval requirements by the appropriate reviewing authority.
2. The District shall review and approve design data sheets and plans for proposed new installations of reduced pressure backflow preventers, double check valve assemblies, pressure vacuum breakers and air gap separations with tank and pump arrangements. The District may not delegate, or

subdelegate, contract or subcontract this responsibility to any other entity, unless otherwise authorized in writing by the DEP.

3. The District shall ensure, upon completion of installation, that backflow prevention devices are installed according to the approved design data sheet and plans and tested for proper operation.
4. The District shall assign a Cross Connection identification number for each approved device.
5. For premises existing prior to the start of this program, the District will perform surveys of the premises and reviews of as-built plans and issue a cross connection violation form to the owner detailing any corrective action required, the method of achieving the correction, and the time allowed for the correction to be made. The time period allowed shall depend upon the degree of hazard involved.
6. The District will not allow any cross connection to remain unless it is protected by an approved backflow preventer for which a permit has been issued and which will be regularly tested to insure satisfactory operation.
7. If the District determines at any time that a serious threat to the public health exists, the water service will be terminated immediately.
8. The District shall have on its staff a backflow prevention device tester certified by the Commonwealth of Massachusetts and who is also a Cross Connection Control surveyor certified by the Commonwealth of Massachusetts.
9. The District may terminate the water service to any premises where cross connection test fees or fines for Cross Connection violations have gone unpaid for more than one year.
10. The District may levy fines to owners of premises where discovered cross connection violations are not corrected in the time frame allotted by the District.
11. The District shall deny water service to any premise where cross connections exist until satisfactory corrective action has been taken.
12. The District shall discontinue water service to any premise where it is found that backflow prevention devices have been removed, bypassed or otherwise rendered ineffective until satisfactory corrective actions have been taken.

B. OWNER:

1. The owner shall be responsible for the elimination or proper protection of all cross connections on his premises.
2. The owner shall be responsible for applying for and obtaining all necessary approvals and permits for the maintenance of cross connections and installation of backflow prevention devices.
3. The owner shall be responsible for the payment of all fees for permits.
4. The owner shall have any device that fails an inspection or test, repaired by a licensed plumber within the time frame determined by the Auburn Water District.
5. The owner shall inform the Auburn Water District of any proposed or modified cross connections and also of any existing cross connections of which the owner is aware but have not been found by the District's inspector.
6. The owner shall not install a by-pass around any backflow preventer unless there is an approved backflow preventer of the same type on the by- pass. Owners, who cannot shut down operation for testing of device(s), must supply additional devices necessary to allow testing to take place.
7. The owner shall install backflow preventers in a manner approved by the Auburn Water District.
8. The owner shall install only reduced pressure backflow preventers, double check valve assemblies and pressure vacuum breakers approved by the DEP and the Auburn Water District.
9. Any owner of industrial, commercial, or institutional premises having a private well or other private water source, shall not have this well or source, cross connected to the District water system. The owner may be required to install a backflow preventer at the service entrance if a private water source is maintained even though it is not cross connected to the Auburn Water District's system.
10. The owner of any residential premises having a private well or other private water source, will not be allowed a physical connection with the public water supply system.
11. The owner shall be responsible for payment of all fees for initial plan approval and for any annual fees for recertification of devices by the Auburn Water District.

12. The owner shall provide access and the necessary labor for inspection and testing of cross connection protection devices during regular business hours.
13. The owner shall maintain a “spare parts” kit and tools required for the removal, repair, and re-assembly of each cross connection protection device on the property.
14. The owner shall provide access and the necessary labor for inspection and testing of cross connection protection devices during regular business hours.
15. The owner shall maintain on the premises, complete records on all devices for the life of the device.
16. The owner shall be responsible for the payment of any fines levied by the District for cross connection violations uncovered on the premises.
17. The owner shall maintain safety programs and equipment necessary to allow for the safe testing and inspection of cross connections on the premises.

**VII. Existing In-Use Backflow Prevention Devices:**

Any existing backflow prevention shall be allowed by the Auburn Water District to continue in service, unless the degree of hazard is such as to supersede the effectiveness of the present backflow preventer or result in an unreasonable risk to the public health. Where the degree of hazard has increased, as in the case of a residential installation converting to a business establishment, any existing backflow preventer must be upgraded to a reduced pressure backflow preventer or a reduced pressure backflow preventer must be installed in the event that no backflow device was present.

**VIII. Routine Testing:**

- A. The District shall have the responsibility for testing reduced pressure backflow preventers, double check valve assembly, and pressure vacuum breakers devices. Reduced pressure backflow preventers shall be tested semi- annually and double check valve assembly and pressure vacuum breakers shall be tested annually.
- B. Backflow device testing and inspection shall be performed by the District’s tester, or the District’s delegated representative, both of whom must be a DEP certified backflow tester.
- C. The testing shall be conducted during the Auburn Water District’s regular business hours. Exceptions to this may be made at the request of the owner and additional charges will be assessed to cover the increased cost to the Auburn



Water District.

- D. Any backflow preventer which fails during a periodic test must be repaired or replaced by a licensed plumber. When repairs are necessary, upon completion of the repair, the device will be re-tested at the owner's expense to insure proper operation. High hazard situations will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be repaired immediately. In other situations, a compliance date of not more than fourteen (14) days after the test date will be established. The owner is responsible for spare parts, repair tools, or a replacement device. Parallel installation of two devices is an effective means of the owner ensuring that uninterrupted water service remains during testing or repair of devices and is strongly recommended when the owner desires such continuity.
- E. Backflow prevention devices will be tested more frequently than specified above in "paragraph A" in cases where there is a history of test failures and the District feels that, due to the degree of hazard involved, additional testing is warranted. Cost of additional testing will be borne by the owner.

**IX. Installation of New Backflow Prevention Devices:**

All known cross connections within the Auburn Water District's water system must be approved by the Auburn Water District. All cross connections require the installation of a backflow prevention device. The following steps shall be completed prior to approval being granted for a cross connection:

- A. The owner of the cross connection shall submit a "design data sheet", with plans showing the proposed method of protection of the public water system to the Auburn Water District.
- B. The "design data sheets" and backflow prevention device installation plans will be reviewed and approved by the Auburn Water District's Certified Cross Connection Inspector/Surveyor and/or the District Superintendent.
- C. Upon the approval by the Auburn Water District, the local plumbing inspector shall review the installation plans and specifications containing cross connections and issue plumbing permits as required by the state plumbing code.
- D. Backflow prevention devices installed on "Fire Protection Lines" require the additional approval of the Auburn Fire Department.
- E. Within fourteen (14) calendar days of the installation, the Auburn Water District and the Town's Plumbing Inspector shall be notified to arrange for an inspection and initial test of the installation.
- F. After successful installation, inspection and test, the Auburn Water District will

assign a cross connection identification number and will issue a permit for the approved installation.

**X. Containment Devices:**

- A. Facilities determined to present high health hazard conditions must have their in-plant cross connection protection supplemented with a reduced pressure backflow prevention or air gap separation installed at the meter or property line. The Auburn Water District may also, at its discretion, require containment devices to be installed on any water service line where in the District's opinion, cross connections could contaminate the public water supply system.

**XI. Enforcement:**

- A. The District shall not allow a cross connection to exist within the public water supply system unless it is considered necessary and all appropriate approvals and permits have been issued. Only the District's Certified Cross Connection Inspector/Surveyor and/or the District Superintendent can classify a violation found during a survey.
- B. Whoever maintains a cross connection without an approved permit, or after revocation of the permit or whoever maintains a cross connection without installing a backflow device required by the DEP may be subject to civil penalty and fines not to exceed \$500 per day for each day that such violations occur or continue.
- C. Upon due notice to the owner maintaining a cross connection, the District may revoke any permit, in the District's opinion, no longer complies with 310 CMR 22.00.

