BACKFLOW PREVENTION APPLICATION INSTRUCTIONS

Receive backflow device application & fact sheet.

When paperwork is returned we need:

1. **Completed application** (totally filled out & signed) (2copies)
2. **Picture & description** of backflow prevention device (2 copies)
3. **Engineer's Report** of backflow prevention device (2 copies)
4. **Location drawing** of backflow prevention device (2 copies)
5. **$250.00 check** made out to: Orange County Department of Health
6. **$250.00 check** made out to: Town of Newburgh Water Department

After backflow device is installed:
A copy of the Report on Test and Maintenance of Backflow Prevention Device form must be submitted to the Town of Newburgh Water Department before a Certificate of Occupancy is issued.

ORANGE COUNTY DEPARTMENT OF HEALTH
124 Main Street – 3rd Floor
Goshen, NY 10924

Application for Approval of Backflow Prevention Devices

PRINT OR TYPE ALL ENTRIES EXCEPT SIGNATURES	Section/Block/Lot:	
1. Name of Facility	2. City/Village/Town:	3. County ORANGE
4. Address of Facility (street)	(city) (state)	(zip code)

5. Proposed Backflow Prevention Device(s): Total Number of Devices: _____	5a. QTY	5b. Mfg. Model #	5c. Size of Device(s)	5d. Fire or Domestic	5e. Degree of Hazard, i.e. Hazardous, Aesthetically Objectionable, etc. (list processes or reasons that lead to degree of hazard identified)	5f. Approx. Location of Device

5g. Additional Description/information:

6. Name of Owner/Applicant, Title	6a. Phone Number	7. Nature of Works ☐ Initial Device Installation ☐ Replace Existing Device
6b. Owner/Applicant Full Mailing Address: _____ (street) _____ (city) (state) (zip code) Owner/Applicant **Signature:** Date: ___/___/___		7a. ☐ New Service ☐ Existing Service 7b. ☐ New Building ☐ Existing Building ☐ Major Renovations
6c. Applicant's E-mail address:		

8. Name of Design Engineer or Architect	Name: _____ Firm: _____ Full Mailing Address: _____ (street) _____ (city) (state) (zip code)	8a. NYS License # _____ ☐ PE ☐ RA ☐ Other 8b. Telephone Number 8c. E-mail address
Original ink signature and seal required on all copies **Signature:** _____		Date of Signature: ___/___/___

9. Water System Pressure (psi) at Point of Connection: Max_____ Avg _____ Min _____	10. Estimated Installation Cost:	10a. Estimated Design Cost:
11. Public Water Supply Name: _____ PWS ID#: NY ___ ___ ___ ___ ___ ___ ___ Mailing Address: _____ _____ Telephone No:	11a. Name of Water Supplier's Designated Representative: _____ Title: _____ **Signature:** Date: ___/___/___	

Note: All applications must be accompanied by plans, specifications, review fee, and an engineer's report describing the project in detail. The project must first be submitted to the water supplier, who will complete Sections 11 and 11a and forward it to the Orange County Department of Health. Appropriate fee and submittal checklist can be found on the website: https://www.orangecountygov.com/539/Applications-Forms-Permits-Documents

ORANGE COUNTY DEPARTMENT OF HEALTH
BACKFLOW PREVENTION DEVICE CHECKLIST

SUBMISSION:

1. Plans must be prepared by a NYS registered Professional Engineer or Architect.
2. The cover sheet of the plans must include an Orange County Department of Health approval box which includes a minimum white area of 5" x 3". Plan sheets should be sized large enough to accommodate this area.
3. The application DOH-347 must be signed by the water supplier or his designated representative, prior to submission. Application must also be signed and sealed by the engineer or architect.
4. Include review fee of $250.00 per device made payable to the Orange County Dept. of Health.
5. The Design Professional will be required to submit scanned copies of the approved documents to the OCHD within 30 days following OCHD approval. Please provide an email address.

ENGINEER'S REPORT:

1. Describe the degree of hazard that was provided on the application (hazardous or aesthetically objectionable), type of device selected, and the make & model number.
2. Describe system conditions including flows (domestic/fire demand) and pressures as appropriate.
3. Address sizing of the unit, based on hydraulic requirements.
4. Ensure that devices appear on the list generated by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR).
5. Estimate maximum possible discharge from any RPZ drain. Ensure adequate drainage is provided.
6. Describe the fire fighting system and indicate the AWWA Manual M-14 class of sprinkler.
7. Parallel units should be considered for facilities where water service cannot be interrupted.

