



TOWN OF MARION, MASSACHUSETTS

**DEPARTMENT OF PUBLIC WORKS
WATER DIVISION**

RULES AND REGULATIONS

REVISED AND ADOPTED

EFFECTIVE: 01/28/21

BOARD OF SELECTMEN

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DPW Director

David Willett

Town Administrator

James McGrail

**MARION DEPARTMENT OF PUBLIC WORKS
WATER DIVISION
RULES & REGULATIONS**

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WATER DIVISION GENERAL INFORMATION

EMERGENCIES:

In case of an emergency, at times other than the office hours, a call may be made to the Marion Police Department at (508) 748-1212. All calls will be relayed to a DPW Water Division staff member for prompt attention.

OFFICE HOURS:

Office hours are Monday through Thursday: 8:00 A.M. to 4:30 P.M., and Friday: 8:00 A.M. to 3:30 P.M., closed Saturday, Sunday and legal holidays.

INFORMATION AND COMPLAINTS:

Information regarding water services, rates, rules, etc., may be obtained by calling the Water Division at (508) 748-3540. We continue to add information provided on our page via the town website: <http://www.marionma.gov>.

Town of Marion Department of Public Works
Water Division
50 Benson Brook Road
Marion, MA 02738

BOARD OF WATER & SEWER COMMISSIONERS MEETINGS:

Meetings are generally held on the 1st and 3rd Tuesday of each month at 7:00 P.M., at the Marion Town Hall Conference Room, 2 Spring Street, Marion, MA 02738.

**MARION DEPARTMENT OF PUBLIC WORKS
WATER DIVISION
RULES & REGULATIONS**

INTRODUCTION

These rules and regulations were adopted by the Board of Water & Sewer Commissioners as amended and constitute a contract with every person, corporation and property owner supplied by the Marion Department of Public Works Water Division. It is the policy of the Board of Water and Sewer Commissioners that the source of potable water for each structure in Marion shall be from the Department of Public Works Water Division unless there is sufficient justification for the Commissioners to agree to an alternate source. Every consumer served by this supply is considered as having expressed consent to be bound by these rules and regulations.

The Board of Water & Sewer Commissioners, reserves the right to add, delete or otherwise modify these regulations at any time. Each consumer is responsible for payment for the use and benefit of water supplied by the Town of Marion, regardless of whether that use and benefit is within or outside of the Marion corporate boundary. Failure to know and understand the rules and regulations will not excuse anyone from the consequences of neglect of such rules and regulations. This document is not intended to be a comprehensive summary of all applicable federal, state and local regulations governing public water supplies.

Appendix A provides Water Division general information with respect to emergencies, contact phone numbers, and associated committee meetings.

SECTION 1 - WATER RATES

- 1.1. Rates will be set forth by the Board of Water & Sewer Commissioners. The current rate schedule is available at the Water Division administrative office, listed on bills, and listed on the Town website.

SECTION 2 - BILLING

- 2.1. Bills will be rendered in September, December, March and June of each fiscal year and will cover the water used during the previous 3-months plus the base rate. For new services, water bills will begin with the date of the application through the end of the billing period. Time and frequency of billing is subject to change without notice by the Board of Water Commissioners.
- 2.2. Any bill not paid within 30 days of the billing date is subject to a \$10.00 demand charge and interest penalty of 14 per annum which will be calculated daily until full payment is received. For any bill not paid within 14 days of the demand date, a lien totaling the amount outstanding plus the lien fee and interest will be registered at the Plymouth County Registry of Deeds against the property. Paying the amount of the lien plus the lien fee and penalty interest may discharge the lien, in accordance with MGL, Chapter 40, Section 42A-42D. The Water Division reserves the right to discontinue service due to outstanding unpaid bills that are 90 days or more past due.
- 2.3. All water that passes through a meter will be billed to the property owner regardless of leaks, burst pipes or irrigation use, and regardless of the location of the property being

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- supplied such water, including but not limited to, the supply of water located in municipalities other than the Town of Marion.
- 2.4. If the Water Division is unable to obtain a water meter reading from a property, written notice will be given to the owner. If the Water Division is unable to access the meter within 14 days of notice, a \$75.00 charge will be added to the next bill of said owner.
 - 2.5. When a meter is found stopped, the bill will be figured by the average consumption of the last three years or by multiplying the number of occupants by 750 cubic feet for three months.
 - 2.6. Owners of premises will, in all cases, be billed for water used by tenants and any other user(s) of the water supplied to the property. There will be a \$75.00 charge for any meter reading taken for the convenience of the tenants.

SECTION 3 - RESPONSIBILITY FOR PAYMENT

Owners of property will be held responsible for the payment of water bills, regardless of the location of the property being supplied such water, including but not limited to, the supply of water located in municipalities other than the Town of Marion. Property owners must notify the Water Division of any changes in mailing addresses. Failure to receive a bill or failure of a seller to notify the Water Division of change of ownership does not relieve the property owner, at the time of bill issuance, from the obligation of payment of the bill or any penalties or interest incurred. Property owners are responsible for all charges for water service until written notice has been received by the Water Division to discontinue the service or change of ownership. Payments owed the Town of Marion for the supply of water shall be paid promptly. Pursuant to applicable law in effect at the time, and in addition to other legal and equitable remedies available to the Town, the Board of Water and Sewer Commissioners shall have the authority to order the shut off of water service to any address or property should payments owed the Town of Marion for prior delivery of water not be paid within ninety (90) days from the issuance of the unpaid water bill.

SECTION 4 - ABATEMENTS

- 4.1. Any abatement requests must be made in writing (using the "Request for Abatement" form in Appendix B) and received at the Water Division administrative office within 30 days of the bill date. Payment of a bill must not be held up awaiting abatement. Any abatement requests received after the due date on the bill will not be accepted.

Section 5 - APPLICATION FOR WATER SERVICE

- 5.1. The Water Division must approve all applications for water service. The property owner must submit an 'Application for Supply of Water' form (see Appendix A) and connection fee to the Water Division for approval. Notwithstanding the failure of any property owner to submit an "Application for Supply of Water" or the Town of Marion's approval of the same, any property receiving water from the Town of

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Marion shall be responsible for payment pursuant to the terms and conditions contained herein.

- 5.2. Applications for water services to be used for agricultural purposes, sprays, etc. are regulated by the Massachusetts Department of Environmental Protection's Cross Connection Prevention Regulations and subject to approval by the Water Division.
- 5.3. When an application is received for a temporary water service where the pipes are to be laid on the surface, the Water Division may decide whether the application be accepted or rejected. If accepted, the terms of acceptance are to be written on the application.

SECTION 6 - SERVICE CONNECTIONS

- 6.1. No person other than Water Division personnel shall turn on/off any water services from the street or sidewalk box.
- 6.2. All persons requesting water service mark-outs for the purpose of making repairs or installations must give 48-hour notice to the Water Division. All mark-outs on private property are done as a courtesy only; the Town will not be held liable for any inaccuracies.
- 6.3. If, after an original installation, a property owner desires to alter the size of the service or meter, or change the location of service, the owner should submit a "Request for Service Change" form (see Appendix A). The entire work, starting from the town main, will be done at the owners expense
- 6.4. Replacement of a service, on town property, due to deterioration, will be done at the expense and the discretion of the Water Division.
- 6.5. Basic charges for a water service start accruing from the date of application whether or not the service is active at that time.

SECTION 7 - INSTALLATION OF WATER SERVICES

- 7.1. Water services, including pipe from the water main to the water meter, are to be installed as prescribed in regulations current at the time of installation. Water service installation will be at the expense of the property owner, such expense being reckoned as from the center of the street in all cases, regardless of which side the existing main may be on, and this cost must be paid in advance before any installation work begins.
- 7.2. All fixtures and fittings used in water service installations, from the water main to the curb stop at the property line, will be installed by the Water Division and thereafter owned. The property owner is responsible for the water service installation from the curb stop at the property line to the water meter furnished with a ball valve before and after the meter.
- 7.3. The Water Division requires that all water services, laid by the property owner between the property line and the meter location, be installed according to these Rules and Regulations, and inspected and approved by their personnel before being backfilled.
- 7.4. Water services from the water main to the curb stop must be installed as far as possible in one piece. The owner's service pipe must also be installed as far as possible in one piece.

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- 7.5. Appendix B contains specific information with respect to the installation and acceptance of water mains.

SECTION 8 - METERS

- 8.1. All active water services must be metered. Each building and/or tax lot is to have a single separate service line, separate meters for irrigation are not permitted. The Town will include all meter repairs due to ordinary wear, but in all such cases, the owner will be held responsible for proper protection of the meter against freezing, vandalism, contamination or other causes. No meter or water service may be disturbed except by Water Division personnel or a person authorized by the Division. Massachusetts General Law Chapter 165, Section 11 provides for a fine of triple the amount of damages sustained thereby or \$1,000.00, whichever is greater or by imprisonment for not more than one (1) year, or both, for tampering with a water meter. Offender will also be charged for the estimated loss of water. Consumers are advised to read their meters frequently so that leaks or waste may be detected and large bills prevented.
- 8.2. Meters are routinely checked for accuracy, typically every ten years. In case of a dispute arising regarding the accuracy of a meter or if the property owner so desires, upon written application ("Request to Test Water Meter" form in Appendix A) to the Water Division, the meter in question will be removed and tested. If the test proves the meter to be correct or under registering, the owner will be charged a fee of \$3.00 according to the Massachusetts General Laws Chapter 40, Section 39I, plus a \$75.00 fee for a service call. If the test proves the meter to be over registering, the meter will be adjusted at no cost to the property owner and abatement made for any overcharge within the current year. A tolerance of 2% +/- is acceptable according to the Massachusetts General Laws, Chapter 40, Section 39I.
- 8.3. The property owner must keep the meter within the premises easily accessible for reading at all times. The Water Division must have access to all meters during the regular working hours of the Division. Failure to provide access to the meter within fourteen (14) days of a written request will result in turning off the water supply to the property at the street shut off valve. If the property owner is unable to grant access during regular working hours, he/she/it will be responsible for the overtime rate of pay for Water Division personnel to do the repair or replacement after hours.

SECTION 9 - ACCESS TO PREMISES

- 9.1. The Water Division personnel shall have access to the premises of any water consumer at all reasonable times to examine the water service and fixtures, the quantity of water used, the manner of its use, to inspect for cross connections and perform testing as mandated by the Massachusetts Department of Environmental Protection.

SECTION 10 - DISCONTINUANCE OF A WATER SERVICE

- 10.1. Voluntary shutting off of any water service by the property owner does not constitute a "Discontinuance" of such service; water charges are payable on all services, whether the water is shut off or not.

