



**Grapevine Fire Department**  
**1007 Ira E. Woods Ave, Grapevine, Texas 76051**  
**Pre-Construction Checklist**  
Email: [preventionpermits@grapevinetexas.gov](mailto:preventionpermits@grapevinetexas.gov)

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**Project Information:**

<b>Project Name:</b>
<b>Project Address:</b>
<b>Contractor Name:</b>
<b>Superintendent/Representative Name:</b>
<b>Phone Number:</b>
<b>Email Address:</b>
<b>Date Received:</b>
<b>Signature:</b>
<b>Fire Marshal:</b>



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**\*\*\*Project must adhere to 2021 International Fire Code and local adopted amendments\*\*\***

## **PLANS**

### **1. Fire Protection System Review**

- **Requirement:** All sprinkler systems, fire alarms, or other fire protection systems must undergo review by one of the approved third-party engineering companies. Any fees associated with the review are the responsibility of the submitting company.
- **Approved Review Firms:**
  - **Green Tag Engineering**  
2681 MacArthur Blvd, Suite 303, Lewisville, TX 75067  
**Contact:** Jay Loucks, P.E.  
**Phone:** 682-214-4824  
**Email:** [jay@getagreentag.com](mailto:jay@getagreentag.com)
  - **Traditions Fire Consulting**  
P.O. Box 5587, Frisco, TX 75035  
**Contact:** Nick Kalina, P.E.  
**Phone:** 972-979-0631  
**Email:** [traditionsfire@gmail.com](mailto:traditionsfire@gmail.com)
  - **Reed Fire Protection Engineering**  
14135 Midway Rd, Suite G260, Addison, TX 75001  
**Phone:** 214-638-7599 / 800-381-5504  
**Website:** [www.reedfire.com](http://www.reedfire.com)

### **2. Documentation Submission**

- Submit an electronic (PDF) copy of the reviewed plans and documentation to the Fire Department.
- A paper copy of the reviewed fire protection system plans must be retained on-site.



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## INSPECTIONS REQUIRED

1. **Fire Protection Systems**
  - All systems must be inspected before being placed into service.
2. **Sprinkler Systems**
  - **New Systems:**
    - **Hydro/Visual Inspection:** Must be performed before covering underground and above-ground fire protection piping.
    - **Flushing:** Underground and Fire Department Connection (FDC) supply lines must be flushed.
  - **Standpipes:** Inspected per NFPA 14.
  - **Fire Pumps:** Performance tests are required.
3. **Fire Alarm Systems**
  - Tested in accordance with NFPA 72.
  - Function tests of each initiating and signaling device must be conducted.
  - Verify that the device application aligns with the reviewed plans and specifications.
  - A final fire alarm inspection will include a full functionality test of the entire system.
4. **Flammable/Combustible Liquid Installations**
  - Inspections are required for new, temporary, or altered installations of tanks, piping, pumps, or dispensing areas.
  - Tank installations and inspections must be scheduled with State Inspector and Fire Inspector being present at same time.

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## BUILDING FINAL INSPECTION

- The final inspection is conducted when all fire protection and life safety systems have been inspected, tested, and approved.
  - **Verification:**
    - Coordinate with the building department to ensure final inspection readiness.
    - Ensure that all fire and life safety elements are complete.
    - Verify that fire apparatus access and building identification are in place.
    - Confirm that electrical service and fire-resistive construction meet code requirements.
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## **FIRE SAFETY DURING CONSTRUCTION**

### **1. Temporary Heating Equipment**

- Equipment must be UL listed and labeled.
- **LP Gas Heaters:** Must comply with LP gas rules and the International Fuel Gas Code.
- Refueling must be conducted outdoors.
- Maintain clearance from combustibles.
- Ensure that temporary heating devices are secured and supervised.

### **2. Precautions Against Fire**

- Smoking is prohibited except in designated and approved areas.
- Accumulation of combustible debris inside buildings is not allowed.
- Open burning is prohibited.
- Materials susceptible to spontaneous ignition must be stored in UL listed disposal containers.
- A fire watch is required during hazardous demolition, with a means to notify the fire department.
- Place minimum 2A 10BC rated extinguishers strategically around the site during all construction phases.

### **3. Cutting & Welding – Hot Work**

- Inspect the hot work area before starting.
- Shield or remove combustibles.
- Cover openings to prevent spark passage.
- Ensure that sprinkler protection remains active during hot work.
- A fire watch must be provided during and for 30 minutes after hot work.

