



***Fire Marshal's Office  
Contractor Guide***

# Contractor Guide

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# Contractor Guide

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## Site Development Guidelines

- Commercial Site Development
- Residential Site Development (incl. Multi-Family)

# Little Elm Fire Department Fire Marshal's Office



## Commercial Site Development Guidelines

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These guidelines are provided to assist the developer of commercial and residential properties to meet requirements of the Town of Little Elm's Fire Marshal's Office. The information provided are guidelines only and are not intended to address all requirements.

### COMMERCIAL DEVELOPEMENTS

#### Fire Lane Coverage

- Fire Lanes must be installed and marked per code prior to going vertical with any construction.
- All Exterior walls shall be within 150 feet of Fire Lane or street, center of nearest lane. Distance may increase to 250 feet if building is sprinkled.
- 10' path around building
- 5' path between cars or through gates
- Minimum unobstructed width of 24 feet; Servicing greater than two-story structures a minimum of 26 feet is required.
- Required Radii
  - Fire Lane Width 24' – Radii 20'
  - Fire Lane Width 30' – Radii 10'
- 14' height clearance over fire lanes
- All fire lanes shall be concrete.
- Cul-de-sac length is 500' Maximum. Any distance past 500' shall be sprinkled
- Two points of fire department access is required

#### Fire Hydrants

- Building Sprinkled – 500' spacing
- Building without sprinkler – 300' spacing
- Minimum 2 per property
- 2 to 6 feet behind curb
- Not located in the fire lane radii
- 50' from building or height of building + 10'
- Minimum 3' clearance around hydrants
- 12" looped main for more than 2 hydrants
- 12" for up to 2 hydrants (fire main is treated as a hydrant)
- Town of Little Elm requires all hydrants to come with 4 ½ "-5" Hydra-Storz quick connection by Hydra-Shield.
- A hydrant shall be located within 100 feet of the FDC
- Fire Hydrants shall be painted to NFPA 291 Standards

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## Commercial Site Development Guidelines

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### Fire Sprinklers Required

- Buildings 5,000 sq. ft. or greater
- Mini Warehouses; Self-Service Storage Facilities
- Highest floor level 35' or more above Fire Lane
- Underground Fire Mains shall be a minimum of 8"
- FDC's, where required, shall be remote from the building and adjacent to the fire lane. FDC location shall be shown and label on all site plans.

### Underground Storage Tanks

- Off-street/fire lane loading space
- Distance to property lines, building easements
- Out of Fire Lane
- Separate Permit required through the Fire Marshal's Office

### Above Ground Storage Tanks

- In light Industrial Districts Only
- Maximum of 30,000 gallons per site
- Distance to property lines, buildings, public ways
- Off-street/fire lane loading space
- Out of fire lane
- Variances must be approved by Fire Marshal in other than Light Industrial Zoning

### Gates and Fences

- Gates across fire lanes must provide full fire lane width and meet access requirements
- Gates through fences must be located to maintain 150' fire lane coverage and be a minimum of 5' wide

# Little Elm Fire Department Fire Marshal's Office



## Residential Site Development Guidelines

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These guidelines are provided to assist the developer of commercial and residential properties to meet requirements of the Town of Little Elm's Fire Marshal's Office. The information provided are guidelines only and are not intended to address all requirements.

### RESIDENTIAL DEVELOPMENTS

#### SINGLE FAMILY DWELLING

##### Fire Lane Coverage

- All Exterior walls within 150 feet
- Cul-de-sac length (500' Maximum)
- 10' path around building
- 5' path between cars or through gates
- Required Radii
  - Fire Lane Width 24' – Radii 20'
  - Fire Lane Width 30' – Radii 10'
- 14' height clearance over fire lanes
- Two Points of access

##### Fire Hydrants

- Building Sprinkled – 600' spacing
- Building without sprinkler – 500' spacing
- 2 to 6 feet behind curb
- Not located in the fire lane radii
- 50' from building or height of building + 10'
- Minimum 3' clearance around hydrants
- 12" looped main for more than 2 hydrants
- 12" for up to 2 hydrants
- Two Sources of Water

##### Fire Sprinklers Required

- Buildings 5,000 sq. ft. or greater

##### Access Gates

- Gates crossing fire lanes, require approved access control

# Little Elm Fire Department Fire Marshal's Office



## Residential Site Development Guidelines

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### MULTI FAMILY AND SINGLE FAMILY ATTACHED

#### Fire Lane Coverage

- All Exterior walls within 150 feet
- Cul-de-sac length (500' Maximum)
- 10' path around building
- 5' path between cars or through gates
- Required Radii
  - Fire Lane Width 24' – Radii 20'
  - Fire Lane Width 30' – Radii 10'
- 14' height clearance over fire lanes
- Two Points of access

#### Fire Hydrants

- Building Sprinkled – 400' spacing
- Building without sprinkler – 300' spacing
- 2 to 6 feet behind curb
- Not located in the fire lane radii
- 50' from building or height of building + 10'
- Minimum 3' clearance around hydrants
- 12" looped main for more than 2 hydrants
- 12" for up to 2 hydrants
- Two Sources of Water

#### Fire Sprinklers Required

- Buildings 5,000 sq. ft. or greater

#### Access Gates

- Gates crossing fire lanes, require approved access control

# Contractor Guide

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## Fee Schedule

- Permit Fees
- Additional Fees

# Little Elm Fire Department Fire Marshal's Office



## Fee Schedule

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Permit fees are established by Town Ordinance and are subject to change.

Non-CAD Submittal Fee	\$50.00
Alarm	\$75.00 + \$.012 per square foot or portion thereof
Alarm (Water-flow monitoring only)	\$75.00
Sprinkler	\$75.00 + \$.012 per square foot or portion thereof
Sprinkler (Single Family Residence)	\$75.00
Standpipe System	\$75.00
Fire Pump and Related Equipment	\$75.00
Remote Fire Department Connection (FDC)	\$75.00
Battery System	\$75.00
Access Control System	\$75.00
Gate Access System	\$75.00
Flammable/Combustible Liquids	\$75.00
Flammable/Combustible Storage Tanks	\$175.00 first tank; \$75.00 each additional tank
LP-Gas	\$75.00
Compressed Gases	\$75.00
Hazardous Materials	\$75.00
Spray or Dipping	\$75.00

In addition to permit fees; ordinance provides the ability to add fees to a permit for non-compliance.

Working without a permit	Two times the permit fee, in addition to the permit fee. Citation may be issued in addition to the imposed fee.
Re-Submittals	\$75.00
Re-Inspections	\$75.00 for the first failed inspection \$100.00 for the second and subsequent failed inspections.

# Contractor Guide

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## Plan Submittal / Permit Process

- Permits Required
- Local Design Requirements
- General Submittal Guidelines
- Electronic Plan Review Submittals

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### General Information

This guide is written to assist general contractors and developers with plan submittals. Plan submittal, inspection and testing of systems will be done by the subcontractor and will be witnessed by the fire department representative.

The general contractor can schedule a Fire Department Final Inspection; all other **inspections are to be scheduled by the subcontractor.**

Prior to moving office supplies, Furniture, or similar items into the building, all fire and life safety systems must be approved by the Fire Department along with authorization from the Building Inspection Department.

All sprinkler piping must be visible until the fire sprinkler system passes the hydrostatic test and component review. Ceilings must not be installed until these inspections have been passed by the fire department.

A Framing Inspection cannot be scheduled until automatic fire sprinkler plans and fire alarm plans have been submitted by the subcontractors.

When change of "occupancy" occurs, the entire occupancy must be brought up to current code requirements for the new occupancy classification.

### Codes: (See Fire Code Amendments at [www.littleelm.org](http://www.littleelm.org))

2003 International Building Code and Local Amendments (IBC)

2006 International Fire Code and Local Amendments (IFC)

\*\*Where there is a conflict between code amendments, the most current amendment prevails.

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### GENERAL REQUIREMENTS for ALL Occupancies

#### Fire Sprinkler Underground Plan Submittal: Required For:

- Buildings with new sprinkler system installations.
- Existing sprinkler systems where sprinkler underground piping must be modified.
- Each line is a separate permit.

#### Remote Fire Department Connection Plan Submittal: Required For:

- Buildings with new sprinkler system installations
- Existing sprinkler system where Remote Fire Department Connection must be modified.
- Each line is a separate permit.

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area is 5,000 square feet or larger. (IFC 903.2.10.6)
- Remodels to existing buildings with automatic sprinklers.
- A building addition where the cumulative total area of the building exceeds 5,000 sq.ft.
- Spray booths (new and existing). (IFC 903.2.10.5)
- Stages. (IFC 905.3.4)
- Buildings with a floor level that is 35 feet or more above the lowest level of fire department vehicle access, automatic sprinkler systems are required. (IFC 903.2.10.3)
- Atriums. (IBC 404.3)
- High piled storage area is 500 sq.ft. or larger. (IFC Table 2306.2)
- All buildings with FM 200, Intergen, or other alternate agent system.
- All Occupancies except R-3 and U when: (IFC 903.2.10)
  - o Stories or basements without openings: Sprinklers required throughout every story or basement of all buildings where the floor area exceeds 1,500 sq.ft. and where there is not one of the following types of exterior wall openings:
    - \*Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1022 or an outside ramp complying with Section 1022. Openings shall be located in each 50 linear feet or fraction thereof, of exterior wall in the story on at least one side.
    - \*Openings entirely above the adjoining ground level totaling at least 20 sq.ft. in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### Fire Alarm Plan Submittal: Required For:

- Remodels, fire alarm panel changes, or addition of monitoring to existing buildings with Fire Alarms.
- The complete building fire alarm must meet current code requirements if remodel or expansion of existing building exceeding 30% of the total building area. (IFC 907.1.3)
- Atriums. (IFC 907.2.13)
- High rise buildings. (IFC 907.2.12)
- Lead Acid Battery rooms with greater than 50 gallon liquid capacity. (IBC & IFC 907.2.23)
- Buildings where elevator recall is required.

### Standpipe Plan Submittal: Required For:

- Buildings where floor level of the lowest story is located more than 30 feet above or below fire department access, standpipe systems are required. (IFC 905.3.1)
- Buildings 10,000 sq.ft. or greater where interior area is more than 200 feet of travel from the nearest point of fire department vehicle access, standpipe systems are required. (IFC 905.3.2)

### Flammable Liquid Storage Tank Submittal: Required For:

- Portable tank 660 gallons or larger. (IFC 3404.2)
- Fixed above ground storage tanks and underground storage tanks. (IFC 3404.2)
  - o (Above Ground Tanks Not Allowed in Zoning Other Than Industrial.)
- Propane tank installations.

### Hood Suppression System Plan Submittal: Required For:

- All Type I hoods. (IFC 904.2.1)
- Domestic Appliances used for commercial purposes (Requires Type I Hood) (IFC 609)

### Alternate Extinguishing System Plan Submittal: Required For:

- All buildings with FM 200, Intergen, or other alternate agent system.

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### Smoke Control Plan Submittal: Required For:

- Stage larger than 1,000 square feet in floor area. (IBC 410.3.7)
- Stage with height greater than 50 feet. (IBC 410.3.7)
- High rise buildings. (IBC & IFC 1005.3.2.5)
- Atriums. (IBC 404.4)
- High piled storage area 12,000 sq.ft. or larger. (Note: will also have to meet building access requirements). (IFC Table 2306.2)

### High Piled Storage Plan Submittal: Required For:

- All high piled storage areas.

### Battery System Plan Submittal: Required For:

- Installation of stationary lead-acid battery systems having a liquid capacity of more than 50 gallons (IFC 105.7.2)

### Access Control Plan Submittal: Required For:

- Installation of any ingress or egress control system

### Gate Access System Plan Submittal: Required For:

- Installation of a gate system that crosses a fire lane
- Installation of a gate system that restricts fire department access (community pools, etc.)

### LP Gas System Plan Submittal: Required For:

- Installation of or modification to an LP-gas system (IFC 105.7.9)

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### Compressed Gas System Plan Submittal: Required For:

- Installation, repairing damage to, abandoning, removing, placing temporarily out of service, or closing or substantially modifying a compressed gases system when the use or storage exceed the amounts listed in the IFC Table 105.6.8

### Hazardous Material Plan Submittal: Required For:

- Installing, repairing damage to, abandoning, removing, placing temporarily out of service, or close or substantially modifying a storage facility or other area regulated by Chapter 27 of the IFC when use or storage are in excess of the amounts listed in Table 105.6.20.