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- 10.2. A water service may be discontinued only upon written application (“Request for Discontinuance of Water Service” form in Appendix A) by the owner of the property. Water charges on such discontinued service must be paid to the date of discontinuance and a final bill will be issued. The water service must be disconnected from the municipal water system at the owner’s expense and inspected by the Water Division. Any service that is reactivated will be charged as a new service at the then current rate for the provision of water.

SECTION 11 - SEASONAL/NON EMERGENCY SHUT DOWN OF A WATER SERVICE

- 11.1. A water service will be turned off/on at the street by Water Division personnel when the owner requests service for opening/closing a seasonally property or for non-emergency work related service. The owner must give the Water Division a 48-hour notice for these requests. A fee of \$75.00 will be charged for these services.

SECTION 12 - EMERGENCY CALL OUT

- 12.1. If the Water Division is contacted by a customer to address an emergency situation, outside of regular hours of operation, a flat rate fee of \$150.00 will be charged for this service.

SECTION 13 - WATER DIVISION NOT LIABLE FOR INTERRUPTIONS OF SERVICE

- 13.1. The Water Division shall not be liable or responsible for inconvenience or damage due to interruption or fluctuation of service. If, by reason of shortage of supply for the purpose of additions, making repairs, extensions, connections, placing or replacing meters, moratoria orders issued by the federal, state or Town of Marion, or for any reason beyond the control of the Water Division, it becomes necessary to shut off a water main or service, the Water Division shall not be responsible for any damages occasioned by such shut-off, and no adjustment of rates will be allowed. No person will be entitled to damages or any portion of payment refunded, for any interruption of supply.

SECTION 14 - SHUTTING OFF WATER WITHOUT NOTICE

- 14.1. It is the intention of the Water Division to give notice when practicable, and as far in advance as possible, of any work which must be done that will necessitate interruption of a water supply. Such notice is to be considered a courtesy and not a requirement of the Water Division. In case of an emergency, water may be shut off at any time without notice.

SECTION 15 - DIRTY WATER

- 15.1. The Water Division will not be responsible for damage resulting from discolored or unsatisfactory water service when caused by a water main break, cleaning or repair of a water main or water tank, the opening or closing of any valves or hydrants, or any abnormal condition, unless caused by the lack of responsible care by the Water Division personnel.

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SECTION 16 - CROSS CONNECTION CONTROL

- 16.1.** Unprotected cross connections are strictly forbidden in accordance with Chapter 111, section 160A of the Massachusetts General Laws, Federal Safe Drinking Water Act of 1974 (Public Law 93-523) and the Drinking Water Regulations of Massachusetts (310 CMR 22.22). No persons may have upon premises they own or occupy, a physical connection between the distribution systems of a public water supply, and the distribution system of an unapproved water supply, unless the installation has been reviewed and approved and permits have been issued, all in accordance with these Rules and Regulations.
- 16.2.** The Water Division has the authority to terminate any water service connection to any facility where cross connections exist without the required and approved backflow prevention devices.

SECTION 17 - HYDRANT USE

- 17.1.** Public fire hydrants are installed for the purpose of fire protection and water maintenance, and will not be used for other purposes without the written consent of the Water Division or the Chief of the Fire Department. In no case are fire hydrants to be operated by any person other than Water Division personnel or the Fire Department. The unapproved use of fire hydrants for any other purpose will be considered Illegal Use.
- 17.2.** When any party is found to be using water from a fire service as an Illegal Use, the water will be shut off until the offenders give reasonable assurance that the offense will not be repeated. The Water Division will enforce charges in accordance with any applicable Federal laws including Title 42, Chapter 6A, Subchapter XII of the US Code against every person who performs any of the following: bypass, tamper, illegally connect or otherwise interfere with, or threaten to interfere with the proper operation of the public water system.

SECTION 18 - WATER USE RESTRICTIONS / WATER CONSERVATION

- 18.1.** During particularly dry spells in the summer, it becomes necessary to restrict the use of water to domestic purposes only, prohibiting the use of hose or sprinkler on lawns and gardens, except as designated by the Board of Water and Sewer Commissioners. The Town strictly enforces three tiers of water use restrictions, which are subject solely to the decision of the Board of Water and Sewer Commissioners, and are described herein:
- 18.1.1.** Tier I - Mandatory water restrictions in effect from June 15th through September 15th. The use of outside watering is prohibited except between the hours of 6:00 AM and 8:00 AM, and between the hours of 6:00 PM and 8:00 PM, Monday, Wednesday, and Friday for even street-numbered homes, and Tuesday, Thursday and Saturday for odd-street numbered homes. Residents may wash vehicles and water plants on Sundays by means of a hand held hose between the hours of 6:00 AM and 12:00 Noon.
- 18.1.2.** Tier II – Effective immediately upon determination of the Water & Sewer Commissioners. The use of outside water is prohibited except between the

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hours of 6:00 PM and 8:00 PM, Monday, Wednesday and Friday for even street-numbered homes and Tuesday, Thursday and Saturday for odd street-numbered homes. Not outside watering is allowed on Sundays.

- 18.1.3.** Tier III - Effective immediately upon determination of the Water & Sewer Commissioners. No outside watering of any kind is allowed until further notice. Once the ban is no longer necessary, all customers will be notified.
- 18.2.** Water use restrictions will be strictly enforced. Any person violating the State of Water Supply Conservation Bylaw will be liable to the Town in the amount of \$50.00 for the first violation and \$100.00 for each subsequent violation.
- 18.3.** Water conservation suggestions are available at the Water Division Office.
- 18.4.** Consumers are encouraged to use water saving devices where possible.

SECTION 19 - VIOLATIONS OF REGULATIONS/PENALTIES

- 19.1.** If the owner, agent, lessee, tenant or person in charge of any premises, violates any rule or regulation of the Water Division affecting said premises, and fails to remove any violation or comply with any written order pertaining thereto within 30 days after which order has been sent by mail to the last known address of such person, the Water Division, in its sole discretion, may discontinue service to such premises. If the violation constitutes a health or safety hazard, the water service will be discontinued immediately. The water service will not be restored until the rule or regulation so violated has been complied with to the satisfaction of the Water Division, and all fees have been paid for turning the water off and on.
- 19.2. SYSTEM TAMPERING:** No person, except as authorized by the Water Division, may operate any hydrant, valve, or otherwise tamper with any part of the Public Water Supply System or appurtenances thereof, under penalty of the laws of the State of Massachusetts governing Public Water Supply Systems (Chapter 165, Section 11 of the Massachusetts General Laws). The sabotage of a public water system, or even the threat of sabotage, is a federal offense (Title XIV, Section 1432 of the Federal Safe Drinking Water Act P.L. 99-339).
- 19.3. PENALTIES:** Any person found in violation of rules, regulations or policies will be fined \$50 (first offense), \$100 (second offense) and \$150 (third offense). The Water Division may order the shut-off of the water to the violator's premises upon violation of these regulations. If the water has been shut off as a result of a violation of these rules, it will not be turned on until the Water Division is satisfied that there will not be any further cause for complaint, and charges have been paid to cover the cost of shutting off and turning on the water.

SECTION 20 - PERMITS

- 20.1. PERMIT TO DISTURB SURFACE:** Any work that requires the surface of any roadway to be disturbed requires submission of a completed "Street Opening Permit" form (see Appendix A). The permit application must be completed and submitted to the Marion Department of Public Works for review and approval prior to the start of work. A \$75.00 permit application fee will be charged. A "Street Opening Permit"

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form is different than a “Trench Permit” form, described below and may be required in addition to a “Trench Permit” form.

- 20.2. TRENCH PERMIT:** All work that requires excavation into the ground surface requires submission of a complete “Trench Permit” form. The permit application must be completed using the Marion Building Department’s online permitting program. A copy will then be forwarded to the Department of Public Works by the Marion Building Commissioner. The permit must be issued prior to the start of any excavation. A “Trench Permit” is different than a “Street Opening Permit” form, described above and may be required in addition to a “Street Opening Permit” form.

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APPENDIX A

FORMS

TOWN OF MARION
Water & Sewer Rate Schedule
FY21

The consumption periods are March 1st – May 31st (bills will be sent in June) June 1st – August 31st (bills will be sent in Sept) Sept 1st – Nov 30th (bills will be sent in Dec) Dec 1st – Feb 28th (bills will be sent in March).

All charges are due and payable 30 days from the original billing date. Delinquent accounts will be charged a \$10.00 demand fee and interest of 14% per annum will be calculated daily until full payment is received.

<u>Metered Water Rates</u>	
\$40.12 per 1,000 cu. ft. (1 to 1,000 cu. ft.)	
\$96.76 per 1,000 cu. ft. (1,001 to 2,000 cu. ft.)	
\$153.47 per 1,000 cu. ft. (2,001 cu. ft. and over)	
<u>Metered Sewer Rates</u>	
\$71.95 per 1,000 cu. ft. (1 to 1,000 cu. ft.)	
\$203.42 per 1,000 cu. ft. (1,001 to 2,000 cu. ft.)	
\$320.51 per 1,000 cu. ft. (2,001 cu. ft. and over)	

Basic Charges
Basic charges for water & sewer are based on the meter size.

	<u>Water</u>	<u>Sewer</u>
5/8" x 3/4"	\$ 43.08	\$ 130.67
3/4"	\$ 57.43	\$ 196.02
1"	\$ 95.71	\$ 326.69
1-1/2"	\$ 191.42	\$ 653.37
2"	\$ 306.28	\$ 1,045.39
3"	\$ 610.16	\$ 2,090.79
4"	\$ 954.72	\$ 3,266.87

1. All meters used by water & sewer customers shall be furnished and owned by the Town of Marion. Any meter injured by frost, or through negligence of a water customer shall be repaired or replaced at the owner's expense.
2. All water that passes through a meter will be charged to the customer; regardless of leaks, burst pipes, or irrigation use.
3. Failure of owner or customer to receive a bill does not relieve him/her from obligation of its payment or consequences of nonpayment.
4. No person except the authorized employee of the Water Division will be allowed to install, remove, or repair any meter.
5. The property owner or customer must keep such meter accessible for reading and inspection at all times.
6. When a meter fails to register the consumption, the quantity shall be estimated either by the previous readings or by the number of people living in the house during that time.

