

**SARATOGA FIRE DISTRICT  
EARLY WARNING FIRE ALARM SYSTEM  
STANDARDS AND REQUIRMENTS  
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**SARATOGA FIRE DISTRICT  
EARLY WARNING FIRE ALARM SYSTEM  
STANDARDS AND REQUIRMENTS**

**ARTICLE I  
APPLICATION AND DEFINITIONS**

**1.01 Authorization for Standards.** These Standards and Requirements are established pursuant to Ordinance No. 1-2005, as restated and amended in Ordinance No. 1-2014, adopted by the Saratoga Fire Protection District. These Standards and Requirements, as initially adopted and hereafter amended, shall also constitute the standards and requirements for installation and operation of the early warning fire alarm system as referenced in Section 16.60.020 of the City of Saratoga Municipal Code.

**1.02 Application of Standards.** Where installation of an early warning fire alarm system is required or permitted under the safety element of the City of Saratoga General Plan or any provision of the subdivision, zoning, or building regulations of the City of Saratoga, or any ordinance or regulation of the Saratoga Fire Protection District, such early warning fire alarm system shall be installed, operated, and maintained in accordance with the Standards and Requirements set forth herein.

**1.03 Definitions.** The following definitions shall be applied to these Standards and Requirements:

**CBC** means the California Building Code, and when followed by a year means the particular edition of that Code.

**CEC** means the California Electric Code, and when followed by a year means the particular edition of that Code.

**CFC** means the California Fire Code, and when followed by a year means the particular edition of that Code.

**City** means the City of Saratoga.

**CMC** means the California Mechanical Code, and when followed by a year means the particular edition of that Code.

**County Fire** means the Santa Clara County Central Fire Protection District.

**CSFM** means the California State Fire Marshal.

**Fire District or Saratoga Fire** means the Saratoga Fire Protection District.

**EWAS** means the Early Warning Fire Alarm System.

**EWAS Owner** means the owner of the real property on which the EWAS has been installed, or the person having possession or control over such property who is responsible for payment of the maintenance expenses.

**EWAS Regulations** means the standards and requirements for installation, operation and maintenance of EWAS, as set forth in this document and as hereafter amended by resolution of the Fire District's Board of Fire Commissioners.

**Fire Chief** means the Fire Chief of the Fire District, or his or her authorized representative. For so long as there is a Service Agreement between Saratoga Fire and County Fire, the term "Fire Chief" means the Fire Chief of County Fire, acting in his capacity as Chief of Saratoga Fire pursuant to such Service Agreement.

**NFPA** means the National Fire Protection Association, and when followed by a number and year means the particular number and year of the NFPA standard being referenced.

**Smoke Alarm** means a local device to alert the occupants of a sleeping area that smoke has been detected, as required by the CBC.

**Smoke Detector** means a device connected to a fire alarm system that activates the fire alarm system if smoke is detected.

**SPL** means sound pressure level, as measured in decibels with sound level meters set "A" weighted and "fast" response.

## **ARTICLE II GENERAL EWAS DESIGN STANDARDS**

**2.01 General Design Standards.** Early Warning Fire Alarm Systems shall be designed, installed and maintained in accordance with the following codes and standards:

Current California Building Code (CBC);

Current California Electrical Code (CEC);

Current California Fire Code (CFC);

Current California Mechanical Code (CMC);

NFPA 13, 13D, 13R;

NFPA 20;

NFPA 72 Current edition adopted by the State of California; and

Any applicable provisions of the City's building regulations as contained in Title 16 of the Saratoga Municipal Code.

**2.02 Future Amendments, Revisions or Replacements.** Any reference in these Standards and Requirements to a specific edition, chapter, standard, section, or other provision of any of the codes and standards listed in Section 2.01 above shall include any future amendments or revisions thereto or replacements thereof as may be adopted from time to time, and the same shall be deemed automatically incorporated herein by reference as of the effective date of such amendment, revision or replacement. It is the intention of the Fire District that the most recently adopted version shall be applied, unless an exception is granted by the Fire Chief, based upon the Chief's determination that the newer standard is inappropriate because of technical, physical or economic circumstances.

**2.03 EWAS Equipment Certification.** All equipment used in Early Warning Alarm Systems shall be CSFM listed and approved for the purpose for which it is installed.

**2.04 Monitoring of EWAS.** All Early Warning Alarm Systems shall be installed and maintained to permit monitoring by a central monitoring station 24 hours a day 7 days a week.

