



# Fire Sprinkler Systems, Commercial & Multifamily

The requirements for installation of commercial and multifamily fire sprinkler systems are intended to mitigate certain life-safety issues relating to building and occupancy type, emergency access, water supply and anticipated response times.

Apply On-Line at [MyBuildingPermit.com](http://MyBuildingPermit.com)

Select: King County | Fire | (Project Type)  
| (Activity Type) | Fire Sprinkler Systems



## Requirements for Commercial and Multi-Family Properties

Commercial and multi-family structures are required to have an automatic fire sprinkler system in the following conditions:

- A. Commercial and multifamily structures or occupancies as outlined and required in chapter 9 of the international Building and Fire Codes.
- B. Commercial and multifamily structures in rural zones, and all properties in urban zones, that are not required per section (A) shall meet all of the following or maybe required to be sprinklered:
  1. The minimum fire department apparatus access road as defined by the International Fire Code.
  2. Water supply from a utility providing a minimum fire flow of 1,500 gallons a minute (GPM) or greater as required by the International Fire Code.
  3. Fire hydrants located as follows:
    - (a) 350 feet between hydrants.
    - (b) One (1) fire hydrant located not more than 150 feet from a structure(s), as measured by vehicular travel. **NOTE:** More than one fire hydrant may be required based on the required fire flow for a given structure.
- C. Structures over 10,000-square-feet in floor space regardless of acceptable access and water availability.
- D. Tenant improvements to new and existing structures may require the installation of a fire sprinkler system as outline in chapter 9 of the International Building and Fire Codes.

Temporary and medical hardship mobile homes may be exempt from water, access and sprinkler conditions for a period of one year.

# Fire Sprinkler Systems, Commercial and Multifamily, continued

## Fire Access Road Requirements

A fire apparatus access road/fire lane can be a driveway, easement, public or private road that meets all the following requirements: 20-foot wide unobstructed permanent all-weather driving surface with 25-ton (52,000 lbs.) loading capacity.

- A. All portions of the exterior walls the structures (at grade) must be within 150 feet (as a person would walk via an approved route around the building) from an approved fire apparatus access road/fire lane.
- B. Maximum grade of 15-percent at all locations.
- C. Vertical clearance of 13 feet 6 inches.
- D. Minimum of 20-foot inside turning radius and 40-foot outside turning radius at all bends and turns. A fire apparatus access road/fire lane or driveway over 150 feet long is required to have an approved hammer head turn-around configuration. In some cases, a circular 80 foot diameter turn-around may be acceptable

## Water Availability

Applicants may obtain information regarding fire hydrant distances and water supply (fire flow) from the local Water District or utility in the form of a [Water Availability, Certificate of Water Availability](#).

A water supply (fire flow) of 1,500 gallons-per-minute or more as outlined in appendix “B” of the International Fire Code at 20-pounds per-square-inch pressure for two hours or more.

## Commercial and Multifamily Sprinkler System Requirements

Fire sprinkler systems must be designed by a Washington State certified sprinkler designer and installed in accordance with the National Fire Protection Standard (NFPA) 13, or 13R. A separate permit is required for the sprinkler system. The sprinkler condition on the building permit will not hold up the building permit review process.

## Commercial and Multifamily Sprinkler System Submittal Requirements

A fire sprinkler system permit submittal package must include:

- A. Fire System Permit Application Form.
- B. Plan set cover sheet and two sets of plans (one digital set when submitting on MyBuildingPermit.com.)
  - a. Plan cover sheets should include the following information:
    - i. A statement of the scope of work that this permit is intended to cover;
    - ii. Summary of the number of zones, systems, and sprinkler heads;
    - iii. The fire and water districts serving the proposed site.
    - iv. Water supply information.

# Fire Sprinkler Systems, Commercial and Multifamily, continued

## C. Plans must include the following information:

- a. Site plans including the following:
  - i. Outside hookups to utilities, including the underground sprinkler supply line; either from the meter or well serving the property.
- b. Floor plans, including the following:
  - i. The location of risers, piping, and heads;
  - ii. Show all room designations (examples: kitchen, stairwells, bedrooms);
- c. Complete riser details;
- d. Details and legends for the hangars and sprinklers, including sway bracing;
- e. Cross-sections showing trusses framing, ceilings, stairs and location of sprinklers;
- f. Hydraulic calculations;
- g. If this is an addition to an existing system, show existing risers, piping, and heads in enough detail to allow Permitting to determine the adequacy of the existing system;
- h. If sprinklers are being installed within an existing structure, provide verification that the structure can support the weight of the proposed system;
- i. Plans and hydraulic calculations shall be stamped by a person holding a current [Sprinkler Certificate of Competency issued by the State of Washington](#).

## Obtaining a Commercial or Multifamily Fire Sprinkler Permit

### Online:

Go to [MyBuildingPermit.com](http://MyBuildingPermit.com). The permit type selections are:

*Jurisdiction: King County*

*Application Type: Fire*

*Project Type: Non-Residential **OR** Multifamily*

*Activity Type: (Choose one)*

*Scope of Work: Fire Sprinkler Systems*

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**Select:** King County | Fire | (Project Type)|  
(Activity Type) | Fire Sprinkler Systems



### Walk-in or Mail-in:

Applications may be mailed in with payment by check, or may be submitted in person with check, cash or credit card (VISA or MasterCard) at the Department of Local Services, Permitting Division office. No appointment is necessary.

# Fire Sprinkler Systems, Commercial and Multifamily, continued

## Additional Resources

King County [Department of Local Services, Permitting Division](#)

[Permit Fees](#)

[Location and office hours](#)

[Fire Sprinkler Systems, Commercial or Multi-Family application form](#)

State of Washington

Washington State Patrol, Fire Marshal's Office

[Fire Sprinklers, List of Sprinkler Certificate Holders](#)