**ANY ABATEMENT REQUESTS MUST BE RECEIVED AT THE MARION
DEPARTMENT OF PUBLIC WORKS OFFICE WITHIN 30 DAYS OF THE BILL DATE.
FORMS ARE AVAILABLE AT THE MARION DPW OFFICE.**

TOWN OF MARION
Connection Fees
FY21

MARION PUBLIC				
WATER CONNECTION FEES	TAP	* 5/8" X 3/4"	MATERIAL	TOTAL
1" TAP & METER ONLY	\$ 125.00	\$ 275.00	N/A	\$ 400.00
1" SERVICE	\$ 125.00	\$ 275.00	\$ 550.00	\$ 950.00
1.5" SERVICE	\$ 150.00	\$ 275.00	\$ 625.00	\$ 1,050.00
2" SERVICE	\$ 175.00	\$ 275.00	\$ 825.00	\$ 1,275.00
<i>* IF LARGER METER IS REQUESTED CHECK CORRESPONDING PRICE BELOW</i>				

MARION PRIVATE/ROCHESTER				
WATER CONNECTION FEES	TAP	* 5/8" X 3/4"	MATERIAL	TOTAL
1" TAP & METER ONLY	\$ 125.00	\$ 275.00	N/A	\$ 400.00
1" SERVICE	\$ 125.00	\$ 275.00	\$ 250.00	\$ 650.00
1.5" SERVICE	\$ 150.00	\$ 275.00	\$ 325.00	\$ 750.00
2" SERVICE	\$ 175.00	\$ 275.00	\$ 525.00	\$ 975.00
<i>* IF LARGER METER IS REQUESTED CHECK CORRESPONDING PRICE BELOW</i>				

SEWER CONNECTION FEES	
GRAVITY SEWER	\$ 10,000.00
PRESSURE SEWER (NEW CONSTRUCTION)	\$ 10,000.00
PRESSURE SEWER (EXISTING CONSTRUCTION)	\$ 10,000.00

INFLOW & INFILTRATION FEE - Additions or New Construction
PLEASE SEE SEWER FEE SHEET

METER INFORMATION	COST OF METER	QUARTERLY BILLING FEES	
		BASIC WATER	BASIC SEWER
SIZE			
5/8 X 3/4"	\$ 275.00	\$ 43.08	\$ 130.67
3/4"	\$ 325.00	\$ 57.43	\$ 196.02
1"	\$ 356.00	\$ 95.71	\$ 326.69
1.5"	\$ 618.00	\$ 191.42	\$ 653.37
2"	\$ 838.00	\$ 306.28	\$ 1,045.39
3"		\$ 610.16	\$ 2,090.79
4"		\$ 954.72	\$ 3,266.87



TOWN OF MARION – WATER DIVISION
P.O. BOX 1050
50 BENSON BROOK ROAD
MARION, MA 02738

PHONE: 508-748-3540

FAX: 508-748-3864

APPLICATION FOR SUPPLY OF MUNICIPAL WATER

DATE: _____

APPLICANT: _____

SERVICE ADDRESS: _____

TAP SIZE: _____ METER SIZE: _____

Purpose for which water is to be used: Domestic Commercial Industrial

I hereby agree to pay for water from said pipes and such other fixed charges therefore, and be subject to the rules and regulations now established by the Board of Selectmen, with such additions and amendments from time to time as the Selectmen may find necessary.

If plastic material is used on my property for this service I agree to use tracing tape on the service. I further understand that the Water Division will only do mark-outs of this water service as a courtesy and that the Town will not be held liable for any damage done on my property due to an inaccurate mark-out.

I understand that this water service becomes an active service as of the date of payment for this application.

The Department of Public Works, Water Division, must be called for an inspection when the water connection is complete. Please contact 508-748-3540 to schedule an appointment.

Applicant Signature: _____

Mailing Address: _____

Phone #: _____

Lot: _____ Plot: _____ Public Way: _____ Private Way: _____

If Private, Street Ownership: _____

Developer's Approval (Signature): _____

Type of Pavement: _____

Patch Requirements: _____

Date Approved for Connection: _____

Service #: _____ Date Completed: _____



TOWN OF MARION
DEPARTMENT OF PUBLIC WORKS
P.O. BOX 1050
50 BENSON BROOK ROAD
MARION, MA 02738

PHONE: 508-748-3540

FAX: 508-748-3864

REQUEST FOR WATER METER CHANGE

DATE: _____ ACCT #: _____

NAME: _____

ADDRESS: _____

PRESENT METER SIZE: _____

METER SIZE REQUESTED: _____

If approved, I the undersigned, fully understand that I purchase the meter from the Town of Marion and the old meter will be given to the Town. Any adapting down will be my responsibility and at my expense, which includes any plumbing work needed.

Signature

Approved: _____ Not Approved: _____

Appointment Date: _____

Signature: _____



TOWN OF MARION – WATER DIVISION
P.O. BOX 1050
50 BENSON BROOK ROAD
MARION, MA 02738

PHONE: 508-748-3540

FAX: 508-748-3864

REQUEST TO TEST ACCURACY OF WATER METER

DATE: _____ ACCT #: _____

NAME: _____

ADDRESS: _____

I hereby request that the water meter at the above address be tested for accuracy. I have read Chapter 40, Section 39I of the General Laws as amended, which states:

Any person using water supplied by a city, town or district, measured by a meter, shall be entitled to an examination and test of such meter to determine the accuracy of the same in any quarter or period, upon written application therefore, which shall be made before the expiration of time when the rate for such quarter or period is required to be paid, to the board, commissioner or officer in charge of the water works of the city, town or district. Such examination and test shall be furnished to the person making the application, and if it appears that the meter has registered with substantial accuracy, the expense of the examination and test shall be paid by the person applying therefore, and in no case shall the expense so required to be paid exceed three dollars for each examination and test, but if it appears that the meter has not registered within two percent of accuracy and that the person has been charged with, or has paid for, more water than he should have been charged with or should have paid for, the amount of excess shall forthwith be credited to such person or remitted to him if he had paid the same, and the expense of the examination and test shall be borne by the city, town or district supplying the water; if, however, it appears that the person has been charged with, or has paid for, less water than he should have been charged with or should have paid for, he shall forthwith be charged with the proper additional amount and shall pay the same, together with the expense of the examination and test, to the city, town or district supplying the water.

Signed: _____

Mailing Address: _____

Phone: _____

TOWN OF MARION

Permit issued by:
Department of Public Works
50 Benson Brook Road
Marion, Massachusetts 02738
Phone (508) 748-3540

Permit No. _____

Dig Safe No. _____

Permit Fee: \$75.00

STREET OPENING PERMIT

Date of Application: _____

Reason for Opening: Gas _____ Communication _____ Electric _____ Sewer _____ Water _____ Other _____

Applicant Information			
Name of Licensed Contractor/Excavator:		MA Hoisting License Number:	
Street Address:		City/Town:	State: Zip:
Phone Number:	24-Hr Emergency Number:	Email:	
Owner Information (if different than Applicant):			
Name of Owner:		Street Address:	
Mailing Address:		City/Town:	State: Zip:
Phone Number:	24-Hr Emergency Number:	Email:	

Work Location:			
Street Address:		City/Town:	State: Zip:

Work Description (attach additional sheets if necessary):

Pavement Disturbance Dimensions: _____

Link for Construction Standards: <https://www.mass.gov/doc/2020-standard-specifications-for-highways-and-bridges/download>

Backfill material must be dense grade unless otherwise specified.

<p>Check and furnish all information under this Section – Failure to do so may result in the Permit not being processed:</p> <p><i>Note: the DPW Director reserves the right to waive the fee and surety bond.</i></p> <p><input type="checkbox"/> \$75 Fee Submitted/Check No. _____ Proposed Start Date: _____</p> <p><input type="checkbox"/> Applicant 24-Hour Emergency Number Proposed End Date: _____</p> <p><input type="checkbox"/> Copy of Plans and Specifications (if applicable)</p> <p><input type="checkbox"/> Certificate of Insurance (\$1,000,000 per occurrence / \$2,000,000 aggregate / \$5,000,000 umbrella)</p> <p><input type="checkbox"/> Applicant included on the Town’s Licensed Installers List</p> <p><u>Surety Bond - Two Years (choose one)</u></p> <p><input type="checkbox"/> Pavement disturbance less than 80 square feet: \$10,000 minimum</p> <p><input type="checkbox"/> Pavement disturbance greater than 80 square feet: Minimum Bond Value As specified by the Department of Public Works: _____</p>

By signing this application, the applicant understands and agrees to comply with the following:

By applying for, accepting and signing this permit, the applicant hereby attests to the following:

(1) that they have read and understand the regulations promulgated by the Department of Public Safety with regard to construction related excavations and trench safety; (2) that they have read and understand the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 et seq., entitled Subpart P "Excavations"

This permit is issued and accepted upon the condition that the company accepting it shall, in all respects, conform to the statutes, the bylaws of the Town of Marion, MA and the specifications in this permit and that any violation thereof shall result in an immediate revocation; that said company shall indemnify and save harmless the said Town of Marion, MA from any damage it may sustain or be required to pay by reason of any act or neglect of itself or any of its employees relating to such work, or by reason of any violation of any specification in this permit, shall place and maintain a safe and convenient way satisfactory to said Department for public travel, around or over such places; shall not disturb or interfere with any pipes, wires or sewers lawfully laid in such streets or connected therewith, and that if it does not within the time prescribed put the street into good condition satisfactory to said Department, it shall forfeit whatever sums the Department shall expend for having said restoration and repairs made, from monies or sureties on deposit with the Town, held for this purpose. Also, should any portion of the street, which has been excavated, require repairing or resurfacing within a period of two years from the time it has been disturbed, the said Department or its agents shall notify the said company to make such repairs as in its opinion are necessary, and in case of the failure of the said company to make such repairs within one week from the date of said notification, then the department shall have the right to make contract with others to make such necessary repairs. All of said expenses and costs shall be deducted from the bonds and or sureties on deposit for this purpose. At the expiration of the two-year warranty all such unencumbered funds or sureties will be released to the contractor holding this permit. However, such work required to be done after the expiration date of the permit shall require a new permit for subject repairs, etc. The amount of surety held under the initial permit will be reviewed and if deemed sufficient to cover all costs attendant on the current repairs, no new bond or surety will be required.

If a trench permit is required, please contact the Marion Building Department at 508-748-3516.

Conditions of this permit: (1) Work must commence within 60 days of issuance of this permit. (2) the Contractor must coordinate with the Department of Public Works Office for notification of planned construction date(s) at least 72 hours in advance of the start of construction. (3) the Contractor is responsible for obtaining appropriate police details. (4) as built drawings shall be provided by the Contractor within 60 days upon completion of the project. (5) no permit shall be issued if monies are in arrears to the Town.