### **ARTICLE III REQUIRED COMPONENTS**

**3.01. Single Family Residential Structures.** Early Warning Alarm Systems for single family residential structures shall comply with the following requirements:

**A. Initiation.**

1. Smoke detectors. System smoke detectors shall be installed as required in the CBC and the CFC.
2. Heat detectors. Heat-sensing fire detectors of the rate of rise and/or fixed temperature spot-type, with the appropriate temperature classification shall be installed in but not limited to the following areas: furnace/boiler rooms; mechanical rooms; attics; garages (not carports); kitchens; storage areas where the area of the storage space exceeds 24 sq ft and the least dimension exceeds 3 ft and the walls and ceilings are surfaced with combustible materials.

Exception: Where an automatic sprinkler system is installed per NFPA 13, 13D or 13R and monitored by the fire alarm system, no heat detectors shall be required to be installed in areas already protected by the sprinkler system except for operation of control equipment as required by another standard or code.

3. Automatic sprinkler systems. Automatic sprinkler system waterflow switch shall be connected to the fire alarm system to initiate an alarm indicating a flow of water in a sprinkler system. External notification of water flow alarm shall not be silenced except where a separate external

water flow bell is provided for the water flow switch only. Note: sprinkler control valves shall not be required to be supervised or monitored for single and two-family dwellings.

4. Manually actuated alarm-initiating devices.
  - (a) Manual fire alarm boxes shall be located in the following locations:
    - (1) minimum one manual pull on each floor level including basements.
    - (2) at the front entry.
    - (3) at the door from the dwelling to the garage if applicable.
  - (b) The height and installation of manual fire alarm boxes shall be in accordance with NFPA 72, the CBC and the CFC.
5. Emergency push button. An emergency push button shall be required for all types of occupancies that can be used by the occupant to activate the alarm in the event of a fire, medical, or other emergency. At least one emergency push button shall be located on the alarm panel and on any portable device used to operate the alarm system. Additional buttons may be required, as determined by the Fire Chief.

**B. Notification.**

1. Interior occupant notification appliances shall be installed in accordance with the CBC, CFC, and NFPA 72 to notify all occupants in sleeping areas from both local smoke alarms and the fire alarm system.
2. To facilitate location of premises, an exterior weatherproof horn strobe shall be installed facing the direction of emergency services approach.
3. Fire System Annunciation: The fire alarm system shall be located at the main entrance to the property or be equipped with a remote control (keypad) to allow the silence and reset of the fire alarm system.
4. All exterior and interior notification appliances shall not automatically time out when the system is activated.

**C. Communications.**

All required fire alarm systems shall be monitored by a central monitoring station 24 hours a day, 7 days a week, as required by Fire District Ordinance 1-2014.

**3.02. Multi-Family Residential Structures.** Early Warning Alarm Systems for multi-family residential structures shall comply with the following requirements:

**A. Initiation.**

1. Smoke detectors.

- (a) Interior occupant notification appliances shall be installed in accordance with NFPA 72 to notify all occupants in sleeping areas from both local smoke alarms and the fire alarm system.
- (b) System smoke detectors shall be provided in all common areas and interior corridors of all multi-family Group R occupancies.
- (c) System smoke detectors shall be provided within all sleeping areas. Upon activation of the detector(s), only those notification appliances in that dwelling unit or guest room shall activate. When activated, the system smoke detector shall indicate a supervisory condition on the fire system., The fire alarm panel must report a supervisory system trouble at the panel, any remote annunciator, and provide a supervisory system trouble to the central station that includes the unit in alarm.

Exception:: Single or multi-station "Smoke Alarms" can be substituted for System type smoke detectors if all of the following requirements are met:

- (1) An alarm condition on any one Smoke Alarm shall indicate a supervisory condition on the fire system, as indicated in this section.
- (2) Upon activation of the detector, only those notification appliances in the dwelling unit or guest room shall activate.

2. Smoke detectors for control of smoke spread. Smoke detectors installed and used to prevent smoke spread by initiating control of fans, dampers, doors, and other equipment shall be installed in accordance with the CBC, CMC, NFPA 72 and other applicable standards.

3. Fire suppression systems.

- (a) Automatic Sprinkler Systems: Automatic sprinkler system waterflow alarm and the control valve supervisory signals shall be monitored in accordance with the CBC, CFC, and other applicable standards.
- (b) Other automatic fire extinguishing systems, such as commercial hood, pre-action, deluge, foam, wet chemical, FM-200, etc., shall be connected to the fire alarm system as required by other standards. The activation of any of these fire suppression systems shall activate the fire alarm system.
- (c) Fire Pumps: All new and existing fire pumps shall be monitored in accordance with NFPA 72, NFPA 20 and other applicable standards.

