



**Fort Bend County  
Fire Marshal's Office**

**FIRE SPRINKLER UNDERGROUND  
INSPECTION REQUIREMENTS**

**MINIMUM INSPECTION REQUIREMENTS**

1. Visual Inspection
2. Piping Flush
3. Hydrostatic Pressure Test
4. Final Inspection

**VISUAL INSPECTION**

1. Visual inspection of the installation shall be performed prior to cover. If the piping and joints are covered prior to inspection, you will be required to uncover the piping for inspection, regardless of cover. **NO EXCEPTIONS.**
2. All underground piping and joints must be uncovered and exposed, with labeling of the pipe legible from grade.
3. All thrust blocks will be visually inspected and must be uncovered and exposed to grade.
4. Pipe depth of bury (48" min.) shall be measured and verified.
5. All ductile iron, retaining rods, and other non-plastic components shall be externally coated for corrosion and poly-rapped.
6. Embedment material shall be inspected and comply with the approved plans.

**HYDROSTATIC PRESSURE TEST**

1. All new fire service mains shall be tested hydrostatically at not less than 200 psi for a minimum of two hours, or at 50 psi pressure in excess of the maximum static pressure when the maximum required static pressure exceeds 150 psi.
2. Hydrostatic test of the fire sprinkler underground lines shall be performed as per NFPA 24 (Sec. 10.10.2.2).
3. All piping must be exposed, with all joints and thrust blocks exposed, labeling of the pipe must be visible and turned upward.
4. Hydrostatic test shall be made by the installing contractor.
5. The piping will be allowed to be center loaded to prevent pipe movement.
6. Any pressure loss or leaks will result in a failed inspection.
7. Any pressure gains will result in a failed inspection.
8. Any failed hydrostatic test will require all previously approved buried piping to be uncovered for re-inspection.

**PIPING FLUSH**

1. All underground piping shall be thoroughly flushed prior to connecting to the system risers or other aboveground piping system(s). If the underground piping is connected to the system riser, "stacked", both the overhead and underground piping will be required to be flushed in accordance with the requirements of NFPA 13 and NFPA 24.
2. Flushing shall be completed prior to any overhead fire sprinkler inspections.

3. Minimum flow rate shall not be less than the water demand of the rate of the system, or not less than that necessary to provide a velocity of 10 ft/s, whichever is greater. Flushing shall continue until flow is clear of debris.
4. Flush shall be made by the installing contractor in the presence of a representative of the Fort Bend County Fire Marshal's Office.
5. Proper methods and equipment to perform the flush must be used. All piping used to flush must be properly secured or restrained. Hoses may not be used. Field Fire Inspector must approve of flushing method and equipment.

#### **FINAL INSPECTION**

1. As-Built plans, if necessary, shall be submitted and approved prior to final inspection.
2. All inspections shall be 100% completed and passed, if additional inspections are required, re-inspection fees will be paid.

#### **GENERAL SUBMITTAL REQUIREMENTS**

1. Each submittal shall have a completed Fort Bend County Fire Marshal's Plan Review Permit Application.
2. Plans approved by the Fire Marshal's Office give authorization for installation. Final approvals are subject to field verification. Any approval issued by the Fire Marshal's Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances.
3. All Fire Marshal inspection forms and permits shall be kept on the job site until final inspection. If not on site at final inspection, the inspection will fail and have to be rescheduled and pay a re-inspection fee.
4. All installations shall comply with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.

All modifications to an automatic sprinkler system, required by the Fire Marshal, shall conform to the 2012 International Fire Code, as adopted and amended by Fort Bend County.