Applicant Signature

Date

FOR OFFICE USE ONLY:

5-Year Moratorium: Yes No

Approved By: _____
Public Works Director

Date: _____

Completion
Inspection: _____
Engineering Manager

Date: _____

Warranty
Inspection: _____
Engineering Manager

Date: _____

**MARION DEPARTMENT OF PUBLIC WORKS
WATER DIVISION
RULES & REGULATIONS**

APPENDIX B

SPECIFICATIONS

FOR

**INSTALLATION & ACCEPTANCE
OF WATER MAINS**

GENERAL REQUIREMENTS

All materials used shall be approved by the Water Division before installation and shall be installed in accordance with the manufacturer's recommendations.

INTRODUCTION

1. PLANS AND DIMENSIONS:

The Contractor shall furnish a complete set of plans of the proposed water main installation for approval by the Board of Water and Sewer Commissioners and Water Division prior to construction of the water main, showing a street layout, property lines and subdivision boundaries. These plans shall be made by a Registered Land Surveyor, Professional Engineer or other qualified person. The Water Division reserves the right to alter the location of the water main shown in order to provide the best method of water service.

2. RECORD DRAWINGS:

Following the completion of the installation, the Contractor shall provide the Water Division with two (2) sets of record plans showing the actual location of all water mains including fittings, valves, hydrants, service connections, curb stops and boxes. The Contractor shall also provide the location of gate boxes (installed over all gate valves) with at least two ties to houses, telephone poles, hydrants or other objects located within 100 feet of the respective gate box. The Contractor shall provide the location of each service box (installed over each curb stop) and corporation installed at the water main with ties from the service box and corporation to each front corner of the house into which the service is installed, together with the distance from the corporation to the curb stop.

3. DIG SAFE:

The Contractor is solely responsible for determining the actual locations of all existing utilities, including services. Contractor shall call "Dig Safe" (1-888-344-7233) for field location of all utilities prior to commencement of construction and provide the Water Division with associated Dig Safe numbers. In addition, the Contractor shall contact the Marion DPW for water, sewer and drain line locations. Dig Safe markings shall be maintained throughout the duration of the work and re-marked as necessary.

4. PROTECTION OF WORK:

All work is to be carefully protected so that no injury will come to it from water, frost, accident or other cause, and any injury that may come to the work is to be repaired by the Contractor at his expense.

5. WORK IN PROGRESS AND FINAL:

Extreme care shall be taken that the work and all appurtenances shall be done carefully and completely, and, if later, errors, leaks, or poor work are discovered that they shall be thoroughly repaired and rectified by the Contractor/Developer/Owner for up to one (1) year after the acceptance of the entire system by the Water Division.

6. SANITARY CONVENIENCES:

The Contractor shall provide all necessary sanitary conveniences, properly secluded from public observation and shall carry out all directions relating to same given by the Water Division.

7. CARE OF MATERIALS:

The Contractor shall have charge of and be liable for the loss of, or damage to, any materials delivered to him, or in the vicinity of the work to be used thereon and shall furnish men to handle them for examination by Water Division personnel and shall keep trimmed up piles so placed as not to endanger the work. All materials so delivered, whether furnished by the Contractor or the Town, and all refuse, rubbish and materials until removed shall not occupy private land without approval of the Department of Public Works Director and permission from the owner.

8. MATERIALS TO BE REMOVED:

The Contractor is to promptly remove from the work and its vicinity all rejected materials and the surplus earth, refuse, rubbish and excavated materials to such points as shall be directed by the DPW Director and shall dispose of them without expense to the Town.

CONDITIONS OF CONSTRUCTION

1. PIPING REQUIREMENTS:

The piping system shall meet the following minimum requirements and shall be subject to the approval of the Water Division:

- a. Pipe shall be Ductile Iron Class 52 or Poly Vinyl Chloride (PVC) C900.
- b. Hydrants shall be spaced at 500 feet maximum.
- c. Hydrants along a street shall be installed on the 'short-side' of the street relevant to the water main and at the back side of sidewalks, where applicable.
- d. Every hydrant shall be equipped with a 6-inch shut-off valve, bolted to the hydrant anchor tee.
- e. In-line valves shall be spaced no more than 1,000 feet apart or as determined by the Water Division.
- f. Connections to the existing water distribution system shall be made by a cut-in and installed with a tee and three valves, subject to the discretion of the DPW Director. Under various circumstances, the Water Division may allow the use of a tapping sleeve and valve.
- g. Dead ends shall be avoided by looping of all water mains. Acquisition of property or easements and related engineering services necessary for looping shall be the responsibility of the developer. The Water Division Director shall determine easement width. The easement shall be dedicated for the purpose of supplying water only; all other utilities, i.e. gas, electric, sewer, telephone, etc., shall be prohibited.
- h. All water mains and service pipe shall be laid in a trench separate from any other utility. The horizontal distance between water mains or service pipe and any other utility shall be a minimum of ten feet. Exception to this rule shall be at the discretion of the DPW Director.

- i. All materials shall be in accordance with 'Marion Materials Standards'-. All materials shall be new and shall be of the type currently used by the Water Division.
- j. All construction shall be in accordance with 'Marion Construction Standards'. All construction shall be of the best quality, in accordance with the current practice of the Water Division.

2. TIME FRAME FOR CONNECTIONS:

Connections to the existing water distribution system may be made only during the period beginning April 15th and ending November 15th of one calendar year. Work outside of this timeframe is subject to approval from the DPW Director.

3. NEW SUBDIVISION AND DEVELOPERS RESPONSIBILITY:

Connections to the existing water distribution system for new subdivisions shall be made by Water Division personnel unless otherwise authorized by the DPW Director. The developer shall pay the full cost of labor, materials and equipment required for construction of the connection by Water Division personnel. Water service connections and water main tie-ins are subject to fees set forth by the Water Division.

Construction of water mains and water service connections are generally conducted by the developer who shall be responsible for the full cost of labor, material and equipment required for construction of the water mains and service connections. Construction of said water mains and service connections shall be as shown on the construction plans approved by the Water Division. At the request of the developer, the Water Division may waive this requirement and allow the developer to construct the water mains and service connections utilizing a contractor approved by the Water Division.

4. PIPING SYSTEMS:

All piping systems constructed as service connections and located on private property shall be under the control of the Water Division for the use of the premises where laid and shall be maintained at the expense of the property owner. The piping system, which includes gates, hydrants, fittings, etc., shall be maintained in accordance with the standards of the Water Division.

All water main piping systems that are either originally or subsequently in accepted streets and/or public ways shall belong to the Water Division. These pipes will be considered a part of the Water Division water distribution system.

5. INSPECTION OF CONSTRUCTION:

All construction by the developer's contractor shall be subject to full-time inspection by either Water Division personnel (when available) or by personnel of its consulting Engineer. The cost of such inspection shall be charged to the developer. The developer shall coordinate the construction activity so that this full-time inspection can be provided easily and economically.

Construction by Water Division personnel will not require inspection.

6. **WATER SYSTEM USAGE:**

The developer and/or its contractor shall not operate any hydrants, valves, curb stops or corporations, nor shall they draw any water from the system without the specific approval of the Department of Public Works Director.

No contractor, developer, or any other entity shall be allowed to use Town water for building, construction, or private purposes without written authorization of the DPW Director. Any such temporary water service will be subject to charges for installation and for water usage, as well as a service charge each time the Water Division has to turn it on or off. Water usage will be metered or estimated and will be charged for at the prevailing wage rates at the time of use.

Only Water Division personnel will operate valves, hydrants, corporations and curb stops, after authorization by the Department of Public Works Director. Failure to conform to these requirements will result in an assessment and loss of water service.

EXCAVATION AND PREPARATION OF TRENCH

1. **REGULATIONS AND PERMITS:**

All excavations shall comply with the provisions of Associated General Contractors of America, Inc. (AGCA) "Manual of Accident Prevention in Construction", Occupational Safety and Health Administration (OSHA), United States Department of Labor Requirements, American National Standards Institute (ANSI) "Safety Regulations for Construction and Demolition", American Society for Testing & Materials (ASTM), American Water Work Association (AWWA) Standards and the Massachusetts Highway Department "Standard Specifications for Highways and Bridges". The Water Division also requires a Permit to Disturb Surface, Trench Permit and associated fees.

2. **PROTECTION OF PROPERTY:**

Care shall be taken to preserve and protect from damage all property either public or private along and adjacent to the line of work. All existing pipes, culverts, poles, wires, fences, mailboxes, stonewalls, curbs, bounds, etc., shall be temporarily removed, supported in place or otherwise protected from injury, and shall be restored to at least as good condition as that in which they were found immediately prior to the start of work. Lawns, shrubs, bushes, planting beds and decorative trees disturbed or damaged shall be restored to a condition equal to that found prior to the start of work.

3. **EXCAVATION:**

All trench excavation shall be accomplished by open cut method. Excavating trenches in roadways having an improved pavement, the pavement shall be cut prior to excavation using a water cooled abrasive saw, pneumatic chisel or a wheel cutter attached to a front end loader. Bracing and support of all trench excavation shall meet all requirements of Local and State ordinances and OSHA regulations.

4. **TRENCH SIZE:**

Trenches shall be excavated to the necessary width and depth for proper installation of pipe and shall have vertical sides to 12-inches above the pipe. Widths of trenches shall provide

12-inches of clearance between the sides of the trench and the outside face of the pipe. Maximum trench width (to 12-inches above the pipe) shall be pipe diameter plus 36-inches. Above 12-inches over the pipe, the maximum trench width shall be as close to the above width as installation requirements allow. Trench depth shall be a minimum of 6-inches below the pipe barrel, or ¼ of the pipe diameter, whichever is greater. Trenches should be excavated to a depth that allows for a minimum of 5 feet of cover from the top of installed pipe to ground surface.

5. ROCK EXCAVATION:

Rock shall be removed to the limits of the trench and be removed to provide clearance of at least 6-inches below and on each side of all pipes, valves and fittings. Ledge shall be removed to a depth of 6-inches below the bottom of pipe and at least 2 feet greater in width than the inside dimension of the water main.

6. PIPE BEDDING:

6.1. Ductile Iron Pipe: gravel borrow shall be granular material, well graded from fine to coarse, with a maximum size of 3-inches, shall not contain vegetation, masses of roots or individual roots and shall be free from loam and other organic matter, clay and other fine or harmful substances.

6.2. Poly Vinyl Chloride (PVC) Pipe: concrete sand shall consist of clean, inert, hard, durable grains of quartz or other hard durable rock free from loam or clay, surface coatings and deleterious materials. Concrete sand shall meet ASTM C-33 and the maximum particle size shall be 3/8-inch.

7. WATER SERVICE EXCAVATION:

For services outside the paved areas, trench excavation shall be utilized. For services to be installed beneath paved surfaces, a pneumatic drive device such as "Hole Hog" or equal trenchless method shall be utilized to drive the new service beneath the pavement.