4. Manually actuated alarm-initiating devices.
  - (a) Manual fire alarm boxes shall be located in the following locations:
    - (1) minimum one manual pull on each floor level including basements.
    - (2) at the front entry.
    - (3) at the door from the dwelling to the garage if applicable.
  - (b) The height and installation of manual fire alarm boxes shall be in accordance with NFPA 72, the CBC and the CFC.
5. Emergency push button. An emergency push button shall be required for all types of occupancies that can be used by the occupant to activate the alarm in the event of a fire, medical, or other emergency. At least one emergency push button shall be located on the alarm panel and on any portable device used to operate the alarm system. Additional buttons may be required, as determined by the Fire Chief.

**B. Notification.**

1. Interior occupant notification appliances shall be installed in accordance with NFPA 72 to notify all occupants in sleeping areas from both local smoke alarms and the fire alarm system.
2. To facilitate location of premises, an exterior weatherproof horn strobe shall be installed facing the direction of emergency services approach.
3. Fire System Annunciation: The fire alarm system shall be located at the main entrance to the property or be equipped with a remote control (keypad) to allow the silence and reset of the fire alarm system.
4. All exterior and interior notification appliances shall not automatically time out when the system is activated.

**C. Communications.**

All required fire alarm systems shall be monitored by a central monitoring station 24 hours a day, 7 days a week, as required by Fire District Ordinance 1-2014.

**3.03. Commercial Structures.** Early Warning Alarm Systems for commercial structures shall comply with the following requirements:

**A. Initiation.**

1. Smoke Detectors for Control of Smoke Spread: Smoke detectors installed and used to prevent smoke spread by initiating control of fans, dampers, doors, and other equipment shall be installed in accordance with the CBC, CMC, NFPA 72 and other applicable standards.



2. Fire suppression systems.
  - (a) Automatic Sprinkler Systems: Automatic sprinkler system waterflow alarm and the control valve supervisory signals shall be monitored in accordance with the CBC, CFC, and other applicable standards.
  - (b) Other automatic fire extinguishing systems, such as commercial hood, pre-action, deluge, foam, wet chemical, FM-200, etc., shall be connected to the fire alarm system as required by other standards. The activation of any of these fire suppression systems shall activate the fire alarm system.
  - (c) Fire Pumps: All new and existing fire pumps shall be monitored in accordance with NFPA 72, NFPA 20 and other applicable standards.
3. Manually actuated alarm-initiating devices.
  - (a) Manual fire alarm boxes shall be located in the following locations:
    - (1) minimum one manual pull on each floor level including basements.
    - (2) at the front entry.
    - (3) at the door from the dwelling to the garage if applicable.
  - (b) The height and installation of manual fire alarm boxes shall be in accordance with NFPA 72, the CBC and the CFC.
4. Emergency push button. An emergency push button shall be required for all types of occupancies that can be used by the occupant to activate the alarm in the event of a fire, medical, or other emergency. At least one medical emergency push button shall be located on the alarm panel and on any portable device used to operate the alarm system.. Additional buttons may be required, as determined by the Fire Chief.

**B. Notification.**

1. Alarm systems shall include both audible and visual alarms in accordance with the CBC, CFC, NFPA 72 and other applicable standards.
2. To facilitate location of premises, an exterior weatherproof horn strobe shall be installed facing the direction of emergency services approach.
3. Fire System Annunciation: The fire alarm system shall be located at the main entrance to the property or be equipped with a remote control (keypad) to allow the silence and reset of the fire alarm system.
4. All exterior and interior notification appliances shall not automatically time out when the system is activated.

C. **Communications.**

All required fire alarm systems shall be monitored by a central monitoring station 24 hours a day, 7 days a week, as required by Fire District Ordinance 1-2014.