### Spray / Dipping Operations Plan Submittal: Required For:

- Installing or modifying a spray room, dip tank or booth

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### ADDITIONAL REQUIREMENT for SPECIFIC Occupancies

#### A-1

##### Automatic Fire Sprinkler Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 903.2.1.1)
- Floor above or below exit discharge. (IFC 903.2.1.1)
- Has Multi Theater complex. (IFC 903.2.1.1)

##### Fire Alarm Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

#### A-2

##### Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area 5,000 square feet or larger. (IFC 903.2.1.2)
- Occupant Load of 300 or more. (IFC 903.2.1.2)
- Floor above or below exit discharge. (IFC 903.2.1.2)

##### Fire Alarm Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

#### A-3

##### Automatic Fire Sprinkler Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 903.2.1.3)
- Floor above or below exit discharge (Exception: Sports areas where main floor is a level of Exit Discharge). (IFC 903.2.1.3)

##### Fire Alarm Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### A-4

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 903.2.1.4)
- Floor above or below exit discharge (Exception: Sports areas where main floor is a level of Exit Discharge). (IFC 903.2.1.4)

#### Fire Alarm Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

### A-5

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- Concession stands, retail areas, press boxes and other accessory use areas 1,000 square feet or larger. (IFC 903.2.1.5)

#### Fire Alarm Plan Submittal: Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

### B

#### Fire Alarm Plan Submittal: Required For:

- Building with total occupant load of 500 or more. (IFC 907.2.2)
- Occupant load of 100 or more above or below lowest level of exit discharge. (IFC 907.2.2)

### E

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- Any portion below level of exit discharge. (IFC 903.2.2)

#### Fire Alarm Plan Submittal: Required For:

- All "E" occupancies (IFC 907.2.3)

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### F-1

Automatic Fire Sprinkler Plan Submittal: Required For:

- More than 3 stories in height. (IFC 903.2.3)
- Has woodworking area 2500 sq.ft. or larger. (IFC 903.2.3.1)

Fire Alarm Plan Submittal: Required For:

- Building two or more stories in height and with total occupant load of 500 or more above or below lowest level of exit discharge. (IFC 907.2.4)

### F-2

Fire Alarm Plan Submittal: Required For:

- Building two or more stories in height and with total occupant load of 500 or more above or below lowest level of exit discharge. (IFC 907.2.4)

### H-1, H-2, H-3, H-4, & H-5

Automatic Fire Sprinkler Plan Submittal: Required For:

- All "H" occupancies. (IFC 903.2.4.1)

Fire Alarm Plan Submittal: Required For:

- All "H-5" occupancies. (IFC 907.2.5)

### I-1, I-2, I-3, & I-4

Automatic Fire Sprinkler Plan Submittal: Required For:

- All "I" occupancies. (IFC 903.2.5)

Fire Alarm Plan Submittal: Required For:

- All "I" occupancies. (IFC 907.2.6)

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## Permit Required

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### M

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- High piled storage. (IFC 903.2.6.1)

#### Fire Alarm Plan Submittal: Required For:

- Building with total occupant load of 500 or more. (IFC 907.2.7)
- Occupant load of 100 or more above or below lowest level of exit discharge. (IFC 907.2.7)

### R-1

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- All buildings with a R-1 fire area except the following: (IFC 903.2.7)  
Where guestrooms are not located more than one story in height and the building contains less than 20 guest rooms. (IFC 903.2.7)

#### Fire Alarm Plan Submittal: Required For:

- All "R-1" occupancies (IFC 907.2.8)
- See Exceptions 1, 2, & 3. (IFC 907.2.8)

### R-2

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- Buildings greater than three stories. (IFC 903.2.8)
- Buildings with greater than 16 dwelling units. (IFC 903.2.8)
- Fraternities and Sororities with occupant load greater than 10. (IFC 903.2.8).

#### Fire Alarm Plan Submittal: Required For:

- Dwelling unit is located three or more stories above the lowest level of exit discharge. (IFC 907.2.9)
- Any dwelling unit located more than one story below the highest level of exit discharge of exits serving the dwelling unit. (IFC 907.2.9)
- Building contains more than 16 dwelling units. (IFC 907.2.9)
- See Exceptions 1, & 2 (IFC 907.2.9)

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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**R-3** See GENERAL REQUIREMENTS for ALL Occupancies.

**R-4**

Automatic Fire Sprinkler Plan Submittal: Required For:

- Building with more than 8 occupants. (IFC 903.2.9)

**S-1**

Automatic Fire Sprinkler Plan Submittal: Required For:

- Repair garages with two or more stories in height including basements. (IFC 903.2.10.1)
- Building with tire storage greater than 20,000 cubic feet. (IFC 903.2.10.2)
- Self-storage facility. (IFC 903.2.10.3)
- Self-storage facility. (Exception of one story building with no corridors and one-hour fire barrier between every storage compartment). (IFC 903.2.10.3)

**S-2**

Automatic Fire Sprinkler Plan Submittal: Required For:

- Enclosed parking garages. (IFC 903.2.11)

**U** See GENERAL REQUIREMENTS for ALL Occupancies.

### Underground Buildings

Automatic Fire Sprinkler Plan Submittal: Required For:

- All underground buildings. (IFC 905.3.6)

Fire Alarm Plan Submittal: Required For:

- All underground buildings 60 feet or more below fire department access (IFC 907.2.19)
- All underground buildings must have detection for smoke exhaust system. (IFC 907.2.19)

# Little Elm Fire Department Fire Marshal's Office



## Permit Required

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### Smoke Control Plan Submittal: Required For:

- All underground buildings. (IBC 405.5)

### **Covered Mall Buildings**

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- All Covered Mall Buildings. (IBC 402.8) (IBC & IFC 905.3.4)

#### Standpipe Plan Submittal: Required For:

- All Covered Mall buildings. (IBC 402.8.1)

#### Fire Alarm Plan Submittal: Required For:

- Covered Mall Buildings exceeding 50,000 sq.ft. in total floor area (Voice evac.). (IFC 907.2.20)

#### Smoke Control Plan Submittal: Required For:

- All Covered Mall Buildings. (IBC 402.9)

### **Special Amusement Buildings**

#### Automatic Fire Sprinkler Plan Submittal: Required For:

- All Special Amusement Buildings. (IBC 411.4)
  - Except Temporary Special Amusement Buildings less than 1,000 sq.ft. and with travel distance to exit from any point less than 50 feet.

#### Fire Alarm Plan Submittal: Required For:

- All special amusement buildings. (IFC 907.2.11)

# Little Elm Fire Department Fire Marshal's Office



## Local Design Requirements by Permit Type

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### FIRE ALARM

Fire alarm systems are required to be designed in accordance with NFPA 72 and are to be installed where required by IFC 2006 and local amendments.

- Fire alarm must be audible from ALL POINTS in the building; additional devices maybe required at time of test/inspection.
- Fire alarms must be visible in all accessible public and common areas, lobbies, corridors, hallways, bathrooms, apartment bedrooms and common area, and hotel guest rooms.
- Alarm must sound in three-pulse temporal pattern.
- Duct detectors shall sound as supervisory signal only
- Fire alarm panel must be supplied with a secondary transient surge suppressor on the incoming power line (in addition to any suppressor built in to the panel.)
- All systems shall be Class "A" wired with a minimum of six feet separation between supply and return loops.
  - IDC – Class "A" Style "D"
  - SCL – Class "A" Style "6"
  - Notification – Class "B" Style "X"
- Weatherproof horn strobe is required outside in the direct vicinity of the FDC and visible from the fire lane.
- A remote annunciator is required at the main entrance or at the riser when the alarm panel is located in an area other than the main entrance of a building or in the riser room. The annunciator shall have a sign posted identifying the location of the main FACP. "FACP located in \_\_\_\_\_" Letters shall be white on a red background.
- A zone map shall be place at the annunciator and/or FACP.

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## Local Design Requirements by Permit Type

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### CENTRAL STATION MONITORING (Waterflow Monitoring System)

- Internal Horns / Strobes only when provided through out facility
- Plans Shall Provide:
  - Dialer Specifications
  - Service Type (UL listed Central Station Monitoring Company is required)
  - Phone service Type
  - Runner Service (where required)
  - Battery back-up for 24 hours
- Signals shall be sent for:
  - Sprinklers:
    - Tamper
    - Water Flow
    - Supervisory
    - General
  - With Fire Pump;
    - Notify Fire Department on the following indicators
      - Water Flow
      - Pump Running
    - Notify Property Owner/Manager on the following indicators
      - Tamper
      - Supervisory
      - Phase Reversal
      - Power Loss

### UNDERGROUND FIRE MAIN

- Fire department will permit and inspect the main from tap/valve to the building.
- Provide a minimum of 10 feet of separation between fire sprinkler line and all other utilities
- Provide a minimum of 2 feet of vertical clearance when crossing other utilities
- Rods and nuts shall be stainless steel
- If PVC is used, class 200 at a minimum will be used for any main size
- Thrust blocks shall be provided in accordance to NFPA 24
- Underground embedment shall be No. 4 crushed stone.
- 8" minimum main size required

# Little Elm Fire Department Fire Marshal's Office



## Local Design Requirements by Permit Type

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### ACCESS CONTROL SYSTEMS

Doors in the means of egress shall be permitted to be equipped with an approved entrance and egress access control system provided that it complies with NFPA and IFC requirements, including but not limited to:

- A sensor is provided on the egress side arranged to detect an occupant approaching the doors and the doors are arranged to unlock upon detection of approaching occupant or loss of power to the sensor; and,
- Loss of power to that part of the access control system that locks the doors automatically unlocks the doors; and,
- The doors are arranged to unlock from a manual release device located 40 inches to 48 inches vertically above the floor and within 5 feet of the secured doors. The manual release shall be readily accessible and clearly identified by a sign that reads "PUSH TO EXIT". A touch sensor panic hardware device may be used in lieu of the manual release button.
- When operated, the manual release device shall result in direct interruption of power to the lock – independent of the access control system electronics – and the doors shall remain unlocked for at least 30 seconds; and,
- Activation of the building fire sprinkler or fire detection system, if provided, automatically unlocks the doors and the doors remain unlocked until the fire protective signaling system has been manually reset.
- A 4400 Knox Box shall be provided on all buildings having an Magnetic Access Control System and shall be provided with a Knox Toggle switch that when activated will disconnect the entire buildings access control system.

### EXHAUST HOOD FIRE SUPPRESSION SYSTEM

Hood systems shall be designed and installed in accordance with the appropriate NFPA standard.

- All hood systems shall be UL300 Listed
- Class K extinguisher and appropriate signage must be supplied and mounted in the path of egress.
- If a fire alarm is present in the building, the hood system shall interface with the alarm
- Rubber nozzle caps shall not be used below the filter level. Metal or foil caps are the only acceptable covers.
- Domestic Ranges when used for Commercial Purposes shall be provided with a Type I hood and therefore shall be covered by an exhaust hood fire suppression system (IFC 609).

# Little Elm Fire Department Fire Marshal's Office



## Local Design Requirements by Permit Type

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### FIRE SUPPRESSION EXTINGUISHING SYSTEMS (SPRINKLERS)

\*\*SEE 'Fire Department Connection Requirements' for specific rules for FDCs.