**XII. Access:**

All owners of commercial, industrial, agricultural, institutional or residential premises served by the Auburn Water District public water system shall authorize agents or employees of the Auburn Water District to enter their premises without a warrant for the purpose of inspecting, testing and surveying their water systems for cross connections.

**XIII. Strainers:**

The Board of Water Commissioners requires that all new and retrofit installation of reduced pressure backflow preventers and double check valve assemblies include the installation of a strainer located immediately upstream of the backflow device. The installation of strainers will preclude fouling of the backflow devices due to both foreseen and unforeseen circumstances occurring to the water supply system such as water main repairs, water main breaks, fires, periodic cleaning and flushing of mains, etc. These occurrences may "stir up" debris within the water main that will cause fouling of backflow devices installed

without the benefit of strainers.

#### **XIV. Residential Cross Connection Control**

The District is concerned with the potential for back-flow into the public water supply system from those residential customers having lawn sprinkler and irrigation systems and other miscellaneous residential water uses. The Auburn Water District's Residential Cross Connection Control Policy is outlined below.

##### **1. Lawn Sprinkler and Irrigation Systems**

Where a single or multi-family residential customer served by the public water supply system has or proposes to install a lawn sprinkler or irrigation system, the minimum required backflow protection to prevent backsiphonage shall be the pressure vacuum breaker. Pressure vacuum breakers (PVB) shall be located, specified, installed, maintained and accessible for inspection in a manner acceptable to the Auburn Water District and the Town's plumbing or building code enforcement official. The minimum height of a PVB shall be twelve (12) inches higher than the highest downstream sprinkler head.

For the residential irrigation systems described below, the public water system shall be protected against backflow by requiring the customer to perform the following:

- a. Install an approved RPZ device on those systems where provisions are made for chemical injection.

**NOTE:** The Auburn Water District may allow protective devices to be installed in the internal supply pipes to a lawn sprinkler or irrigation system provided that there are no other hazards associated with a residential user. Containment at the service connection with an approved RPZ shall be required in any other case.

##### **2. Miscellaneous Residential Water Uses**

Any activity, situation, or use of water which establishes a degree of hazard within a single or multi family residence equivalent to that of a commercial user shall be required to have the appropriate backflow protection devices. Examples include but are not limited to customers utilizing boiler feed corrosion inhibitors, antifreeze loops, single wall heat exchangers, etc.

##### **3. Residential threaded hose connections**

Residential properties are strongly encouraged to have hose bib vacuum breaker backflow prevention on all threaded hose connections.

Approved by the Board of Water Commissioners:

  
Water Commissioner Date 1/20/22

  
Water Commissioner Date 1/20/22

  
Water Commissioner Date 7/20/22

## **APPLICATION FOR WATER USAGE IN EXCESS OF (2,000 GPD)**

To ensure its ability to continue to service its present and future customers, the Auburn Water District as part of proper and affective water management practices, has adopted the following rules, requirements, regulations, policies and application procedures for application for a project in which water usage which exceeds 2,000 gallons per day.

### **I. APPLICATION PROCESS**

- A. All applications being submitted for water service shall be complete and contain all of the requested and required information before being considered for processing and shall include:
  - 1. All requested information and signatures.
  - 2. The application must be filed by the owner of the property.
  - 3. Proof (in writing) from the applicable boards, departments, commissions or authorities indicating that the applicant has been granted all applicable and required permits, licenses, orders, etc. from their respective issuing authority; such as but not limited to, site plan and subdivision approval, Zoning Board approval, Conservation Commission approval.
  - 4. The water impact statement shall be submitted with complete and accurate information.
  
- B. Applications that are complete and containing the necessary information and proof of permits in hand, shall then be reviewed and considered for approval by the Commissioners at a regularly scheduled meeting. Completed applications shall be submitted at least two (2) weeks prior to the next scheduled meeting in order to be placed on the agenda for that meeting and will be considered in the order that the completed applications are received.
  
- C. Prior to issuance of an approved application for water service, all fees due to the District must be paid in full.
  
- D. In addition to applying for and obtaining an application for water, the applicant needs to obtain from the District, a permit for the installation (construction) of the proposed water service(s).
  
- E. The District reserves the right to require that applicants having approved applications to obtain an installation permit and to begin work on the proposed water service within one year of the date of approval of the

application. Applicants requesting an extension of time must file a written request of such and appear before the Commissioners. The District reserves the right to rescind approval of an application for failure to obtain the required installation permit within the stipulated time and for those applicants who fails to request an extension or fails to adequately demonstrate reason for an extension. The fees paid to the District, which accompany applications for which approvals are rescinded, are not refundable.

- F. Failure to obtain the proper installation permit shall be cause for permit rejection.
- G. The applicant shall be responsible for the actions of the contractor.

## II. MANDATORY REQUIREMENTS FOR WATER CONSERVATION

- A. The applicant shall include the use of mandatory water conservation devices in the proposed development. Said devices shall include, but not be limited to, flow restrictors on showers and faucets, low volume flush toilets and flow limiters on flushometer controlled devices.
- B. The Auburn Water District reserves the right to limit irrigation of landscaped areas, as it may be appropriate for water conservation as conditions may dictate. The applicant shall utilize low water consuming and drought tolerant species of vegetation in the design and construction of landscaped areas.

## III. BACKFLOW REQUIREMENTS

- A. The applicant shall provide the District with a set of site and building drawings, along with a backflow device data sheet completed and stamped by the fire protection contractor or licensed installer of said device. These documents can be obtained from the District office and must be submitted as part of the entire application. Information on backflow requirements can be obtained by reviewing the District bylaws.

## IV. METERING REQUIREMENTS

- A. The District requires that all metering devices be per Auburn Water District specifications and be consistent with existing meters now in use by the District. The Auburn Water District utilizes single jet meters with radio read capability for all installations 1.5 inches and larger. All other meters below 1.5 inches shall be nutating disc type with radio readers compatible with the District's current reading system.

- B. The District will provide the customer a meter at a cost to be paid at time of application, this fee includes installation of the inside shutoff valve, meter and meter flanges or associated fittings.
- C. The District will review the water impact statement and will determine the correct meter size applicable, based on the information provided in the water impact statement. One meter per domestic service is the District's standard requirement.
- D. Separate fire and domestic lines must be installed per Auburn Water District's bylaws and regulations.

**AUBURN WATER DISTRICT  
WATER IMPACT STATEMENT**

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Applicant: \_\_\_\_\_

Address: \_\_\_\_\_

Description of proposed development including building size, usage (processing food service, laundry, etc.) and requested service (fire and domestic) etc.

