

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

1. Legal Owner
 - a. Name
 - b. Address
 - c. Phone

2. Installing Contractor/Designer
 - a. Name
 - b. Address
 - c. Phone

- 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

- 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
 - 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

- 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 (½ ")
 - e) Pressure relief valve (static >100)
 - f) A warning sign shall be affixed adjacent to the main shutoff valve per NFPA 13D 6.3.4
 - g) Riser/Pipe material type
 - h) Flow switch
 - i) Gauge and range
 - j) Location of 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.
 - d) Test and Drain permitted 5 heads or less

- 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)
- 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) 1 Sprinkler required for each head type.
- (2) Provide head wrench & inspector's test key

14) Submittals to the City of Encinitas website via Customer Self Service (CSS) process.

- a) Plans
- b) Calculations
- c) Cut sheets of sprinklers and any new material
- d) Water department fire flow information.