- All inspectors' test, ball-drips, and main-drains shall be piped directly to the outside of the building.
- At least one inspectors' test per riser/floor shall be located at the remote area.
- Reduced Pressure Zone valves shall be used on antifreeze systems
- Riser shall be located in heated areas. Riser-room electric heater shall be hard wired.
- The riser room shall be large enough to facilitate maintenance and testing of the sprinkler system.
- Elevator shaft tops shall not be sprinkled.
- Each floor shall be equipped with a control valve and waterflow switch.
- Porches and balconies shall be sprinkled on all R-1 occupancies requiring sprinkler protection.
- Drip Drums shall be in heated areas.
- Dry-system air compressors shall be hard wired
- A high and low-pressure alarm is required for all dry system. (10-psi/50-psi)
- Pre-action system solenoids shall be wired for alarm activation upon current loss.
- Provide a 1-inch (minimum) water meter for single family residential systems.
- Hose valves shall be 2.5 inch with a 1.5 reducer cap and chain.
- Atriums shall have water curtains.
- Pressure-reducing valves shall have a 3 inch pipe to drain directly to the outside.
- Fire pumps shall be equipped with a properly sized test header.
- Back-flow protection is required and shall meet Town of Little Elm requirements
- High-piled Storage
  - Under 12,000 sqft
    - Rack plans are required prior to sprinkler plan approval.
  - Over 12,000 sqft
    - Rack plans are required prior to sprinkler plan approval
    - Smoke and heat vents shall be shown as an overlay to the sprinkler plans

# Little Elm Fire Department Fire Marshal's Office



## Local Design Requirements by Permit Type

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### REMOTE FIRE DEPARTMENT CONNECTION

- All FDCs shall be remote from the building and placed adjacent to the fire lane
- FDCs shall be located at a maximum of 100 feet from a fire hydrant
- FDC shall not be placed where obstructed by parking spaces, landscaping or building components.
- FDCs shall be 5" Storz connections.
- Fire Department connections serving more than 500 GPM shall be provided with one 5" Storz Connection and one 2-2.5 Siamese connection
- See Remote FDC Detail

### FIRE PUMPS

- Pump controllers must be set for manual shut down only, NO TIMERS
- Hoses are not allowed to be used during pump test
- All hose valves on test header must be utilized during pump test
- Fire Pumps shall provide the following signals to the alarm panel
  - Water flow
  - Tamper
  - Supervisory
  - Pump Running
  - Phase Reversal
  - Power Loss

### UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE

- An approved method of secondary containment shall be provided for underground tank systems, including tanks, piping, and related components.
- Approved sampling tubes of a minimum of 6 inches in diameter shall be installed in the backfill material
- The tubes shall extend from a point 12 inches below the average grade of the excavation to the ground level and shall be provided with suitable access caps
- Each tank site shall have sampling sump at the corners of the excavation with a minimum of 4 sumps. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines toward the dispenser; a minimum of two are required.

### DETAILS

100 West Eldorado  
Little Elm, Texas 75068-5060

214-975-0424  
214-975-0776 (Fax)



# Little Elm Fire Department Fire Marshal's Office



## Electronic Plan Review (EPR) CAD Submittal Guidelines

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The current plan review and permit application fees apply; with the exception that the 'Non-CAD Submittal' Fee will be waived for EPR submittals. You may submit your plans and specifications as indicated below and permit fees may be paid at the Little Elm Building Department or via the internet at [www.littleelm.org](http://www.littleelm.org) and click the MyGov icon at the lower left corner.

The Little Elm Fire Department will accept plans for EPR for all required permits.

In the event that paper is requested by the Fire Marshal's Office after submitting via Electronic File, the non-CAD submittal fee will still be waived and mark-ups will be provided by electronic means.

### **Submittals**

EPR submittals will be accepted by the Little Elm Fire Department as follows. **Failure to comply will result in a rejection of the submitted plans and will delay permit issuance.**

#### ***General EPR Submittal Requirements:***

- A Fire Department Plan Review Application must accompany all submittals. Submittals will not be accepted with out an application.
- All contractors and sub contractors must be registered through the Town's Building Department prior to submittal.
- When available, a digital graphic RME signature is required on all plans;
- Material specifications, hydraulic calculations, battery calculations and other required information may be submitted in Adobe Acrobat PDF, Microsoft Word DOC, TIFF or JPEG.
- Refer to the individual submittal guidelines for each specific project type.

#### ***Drawing Formatting:***

- EPR submittals may be sent via e-mail to: [broach@littleelm.org](mailto:broach@littleelm.org)
- Files shall be sent in PDF or DWF format.
- File Sheets shall have the proper scale set with in the design or left unassigned.
- EPR Submittals will also be accepted on CD

***Red-lines/Comments/Mark-ups:*** Markups will be created and emailed to the submitting person with the term "mark-up" or similar text in the file name. A plan review letter and comments will accompany the mark-ups with in the document or as a PDF or DOC file.

# Little Elm Fire Department Fire Marshal's Office



## Electronic Plan Review (EPR) CAD Submittal Guidelines

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### **Approvals:**

- Approvals of submitted plans will be noted on the mark-up file. The Phrase “FD Approved” or similar text will be added to the file. Plans are not considered approved until this “stamp” is placed on the plans.
- When printing site documents, it is required that this mark-up is on the site plans, this is your “stamped set”.
- All plans shall be subject to visual verification at the time of inspection.
- A copy of the approved CAD plan shall be provided at the jobsite at all times and shall be available upon field inspection.
- No inspections will be performed without a copy of the approved plans and permit on-site at time of inspection.

**Return of Reviews:** Comments and mark-ups will be sent to the submitting person via e-mail.

**Re-Submittals / Mark-up Changes:** Follow submittal process. Re-Submittal fees will apply.

Submittals that do not conform to the minimum above requirements may not be approved, and will delay permit issuance.

Plans that are approved and permitted by the Town of Little Elm Fire Marshal's Office gives authorization for construction. 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 full compliance with applicable codes and ordinances relating to the construction project.

All installations must concur with the approved plans, permit and plan review letter. Any deviation from the approved plans requires that plans be resubmitted to the Fire Prevention Division for review.

# Contractor Guide

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## Site and Building Access

- Fire Lanes
- Knox Boxes and Key Switches
- Automatic Gates
- Manual and Pedestrian Gates
- Access Control Systems
- Building Address and Identification
- Fire Department Signage Specifications

# Little Elm Fire Department Fire Marshal's Office



## Fire Lane Guidelines

---

### GENERAL NOTES:

- Prior to construction, the design of the fire lane shall be submitted to the Fire Marshal's Office for review and approval.
- Fire apparatus roads shall have an unobstructed width of not less than 24 feet and unobstructed vertical clearance of not less than 14 feet. ***These are minimums and may be increased where they are inadequate for fire or rescue operations.***
- Fire Lanes servicing structures **over two stories shall have an unobstructed width of not less than 26 feet.**
- Fire Lanes shall be constructed to meet the Town of Little Elm's Engineering Standards.
- Fire lane grade shall be no greater than 6% with ½ inch per foot cross slope.
- **During construction, all fire lanes servicing the project, shall be installed and permanently marked as per current adopted code, prior to construction progressing past slab elevation. *An inspection is required by the Fire Marshal's Office for compliance to proceed with construction past this point.***
- Maintenance of fire lanes, including preventing the obstruction of by vehicles, equipment, etc., will be enforced during construction. It is the responsibility of the General Contractor or other person(s) in control to maintain fire department access roads. ***Compliance with the Little Elm Fire Department Manual Gate Policy is required for temporary security gates.***
- Fire Lanes shall be located so that access to all points of the building served is a maximum of 150', as measured by hose lay. This can be increased to 250' for building fully equipped with an approved automatic fire suppression system.

### Modification of existing fire lanes

- Modification of any existing or previously approved fire lane requires a permit from the Little Elm Fire Marshal's Office. This includes demolition of a fire lane for construction, placement of speed control devices or termination of a fire lane.

### Security Gates or Access Control Gates

- Please see the Little Elm Fire Department Guide to Automatic and Manual Gate Systems.
- A separate permit is required for the installation of this type of system.

### Turning Radius

- 24 foot fire lanes require a minimum of a 20 foot inside turning radius.
- 30 foot fire lanes require a minimum of a 10 foot inside turning radius.

# Little Elm Fire Department Fire Marshal's Office



## Fire Lane Guidelines

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### Markings

- Stripping
  - Marked by painting lines of red traffic paint six inches (6") in width at the boundaries of the fire lane as indicated on the plat. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red boarder markings on both sides of the fire lane. **Where a curb is available, the stripping shall be on the vertical face of the curb.**
- Signs (with approval)
  - Shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and boarders in red, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall not be spaced more than fifty feet (50') apart. Signs may be installed on permanent buildings or walls as approved by the Fire Marshall.

### Dead End Fire Lanes and approved turn-a rounds

- Dead-end fire lanes are not allowed.
- 100' diameter cul-de-sac
- 120' Hammerhead extending 60' from center in both directions

### Speed Control Devices

- A separate permit is required for the installation of speed control devices located in a fire lane.
- These devices shall be constructed of durable molded plastic or of concrete.
- Suggested dimensions of a speed control device are 2' wide and no greater than 6" tall.
- The speed control device shall be a continuous curve.

# Little Elm Fire Department Fire Marshal's Office

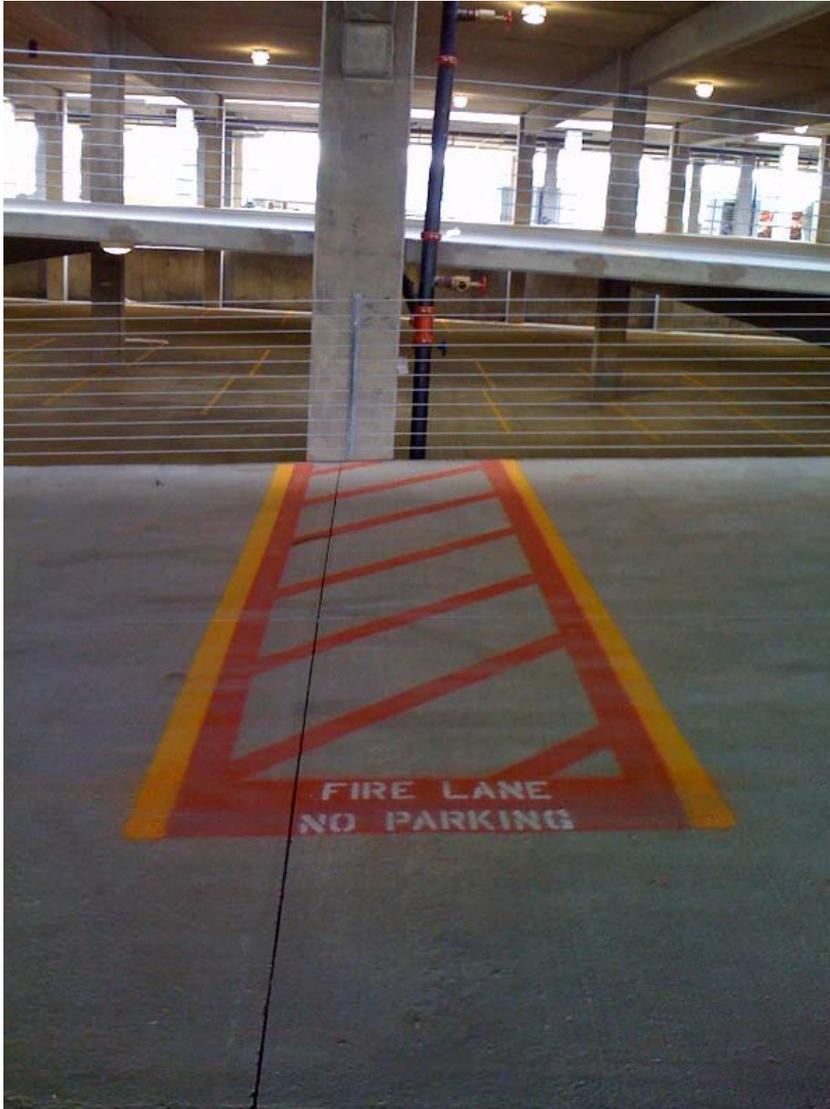


## Fire Lane Guidelines

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### Hydrants / FDC Stripping

Fire hydrants, remote fire department connections or other fire department equipment may require that an area be stripped to prevent obstruction of such by the parking of vehicles or other equipment. In these situations, stripping shall be approved by the Fire Marshal. Example of stripping is provided in the following figure.



Hose Valve Stripping

# Little Elm Fire Department Fire Marshal's Office



## Fire Lane Guidelines

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### Brick Pavers

In lieu of painting brick pavers that are used for decorative purposes in fire lane, red brick pavers may be used to identify the fire lane and shall have stamped in the pavers "FIRE LANE NO PARKING" in white lettering. No other color scheme will be allowed.