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Anticipated Average Daily Demand (ADD): \_\_\_\_\_ Gallons Per Day

Anticipated Peak Daily Demand (PDD): \_\_\_\_\_ Gallons Per Minute

Anticipated Peak Daily Demand Time(s): \_\_\_\_\_

Anticipated Irrigation Demand: \_\_\_\_\_ Gallons Per Day

at \_\_\_\_\_ Gallons Per Minute

Fire Protection Demand: \_\_\_\_\_ Gallons Per Minute

Backflow Device Needed: \_\_\_\_\_ Yes (Include Device Design Data Sheet(s))

\_\_\_\_\_ No



# AUBURN WATER DISTRICT

## WATER DISTRIBUTION SYSTEM STANDARDS AND SPECIFICATIONS

Adopted April, 2005

Updated July 19, 2023

### PART 1: – GENERAL

#### 1.1 - General Requirements

- A. Attention is directed to the Rules and Regulations of the Auburn Water District (DISTRICT) and are hereby made a part of these Specifications.
- B. The Contractor shall be responsible for a working knowledge of the requirements and Rules and Regulations of the DISTRICT prior to beginning any work.
- C. All applications (and associated fees) to the DISTRICT shall have been completed and submitted to and approved by the DISTRICT prior to beginning any work. A properly prepared, up-to-date drawing of the proposed work shall be submitted to the DISTRICT for review and comment.
- D. It shall be the responsibility of the Contractor to contact DIG SAFE (1 888 344-7233), and the DISTRICT and all other applicable utilities at least 72 hours in advance of the beginning of construction.
- E. It shall be the responsibility of the Applicant / Contractor to obtain and comply with all the requirements of the applicable road opening permits (Town of Auburn, Mass. Highway Dept., etc.).
- F. All work shall be completed in accordance with these specifications and standard industry practices and methods. All materials to be used as part of the water distribution system or connections thereto, shall meet the requirements of the applicable American Water Works Association (AWWA) Standard.
- G. No work shall be backfilled without being inspected by the DISTRICT.
- H. Any materials damaged during unloading, storage or installation shall be immediately removed from the site and replaced at the Applicant / Contractor's expense.
- I. All surface restoration of disturbed areas shall be the responsibility of the Applicant and authorized agent there of (Contractor). Upon completion of the work, all surfaces and surface features, (including pavements, walks, drives, fences, walls, lights, lawns, landscaping, etc.) shall be left in a condition that is at least equal to or better than that which existed prior to construction. All pavements within the Town of Auburn or State Right of Way shall be restored in accordance with the applicable road opening permit and or established standards.

- J. No water main or service will be accepted by the DISTRICT and or activated until such time as the DISTRICT has received all outstanding documentation (shop drawings, as-built drawings, etc.) and fees and outstanding charges).
- K. The DISTRICT reserves the right to periodically modify these standards and to waive parts or requirements thereof should it be in the best interest of the DISTRICT to do so.
- L. No person other than DISTRICT personnel shall operate any valve, hydrant or other component of the DISTRICT's water distribution system.

## **1.2 - Submittal Requirements**

- A. The decision of the equality of materials, products, assembly or system, other than those named or described in these specifications shall be made by the DISTRICT based upon information provided by the applicant. All costs relating to providing said information (samples, testing, etc.) shall be the responsibility of the Applicant or authorized agent thereof (i.e. Contractor).
- B. The Contractor shall submit the following products (if used) to the DISTRICT or its Engineer for approval:
  - Pipes
  - Fittings
  - Valves
  - Hydrants
  - Service Materials
  - Road Boxes
- C. An accurate, scaled "As-Built" drawing shall be prepared by the Contractor using measurements and dimensions taken by the Contractor during installation of the water system components. Distances from permanent surface features (building corners, utility poles, edge of curbs, etc.) to buried valves, pipe bends and fittings etc. shall be shown on the drawings as well as any other pertinent information such as pipe size and material, depth of bury and clearances between the water lines and other crossing utilities such as gas, electrical, sewer and drain.

## **PART 2: - PRODUCTS**

### **2.1 Quality Assurance**

- A. The following information pertaining to products is included for the Contractor's information.
- B. The Contractor shall install all ductile-iron pressure pipe, fittings (including special castings), service connections and appurtenant materials and equipment, as herein specified and in accordance with the submitted plans.
- C. Wherever a pressure classification (e.g. Class 150) is indicated or specified, it shall mean that working pressure for ANS A21.50-1971 laying condition B under five (5) feet of

cover as defined by the applicable standard specification for the type of pipe to which it pertains.

- D. Joints in buried exterior pipelines shall be push-on joints. Buried valves and fittings shall be mechanical joint. Joints, valves and fittings in exposed pipelines shall be flanged joints. Joints in service connections shall be compression type.

## **2.2 - Standards**

- A. ANSI/AWWA C104/A21.4-90 Standard Specifications for Cement-Mortar Lining for Cast-Iron Pipe and Fittings for Water.
- B. ANSI/AWWA C110/A21.10-87 Standard Specifications for Cast Iron Fittings, three (3) inches through forty-eight (48) inches, for Water and Other Liquids.
- C. ANSI/AWWA C111/A21.11-90 Standard Specifications for Rubber Gasket Joints for Cast-Iron Pressure Pipe and Fittings.
- D. ANSI/AWWA C115/A21.15-88 Flanged Cast Iron and Ductile Iron Pipe with Threaded Flanges.
- E. ANSI/AWWA C150/A21.50-81 (R86) Standard Specifications for Thickness Design of Ductile-Iron Pipe.
- F. ANSI/AWWA C151/A21.51-86 Standard Specifications for Ductile-Iron Pipe Centrifugally Cast in Metal or Sand-Lined Molds for Water or Other Liquids.
- G. ANSI/AWWA C153/A 21.53-88 Standard Specifications for Ductile Iron Compact Fittings, 3 inch through 16 inch for Water and of other Liquids.
- H. ANSI/AWWA C-500 A-86 Standard for Gate Valves, 3 thru 48 inches NPS For Water and Sewage Systems.
- I. ANSI/AWWA C502-85 Standard Specifications for Dry Barrel Fire Hydrants.
- J. ANSI/AWWA C504-87 Standard for Rubber Seat Butterfly Valves.
- K. ANSI/AWWA C509-87 Resilient-Seated Gate Valves for Water and Sewerage Systems.
- L. ANSI/AWWA C550-90 Standard Specification for Protective Interior Coatings for Valves and Hydrants.
- M. ANSI/AWWA C800-89 Standard for Underground Service Line Valves and Fittings.
- N. ANSI/AWWA C901-88 Standard for PE (Polyethylene) Pressure Pipe and Tubing for Water Service.
- O. ANSI-B16.1 Standard Specifications for Cast-Iron Pipe Flanges and Flanged Fittings, 25, 125, 250 and 800 pounds, B16.1-1967.

### **2.3 - Ductile-Iron Pipe**

- A. All ductile-iron pipe shall be designed in accordance with the above-mentioned ANSI/AWWA C150/A21.50-81 (R86).
- B. Unless otherwise indicated or specified, double thickness, cement lined ductile-iron pipe shall be at least thickness Class 52.
- C. Prior to delivery to the site, each piece of ductile-iron pipe shall be individually tested to insure 100 percent ductility by the ball impression test or an approved equal.
- D. Buried joints (pipe to pipe) shall be of the push-on type.

### **2.4 - Fittings**

- A. Fittings shall conform to the requirements of the above-mentioned ANSI/AWWA C110/A21.10-87 or ANSI/AWWA C-153/A21.53-88 and shall be of a pressure classification at least equal to that of the pipe with which they are used.
- B. All buried fittings shall be mechanical joint.
- C. Fittings may be either cast or ductile iron.
- D. Fittings shall be cement lined in accordance with ANSI/AWWA C104/A21.4-90.
- E. Tapping sleeves, if used, shall be the full mechanical joint type cast iron sleeve. Sleeves of stainless steel or with "O" ring type seal ring will not be allowed.
- F. Sleeve type couplings shall only be used with the prior approval of the superintendent or Engineer. If allowed, sleeves shall be of the solid type (cast or ductile iron) with mechanical joint ends. The use of "Dresser" style (ductile or cast iron) couplings shall only be used with the prior approval of the Superintendent.

