

# MARSHFIELD WATER DEPARTMENT

## RULES FOR WATER METER & SERVICE INSTALLATIONS

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September 2018

MARSHFIELD UTILITIES WATER SERVICE RULES  
Revised: September 2018

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## I. GENERAL INFORMATION

### A. Purpose of Service Rules

The following rules and regulations of the Marshfield Utilities Water Department concerning water service installations are published for the benefit of the utility's customers and their architects and contractors. The service rules are not intended to replace the State Plumbing Code, State Administrative Code, or City Plumbing Code. Where conflicts exist between these codes and the service rules, the applicable code shall be followed and the conflict pointed out to the utility. The service rules do not cover all aspects of the utility's rate schedules, extension rules, and other general rules. The utility should be consulted for more information regarding these specific matters.

The utility reserves the right to change these service rules as changes become necessary. The service rules are intended for standard equipment installations. When it is impractical to follow the service rules, the utility shall be consulted for permission to make necessary modifications.

The utility may refuse or discontinue service when these service rules are not complied with or when a dangerous condition exists.

### B. Application for Service

Application for a new service or for changes to an existing service shall be made by the customer or their representative at the utility office. Before a new service is installed or an existing service changed, some or all of the following steps may be necessary. See the utility for more information on each of these steps:

#### 1. Application Process

The customer shall come to the utility office to supply the utility with the necessary customer information and sign a service contract. Applications for both permanent and temporary service should be made at the utility office.

#### 2. Permits

All plumbing, building, sanitary sewer, and other permits required by law or ordinance shall be obtained by customer and all necessary fees paid before service is given. Permits are available through the Marshfield Building Inspection office.

#### 3. Main Extension Contracts

A main extension contract may be required in order to provide service to the customer. This contract must be prepared by the utility and signed by the customer and the utility before work begins.

4. Main Extension Deposits

These are usually requested and made by owner or developer. If a main extension deposit is required from the customer, the utility shall calculate the amount of this deposit and collect that amount from the customer before work begins.

5. Main Extension -- DNR Approval

DNR approval is required of all main extensions. The DNR usually requires two months to complete the approval process. Plans will be submitted by the developer or by the utility and approval obtained before work begins. The Water Superintendent will approve all plans submitted by the developer prior to submittal.

6. Plat Plans

Where required by law or ordinances, approved plat plans shall be delivered to the utility before service is granted.

7. Plumbing Inspection

For all new water services and for all changes to existing services, the local plumbing inspector shall do proper plumbing inspection before service work is started by the utility.

8. Utility Inspection

The utility is not responsible for the inspection of the customer's plumbing or equipment. However, if the utility knows that the customer's plumbing is inadequate, unsafe, or not per code, the utility may withhold or disconnect service.

Cross connections will not be allowed without the protection of a cross connection control device. Cross connections shall be protected as per WI DNR 810.15, Wisconsin Administrative Code and Marshfield City Ordinance 16.25.

9. Water Service Plumbing

The customer shall have the service lateral plumbed to receive the meter before service is given. All work shall be per applicable State and Local Plumbing Codes.

A. These procedures will be followed for all taps to water mains over the size of one inch.

1. The Utility does not normally stock tapping materials for services larger than one inch. A minimum notification of two weeks should be given to the Utility to allow for ordering materials.

2. All joining of materials after the tap from the corporation stop or tee to the curb stop will be in the presence and inspected by a utility employee.
3. The installation must commence at the water main and proceed to the curb stop. Unions or sleeves will not be allowed, except to join full-length coils of copper.
4. Copper pipe must be sized with industry standard accepted sizing tools before installation into valves or couplings.
5. All Services shall be flushed free of air, pressure tested, and visually inspected prior to the placement of hand backfill, and before the service box is installed. If you choose to backfill and compact prior to pressure testing, a pressure gauge must be placed on the service for a minimum of two hours.
6. The costs for the inspections will be billed to the contractor with the tapping fee on a time and material basis.

#### 10. Service and Meter Locations

All meter facilities are to be located by the utility. If such facilities are not located by the utility and these facilities have to be moved, the customer shall bear the costs. Refer to III.C., for specific meter location details and for meter tolerance specifics.

#### 11. Utility Commission Approval

For projects where new construction costs for main or service extensions exceed a certain dollar amount, Utility Commission approval is required before the project can be started. Normal Marshfield Utilities Commission meetings are on the Monday before the second Tuesday of each month. Contact the utility for more information.

#### C. Increased Use

In cases where the customer's use requirements change requiring larger meters, corporation stops, tapping saddles or other equipment, the utility shall be given reasonable notice for the procurement of said equipment.

#### D. Continuity and Quality of Service

The utility will use reasonable care to provide an uninterrupted and regular supply of service; but shall not be liable for any loss, injury, or damage resulting from interruptions, deficiencies or imperfections of service not due to willful default or negligence on its part.

The utility shall have the right to cause service to any customer to be interrupted or

limited at any time, without liability, by automatic devices or otherwise when in the judgment of the utility such interruption or limitation is necessary or desirable due to emergency conditions.

All equipment connected to the utility's system shall be so designed, installed, and operated as not to cause interference to other customer's service equipment nor to handicap the utility in maintaining proper system conditions. Water hammer arresters shall be installed in applications where large volumes of water are used with manual or solenoid actuated quick closing valves.

It shall be the responsibility of the customer to provide back siphonage devices for the protection of hot water heaters and other equipment due to losses of system pressure.

The utility may also curtail or temporarily interrupt the customer's water service in order to make repairs, replacements or changes to the utility's facilities, either on or off the customer's premises. The utility will, when ever practicable, give notice to the customers who might be seriously affected by such suspension or curtailment of service.

E. Fraudulent Tapping of Water Lines

Laws of the State of Wisconsin, section 941.36, allow the utility to prosecute persons who tamper with metering or other service equipment or attempt to steal water. It is the intention of the utility to prosecute such offenders to the full extent of the law. Common violations of the law could include:

- Connecting a new water line without notifying the utility,
- Reconnecting a service which has been disconnected for nonpayment or other reasons,
- Bypassing a meter,
- Illegally breaking meter seals or entering metering equipment,
- Illegally using water from hydrants or other unmetered taps.