### Brick Paver Fire Lane Example

### "Grasspavers"

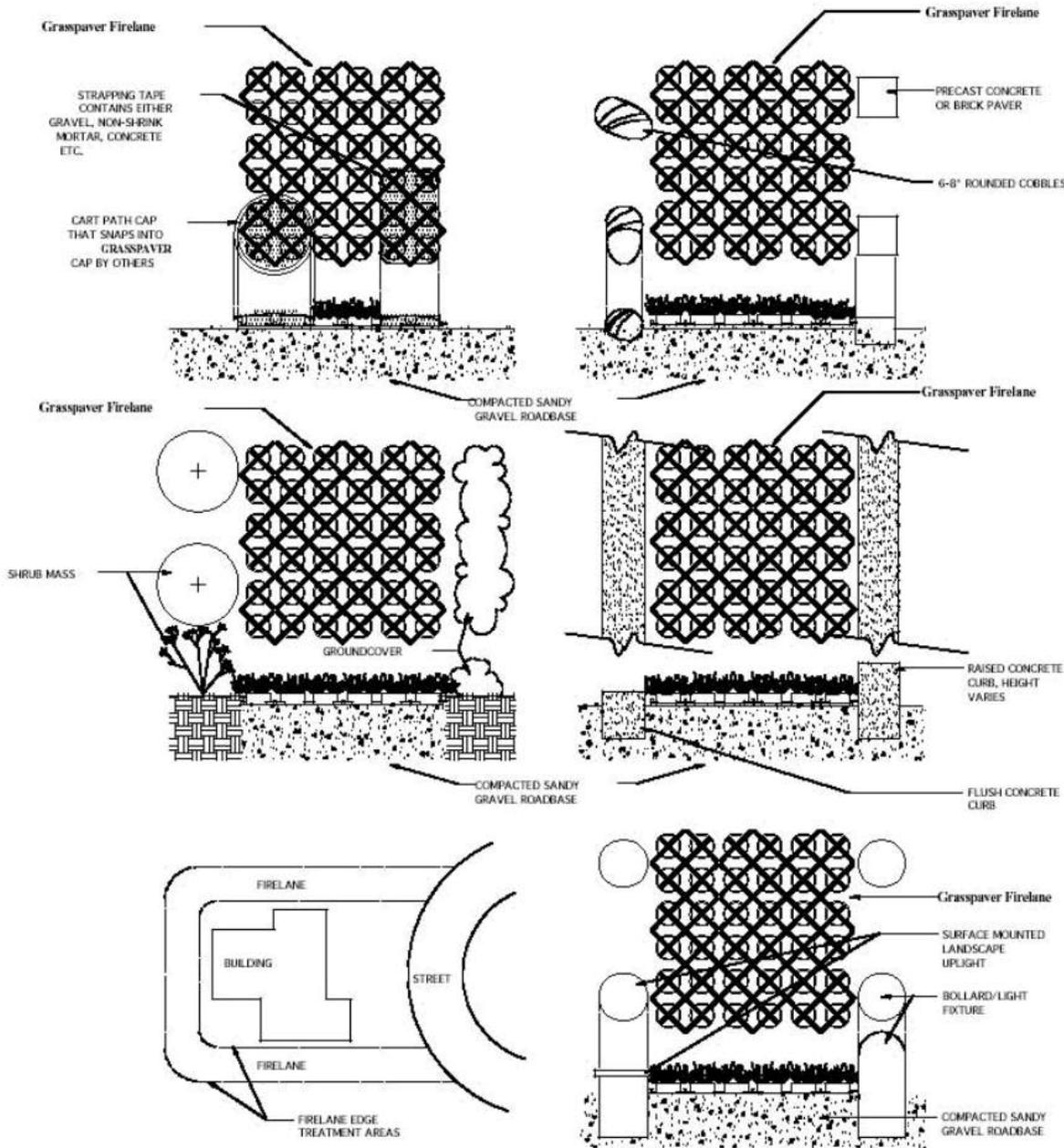
- When approved, 'grasspavers' may be used as an alternative to the standard concrete drive.
- An obvious delineation between the pavers and the non-paved area is required.
- Signage or stripping will be required of entrance and/or along the fire lane to prevent obstruction. Each situation will be unique and should be discussed with the Fire Marshal's Office during development.

*See next page for grasspaver detail...*

# Little Elm Fire Department Fire Marshal's Office

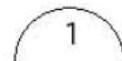


## Fire Lane Guidelines



NOTE:  
THIS DETAIL IS SCHEMATIC IN NATURE. DESIGNER SHALL SPECIFY SPACING AND DESIGN OF EDGE TREATMENTS.  
SPACING WILL VARY WITH TURF TYPE, SLOPE, FIRE DEPARTMENT REQUIREMENTS, ETC. -24 FOOT MINIMUM WIDTH/30 FOOT INSIDE RADIUS)

### Grasspaver Firelane Detail



# Little Elm Fire Department Fire Marshal's Office



## Knox Box Guide for Property Type

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### GENERAL NOTES FOR ALL PROPERTIES:

- All Knox Boxes are required to be installed at 6' above finished floor.
- Knox Boxes shall be installed no more than 10 feet horizontally from the entrance or door being served.
- All Knox Boxes shall be of the hinged door type (except residential use)
- When any building utilizes any card reader access systems (electric or magnetic) a minimum of a series 4400 Knox Box will be required.
- Knox Boxes that serve multiple tenants, difficult to locate or as required, shall be identified using the approved signage. *See Sign Specification Book.*

### Large Office, Warehouse and Big Box Retail Buildings

- A 4400 series Knox Box is required at the main entry.
- A 3200 series Knox Box is required at the riser room.
- An additional Knox Box may be required at the rear entry of the building.

### Shopping Strip Centers

- A 4400 series Knox Box is required. The Box should be located by the riser room. If there is no riser room, the lock box should be centrally located on the building, identified by approved signage.

### Small Commercial Buildings (*small single occupant buildings*)

- A 3200 series Knox Box is required.
- An additional Knox Box may be required at the rear of the building.

### High Rise buildings (*Any building where any occupied floor is located greater than 35 feet from the lowest point of Fire Department Access*)

- A 4400 series Knox Box is required at the main entry of the building. More than one lock box may be required at other access points.
- A 4400 series Knox Box is required in any elevator lobbies in the building.
- A 1300 series Knox Box is required in the Fire Control Room / Fire Command Room.

### Apartment Complex

- A 3200 series Knox Box shall be placed at the Club House or Leasing Office.
- A 1658 series Knox box will be placed at all riser rooms.
- Individual apartment lessees shall be allowed to purchase and place a 1600 series Knox Box outside their front door.

### One- or Two-Family Residential

- When a resident wishes to provide access to their home they may use a 1600 series Knox Box. The box should be placed at the main front entrance of the residence.

# Little Elm Fire Department Fire Marshal's Office



## Knox Box Guide for Property Type

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### Special Hazard Occupancy

- Any occupancy containing special hazards must contact the Fire Marshal's Office for the amount and placement of lock boxes.
- A 1300 series Knox Box shall be required at a minimum for occupancies with hazardous materials or other high hazard occupancies.

### Other Applications

#### MAGNETIC LOCKS

- If magnetic locks are used to secure any door in a facility, a 4400 Series Knox Box, shall be required with a Knox Multipurpose Switch (Item # 3291, 4471). This switch will be connected to the mag-lock control panel and disengage all mag-lock devices.

#### PEDESTRIAN GATES (*HOA operated pools, apartment complexes*)

- Primary access points that have pedestrian gates require fire department access. This access may be provided with a 1600 series lock box or a 3500 series key switch. (A 3500 Series key switch is required on electronically locked gates.)

### KNOX BOX ORDERING INFORMATION:

**NOTE: It is the responsibility of the General Contractor to order the appropriate box(es) and/or switch(es). Please Contact the Fire Marshal for proper number and series to order. Failure to order the appropriate item(s) will severely delay the issuance of a CO. Exceptions will not be made.**

VIA INTERNET: Go to [www.knoxbox.com](http://www.knoxbox.com), Click the "ONLINE PURCHASE link. You will be prompted to enter the Zip Code, which is **75068**. A list of departments in the area will be listed. Select **LITTLE ELM** and click continue. Select you product(s) and follow the instructions from that point.

VIA MAIL/FAX: Applications can be picked up at the Little Elm Fire Administration Offices at 101 Hardwick Lane, Little Elm, Tx 75068. Follow instructions on the form.

VIA PHONE: Call 1-800-552-5669 to order.

### NOTICE:

**This is only intended to be used as a guide. Due to the variations of Fire Department access needs from property to property it is required that Fire Marshal's Office personnel approve all placement of lock boxes and key switches.**

# Little Elm Fire Department Fire Marshal's Office



## Automatic Gates

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Scope: This policy is design to facilitate Emergency Vehicle access into properties that are equipped with automatic security gates or vehicle access/egress gates installed across required fire lanes.

### GENERAL NOTES:

- A **separate** fire permit is required for each automatic gate. (An approved site plan **is not** a permit.)
- Gate motor shall be the type that the drive gear disengages on power failure.
- The City approved Knox key switch (KS2) shall be used for 24 hour Fire Department access. The emergency key switch, when activated, shall by-pass any occupant control and loop systems. When activated, the gate will remain in the open position until de-activated by the Fire Department.
- Only when deactivated will the gate resume normal operation
- The key switch shall open both the entrance and exit gate(s) when gate(s) are in close proximity to each other.
- The Knox key switch shall be mounted 5 ½ feet from grade (location shown on plan).
- The key switch shall be located below a sign labeled "FD ACCESS".
- Per Allen Fire Department Emergency Equipment Sign Requirements
- The minimum clear opening width shall not be less than the width of the required fire lane or access drive. A minimum of twenty-four (24) feet and a minimum unobstructed height of 14 feet shall be maintained.
- Gate operator(s) shall open at a rate of one foot per second. Parking barrier arms will open or clear in approximately two seconds.
- The primary drive gate type that may be installed across fire lanes shall be the sliding type.
- In the event of power failure the gate shall open freely. It shall be capable of being opened manually by one person of average stature.

### Primary or Main Gate

- Primary gate is defined as the drive or access point designed as the primary point or one of several primary points of ingress/egress for emergency vehicles.
- The following access systems shall be installed on Primary Gates.
  - "Opticom" receiver switches
  - KS2 Knox Switches
  - Electrical Disconnect
  - Red Emergency Activation strobe

### Automatic Secondary Gates (including Main Gates to Storage Facilities)

- Shall mean the drive or access point designed as a secondary or back-up means of ingress/egress for emergency vehicles.
  - KS2 Switches
  - Electrical Disconnect
  - Red Emergency Activation Strobe Light
  - "Exit Only Sign" (*see illustrations below, must meet Fire Department Emergency Equipment Sign Specifications*)

*The Fire Marshal may require the "Opticom" system on any automated gates across fire lanes as deemed necessary.*

# Little Elm Fire Department Fire Marshal's Office



## Automatic Gates

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### Opticom Receiver

- Shall be mounted 8 to 10 feet from grade.
- Shall be located behind the access gate (property side).
- Shall be mounted on a 4"x 4" metal post, not on guidepost. And shall be shall be cemented 18" below grade.
- Detectors shall activate 150 ft from gate.
- Each gate shall have two individual detectors or an approved Tomar dual strobe switch, model.
- Detectors shall point toward the **APPROACH** and **EXIT** path of the emergency vehicle.
- Detectors' sight path shall be free of visual obstructions such as signs, covered parking canopies, and vegetation.
- Individual detectors shall be mounted together with the power module in a dual detector mounting box, or with an approved Tomar dual strobeswitch. *Three head detector shall be used for 90 degree turning layouts.*

### KS-2 Switch

- Knox key switches shall still be provided as a manual backup.
- The entrance Knox switch shall be located above the residence's keypad, 5 ½ feet from grade.
- The exit Knox switch shall be located on the 4"x 4" preemption post, **recessed** 5 ½ feet from grade, with the detectors.
- Upon activation of the KS-2 switch, the affected gate shall automatically open to a locked open and disabled condition. The system will require manual reset to close the gates after emergency activation.
- A sign identifying "FD ACCESS" shall be mounted above the KS2 Switch. *See Town of Little Elm Fire Department Sign Specification Guide.*

### Red Emergency Activation Strobe

All automated gates must also be equipped with one flasher unit and one external lamp assembly with a red globe and guard to be mounted separate from the enclosure. The light shall be visible from both sides of the gate; be mounted at the top of the fence within two (2) feet of the gate opening and flash upon the gate being activated by the Opticom system or KS-2 switch and continue to flash as long as the gate is being held by the emergency access system.

