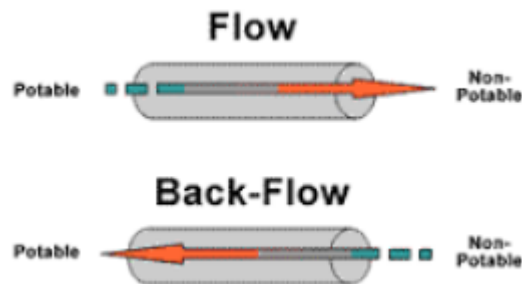


## The Lowell Cross-Connection Control Program (LCCCP)

### *Purpose of the LCCCP*

To comply with the Massachusetts Department of Environmental Protection (Mass DEP) (310 CMR 22.22), and the Lowell Cross-Connection Ordinance, the Lowell Regional Water Utility maintains a cross-connection control program, which involves surveying the plumbing systems of commercial, industrial, institutional, municipal, and some residential premises to determine whether there are any points along the water distribution system where potable and non-potable water meet (cross-connection) during a flow reversal (backflow). Backflow prevention devices, a mechanical method used to block the reverse flow of potentially contaminated water into the potable water system, are recommended based upon the nature of the system, the degree of hazard that the cross-connection poses, and relevant regulations.



### *What are “Backflow” and “Cross-Connection(s)”?*

Mass DEP defines the following terms in 310 CMR 22.22:

**Backflow:** “The flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable water supply from any source or sources other than its intended source”

**Backpressure:** “Backflow that occurs when the pressure in an unprotected downstream piping system exceeds the pressure in the supply piping”

**Backsiphonage:** “Resulting from negative pressures in the distributing pipes of a potable water supply”

**Cross-Connection:** “any actual or potential connection between the public water supply and a source of contamination or pollution”

Both backpressure and backsiphonage can cause backflow, which can introduce contaminants at points of cross-connection in the potable water supply. A normal potable water distribution system has a higher upstream pressure and a lower downstream pressure; backflow occurs when this reverses. At points of cross-connection, backflow could pull the non-potable water into the potable water distribution system in your building and across the city. Backflow prevention devices block contaminated water from entering the potable water system to protect the health of all recipients of Lowell water.

### *Cross-Connection Surveys and Backflow Prevention Device Tests*

*Effective March 2021, the city is undergoing a survey across the entire potable water system*

The cross-connection survey, under guidance from Mass DEP, assesses whether current backflow prevention devices are in compliance with applicable regulations and whether additional devices are required. The city-wide cross-connection survey is scheduled to take place every 5 years, and a regular

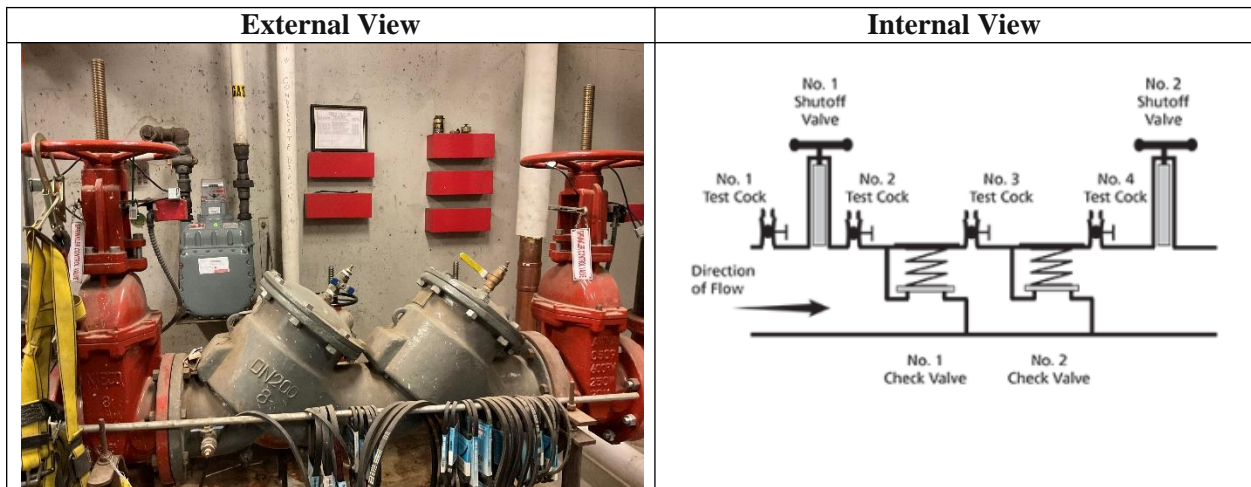
cross-connection survey must be conducted at any facility which has undergone renovations to the plumbing system, a change of use, or is newly constructed.

Routine, initial, and re-testing of backflow prevention devices ensures that the actual devices are working properly. The cross-connection survey covers the regulations, and the backflow prevention device test covers the operation and mechanics of the device. A survey with a “pass” result indicates that your device is appropriate for the degree of hazard which it protects, but the device itself may not be functioning properly. Only a “pass” for both your survey and your test(s) indicates that your facility is in compliance with applicable regulations.

