

**SECTION 11:**  
**HOUSEHOLD SIGNALING SYSTEMS**

- 11.1 **General.** This section shall apply to all alarm and monitoring equipment installed in detached one- and two-family dwellings, including townhouses. Fire protection and life safety systems shall comply with the most current adopted edition of the IFC as amended and be designed, installed, and maintained in accordance with the most current edition of NFPA 72 and other nationally recognized standards. The system installer shall be NICET Level II or possess an equivalent certification approved by the AHJ. Occupant notification shall be required for buildings containing fire sprinkler systems.
- 11.1.1 **Re-inspections.** Any failed inspection or test may be subject to a re-inspection fee per the District's Fee Schedule. Additional inspections or tests cannot be scheduled until the re-inspection fee is paid. See the AHJ for details.
- 11.2 **Design.** Fire protection and life safety systems shall meet the requirements imposed by the adopted fire code, as amended, and/or the AHJ.
- 11.3 **Verification.** Alarm monitoring companies shall attempt to voice verify a fire alarm at a residence ONCE before notifying the fire department. If the alarm is verified as false, then the fire department shall not be notified. The AHJ shall approve the verification method.
- 11.4 **Key Box.** Structures with a life safety system shall be accessible. A Knox™ key box shall be installed in an **approved location**. The Knox™ Home Box shall not be allowed.
- 11.5 **Reset Instructions.** A card with the reset code and instructions on how to reset the fire alarm control panel (FACP) shall be placed inside the key box. The reset code shall be separate from the owner's code and programmed in the last available slot for alarm codes.
- 11.6 **Emergency Contact. The building owner shall provide emergency contact information by creating** a Community Connect™ account before the final inspection.
- 11.7 **Components.** All fire protection and life safety system components shall be LISTED for their intended use. Components shall be installed per the manufacturer's instructions in locations approved by the AHJ.
- 11.8 **Detector Locations.** Detector installation shall be in accordance with the most current adopted editions of the IFC, as amended, and the most current edition of NFPA 72. Detectors shall be located to prevent false alarms.
- 11.8.1 **Reset.** All system detectors shall reset from the alarm keypad.

11.8.2 **Detector installation during construction.** Smoke detectors shall not be installed on the mounting plate until the building is CLEAN and construction is finished and ready for a Certificate of Occupancy.

**Exception:** Heat detectors.

11.9 **Ionization Detectors.** The plan review package shall include factory certification of the altitude range for ionization smoke detectors, which shall be certified for elevations above 8,000 feet above sea level.

11.10 **Thermal Detection.** Heat detectors may be required in areas unsuitable for smoke detectors. Heat detectors shall be addressable or on a separate zone from the smoke loop. *Rate of rise detectors shall not be allowed in areas with known temperature fluctuations that fall within the time/temperature thresholds.*

11.10.1 **Garage Spaces.** Thermal Detection shall be required in garages with living areas above

**Exception:** Garages protected with an approved fire sprinkler system.

11.10.2 **Panel Protection.** The alarm system control panel, not the keypad(s), shall be protected. A smoke detector is preferred; however, when approved by the AHJ, a heat detector may be allowed if the environment is not suitable for a smoke detector.

11.11 **Alarm Audibility.** Fire alarm systems shall provide a minimum sound level of 75 dBA in all areas of a sleeping room, with all intervening doors closed. All other areas of the home shall have a minimum sound level of 70 dBA. A single audible appliance shall not exceed 110 dBA. The fire alarm contractor shall be responsible for providing an ANSI Type II decibel meter or approved Application at the time of final inspection.

11.11.1 **Interior Sounders.** Interior sounders connected to the fire alarm system shall be labeled "Fire." Temporary or non-factory labels shall be prohibited. Sounder devices shall be white or red unless otherwise approved by the AHJ

11.11.2 **Interior Sounder Location.** Interior sounders shall be installed on the ceiling or above the room's entry door unless otherwise approved by the AHJ.

11.12 **Exterior Audible and Visual Signals.** Devices used on a home's exterior shall be weatherproof and listed for an outdoor environment. All life safety alarms shall activate a clear or white outside flashing strobe (15/75 candela minimum) unless otherwise approved by the AHJ. The outside horn shall be audible at a minimum of 85 dBA. The AHJ shall approve the location of the outside horn(s) and strobe(s). Additional horns or strobes may be required.

11.13 **Transmission Alarm Codes.** Alarm signals shall send a separate and distinct code for each fire alarm signal. A reset code shall be transmitted when the alarm or trouble

condition is cleared. The transmission of alarm signals shall be done using an approved method.

11.13.1 **Timer Test.** Monitored fire alarm systems shall have an automatic test signal sent to the monitoring company at least once every 24 hours.

11.13.2 **Performance-Based Technologies.** When an approved alternative communication system is used, it shall meet the requirements of NFPA 72.

11.14 **Wire.** The fire alarm wire shall be red unless otherwise approved by the AHJ and shall not be painted. When the fire alarm wire is installed in a conduit, then the conduit shall be red. All junction box covers shall be painted red and labeled "Fire Alarm System." Romex® wire is allowed if the requirements of 11.14.1 are met.

11.14.1 **Labels.** When the wire does not meet the requirement of 11.14, the wire shall be labeled "Fire Wire" on a red background with a minimum of one-half inch (1/2") white letters. The spacing of labels shall be every ten feet (10') for Romex® wire and twenty feet (20') for other listed fire wire. The wire shall also be labeled on each side of all walls and any other penetrations. Vertical wire risers shall be labeled on each floor.

11.15 **Retrofitted Fire Alarm Systems.** A monitored retrofitted fire alarm system shall provide, as a minimum, an approved detection device on each floor of the dwelling unit. An approved alarm shall be installed in every sleeping room and the egress pathway from the sleeping room. See Section 11.11 for audibility requirements.

11.16 **DIY, MIY, or Owner Installed Systems.** Fire alarm systems that do not meet the listing requirements of this guide and/or the current edition of NFPA 72 shall not be allowed. This includes but is not limited to Comcast, IFTTT, SimpliSafe, Smartthings, Ring, Nest, or the like.

11.17 **Tests and Inspections.** See Section 13 for details on tests and inspections.