### Numbered Keypad.

Public safety access shall be installed at a readily accessible location at each automated drive gate for public safety personnel who may require entry in other emergencies.

The numbers making up the code shall be determined by the Fire Marshal and shall be consistent on all gate systems installed throughout the City. The numbers shall not be changed unless ordered by a written, notarized directive from the Fire Marshal.

# Little Elm Fire Department Fire Marshal's Office



## Automatic Gates

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### Electrical Disconnect

The gate shall be opened by means of an electrical power disconnect switch in a weather proof box:

- The box shall be red.
- The box shall be mounted on the entry side of the gate within five (5) feet of the gate.
- The box shall be at least five (5) inches high and five (5) inches wide.
- The box shall be clearly labeled "Fire Dept." in white letters one inch tall with one-quarter inch stroke.
- A Knox padlock shall secure the box.
- The box must be clearly visible and accessible.

### Electrical Equipment Protection.

All electrical equipment shall be protected from physical damage and weather by approved weather tight boxes or housings.

### Performance Test.

Gates and gate systems shall be tested by the Fire Marshal's Office upon completion of the installation of a gate or gate system or when required by the Fire Department. Gates shall not be placed into operation until after acceptance test is approved.

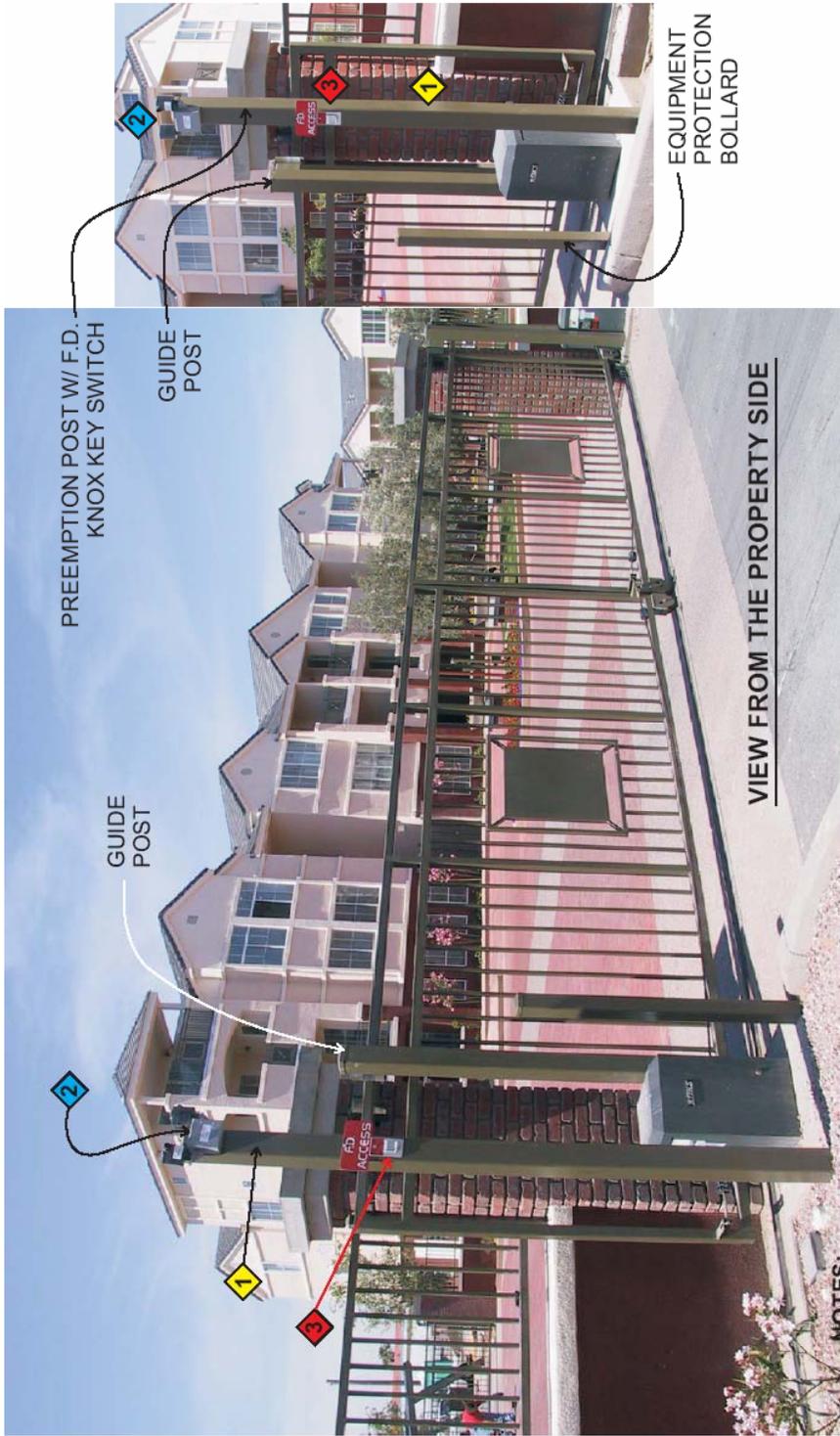


Figure 1 - Property Side of Gate

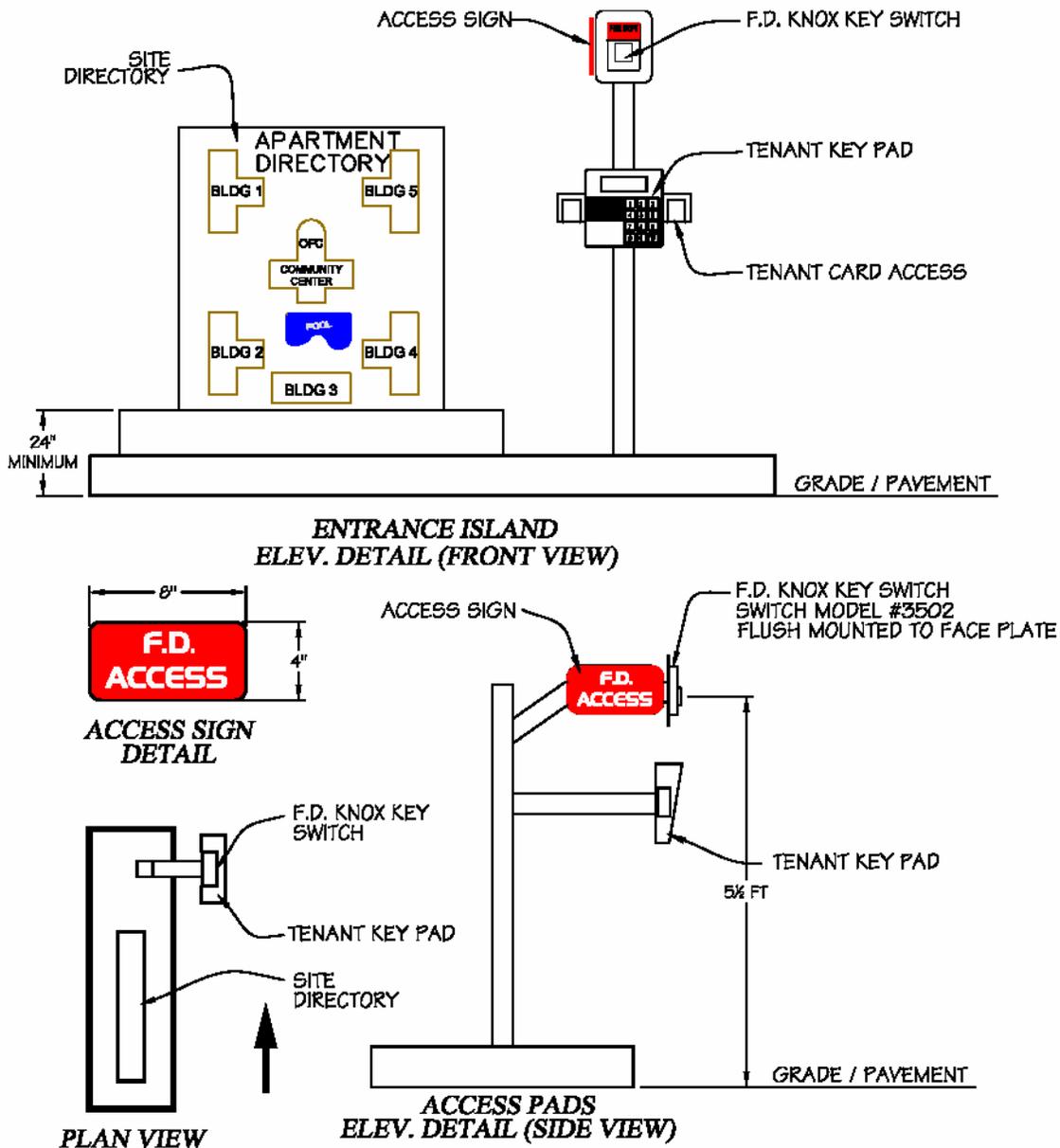
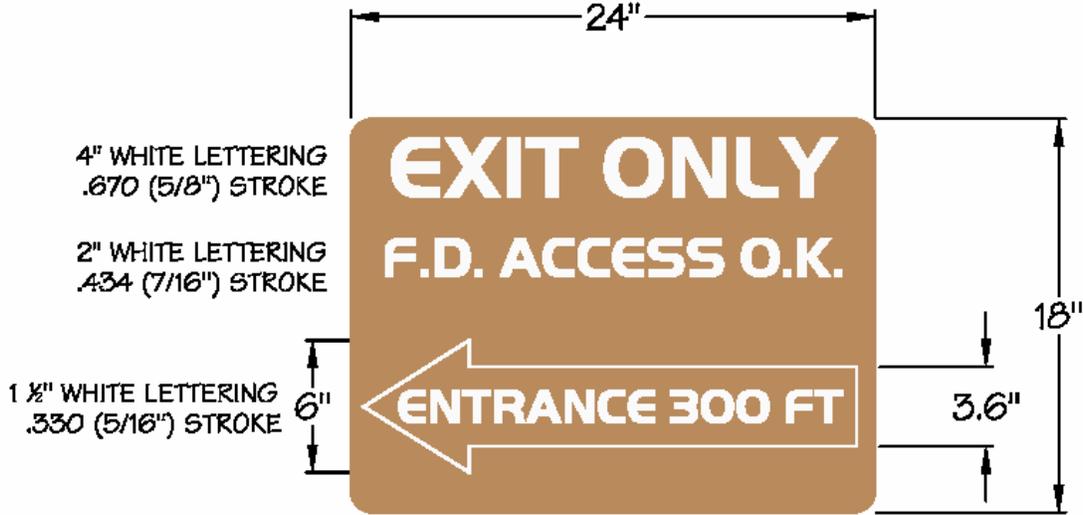