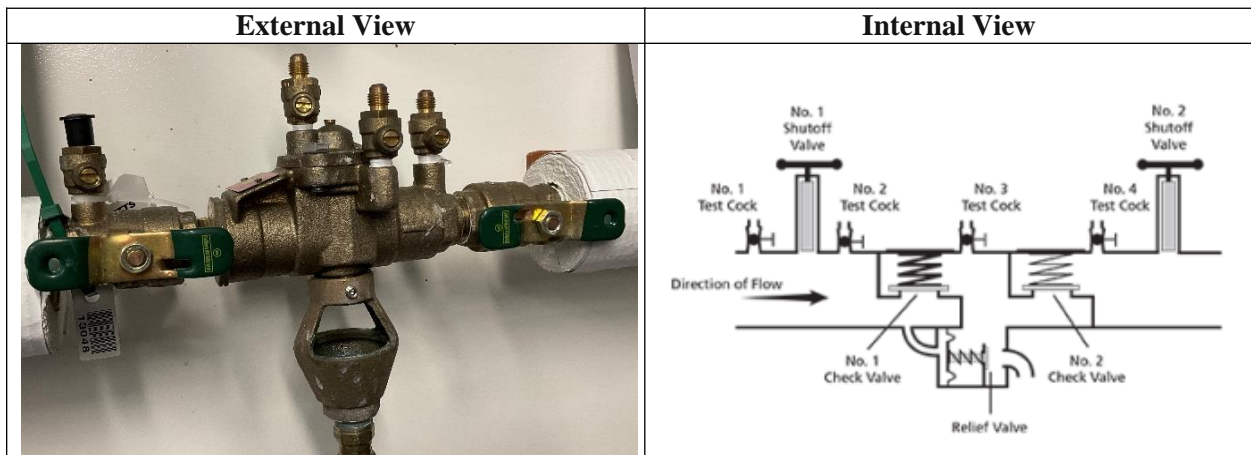
***Interpreting Survey Notices***

You will see devices listed under “Device Needed” on your survey report if you need to install any devices. This column will include 1 or more of the following acronyms (please note that the devices in the photos are not officially endorsed by the LCCCP and are just to provide a visual example of the style of device):

