

Village of Glen Ellyn

Fire Protection Information Sheet

(Residential Fire Sprinklers)

Date of Submittal: _____

Address of Project: _____

Fire Protection Contractor:

Company _____ Contact Person _____

Address _____

Telephone _____ Fax _____ Email _____

General Contractor/Builder:

Company _____ Contact Person _____

Address _____

Telephone _____ Fax _____ Email _____

Sprinkler Heads for project:

Manufacturer _____ Sprinkler Identification Number (SIN) _____

Manufacturer _____ Sprinkler Identification Number (SIN) _____

Manufacturer _____ Sprinkler Identification Number (SIN) _____

Manufacturer _____ Sprinkler Identification Number (SIN) _____

Manufacturer _____ Sprinkler Identification Number (SIN) _____

Documents required for submission:

- Fire Protection Information Sheet (this document)
- (3) Copies of sprinkler shop drawings showing sprinkler and piping locations, piping materials, building cross section, and calculation nodes. Drawings must include list of sprinkler head data including manufacturer and SIN, designed maximum head spacing, and maximum distance between h.s.w. deflector and ceiling.
- (1) Copy of hydraulic calculations. Note: 2-head calculation is required unless compartment is covered by only 1 head.
- (1) Copy catalog cut sheets for sprinkler heads, backflow preventer, and any specialized items.

Upon approval and permit issuance, 2 copies of shop drawings shall be stamped and returned to the applicant. Excess documents shall be discarded.

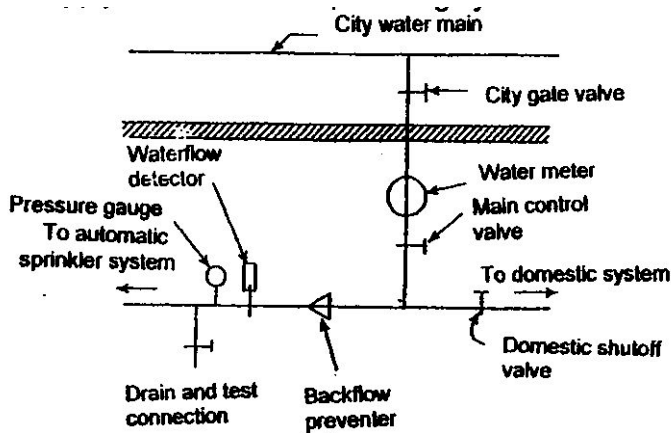
Local Requirements

Design Standard

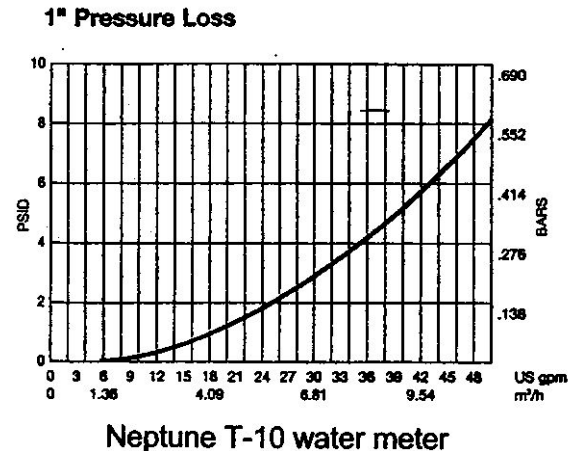
Fire sprinkler systems for single family homes are required to meet the requirements set forth in National Fire Protection Association (NFPA) Pamphlet 13D "Standard for the installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," 1999 Edition.

Water Connection Arrangement

Residential fire sprinkler systems connect to the public water supply after the water meter. A minimum of a 1" water meter is approved for homes with fire sprinkler systems. Shut-off valves shall be arranged such that it shall be impossible to turn off the water supply to the fire sprinkler system without shutting off the water supply to the domestic plumbing system.



Typical arrangement



Neptune T-10 water meter

Water Flow Alarm

All systems shall be equipped with a water flow alarm consisting of the following as a minimum:

- Water flow detector which activates within 1 minute of water flow from the smallest sprinkler orifice in the system.
- Inside bell six inches in diameter, mounted to the (exterior of) home's furnace return duct. In the event that a home has more than one furnace, a separate bell shall be required for each furnace return duct. *As an alternative to bells, a combination horn-strobe may be located in the building's interior. Horn strobes shall be located to insure that one is within 20 feet of all sleeping rooms.*
- Outside bell ten inches in diameter mounted on the street side of the building. (for the purpose of locating the bell, a side wall within 6 feet of the front of the building will meet this requirement.) *As an alternate, a weatherproof combination horn-strobe may be used in lieu of the ten inch bell.*
- Power for alarm bells shall be on a separate circuit from any fire pump. If a dedicated circuit is used for alarm bells, a locking clip shall be installed on the circuit breaker to insure that it is not inadvertently turned off.
- Connection to a central station alarm system is encouraged, but not required.

Backflow Prevention

The Illinois Plumbing Code requires that fire safety systems employ a Double Check Valve assembly. If the system utilizes antifreeze, a Reduced Pressure Zone (RPZ) assembly is required.