PLAN REVIEW:

1. GENERAL:

a. Plans provided should generally be larger than 8.5" x 11" to show adequate detail, all required notes, and accommodate this department's 5" x 3" stamp.

b. The preferred installation is a separate building as close as possible to the property line, with a floor that is a minimum of 6" above finished grade. Where containment at the property line cannot be achieved or is waived, installation of the device may be done immediately inside the building.

c. Site plans must be provided to demonstrate that containment is achieved, and the location of the device is satisfactory. A site plan (to scale or with dimensions) of the facility should contain the size and location of public water main(s) and all fire and domestic water services.

d. Ideally, no platforms or ladders should be required for access.

e. Provide adequate heat to prevent freezing and if installed where temperatures will reach 100 degrees F or above, a hot water type assembly must be proposed.

f. Provide adequate lighting to facilitate servicing of the device.

g. Below grade or basement installations are acceptable for DCVA's. RPZ's are allowed below grade only if at least one of the following conditions is met:
   i. Adequate gravity drainage system to accommodate relief valve on RPZ's.
   ii. Level alarms are installed to detect flow from the device.
   iii. Sump pumps are sized to accommodate a relief valve failure and are connected to an auxiliary power supply.

iv. Floor area and volume below device could handle discharge from a relief valve failure. For 2" and smaller units, 2000 cu.ft. is acceptable. For larger units, the time to submerge the unit based on maximum discharge rate shall not be less than 8 hours.

2. CLEARANCES:

a. All assemblies must be installed with a centerline height of 30-60" above the floor. Any installation at a greater height shall be provided with a fixed platform, a portable scaffold or a lift meeting OSHA standards.
b. All RPZ devices must have 18" minimum clearance between bottom of relief valve and floor to prevent submersion and provide access for servicing.
c. A minimum of 12 inches clearance must be provided above the device for servicing.
d. 30 inches minimum clearance shall be provided in front of the device to the nearest wall or obstruction.
e. At least 8 inches clearance should be maintained from the back side of the device to the nearest wall or obstruction. This clearance may need to be increased for models that have side mounted test cocks or relief valves that would be facing the back wall.
f. Devices shall be adequately supported and/or restrained to prevent movement. Pipe hangers, braces, saddles, stanchions, piers, etc., should be used to support the device and should be placed in a manner that will not obstruct the function of or access to the relief valve.

3. DRAINAGE:

a. Drainage shall be provided to accommodate discharge during testing or relief valve discharge.
b. For RPZ devices, drainage must be sized to accommodate intermittent discharge and catastrophic failure of the relief valve.
c. Discharge from relief valves must be readily visible. Adequate lighting must be provided.
d. All drainage from RPZ's must be by gravity drains through a properly designed air gap. Sump pumps are not allowed unless they are sized to accommodate maximum discharge and are connected to emergency power source(s). Manufacturer's air gap fittings may not be sized to accommodate catastrophic discharge. Confirm capacity.
e. Discharge piping from any relief valve must terminate at least 1 inch above grade or receiving receptacle.
f. In pit installations, floors pitched to drain, and discharge piping must terminate above grade in an area not subject to flooding. The end of the pipe must be equipped with a rodent screen.

4. NOTES – These notes must appear on the plans:

a. New and replacement devices must be tested after installation and before entering into service. Devices must be tested annually thereafter.
b. Strainers are recommended prior to each backflow device on non-fire fighting lines **ONLY!** No strainer is to be used on a fire line without Insurance Underwriter approval.
c. Assemblies should be specified and installed with manufacturer supplied valves.
d. Water lines should be thoroughly flushed before installation of device to prevent debris fouling the device check valves.
e. Devices must be mounted horizontally unless approved for vertical installation.

f. Assemblies should not be installed in areas containing corrosive or toxic gases which could render the device inoperable.

g. Due to inherent design of RPZ assemblies, fluctuating supply pressure on a low flow condition may cause nuisance dripping. Installation of a soft seated check valve ahead of the RPZ will often hold pressure constant during periods of low flow.

h. Where the distance between the water meter and device is greater than 10 feet, all exposed piping should be marked "Feed line to Backflow Preventer – Do Not Tap" at 5-foot intervals.

i. Adequate heat will be provided to prevent freezing and adequate lighting will be provided to facilitate servicing of the device.

j. **This note must appear on page 1 of the plans** Orange County Department of Health plan approval is limited to 5 years. Time extensions for plan approval may be granted by the Orange County Department of Health based upon development facts and any new regulations, or guidance, in effect at that time. A new plan submission may be required to obtain a time extension.

k. **This note must appear on page 1 of the plans** Only details and notes associated with the installation of the proposed backflow prevention device are subject to the review and approval by the Orange County Department of Health.