



**CHARLOTTE WATER
BACKFLOW PREVENTION SUBMITTAL REQUIREMENTS**

(revised 2/3/2015)

Please see <http://backflow.charmeck.org/> for details & commonly requested documents.

Note: The required information listed below need not be on a separate drawing if the information exists within the drawing set.

(*CLTWater = Charlotte Water)

- _____ a. Submit completed CLTWater Backflow Prevention Service Application ("BSA") & Meter Dismantlement Applications as applicable for water service(s) on the site.
- _____ b. Submit complete site, grading, storm drainage, and utility plans. Show setback, side and rear yards. Identify streets as public or private. If no grading plan is required, provide info about slope and drainage in vicinity of backflow preventer(s).
- _____ c. Show complete plan of the existing/proposed water supply layout for all facilities on the site.
- _____ d. Show & label public and/or private water supplies and all connections to existing public and/or private water supplies.
- _____ e. Label all existing and proposed water meters as either Irrigation, Domestic, Fire Line or Combination (Dom. & Fire) and specify meter size. Example "Proposed 2" Domestic Water Meter". If a meter is no longer in use and dismantlement is desired, call out as "to be dismantled by CLTWater. Contractor shall cut & plug private piping behind meter vault (on building side of vault)."
- _____ f. Label all piping as to its size and the type of system it is for (e.g. Proposed 2" Domestic Water Line).
- _____ g. Show and label all existing and proposed hydrants, valves, piping branches, and other water appurtenances which are or will be located in the area between CLTWater-required backflow preventer(s) and the related CLTWater water service connection(s) that are within the project work areas of the site.
- _____ h. Show all water line stub-outs for future extension, if applicable.
- _____ i. Show all flood way fringe areas (if any) and provide elevation of the projected 100-year flood.
- _____ j. Show note stating that:

"there shall be no taps, piping branches, unapproved bypass piping, hydrants, Fire Dept. connection points, or other water-using appurtenances connected to the supply line between any water meter and its CLTWater-required backflow preventer."
- _____ k. Show location of all existing and proposed CLTWater-required backflow preventers.

(Continued)

Charlotte Water - Backflow Prevention Plan Review
c/o LUESA Code Enforcement, 700 N. Tryon St., Charlotte, NC 28202
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BACKFLOW PREVENTION SUBMITTAL REQUIREMENTS (Cont.)

_____ i. Label each backflow preventer's size, type (*specify either RPP or DCV*), type of installation, and type of enclosure **using the verbiage shown in the examples below**. If the BP is existing, identify it as such.

___" (Reduced Pressure Principle **or** Double Check Valve) Backflow Prevention Assembly
Installed above-ground within insulated enclosure per CLTWater requirements
Enclosure to include drain port(s) for discharge water per CLTWater requirements
See detail # _____ on sheet # _____

___" Double Check Valve Backflow Prevention Assembly
Installed below-ground within concrete vault per CLTWater requirements
Install (2" or 4") gravity drain as shown per CLTWater requirements
See detail # _____ on sheet # _____

___" (Reduced Pressure Principle **or** Double Check Valve) Backflow Prevention Assembly
Installed inside building per CLTWater requirements
See plumbing/mechanical drawings for details

Exist. ___" (Reduced Pressure Principle **or** Double Check Valve) Backflow Prevention Assembly
Installed (below-ground within concrete vault or above-ground within insulated enclosure)

_____ m. Replicate on plans the correct **current** CLTWater standard detail drawing (with CLTWater title block) for each type BPA to be installed. (Digital files for details now available upon request. Do not alter CLTWater detail drawings)

_____ n. For below-ground double check valve vault installations, show drain line and elevations of the:

- (1) vault lid, (2) vault floor, (3) drain invert-out in the vault, (4) drain invert at discharge end, and,
- (5) if tying into a stormwater structure, the size and elevations of all stormwater pipe inverts and structures.

_____ o. For indoor installations (if approved by CLTWater), show and label sizes of all floor drains.

_____ p. Indicate tamper switches to be installed on gate valves of BPA's on supply lines that serve fire sprinkler systems. Submit hydraulic calculations if retrofitting fireline service.

_____ q. If BPA enclosure is to be heated, label as such.

_____ r. Show note stating that:

"each CLTWater-required BPA is required to be tested by a CLTWater-approved Certified Tester prior to placing the water system in service."