Fire Pumps

Fire pump shall be approved only upon documentation that no other options exist such as reduced spacing, increased pipe sizing, and additional risers. In the event that a fire pump is utilized in a NFPA 13D sprinkler system, the pump is not required to be listed for fire protection use. Electrical power for fire pumps shall be supplied by a dedicated circuit. This circuit shall not supply any other equipment including alarm bells. The circuit breaker shall be equipped with a locking clip to insure that it is not inadvertently turned off.

VILLAGE OF GLEN ELLYN

RESIDENTIAL SPRINKLER CONTRACTOR'S MATERIAL AND TEST CERTIFICATE

To Be Submitted at Time of Final Inspection

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system shall be left in service before the contractor leaves the job. A certificate shall be filled out and signed by all representatives. Copies shall be prepared for approving authorities, owners and contractors. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

| PROPERTY ADDRESS _____ | | | | | | | DATE _____ | |
|---|--|--|--------------|---------|-----------|------|-----------------|-----|
| INSTALLATION CONFORMS TO APPROVED PLANS: YES <input type="checkbox"/> NO <input type="checkbox"/> | | | | | | | | |
| SPRINKLERS | MAKE | MODEL | YEAR | ORIFICE | QUANT. | TEMP | COVERAGE AREA | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| PIPE AND FITTINGS | TYPE OF PIPE | | MANUFACTURER | | ADHESIVE | | | |
| | | | | | | | | |
| | | | | | | | | |
| FLOW INDICATOR | TYPE | | MAKE | | MODEL | | TIME TO OPERATE | |
| | | | | | | | MIN | SEC |
| | | | | | | | MIN | SEC |
| TEST DESCRIPTION | <u>HYDROSTATIC TESTS</u> SHALL BE MADE AT NOT LESS THAN 100 PSI FOR TWO HOURS OR 50 PSI ABOVE STATIC PRESSURE IN EXCESS OF 50 PSI FOR TWO HOURS <u>DRAIN TEST</u> INVOLVES THE RECORDING OF STATIC PRESSURE AND RESIDUAL PRESSURE WITH TRIP TEST VALVE FULLY OPEN | | | | | | | |
| | | | | | | | | |
| TESTS | HYDRO | ALL PIPING HYDROSTATICALLY TESTED AT ___ PSI FOR ___ HOURS | | | | | | |
| | DRAIN | STATIC PRESSURE ___ PSI RESIDUAL PRESSURE ___ PSI | | | | | | |
| | ALARM | ALARM DEVICE MAXIMUM TIME TO OPERATE: ___ MIN ___ SEC | | | | | | |
| SPARE HEADS | PROVIDE THREE SPARE SPRINKLER HEADS OF EACH TYPE INSTALLED IN SYSTEM SPARE HEADS PROVIDED ___ YES ___ NO | | | | | | | |
| DATA LABEL | INFORMATION LABEL PROVIDED AT RISER LOCATION ___ YES ___ NO | | | | | | | |
| | INFORMATION PACKET PROVIDED AT RISER LOCATION ___ YES ___ NO | | | | | | | |
| VALVES OPEN | DATE SYSTEM LEFT IN SERVICE WITH VALVES OPEN _____ | | | | | | | |
| CERTIFICATION | SPRINKLER CONTRACTOR | | | | | | | |
| | ADDRESS | | | | | | | |
| | TELEPHONE | | | | | | | |
| | FITTER NAME | | | | SIGNATURE | | | |
| SIGNATURES | FOR PROPERTY OWNER | | | | DATE | | | |
| | FOR GENERAL CONTRACTOR | | | | DATE | | | |

Residential Sprinkler System Periodic Maintenance and Inspection Schedule

Based on NFPA 25, 77 Illinois Administrative Code, Part 890

| | | | |
|---|---------------------|-------------------|---|
| Monthly | Pressure gauge | Visual Inspection | Verify proper pressure |
| | Control valves | Visual Inspection | Verify valves are open |
| Quarterly | Alarm devices | Functional Test | Operate water flow detector and alarm bells. Test all smoke detectors |
| | Main drain | Functional Test | Compare static and residual pressures to those recorded on data sheet |
| | System data sheet | Visual Inspection | Verify data sheet is present and legible |
| Annually | Sprinklers | Visual Inspection | Check for damage or painted heads |
| | Pipe and fittings | Visual Inspection | Check for damage or leaks |
| | Hangers | Visual Inspection | Check for missing or damaged hangers |
| | Spare sprinklers | Visual Inspection | Check for spare sprinklers |
| | Antifreeze solution | Functional Test | Test freezing point of antifreeze solution (if system is equipped with antifreeze) |
| | Backflow preventer | Functional Test | Inspected and tested by a state licensed cross-connection control device inspector. |
| After 50 years | Sprinklers | Replace | Replace all sprinkler heads |
| Or | | | |
| After 50 years and every 10 years thereafter | Sprinklers | Functional Test | Representative test of 1% but not less than 4 sprinkler heads. |