



Athens-Clarke County Fire & Emergency Services



3.1.7 Sprinkler Plan Review

FIRE SPRINKLER SYSTEM FOR NFPA 13/13 R	Pass	Fail	N/A
1. In PDF format, email fire.marshall@accgov.com or mail a USB Flash Drive to 700 College Ave Athens GA 30601 (Please do NOT submit paper copies) - Provide one (1) set of drawings, 1 set of calculations, 1 set of submittal data (scope of work on letterhead, specification sheets for all components)			
2. Declaration of Applicable Current Codes: NFPA 13 (2019), NFPA 101 (2018), 120-3-3 Rules and Regulations.			
3. Certificate of Competency or PE seal, including the original signature			
4. Working plans shall be drawn to an indicated scale; a common scale (1/8" = 1' is preferred), including a graphic representation of the scale used. (NFPA 13 27.1.3)			
5. Location key map and north arrow to define the location of work within a building (NFPA 13 27.1.3)			
6. Label all rooms and specify hazard class per area (NFPA 13 27.1.3)			
7. Provide a legend for system components and sprinkler heads: Quantity (total page & total project), SIN #, Make, Type, Sensitivity, K-Factor, Diameter, Temp Rating, Max spacing (NFPA 13 27.1.3)			
8. Provide a copy of the FIRE LINE APPROVED utility plan for new sprinkler systems; Show the location of FDC, PIV, and related supply. A remote FDC is preferred			
9. Provide an accurate riser detail. (NFPA 13 27.1.3)			
SPRINKLER COVERAGE			
10. Basic Requirements: Verify spacing, location, and position of sprinklers (NFPA 13 9.1)			
11. Provide general notes and code references where sprinklers are to be omitted. (NFPA 13 9.2)			
12. Provide total square footage for the area protected by a fire sprinkler system.			
13. Show ceiling heights and branch line elevations with deflector positions.			
14. Show PRV locations and settings.			
15. Show the method of freeze protection and include details (NFPA 13 A.8.6)			

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SPRINKLER COVERAGE CONTINUED			
16. Identify the FDC piping, pipe size, check valve location, and ball drip.			
17. Provide inspectors with the test, auxiliary, and remote drains.			
18. Provide a method for flushing at systems demand when a backflow device is required.			
19. Provide hanger detail for each hanger used and show spacing per table			

OBSTRUCTIONS, CONCEALED SPACES & SPECIAL SITUATIONS	Pass	Fail	N/A
20. Identify ceiling pockets, stairways (void spaces under), elevators/hoist-ways, exterior projections, electrical/mechanical/janitorial rooms, overhead doors, and storage/warehouse rooms			
21. Identify deflector to deck and ceiling construction type, insulated or non-insulated, and provide slopes of ceilings (NFPA 13 9.5)			
22. Identify the clearance between the deflector and the top of the storage/contents of the room.			
23. Identify obstructions to sprinkler discharge pattern development.			
24. Skylights shall comply with (NFPA 13 9.3.16 and NFPA 13 9.2.17); many situations no longer require sprinklers			
25. Identify obstructions > 4', including ductwork, open grate floors, and cloud ceilings; provide a general note.			
26. Identify temperature-restrictive areas, hanging heaters, or other heat-producing devices; provide a general note.			
27. Provide a general note to Identify all canopies, loading docks, or similar areas.			
CONSTRUCTION & MATERIALS			
28. Show all pipe materials, schedules, pipe sizes, cut lengths, and routing to include changes in elevations (NFPA 13 27.1.3)			
29. Provide documentation to support that all materials, system components, and hardware are listed for fire service or intended use. (NFPA 13 27.1.3)			
30. Provide a listed detail for penetrations and identify any firewalls, barriers, or partitions. (NFPA 13 27.1.3)			
CONSTRUCTION & MATERIALS CONTINUED	Pass	Fail	N/A

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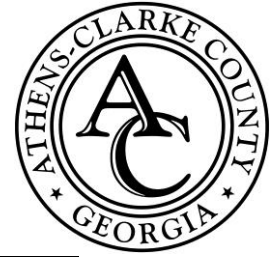
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31. Provide elevation drawings showing ceiling/floor slope and construction and incorporate sprinkler system: multiple elevation drawings may be required (NFPA 13 27.1.3)			
32. Provide a detail showing exposed dry barrel length (minimum 2" from the face of fitting to insulation)			
DRY/ PREACTION SYSTEM			
33. Provide capacity in gallons for dry pipe systems			
34. Identify the slope and direction of the slope for sprinkler piping.			
35. Show the location of remote drains where required.			
36. Show the type and location of alarms and valves for pre-action, dry, or deluge pipe valves (NFPA 13 27.1.3)			

HYDRAULIC CALCULATIONS – REQUIRED FOR NEW OR MODIFICATION OF THIRTY OR MORE SPRINKLER HEADS	Pass	Fail	N/A
37. All remote areas are clearly defined and call out the design data for the remote area.			
38. Water demand requirements and design areas are marked for the applicable areas (occupancy hazard/special design)			
39. Remote areas with 30% increase: Dry pressure and ceiling slope greater than 2 in 12.			
40. Provide a map locating flow/static hydrants, elevation, date, and witness of the flow test within six months of submittal.			
41. Call out the backflow model and meter. (NFPA 13 27.1.3)			
42. Provide static pressure, residual pressures, and flow of the water supply (NFPA 13 27.1.3)			
43. Provide elevations of the hydrant, the base of the riser, sprinklers, and junction points (NFPA 13 27.1.3)			
44. Hydraulic reference points must be shown; include the test hydrant, meter, and backflow (NFPA 13 27.1.3)			

The above is not an all-inclusive list – all buildings must meet all NFPA, International Fire Code, and State of Georgia requirements. Please refer to Chapter 120-3-3, Rules and Regulations of the Safety Fire Commissioners website.

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