CITY UTILITIES
DESIGN STANDARDS MANUAL

Book 4
Water (W)
W6 Building Services

June 2015

W6.01 Purpose

This Chapter establishes the technical design and construction criteria for all building water services within the City of Fort Wayne water distribution system. Any variances from these requirements shall be approved by City Utilities Development Services (DVS) and in compliance with Chapter GR3 - Variances.

The definition of "service" from Fort Wayne Water Utility General Rules and Regulations, as adopted February 12, 2003 is as follows: Service is that portion of pipe situated between and including the tap and curb stop, which is installed by City Utilities or a contractor and maintained by the City Utilities after the expiration of any applicable maintenance bond.

1. Plumbing Codes

   Building water services shall conform to the latest adopted version of the Indiana Plumbing Code (IPC) 675 IAC 16 and to these standards, whichever is more restrictive.

2. Covered in this Chapter

   - Service Lines
   - Services 2" and Less
   - Services Greater than 2"
   - Service Meters
   - Connections Using an Existing Building Service
   - Future Connections

3. Covered in Other Chapters

   - Chapter MA4 - Common Materials
   - Chapter MA7 - Water Materials and Testing Requirements
   - Chapter W5 - Water Main Design
   - Chapter W8 - Backflow Prevention
   - Chapter W9 - Fire Services

W6.02 Service Lines

1. Sizing Water Service Lines

   The AWWA M22 design manual, Sizing Water Service Lines and Meters, is a reference guide for water service design. The latest version of the AWWA M22 design manual shall be used determine the maximum flows that can be expected, and provide criteria for designing and sizing the proposed service lines and meters from the main.

   The AWWA M22 design manual requirements shall be used for all service conditions. If other water service design methods are used they shall require consultation with and approval from City Utilities.

2. Service Requirements
   - The minimum diameter of service pipe shall be one inch (1") for HDPE.

- Services with private fire hydrants shall be a minimum of six inches (6”) in diameter.
- Individual services will be required for each house or facility served by the public water supply system. Services shall be individually metered.
- A service shall not cross the property of another private owner unless such private owner has granted a permanent easement for such building sewer which is duly recorded in the Office of the Allen County Recorder.
- All service connections to water mains 16 inches (16”) in diameter shall require prior approval from City Utilities.
- Service connections shall not be installed on water mains larger than 16 inches (16”) in diameter.
- The minimum depth of cover above the pipe shall be five (5) feet.
- Pipe materials shall be in accordance with Chapter MA7 - Water Materials and Testing Requirements.
- Tracing wire shall be installed on all water service lines. Refer to Standard Drawings W-52 and W-53 for tracing wire installation for water services.

W6.03 Services 2” and Less

Refer to Standard Detail W-40 Service Installations for requirements for small service installations. Service installations for services two inches (2”) in diameter and less shall meet the following requirements:

1. Corporation Stops

   Corporation stops shall be required at each service line tap to the distribution system.

2. Curb Stops

   Curb stops shall be installed for each service. Curb stops shall be placed a minimum of eight feet (8’) from the side property line. Curb stops shall be located within the right-of-way a minimum of two feet (2’) from the front property line. The curb stop shall be located between the curb and the sidewalk. All efforts shall be made to keep the curb stop outside of proposed driveway locations. The curb box and lid shall accompany each curb stop and shall be placed flush with the final grade. Refer to Standard Drawing STR-44 Curb Box for requirements.

3. Metering

   Water meters shall be installed on each individual water service line and shall meet the requirements per section W6.05 of this Chapter. Refer to Exhibit W6-1 for Small Water Meter Spacing and Exhibit W6-3 for Standard Compound and Turbo Water Meter Spacing.

W6.04 Services Greater Than 2”

Refer to Standard Drawing W-40 Service Installations for requirements for large service installations. Service installations for services greater than two inches (2”) in diameter shall meet the following requirements:

1. Connection

   Services greater than two inches (2”) in diameter shall be connected to the water main with a tee and independent valve. All service pipe shall be properly restrained.

2. Metering

   Water meters shall be installed on each individual service line and shall meet the requirements per section W6.05 of this Chapter. Refer to Exhibit W6-3 for Standard Compound and Turbo Water Meter Spacing and Exhibit W6-4 for Fire Line Water Meter Spacing.

W6.05 Service Meters

Water meters shall be located within the building. Any meter proposed to be located outside of the building shall be approved by City Utilities and shall be located within a meter pit.

1. Meter Requirements
   A. Meter sizing must recognize demand needs of the facility served and the route of delivery.
   B. Meters shall meet the requirements as noted in Chapter MA7 - Water Materials and Testing Requirements.
   C. Refer to Exhibit W6-1, Exhibit W6-3, and Exhibit W6-4 for spacing requirements during installation.
   D. Meter pits shall be per the requirements as shown in Standard Drawing W-61.
   E. Remote capabilities as defined by City Utilities shall be required on water meters. Water meters shall be set to include installation of wiring from the meter to a radio endpoint on the side or front of the building or residence as shown in Exhibit W6-2 Water Meter Radio Endpoint.
   F. City Utilities shall be consulted for remote capability requirements and coordination for the installation location.

2. Bypass Requirements
   A. A bypass around all new meter installations shall be required under any of the following circumstances, where:

      - The service line on the outlet side of the meter is one and one-half inches (1 ½”) or larger.
      - The water service must not, for any other reason, be interrupted while the meter is being repaired or replaced.

B. The bypass around the meter shall be furnished and installed by the utility customer according to the Utility's specifications.
C. Where existing piping not containing a by-pass is altered to meet any of the above conditions, the alteration shall also include the installation of a by-pass.
D. A bypass around irrigation lines shall not be permitted.

W6.06 Connections Using an Existing Building Service

Existing building water services may be used in connection with new buildings only when they are found, upon examination and testing, to meet the current code requirements for building water services.

W6.07 Future Connections

Building water services installed for future connections shall be terminated at the street right-of-way or easement and shall be properly capped.

A tracer wire shall be installed terminating at a metal locator rod at the end of the capped water service to within one (1) foot of the finished grade. Refer to Chapter MA7 - Water Materials and Testing Requirements for tracing wire material requirements.

W6.08 Private Booster Pumps

Booster pumps on domestic water systems are not allowed unless specifically approved by DVS and CUE. See Fort Wayne Water Utility General Rules and Regulations.