



Mercer Island Fire Marshal's Office  
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# 13 D RESIDENTIAL SPRINKLER STANDARD

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These design standards have been adopted by the Mercer Island Fire Department and have been established for the design and installation of sprinkler systems for one- and two-family dwellings, zero lot line townhomes and manufactured homes.

The 2016 edition of NFPA 13, NFPA 13D, and NFPA 13R shall be used unless specifically noted otherwise. The current Mercer Island-adopted building and fire codes shall be used. See Mercer Island Municipal Code Title 17.

## NFPA 13D STANDARD – FIRE SPRINKLER SYSTEM REQUIREMENTS

All requirements of NFPA 13D and the following additions and modifications are required.

- **Water supply**

A 1" minimum water meter and 1" minimum service line is required for all 13D Standard sprinkler Systems. This is the minimum requirement and the sprinkler calculations for the project shall determine the **actual** meter and service line size. The Plumbing Code may still require a larger size. A water meter permit will not be issued until the sprinkler permit is approved. To reduce delays, sprinkler plans shall be completed as early in the process as possible.

- **Water Flow Alarm**

The sprinkler system shall have installed a means of notification for a water flow event.

INTERIOR: You may connect the water flow switch to the sounder side of the line voltage smoke alarms. Firex smoke detectors use part # 0498 and Kidde with relay/power supply module SM120X are currently approved for this purpose.

If you cannot interface the water flow switch to smoke alarms then a separate horn or bell is required to be located on each level including the basement or lowest level of the structure for occupant water-flow notification to a minimum of 75 dBA in the sleeping rooms.

EXTERIOR: An exterior grade 8" Potter bell or equivalent shall be installed.

- **Garage Entry Door Coverage**

A minimum of one head shall be installed on the garage side of the door leading into the residence from an attached garage. Additionally, verify that a head is not required by the manufacture above the riser if in a different location.

- **Sprinkler System Drain**

The system drain shall be piped all the way to the exterior of the building and not cause damage to landscaping while water is flowing. *Hose connections are not allowed.*

- **Spare Head Box**

A cabinet containing a minimum of two spare heads of each type and a sprinkler wrench shall be provided.

- **Storage Room**

Any crawlspace that has a concrete floor or flooring and a full size door shall be presumed to be a future storage room and sprinkler coverage shall be provided.