FURNISHING AND INSTALLING WATER MAINS AND ASSOCIATED APPURTENANCES

1. PIPE:

Ductile Iron Pipe shall be Class 52, manufactured by U.S. Pipe or approved equal meeting the requirements of ANSI/AWWA C151/A21.51. All mechanical and push-on joints and gaskets shall meet the requirements of ANSI/AWWA C111/A21.11, and lining shall conform to ANSI/AWWA C104/A21.4. Thickness of cement-mortar lining shall be 1/8-inch for pipes 12-inches and smaller and 3/16-inch for pipe 14-inches and larger, and shall be seal coated per AWWA C104. Pipe shall be provided with all necessary accessories to makeup the joint. Field Locking Gaskets shall be Field-Lok 350 type as manufactured by U.S. Pipe or approved equal, and shall be boltless, integral restraining system and shall be rated for 350 psi in accordance with the performance requirement of ANSI/AWWA C111/A21.11. Installation and jointing of ductile iron pipe shall be in accordance with AWWA C600 Section 9b and 9c, latest revision, as applicable.

PVC Pipe shall meet the requirements of AWWA Specification C900 and NSF Standard No. 61, shall be furnished in 20 foot laying lengths and shall have cast iron outside dimensions.

PVC pipe shall be pressure class 150 (DR-18) and each length will be tested at 800 psi. Joints shall be bell and spigot with a locked in gasket conforming to ASTM D3139 and ASTM F477. All joint restraint systems shall be as designed and tested for use specifically with PVC pipe.

Pipe Installation: the spigot end of the pipe and the inside of the bell end of pipe shall be thoroughly cleaned prior to joining. Care shall be taken not to exceed the manufacturer's recommended maximum deflection allowed for each joint. When laying is not in progress, including lunch time, a watertight plug shall close the open ends of the pipe. When cutting of pipe is required, the cutting shall be done by machine, leaving a smooth cut at right angles to the axis of the pipe. Cut ends of pipe to be used with a push-on type bell shall be beveled to conform to the manufactured spigot end. All ductile iron pipes shall be installed in polyethylene encasement. All PVC pipe shall be laid in trench with tracer tape at least three inches wide. No pipe shall be laid in water, in an unsuitable trench, or during unsuitable weather conditions.

2. PIPE FITTINGS

Ductile Iron Pipe Fittings shall be used for all ductile iron and PVC pipe. All fittings shall meet the requirements of ANSI/AWWA C153/A21.53, shall have a pressure rating of 350 psi, lining and coating the same as pipe, mechanical joint in compliance with ANSI/AWWA C111/A21.11 and marking on fittings shall comply with ANSI/AWWA C110/A21.10.

2.1 Anchor Tees: shall be mechanical joint, each having a bell and plain end, with a split mechanical joint on the plain end. Gate valves shall be secured directly to the tee by using the standard mechanical joint gasket and standard bolts.

2.2 Retainer Gland: shall be cast of high strength ductile iron and fitting with ductile iron wedging devices and twist-off pressure nuts.

2.3 Couplings: shall be cast or ductile iron, consisting of a middle ring, 2 rubber gaskets, and the followers with stainless steel bolts and nuts. Coupling and gasket shall be sized for the particular application intended.

2.4 Plugs: shall be ductile iron with mechanical joint push-on and retainer feature and shall be provided with a threaded corporation or bleeder valve so that air and water pressure can be relieved prior to future connection.

2.5 Sleeves: shall be ductile iron with mechanical joint, long body style meeting or exceeding the requirements of ANSI/AWWA C110/A21.10 or latest revision thereto.

2.6 Transition Couplings: shall be Dresser Style 162 as manufactured by Dresser Industries Inc., or approved equal.

2.7 Sleeve-type couplings (PVC Pipe only): shall be from domestic manufacturer equal to Style 153 for cast iron pipe and asbestos cement pipe, manufactured by Dresser Mfg. Div., Bradford, Pennsylvania or approved equal. Couplings shall be furnished with the pipe stop removed. Couplings shall be provided with plain, Grade 27, rubber gaskets and with black, steel, track-head, corrosive resistant bolts with nuts.

3. POLYETHYLENE ENCASEMENT:

Polyethylene encasement shall be according to ANSI/AWWA C105/A21.5 seamless and shall be manufactured of virgin polyethylene material conforming to the requirements of ANSI/ASTM Standard Specification D1248. The specified nominal thickness for low-

density cross-laminated polyethylene film is 0.008-inch (8 mils) and 0.004-inch (4 mils) for high-density cross-laminated polyethylene film.

Polyethylene encasement shall be provided for the entire length of new ductile iron water main and at all side street connections, and installed in accordance with AWWA C105, Method A and per manufacturer's specifications. All lumps of clay, mud, cinders etc. on the pipe surface shall be removed prior to installation, and during installation, soil or embedment material shall not be trapped between the pipe and the polyethylene. The polyethylene shall be fitted to the contour of the pipe creating a snug but not tight encasement with minimum space between the polyethylene and the pipe. Sufficient slack shall be provided in contouring to prevent stretching the polyethylene cause by backfilling operations. Overlaps and ends shall be secured with adhesive tape provided by the manufacturer.

4. BURIED VALVES AND APPURTENANCES:

Resilient Seated Gate Valves shall meet the requirements of ANSI/AWWA C509 and shall be manufactured by M&H, Type 4067, rated for 200 psi and tested to 400 psi, or approved equal. Valves shall have ductile iron body, bronze stem, fully encapsulated wedge, epoxy coated interior and exterior, non-rising stem with two O-ring stem seals, 2-inch square operating nut and open Counter Clockwise (left). Generally, valves shall be set and aligned plumb, supported by a flat stone or solid concrete block, with the trench bottom being firmly compacted. See Figure 2

Valve Boxes shall be of domestic manufacturer, shall be two piece sliding type, have a cast iron body and cover with the word "WATER" cast into the cover in raised letters and the valve box barrel shall not be less than 5-1/4-inches in diameter. Valve boxes shall be set centered and plumb over the operating nuts of all direct burial valves. The top of each valve box shall be set to finished grade with at least 10-inches of overlap remaining between the upper sections for future vertical adjustment. Minimum overlap for lower, extension pieces shall be 6-inches. See Figure 3.

5. HYDRANTS:

Hydrants shall be in full compliance with AWWA C502 and shall be American-Darling, Model B-62-B-5, by American Flow Control. No substitutions shall be allowed. Hydrants shall have barrel sections of 5-1/4 inch diameter, five foot six inch bury, two 2-1/2-inch hose nozzles, one 4-1/2-inch pumper outlet, replaceable brass nozzles, breakaway flange, six inch mechanical joint shoe and shall open counter-clockwise (left). Hydrant color shall be red.

Hydrant drainage pit shall be approximately 3 feet in diameter and filled with compacted crushed stone. An additional 6-inches of crushed stone shall be placed above the hydrant drain ports. Thrust blocking shall be placed behind the shoe of the hydrant, taking care not to block the drain outlets. The hydrant shall be set plumb and to the proper grade and shall remain properly supported until it is backfilled. After the hydrant has been set, it shall be entirely draped with burlap and remain covered until the water distribution system has been accepted and put into service. See Figure 1.

6. THRUST BLOCKS AND JOINT RESTRAINTS:

Concrete thrust blocks strength shall be 4000 psi after 28 days and shall be provided at all hydrants and fittings. Backs shall be placed against undisturbed earth, felt roofing paper shall be placed to protect pipe joints and concrete shall not be placed over bolts or nuts.

Mechanical joint restraints shall conform to ASTM A536 and shall be Megalug 1100 Series as manufactured by EBAA Iron Sales Inc., Eastland Texas or approved equal. The joint restraints shall have ductile iron wedges heat treated to a minimum hardness of 370 BHN, shall have a minimum working pressure of 350 psi for pipe diameters up to 16-inches with a minimum safety factor of 2:1 and shall be twist-off nuts. Mechanical joint restraints devices shall be installed at all fittings in accordance with the manufacturer's written instructions. See Figure 1.

FURNISHING AND INSTALLING WATER SERVICES

1. MATERIALS:

Service tubing shall conform to AWWA C901 Polyethylene Pressure Pipe and Tubing. Service tubing shall be Endopure polyethylene tubing as manufactured by Endot Industries Inc. or approved equal, shall be rated for 200 psi, have an outside diameter of copper size tube, stainless steel inserts at connection points, blue exterior and lifetime guarantee. Service tubing between the corporation stop and the curb stop shall be one piece installed with No. 12 trace wire. Service tubing between the curb stop and the house shall be one piece.

Corporation stops shall comply with C800, Underground Service Line Valves and Fittings and shall be manufactured by Mueller, Ford or Cambridge Brass or approved equal. Corporation stops shall have cast brass alloy body, ball type, double O-ring seals and be rated for 300 psi working pressure.

Curb stops shall comply with AWWA C800, Underground Service Line Valves and Fittings and shall be manufactured by Mueller, Ford, or Cambridge Brass or an approved equal. Curb stops shall have cast brass alloy body, ball type, polytetrafluoro ethylene (PTFE) coated ball, quarter turn check, double O-ring seals, compression ends for copper tubing size (CTS) outside diameter (OD) tubing, non-draining type, rated for 300 psi working pressure and shall open counter-clockwise (left). Tubing shall be connected to the curb stop and compression joints tightened. Duct tape shall be installed over the outlet end of curb stops to be left for future connections. See Figure 3.

Curb boxes shall be of domestic manufacture by Mueller, Ford, Hayes or approved equal. Curb boxes shall be 2 ½" buffalo style slide type boxes, tar coated, cast iron arch pattern base with flush-mounted covers, brass pentagon nut, and cover with the word "WATER" cast into the cover.

Service Saddles shall meet all applicable parts of ANSI/AWWA C800 and shall be manufactured by Smith-Blair or approved equal. Service saddles shall have ductile iron body, double stainless steel strap design and AWWA threads with Buna-N rubber gasket. Service saddles shall be used on all corporations larger than 1-inch installed in water mains smaller than 12-inches in diameter.

2. INSTALLATION:

For services outside paved areas, trench excavation shall be utilized, with tubing being carefully laid in the bottom of the trench, backfilled and compaction completed. Care shall be taken to protect against kinks or crushed areas. Backfill around and to 1 foot over the tubing shall not contain stones greater than 1- inch in diameter. For services to be installed beneath paved surfaces, a pneumatic drive device such as "Hole Hog" or approved equal trenchless method shall be utilized to drive the new service beneath the pavement. No. 12 tracer wire shall be installed on all water service lines.