### **2.5 - Types of Joints**

- A. Joints for push-on and mechanical joint pipe shall conform to ANSI/AWWA C111/A21.11-90.
- B. The plain end of push-on pipe shall be factory machined to a true circle and chamfered to facilitate fitting the gasket.
- C. The plain ends of field cut pipe shall be chamfered to prevent damage to the gasket.
- D. Push-on and mechanical joint pipe and fittings shall be provided with sufficient quantities of accessories conforming to ANSI/AWWA C111/A21.11-90.

- E. Flanges for flanged pipe shall conform to ANSI B16.1, except that special drilling or tapping shall be as necessary to insure 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.
- F. Gaskets shall be of a composition suitable for exposure to the liquid with the pipe.

## **2.6 - Lining and Coating**

- A. All pipe and fittings shall be lined and coated as specified below.
- B. The inside of pipe and fittings carrying potable water shall be given a double thickness cement lining and bituminous seal coat in accordance with ANSI/AWWA C104/A21.4-90.
- C. The outside of pipe and fittings shall be given the standard bituminous coating.
- D. Machined surfaces shall be cleaned and coated with a suitable rust preventative coating at the shop immediately after being machined.

## **2.7 - Water Service Materials**

- A. Residential family (single family) service pipe shall be 1-inch diameter polyethylene (PE) Class PC200 pressure pipe/tubing for water service conforming to ANSI/AWWA C901-88 or 1-inch diameter Type K copper.
- B. Commercial service pipe shall be a minimum of 2-inch diameter PE Class PC200 pressure pipe/tubing for water service conforming to ANSI/AWWA C901-88. Commercial services larger than 2 inches shall be ductile iron.
- C. Stainless steel inserts within the PE tubing shall be used at all compression connections.
- D. Corporation stops for all water main service pipe connections shall be of solid brass or bronze construction suitable for compression type connections for the indicated service pipe. The corporation stops shall have AWWA (tapered) thread on the inlet side of the stop. The size of the corporation shall be matched to the size of the service pipe or tubing. Corporations shall be as manufactured by. NO SUBSTITUTIONS WILL BE ALLOWED.
- E. All curb stops for service pipe connections shall be of solid brass or bronze material. The inlet and outlet shall be as required to suit the types of pipe or tubing connected. The curb stops shall not have a drain and include a check stop and shall be manufactured by Ford Meter Box Company. NO SUBSTITUTIONS WILL BE ALLOWED.
- F. Service boxes shall be a two-piece adjustable "Mueller Erie-Style box with a plug style cover (with brass plug) for 5.5 to 6.5 foot depth. Service boxes shall include a 30-inch stainless steel rod and non-ferrous cotter pin for each service connection.

- G. All adapters and miscellaneous fittings to connect to existing or proposed water service materials shall provide an adequate seal at the working pressure of the water main.

## 2.8 - Valves

- A. Valves three (3) to twelve (12) inches in size, inclusive, shall be designed for a minimum working water pressure of 200 psi.
- B. All valves shall open left in accordance with the Auburn Water District Standards.
- C. The valves shall be designed so that parts subject to wear may be easily replaced and shall be constructed of wear-resistant material.
- D. Valves smaller than 12 inches shall be non-rising stem resilient seated gate valves conforming to the most recent edition of ANSI/AWWA C509-87 and shall, in addition, meet the following requirements:
  - a. The valve waterway shall be smooth and unobstructed (100% full body) without depression or cavities where foreign material can accumulate.
  - b. All interior and exterior ferrous parts, including the interior of the gate or wedge, shall be coated with fusion-bonded epoxy. Said coating shall be non-toxic, impart no taste to water and shall conform to AWWA C-550, the latest revision.
  - c. The gate shall be totally encapsulated with rubber coating that utilizes a rubber seating edge at the bottom, which will eliminate the possibility of entrapment of foreign material.
  - d. The valve shall close bubble tight.
  - e. The valve shall be designed so no metal fasteners or screws other than the stem and stem nut are exposed to water.
  - f. The stem shall be bronze with an integral thrust flange, o-rings and anti-friction devices to reduce operating torque.
  - g. When used as a tapping valve, the valve shall be constructed to permit the use of standard full-size cutters.
  - h. Buried valves shall have mechanical joint ends and a 2-inch square operating nut.
  - i. Buried valves (Post Indicator Valve) controlling water supplies for fire protection systems shall carry the UL/FM rating as appropriate and be supervised per applicable codes.
  - j. Bonnet bolts / nuts shall be stainless steel.

- k. Valve stuffing box shall utilize multiple o-ring seals.
  - l. Resilient seated gate valves shall be as manufactured by American Flow Control (Series 2500), M&H or approval equal.
- E. Valves 12 inches and larger shall be the butterfly type valve with mechanical joint ends and a 2-inch square operating nut and comply with the most recent edition of ANSI/AWWA 504-87 for butterfly valves.
- a. The butterfly valve shall be designed for a working pressure of 200 PSI unless otherwise indicated.
  - b. The valve seat shall have a constant uninterrupted 360-degree seating.
  - c. The valve operator shall be designed for 450 foot-pounds of torque.
  - d. The valve shall have a fusion bonded epoxy coating inside and out.
  - e. Butterfly style valves shall be Model 450B as manufactured by M & H Valve Co. or approved equal.
- F. Buried valves shall be provided with adjustable gate boxes. Where necessary, valves shall be furnished with steel extension stems or universal-joint operating rods with two (2) inch square operating nuts at the upper end and a suitable coupling to connect the valve stem so that the operating nut is no more than 4 feet below the surface.

## **2.9 - Tie-rods, Clamps, Thrust Restraint**

- A. The Contractor shall furnish and install Tie-rods, clamps, couplings, concrete and accessories to prevent the movement of branch valves and/or fittings.
- B. The clamps and Tie-rods shall be of the sizes, materials and shall be constructed as indicated by the latest edition of the National Fire Protection Association's National Fire Codes, Publication: NFPA 24.
- C. The use of retainer glands is allowed as an alternative to rods provided the gland used meets the following:
  - a. The restraining devices shall not damage the pipe wall or lining.
  - b. A device to indicate proper tightening of setscrews shall be used.
  - c. Retainer glands shall be "Mega lug" as manufactured by EBBA Iron Sales or approved equal.

## 2.10 - Valve Boxes

- A. Unless otherwise specified or required, each buried valve shall be provided with a valve box. Valve boxes shall be cast-iron and of the adjustable, slip, heavy-pattern type. They shall be so designed and constructed as to prevent the direct transmission of traffic loads to the pipe or valve.
- B. 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 fit over the valve bonnet. The boxes shall be adjustable through at least six (6) inches vertically without reduction of the lap between sections to less than four (4) inches.
- C. The inside diameter of boxes shall be at least 5 1/4 inches and the lengths shall be as necessary for the depth of the valves with which the boxes are to be used.
- D. Covers shall be close fitting and substantially dirt tight. The top of the cover shall be flush with the top of the box rim. The word "Water" shall be cast in the top of the cover.
- E. Castings for valve boxes shall be strong, tough even grained, and without defects.

## 2.11 - Hydrants

- A. Hydrants shall be manufactured in accordance with the most recent edition of AWWA Specification C502-85, designed for a minimum of 200 pounds working pressure, and tested to a minimum of 400 pounds hydrostatic pressure and shall open LEFT.
- B. The hydrant shall be center stem compression type.
- C. An automatic drain is to be provided to permit draining the hydrant barrel.
- D. Hydrants shall be designed with the following features:
  - a. Permit removal of all working parts through the top without the use of any special tools or wrenches. All working parts shall be bronze and interchangeable, with similar parts of same size and type.
  - b. In the event of accident, damage or breaking of hydrant, the main valve will remain closed by mechanical means.
  - c. The direction of the nozzles can be changed 360 degrees by rotating the hydrant without digging up the hydrant.
  - d. Extensions may be added without the necessity of closing off the water or digging up the fire hydrant.
- E. Hydrants shall have a minimum valve opening of 5¼ inches.