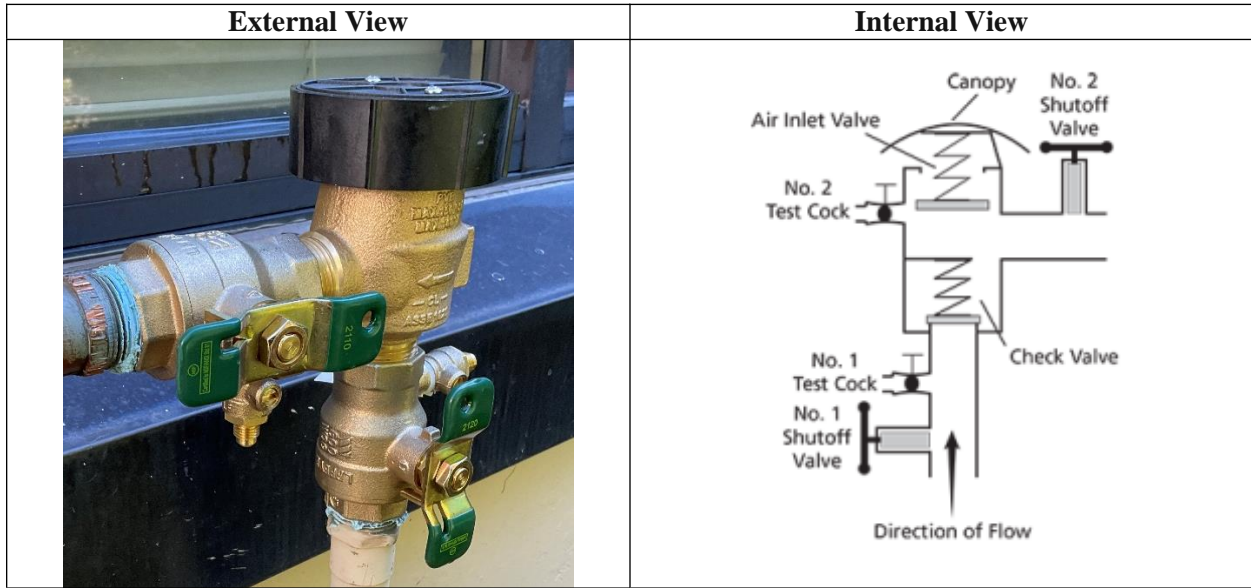
DCVA: Double Check Valve Assembly



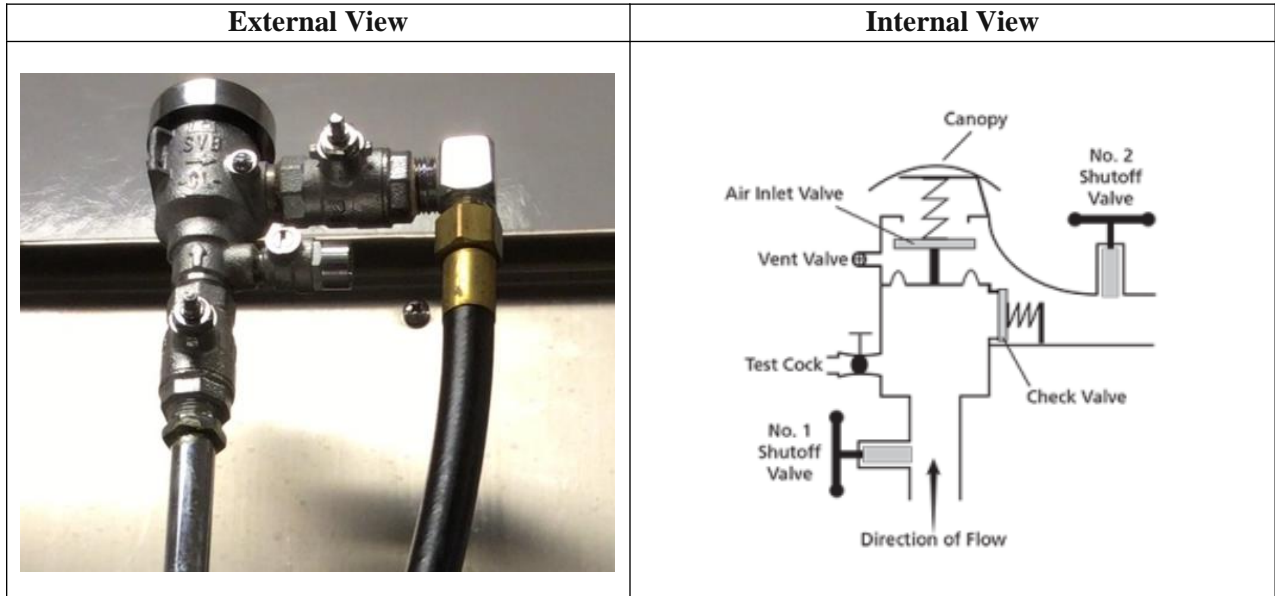
RPZ: Reduced Pressure Zone



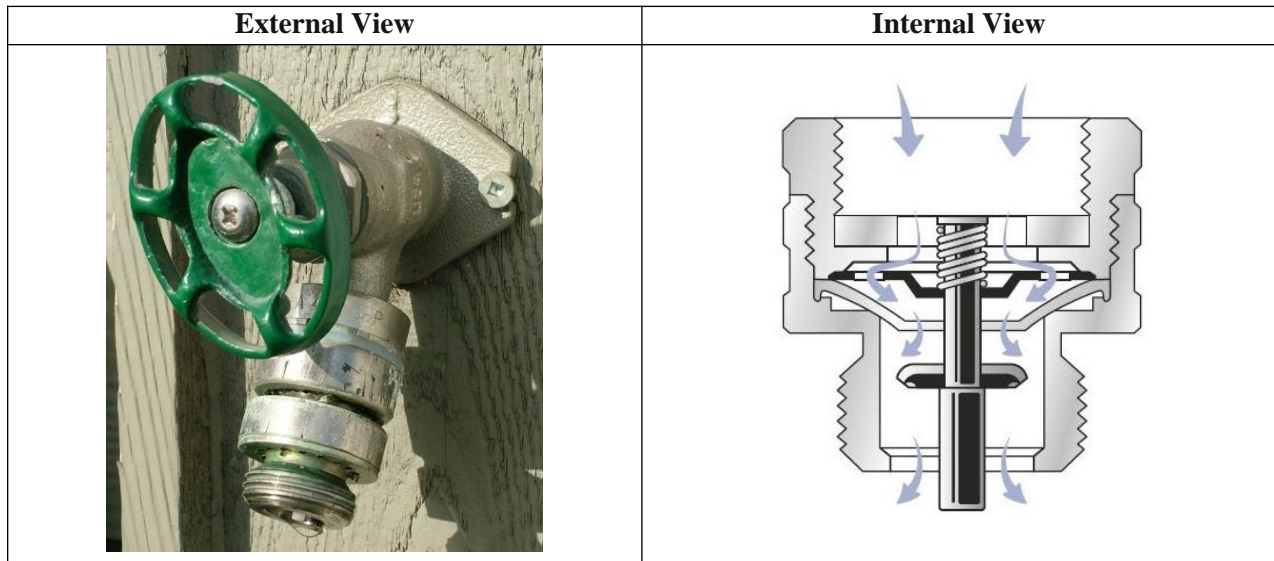
PVB: Pressure Vacuum Breaker



RVB: Spill-resistant Vacuum Breaker



HBVB: Hose Bibb Vacuum Breaker



**Contact**

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Please note that we may be out inspecting and may not be able to take your call. Email is the best way to reach us during and after work hours. Questions regarding the process to address your survey and test violations may be answered via the protocol and explanation of results distributed along with your notices.