



WATER RESOURCES DEPARTMENT

FREQUENTLY ASKED QUESTIONS MUNICIPAL WATER AND SEWER CONNECTIONS

The information included in this document is based upon current policies, ordinances, and procedures. For further inquiries, please contact Brian J. Drake at (919)469-3836 or via email at brian.drake@townofcary.org.

In an effort to address several questions we have received regarding home plumbing issues, we have prepared this handout to help clarify the major areas of concern for most residents. It is important to note that the Town of Cary does not issue permits for the construction or repair of private wells and septic systems. The Town does partner with Wake County in the issuance of plumbing and electrical permits for the construction of new private wells and septic tank systems, as well as the abandonment of these systems. The Town issues plumbing permits that are required for the connection of your private home plumbing to the municipal water and sewer system.

Backflow Prevention

One issue of importance to property owners involves backflow preventers. Backflow preventers are devices that protect the municipal water supply by preventing the backflow or backsiphonage of water from your home plumbing back into the municipal water supply. The Town adopted an ordinance and policy in 2003 that require the installation of backflow preventers for all new service installations supplied with Cary municipal water. To view the Cross Connection Control Ordinance, see the first web page address listed below. To view Policy Statement 137 - Cross Connection Control, see the second web page address listed below. Since residential water users are considered a low hazard to the municipal water system in comparison to commercial and industrial users, backflow preventers are installed in the meter setter located in the municipal meter box assembly as an alternative to an above ground installation. For residential applications, the backflow preventer is self-contained inside the meter setter provided by the Town. No additional backflow preventers are necessary for typical residential water users unless the property owner fails to adequately separate the domestic plumbing from a well water supply. However, for all cases where property owners request secondary water services for irrigation or other non-residential uses, separate above ground backflow preventers shall be required. For further information on the Town's cross connection prevention program, please see the third web page address listed below.

http://library.amlegal.com/nxt/gateway.dll/North%20Carolina/cary_nc/codeofordinances/chapter36utilities?*f=templates&n=default.htm&vid=amlegal:cary_nc&anc=JD_36-78

<http://www.townofcary.org/mayor-council/town-policies/cross-connection-control>

<http://www.townofcary.org/services-publications/water-sewer/water/cross-connection-control>

Thermal Expansion Protection

As a result of utilizing a backflow preventer, your water service line may experience pressure fluctuations associated with the thermal expansion and contraction of water inside the service lines. Because thermal expansion of the water inside the service lines cannot be relieved by backflowing or backsiphoning into the municipal water system, a pressure relief mechanism must be installed in your home plumbing to provide a release for the pressure accumulated within the water lines and to protect them from undue expansion or contraction. The plumbing inspection will include confirmation of the installation of a pressure relief mechanism.

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Water Pressures in Your Home

Once you connect to the municipal water system, your water pressure may change. To protect your fixtures and interior home plumbing, a pressure reducing valve is required in the water supply line entering your home. The plumbing inspection will include confirmation of the installation of a pressure reducing valve.

Whole-House Shut-Off Valve (Defined as “Full-Open Valve” by N.C. State Plumbing Code Section 606.1)

All homes are required to have a whole-house shut-off valve. The valve may be located in one of the following three locations: 1) Outside the building within 5-feet of the foundation wall in a readily accessible valve box; 2) In the crawlspace within 3-feet of the crawl space access door; or 3) Within the building in a location where it may be accessed without the use of a ladder or a tool. The plumbing inspection will include confirmation of the installation of a whole-house shut-off valve.

Sewer Back-up Prevention

A backwater valve is required in areas where the public sewer has the potential to back up into a home through the sanitary sewer system. If a home's plumbing fixtures are located below the next upstream manhole cover, the home must be protected with a backwater valve. For a complete explanation of when a backwater valve is required, see the two web page addresses listed below. Where applicable, the plumbing inspection will include confirmation of the installation of a backwater valve.

<http://www.townofcary.org/home/showdocument?id=1651>

<http://www.townofcary.org/services-publications/water-sewer/sewer/backwater-valve>

In conclusion, it is important to summarize the following points.

- Backflow preventers for residential applications will be installed in the meter setters provided by the Town and therefore, you will not be required to install above ground backflow preventers unless you request a separate meter for irrigation or begin utilizing your water service for commercial purposes.
- Pressure relief mechanisms are required to provide pressure relief for your water supply lines and interior plumbing. The excess pressure created by thermal expansion cannot be relieved by backflowing or backsiphoning into the municipal water system.
- Pressure reducing valves are required to regulate the water pressure of your interior home plumbing. You will need to discuss the limitations of your home plumbing with a plumber to determine what maximum pressure rating is best for your individual home plumbing system.
- Whole-house shut-offs are required to allow the water to be shut off to the entire home in the event of a major leak or repair.
- Backwater valves are required where the plumbing fixtures in a house are located below the next upstream manhole cover.

With this notice, we hope to have addressed some of the most pressing questions that have become apparent with respect to the rules, regulations and policies that will affect your home plumbing decisions as you begin to connect to the Town of Cary water and sewer services. If you have additional permitting or plumbing code questions, please feel free to contact the Inspections and Permits Department at (919)469-4340, or refer to the web page address below.

http://www.townofcary.org/Departments/Inspections___Permits.htm