



## INSTALLATION REQUIREMENTS FOR PRIVATELY OWNED IRRIGATION SYSTEMS AND YARD HYDRANTS

An Irrigation Permit is required for the installation of lawn sprinkler systems and yard hydrants. An Irrigation Permit Application can be obtained at the Inspections and Permitting desk or on the department webpage at <http://www.apexnc.org/183/Building-Inspections-Permits>.

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

Protection of the public water system (cross-connection prevention) shall be achieved through the use of a lead free, reduced pressure principal zone backflow preventer assembly (RPA). Backflow preventers installed must be per the USC Manual and Town of Apex Cross Connection Control Ordinance. Approved lead free backflow preventers can be found at <http://www.usc.edu/dept/fccchr/list.html>.

The RPA must be installed at the origin of the lawn sprinkler system between the water meter and the first sprinkler head (or yard hydrant). The RPA 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 RPA 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 RPA, 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 (1/4" or less setting) is required for all automatically controlled irrigation installations.

Backflow prevention assemblies (BPA) shall be tested and certified when they are installed. You have 10 business days from the meter set date to test and submit the results to the BSI online system accessed at <http://www.bsionlinetracking.com>. You must be an approved tester by the Town and BSI online system to conduct and submit BPA test reports. See the [Water Resources Backflow Prevention/Cross-Connection Control](#) webpage for more information on BPA testing and certification. The Town must have confirmation of the BPA test(s) prior to final inspection and customer operation.

On an annual basis, during the irrigation season, the property owner shall be responsible for hiring a certified company to test, maintain, and certify the BPA. Maintenance of all rubber parts shall be performed every 5 years. For more information regarding testing, repair, maintenance, and recertification of BPA please visit the [Water Resources Backflow Prevention/Cross-Connection Control](#) webpage or contact Apex Water Resources Stormwater & Engineering Division at (919) 249-3357.

### **Related Specifications and Forms:**

- [Backflow Prevention Service Application](#)
- [Town of Apex Code of Ordinances](#)
- Town of Apex [Standard Specifications and Construction Details](#)
  - Standard Detail 600.07 - Yard Hydrant (non-freeze)
  - Standard Detail 600.01 – 3/4" & 1" Backflow Meter Assembly
  - Standard Detail 620.01 - Typical Service & Irrigation Connections
  - Standard Detail 620.03 - 3/4" to 2" Residential & Commercial Irrigation Backflow Assembly

TOWN OF APEX

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