F. Utility Equipment on Customer's Premises

The utility shall have the right to install, inspect, and maintain its equipment on the customer's premises as is necessary to furnish proper service. All such equipment shall remain utility property, and the utility shall have the right to remove it on discontinuance of service.

The customer shall be responsible for damages and losses resulting from interference, tampering, or damage to utility equipment caused or permitted by the customer. In the event that utility equipment is interfered with, tampered with, or damaged, the utility may require the customer to install tamper-proof equipment, relocate equipment, or repair or replace damaged equipment. Such expense shall be borne by the customer.

G. Location of Underground Water Line

The utility requests that no digging or excavating be done in any areas of street right of way and easements containing utility mains and laterals until those mains and laterals are marked by the utility. The utility will locate all water lines that they own at no charge. Except in emergencies, the utility requires 72 hours notice for all requests for

locations. Locations may be requested by calling Diggers Hotline, phone number 1-800-242-8511. Locations may not be requested by calling the utility office.

## II. SERVICES

### A. General

Application of service shall be made as early as possible in order to permit the utility to properly schedule its work. Where there are questions concerning utility rules, unnecessary delays or expense can be avoided by consulting the utility in advance of construction. Customers, their architects or contractors shall consult the utility concerning service and meter locations, main pressures, meter types and other areas where questions exist.

### B. Service Days

Service days are designated by the utility as Monday through Friday excluding holidays. Service day hours are: 7:30 to 4:00.

All applications, requests, inspections, fees, deposits, approvals, permits, and other preliminary work necessary before service is rendered as defined by these rules shall be completed and the utility notified before 12:00 noon on the day immediately preceding the requested service day.

### C. Charges for Work on Water Service

Work on water services can be divided into two categories, namely - trouble calls and service calls. A trouble call means that some type of emergency condition exists on the customer's water service. Trouble calls are handled on a no-charge basis at any time. A trouble call is a situation where property damage is being done or will be done, as deemed by the utility. A service call means that an emergency does not exist but work is required. The utility usually requires at least 24 hours notice for service calls. Service calls are handled on a no-charge basis during regular working hours. Service calls during non-regular overtime hours require that the customer pay the costs for the service call. The customer would be required to pay for a routine water shut off to make an inside plumbing repair during non-working hours.

### D. Service Locations

#### 1. Service Lateral Location

The customer service lateral should be so located to prevent damage due to construction and frost penetration. The utility recommends that all service laterals be buried to a minimum depth of seven feet at finish grade. In areas where adequate bury depth is not possible, the utility recommends insulating the service lateral with a two inch construction grade plastic foam insulation comparable to Dow Styrofoam Hi Brand Plastic Foam Insulation. Insulation should be adequate to prevent damage due to frost penetration. The utility will not normally allow insulation as an alternative on the portion of the service that



the utility owns and maintains. Exceptions may be considered if conflicts exist with other utilities. The Superintendent would grant approval of the insulation.

## 2. Service Lateral Ownership

The customer owns and maintains the service lateral from the curb box and curb stop to the meter. Refer to drawing on page 15. This includes the curb box and curb stop and all fittings, valves, check valves, pressure reducers, and piping that make up the service lateral. This does not include the water meter, the connecting meter couplings, or the remote reader equipment.

If there is a service leak at the curb stop and the Utility cannot determine ownership and if the leak is creating damage or a hazard, the Utility will dig the service and make the repairs. If the leak is on the customer side the customer will be billed for the repairs or the customer will be ordered to hire a contractor to make the repairs.

## E. Frozen Services

1. Thawing of a customer's lateral will be at the utility's expense if:
  - A. The freeze up is a direct result of a utility disconnect and the disconnection occurs during a time when conditions are such that freeze up could reasonably be expected to occur or;
  - B. The customer's portion of lateral is electrically conductive and:
    1. It is the first thaw for the customer at the location.
    2. The utility has not provided the customer with seasonal notice of the corrective actions to be taken for a known condition.
2. Lateral thawing will be at the customer's expense if:
  - A. The customer's lateral is not electrically conductive and the freeze up is not a direct result of a utility disconnect as set forth in (1 A) above.
  - B. The customer neglected to provide or maintain proper insulation or protection for the lateral according to standard, accepted practice, or specific utility instructions on, for example, the required depth of burial needed to prevent freezing.
  - C. The utility advises the customer of the corrective measures to be taken and the customer does not follow the utility's advice. (See s. PSC 185.35(7) for bill adjustment where a utility requests a customer to let water flow to prevent freezing.)
  - D. If the utility disconnects for a dangerous condition.

F. Electrical Grounding

In the city of Marshfield, the neutral of the electrical entrance shall be bonded to the street side of the water service at the water meter location. In no case shall this connection be made on the house side of the water meter. If the water service is of a non-metallic nature or if a water service is not available, grounding shall be accomplished with ground rods per Electrical Code. Grounding connections made on the street side of the service are very important, as improper grounding may cause a hazardous condition.

G. Curb Stops and Boxes

Each service lateral shall have a curb stop and box. The curb stop and box will normally be installed seven feet from the property line in the street right of way. Refer to drawing on page 15 and 16.

The curb box on services 3/4" to 2" will be of the arch pattern and have an extension rod.

The curb stop shall be a ball valve type.

The curb box shall be installed so the top of the box may be adjusted to the final grade.

The curb box shall not be installed in or under a sidewalk or driveway.

One-inch curb stop valves will be properly matched to one-inch curb stop boxes. Extension rods will be properly installed and must be compatible with the curb box and valve. Two-inch curb stops will have proper fitting curb boxes and meet all criteria of the one-inch curb boxes and stops.

### III. METERING FACILITIES

A. Meters General

Meters will be supplied by the utility and of the appropriate size required by the City of Marshfield Plumbing Inspector. Meter housings of sizes one inch and less may be of bronze or plastic housing.