Figure 2 - Entrance

**SPECIAL FIRE DEPARTMENT  
ACCESS O.K. SIGN**



**Figure 3 - Exit Only Gates**

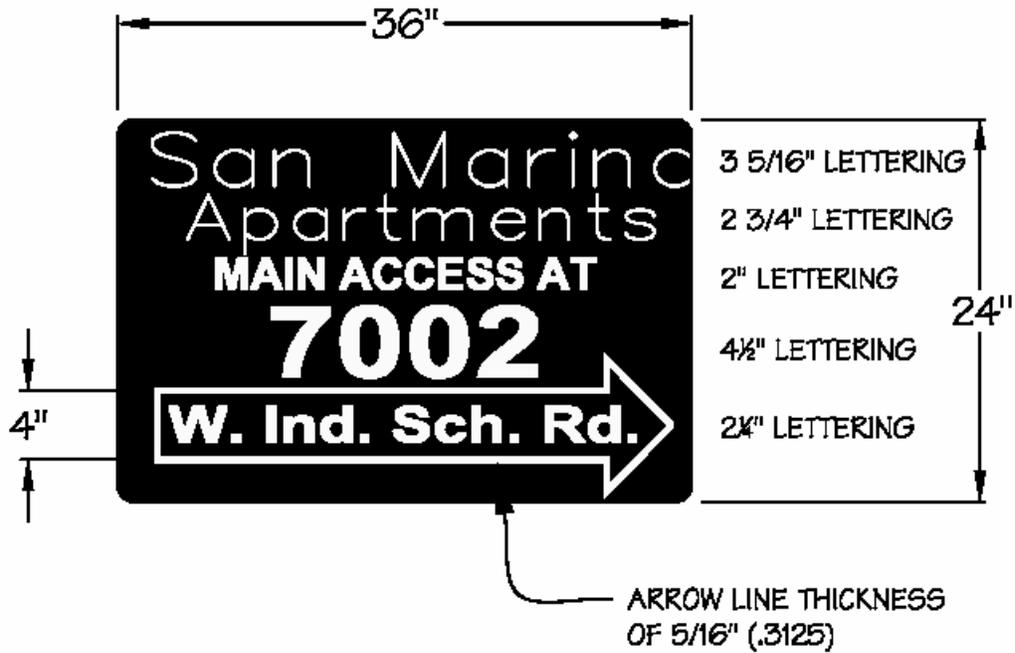


Figure 4 - Exit Gate Sign (main gate on different street or distant location)

*NOTE: All signs must meet specifications as outlined in the Town of Little Elm Fire Department Emergency Equipment Sign Guide*

# Little Elm Fire Department Fire Marshal's Office



## Manual and Pedestrian Gate Guidelines

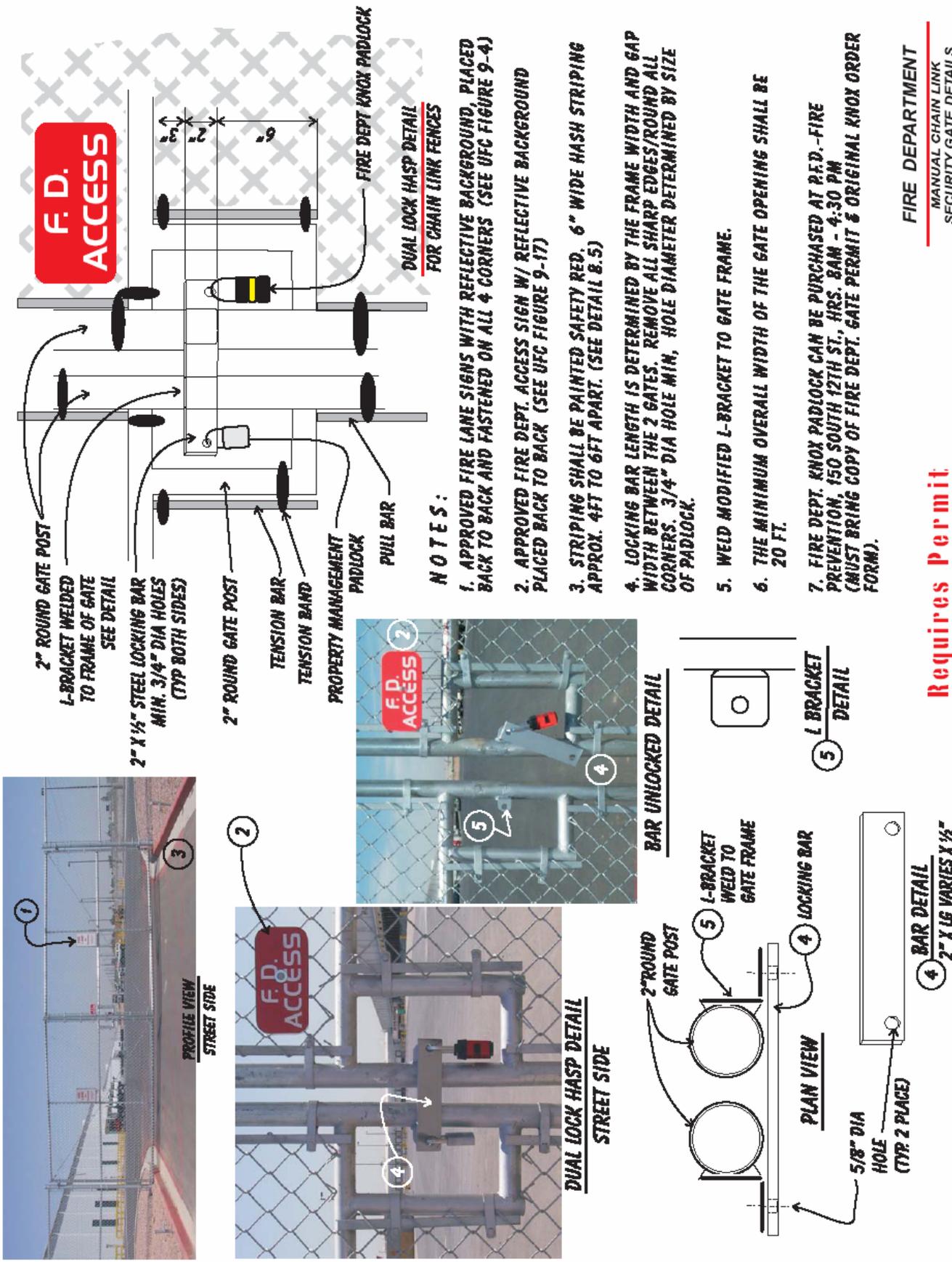
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### Manual Gate General Notes

- A **separate** Fire permit is required for each manual gate. (An approved site plan **is not** a permit.)
- All manual gates shall use a Knox padlock as a locking mechanism.
- An approved dual padlock locking bar and Fire Department padlock shall be used.
- Six-inch wide red striping shall be painted on the ground along the length of both sides of the gate. (not applicable for Temporary Gates)
- Fire Department approved “No Parking” signs, (4) total, (2) shall be bolted back to back on each side of gate(s).
- A sign that identifies the location of the property’s primary entrance shall be bolted on the street side of the gate(s).
- All clear access openings as shown on plans shall be a minimum of 24 ft. If gating an **existing** drive, the **current** width of drive must remain as the original approved clear access width.

### Please see the following details

Manual Security (Chain Linked Gates) .....	Figure 1
Manual Knox Locking Gate .....	Figure 2
Pedestrian Gates with Magnetic Locking Devices .....	Figure 3
Pedestrian Gates .....	Figure 4
Knox Locking Rolling Gate.....	Figure 5
Temporary Construction Security Gate .....	Figure 6

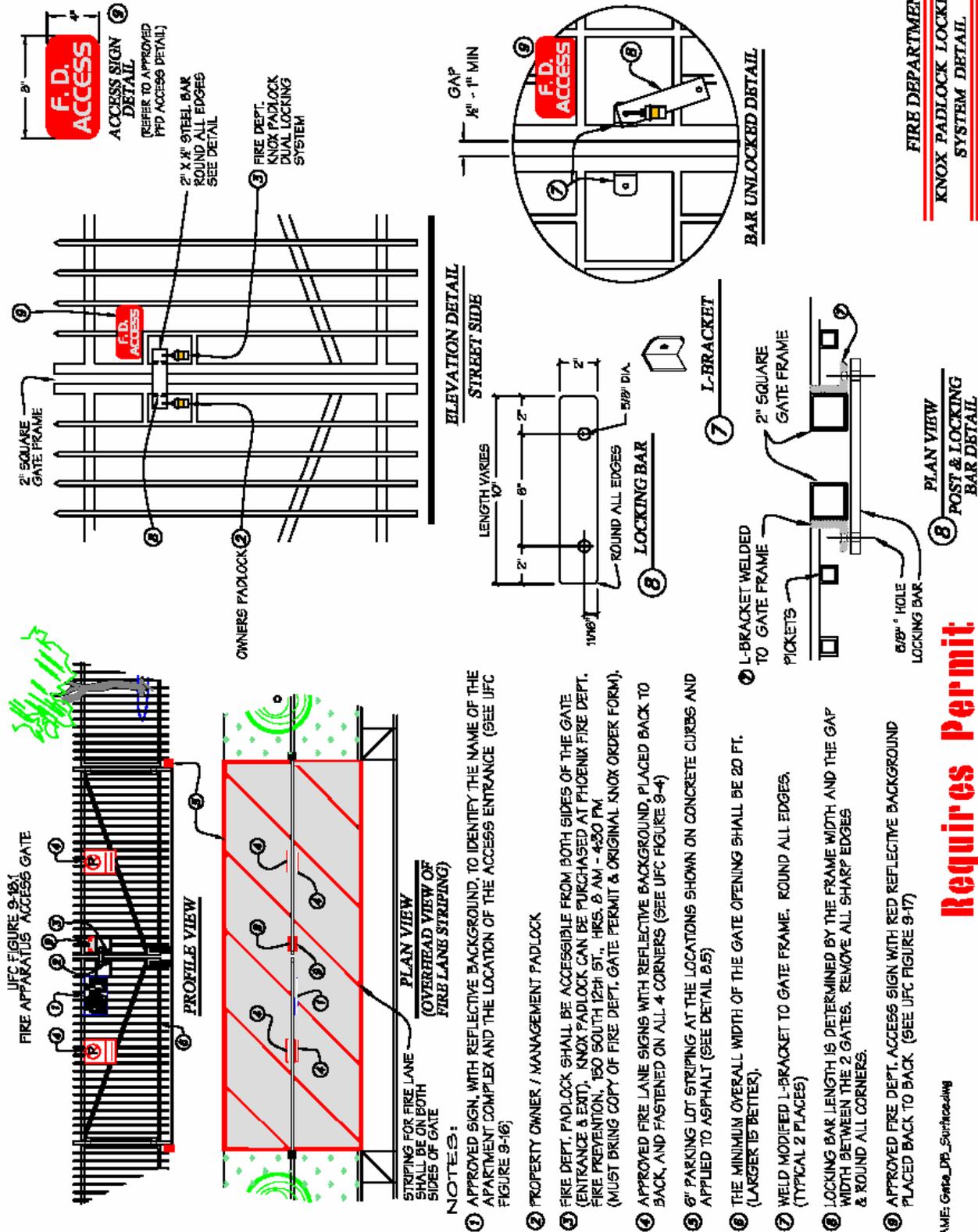


- NOTES:**
1. APPROVED FIRE LANE SIGNS WITH REFLECTIVE BACKGROUND, PLACED BACK TO BACK AND FASTENED ON ALL 4 CORNERS (SEE UFC FIGURE 9-4)
  2. APPROVED FIRE DEPT. ACCESS SIGN W/ REFLECTIVE BACKGROUND PLACED BACK TO BACK (SEE UFC FIGURE 9-17)
  3. STRIPING SHALL BE PAINTED SAFETY RED, 6" WIDE HASH STRIPING APPROX. 4FT TO 6FT APART. (SEE DETAIL 8.5)
  4. LOCKING BAR LENGTH IS DETERMINED BY THE FRAME WIDTH AND GAP WIDTH BETWEEN THE 2 GATES. REMOVE ALL SHARP EDGES/ROUND ALL CORNERS. 3/4" DIA HOLE MIN, HOLE DIAMETER DETERMINED BY SIZE OF PADLOCK.
  5. WELD MODIFIED L-BRACKET TO GATE FRAME.
  6. THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 20 FT.
  7. FIRE DEPT. KNOX PADLOCK CAN BE PURCHASED AT P.E.D.-FIRE PREVENTION, 150 SOUTH 12TH ST., HRS. 8AM - 4:30 PM (MUST BRING COPY OF FIRE DEPT. GATE PERMIT & ORIGINAL KNOX ORDER FORM).

