Contractor Permit Submission Requirement Checklist

Sprinkler Modification

***Replacement of parts without adding to the existing system require submission of listing information and data sheets of all equipment being used. Floor plan illustrating heads being replaced and those remaining. Data from the existing hydraulic plate, age and type of all remaining sprinkler heads, IBC construction classification and IFC occupancy classification. ***

Addition of 3 or more sprinkler heads to an existing sprinkler system will require the following:

Shop Drawings

1. Location including street address and occupant business name.
2. Point of Compass
3. Scale provided.
4. Ceiling construction.
5. Full-height cross section.
6. Location of fire walls.
7. Location of partitions.
8. Occupancy of each area or room.
9. Location and size of blind spaces and closets (include any questionable spaces in which no sprinklers will be installed)
10. Size of city main in street and city main test results.
11. Other source of water supply, with pressure and elevation.
12. Make, type and orifice size of sprinkler.
13. Temperature rating and location of high-temp sprinklers.
14. Number of sprinklers on each riser and on each system by floors and total area by each system on each floor.
15. Make, type, model and size of alarm or dry pipe valve.
16. Make, type, model and size of preaction or deluge valve.
17. Type and location of alarm bells.
18. Total number of sprinklers on each dry pipe system or preaction deluge system.
19. Approximate capacity in gallons or each dry pipe system.

20. Cutting lengths of pipe (center-to-center dimensions).

21. Type of fittings, riser nipples and size, and all welds and bends.

22. Type and location of hangars, inserts and sleeves.

23. Small hand-hose equipment.

24. Hydraulic reference points shall be shown by a number and/or letter designation and shall correspond with comparable reference points shown on the hydraulic calculation sheets.

25. System design criteria showing the minimum rate of water application (density), the design area of water application and the water required for hose streams both inside and outside.

26. Actual calculated requirements showing the total quantity of water and the pressure required at a common reference point for each system.

27. Elevation data showing elevations of sprinklers, junction points and supply or reference points.

Information Required on Calculations

1. Location including: Street address and occupant business name.
2. Building occupancy (IFC) classification and construction (IBC) classification.
3. Description of hazard.
4. Name and address of designer/engineer.
5. Engineer stamp.

System Design Requirements

1. Design area of water application.
2. Minimum rate of water application (density).
3. Area of sprinkler coverage.
4. Hazard or commodity classification.
5. Building height.
6. Storage height.
7. Storage method.
8. Total water requirements, as calculated, including allowance for hose demand water supply information.

9. Location and elevation static and residual test gauge with relation to the riser reference point.

10. Flow location.

11. Static pressure, psi.

12. Residual pressure, psi.

13. Flow, gpm.

14. Date, time, and whom conducted the test.

Additional Information Necessary for Complete Review

1. Sprinkler description and discharge constant (K-value)
2. Hydraulic reference points.
3. Flow, gpm.
4. Pipe diameter, pipe length.
5. Friction loss in psi per foot of pipe.
6. Total friction loss between reference points.
7. Elevation difference between reference points.
8. Required pressure in psi at each reference point.
9. Velocity pressures and normal pressure if included in calculations.

Included in submittal must be a graph sheet showing water supply curves and system requirements including: Hose demand plotted on semilogarithmic graph paper so as to present a graphic summary of the complete hydraulic calculations.