If changes are made on the customer premises, making the existing meter location unsafe or inaccessible for reading and testing, the customer shall be required to make the necessary changes so that the meter may be located to comply with these rules. Failure of the customer to do this work within a reasonable length of time after written notification shall be considered as non-compliance with these rules. The utility reserves the right to discontinue water service until the customer has done the work outlined above.

All meters shall be sealed by the utility. No one shall remove a meter seal, or a meter, unless an emergency exists or prior contact has been made and permission granted by the Water Superintendent. The utility shall be notified as soon as possible after a

meter seal has been broken.

In buildings of multiple occupancy, or where the customer has more than one meter, the customer shall identify, with a durable tag or nameplate on each meter, the address served by that meter. Each meter shall be valved separately, with a valve on each side of the meter. In new occupancies of multiple metering, identification tags shall be placed prior to the utility installing the meters. In remodeled occupancies where multiple metering will be required after the remodeling takes place, identification tags shall also be installed prior to the second or following meters are installed.

The Plumbing Inspector shall determine size of the meter.

**B. Plumbing for Meters**

THE UTILITY WILL NOT ALLOW A CONTRACTOR OR ANY UNAUTHORIZED PERSON TO REPLACE METERS WITH SPOOLS. A SPOOL MAY BE USED FOR TESTING OF PIPING ON NEW CONSTRUCTION AND IMMEDIATELY REMOVED.

All plumbing shall be done in accordance with the requirements of the State and Local plumbing codes and utility rules.

When reducers are installed in service lines to accommodate a smaller meter on services 2" and larger, straight horizontal lengths of pipe, three times the pipe diameter shall be installed before and after the meter to prevent turbulence in the meter.

**C. Meter Location**

CUSTOMERS SHALL PROVIDE A SUITABLE LOCATION FOR METERS AND ASSOCIATED EQUIPMENT DETERMINED BY AND WITHOUT CHARGE TO THE UTILITY. If the utility has not approved the meter location and the location does not conform to utility standards, the customer may be requested to move the meter location to one approved by the utility at his expense. Meter shall be between 1.5 and 4 feet from the initial floor penetration.

Meters shall be installed in an accessible location to enable the utility's employees to read, inspect and test at all times in a safe manner with a minimum of inconvenience.

All water meters should be located within ten feet of a floor drain and the floor drain should be easily accessible to the utility's employees.

Multiple meter installations serviced from a single service shall be grouped at a location or locations approved by the utility. Multiple unit apartments will not be serviced by meters in the individual units. See III. H., for specifications on multiple unit meter installation.

Meters shall not be installed under mobile homes or in crawl spaces. For minimum installation tolerances see pages 17-19.

The meter location shall be in an area that will be heated to prevent damage to the meter by freezing. Customers will be billed for repairing frozen meters due to

negligence.

The meter location shall be free of hazardous conditions such as explosive materials or injurious fumes.

The meter shall be installed in an upright and horizontal position.

The meter shall be installed on the service pipe where it enters the premises. Any other location will be allowed only by permission from the utility.

The clear working space in front of the meter shall be 2.5' minimum.

The height of the meter shall not be greater than 4' as measured from the initial floor penetration.

The minimum height from the floor shall be 1.5' as measured from the initial floor penetration.

Meter pits shall not be used for metering purposes unless prior approval by the Water Superintendent has been obtained.

D. Meter Connecting Flanges

All meters will be installed with proper connecting flanges supplied by the utility. No meters may be installed directly to the customers piping.

E. Meter Bypass Connections

All meter installations over 1" shall be provided with a bypass connection. The size of the connection shall be equal to or one normal size less than the meter size. Refer to drawings on page 18 and 19.

The customer will supply a lockable bypass valve. The valve should be similar to a McDonald model 6101 W or a Milwaukee valve series 20 ball valve with a latch-lock handle.

The valve will be sealed by the utility.

Bypass meter valves shall not be operated without utility permission, unless an emergency exists. The utility will be notified as soon as possible when a bypass valve is used for emergency purposes.

F. AMI Radios

Remote radios are installed by the utility on all meters. The remote unit is normally attached directly to the building adjacent to the electric meter.

G. Single and Multi Dwelling Units with Private Wells and City Sewer Facilities

Metering is required to determine sewer charges. These meters shall be owned by the

property owner and shall meet all requirements of utility owned meters. If the utility installs the meters, the cost for installation shall be borne by the property owner. In all cases, the utility shall inspect and seal each meter prior to the meter being put in service at no charge to the sewer customer.

H. Installation and Wiring of Remote AMI Radio and Water Meter

Single meter installations shall consist of exposed wiring on both the interior and exterior of the building. In single meter installations where exposed wiring is not possible, the owner will, at his expense, provide and install the material required to encase the wire.

All multiple meter installations will consist of enclosed wiring. The owner will, at his expense, furnish and install all material required to encase the wiring.

Encasement for one to five wires will require a minimum 3/4-inch I.D. (inside diameter) rigid tubing with all bends to be of the long sweep style. Tubing to be suitably attached to structure to allow ease of installation. Six to ten wires will require one inch I.D. Ten to fifteen wires will require 1 ¼ inch I.D. Fifteen wires or more contact the Utility.

I. Meter Pits

When a meter pit is approved by the utility, it must meet the utility's specifications. Refer to drawing on page 21.

The vault will be of concrete construction.

The vault shall have a sump pump and sump pit.

No sanitary sewer will be allowed within the vault.

The vault must have an OSHA approved ladder.

The cover must be sealed to prevent damage by dirt, water, and vandalism.

The piping in the vault must be arranged to allow adequate use of 18" pipe wrenches.

**IV. CROSS CONNECTIONS**

A. General

All cross connections are prohibited.

Inspections for cross connections will be routinely made by the utility and plumbing inspector, and eliminated as authorized by State, Local, and utility rules.

## V. PRIVATE FIRE SERVICES

### A. General

Private fire services may be metered or unmetered.

When a fire service is also used for the domestic supply, the tap for the domestic supply will be installed before the fire service check valve. The metering requirements will be the same as all other domestic services.

