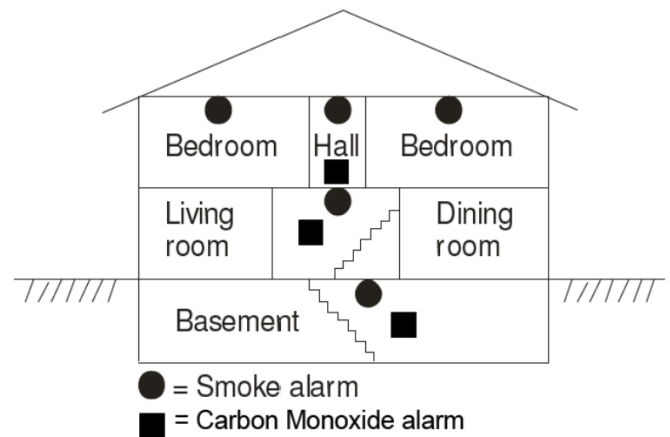
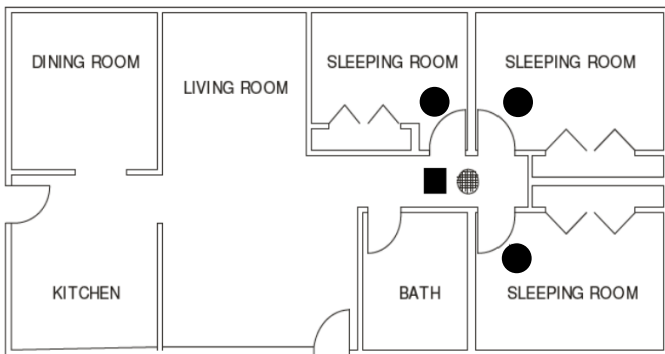


Smoke & Carbon Monoxide Alarms

When building permits are issued for additions, alterations or repairs to residential buildings and the value of the work exceeds \$1000, **smoke alarms** must be installed for the safety of the occupants if they do not already exist.

When building permits are issued for additions, alterations or repairs to residential buildings with attached garages and/or gas appliances, **carbon monoxide alarms** must be installed for the safety of the occupants if they do not already exist.

Room/Space	Smoke Alarm Required? (CBC 907.2 and CRC R314)	Carbon Monoxide Alarm Required? (CBC 907.2 & CRC R315)
In each sleeping room	YES	NO
Outside of each separate sleeping area in the immediate vicinity of bedrooms (i.e. hallway)	YES	YES
In each sleeping room with fuel burning appliance	YES	YES
In each story within a dwelling unit, including basements	YES	YES



Inspection Requirements

Please plan ahead, building permits cannot receive final approval without verification that the appropriate alarms are in place in accordance with State law.

1. Detectors must be installed prior to, and available to inspect at the time of final inspection.
2. A responsible adult must provide access for an inspector to verify all detectors at the time of final inspection.

Installation Guide*

- Always install smoke alarms according to the manufacturer's directions.
- One smoke alarm must be installed inside every room used for sleeping purposes.
- A smoke alarm must be installed outside each separate sleeping area in the immediate vicinity of bedrooms. If there are multiple sleeping areas a smoke alarm is required in the vicinity of each sleeping area. If there are one or more rooms separating bedrooms, an additional smoke alarm must be installed in the hallway outside of the bedroom to meet the requirements.
- Smoke alarms must be installed in each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
- Smoke alarms must be installed in enclosed common stairwells of apartment complexes and other multiple-dwelling complexes.
- Carbon monoxide alarms shall be installed on each floor and in the vicinity of the bedrooms.
- In new construction required smoke alarms shall receive their primary power from the building wiring and shall be equipped with battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.
- In new construction required smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.
- If the new construction is an addition to an existing building, only the new smoke alarms in the addition must meet the requirements for new construction. Smoke alarms in the existing building may be battery powered and do not have to be interconnected if the construction does not require the removal of the interior wall or ceiling finishing exposing the framing.
- Most battery-powered and plug-in smoke alarms can be installed using only a drill and a screwdriver. Plug-in alarms must have a restraining device at the plug.
- Never connect a smoke alarm to a circuit that can be turned off from a wall switch or through the operation of a ground-fault circuit-interrupter (GFCI)
- New electrical wiring or connecting smoke alarms to the building's electrical system requires an electrical permit obtained from the City. Have a qualified electrician install alarms if they're hard-wired into your house wiring.
- Ceiling mounted smoke alarms must be placed:
 - At least 4 inches from any wall
 - Away from any ceiling lights, fans, or heat vents
 - In a room with a pitched ceiling (having slopes greater than 1-foot rise per 8 feet horizontally), mount at least 4 inches below the ridge but within 3 feet either side of the ridge
- Wall mounted smoke alarms must be installed according to the manufacturers directions which commonly require the alarm to be between 4 to 12 inches from the ceiling.
- If there are removable ceiling panels, install the smoke alarm on the wall.
- Smoke alarms should be installed not less than 3 feet away from bathroom openings.
- Do not install near a window, outside door, or within 3 feet of forced-air register.
- Do not install within 3 feet horizontally of ceiling fan blades.
- The smoke alarm should be installed on the bottom of a floor joist if the ceiling has no drywall or plaster. It should never be placed on the ceiling between the joists.
- On floors without bedrooms, install alarms near the stairway leading to the floor above, in or near dens, living rooms, family rooms, and other living areas. The National Fire Protection Association also suggests installing alarms in dining rooms, utility rooms, and hallways.
- In open stairways (no doors at top or bottom), install smoke alarm near top of stairs.
- Nuisance alarm problem? Try moving the smoke alarm away from the source of the problem. Or buy a smoke alarm with a "hush" button.

*This information is provided as an educational guide, refer to the California Residential Building Code for further guidance.