



ECONOMIC DEVELOPMENT DEPARTMENT
1937 MUNICIPAL WAY ♦ ROUND LAKE BEACH ♦ ILLINOIS ♦ 60073

TEL: (847) 546-2351 ♦ FAX: (847) 201-7229

GUIDELINES FOR RESIDENTIAL FIRE SUPPRESSION SYSTEMS

PLAN SUBMITTAL REQUIREMENTS

- Completed application
- Hydraulic calculations – include domestic water service usage
- A scaled drawing showing the location of each device
- Manufacturer's specification sheets for all pipe, equipment and devices to be installed

CODES GOVERNING INSTALLATION

NFPA 13D-1996 Edition with local amendments

LOCAL AMENDMENTS

- Attached garages (heated or unheated) – at least one dry sprinkler head shall be installed in the wall and or ceiling, which separates the garage from the living area. The dry sprinkler head(s) shall protect the entire area of the separation wall and or ceiling.
- A local water flow alarm bell shall be installed on the return air plenum of the furnace. The water flow alarm bell must have a minimum diameter of eight inches (8"). Water flow switches may be of the manual type.
- Fire sprinkler piping installed in unconditioned spaces, including but not limited to unheated crawl spaces and attics, shall be protected by approved insulation material having a six-inch nominal depth of material when installed completely around the piping system.
- The test drain must be piped to the exterior of the building to a location acceptable to the Code Official.
- There shall be at least three spare sprinkler heads of each type, temperature rating, and orifice size used in the system and a spare sprinkler wrench of the appropriate type shall be kept on the premises in a readily accessible and obvious location.

Exception:

Two (2) spare dry sprinkler heads of each type, temperature rating, and orifice size used in the system and a sprinkler installation wrench of the appropriate type shall be kept on the premises in a readily accessible and obvious location.

THE FOLLOWING WATER SOURCES SHALL BE CONSIDERED ACCEPTABLE BY THIS STANDARD

- A connection to a reliable public potable waterworks system with or without an automatically operated pump.

Exception:

In areas not served by a reliable public potable waterworks system, a stored water source, re-supplied at all times from a potable well, with an automatically operated pump, properly sized in accordance with NFPA 13 will be permitted.

REQUIRED APPROVED BACKFLOW PREVENTION DEVICES

- Double detector check (testable)
- Double detector check with by-pass (testable)
- Reduced pressure zone (testable)

REQUIRED APPROVED BACKFLOW PREVENTION DEVICE TESTING AND ANNUAL MAINTENANCE

Backflow device(s) installed in the fire sprinkler system shall be tested and maintained at least annually by a State of Illinois licensed cross-connection control device inspector, and records to verify testing and maintenance shall be available at the site of the installation of the device or at other approved locations. A copy of the annual inspection test results shall be submitted to the code official (Code Section: 1998 Illinois State Plumbing Code, section 890.1130).

MAINTENANCE OF FIRE SUPPRESSION SYSTEMS

The property owner shall be responsible for the condition of the fire sprinkler system and shall keep the fire sprinkler system in normal operating condition at all times in accordance with section 1-4 and A-1-4 of NFPA 13D, Standard for the Installation of Sprinkler Systems in One-and-Two-Family Dwellings and Manufactured Homes (as amended locally).

The property owner must complete the Fire Sprinkler System Backflow Maintenance Agreement and return it to this office. Also, a copy of the minimum maintenance requirements according to section 1-4 and A-1-4 of NFPA 13D, Standard for the Installation of Sprinkler Systems in One-and-Two-Family Dwellings and Manufactured Homes (as amended locally) must be provided to the building owner by the builder or seller.

The recommended minimum information in the above document shall be as follows:

Maintenance of the Fire Suppression System

The minimum responsibility for properly maintaining a sprinkler system is the obligation of the property owner, who should understand the sprinkler system operation.

A minimum monthly maintenance program should include the following:

Visual inspection of all sprinkler heads to ensure against obstruction of spray,

Inspection of all valves to assure that they are open,

Testing of all waterflow devices,

Testing of the alarm system and alarm bell and/or water flow devices, if installed,

NOTE: Where it appears likely that the test will result in a response from the fire department, notification to the fire department shall be made prior to the test.

Operation of pumps, where employed (See NFPA 20, Standard for the Installation of Centrifugal Fire Pumps),

Checking of the pressure of air used with dry systems,

Checking of water level in tanks.

Care should be taken to see that sprinkler heads are not painted either at the time of installation or during subsequent redecoration. When sprinkler piping or areas next to sprinkler heads are being painted, the sprinkler heads shall be protected by covering with paper bags, which shall be removed immediately after the painting is finished.

Any backflow device(s) installed in the fire sprinkler system shall be tested and maintained at least annually by a State of Illinois Licensed cross-connection control device inspector, and records to verify testing and maintenance shall be available at the site of the installation of the device or at other approved locations. A copy of the annual inspection test results shall be submitted to the code official (Code Section: 1998 Illinois State Plumbing Code, section 890.1130).

904.9.2.4 Spare Sprinklers: At least three (3) spare sprinkler heads of each type, temperature rating, and orifice size used in the system and a sprinkler installation wrench of the appropriate type shall be kept on the premises in a readily accessible and obvious location.

Exception:

Two (2) spare dry sprinkler heads of each type, temperature rating, and orifice size used in the system and a sprinkler installation wrench of the appropriate type shall be kept on the premises in a readily accessible and obvious location.



ECONOMIC DEVELOPMENT DEPARTMENT

TEL: (847) 546 -2351 • FAX: (847) 201 - 7229

Philip J. Senn, Sr. Code Official (Ext 349)

Fire Sprinkler System Backflow

Maintenance Agreement

To be read and signed by the legal property owner

As owner of the property listed below, I understand that the backflow device is required by both State of Illinois Plumbing Code, and Local Code, to be installed as part of the fire sprinkler system and must be inspected and tested once a year for the life of the fire sprinkler system by a State of Illinois Licensed Certified Backflow Tester. The results of the annual inspection and test shall be filed with the Village of Round Lake Beach Department of Public Works. In addition, the legal property owner shall pay all expenses for testing and repair of such backflow device now, and in the future. All individuals installing fire sprinkler backflow prevention systems are required by Illinois State Law to be licensed by the State of Illinois.

Please print:

Date: _____

Address of property: _____

Owner(s) Name(s): _____

Owner(s) Signature(s): _____

Copy: Property file
Public Works Department