



Fire Protection System Requirements

Fire Alarm System

Construction Documents

1. Name of owner and occupant
2. Location, including street address
3. Name, address, and phone number of installing company
4. Name, address, and phone number of PE or planner, if different than installing company
5. A floor plan which indicates the use of all rooms
6. Locations of alarm-initiating and notification appliances with candela rating
7. Alarm control and trouble signaling equipment
8. Annunciation
9. Power connection
10. Battery calculations
11. Conductor type and sizes
12. Voltage drop calculations
13. Manufactures, model numbers and listing information for equipment, devices and materials
14. Details of ceiling height and construction
15. The interface of fire safety control functions
16. Detailed Sequence of operations (Alarm, Supervisory, and Trouble)
17. Input/Output Matrix
18. Wiring diagram or device numbers
19. Scope of work
20. Bill of materials
21. Cover sheet with Building address, Harris County key map number and sheet index.
22. Zone list or Addressable device list

Completion Documents

1. Signed record drawings (as-built)
2. Completed Fire Alarm System Installation Inspection Form
3. Completed Fire Alarm Installation Certificate FML-009A
4. An installation label must be affixed to the inside of the control panel cover

Fire Protection System Requirements

Fire Sprinkler System

Construction Documents

1. Name of owner and occupant
2. Location, including street address
3. Name, address, and phone number of installing company
4. Name, address, and phone number of PE or planner if different than installing company
5. Point of compass
6. Full height cross section, or schematic diagram, including structural member information if required for clarity and including ceiling construction and method of protection for nonmetallic piping
7. Location of partitions
8. Location of fire walls
9. Occupancy class of each area or room
10. Location and size of concealed spaces, closets, attics, and bathrooms
11. Any small enclosures in which no sprinklers are to be installed
12. Size of main in street and whether dead end or circulating; if dead end, direction and distance to nearest circulating; and main test results and system elevation relative to test hydrant
13. Make, type, model, and nominal K-factor of sprinklers
14. Temperature rating and location of high-temperature sprinklers
15. Total area protected by each system on each floor
16. Number of sprinklers on each riser per floor
17. Total number of sprinklers on each dry pipe system, pre-action system, combined dry pipe pre-action system, or deluge system
18. Approximate capacity in gallons of each dry pipe system
19. Pipe type and schedule of wall thickness
20. Nominal pipe size and cutting lengths of pipe (or center-to-center dimensions). Where typical branch lines prevail, it shall be necessary to size only one typical line
21. Location and size of riser nipples
22. Type of fittings and joints and location of all welds and bends. The contractor shall specify on drawing any sections to be shop welded and the type of fittings or formations to be used
23. Type and locations of hangers, sleeves, braces, and methods of securing sprinklers when applicable
24. All control valves, check valves, drain pipes, and test connections
25. Make, type, model, and size of alarm or dry pipe valve
26. Make, type, model, and size of pre-action or deluge valve
27. Kind and location of alarm bells
28. Size and location of standpipe risers, hose outlets, hand hose, monitor nozzles, and related equipment
29. Private fire service main sizes, lengths, locations, weights, materials, point of connection to main; the sizes, types and locations of valves, valve indicators, regulators, meters and valve pits; and the depth that the top of the pipe is laid below grade
30. Where the equipment is to be installed as an addition to an existing system, enough of the existing system indicated on the plans to make all conditions clear
31. For hydraulically designed systems, information on the hydraulic data nameplate
32. A graphic representation of the scale used on all plans
33. Hydraulic reference points shown on the plan that correspond with comparable reference points on the hydraulic calculation sheets
34. The minimum rate of water application (density), the design area of water application, in-rack sprinkler demand, and the water required for hose streams both inside and outside
35. The total quantity of water and the pressure required noted at a common reference point for each system

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36. Relative elevations of sprinklers, junction points, and supply or reference points
 37. If room design method is used, all unprotected wall openings throughout the floor protected
 38. Calculation of loads for sizing and details of sway bracing
 39. The setting for pressure-reducing valves
 40. Information about backflow preventers (manufacturer, size, type)
 41. Information about antifreeze solution used (type and amount)
 42. Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in flow tests shall be shown
 43. Size, location, and piping arrangement of fire department connections

Completion Documents

1. Signed record drawings (as-built)
2. Contractor's Material and Test Certificate for Aboveground piping SF041
3. Contractor's Material and Test Certificate for Underground piping SF042
4. Service Tags
5. Hydraulic Design Information Sign
6. System Components Instructions
7. Care and Maintenance Instructions
8. NFPA 25

Fire Protection System Requirements

Fixed Extinguisher Systems

Construction Documents

1. Name of owner and occupant
2. Location, including street address
3. Name, address, and phone number of installing company
4. Name, address, and phone number of PE or planner if different than installing company
5. Size, length, and arrangement of connected piping
6. Description and location of nozzles
7. Location and function of detection devices, operating devices, auxiliary equipment, and electrical circuitry
8. Indicated hazard to be protected and include such information as physical dimensions, cooking appliances, energy sources for each appliance, and air-handling equipment.
9. Hydraulic Calculations, for other than pre-engineered system

Completion Documents

1. Record drawings (as-built)
2. Completed Fire Extinguisher System Installation Certificate FML-010
3. An installation label must be affixed to the control head or panel of the fixed fire extinguisher
4. Service Tag