Stratham Fire Rescue

General Information for Fire Sprinkler Designers / Installation Contractors / Technicians

IMPORTANT NOTE: A Fire Protection Engineer (FPE) of record is required for ALL new installations and most alterations. The registered design professional's license must designate them as qualified in the field of fire protection. All documents shall be reviewed and stamped by the FPE to be considered a complete permit application. Any deviations from the approved plan shall be submitted to the FPE of record for review, stamped and submitted to the Bureau before a final inspection.

Permits and inspections shall be required for:

- New installations of any fixed fire suppression system including sprinkler, standpipes, & clean agent systems
- Alterations of existing systems (relocating a head, nozzle etc. is an alteration)
- Repairs of existing systems
  - Exemptions- testing, inspecting, replacement of damaged/faulty items and maintenance items such as gaskets, valve rebuilds, FDC covers etc. Notify the bureau *immediately* of *any* system impairment longer than 4 hours at 603-926-3316

Electronic working plans shall include:

All applicable items listed in NFPA 13 Chapter 23.

Commonly omitted items and issues that cause plans to be returned-

1. **A signed copy of the owners certificate** (NFPA 13 4.3)
2. Water supply capacity information from a waterflow test conducted no more than 12 months prior
3. Floor plans with piping, heads, riser locations etc. This shall *not* be on a reflected ceiling drawing
4. Hydraulic calculations, including a graph sheet, node analysis and detailed worksheet
5. Specification sheets shall only be for materials specified in the system proposed. Documents that do not pertain to the alarm shall not be included with the submittal and shall lead to the plans being returned.
6. Failure to adhere to the additional requirements listed on page 2.

Additional Installation, Inspection, and Acceptance Requirements:

- NFPA 13 and 13R systems hydraulic calculations shall demonstrate a safety margin of 10% of system demand pressure or 10 psi, whichever is greater **(A 10 PSI minimum will be strictly enforced)**
- The **hydraulic data nameplate** and **general information sign** and a **list** of all control, drain, venting and test connections **SHALL** be provided on a weatherproof metal or rigid plastic material permanently secured to the riser. If this is not in place, the inspection shall end and be rescheduled at a later date.
- A rough inspection of all system components ***shall*** be scheduled and completed prior to being covered or enclosed
- Failure to have a properly operating system will cause the system to be rejected at the final inspection. This includes any fire alarm system components connected to the sprinkler system
- All NFPA 13 and 13R fire protection sprinkler and standpipe system valves shall be supervised. All waterflow devices shall be supervised and automatically report as a fire alarm via a UL listed central station. See fire alarm info sheet
- Upon system completion, the system installer shall notify Aquarion Water Company for a final backflow preventer test. The backflow preventer test certificate shall be shown to the building inspector during the final building inspection.
- Provisions for a full forward flow of the backflow preventer at the minimum flow rate of the system demand shall be demonstrated on shop/drawings/plans.

The installer shall schedule a final system test and inspection with the Fire Prevention Bureau. The contractor shall submit a Contractor's Material and Test Certificate for Aboveground Piping to certify the system has been 100% tested and functions in compliance with the approved system design, prior to the requesting a final inspection. Figure 25.1 in NFPA 13 shall be the only acceptable format. ***Final inspection shall not be scheduled*** *by the Bureau without this form. Partial or incomplete forms shall not be accepted.*

Fire Department Connections

Fire Department Connections are required to be a 2 ½" Siamese adapter or or equivalent as approved by the AHJ

Standpipes

All standpipe systems shall be installed in compliance with NFPA 14. Standpipes shall be equipped with 2 ½" to 1 ½" reducers. The 2 ½" component shall be provided with National Standard threads and the 1 ½" component shall be equipped with iron pipe thread.

Fire Pumps

All fire pumps shall be installed in compliance with NFPA 20. They shall be directly accessible from the exterior. Fire pumps shall be supervised for pump running (shall report by point, as a fire alarm) and supervisory alarms for power failure, phase loss/reversal and all other off normal conditions.