



**INSPECTION DIVISION
919.249.3418**

INSTALLATION REQUIREMENTS FOR PRIVATELY OWNED IRRIGATION SYSTEMS AND YARD HYDRANTS

A permit is required for the installation of lawn sprinkler systems and yard hydrants. A permit may be obtained by completing and filing a [Plumbing Permit Application](#), 2 copies of the proposed layout of the sprinkler heads, and a [Right-of-Way Encroachment Agreement](#) with the Town of Apex Building Inspections Office. (Irrigation system installation in the right-of-way of the NC DOT or into any other utility easement without prior written consent is prohibited.)

Irrigation systems are regulated by the Town of Apex Standard Specifications and Construction Details, The Code of Ordinances, and by the NC Plumbing Code.

Protection of the public water system (cross-connection prevention) shall be achieved through the use of a reduced pressure principal zone backflow preventer assembly (RPZ) for high-hazard installation as listed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research. Refer to the most current list of USC approved backflow prevention assemblies.

The RPZ assembly must be installed at the origin of the lawn sprinkler system between the water meter and the first sprinkler head (or yard hydrant). The RPZ assembly must be installed with a minimum clearance of 12" above grade level and 18" clearance around the valve. It must be installed outside of any building or foundation crawl space; it must be adequately supported (braced); and an enclosure to provide physical and UV protection to plastic piping must be provided. Additionally, the installation must be designed to allow removal of the RPZ during cold weather or the installation must comply with the requirements of ASSE 1060.

Trenches for water lines, from their connection at the water service to the RPZ assembly, must be left open until the inspection is completed. All underground water service piping must be installed a minimum of 12" below grade. Piping material must meet the requirements of underground water service piping.

Rain sensor installation is required for all automatically controlled irrigation installations.

Backflow prevention devices shall be tested and certified when they are installed. Certified [test reports](#) must be filed with the Town of Apex Environmental Programs and Operations Support Department before the system may be approved or put in use. (Reports filed with the Building Inspection Department will be forwarded to the Environmental Programs Operations Support Department). Backflow prevention devices must be retested and recertified on a yearly basis, and maintenance on all rubber parts is to be performed every 5 years. All testing and maintenance must be performed by certified personnel. Recertification is also required after any maintenance is performed on the RPZ assembly. For more information regarding testing, repair, maintenance, and recertification of backflow prevention devices please contact the Town of Apex Environmental Programs and Operations Support Department at (919) 362-8166 or (919) 249-3357.

Related Specifications and Forms:

- The Code of Ordinances, The Town of Apex, North Carolina
- Town of Apex Standard Specifications and Construction Details
 - Yard Hydrant Std No. 6.09 (available at Building Inspections desk)
 - Water Meter Std No. 6.03 (available at Building Inspections desk)
- Right of Way Encroachment Agreement (available at the Building Inspections desk)
- RPZ Assembly Certification Forms (available at the Building Inspections desk)