



## Deduct Water Meter Installation Guide

A deduct meter is a separate meter that measures the amount of water used for items such as lawn irrigation, outdoor plant watering, washing exterior surfaces, washing vehicles, filling pools, etc. By having a deduct meter installed, sanitary sewer rate fees are not assessed for water used for the above or similar purposes. A separate meter is the only way to accurately measure the water used exclusively for these activities.

### Water Meter Installation Requirements

1. Every meter must be located in an accessible, heated area.
2. Domestic and Deduct meters shall be located no more than three (3) feet apart (*See #12 below*) or secondary transponder will be necessary at an additional fee of \$74.00 (*incl. tax*).
3. Additional re-piping to accommodate the meter or water demand may be necessary.
4. Meter horn connections shall be standard 1" NPSM thread size.
5. Horn Spread: 3/4" meter = 7.5" lay                      1" meter = 10.75" lay
6. Shutoff valves shall be located within 18 inches on each side of the new meter in order to isolate the meter from the rest of the system for servicing. (*See diagram*)
7. A means to drain the piping downstream of the deduct water meter must be provided.
8. \*All water supply piping must be bonded to the buildings electrical grounding system. (*NEC 250.104*). If a continuous grounding electrode conductor is NOT present, one must be installed by a State of WI Licensed Electrician and performed under permit. Bonding jumpers are also required in accordance with *NEC 250.64(A)(B)(C)* and shall be installed across every water meter and backflow prevention device.

***\*An electrical permit is required for installation of the bonding jumper(s). Permit fee is waived for bonding jumper installation ONLY.\****

### Permit Requirements

9. \*A plumbing permit from the Building Inspection Department is required. (*See footnote*)
10. A State of WI Licensed Plumber must submit the plumbing permit application.  
***Exception:*** *A homeowner of a single-family dwelling, who resides in the dwelling, may submit a permit application only after proving to the department that said owner is competent to do such work and is knowledgeable of State of WI plumbing codes.*
11. ONLY a State of WI Licensed Plumber may install backflow prevention devices.  
***Exception:*** *A hose bibb vacuum breaker device (ASSE 1011 or 1014) may be installed by a homeowner.*

***\*Water Service Calculations must be provided as part of the plumbing permit application.\****

## **Permit and Meter Fees**

12. A 3/4" water meter typically used for outside hose bibbs is \$148.00 (*incl. tax*).
13. A 1" water meter typically used for outside lawn irrigation systems is \$227.00 (*incl. tax*).
14. Meters must be located within three (3) feet of each other or \$74.00 (*incl. tax*) fee for additional transponder.
15. \*Depending on the work being performed, the plumbing permit cost will be \$84.00 each for residential and \$105.00 each for commercial/industrial. (*Electrical permit fees may also apply.*)  
**\*Additional plumbing and/or electrical contractor charges are the responsibility of property owner.**

## **Backflow Prevention Device Requirements**

16. If the system contains a pump or set up for a pump or auxiliary air tanks, then the backflow device shall be a Reduced Pressure Principle (RP) type assembly (ASSE 1013).
17. If the system does not have installations as noted above, then one of the following backflow prevention devices shall be installed:
  - a. Atmospheric vacuum breaker (ASSE 1001) (*No valves shall be located downstream of an AVB*)
  - b. Pressure vacuum breaker (ASSE 1020) (*OUTSIDE USE ONLY*)
  - c. Reduced pressure principle assembly (ASSE 1013)
18. A backflow prevention device that is located inside and is inherently designed to spill water MUST be located near an approved drain and/or approved indirect drain piping shall be provided.
19. A means to thoroughly drain the piping system for winterizing purposes must be provided.
20. A grounding/bonding jumper is required to ensure conductivity of metal piping where installed on both sides of the water meter and/or backflow prevention device. (*A State of WI licensed electrician must perform this work under permit. Permit fee is waived for bonding jumper ONLY.*)

## **Inspection Requirements and Process**

21. Prior to installation of the meter, an inspection of the plumbing system must be conducted. Inspections are required to be scheduled a minimum of 24 hours in advance. Call the Building Inspection Dept. at (414) 228-1708 to schedule. (*Inspection are subject to availability*)  
**Inspection hours are between 10:00am and 3:00pm, Monday through Friday.**
22. The piping must be approved PRIOR to installation of the meter. The plumbing inspector will notify the Water Department that the meter may be installed.
23. Homeowner is responsible for scheduling meter installation. **Water Utility Office:** (414) 228-1719
24. Additional installation requirements applicable to backflow prevention devices may be necessary.

**An installation diagram is provided on the following page illustrating the proper installation requirements.**

# In-line Meter Installation Diagram