The utility recommends that all fire service laterals be buried to a minimum depth of seven feet at finish grade. In areas where adequate bury depth is not possible, the utility recommends insulating the fire service with a two inch construction grade plastic foam insulation comparable to Dow Styrofoam Hi Brand Plastic Foam Insulation. Insulation should be sufficient to prevent damage due to frost penetration. The utility will not normally allow insulation as an alternative on the portion of the service that the utility owns and maintains. Exceptions may be considered if a conflict exists with other utilities. The Water Superintendent would grant approval of using insulation. The utility is not responsible for thawing frozen water services on the property owner's side of the curb valve after the first time the service is froze and the property owner is notified to correct the problem.

Rates for these services shall be based on the lateral size and the meter size as authorized by the utility rate schedule. Refer to drawing on page 20.

## VI. SPRINKLER METER INSTALLATION

### A. General

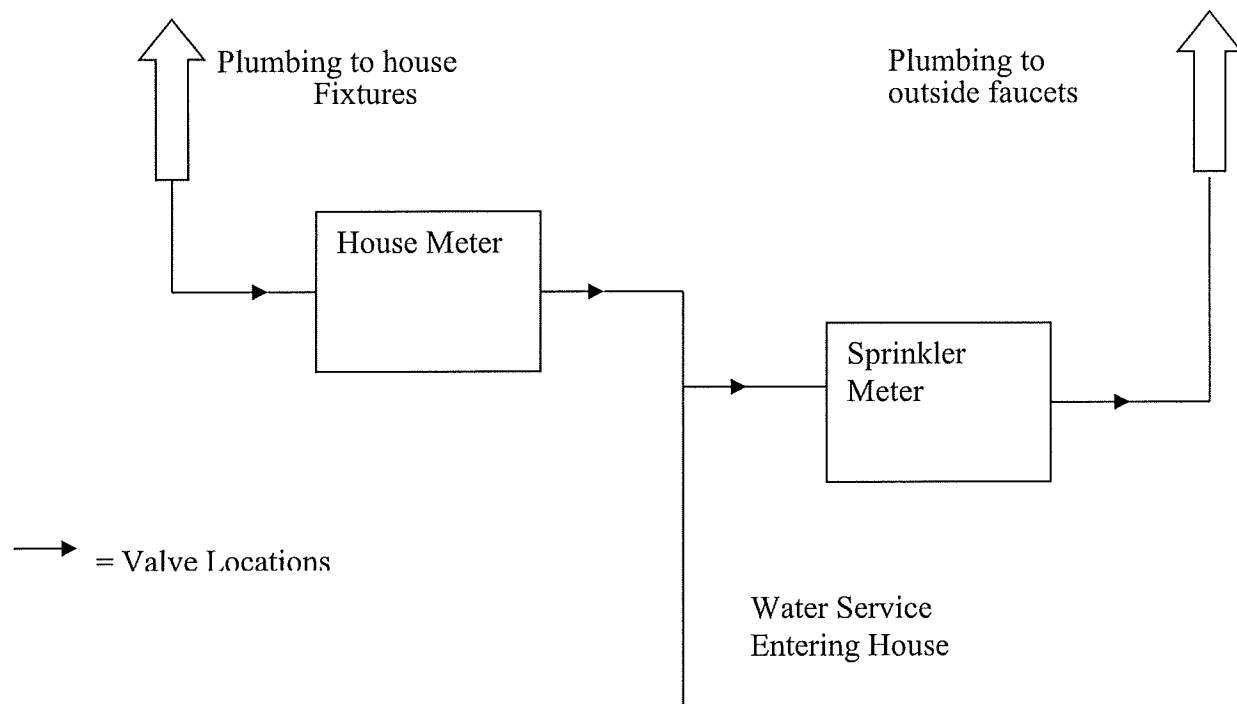
The Common council of the City of Marshfield passed Ordinance Number 869, which provides for the installation of sprinkler meters. A sprinkler meter is a second water meter that may be installed in a home, which measures the amount of water used through the outside faucets. Because this water is not discharged into the sanitary sewers, sewer charges on this water do not apply.

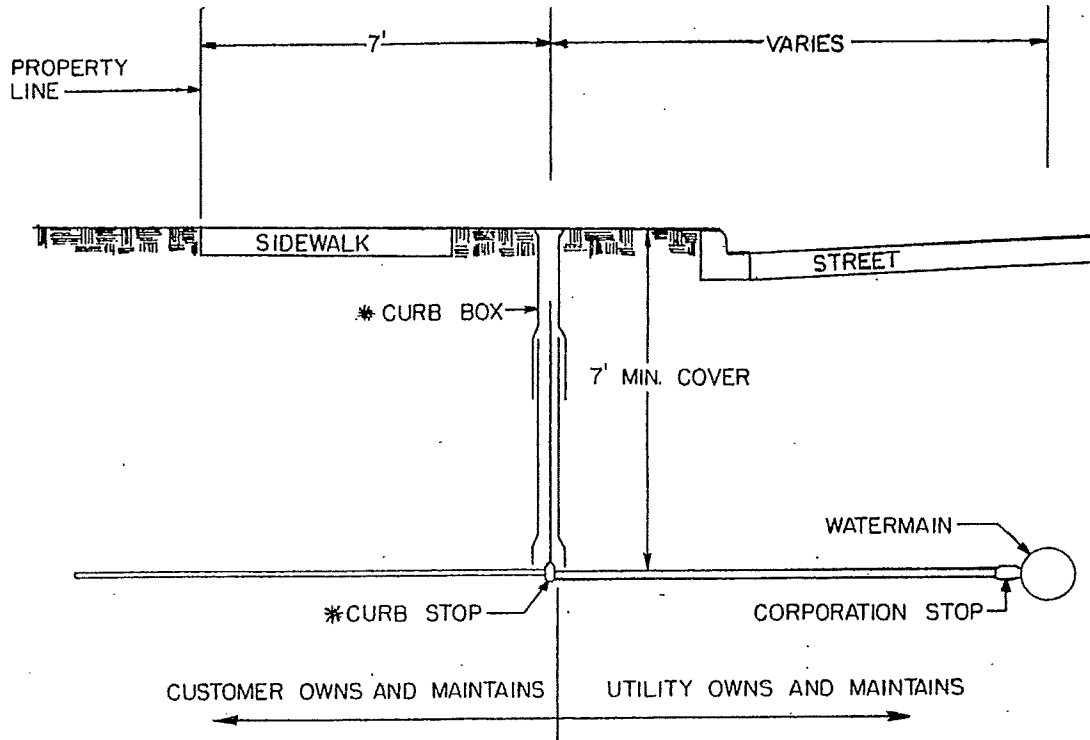
All Marshfield Water Department installation requirements for our normal water meters will apply to the sprinkler meters. All standard specifications for sewer and water construction in Wisconsin will also apply.