BACKFILLING AND COMPACTING

1. MATERIALS:

Suitable materials for trench backfill shall be the material excavated during the course of construction, but excluding debris, pieces of pavement, frozen materials, organic matter, silt, top soil, ledge excavation and rocks over six-inches in diameter. If material excavated from the trench is determined to be unsuitable, it shall be removed from the construction site and replaced with suitable backfill material at the Contractor's expense. The use of flowable fill will be required at the discretion of the DPW Director or as outlined in the special conditions of the Street Opening Permit. All pipes and structures are to be laid on a stable foundation. If material at grade is determined to be unsuitable, it shall be excavated to a further depth and/or width, and refilled with an approved material. Refill material shall be structural fill, gravel borrow or crushed stone. All surplus excavated material and any material unsuitable for use shall be disposed of in disposal areas designated by the Water Division.

2. INSTALLATION:

Backfill shall be placed in 12-inch deep loose measure uniform layers. Each layer shall be thoroughly compacted by rolling, tamping or vibrating with approved mechanical or pneumatic compacting equipment so that pipe, structures, paving and other construction will not settle at the time of construction or in the future. Care shall be taken to compact the backfill materials throughout the full width of the excavation beneath all pipes and structures. The backfilling of trenches shall proceed as soon as the laying of pipe or installation of structures will allow. Compaction tests may be required at the discretion of the Water Division. See Figure 6.

ASPHALTIC CONCRETE PAVEMENT

1. MATERIALS:

Binder and Top Course: shall be Class I asphaltic concrete pavement conforming to Section 420, 460 and M3 of the Standard Specifications.

Asphaltic Tack Coat: Shall consist of either emulsified asphalt, grade RS-1 conforming to Section M3.03.1, or cutback asphalt, grade RC-70 or RC-250 conforming to Section M3.02.0 of the standard Specifications.

Pavement Marking Paint: shall be High Heat Rapid Drying Traffic Marking Material conforming to Section M7.01.09 (Yellow High Heat Rapid Drying Traffic Marking Material) of the Standard Specifications.

2. INSTALLATION:

Temporary trench pavement shall be installed over 12-inches of gravel sub-base to a compacted thickness of 2-inches. See Figure 4.

Permanent trench pavement shall include removal of temporary trench pavement to the gravel sub-base if applicable. The gravel sub-base shall be re-compacted before the installation of permanent pavement. The binder course shall be laid and compacted to a thickness of 2-inches and the top course shall be laid and compacted to a thickness of 2-inches, for a total compacted permanent pavement thickness of 4-inches. See Figure 5.

Full width pavement overlay shall be installed at the discretion of the Water Division and may or may not require the existing road surface to be cold planed prior to application. Full width pavement compacted thickness is also at the discretion of the Water Division. All pavement activities shall be in accordance with the Commonwealth of Massachusetts Department of Public Works Standard Specifications for Highways and Bridges, and the Marion Highway Division.

PRESSURE TESTING OF WATER MAINS

1. MATERIALS:

The Water Division shall furnish water to the contractor for flushing and testing the water main if hydrants or other connection points are convenient to the work. Fees for water usage may apply.

2. PROCEDURE:

A formal pressure/leakage test shall be required of the water mains, valves and appurtenances in the system constructed and shall be conducted in accordance with AWWA C600, Section 4.

2.1 Where any section of a water main is provided with concrete thrust blocks, the test shall not be made until at least 5 days have elapsed since the concrete was placed.

2.2 If high-early-strength cement is used in the concrete thrust blocks, the test shall not be made until at least 2 days have elapsed since the concrete was placed.

2.3 Prior to testing the pipe line, the line to be tested shall be thoroughly flushed and all air expelled. All air shall be expelled by appropriate methods including the use of corporation stops installed by the contractor at high points along the water main.

2.4 After all the air has been expelled and the corporation stops closed, the test pressure shall be applied by means of a pump connected to the pipe.

2.5 The pump, pipe connections, gauges and all necessary equipment shall be furnished by the contractor.

2.6 Unless otherwise specified, the test pressure shall be 150 psi or 150 percent to the working pressure, whichever is greater, up to a maximum pressure of 250 psi.

2.7 Pressure shall be maintained for 2 hours.

2.8 Should the pipe line not come within the permissible leakage limits, the contractor shall be required to excavate and locate the source of leakage and make repairs.

- 2.9 After the contractor has notified the Water Division that repairs have been made, the test shall be repeated until the pipeline is within the allowable leakage.

DISINFECTION OF WATER MAINS

1. MATERIALS:

Water for flushing of water mains, preparation of chlorine solutions and filling of water mains for disinfection shall be potable drinking water.

Chlorine for preparation of chlorine solutions for disinfection shall be sodium hypochlorite or calcium hypochlorite and shall conform to the requirements of ANSI/AWWA B300. Chlorine solutions shall be neutralized using sodium bisulfate, sodium sulfate or sodium thiosulfate prior to disposal.

Sterile water sample bottles shall be obtained from a state certified laboratory. Sterile bottles for bacteriological analyses shall be treated with sodium thiosulfate to neutralize any residual chlorine.

2. PROCEDURE:

2.1 Water Main Disinfection: After completion of all water main related construction, except water service connection installation, all water mains, valves, hydrants, hydrant connections and other appurtenances installed shall be disinfected in accordance with AWWA Standard C651, Section 4.4.3 (Continuous Feed Method) as modified herein:

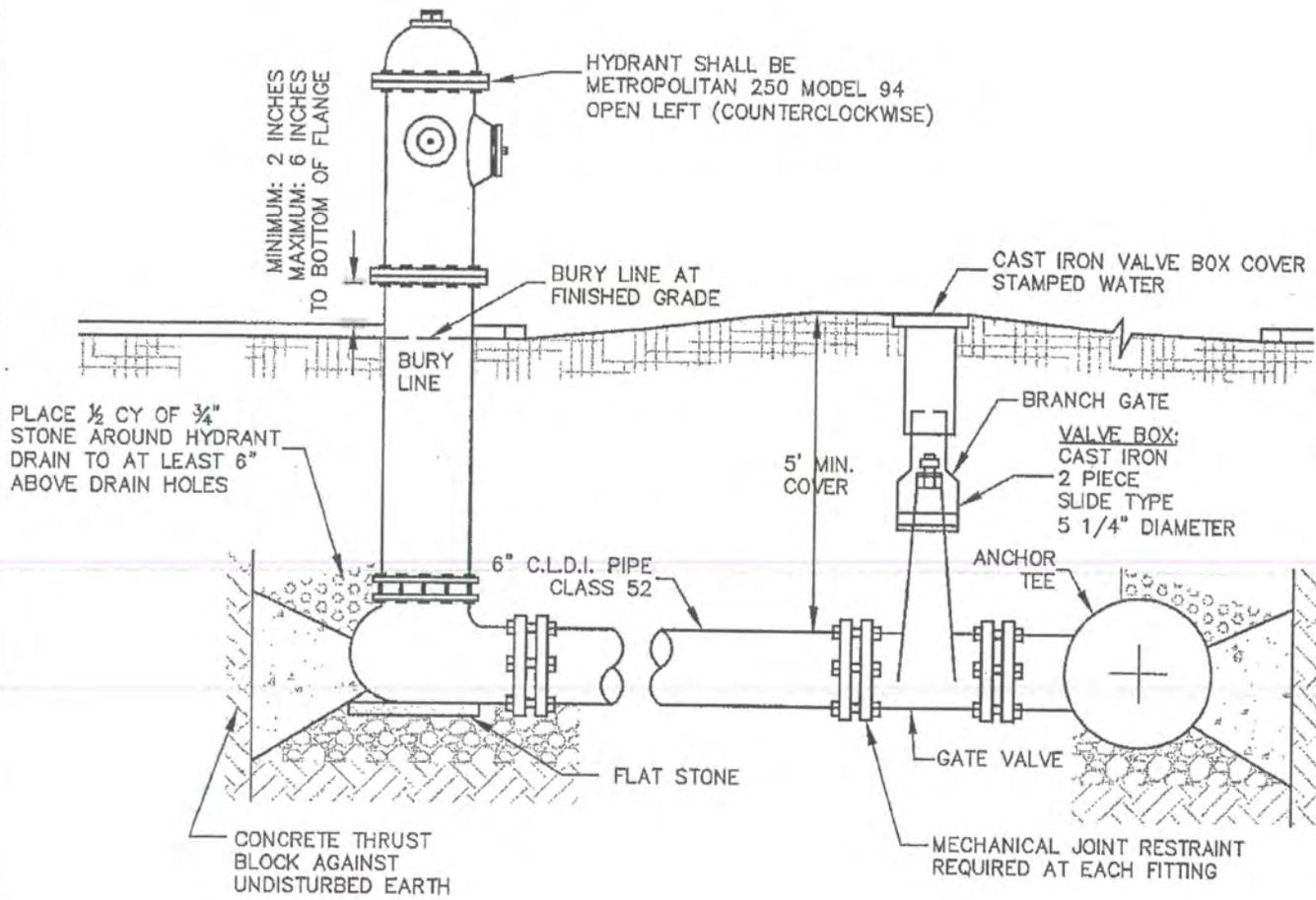
- 2.1.1 The Contractor at no additional expense to the Owner shall install taps for flushing, chlorination and sampling.
- 2.1.2 Flush the new water mains with potable water to remove any contaminants and debris that may have entered the water mains during construction.
- 2.1.3 The flushing velocity in the new water main shall not be less than 2.5 feet per second. In the absence of a flow meter, flow rate shall be determined either by placing a pitot gage at the discharge or by measuring the time to fill a container of a known volume.
- 2.1.4 Prepare a chlorine solution that will be continuously fed into the potable water that is used to fill the new water mains.
- 2.1.5 The chlorine solutions shall be applied to the new water mains with a chemical feed pump designed to feed chlorine solutions.
- 2.1.6 Completely fill the new water mains with the chlorinated, potable water or remove any air pockets. The point of application shall be no more than 10 feet downstream from the beginning of the new water mains.
- 2.1.7 The chlorine solution shall be of sufficient strength to provide a minimum residual chlorine concentration of 25 milligrams per liter (mg/l) in the filled water mains.
- 2.1.8 New valves and hydrants shall be operated to allow for proper disinfection.
- 2.1.9 Isolation valves shall be maintained in a closed position to prevent chlorinated water from entering the existing water distribution system.
- 2.1.10 Chlorinated water shall remain in the main for a minimum of 48 hours.

