



CITY OF ANGOLA

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Angola, Indiana 46703-1960

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WATER METER INSTALLATION SPECIFICATIONS

1. All meters to be installed in the horizontal position with an upstream shut-off valve. Preferably a full-port ball valve.
2. All meters to be the Sensus or Master Meter type brand only and to read in 1000 gals. The meter will also include an electronic communications register. 5/8" residential meters are provided by the city at no charge. The total cost of all meters larger than 5/8" is at the customer's expense.
3. Backflow preventer assemblies are to be installed downstream of the meter a minimum of five pipe diameters. All backflow devices are to be installed in accordance with IEBM (Indiana Environmental Management Board) 320 IAC 3-9.1.
4. On all indoor settings an **electrical bonding around meters is required** to prevent accidental electrocution of a serviceman changing meters. A **permanently bonded electrical grounding strap to be provided**. Electrical grounding is a requirement specified by the National Electrical Code and all service and installation personnel should be advised.
5. **Compound & Turbine Meters:**
 - a. All meters to be installed in the horizontal position valved on each side of the meter. It is preferable to use full-opening ball or gate valves for the meter set isolation valves. Butterfly or plug valves may also be used as isolation valves, if they are located a minimum of five pipe diameters upstream and downstream of the meter.
 - b. Elbows, tees, and crosses to be no closer than ten (10) pipe diameters of straight pipe of the same nominal diameter on the meter upstream and five (5) diameters downstream.
 - c. Backflow prevention devices to be installed downstream of the meter a minimum of five (5) pipe diameters.
 - d. When check valves, pressure-regulating devices, or throttling valves are needed, it is to be installed a minimum of five (5) pipe diameters downstream of the meter.
 - e. A meter strainer included with or attached just before the meter is required.
 - f. A plugged 2" outlet (testing port) is to be installed a minimum of three (3) pipe diameters from the outlet flange of the meter.
6. **Bypass Regulations:**
 - a. If the customer requires a bypass, the bypass is also required to have a meter.
 - b. If the bypass outlet is installed downstream of the backflow device the bypass will also require a backflow device.
 - c. Bypass to be valved upstream and downstream of the bypass meter.

7. **Meter Strainers:**

a. On all strainers installed before the meter a rigid flat plate or rigid expanded metal-element strainer is recommended to protect the metering element from debris carried in the flow stream. The effective open area of the strainer element should be at least twice the open pipe area of the meter inlet. When angle-type or regular basket-type strainers are used, they should be installed a minimum of five pipe diameters upstream of the meter.