**Requires Permit**

**FIRE DEPARTMENT**  
MANUAL CHAIN LINK  
SECURITY GATE DETAILS

Manual Security (Chain Linked Gates) ..... Figure 1



**FIRE DEPARTMENT  
KNOX PADLOCK LOCKING  
SYSTEM DETAIL**

7 00007 PART 01 1000 0003

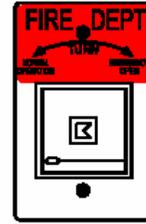
Manual Knox Locking Gate ..... Figure 2

- UFC FIGURE 9-161  
FIRE APPARATUS ACCESS GATE
- NOTES:
- 1 APPROVED SIGN, WITH REFLECTIVE BACKGROUND, TO IDENTIFY THE NAME OF THE APARTMENT COMPLEX AND THE LOCATION OF THE ACCESS ENTRANCE (SEE UFC FIGURE 9-16).
  - 2 PROPERTY OWNER / MANAGEMENT PADLOCK
  - 3 FIRE DEPT. PADLOCK SHALL BE ACCESSIBLE FROM BOTH SIDES OF THE GATE (ENTRANCE & EXIT). KNOX PADLOCK CAN BE PURCHASED AT PHOENIX FIRE DEPT. FIRE PREVENTION, 150 SOUTH 12TH ST., HRS. 8 AM - 4:30 PM (MUST BRING COPY OF FIRE DEPT. GATE PERMIT & ORIGINAL KNOX ORDER FORM).
  - 4 APPROVED FIRE LANE SIGNS WITH REFLECTIVE BACKGROUND, PLACED BACK TO BACK, AND FASTENED ON ALL 4 CORNERS (SEE UFC FIGURE 9-4)
  - 5 6" PARKING LOT STRIPING AT THE LOCATIONS SHOWN ON CONCRETE CURBS AND APPLIED TO ASPHALT (SEE DETAIL B.5)
  - 6 THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 20 FT. (LARGER IS BETTER).
  - 7 WELD MODIFIED L-BRACKET TO GATE FRAME. ROUND ALL EDGES. (TYPICAL 2 PLACES)
  - 8 LOCKING BAR LENGTH IS DETERMINED BY THE FRAME WIDTH AND THE GAP WIDTH BETWEEN THE 2 GATES. REMOVE ALL SHARP EDGES & ROUND ALL CORNERS.
  - 9 APPROVED FIRE DEPT. ACCESS SIGN WITH RED REFLECTIVE BACKGROUND PLACED BACK TO BACK (SEE UFC FIGURE 9-17)

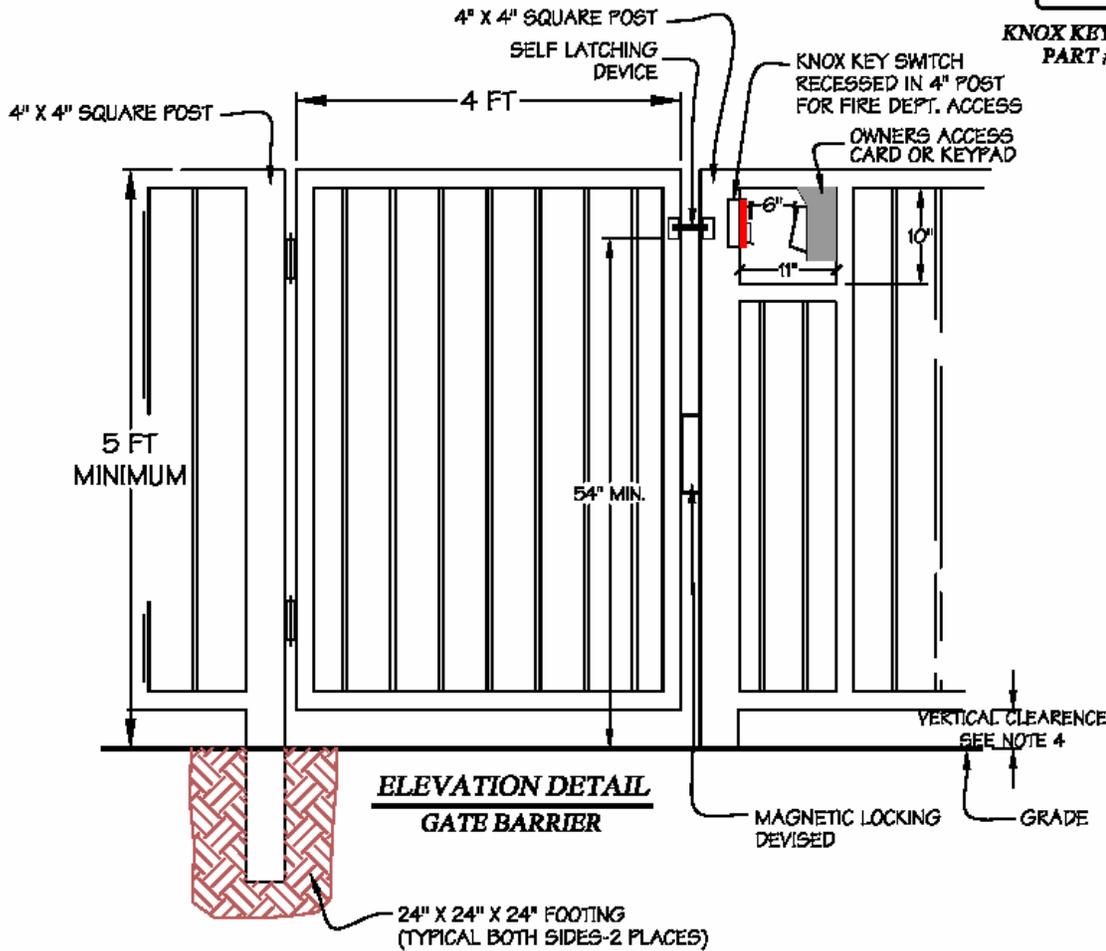
**Requires Permit**

IE NAME: Gate\_DB\_Surrounding

# BARRIERS FOR SWIMMING POOLS SPAS & HOT TUBS



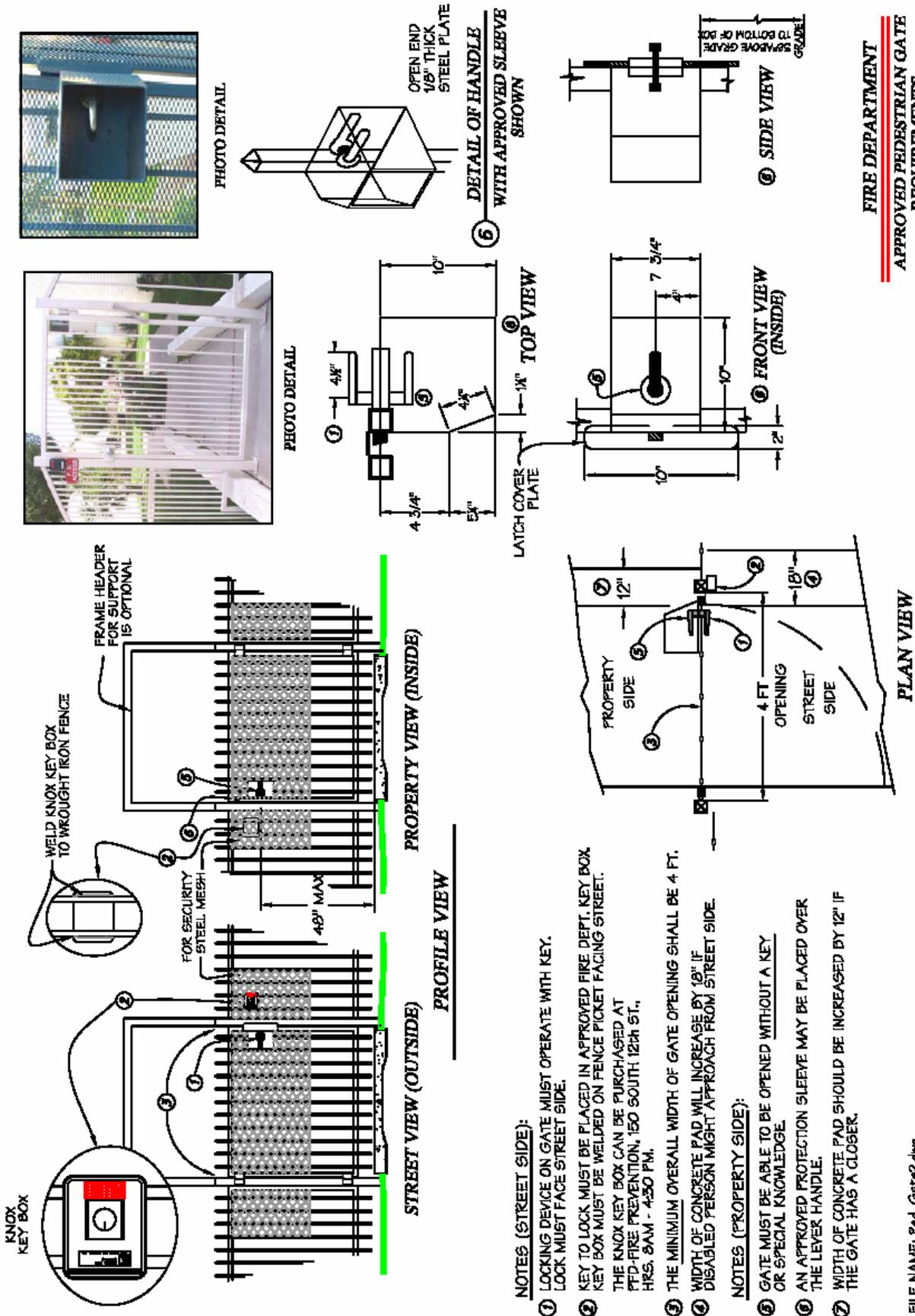
**KNOX KEY SWITCH  
PART # 3502**



**NOTES:**

- ① KNOX KEY SWITCH ACCESSIBLE FROM BOTH SIDES OF GATE
- ② KNOX SWITCH CAN BE PURCHASED AT PFD - FIRE PREVENTION, 150 SOUTH 12th ST., HRS. 8AM - 4:30PM.
- ③ THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 4 FT.
- ④ THE VERTICAL CLEARANCE MINIMUM OF 2" AND A MAXIMUM OF 4" REFER TO BUILDING CODE REQUIREMENTS.

