



Fire Department
 Fire and Life Safety
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 Wilmington, NC 28401

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Sprinkler Plan Review Requirements

The following information must be completed before review and submitted with the permit application.

Project Name: _____ Address: _____

	OK	Absent	N/A	Comments
An approved site plan by Wilmington Planning Department per set of plans (most up to date, check for revisions).				
FDC, PIV, system riser and alarm bell location match approved utility plan.				
Backflow make, model, size and elevation on the plans.				
Square footage per permitted area and per system called out. Also have the correct permitted name and address on the plans!				
All spaces of the structure labeled per use.				
Show, make, model, size, K-factor, temp, style and quantity for all sprinkler heads (Include cut sheets on all sprinkler heads and pump data booklets. Pump room details must be on the plans. Also, meet all requirements of NFPA 20 and NFPA 13).				
Type of system and type of hazard each system is designed for on all plans.				
Inspectors test and auxiliary drains.				
Show a detail of each type of hangers used.				
Show accurate freeze protection details				
Include UL design number when penetrating a rated wall and address the freezing issue.				
In residential occupancies only, identify all bathrooms under 55 sq ft and call out actual sq ft per bathroom				
Show all sprinkler head dimensions. Also show sq ft of all rooms when using the small room rule, identify all areas with a symbol, S.R.R. is an example (Small room rule to be used only in light hazard occupancies.				
Racks: Show rack cross sections and commodity class per NFPA 13 on your plans,				
All buildings with racks must fill out an Owner's Information Certificate (NFPA 13 Figure A.14.1 (b))				
Show all sprinkler pipe sizes				
Show all elevation changes of pipe on the plans				
An accurate riser detail (Identify each system)				
Key plan of Zone Map to show the area of the building illustrated on the page.				

	OK	Absent	N/A	Comments
All attic systems must a cross section and identify all construction material used.				
Note the construction type per the architectural drawings and show a cross section to identify the roof construction, canopies and unique areas.				
For different occupancy areas, provide a note indicating how and where each design criteria was derived from.				
Address all elevator rooms or shafts per NFPA 13 (sprinklers are required at the top and bottom of the shaft. Exception must be called out on the plans).				
Address all standpipes per NC Fire Code and NFPA 14.				
Penetration through any rated wall of floor needs to be shown on the plans. Provide a detail and approved lab design number (Must have general note if not applicable).				
Show size and locations of all hanging heaters and use intermediate according (Must have general note if not applicable).				
Show all roll back doors and overheads door (Must have general note if not applicable).				
Show all skylight, domes, and unusual ceiling, include all ceiling slopes (Must have general note if not applicable).				
Show all canopies, docks, and obstructions (Must have general note if not applicable).				
Identify all HVAC ducts and obstructions over 4 ft. (Must have general note if not applicable).				
Show hydraulic calculation information on the plans for each remote area.				
Show all hydraulic reference nodes.				
Dry System - Increase all remote areas by 30%. Increase remote area by an additional 30% if slope of the ceiling is greater than 2 in 12. Show sloping direction of all sprinkler pipes in the dry system. Slope must meet minimum requirements of NFPA 13.				
Sloe of ceiling (If greater 2 on 12 or 16.7% and is non-storage, your remote area must increase by 30%, need cross section to verify).				
A note reflecting maximum sprinkler head spacing for each occupancy shown on the plans.				
N.I.C.E.T. or PE stamp on the plans.				
Show floor area size of each system . Also show volume of all dry systems (C-factor must be 100 for all dry systems unless galvanized pipe in your system).				
Remote area is correctly and accurately outlined. (If reduced, show a cross section and elevations. Example, if the remote area is not exactly 1500 sq ft, show the actual size on the plans.)				
Correct hydraulic calculations with a 10 psi safety margin and cover sheet that clearly identifies each area calculated.				

	OK	Absent	N/A	Comments
Stages made of anything other than non-combustible material, FR wood or other approved methods will need to be protected per NFPA 13. All combustible concealed spaces must be indicated and addressed per NFPA 13.				
Two stapled sets of plans and completion of this form will all attachments.				
Name of the person responsible of designing the sprinkler plans.				
If the FDC is a 5" stortz, a minimum of a 30° elbow will be required if the center of the connection is higher then 24" above the ground.				
If the FDC is 2½", Wilmington thread is required.				

Additional Notes: _____

The above is not an all-inclusive list. – Plans must meet all NFPA requirements. Please refer to the current NC Fire Prevention Code for the version adopted.

Provide contact information for person responsible for completing the sprinkler plan review form below:

Name: _____ Phone Number: _____ Date: _____