- F. Inlet connection shall be six (6) inches and mechanical type joint.
- G. Hydrants shall have two (2) 2½ inch hose nozzles and one (1) 4½ inch pumper nozzle. Nozzle threads to be National Standard. Operating nuts shall be National Standard, pentagon shape, 1½ inch point to flat. Hydrants shall be suitable for installation with a minimum of five (5) foot depth of cover at the inlet connection without the hydrant being significantly higher or lower than as indicated on the drawings.
- H. Hydrants manufactured for a greater depth of bury shall be provided where depth of coverage over the water main is greater than the standard 5 foot of cover. Said hydrant shall be prominently marked with the depth of bury.
- I. Hydrants shall be furnished with a frangible break flanged at the groundline and a cast-iron break coupling on the stem at the groundline, which shall be so designed so that in case of breakage, only the flange and coupling need be replaced to affect complete repair.
- J. Hydrants shall be painted red and shall open LEFT in accordance with the standards of the Auburn Water District.
- K. Hydrants shall be the Darling Model B-84-B as manufactured by American Flow Controls. NO SUBSTITUTIONS WILL BE ALLOWED.
- L. Hydrants installed at locations which, in the opinion of the DISTRICT, may be subject to possible damage from vehicles, said hydrant shall be protected by a minimum of two 6" diameter concrete filled steel bollards placed to facilitate full unrestricted access to the hydrant.
- M. Hydrant Thrust Blocks: Concrete for thrust blocks securing hydrants shall be sized and installed to provide adequate thrust restraint for the soil type encountered.

## **2.12 – Backflow Prevention Devices**

- A. Backflow prevention devices shall be provided by the customer on all commercial services and on any other services where required. Said approved devices shall be installed on the customer side of the meter and shall installed per DEP requirements by a qualified individual in a suitable location where it is convenient for testing and will not compromise the décor or operation of the business. During the required periodic testing of said devices, it is required to interrupt the water supply to the building for a period. If said interruptions of service during normal business hours cannot be tolerated, it is required that an additional device be installed in parallel that would allow one backflow preventer to be taken offline at a time for testing while the other remains in service.
- B. Back flow prevention devices shall be of the Reduced pressure zone type as manufactured by Watts.

## **PART 3: - EXECUTION**

### **3.1 - Water Distribution Main**

- A. The Contractor's attention is directed to the fact that the cement pipe lining is relatively brittle. Every care shall be taken in handling and laying pipe and fittings to avoid damaging the pipe or lining, scratching or marring machined surfaces, and abrasion of the pipe coating or lining.

Any fitting or pipe showing a crack and any fitting or pipe 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 site.

In any pipe showing a distinct crack and in which it is believed there is no incipient fracture beyond the limits of the visible crack, the cracked portion, if so approved by the DISTRICT, may be cut off by and at the expense of the Contractor before the pipe is laid so that the pipe used is 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 crack.

Unless otherwise approved, all cutting of ductile iron pipe shall be done with an approved power operated cutter. Hammer and chisel shall not be used to cut pipe. All ends shall be examined for possible cracks caused by cutting and chamfered to prevent damage to the gasket.

Pipe shall be installed as to maintain the required minimum earth cover (5 foot) vertically over and horizontally from the sides of the pipe. Piping not having the necessary vertical or horizontal cover shall be restrained against movement and protected from freezing.

- B. Before any length of pipe is lowered into the trench it shall be inspected for damage and the inside of the pipe shall be cleaned of any loose dust and foreign objects. No defective pipe or fittings shall be laid or placed in the piping, and any piece discovered to be defective after having been laid shall be removed and replaced by a sound and satisfactory piece at the Contractor's expense.

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

Pipe Location. Exterior pipelines will be located substantially as indicated on the approved drawings, but the right is reserved to the DISTRICT, to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings, etc., are noted on the approved drawings, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different additional or different fittings, where required, without additional compensation. (Care shall be taken to ensure a good alignment both horizontally and vertically, and, in the case of buried lines, to give the pipe a firm bearing along its entire length.)

All dead end water mains will end on a fire hydrant. No service connections will be allowed after the last hydrant.

All new taps shall be a minimum of one pipe size smaller in diameter than the main to be tapped; however, where the District deems this to be impractical then a solid sleeve three-way branch shall be used to connect to the new main.

When mechanical joint pipe or similar pipe is laid, the bell of the pipe shall be cleaned of excess tar or other debris and wiped out before the cleaned and prepared end of the next pipe is inserted into it. The new pipe shall be set and held firmly in place until properly seated and held securely until the joint has been completed.

- C. Before any section of pipe is joined with another with a push on type joint, it shall be inspected for damage and the inside of the pipe shall be wiped clean and clear of any debris. Surfaces against which the gaskets will come into contact shall be thoroughly wire brushed and washed with clean water, care being taken that no sand or grit be allowed to remain on these surfaces. The gasket shall then be cleaned and inserted in the groove provided in the bell of the previously laid pipe, making sure the gasket is inserted in the proper manner and securely seated. The gasket and the plain pipe end shall be lubricated with an approved lubricant in accordance with the pipe manufacturer's literature. The ends of cut pipe should be checked before assembly to ensure that they have been chamfered to facilitate assembly and prevent tearing of the gasket.

Special care must be given by the Contractor to use the proper gaskets designed and manufactured for the brand of pipe being installed or connected to. Avoid mixing different gaskets together.

The plain end of the pipe shall then be aligned to be in line with the previously set length of pipe and inserted into the gasket, and pushed through the gasket until seated in the bell. If the joint cannot be assembled with a reasonable amount of force, the plain end shall be removed from the bell and the gasket shall be checked for proper positioning before reassembly. If an effective seal is not obtained at the joint, the joint shall be disassembled, cleaned, and reassembled, utilizing a new gasket.

Pipe shall be deflected after the plain end has been fully seated within the bell. The amount of deflection shall not exceed the maximum allowable deflection indicated by the pipe manufacturer and accepted standards.

- D. Before any section of pipe is joined with another with a mechanical type joint, it shall be inspected for damage and the inside of the pipe shall be wiped clean. Any excess coating in the bell section shall be removed to prevent an improper fit.

The plain end, bell socket, and gasket shall be wiped clean, and washed with a soap solution to improve seating of the gasket and provide lubrication. The gland shall be placed on the plain end with the lip extension towards the plain end of the pipe followed by the gasket with the narrow edge towards the plain end of the pipe.

The plain end of the pipe shall then be centered and pushed into the bell socket and the gasket pressed firmly and evenly around the socket. The gland shall be pushed up to

the bell and centered with the gland bolts being inserted and evenly tightened until "finger tight".

The tightening of the bolts shall be completed with diametrically opposite bolts being tightened in sequence so as to keep the gland square with the socket and produce even bolt stresses.

The correct range of torque to be obtained is shown below, preferably by means of a torque wrench:

Bolt Size (Inches)	Range of Torque (Ft. Lbs.)
5/8	45 - 60
3/4	75 - 90
1	85 - 100

If an effective seal is not obtained at the joint at the maximum torque indicated above, the joint shall be disassembled, thoroughly cleaned and reassembled with a new gasket. Bolts shall not be over-torqued to tighten leaking joints.

