



CITY OF NEWPORT BEACH
COMMUNITY DEVELOPMENT DEPARTMENT
LIFE SAFETY SERVICES
GUIDELINES AND STANDARDS

GUIDELINE F.06 – Residential Fire Sprinkler Requirements

F.06.1 PURPOSE

The purpose of this guideline is to provide information and requirements for the design and installation of residential fire sprinklers in one and two family dwellings in accordance with the provisions of the California Fire Code (CFC), Newport Beach Municipal Code, Title 15, Title 9 and National Fire Protection Association (NFPA) Standard 13D. List the applicable codes and standards used for the system design.

F.06.2 SCOPE

This guideline shall apply to all portions of a residential fire sprinkler system in one and two family dwellings.

F.06.3 DEFINITIONS

Per NFPA 13 D Section 3.3.1 Compartment. A space completely enclosed by walls and a ceiling. Each wall in the compartment is permitted to have openings to an adjoining space if the openings have a minimum lintel depth of 8 in. (200 mm) from the ceiling and the total width of the openings in a single wall does not exceed 8 ft (2.4 m) in width. A single opening of 36 in. (900 mm) or less in width without a lintel is permitted when there are no other openings to adjoining spaces.

F.06.4 PERMITS REQUIRED

An encroachment permit for the fire sprinkler water meter is required from the City of Newport Beach Public Works Department prior to the approval of the fire sprinkler plans.

A permit from the City of Newport Beach Community Development Department is required for the installation of a residential fire sprinkler system.

- Two sets of fire sprinkler plans, cut sheets, and calculations shall be submitted to the Community Development Department.
- Minimum size of plan is 18" x 24".

- Plans shall be legible, scaled to nationally recognized standards, and printed as blueline or blackline drawing. The Architect or Engineer of Record shall review the sprinkler plans to assure coordination with other trades and building elements. Consideration should be given to: lights, interior design, plumbing, ductwork, structural methods or attachment for sprinkler piping, and loads/impacts on structural components.

F.06.5 PROCEDURE

TITLE PAGE REQUIREMENTS

A scaled drawing where required should show the following:

1. Address (if known)
2. Size and type of domestic line, including length to city connection
3. Water meter size
4. Current static water pressure
5. Interior walls
6. Model, manufacturer, temperature, orifice size, and spacing requirements of sprinklers
7. Type of pipe
8. Hanger spacing requirement per the pipe manufacturer
9. Riser detail
10. Installing Contractor Information Sprinkler drawings must be prepared, stamped and signed by a licensed civil, mechanical, or fire protection engineer or by a licensed sprinkler contractor holding a valid C-16 license specify the name, license number, address, and phone number of the preparer of the sprinkler drawings
11. Hydraulic Calculations
12. Indicate all Beam locations and include the depth and the width.
13. Provide all slopes for the ceiling areas.
14. Indicate all 8 inch lenth locations when separating a room. A beam cannot be used for separation per 13D.

15. Indicate any openings in walls or rooms that are greater than 8 feet.in width.
16. Provide all types of sprinkler heads to be used with a head legend.
17. Indicate sprinkler head locations in relation to, side and front of fire places, kitchen ranges, wall ovens, hot air flues, un-insulated heat ducts, un-insulated hot water pipes, ceiling or wall heat diffusers, hot water heater or furnaces, and light fixtures.
18. Indicate if the Basements are finished ceiling or un-finished when using non-metallic pipe.
19. Indicate all potential obstructions, ceiling fans, cabinets, beams, lights, soffits, etc.
20. Indicate all fuel fired equipment, hot water heaters, furnaces, dryers Forced Air Units and indicate if they are above or in the living space.
21. If the Entry way to the home is the only egress point please indicate.

RISER ASSEMBLY DESIGN

The riser assembly design shall be in accordance with the following diagram and must include the following components:

- Main control valve, which controls the sprinkler system & domestic water supply
- Domestic water supply valve, which controls the domestic water supply only.
- Test/drain valve

SINGLE-FAMILY – SPRINKLER RISER ASSEMBLY EXAMPLE

Legend	
1	Water supply (from city)
2	Main control valve
3	Water pressure gauge
4	Check valve (rubber face optional)
5	Waterflow detector/switch (optional)
6	Test and drain connection
7	To automatic sprinkler system
8	Water meter
9	Domestic shutoff valve
10	To domestic system

**Verify backflow prevention and water meter requirements with local water authority