- A permit from the plumbing inspector must be obtained prior to meter installation. A proposed installation plan must be presented to the plumbing inspector when requesting the permit. The homeowner or the plumber doing the work for the homeowner must obtain the permit.
- Once the permit is obtained, the plumbing work may be completed to allow for the meter. All sprinkler meters will be installed as close as possible to the normal house meter at a point immediately upstream of the house meters. All water department meter installation rules will apply. Valves must be installed before and after the sprinkler meter to allow for maintenance of the meter. The minimum contract period

for the meter shall be one (1) year.

- When the plumbing work is completed, the homeowner should contact the water department and request the installation of the meter. We need a minimum of one-day notice to schedule the installation of the meter. At this time the plumbing inspector will also need to be notified and will inspect the plumbing for proper installation.
- Calculations for sewer consumption will remain as it currently is. Calculations for water consumption will be the total of the normal house meter water usage plus the total of the sprinkler meter usage.
- The water department will own all sprinkler meters. Rental rates are as established by the public service commission, rate schedule Am-1.

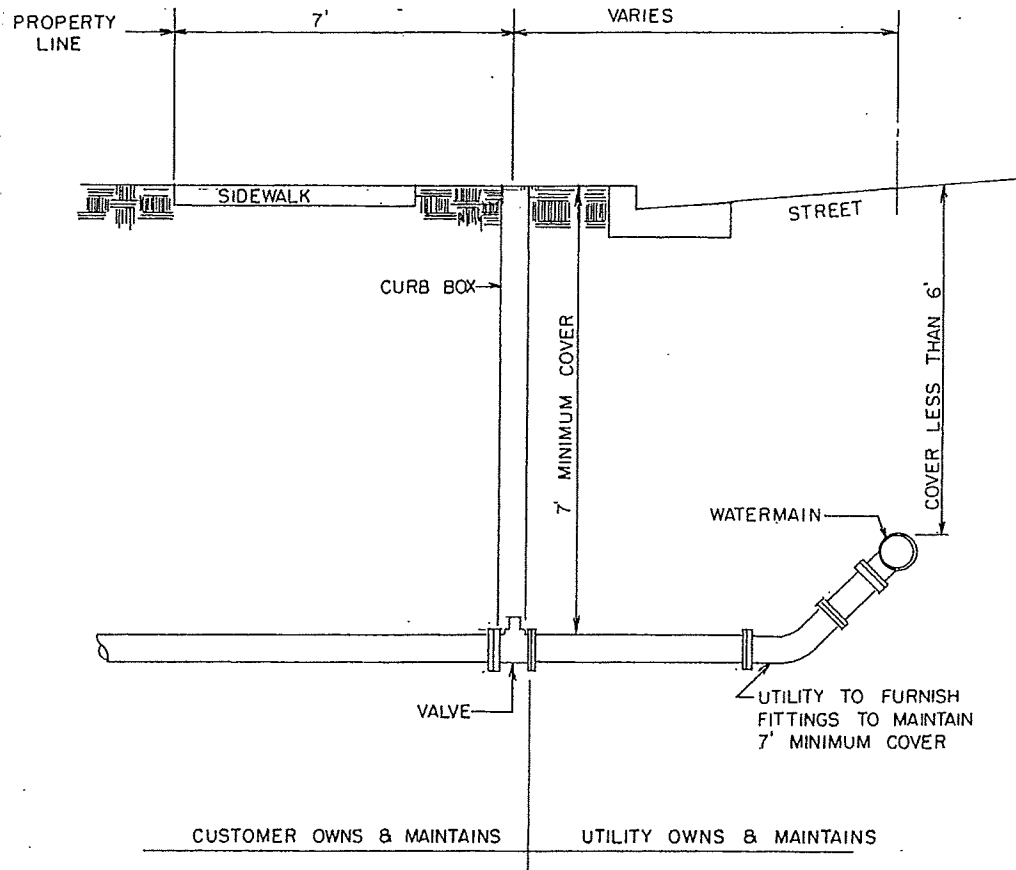




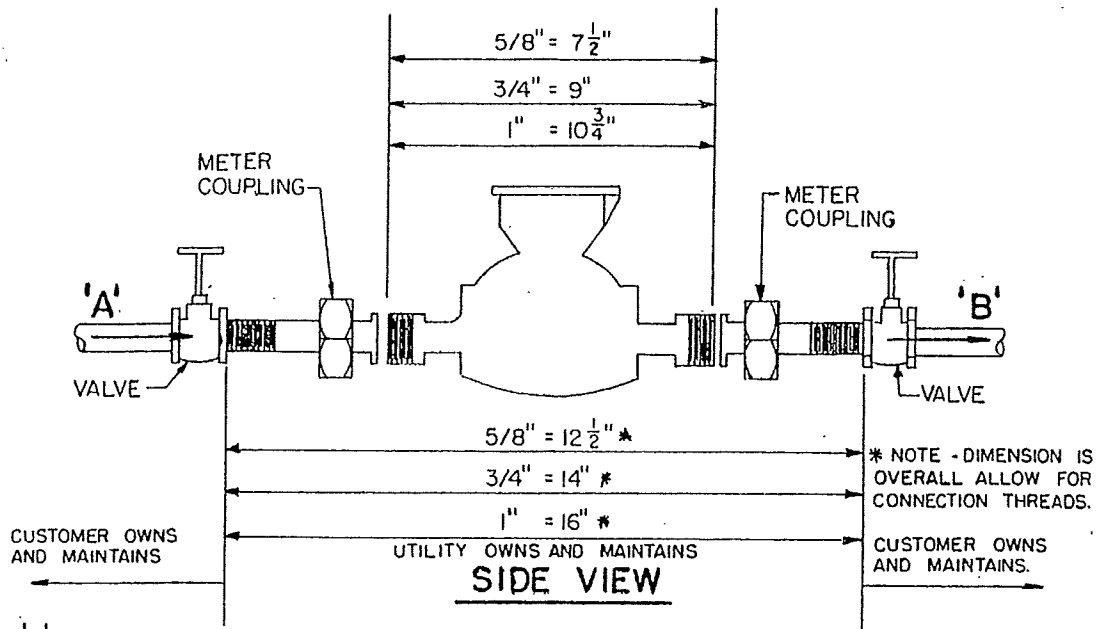
\* CUSTOMER OWNS AND MAINTAINS

MARSHFIELD ELECTRIC & WATER DEPARTMENT	
TYPICAL WATER SERVICE PIPING	
DRAWN BY: RE	1/8/87
APPROVED BY:	127

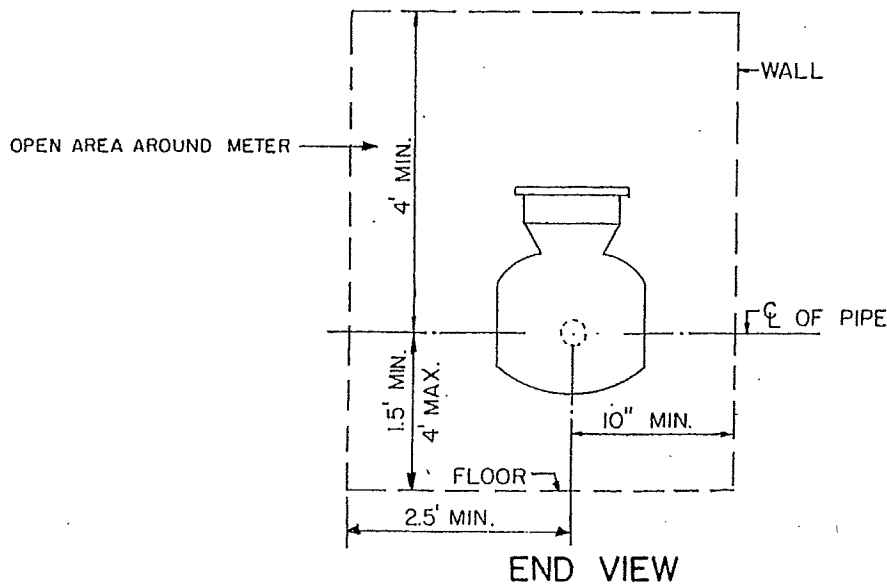




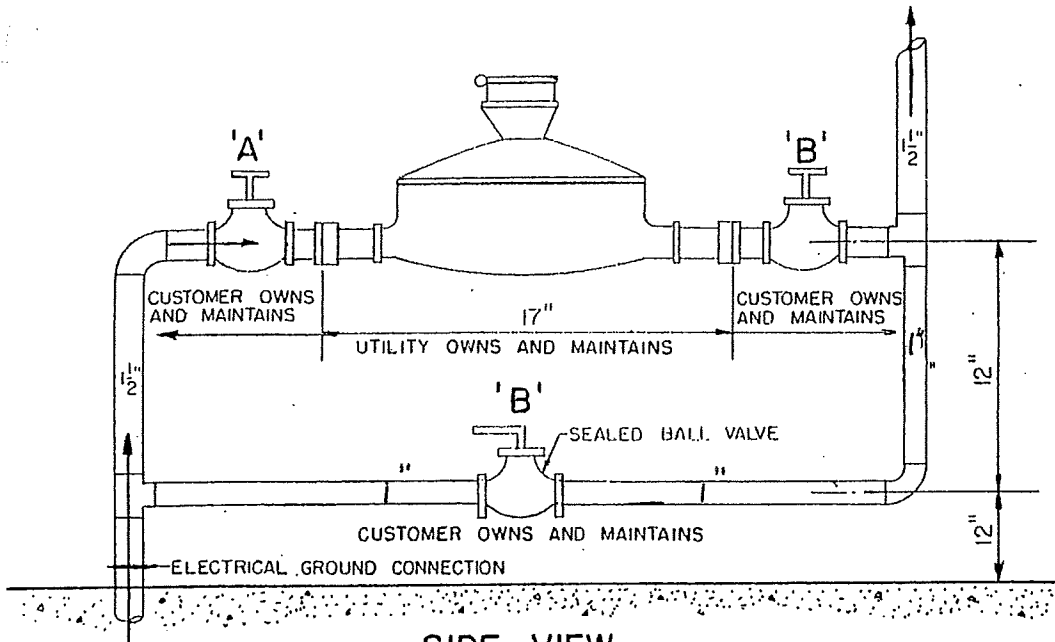
<b>MARSHFIELD ELECTRIC &amp; WATER DEPARTMENT</b>	
WATER SERVICE PIPING WITH LESS THAN 6' COVER (4" to 18")	
DRAWN BY: RE 3-94	APPROVED BY: <i>grt</i>