**ARTICLE IV  
INSTALLATION REQUIREMENTS**

**4.01. Submittal Requirements For Plan Check.**

- A. Requirement for plan check by Fire District. All plans and specifications for the installation, repair, alteration, or upgrades of an Early Warning Fire Alarm System shall be subject to review and approval by the Saratoga Fire District, or by County Fire acting on behalf of the Saratoga Fire District.
- B. Submittal of plans. All plans must be submitted in accordance with the CBC, CFC, NFPA 72, the California Business and Professions Code and any policies and guidelines adopted by the Saratoga Fire District or by County Fire.
- C. Payment of plan check fee. Each request to the Fire District for review and approval of plans or other materials relating to the installation of a new Early Warning Alarm System or the modification of an existing Early Warning Alarm System shall be accompanied by the payment of a plan check fee in such amount as established from time to time by resolution of the Fire District's Board of Fire Commissioners

**4.02. Qualifications And Responsibilities Of Installer.**

- A. Installation of early warning fire alarm systems shall be under the direct supervision of a qualified and experienced contractor with a valid California State C-10 Electrical Contractor's License.
- B. All such systems shall be installed in a workmanlike manner and in accordance with the approved plans and specifications, the EWAS Regulations set forth herein, and such other requirements as may be adopted by the Fire District.
- C. Upon completion of the installation and prior to calling for a final inspection, the licensed installer shall conduct a 100% certification test of the system and provide a completed Fire Alarm System Record of Completion form in accordance with NFPA 72 to be submitted to the Fire Chief and the EWAS Owner at the time of final inspection.
- D. The licensed installer shall instruct the EWAS Owner, or the Owner's designated representative, in the use of the EWAS.

- E. The licensed installer shall provide the EWAS Owner with a complete set of applicable manufacturer's operating manuals, specifications, and as-built drawings.
- F. The licensed installer shall provide the Fire District one set of as-built drawings.

**4.03. Inspection and Testing.**

A. Inspections by Contractors.

The inspection and testing and final approval of all fire alarm systems described in these standards shall be per NFPA 72 and any additional standards or guidelines adopted by the Fire District.

B. Inspections by Fire District.

1. County Fire has contracted with Saratoga Fire to conduct inspections of any EWAS installed pursuant to these Regulations and has been authorized by Saratoga Fire to grant or deny approval of the installation work.
2. The EWAS Owner shall be responsible for payment of any inspection fees that may be established by County Fire for performance of the inspection services pursuant to this Section.
3. Required inspections shall be a rough wire inspection prior to covering the wiring to assure the placement of devices meet the code requirements and the approved wiring has been installed, and a final inspection to verify that all devices function properly and the alarm system is being monitored by an approved central monitoring station.

**4.04. Voluntary Installations.** Nothing contained herein shall prohibit any person from voluntarily installing and maintaining an early warning fire alarm system as described in these EWAS Regulations in any type of building or structure within the City, subject only to appropriate arrangement for such installation and maintenance being made between the EWAS Owner and the Fire Chief of the Fire District.

**ARTICLE V  
MAINTENANCE AND REPAIR OF EWAS**

**5.01. Maintenance Responsibilities Of EWAS Owner.**

- A. It shall be the responsibility of the EWAS Owner to maintain the EWAS in good operating condition and repair.
- B. All EWAS systems must be continuously monitored by a central station. It shall be the responsibility of the EWAS Owner to ensure that such monitoring is being conducted continuously 24 hours a day, 7 days a week.

**5.02. Inspections And Repairs By Fire District.** Pursuant to the authority set forth in CFC the Fire Chief, or his or her authorized representative, may make an inspection with appropriate notice to verify the adequacy and operational readiness of any required EWAS system. Nothing herein shall be construed as imposing a legal duty upon either the Fire District or County Fire to conduct any inspection of an Early Warning Fire Alarm System.

**ARTICLE VI  
RECORDED NOTICE OF EWAS**

**6.01 Recorded Notice Of Fire Alarm System.** When the recording of a Notice Of Fire Alarm System is authorized under the District's or the City's ordinances, the Fire Chief or his or her authorized representative may execute and record the Notice for any property on which an early warning fire alarm system has been or will be installed.

**ARTICLE VII  
AMENDMENT OF EWAS REGULATIONS**

**7.01. Procedure For Amendment.**

- A. These EWAS Regulations may be amended by resolution of the Fire District's Board of Fire Commissioners.
- B. Prior to adopting any amendment, the Fire District shall send a copy of the proposed amendment to the fire chief of County Fire and the Saratoga City Manager, along with a notice indicating the time and place when the proposed amendment will be considered by the Board.
- C. Unless otherwise stated in the resolution adopting the amendment, it shall become effective immediately upon passage of the resolution.

**CERTIFICATION**

The undersigned hereby certifies that the foregoing Standards and Requirements were duly adopted by the Board of Fire Commissioners at a regular meeting of the Board held on the \_\_\_\_\_ day of November, 2014.

Dated: \_\_\_\_\_

\_\_\_\_\_  
TRINA WHITLEY, District Secretary