



FIRE PROTECTION GUIDE FOR CONSTRUCTION

Fire Apparatus Access Roads (Fire Lanes)

Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

When fire apparatus access roads or a water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided.

Fire apparatus access roads shall have an unobstructed width of not less than **26** feet, unless given approval from the AHJ, except for approved security gates, and an unobstructed vertical clearance of not less than 13 feet 6 inches.

Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

The required turning radius of a fire apparatus access road shall be 50 feet outside turning radius. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus.

Marking of the fire access road shall be by one of three approved methods.

1. Painting curbs red with contrasting white letters reading "NO PARKING FIRE LANE".
2. Painting red stripe on pavement with contrasting white letters reading "NO PARKING FIRE LANE".
3. With signage at the beginning and end of the designated fire access road and at 25 feet intervals. If curb markings are also used, the interval can be 50 feet.

Access during Construction

Approved vehicle access for firefighting shall be provided to construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus roads are available.

Fire Hydrant Requirements

Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet from a hydrant on a fire apparatus access road, on-site fire hydrants and mains shall be provided. EXEPTION: If the facility or building is fully sprinklered, the distance requirement shall be 600 feet.

Water Supply for Fire Protection During Construction



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An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.

Installation of Fire Mains by Licensed Companies

Permits are required for all underground fire mains. Plans should be submitted with the permit application prior to beginning of installation. Fire Protection water mains can only be installed by personnel licensed by the State Fire Marshal's Office to perform such work. Licensed plumbers cannot install fire mains.

A copy of the FMO stamped approved set of plans is required to be on site and immediately available at all times. Permission and written authorization to begin installation prior to plan approval may be requested from the Fire Marshal's Office. If permission is granted, then a copy of the written permission letter must be kept on site at all times in lieu of the approved plans. It is understood that any corrections or deviations from the approved plans must be made in order to obtain final acceptance.

All features of the underground fire main shall be inspected and hydro tested before being covered. This includes but is not limited to type and size of piping, pipe depth, type of fill, thrust block location and size. All pipe joints and thrust blocks are to remain uncovered until hydro tested unless permission is obtained from the FMO prior to being

hydro tested. Hydro testing will be according to NFPA 24.

The private fire main begins at the tap to the public City of Waco water main. No domestic water taps are allowed on the fire main.

Test gauges must be connected to the system being tested. All pumps must be completely disconnected from the system being tested.

Gating

The installation of gates across access roadways shall be pre-approved by the Fire Marshal. Where gates are installed, they shall have an approved means of emergency operation.

Electrically Operated Security Gates

All electrically operated security gates must be equipped with an emergency means of release as well as a Knox key switch.

Fire Protection System Plan Submittals

In order to obtain the greatest insurance savings for a sprinkler system, fire sprinkler plans must first be reviewed and stamped by the Insurance Service Organization (ISO). ISO also requires that the installed system be inspected by ISO. The customer must request this inspection through their insurance agent. This must be done in order to receive maximum insurance credit for the sprinkler system.



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Plan submittals to the Fire Marshal's Office must include ISO review comments and responses. One set of plans will be kept by FMO. A copy of the FMO stamped approved plans is required to be on site and immediately available at all times.

Installation Prior to Approval of Fire Protection Systems

Permission and written authorization to begin installation prior to plan approval may be requested from the Fire Marshal's Office. If permission is granted, then a copy of the written permission letter must be kept on site at all times in lieu of the approved plans. It is understood that any corrections or deviations from the approved plans must be made in order to obtain final acceptance.

Fire Protection System Inspections

All aboveground piping of sprinkler systems shall be inspected and hydro tested prior to any part being covered or obstructed in any manner unless permission is obtained from the FMO prior to being covered or obstructed. This includes but is not limited to pipe type and sizes, hanger locations, sprinkler head types and locations, etc. Hydro testing will be according to NFPA 13.

Installations that include multiple systems or multiple levels may be inspected and hydro tested separately in efforts to maintain construction

scheduling. Partial visual inspections, covering and/or obstructing systems is not permitted unless special circumstances exist and prior approval from FMO is given. A special after hours permit and fee will be required for each approved inspection. The General Contractor requesting a partial inspection would be responsible for obtaining the permit and paying associated fees prior to inspection, not the installing contractor.

Test gauges must be connected to the system being tested. All pumps must be completely disconnected from the system being tested.

A minimum of 24 hours advanced notice is normally required for inspections.

Fire alarm System Plan Submittals

Permits are required for all fire alarm submittals. One set of plans will be kept by FMO. A copy of the FMO stamped approved plans is required to be on site and immediately available at all times.

Installation Prior to Approval of Fire Alarm Systems

Permission and written authorization to begin installation prior to plan approval may be requested from the Fire Marshal's Office. If permission is granted, then a copy of the written permission letter must be kept on site at all times in lieu of the approved plans. It is understood that any corrections or deviations from the approved plans must



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be made in order to obtain final acceptance.

follow the manufacturer's guidelines or be conducted according to the applicable NFPA guideline.

Fire Alarm System Inspections

Fire alarm systems testing will be according to NFPA 72.

A minimum of 24 hours advanced notice is normally required for inspections.

Note: These guidelines are subject to change without notice based on the adoption of new Fire Codes.

Knox Lock Boxes

Knox lock boxes are required on all buildings with monitored fire alarm systems. The lock box can be ordered from Knox Company through the internet at www.knoxbox.com. Specify the City of Waco Fire Department.

Waco Fire Marshal's Office

(254) 750-1740 (254) 750-1769 (Fax)

Mailing Address: 1016 Columbus Ave

Waco, Tx 76701

Email Address: kevinv@wacotx.gov

Contact Person: Kevin Vranich

Fire Marshal

Premises Identification

All buildings shall have approved address numbers placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inches.

Storage Tanks

Permits are required for the installation of storage tanks containing hazardous, combustible or flammable liquids. Plans should be submitted with permit application. Inspections are required prior to covering any tank or line from the tank. Testing of installations shall