



Fire Chief Brett Skinner

Fire Marshal Capt. Jessie Knight

*Barrow County Fire Department, 222 Pleasant Hill Church Road, NE,
Winder, Georgia 30680*

The following Fire Sprinkler Plans Submittal Checklist is required information for fire sprinkler permit review. Use of the form does not guarantee that plans will be accepted on the first submittal, but will aid in reducing the number of re-submittals required due to the lack of information or conflicting information being provided. This checklist should not be considered to be all inclusive. Additional information may be required. Use of this checklist will not eliminate the requirement for a good knowledge and understanding of NFPA 13.

For issuance of the fire sprinkler permit and prior to any installation and request for fire sprinkler concealment inspections, the following information and/or forms shall be completed, submitted and approved.

- Completed & approved permit application.
- Include payment for permit fees.
- 1 Full Set of Digital Plans submitted to bcfdplans@barrowga.org

Any material installed or work performed prior to the issuance of a permit will be subject to two times the permit fee and/or required to be removed. A hard copy of the permit and an approved set of plans are required to be maintained on the job site at all times and must be on site prior to any work being performed unless a limited early start request has been granted. Limited early start requests are considered on a case-by-case basis, are required to be submitted in writing on letter head and are not automatically granted.

22.1.1 Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or remodeled.

22.1.2 Deviation from approved plans shall require permission of the authority having jurisdiction.

22.1.3 Working plans shall be drawn to an indicated scale, on sheets of uniform size, with a plan of each floor, and shall show those items from the following list that pertain to the design of the system:

- Name of owner and occupant.
- Location, including street address.
- Point of compass.
- 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
- Location of partitions and firewalls.
- Occupancy class of each area or room.
- Location and size of concealed spaces, closets, attics, and bathrooms.
- Any small enclosures in which no sprinklers are to be installed.

Water Supply Information.

The following information shall be included:

- Location and elevation of static and residual test gauge with relation to the riser reference point.
- Flow location.

- Static pressure, psi (bar).
- Residual pressure, psi (bar).
- Flow, gpm (L/min).
- Date.
- Time.
- Test conducted by or information supplied by.
- Other sources of water supply, with pressure or elevation.
- Hydraulic calculations shall be prepared on form sheets that include a summary sheet, detailed worksheets, and a graph sheet.

The summary sheet shall contain the following information, where applicable:

- Date.
- Location.
- Name of owner and occupant.
- Building number or other identifications.
- Description of hazard.
- Name and address of contractor / designer.
- Name of approving agency.
- System design requirements.
- Design area of water application, ft² (m²).
- Minimum rate of water application (density), gpm/ft² (mm/min).
- Area per sprinkler, ft² (m²).
- Total water requirements as calculated, including allowance for inside hose, outside hydrants, and water curtain and exposure sprinklers.
 - Allowance for in-rack sprinklers, gpm (L/min).
 - Limitations (dimension, flow, and pressure) on extended coverage or other listed special sprinklers.
- Detailed worksheets or computer printout sheets shall contain the following information:
 - Sheet number.
 - Sprinkler description and discharge constant (K).
 - Hydraulic reference points.
 - Flow in gpm (L/min).
 - Pipe size.
 - Pipe lengths, center-to-center of fittings.
 - Equivalent pipe lengths for fittings and devices.
 - Friction loss in psi/ft (bar/m) of pipe.
 - Total friction loss between reference points.
 - In-rack sprinkler demand balanced to ceiling demand.
 - Elevation head in psi (bar) between reference points.
 - Required pressure in psi (bar) at each reference point.
 - Velocity pressure and normal pressure if included in calculations.
 - Notes to indicate starting points or reference to other sheets or to clarify data shown.
 - Diagram to accompany gridded system calculations to indicate flow quantities and directions for lines with sprinklers operating in the remote area.
 - Combined K-factor calculations for sprinklers on drops, arm-overs, or sprigs where calculations do not begin at the sprinkler.
 - A graphic representation of the complete hydraulic calculation shall be plotted on semi exponential graph paper (Q1.85) and shall include the following:
 - Water supply curve.
 - Sprinkler system demand.
 - Hose demand (where applicable).
 - In-rack sprinkler demand (where applicable).