



WEST SACRAMENTO FIRE DEPARTMENT

COMMUNITY RISK REDUCTION DIVISION

PROVIDING A SAFE COMMUNITY TO LIVE, WORK, AND GROW



FIRE AND LIFE SAFETY STANDARD

FIRE SPRINKLER SYSTEMS

Effective Date: 1/1/20

Revision Date: 1/1/20, 4/16/18, 5/19/05

SECTION 1 – PURPOSE

To ensure that sprinkler plans submitted for review contain items necessary for approval prior to installation of systems in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems* in any structure, NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes*, and NFPA 13R, *Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies*; and to provide a satisfactory level of life and property safety from fire considering the unique features of West Sacramento and the requirements of the West Sacramento Fire Department.

SECTION 2 – SCOPE

This standard applies to all new or modified sprinkler systems in accordance with the NFPA 13, *Standard for the Installation of Sprinkler Systems*, NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes*, and NFPA 13R, *Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies*. All individuals and companies who propose to engage in the installation or alteration of fire sprinkler systems are subject to the requirements of this standard and all other requirements in the adopted standards listed above.

This standard outlines the procedure to be followed when submitting sprinkler plans and defines the Fire Department’s requirements for sprinkler system installations that may be more restrictive or not included in existing codes and standards.

SECTION 3 – DEFINITIONS

N/A

SECTION 4 – MINIMUM REQUIREMENTS

4.1 Fire department connections.

1. Fire department connections shall be visible, accessible, and installed on the address side of buildings in approved locations and provided with caps.
2. Fire department connections shall be located between 10 feet and 40 feet from an accessible fire hydrant. The fire department connection and hydrant shall be located on the same side of the access roadway.
Exception: The Fire Code Official may allow a greater distance between the hydrant and fire department connection; however, the distance shall not exceed more than 150 feet. The intent of this exception is to allow the use of existing fire hydrants.
3. The fire department connection shall serve only one building.



Exception: Multiple buildings on a single parcel may have one fire department connection upon approval of the Fire Code Official.

4. Address numbers are required on the fire department connection to indicate the area or building served by the fire department connection. The address numbers shall be 2-inch black numbers on a white reflective background and located on the fire department connection facing the public street or fire access lane.
5. Fire department connections located on a back-flow device shall be installed in a manner approved by the Fire and Public Works Departments.
6. Private fire hydrants shall not be located in driveways or other locations that will limit or preclude fire department access on-site.

4.2 Standpipes. Standpipe systems in other than high-rise occupancies shall be manual wet systems.

4.3 Fire flow reduction. A reduction in fire flow of up to 50 percent, as approved the by fire chief, is allowed when the building is provided with an approved automatic sprinkler system. The resulting fire flow shall not be less than 1,500 gallons per minute.

4.4 Piping installation.

1. Where domestic and fire sprinkler systems share a backflow device, a solenoid valve interconnected to the riser flow switch shall be installed to cease the flow of domestic water isolating the fire sprinkler system.
2. Where installed, a solenoid valve shall be fail-safe.

4.5 Fire control room. Fire control rooms shall be constructed as follows:

1. Fire control rooms shall contain all fire sprinkler system risers, fire alarm control panels, spare sprinklers, wrenches, and other fire equipment required by the Fire Code Official.
2. Fire control rooms shall be located within the building on an outside wall at a location approved by the Fire Code Official and shall be provided with a means to access the room directly from the exterior with an approved door of minimum dimensions of 36 inches x 80 inches.
3. Durable signage shall be provided on the exterior side of the access door to identify the fire control room. The sign shall indicate "Fire Control Room" with 3-inch letters that contrast with their background.
4. A horn/strobe device shall be installed outside the fire control room and shall activate whenever any "alarm" condition is present at the fire alarm control panel.
5. A key shall be located within a Knox key box located adjacent to, and on the latch side of, the access door on the exterior of the building at 6 feet above the finished floor.
6. Fire control rooms shall have a minimum dimension of 5 feet and not be less than 35 square feet in usable area.

4.6 Hydraulic calculation procedures. All fire sprinkler systems shall be engineered to the results of a flow test from the nearest hydrant taken within the last 6 months and certified by the Fire Department.



4.7 Fire pumps.

1. A data plate shall be installed on all fire department connections on systems requiring a fire pump. The data plate shall detail the following information.
 - a. Installation of a fire pump or not (i.e. "Fire Pump" or "No Fire Pump").
 - b. Operating pressure (i.e. "Operating Pressure – 100 psi")
 - c. Pressure at roof (i.e. "Roof Pressure – 80 psi")
2. A fire pump shall serve only one building.
Exception: Multiple buildings on a single parcel may have a single fire pump upon approval of the Fire Code Official.

4.8 One- and two-family dwellings and manufactured homes. Sprinkler systems in manufactured homes are the responsibility of the California Department of Housing and Community Development.

1. The seller of the manufactured home shall provide written verification that the site water supply is capable of providing the minimum flow (gallons per minute) and pressure (pounds per square inch) at the base of the fire sprinkler system riser, as indicated on the Fire Sprinkler Information Label, located in the water heater compartment. This documentation must be provided prior to the issuing of the Certificate of Release by the Fire Department, which is required to obtain the building permit from the Building Department.
2. The seller of the manufactured home shall provide written verification that the system has been installed, tested and approved by the California Department of Housing and Community Development. This documentation must be provided prior to the final inspection and approved by the Fire and Building Departments.

Bryan Jonson, Fire Marshal