- E. Flanged ductile iron pipe and fittings shall be assembled in accordance with the manufacturer's literature.
- F. In laying ductile iron pipe, the following deflections, which reflect the manufacturer's allowable recommended maximum deflection, shall not be exceeded.

Nominal Size of Pipe - Inches	Deflection - Inches / Pipe Radius (Feet)	
	For 18 Foot Pipe Length	
	PUSH ON JOINT	MECHANICAL JOINT
4	19" / 205ft.	31" / 125ft.
6	19" / 205ft.	27" / 145ft.
8	19" / 205ft.	20" / 195ft.
10	19" / 205ft.	20" / 195ft.
12	19" / 205ft.	20" / 195ft.
16	11" / 340ft.	13.5" / 285ft.

Deflections shall be made after the joint is made. For mechanical joint pipe, the bolts shall be partially tightened before the length of pipe is deflected.

- G. At all times when pipe laying is not actually in progress, the open ends of pipe shall be closed by temporary watertight plugs or by 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 is eliminated. In the event that pipe is installed by transporting the underwater section as a unit through the water, the ends of the pipe shall be closed with suitable temporary plugs.
- H. Prior to the installation of sleeve-type couplings, the pipe ends shall be cleaned thoroughly for a distance of eight inches. Soapy water may be used as a gasket lubricant. A follower and gasket in that order shall be slipped over each pipe to a distance of about six inches from the end, and the middle ring shall be placed on the

previously laid pipe end until it reaches the pipe stop or is properly centered over the joint. The other pipe end shall be inserted into the middle ring and brought to proper position against the pipe stop or in relation to the pipe already laid. The gaskets and followers shall then be pressed evenly and firmly into the middle ring flares. After the bolts have been inserted and all nuts have been made up finger tight, diametrically opposite nuts shall be progressively and uniformly tightened all around the joint, by the use of a torque wrench of the appropriate size and torque for the bolts.

- I. All valves, fittings, and appurtenances installed shall be set and jointed by the Contractor as indicated on the Drawings.
- J. The Contractor shall furnish and install all supports necessary to hold the piping and appurtenances in a firm, substantial manner at the lines and grades indicated on the Drawings or specified. Unless approved otherwise, all bends, tees, dead-end plugs/caps, and other fittings in ductile iron pipelines buried in the ground shall be restrained to resist thrust with concrete placed in an approved manner against undisturbed earth where firm support can be obtained. If the soil does not provide firm support, then suitable bridle rods, clamps, and accessories to brace the fitting properly shall be provided. Such bridle rods, etc., shall be coated thoroughly and heavily with an approved bituminous paint after assembly or, if necessary, before assembly.
- K. All backfill around installed pipe and appurtenances, shall be clean, dry material free of frozen material, mud, organics, bituminous concrete, debris, etc. No stone larger than 3 inches shall be placed within 12 inches of the installed pipe. The remaining backfill shall not contain any rock, stone or pieces larger than 6 inches. Proper compaction shall be performed with vibratory compactors in lifts not exceeding one foot. Compaction shall be at least 90% under non-paved areas and 95% under pavements.
- L. The ductile iron pipe shall be given pressure and leakage tests in sections of approved length. For these tests, the Contractor shall furnish all labor and materials including an approved pump, tanks, hoses, meters and pressure gauges. The Contractor shall furnish, install **and remove (after testing)** suitable temporary testing taps, plugs or caps for testing the pipeline; and other similar equipment; and all labor required all without additional compensation. The meter and gauge shall be installed by the Contractor in such a manner that all water entering the section under test will be measured and the pressure in the section indicated, and they shall be kept in use during both tests.

The scheduling of pressure and leakage tests shall be as allowed by the DISTRICT Superintendent.

Unless it has already been done, the section of pipe to be tested shall be slowly filled with water of approved quality, and all air shall be expelled from the pipe by flushing and the test section of pipe be allowed to stabilize preferably for 24 hours. If hydrants or blow-offs are not available at high points for releasing air or for isolating sections of the mains to be tested, the Contractor shall be responsible to make the necessary excavations, backfilling, compaction, and the necessary taps at such points and shall remove the taps and plug said holes with brass or bronze plugs after completion of the test and to restore the surface.

For the pressure test, the Contractor shall, by pumping, raise the water pressure (based on the elevation of the section under test and corrected to the gauge location) to a minimum of 150 pounds per square inch or to a pressure equal to 150% of the normal static pressure, at the highest point of the section being tested, whichever is larger\*. If the Contractor cannot achieve the specific pressure and maintain it for a period of two (2) hours, the section under test shall be considered as having failed to pass the pressure test.

*\*Higher test pressures may be required by the Water Superintendent, but not to exceed the rated pressure ratings of the valves or hydrants.*

Only upon completion of a successful pressure test, the Contractor shall make a leakage test by metering the flow of water into the pipe while maintaining in the section being tested a pressure within 5+ psi of the pressure to which the pipe will be subjected under the pressure test for at least two hours. This shall be done by placing the section under pressure by pumping. No pipe installation will be accepted if the leakage is greater than that determined by the formula:

$$L = \frac{SD (P) 0.5}{133,320}$$

for mechanical joints and push-on joints, in which L is the allowable leakage, in gallons per hour; S is the length of pipeline tested in feet; D is the nominal diameter of the pipe, in inches; and P is the average test pressure during the leakage test, in pounds per square inch gauge.

Avg. Test Pressure (psi)	ALLOWABLE LEAKAGE (GALS. PER HOUR) PER 1,000 FT. OF PIPELINE							
	NOMINAL PIPE DIAMETER							
	3	4	6	8	10	12	14	16
200	0.32	0.43	0.64	0.85	1.06	1.28	1.48	1.70
175	0.30	0.40	0.59	0.80	0.99	1.19	1.39	1.59
150	0.28	0.37	0.55	0.74	0.92	1.10	1.29	1.47
125	0.25	0.34	0.50	0.67	0.84	1.01	1.18	1.34
100	0.23	0.30	0.45	0.60	0.75	0.90	1.05	1.20

**Note:**

If testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gal./hour per inch of nominal valve size shall be allowed for the leakage test only.

At the specified system pressure, no leakage will be allowed at flanged joints.

If the section shall fail to pass the pressure test, the leakage test, or both, the Contractor shall do everything necessary to locate, uncover, (even to the extent of uncovering the entire section), isolation of pipe sections by capping or installing valves, and repair or replace the defective pipe, fitting, or joint, all at his own expense and without extension of time for completion of the work.

If, in the judgment of the DISTRICT, it is impracticable to follow the foregoing procedure exactly for any reason, modifications in the procedure shall be made as required or approved, but in any event the Contractor shall be responsible for the ultimate tightness of the line within the above leakage requirements.

- M. All water mains, after passing the leakage and pressure tests, shall be flushed, disinfected, and flushed again as follows, prior to being put into service. The Contractor shall furnish the necessary labor and pumps, hoses, barrels, taps for proper chlorine distribution, and chlorine test kits for the disinfection procedure.

All water mains shall be thoroughly flushed to clear the pipe of debris and sediments prior to disinfection. The flushing rate shall be at least 2.5 fps for mains smaller than twenty (20) inches in diameter. The flushing velocity in pipes greater than twenty (20) inches in diameter may be at a lower rate, as approved. The following table lists the required opening to flush pipelines to obtain a velocity of 2.5 fps and is taken from AWWA Standard C651.

