



Fire Alarm Systems, Nonresidential & Multifamily

The requirement for installation of commercial and multifamily residential fire alarm systems is intended to provide early warning to the occupants of a fire or other life safety event.

Requirements for Nonresidential and Multifamily Properties

Commercial and multifamily structures are required to have an automatic fire alarm system in the following conditions:

- A. Commercial and multifamily structures exceeding 3,000 square feet gross floor area shall be required to provide an approved monitored automatic fire detection system installed according to NFPA 72.
- B. Commercial and multifamily structures or occupancies as outlined and required in Chapter 9 of the International Building and Fire Codes.
- C. Tenant improvements to new and existing structures may require the installation of a fire alarm system as outlined in Chapter 9 of the International Building and Fire Codes.
- D. Assembly uses with an occupant load of 1,000 or more require voice evacuation systems.

Nonresidential and Multifamily Fire Alarm System Requirements

Fire alarm systems must be designed by a NICET level III fire alarm designer or a Washington State licensed engineer and installed in accordance with the National Fire Protection Association Standard (NFPA) 72. A King County Fire Alarm System Permit shall be applied for prior to issuance of the building permit.

Nonresidential and Multifamily Fire Alarm System Submittal Requirements

Required Documentation for Fire Alarm Plan Coversheet

1. Name of designer and NICET III certificate number
2. Written narrative providing intent and system description
3. Name of protected premises, owner, and occupant
4. Name and Washington State contractor licenses number of installation contractor

Apply On-Line at MyBuildingPermit.com

Select: King County | Fire | (Project Type)
| (Activity Type) | Fire Alarm

Fire Alarm Systems, Commercial and Multifamily, continued

Drawing requirements-to be provided on Fire Alarm Plans

1. Device legend and symbols in accordance with NFPA 170, or other symbols acceptable to the authority having jurisdiction
2. Equipment technical data sheets
3. Battery calculations
4. Voltage drop/load calculations for notification appliance circuits
5. Electrical riser diagram
6. Type and quantity of conductors for each circuit
7. Sequence of operation input/output matrix
8. Point of compass (indication of North)

Minimum Design Details to be shown on plan sheets

1. Floor plan drawings shall identify location of all system devices and control equipment
2. Electronically submitted drawings shall comply with [MyBuildingPermit.com standards](http://MyBuildingPermit.com) or, if on paper, be provided at an appropriate scaled such as 1/8" or 1/4" = 1'-0" scale.
3. Identification of any ceiling over 10 ft. in height where automatic fire detection is being proposed
4. Details of ceiling geometries, including beams and solid joists, where automatic fire detection is being proposed
5. Building cross-sections detailing beams, purlins, obstructions, ceiling heights and slopes
6. All walls and doors
7. Room descriptions and room numbers
8. Locations of fire alarm remote power supplies, main panels and remote zone annunciators.
9. Locations of fire alarm primary power disconnecting means
10. Voice evacuation systems shall be designed to NFPA 72 chapter 24.4.
11. Survivability of system circuits and equipment, when applicable
12. Message content for voice systems
13. Location of monitoring transmitter
14. Central station to be used

Documentation of Fire Alarm Completion

1. Before requesting final Fire Marshal Inspection of the installation Provide "System Record of Completion" form in accordance with NFPA 72 - 7.8.2
2. Documentation of central station service shall be in accordance with NFPA 72 - 26.3.4.

Fire Alarm Systems, Commercial and Multifamily, continued

Obtaining a Nonresidential or Multifamily Fire Alarm Permit

Online:

Go to 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 Alarm

Apply On-Line at MyBuildingPermit.com

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



Applications may be mailed in with payment by check, or may be submitted in person with check, cash or credit card (VISA, MasterCard) at the Department of Local Services, Permitting Division office during [customer service hours](#).

Additional Resources

King County [Department of Local Services, Permitting Division](http://www.kingcounty.gov/permits) (www.kingcounty.gov/permits)

[Permit Fees](#)

[Location and office hours](#)

[Fire Alarm Systems, Nonresidential or Multi-Family application form](#)

[Fire code and fire permit information](#)