- 2.1.11 The minimum residual chlorine concentration at the end of the 48 hour holding period shall be 10 mg/l.
 - 2.1.12 After the 48-hour retention period, chlorinated water shall be flushed from every hydrant branch on the main until the chlorine concentration leaving the main is no higher than that generally in the system or less than 1.0 mg/l.
 - 2.1.13 Chlorinated water shall be discharged in a manner that will not adversely affect flora and fauna or drainage courses and shall conform to applicable State regulations for waste discharge.
 - 2.1.14 Chlorinated water that is flushed from the mains shall be neutralized by the addition of de-chlorinating agent so that the residual chlorine concentration is zero.
- 2.2 Bacteriological Tests: A minimum of 24 hours after flushing and before the new water mains are placed in service, the Contractor shall collect water samples for testing of the bacteriological quality of the water.
- 2.2.1 No hose or fire hydrant shall be used in the collection of samples.
 - 2.2.2 A sampling tap shall consist of a standard corporation stop installed in the main with a PVC gooseneck assembly. Samples for bacteriological testing shall be collected in sterile bottles treated with sodium thiosulfate and furnished by the state certified laboratory that will perform the tests. Unless otherwise directed, the minimum number of samples for bacteriological analysis shall be as follows:
 - 2.2.2.1 One sample every 1,200 linear feet of newly installed water mains.
 - 2.2.2.2 One sample at the end of the newly installed water mains.
 - 2.2.2.3 One sample at each branch.
 - 2.2.3 Two rounds of sampling shall be conducted. The second round of sampling shall be conducted at a minimum of 24 hours after the first round of samples is taken.
 - 2.2.4 All bacteriological tests shall be performed by a state certified laboratory.
 - 2.2.5 Two bacteriological tests shall be performed on all samples:
 - 2.2.5.1 One coliform bacteria, and
 - 2.2.5.2 One heterotrophic plate count (HPC) bacteria.
 - 2.2.6 The results on all samples and a copy of the chain of custody shall be mailed directly to the Water Division from the laboratory.
 - 2.2.7 The disinfection procedure shall be considered satisfactory only if the results of all tests confirm the following:
 - 2.2.7.1 The absence of coliform bacteria in all samples taken; and
 - 2.2.7.2 The HPC bacteria are less than 500 colony forming units per milliliter (cfu/ml) in all samples taken or less than equal to the HPC bacteria count in the existing water system.
 - 2.2.8 The new water mains may be placed in service if the results of the disinfection procedure are satisfactory and the Water Division has granted permission.
 - 2.2.9 If the initial disinfection procedure fails to produce satisfactory results, the new water mains shall be flushed and re-sampled as described above. If the test results from the re-sampling also fail to produce satisfactory results, the entire disinfection procedure shall be repeated.

**MARION DEPARTMENT OF PUBLIC WORKS
WATER DIVISION
RULES & REGULATIONS**

APPENDIX C

INSTALLATION DETAILS

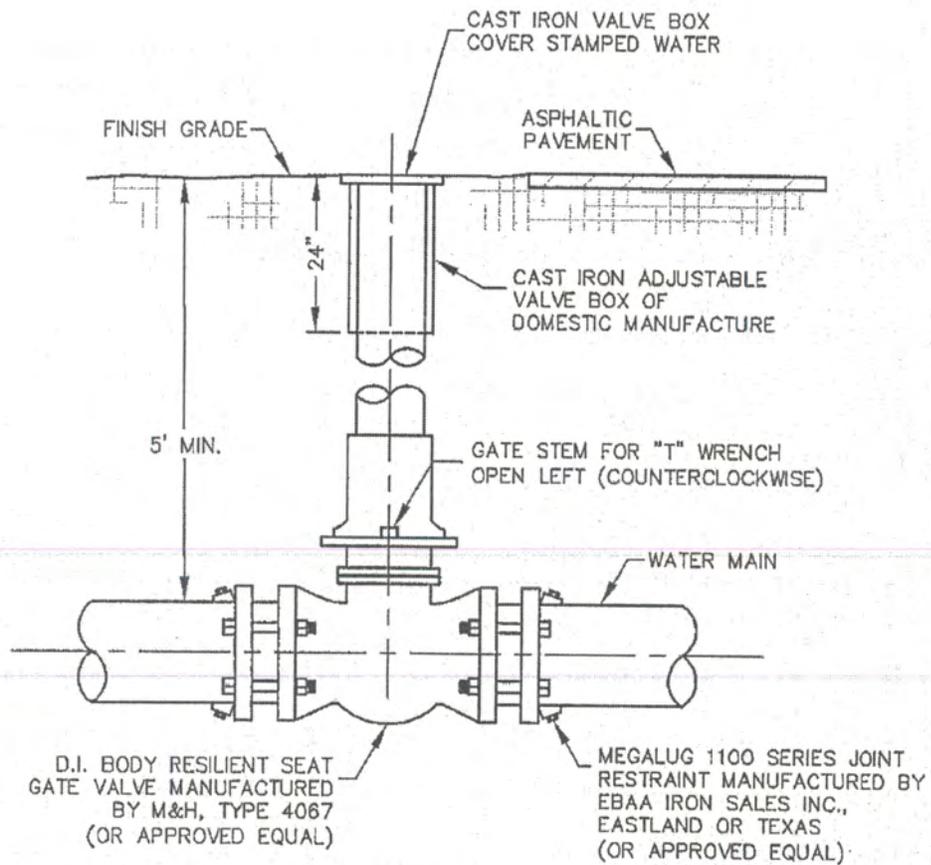


HYDRANT
SCALE: NONE

NOTES:

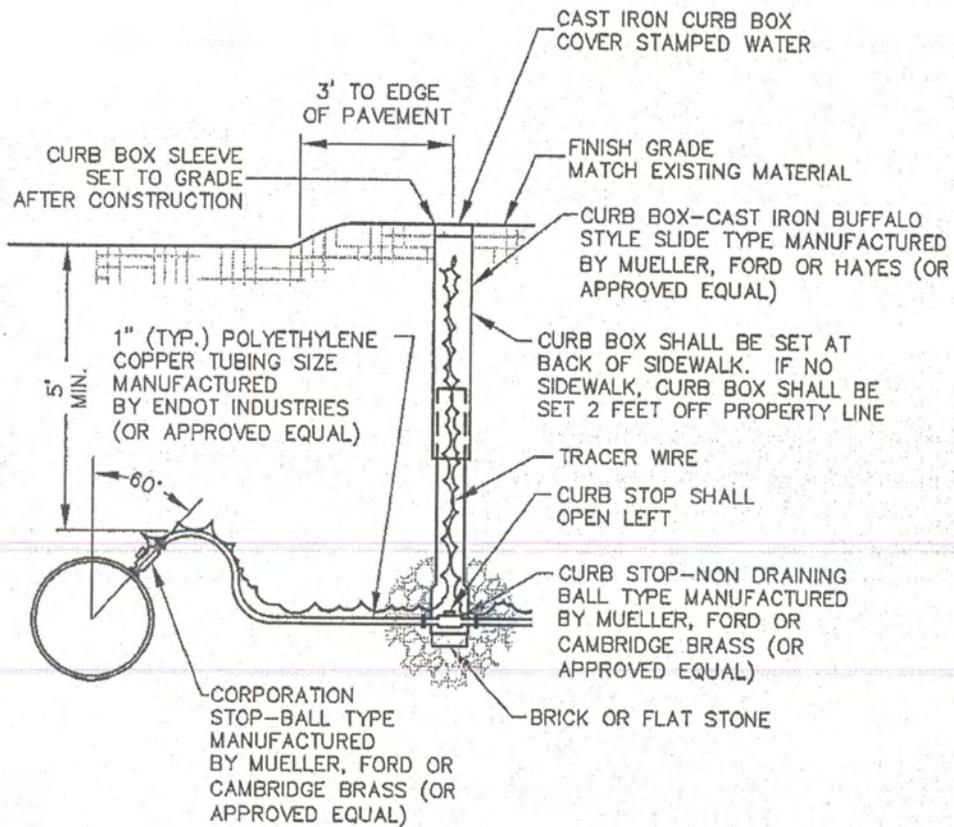
1. THRUST BLOCKS BACKED AGAINST UNDISTURBED SOIL AT HYDRANT & ANCHOR TEE.
2. HYDRANT SHALL BE A MINIMUM OF 5'-0" FROM EDGE OF TRAVELED WAY (WHERE POSSIBLE).
3. ALL HYDRANTS SHALL HAVE RETAINER GLANDS.
4. ALL COMPACTION SHALL BE BY MECHANICAL MEANS.

 <p>TATA & HOWARD Water and Wastewater Consultants</p>	<p>Hydrant Marion DPW - Water Division Rules and Regulations</p>	<p>Figure No. 1</p>
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GATE VALVE
SCALE: NONE

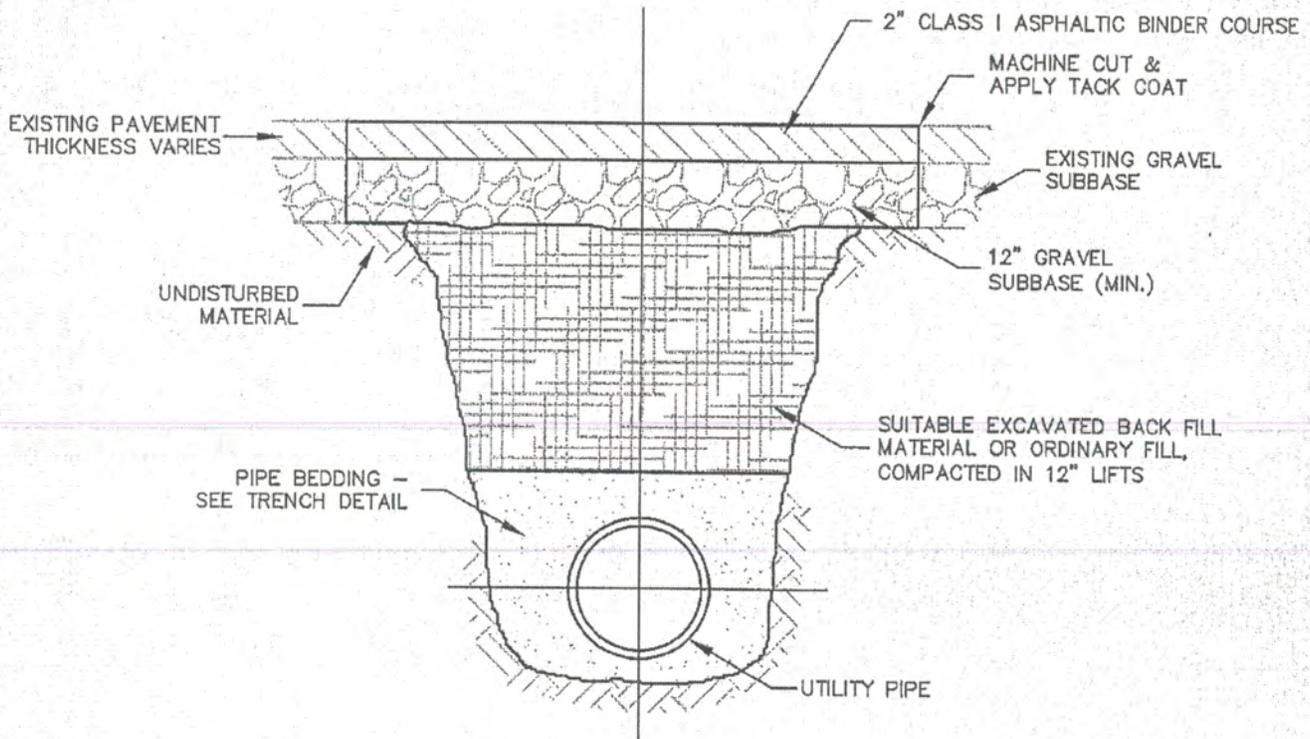
 <p>TATA & HOWARD Water and Wastewater Consultants</p>	<p>Gate Valve Marion DPW - Water Division Rules and Regulations</p>	<p>Figure No. 2</p>
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SERVICE CONNECTION