'A'--- ELECTRICAL GROUNDS ALLOWED AHEAD OF INLET VALVE  
 'B'--- PIPING TAPS ALLOWED AFTER OUTLET VALVE

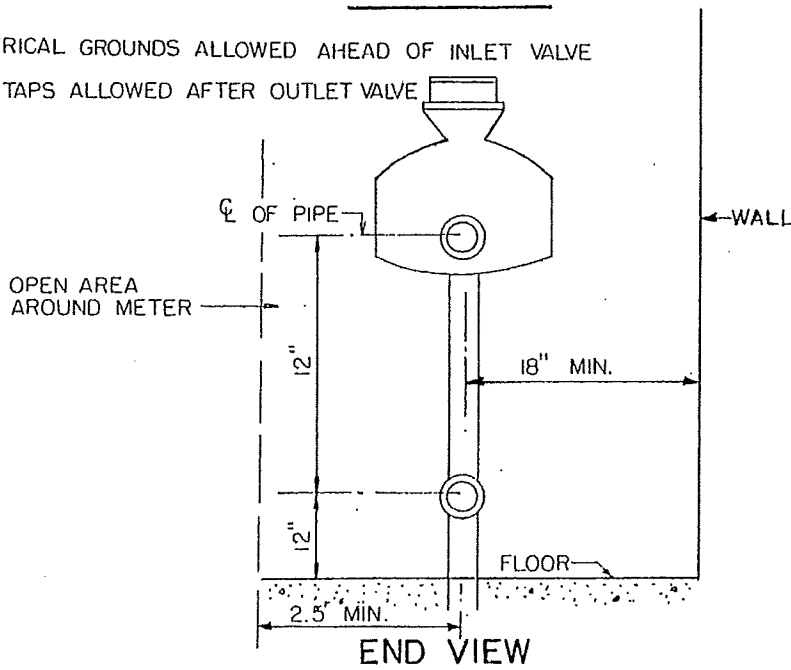


MARSHFIELD ELECTRIC & WATER DEPARTMENT	
TYPICAL 5/8", 3/4", 1" METER SET	
DRAWN BY: RE	1/8/87 APPROVED BY: [Signature]



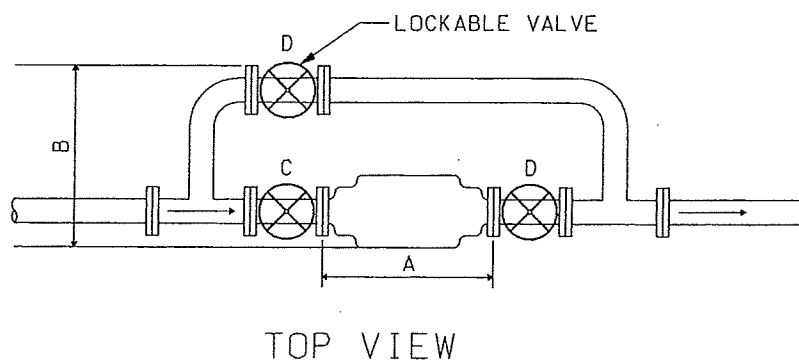
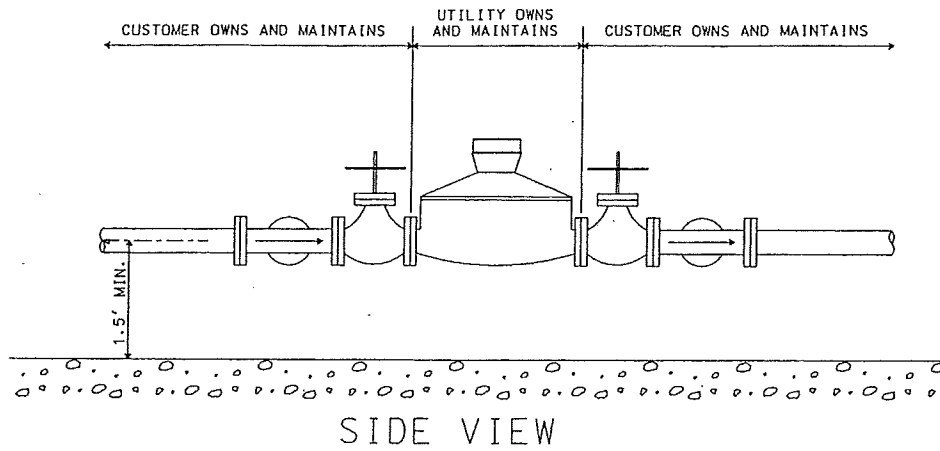
**SIDE VIEW**

ELECTRICAL GROUNDS ALLOWED AHEAD OF INLET VALVE  
 'B' PIPING TAPS ALLOWED AFTER OUTLET VALVE



**END VIEW**

MARSHFIELD ELECTRIC & WATER DEPARTMENT	
TYPICAL 1 1/2" WATER METER SET WITH INVERTED BY-PASS	
DRAWN BY: RE 1/8/87	APPROVED BY:

