

**Carlsbad Fire Department
Fire & Life Safety Division**

**Guideline for
Automatic Fire Sprinkler System
Multi-Family Dwellings
NFPA 13R**



Approved and Authorized By:

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Issued: February 1, 2023

Guideline for Automatic Fire Sprinkler System in Multi-Family Dwellings NFPA 13R

PURPOSE

The intent of this guideline is to provide information necessary to ensure that the design and installation of automatic sprinkler systems in multi-family dwellings comply with applicable provisions set forth by 2022 California Fire Code (CFC), 2022 California Building Code, and 2022 NFPA 13R as adopted by the State of California, and locally adopted ordinances enforced by the city of Carlsbad, Office of the Fire Marshal (CFD).

SCOPE

This guideline provides specific requirements for the installation of automatic fire sprinkler systems within multi-family dwellings.

SUBMITTAL REQUIREMENTS

1. General Requirements

- A. Submit three (3) sets of legible, scaled plans with one (1) set of current and complete technical data sheets/manufacturer's specifications to Carlsbad Fire Prevention.
- B. Plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or remodeled.
- C. Plans shall be drawn in accordance with NFPA 13R section 8.1.7.

2. Place following notes verbatim on plan:

- A. Scope of work.
- B. State the edition of the Building Code and Fire Code to which the architectural plans were designed and the building permit was issued
- C. One set of approved plans with hydraulic calculations shall be maintained at all times at the construction site.
- D. This automatic fire protection system shall be designed, fabricated, and installed in accordance with 2022 NFPA 13R, the 2022 California Fire Code, and local amendments enforced by the City of Carlsbad.
- E. At least one water pressure gauge shall be installed on the riser assembly.
- F. All valves shall have permanently affixed signs that designate their function.
- G. The water flow switch shall be connected to the service panel on an uninterruptible house circuit and labeled.

- H. Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.
- I. When special application sprinkler heads are utilized, draft curtain requirements and designs shall be illustrated on plans.
- J. All system risers shall be equipped with a Hydraulic Design Information Sign as described in NFPA 13, Section 29.4.
- K. An approved audible device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system.
- L. Underground mains and lead-in connections shall be flushed before connection is made to sprinkler piping.
- M. Flush must be witnessed by an approved party and documentation provided to the City of Carlsbad fire inspector.
- N. Water meter shall be in place prior to final if applicable.
- O. All FDCs, wall PIVs, and exterior/exposed sprinkler riser valves shall be painted OSHA safety red. Other fire sprinkler or supply pipe exposed to the sky or susceptible to wet conditions shall be painted (any color) or otherwise coated to inhibit corrosion. Stainless steel assemblies and piping may be left unpainted provided that any hose connections, valves, or other components operated by the fire department are painted red.
- P. All sprinkler piping shall remain uncovered until inspected by the City of Carlsbad Inspector.
- Q. Deviations from approved plans shall require approval of the City of Carlsbad.
- R. Upon completion of work, contractors must provide the material and test certificate(s) for aboveground piping.
- S. Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with an approved sign. The lettering shall be in contrasting color to the background. Letters shall have a minimum height of 2 inches (51mm) with a minimum stroke of 3/8 inch (10 mm) per CFC 901.4.7.2
- T. Call Inspection Scheduling at (442) 339-2660 to schedule all inspections at least 48 hours in advance.