



# Office of the Fire Marshal Williamson County, Texas



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## **AUTOMATIC FIRE SPRINKLER SUBMITTAL GUIDELINES**

These guidelines are to be followed when a business, facility or organization installs an automatic fire sprinkler system within Williamson County. This document shall assist in the preparation of design documents for review and permitting. These guidelines are not to be interpreted as containing all data required for proper design, installation, or approval. Please submit plans to [www.wilcopermits.com](http://www.wilcopermits.com)

### **GENERAL GUIDELINES**

- All drawings submitted for review must be computer generated. In addition, Williamson County Fire Marshal's Office cannot accept computer generated drawings which include hand-drawn items. Examples include sprinkler heads, FDC, or any other fire protection equipment.
- Provide a written description of the work to be performed.
- Include Owner's Information Certificate
- Provide a copy of your State of Texas State Fire Marshal's Office License.
- An Original (WET) RME signature and stamp, as required by TIC Chapter 6003, Section 34.717, is required on all plan drawings and calculations.
- Provide full set of hydraulic calculations:
  - Description of the design area.
  - Design density of each design area.
  - Provide graphic representation of the water flow analysis.
  - Provide the water supply test information.
- Manufacturer documentation for all parts and materials used in the project.
  - Specific materials in the specification booklet are to be identified by an arrow or highlighter.
- Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review. The following information shall be provided on the plans:
  - Scope of work
  - Name and address of Job Site
  - Occupancy Classification
  - Title Block
    - a. Location of installation
    - b. Name and complete address of the business
    - c. Name and complete address of the installing company
    - d. Licensing information
    - e. "Wet" signature of RME
    - f. Date issued and any revisions
    - g. Drawn by
    - h. Authority Having Jurisdiction (AHJ)

- Equipment List
- North Arrow & Scale
- Site plan to include all fire hydrants, fire lanes, fire department connections (FDC) and the fire service lead-in.
- Floor Plan
- A complete full-height cross section of the building(s)
- Square footage & dimensions
- Intended use of each room & location of doors
- All pipe sizes & sprinkler head locations
- Sprinkler riser diagram
- Inspector's test connection detail
- Hanger details
- Wall-mount FDC detail/Remote FDC detail
- Auxiliary drain details
- Clearly indicate each remote area
- Size and location of standpipe hose stations, if applicable
- A legend shall be provided to include:
  - a. Total number and type of all heads shown on plans
  - b. Symbol, device description, manufacturer, model number, and quantity of each
- Drawings shall be generated by the installing company specific to the installation. Drawings shall show plan view and other pertinent information.
- Drawings shall be submitted for review and approval, PRIOR to installation.

Installation of an automatic sprinkler system shall not be performed until a Permit has been issued. Any work performed prior to the issuance of this permit may result in a citation being issued for violation of Section 113.3 of the 2015 International Fire Code.

### **STANDPIPE SYSTEMS**

- Standpipe system shall be installed in accordance with NFPA 14.
- Fire Hose Valves (FHV) shall have Knox locking caps installed on them.
- A full flow test will be required for all standpipe systems at the approved designed flow and pressure in order to verify the hydraulic calculations. Williamson County requires standpipes to be flow tested every 5 years.

### **BACKFLOW PREVENTION DEVICES**

- All fire sprinkler systems are required to be provided with an approved method of backflow prevention.
- Generally, if the fire service lead-in is less than 100 feet in total pipe length, the assembly may be located within the riser room. If the fire service lead-in is more than 100 feet in total length, the assembly must be in a below grade vault adjacent to the tap to the circulation main, preferable in an easement. Please contact the water purveyor that services the project address for requirements pertaining to backflow protection.
- A reduced pressure zone (RPZ) backflow prevention device is required on antifreeze systems.
- Assemblies shall be listed for fire protection use and installed in the correct orientation.
- Assemblies must be provided with a metered bypass.

- In accordance with NFPA 13 (Section 8.17.4.6), a method to perform a forward flow test at the system demand shall be provided downstream of the backflow prevention assembly.

#### **ALARMS FOR FIRE SPRINKLER SYSTEMS**

- Approved audible devices shall be connected to every automatic sprinkler system. Such sprinkler water flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building, in an approved location.