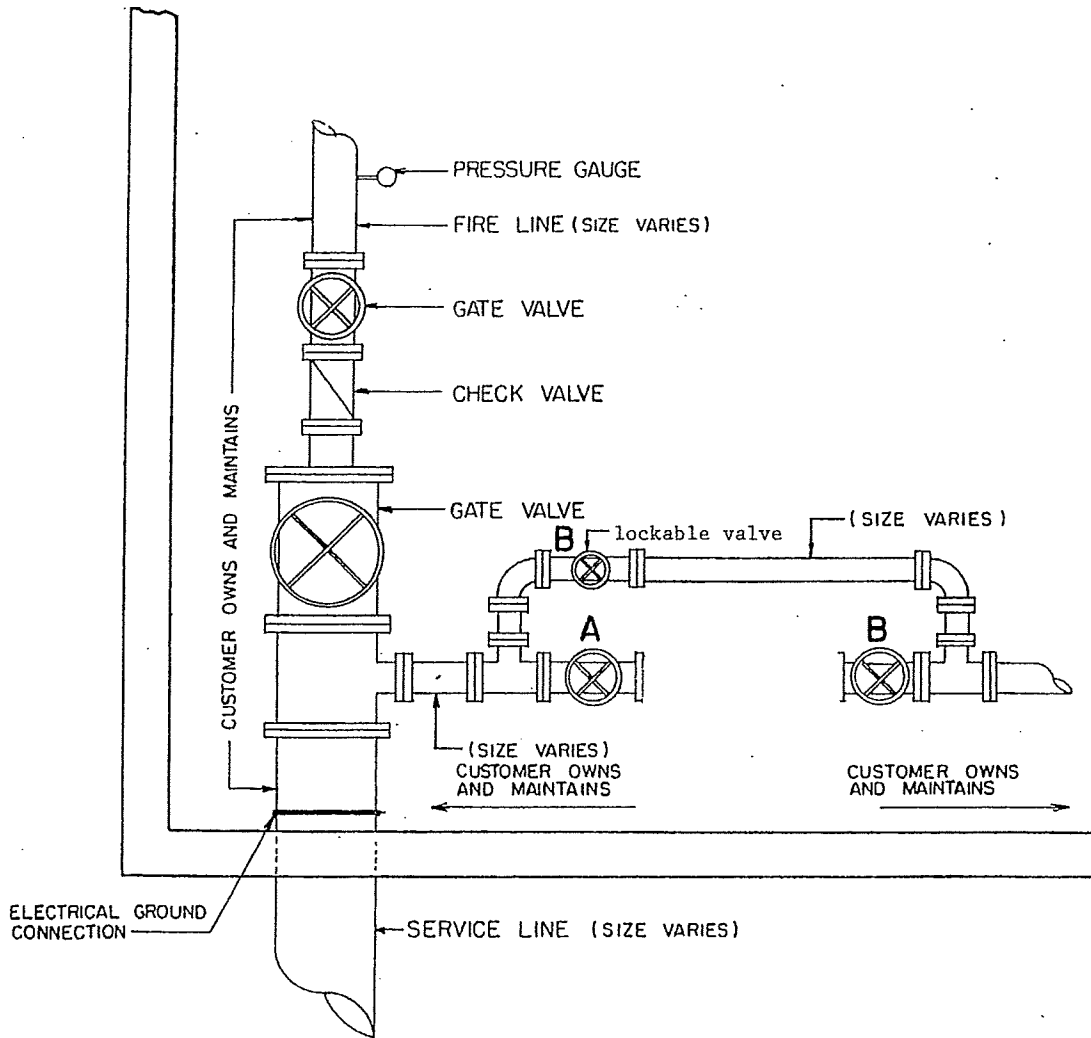


SIZE	A	B
2"	15 1/4"	12"
3"	17"	20"
4"	20"	24"
6"	24"	30"

- C ELECTRICAL GROUND ALLOWED AHEAD OF INLET VALVE
- D PIPING TAPS ALLOWED AFTER OUTLET VALVE

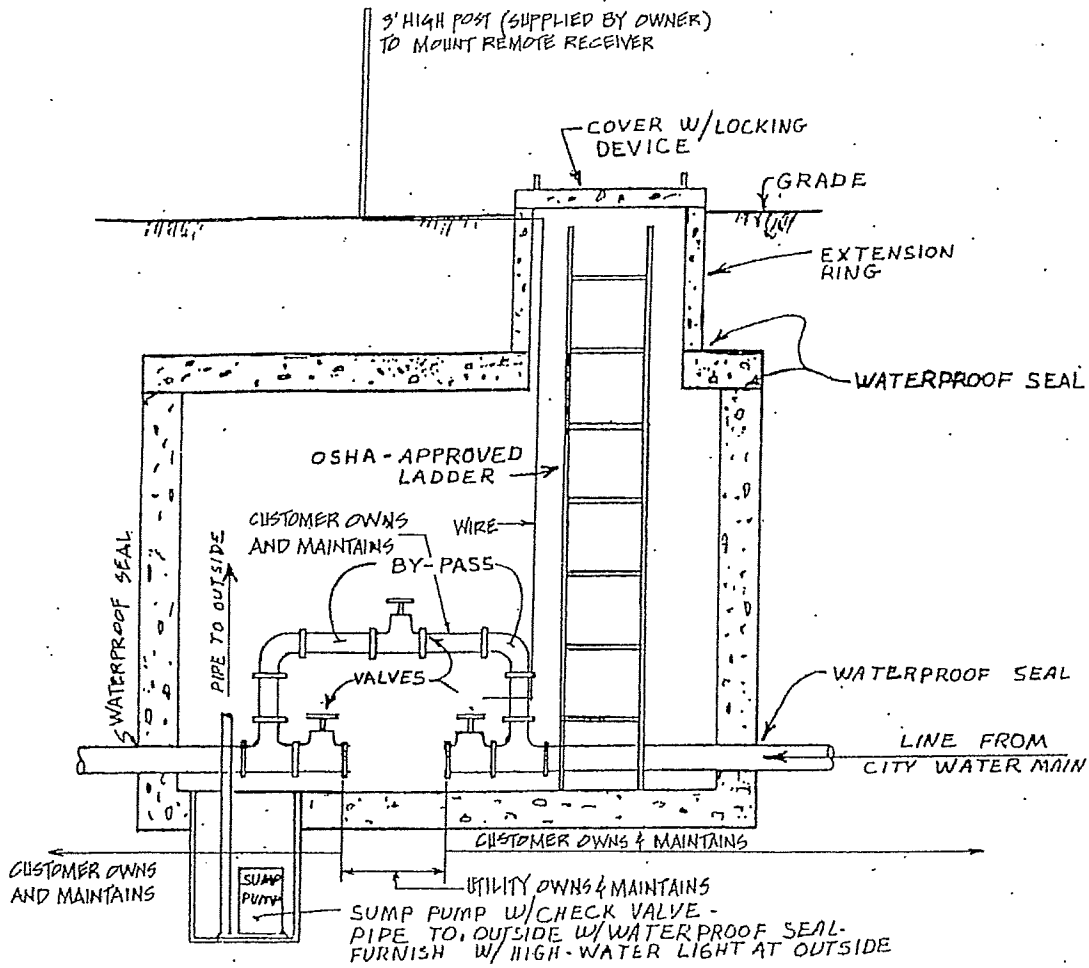
MARSHFIELD WATER DEPARTMENT TYPICAL 2" - 6" WATER METER SET	
DRAWN BY: SLF 03-07-05	APPROVED BY: DW

- 'A' ELECTRICAL GROUNDS ALLOWED AHEAD OF INLET VALVE
- 'B' PIPING TAPS ALLOWED AFTER OUTLET VALVE



TOP VIEW

MARSHFIELD ELECTRIC & WATER DEPARTMENT	
TYPICAL FIRE SERVICE WITH DOMESTIC SUPPLY	
DRAWN BY: RE 1/16/87	APPROVED BY: <i>J.R.T.</i>



MARSHFIELD ELECTRIC & WATER DEPARTMENT	
TYPICAL WATER METER VAULT	
DRAWN BY: DS	1/12/87
APPROVED BY:	J.P.T.