



## Beverly Hills Fire Department 1 & 2 Residential Homes Fire Sprinkler Systems

### **Purpose:**

The purpose of this guideline is to provide the additional requirements for residential fire sprinkler systems. Approved automatic fire sprinklers shall be required to be installed to all residential homes that are newly constructed. Additions, alterations or repairs made within a 12-month period which exceeds 50% of the value of such existing building, an addition constructed which exceeds 50% of the square footage of the existing building, or an addition of more than 5,000 sq. ft. is constructed shall also require approved automatic fire sprinklers. Sprinkler requirements for existing buildings can be verified with a Building and Safety Plan review engineer.

### **Scope:**

This guideline is to be used in conjunction with NFPA 13D 2022 Edition, Beverly Hills Municipal Code and manufacturer installation requirements. This guideline is for informational purposes only and shall not replace adopted codes and standards. It's the sole responsibility of the licensed installing company to meet the requirements of all applicable codes.

### **Design/Installation/Testing Information:**

The following shall be provided in the design and submittal:

1. (2) Check valves shall be installed at each riser.
2. Each sprinklered structure shall have (1) Exterior horn/strobe facing the street side and unobstructed from view. Accessory structures adjacent to alleys shall have horn strobe face alley and unobstructed. A weather proof back box shall be required for all exterior devices. Additional horn strobes may be required when inspector deems necessary. Example: Due to long driveways and setbacks. Additional notification shall be installed in the following areas:
  - Listed mini horns – Each bedroom / sleeping room
  - Listed horn/strobe – outside, theater rooms, gyms, studios, indoor sport activity rooms.
3. Manufacturer's cut sheets and listings/approvals on all hangers, pipe, sprinkler heads or materials shall be provided.
4. Fire Sprinklers are required in closets 24 square feet or greater or having over 3 feet depth and bathrooms over 55 square feet of ceiling area. Showers or bathtubs with full height walls or glass may be excluded as ceiling area.
5. An approved GPM test may be required by the field inspector if significant changes occur to the sprinkler system per approved plans or residence is 10,000 sq. ft. or greater in size.
6. Only approved and listed sprinkler head guards shall be used, as required by the manufacturer. Head guards may be required for sprinkler heads in garages and storage areas if subject to damage.
7. Sprinkler heads in saunas shall be high temperature. The pipe above shall be listed for correct temperature. (Provide detail on plans)

8. Each fire sprinklered structure shall have a fire sprinkler riser assembly main control valve, separate domestic control valve, test valve, two check valves / double check valve, calculation placard and identification signage.
9. Fire sprinkler pipe shall be free from contact of other pipes, wires, paint, adhesives or similar applications per manufacturer recommendations. (Insulate or provide appropriate clearances)
10. Only approved pipe shall be used. Exposed areas such as garages, stairs, elevator shafts and exterior overhangs shall be indicated on the plans showing appropriate pipes installed based on field conditions.
13. Indicate on plans light-wells, soffits, sloped ceilings, ceiling fans and vents that could affect the operation and/or coverage of the fire sprinkler head per NFPA 13D. Side elevations with height dimensions shall be required to confirm appropriate head coverage.
14. Indicate on plans the dimensioned heat zone areas and provide proper sprinkler head protection/placement per NFPA 13D.
15. Flow test information must be current and obtained from Beverly Hills Public Works, Additional fees may be required. Contact Public Works at 310-285-2493. All fire sprinkler systems shall be designed with a 10% safety factor for hydraulic calculations. Flow test report shall be included in sprinkler plan submittal.
16. Limited work in existing fire sprinklered residence or replacing recalled fire sprinkler heads shall have cuts sheets on existing heads and new heads to verify same design characteristics. If existing design info is not available, the most restrictive design to head shall apply or redesign of system shall be done by qualified engineer.
17. New calculations shall be provided when any of the following conditions occur: remote area has been affected (such as added heads), sidewall sprinkler heads not calculated on plans, and / or sprinkler heads installed on-site do not have the same characteristics as the approved heads on plans.
18. Fire sprinkler engineer shall address on-site insufficient water pressure by providing a booster pump, upsized water meter or other approved method. Plans and calculations shall be provided for review and approval.
19. When required by the field inspector, revised plans shall include two complete sets and shall be submitted for review and approval.
20. When non-metallic piping is installed in attics, adequate insulation shall be provided on the attic side of the piping to avoid exposure of the piping to temperatures in excess of the pipes rated temperature.
21. Where maximum ambient ceiling temperatures are between 101 degrees Fahrenheit and 150 degrees Fahrenheit, an intermediate temperature classification head shall be installed. For example: mechanical, electrical rooms, laundry rooms, storage rooms, near heat sources, skylights and or similar uses. Higher temperature heads are required in saunas.
22. All overhangs greater than 4 feet shall be fire sprinklered.

23. A monitoring system shall be required when more than 6 fire sprinklers are installed on one property. A listed and approved combination burglar / fire panel shall be required and verified upon final inspection. All notification devices on-site shall be line volt.
24. Dedicated commercial fire alarm panels shall require a separate fire alarm permit and installed per NFPA 72.