**REQUIRED OPENINGS TO FLUSH PIPELINES\*  
TO PRODUCE 2.5 FPS VELOCITY**

<b>PIPE SIZE (IN.)</b>	<b>REQ'D FLUSHING RATE (GPM)</b>	<b>ORIFICE SIZE</b>	<b>HYDRANT OUTLETS REQUIRED TO BE OPENED</b>		
			<b>(INCH)</b>	<b>(NUMBER)</b>	<b>(SIZE)</b>
4	100	15/16	1	1	2-1/2
6	220	1-3/8	1	1	2-1/2
8	390	1-7/8	1	1	2-1/2
10	610	2-5/16	1	1	2-1/2
12	880	2-13/16	1	1	2-1/2
14	1,200	3-1/4	2	2	2-1/2
16	1,565	3-5/8	2	2	2-1/2
18	1,980	4-3/16	2	2	2-1/2

\*With 40 psi residual pressure, a 2-1/2 in. hydrant outlet nozzle will discharge approximately 1,000 gpm and a 4-1/2 in. hydrant nozzle will discharge approximately 2,500 gpm.

The disinfection of water mains shall be accomplished in accordance with latest edition AWWA Standard for Disinfecting Water Mains, C651, and/or the DEP Water Supply Guidelines for Public Water Systems, whichever of the two (2) is more stringent. The following descriptions may be used as a guide:

- i. Disinfection of mains should be accomplished only by workmen who have had experience with chlorine or other disinfecting agents. Liquid chlorine (gas at atmospheric pressure and sodium hypochlorite solutions are the most common disinfectants used. Chlorine gas and water solutions are fed into the main being disinfected to a concentration of at least 50 parts per million available chlorine. To ensure that the required concentration is maintained, chlorine residuals are

obtained. This chlorinated water solution should remain in the pipe for at least 24 hours, at the end of which period the chlorine concentration should be at least 25 parts per million. If this is achieved, final flushing can be accomplished, and chlorine residuals checked to determine that the heavily chlorinated water has been removed from the pipeline. Said chlorinated water shall be disposed of in a safe, proper and legal manner.

**CHLORINE REQUIRED TO PRODUCE 50 mg/L  
CONCENTRATION IN 100 FT. OF PIPE - BY DIAMETER**

Pipe Size in.	100 percent Chlorine lb.	1 percent Chlorine Solutions gal.
4	0.027	0.33
6	0.061	0.73
8	0.108	1.30
10	0.170	2.04
12	0.240	2.88

- ii. The Slug Method of Chlorination, which is used for large diameter water mains consists of moving a column of highly concentrated chlorine water solution (at least 300 ppm) along the interior of the pipe with a contact time of at least three hours with the pipe wall. (See AWWA Standard C651 Section 7.2 for further information).
- N. After the applicable retention period, the heavily chlorinated water shall be disposed of or neutralized and the main flushed until the chlorine concentration in the water leaving the main is equal or less than that of the prevailing system or less than 1 mg/L.
- O. After final flushing and before the water main is placed in service, a sample or samples shall be collected from the water main at locations approved by the DISTRICT Superintendent and tested for bacteriological quality and shall show an absence of coliform organisms. In the case of extremely long mains several samples shall be collected along its length, as well as the end. The Contractor shall obtain suitable sample containers, take samples under the direction of the DISTRICT Superintendent, submit samples to a Department of Environmental Protection certified laboratory for analysis, and see that analysis reports are sent to the Engineer and the DISTRICT. The Contractor shall bear the costs for said sampling, delivery and tests.

If the initial disinfection fails to produce satisfactory samples, the disinfection process shall be repeated at the Contractors expense.

- P. The Contractor shall submit a program for the construction and putting into service of the new works subject to the approval of the DISTRICT. All work involving cutting into and connecting to the existing work shall be planned so as to interfere with operation of the existing facilities for the shortest possible time and when the demands on the system best permit such interference even to the extent of working outside the normal working hours to meet these requirements. **For all proposed interruptions of water**



**supplies or work to be performed on any component of the existing water distribution system, the Auburn Water District shall be notified forty-eight (48) hours (weekends and holidays excluded) in advance.**

The Contractor shall have all possible preparatory work done and shall provide all labor, tools, material, and equipment required to do the work in one continuous operation. Disinfection of affected mains shall be done as part of this operation, in accordance with procedures specified elsewhere.

The Contractor shall have no claim, by reason of delay or inconvenience, for adapting his operations to the needs of the DISTRICT.

- Q. The Contractor shall make joint connections similar to those on the existing pipe or adaptable to such pipe unless specifically otherwise shown on the Drawings or directed. These joints shall be made as specified under the appropriate headings.
- R. Existing pipeline(s), other utilities, and surface features (pavements, lawns, fences, walls, etc.) damaged by the Contractor shall be replaced by him at his own expense in a manner approved by the DISTRICT and the owner of said damaged items. All replications shall result in the restored work being of a condition equal to or better than that has existed before construction.
- S. Temporary pavement (2-inch minimum) shall be placed as soon as possible. All disturbed paved areas shall be paved at the end of the work week. It shall be the responsibility of the Contractor to periodically inspect the patches and maintain them until the permanent pavement is placed.

Permanent pavement surface restoration shall comply with the applicable road-opening permit. Unless specified otherwise, all disturbed pavements shall be replaced with a minimum of 12 inches of compacted gravel with 4 inches (2 ½ inches of binder (base) with 1 ½ inches of top course for roadways and 2 inches of binder (base) with one inch of top course for driveway and walks.

- T. Disturbed lawn areas shall be restored with a minimum of 4 inches of good quality loam, limed, fertilized and seeded with a lawn seed mixture. The Contractor shall be responsible for

### **3.2 - Water Services**

- A. The Contractor shall furnish and install all services to the new main as indicated on the Drawings. All work shall be performed by craftsmen experienced in the installation of water services. The Contractor shall have the option of installing services wet or dry.
- B. Curb stops should be installed within the road right of way as close to the property line as possible. Curb stops shall be provided with a rod and box as specified and shall be set plumb and be supported and protected during backfill. Prior to acceptance of the work, the Contractor shall demonstrate that all buried valves are accessible fully operable with standard valves wrenches.

- C. All openings in foundations for water service piping shall be patched on both the interior and exterior of the foundation.
- D. Services shall be located to facilitate the ease of installation and maintenance of the meter and appurtenances.
- E. All service connections shall be laid in as straight a line as possible to the foundation of the building. Detectable warning tape shall be installed three (3) feet above service line. Tape will read "CAUTION BURIED WATER LINE BELOW".
- F. Surface restoration shall be as described under Section 3.1 Paragraphs R through T.

### **3.3 - Buried Valves and Appurtenances**

- A. All valves shall be carefully erected and supported in their respective positions and free from all distortion and strain. Care shall be taken to prevent damage or injury to the valves or appurtenances during handling and installation. Valve openings and seats shall be cleared at time of installation. Valves, valve boxes and valve box covers shall be installed in such a manner as to ensure that the cover is parallel to the ground surface and that the operating wrench will fit squarely on the operating nut. Equipment which does not operate easily or is otherwise defective shall be repaired or replaced at the Contractor's own expense. Special care shall be taken not to displace the valve box during backfilling, compaction and surface restoration.
- B. The Contractor shall furnish and install tie rods, clamps, couplings, concrete thrust blocks and accessories to prevent the movement of branch valves, as indicated on the Drawings or as directed. All valves at tees shall be restrained back to tee with retainer glands or asphalt coated rods.
- C. All buried valves controlling water services should be installed within the road right of way as close to the property line as possible. All buried valves shall be provided with a box as specified and shall be set plumb and be supported and protected during backfill. Prior to acceptance of the work, the Contractor shall demonstrate that all buried valves are accessible fully operable with standard valves wrenches.