SCALE: NONE

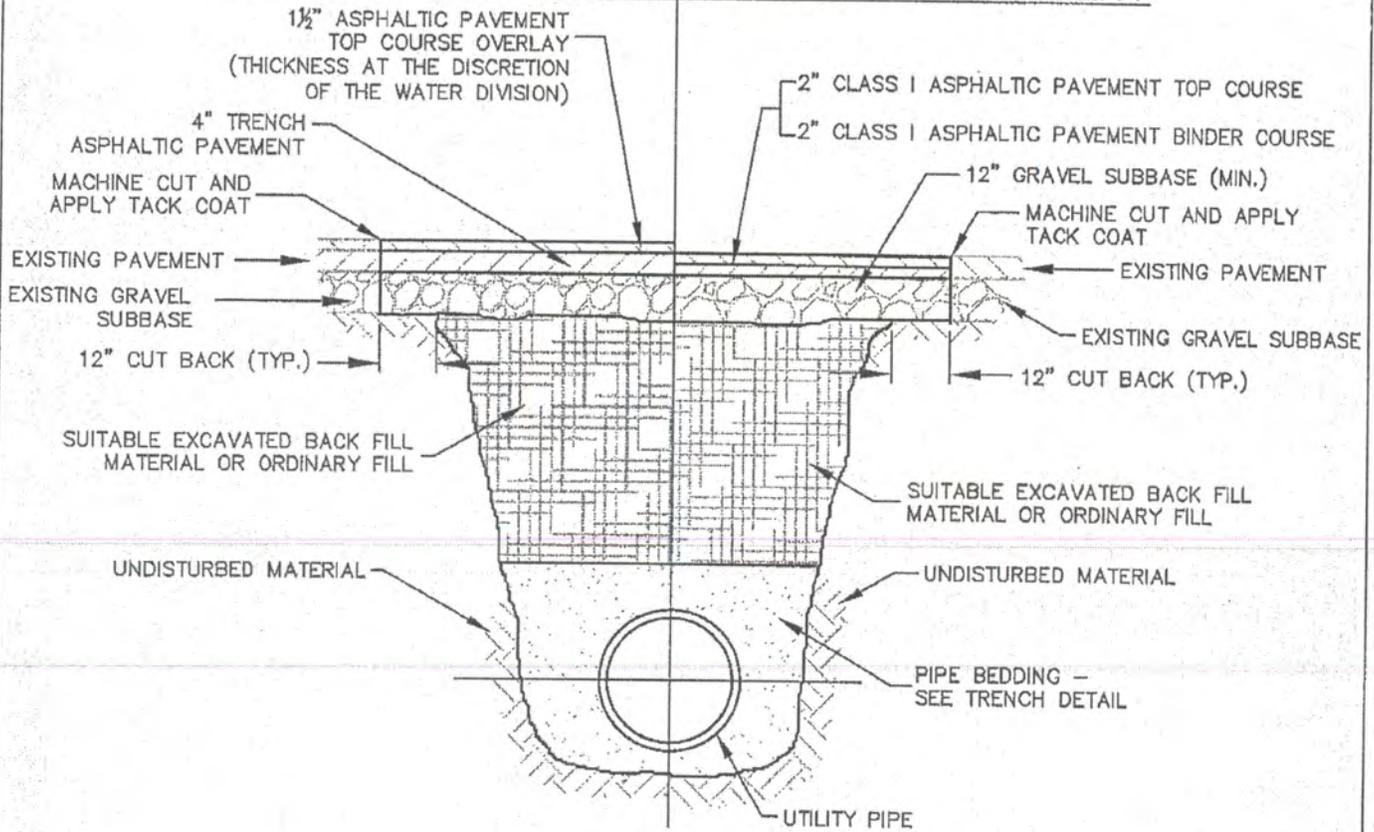
 <p>TATA & HOWARD Water and Wastewater Consultants</p>	<p>Service Connection</p> <p>Marion DPW - Water Division</p> <p>Rules and Regulations</p>	<p>Figure No.</p> <p>3</p>
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TEMPORARY TRENCH PAVEMENT
SCALE: NONE

 <p>TATA & HOWARD Water and Wastewater Consultants</p>	<p>Temporary Trench Pavement Marion DPW - Water Division Rules and Regulations</p>	<p>Figure No. 4</p>
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FULL WIDTH OVERLAY | PERMANENT PAVEMENT



FULL WIDTH OVERLAY PAVEMENT & PERMANENT TRENCH PAVEMENT

SCALE: NONE

NOTES:

1. PRIOR TO OVERLAY PAVEMENT PLACEMENT, THE ENTIRE ROAD SURFACE SHALL RECEIVE AN EMULSION TACK COAT FROM CURB TO CURB.
2. UNLESS OTHERWISE SPECIFIED, FULL WIDTH OVERLAY PAVEMENT SHALL BE KEYED IN AT THE ENDS OF THE OVERLAY AND AT ALL DRIVEWAYS AND SIDE STREETS.

NOTE:

ALL PAVEMENT THICKNESS AND GRAVEL SUBBASE THICKNESS SHALL BE VERIFIED WITH THE CLIENT, OR THE APPROPRIATE TOWN OR STATE HIGHWAY OFFICE



TATA & HOWARD

Water and Wastewater Consultants

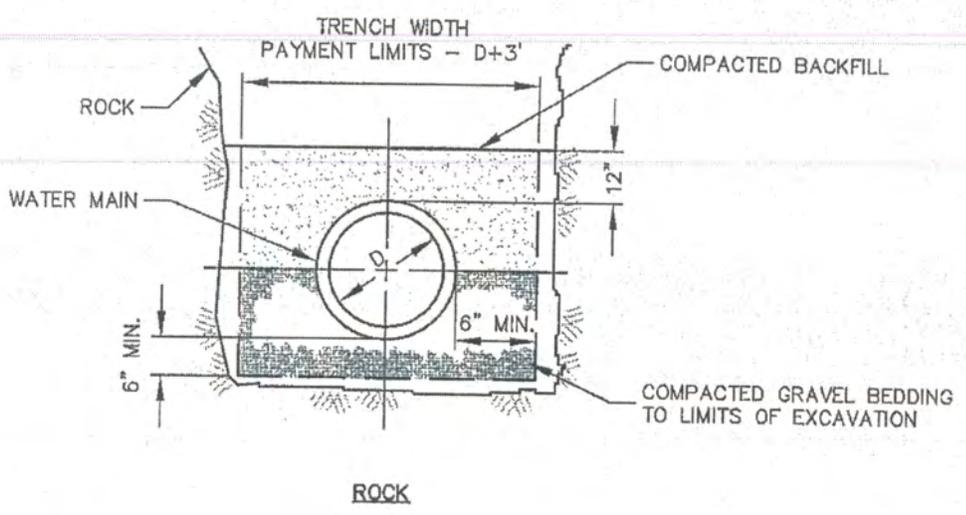
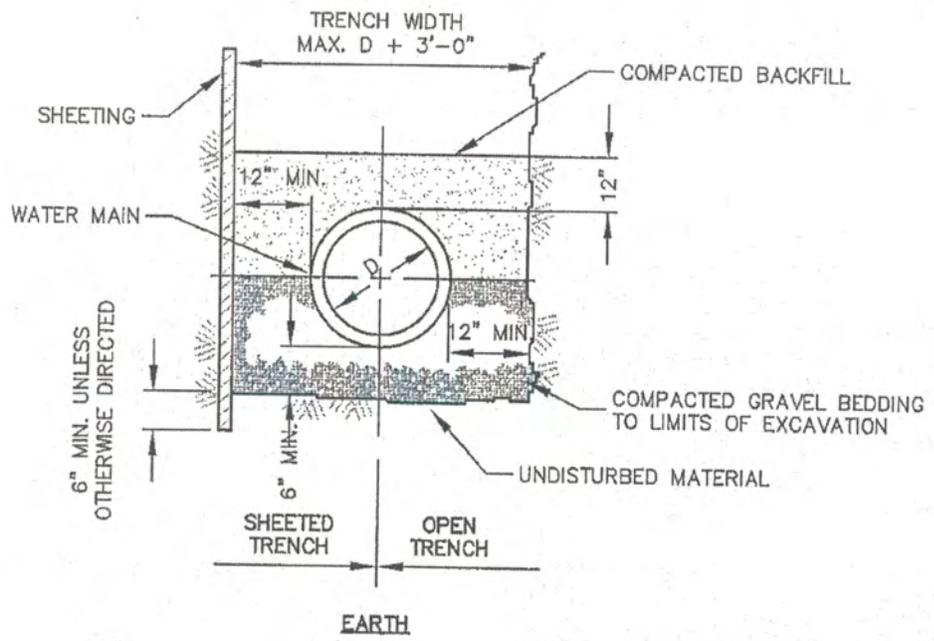
Full Width Overlay Pavement
& Permanent Trench Pavement

Marion DPW - Water Division

Rules and Regulations

Figure No.

5



TYPICAL WATER MAIN TRENCH SECTIONS
SCALE: NONE

NOTES:

1. CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 5'-0" FROM THE TOP OF PIPE.

 <p>TATA & HOWARD Water and Wastewater Consultants</p>	<p>Typical Water Main Trench Sections</p> <p>Rules and Regulations</p> <p>Marion DPW - Water Division</p>	<p>Figure No.</p> <p>6</p>
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