

**ENCINITAS FIRE DEPARTMENT  
RESIDENTIAL FIRE SPRINKLER  
PLAN REVIEW CHECKLIST**

1. Legal Owner

- a. Name \_\_\_\_\_
- b. Address \_\_\_\_\_
- c. Phone No. \_\_\_\_\_

2. Installing Contractor/Designer

- a. Name \_\_\_\_\_
- b. Address \_\_\_\_\_
- c. Phone No. \_\_\_\_\_

**CIRCLED ITEMS EITHER REQUIRE CLARIFICATION, MODIFICATION, CHANGE, AND/OR A NOTE ON THE PLANS.**

3) Job Site

- a) Location (Including street address)

4) Site Plan

- a) Water main connection
- b) Water main connection elevation
- c) Finished floor elevation
- d) Meter size (1" min)
- e) Valve Location (if applicable) RSV-1
- f) Size of underground
  - 1) Meter to main (1" by Water Dept.)
  - 2) Meter to residence
- e) Specify Underground Material
  - 1) Meter to main (Copper type "K")
  - 2) Meter to residence
- f) Scale of drawing
- g) North arrow
- h) Length of underground
  - 1) Meter to main
  - 2) Meter to residence

- d) Location of partitions
- e) Size of all areas not requiring sprinklers
- f) Ceiling construction and height
  - 1) Beams – maximum drilled beam depth for fire sprinkler head is per listing or current TIA
  - 2) Fans
  - 3) Fixtures
  - 4) Obstructions
- g) All rooms under stairway shall be protected.
- h) Location of all high temperature appliances and devices (i.e. fireplaces, stove, ranges, ovens, dryers, furnaces, space heaters, water heaters, etc.)
- i) Show heat zones per manufacturer's Specifications or NFPA 13D Table 7.5.5.3
- j) Structures within 10' (airspace) or attached covered walkways shall be protected
- k) Square footage of area to be protected
- l) Covered Overhangs/Patios ≥10 feet in the VHFHSZ shall be protected
- m) Vertical shafts shall be protected

5) Vicinity Map

- a) North arrow
- b) Scale
- c) Cross Street
- d) Job site identified

6) Floor Plan (for each level) (include options)

- a) Scale
- b) North arrow
- c) Room occupancies indicated

7) Fire Sprinkler Riser

- a) Location (shall be inside garage unless approved by Fire Prevention Bureau)
- b) Riser detail (see attached EFD Riser Detail)
- c) Check valve - resilient seated swing check \*In-line check shall be calculated per specs.
- d) Main drain valve (1/2 ")
- e) Pressure relief valve (static >100)
- f) Exterior aboveground shut-off (ball valve)
- g) A warning sign shall be affixed adjacent to the main shutoff valve per NFPA 13D 6.3.4
- h) Riser/Pipe material type
- i) Flow switch

## Application # \_\_\_\_\_

- j) Gauge and range
  - k) Location of alarm bell(s) and size (min. 8") or horn/strobe (listed for exterior)
- 8) Sprinkler Piping
- a) Material
  - b) All pipe sizes indicated- ¾" min. pipe
  - c) Inspector's test valve type and location keyless, remote from riser, exterior access with sign located 4' to 6' above grade
- 9) Water Supply
- a) Water department name
  - b) Water department phone number
  - c) Water department contact person
  - d) Available water pressure and elevation (By Water Dept. w/copy of e-mail or letter)
  - e) Date of information obtained within 1 year
  - f) Fire approved pressure regulator required when static pressure is above 150 psi (see attached)
- 10) Sprinklers
- a) Manufacturer and type of heads
  - b) Calculated spacing noted on plans
  - c) Total quantity to be installed
  - d) Special high temperature heads, garage, etc.
  - e) Dimensions to walls
  - f) Dimensions to adjacent sprinklers
  - g) Sprinklers per manufacturer's listing providing total protection
  - h) FAU's in attic shall be protected
  - i) Enclosed patios/porches shall be protected
  - j) Quick response commercial heads required in garages with maximum 150 sq. ft. spacing per head.
- 11) Full Height Cross Section
- a) Location where section is taken
  - b) Scale
  - c) Piping and heads shown
  - d) Elevation of building finished floor
  - e) Elevation of piping and heads shown
- 12) Hydraulic Calculations
- a) Two most hydraulically demanding heads
  - b) Three (3) most hydraulically demanding heads for vaulted or sloped and lofts ceilings unless head is listed for sloped ceilings
  - c) Hydraulic reference points indicated
  - d) Source pressure indicated
  - e) Source elevation indicated
  - f) Elevation at remote heads
  - g) Loss through all fittings calculated
  - h) Systems demand 10% below available supply
  - i) Proper sprinkler head data used (GPM, PSI, K-factor)
- j) Plans note the required demands (GPM and required pressure at source)
- 13) General Notes and Information on Plans
- a) Legend
  - b) All material and installation to conform to the standards of NFPA-13D and Fire Dept.
  - c) Exterior exposed steel piping painted
  - d) Storage in attic and crawl spaces is not allowed unless protected with sprinklers
  - e) Access to areas under stairwells shall be protected (closets, baths, etc.)
  - f) All penetrations through firewalls shall be sealed in an approved manner.
  - g) Pipe hangers shall be in accordance with NFPA-13D
  - h) Drilling or notching of structural members shall be performed in strict accordance with the current UBC
  - i) Head guards to be provided on garage heads unless semi-recessed or flush mounted
  - j) Field changes that require As-built plans shall be approved prior to inspection approval and will require payment of a new plan check fee. As-Built plans and/or calculations shall be required when the following occur:
    - (1) Change the type of heads
    - (2) Change spacing of heads
    - (3) Change location of riser (approved location)
    - (4) Change of major pipe runs
    - (5) Change of underground piping
  - k) Spare Head Box Required:
    - (1) 2 Sprinklers required for calculated head type.
    - (2) 1 head each additional type
    - (3) Provide head wrench & inspector's test key
- 14) Submittals
- a) Minimum **3** copies of plans
  - b) Minimum **2** copies of calculations
  - c) Cut sheets of sprinklers and any new material (1 set)
  - d) One copy of water department info.