### **3.4 Hydrants**

- A. The exact field location of each hydrant shall be determined by the Auburn Fire Department and the DISTRICT Superintendent prior to excavation for hydrant installation, however hydrants should be located every five-hundred (500) feet in the course of the main or wherever the District deems necessary for proper fire protection or other uses. The hydrant shall be installed as indicated on the Drawings and as per manufacturers recommendations for the proper installation of the hydrant. The hydrant shall be set as to not bury the traffic flange to facilitate repairs without having to excavate around the hydrant. The area around the hydrant shall be graded to permit a 3 foot wide level area all around the hydrant and to provide adequate cover and support on all sides.

The Contractor shall furnish hydrants manufactured for the depth of cover over the mains at the hydrant connection and the actual ground elevation at the hydrant location. A minimum of 5 feet of cover at the inlet connection to the hydrant shall be maintained at all locations.

- B. Hydrants to be set above any potential groundwater table shall include an automatic drain feature. This shall include the necessary drain ring, seat and valve mechanism to automatically allow drainage of the hydrant barrel when the hydrant valve is fully closed. The drain ports shall be automatically closed when the operating rod is turned no more than two full turns.

When the DISTRICT determines that a hydrant will be set in a possible groundwater table, the Contractor shall install a hydrant without a drain feature. This may be done by furnishing a drain ring without drain holes or a special ring with threaded drain outlet, which must be plugged. The method shall be at the Contractor's option, as approved by the DISTRICT.

Hydrants installed without automatic drains shall have the letters "ND" painted on the hydrant barrel in two (2) inch letters just below the outlet nozzle facing the street; the letters shall be a contrasting color.

The installation of those hydrants with an automatic drain feature shall include approximately 1/3 cu. yd. of clean crushed stone placed around the hydrant base to a level several inches above the drain openings.

- C. A set-back of at least four (4) feet but less than eight (8) feet from the edge of the road, to the center point on the hydrant shall be maintained. The steamer nozzle shall face the street unless otherwise directed by the DISTRICT. Hydrants shall be connected to water mains by six (6) inch ductile iron pipe. Each hydrant installation shall include buried gate valve between the hydrant and its supply main to permit isolation of the hydrant for maintenance purposes. The auxiliary valve shall be connected to the anchoring tee unless directed otherwise by the Superintendent. The distance between the auxiliary valve and the hydrant body varies for each installation. All connections at hydrant installations shall be mechanical joint connections with plain rubber gaskets. All joints between and including the anchoring tee on the distribution main and the hydrant shall be restrained by retainer glands or rods. Hydrant ports shall be a minimum 18" above grade.

The hydrants shall be set upon a slab of concrete not less than four (4) inches thick and fifteen (15) inches square. Each hydrant shall be thrust blocked against the undisturbed vertical face of the trench with a concrete thrust block as indicated on the Drawings.

Should soil and/or trench conditions preclude the use of a concrete thrust block, additional tie rods, installed as indicated on the drawings may be used. Tie rods shall be of the number and orientation, size, material and construction as specified by the National Fire Protection Association Codes. All the rods and accessories shall be field coated with a asphalt type material prior to backfilling.

The Contractor shall take special care to ensure that all hydrants are set plumb. When hydrant installation has been completed, including surface restoration of the area

immediately surrounding the hydrant, the Contractor shall apply one field-coat of red paint to the hydrant. The paint shall be compatible with the shop coat and shall be as recommended by the hydrant manufacturer.

### **3.5 - Temporary By-Pass Piping (if required)**

- A. The Contractor shall provide temporary bypass piping in such a manner that adequate pressure shall be available to all affected residences should his work require that the water service to customers be interrupted for more than an 8-hour period. The determination of the need for temporary piping and the size of the piping and service connections is the responsibility of the DISTRICT. The Contractor shall submit his plan to the DISTRICT for approval.

**END OF SECTION**

# **Auburn Water District Water Use Restriction By-law**

## **Section One: Authority**

This by-law is adopted by the Auburn Water District (“the District”) pursuant to its powers under Massachusetts General Laws and Chapter 585 of the Acts of 1947 as amended.

## **Section Two: Purpose**

The purpose of this by-law is to protect, preserve and maintain the public health, safety and welfare whenever there is in force a state of the water supply conservation or state of water supply emergency by providing for enforcement of any duly imposed restrictions, requirements, provisions or conditions imposed by the District or by the Department of Environmental Protection.

## **Section Three: Definitions**

Person: shall mean any individual, corporation, trust, partnership, association or other entity.

State of water supply emergency: shall mean a state of water supply emergency declared by the Department of Environmental Protection under Massachusetts General Laws Chapter 21G, Sections 15 through 17.

State of water supply conservation: shall mean a state of water supply conservation declared by the District pursuant to Section Four of this by-law.

Water users or water consumers: shall mean all public and private users of the District’s water system, irrespective of any person’s responsibility for billing purposes for water used at any particular facility.

## **Section Four: Declaration of a state of water supply conservation**

The District, through its Board of Water Commissioners, may declare a state of water supply conservation upon a determination by a majority vote of the Board that a shortage of water exists and conservation measures are appropriate to ensure an adequate supply of water to all water consumers. Public notice of a state of water conservation shall be given under Section Six of this by-law before it may be enforced.

**Section Five: Restricted water uses**

A declaration of a state of water supply conservation shall include one or more of the following restrictions, conditions or requirements limiting the use of water as necessary to protect the water supply (the applicable restrictions, conditions or requirements shall be included in the public notice required under Section Six):

Odd/even day outdoor watering: outdoor watering by water users with odd numbers addresses is restricted to odd numbered days; outdoor watering by water users with even numbered addresses is restricted to even numbered days.

Outdoor watering ban: outdoor watering is prohibited.

Outdoor watering hours limited: outdoor watering is permitted only during daily periods of low demand, to be specified in the declaration of a state of water supply conservation and public notice thereof.

Filling swimming pools ban: filling of swimming pools is prohibited.

Automatic sprinkler use ban: use of automatic sprinkler systems is prohibited.

**Section Six: Public notice of a state of water supply conservation; notice to the Department of Environmental Protection.**

Notice of any provision, restriction, condition or requirement imposed by the District as part of a state of water supply conservation shall be published in a newspaper of general circulation within the District, or by such other means reasonably calculated to reach and inform all users of water of the state of water supply conservation. Any restriction imposed under Section Five shall not be effective until such notice is provided. The District shall also simultaneously provide notice of the state of water supply conservation to the Department of Environmental Protection.

**Section Seven: Termination of a state of water supply conservation; notice**

A state of water supply conservation may be terminated by a majority vote of the District's Board of Water Commissioners upon a determination that the water supply shortage no longer exists. Public notice of the termination of a state of water supply conservation shall be given in the same manner required by Section Six.

**Section Eight: State of water supply emergency; compliance with Department of Environmental Protection orders**

Upon notice to the public that a declaration of a state of water supply emergency has been issued by the Department of Environmental Protection, no person shall violate any provision, restriction, condition or requirement of any order approved or issued by the Department of Environmental Protection intended to bring about an end to the state of emergency.

**Section Nine: Penalties**

The District's Board of Water Commissioners shall have the right to impose penalties and fines for non-compliance by the water users/consumers with any provisions of this by-law as follows:

First offense:	Warning
Second offense:	\$50.00 fine
Third offense:	\$100.00 fine
Fourth offense:	Shutoff water service plus charge of \$200.00 to reconnect when the Board of Water Commissioners is satisfied the water user/consumer will comply with this by-law.