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## **ROOFING OPERATIONS**

### **1. Heat-Producing Systems**

- Work must be performed by a licensed and bonded contractor.
- **Asphalt & Tar Kettles:**
  - Must be located at least 20 feet from combustibles and building openings.
  - Fuel containers must be at least 10 feet from the burner.
  - Kettles must be constantly attended during operation.
  - A fire extinguisher with a 40BC rating must be within 25 feet of the kettle and one on the roof.



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## **FLAMMABLE AND COMBUSTIBLE LIQUIDS**

- Must be stored, handled, and dispensed in an approved manner.
  - Bulk storage containers (over 60 gallons) require inspection and permitting.
  - Clear storage areas must be maintained, with proper ventilation and ignition source control.
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## **OWNER'S RESPONSIBILITY FOR FIRE PROTECTION**

- The owner must designate a Fire Safety Representative responsible for maintaining a safe and efficient construction site. This representative is accountable for preventing accidents and ensuring a safe work environment.
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## **FIRE RESPONSE AND EMERGENCY READINESS**

- 1. Access and Signage**
    - Street address signs must be visible from the road.
    - Fire lanes and access must be maintained.
    - Exits and stairs must be provided for buildings with 4 or more floors, with temporary lighting.
  - 2. Fire Hydrants, FDC & Standpipes**
    - Operational fire hydrants are required before combustible materials are delivered to the site.
    - Standpipes must be installed in buildings with 4 or more stories or when construction height reaches 40 feet.
    - A 2 ½ inch standpipe hose connection must be available on every level.
    - The Fire Department Connection (FDC) must be a 5-inch Storz connection with a 30-degree downturn.
      - **Exception:** High-rise buildings require 2.5-inch FDC connections.
    - The FDC must be within 50 feet of a fire lane or public road.
    - A fire hydrant must be within 100 feet of the FDC connection.
    - Fire hydrants are required every 300 feet.
    - Fire Hydrants are required to maintain a perimeter clearance of 6 feet.
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## **SPRINKLER SYSTEMS**

### **1. Sprinkler System Underground (SSU)**

- Permits will be issued after third-party approved plans have been received along with plan review documentation.
- Installation must be performed by a licensed company.
- Thrust blocks must be exposed during visual inspection.
- Hydro inspection of underground pipes is required for 2 hours at a minimum of 200 psi.
- Underground pipes may be center-loaded prior to hydro testing, with all joints/bells exposed.

### **2. Sprinkler System Aboveground (SSA)**

- Permits will be issued after third-party approved plans have been received along with plan review documentation.
- Installation must be performed by a licensed company.
- All piping and sprinkler heads must be visible during visual and hydro inspections.
- Hydro inspection of sprinkler pipes is required for 2 hours at 200 psi.

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## **FIRE ALARM SYSTEMS (FA)**

- Fire alarm systems must be designed and installed by a licensed company.
- Permits will be issued after third-party approved plans have been received along with plan review documentation.
- All systems must be pre-tested before the Fire Department inspection.
- A knowledgeable representative must conduct the acceptance test.

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## **SSU, SSA & FA INSPECTION/TESTING TIMES**

- A 24-hour notice is required for scheduling inspections.
  - Regular inspection hours: Monday-Friday, 7:00 AM - 5:00 PM.
  - Failed inspections are subject to a \$250 re-inspection fee.
  - Call 817-410-4424 to schedule an inspection
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## **FIRE DEPARTMENT ACCESS**

### **1. Access During Construction**

- A 150-foot hose lay distance must be maintained to all points of the building.
- Access gates must be provided.
- Concrete Fire lanes must be completed before vertical building construction begins.

### **2. Fire Lanes**

- Minimum width of 24 feet, with a turning radius of 30 feet (inside) and 50 feet (outside).
- Any gate crossing a fire lane access must have a Knox padlock and/or Knox Switch (for electric gates).
- Fire lanes must be capable of supporting 85,000 lbs.
- Dead-end fire apparatus access roads 150 feet or longer must have an approved turnaround for fire department apparatus.
- Minimum vertical clearance of 14 feet is required.

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## **KNOX BOXES**

- Knox Boxes are required at exterior access doors, including riser rooms, for any building with a fire alarm or sprinkler system.
- Knox caps are required for FDC's.
- Automatic Knox switches are required for access gates located across fire lanes.
- Knox Remote Power Boxes required for Level 2 and 3 EV Charging stations.
- All Knox products can be purchased at [knoxbox.com](http://knoxbox.com).

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## **VARIANCE SUBMISSION**

- All variance requests must be submitted by email to the Fire Marshal's Office and can only be approved by the Fire Marshal.
- Submission of a variance request does not guarantee approval. Only a limited number of requests are approved. All work must comply with code, and variances are evaluated on a case-by-case basis. Please note that multiple variance submissions may incur fees.