**Pedestrian Gates with Magnetic Locking Devices ..... Figure 3**

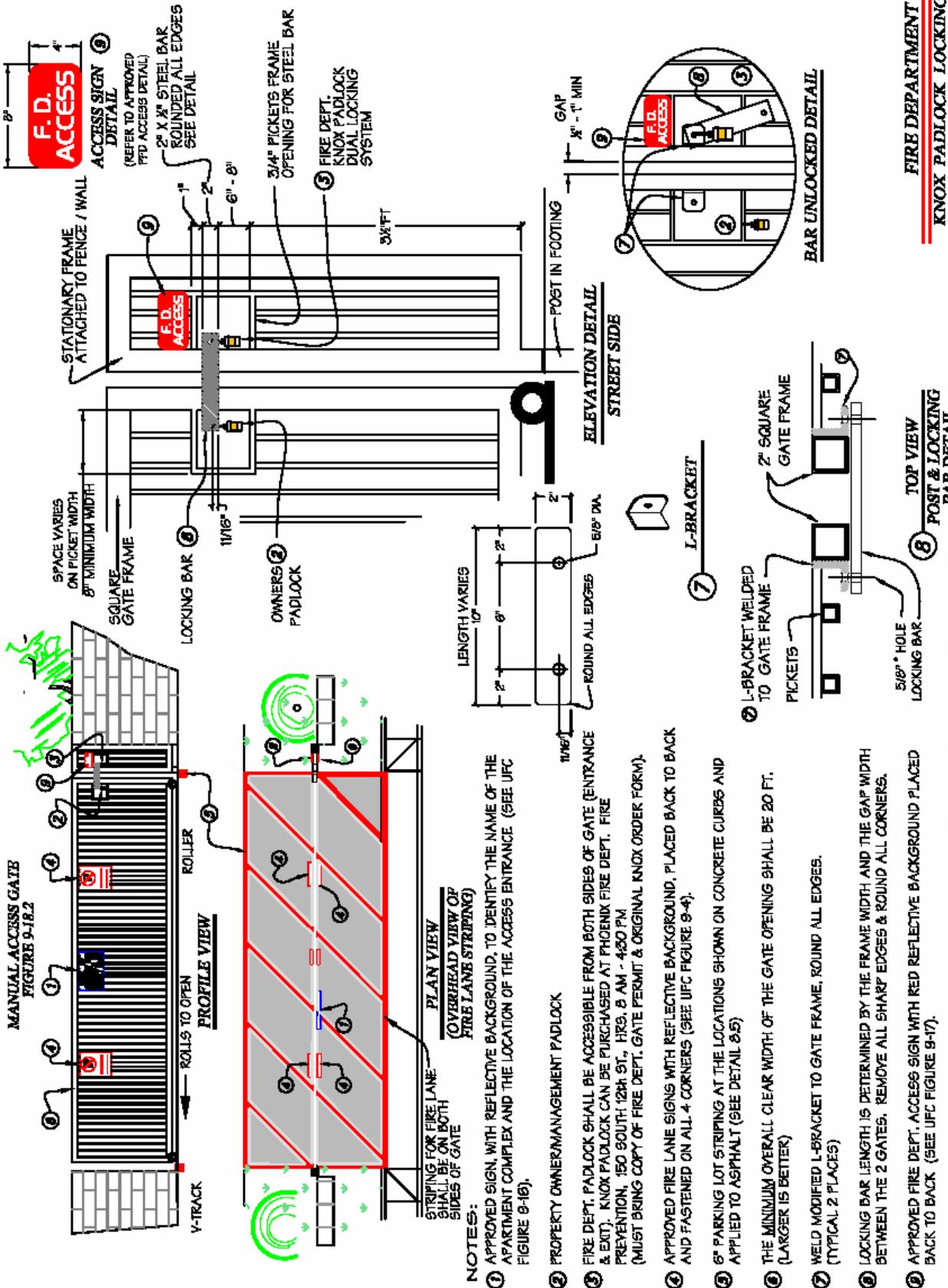


**FIRE DEPARTMENT  
APPROVED PEDESTRIAN GATE  
REQUIREMENTS**

L. HERTZ    DETAIL 8.11    MAY 2003

FILE NAME: Ped\_Gate2.dwg

Pedestrian Gates ..... Figure 4

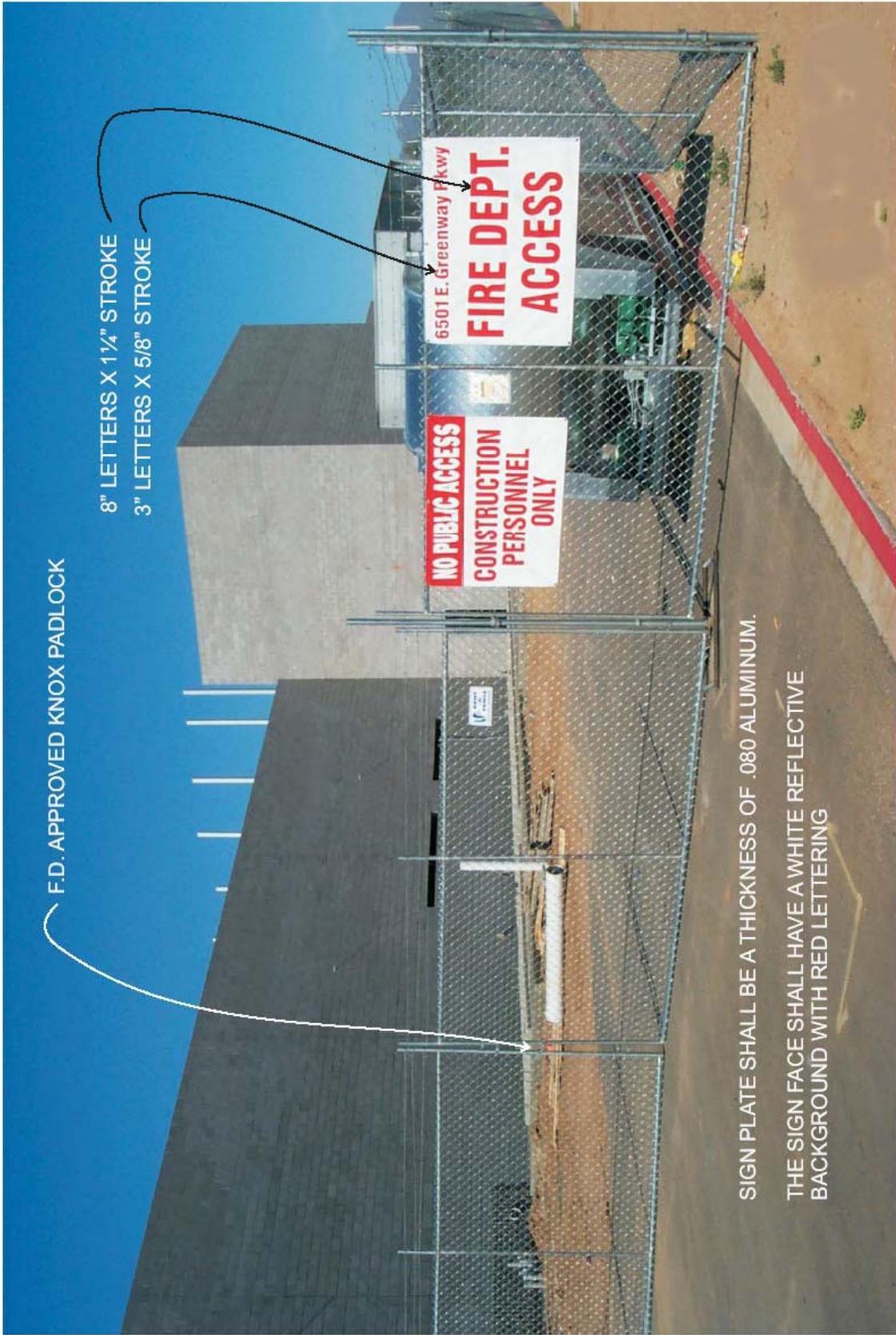


**FIRE DEPARTMENT**  
**KNOX PADLOCK LOCKING**  
**ROLLING GATE SYSTEM**  
L. HERTZ    DETAIL 8.12    DEC. 2003

**Requires Permit**

FILE NAME: Gate\_Rolling

Knox Locking Rolling Gate..... Figure 5



8" LETTERS X 1 1/4" STROKE  
 3" LETTERS X 5/8" STROKE

F.D. APPROVED KNOX PADLOCK

SIGN PLATE SHALL BE A THICKNESS OF .080 ALUMINUM.  
 THE SIGN FACE SHALL HAVE A WHITE REFLECTIVE  
 BACKGROUND WITH RED LETTERING

Temporary Construction Security Gate ..... Figure 6

ALL PERMANENT GATES REQUIRE FIRE PERMITS

**FIRE DEPARTMENT**  
**TEMPORARY**  
**CONSTRUCTION GATE**  
 L. HERTZ    DETAIL 8.14    NOV. 2001

LA:TEMP\_GATE.CDR

# Little Elm Fire Department Fire Marshal's Office



## Addressing Guidelines

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### *Single family homes.*

Minimum 4" high, 5/8" stroke

### *Multifamily Communities.*

Street Address shall be a minimum of 12" high with a 2" stroke. Individual building numbers shall be a minimum of 18" high with a 3" stroke. Buildings over 100 feet in length require a minimum of two (2) numbers per building. Apartment spread numbers shall be a minimum of 7" high with a one inch stroke and corridor spread numbers shall be a minimum of 4" high with a 5/8 inch brush stroke. Individual apartment unit numbers shall be a minimum of 4" in height with a 5/8 inch stroke.

### *Large Office and Warehouse Buildings.*

Address must be visible from all access directions. Number shall be a minimum of 24 inches in height with a 4 inch stroke. Buildings over 500 feet long shall have two address locations if more than one access point is visible. Suite numbers shall be required for multi-tenant complexes and shall be located over the front door and on the rear door, six inches in height with a one inch brush stroke.

### *Shopping Centers, High Rise Buildings and Other Applications.*

A minimum of 12" high numbers with a 2" brush stroke shall be visible from all access directions. Suite numbers are required over the door with 4" high numbers with a 5/8 inch brush stroke. Buildings beyond 100 feet from the street and 10,000 square feet shall install 18 inch numbers with a three inch stroke.

### *Marquee and Monument.*

Addresses installed on a marquee located next to the street will require numbers 12" high with a two inch brush stroke to be located a minimum of 3 feet above grade. Marquee and Monument signs must meet Town of Little Elm Sign Ordinance Requirements.

# Little Elm Fire Department Fire Marshal's Office



## Sign Specifications

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Pursuant to the International Fire Code (IFC); in an attempt to standardize IFC signage requirements and to facilitate fire department operations, the Fire Marshal's Office has established the following specifications of sign size, text, font, design and construction that indicate the location of fire department equipment and/or identifies location hazards.

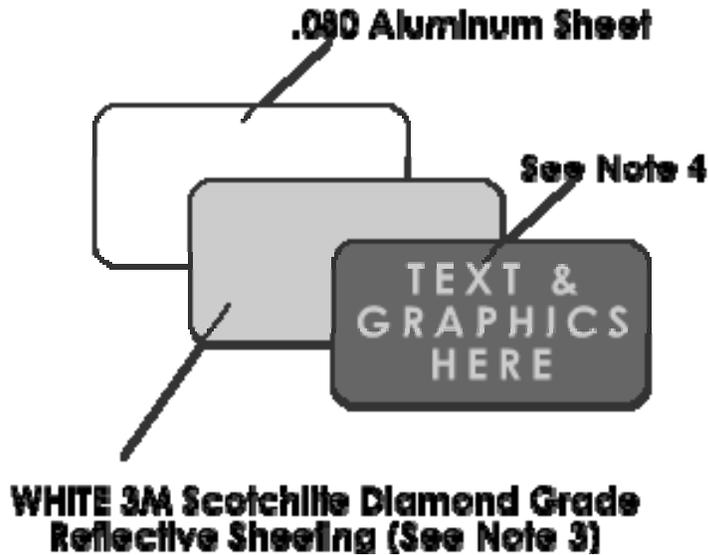
The signs in this document are the most common used signs in construction; however, this document is not intended to cover all circumstances. In the event that additional signs are required and are not listed in this document, the Fire Marshal will provide the specifications to use.

**NOTE: THE DIAGRAMS CONTAINED WITHIN THIS DOCUMENT ARE PROVIDED AS EXAMPLES ONLY.**

**PLEASE VERIFY WITH THE FIRE MARSHAL'S OFFICE FOR THE CORRECT VERBAGE AND REQUIRED SIGNS.**

**ALL SIGN LAYOUTS MUST BE APPROVED BY THE FIRE MARSHAL'S OFFICE.**

## SIGN CONSTRUCTION SPECIFICATIONS



1. THE SIGN FACE SHALL BE SIZED AS INDICATED IN COORESPONDING SPECIFICATIONS AND FABRICATED FROM .080 ALUMINUM SHEET WITH MINIMUM OF .75" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS WITH ADDITIONAL KERNING BETWEEN LETTERS.
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (3990 SERIES VIP TYPE IX) APPLIED AS A BACKGROUND.
4. LETTERING / GRAPHICS SHALL BE ONE OF THE FOLLOWING:
  - A.) 3M ELECTROCUT FILM RED 1172 OR ORACAL 8300 TRANSPARENT CAL 201C RED, OR EQUIVELANT IN DURABILTY, INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH LETTERING.
  - B.) SCREEN PRINTED USING 3M 8801 SERIES TRAFFIC SIGN RED TRANSLUCENT INK.

BOTH PROCESSES (A or B) WILL ACCOMPLISH A **RED FIELD WITH WHITE COPY**.
5. WHEN SIGN IS TO BE USED IN BUILDING INTERIORS IT MAY NOT BE REQUIRED TO USE REFLECTIVE BACKGROUND.
6. ALL SIGNAGE AND CHANGES MUST BE PRE-APPROVED BY THE FIRE MARSHAL'S OFFICE.

## **FIRE DEPARTMENT CONNECTION SIGNAGE**

Any building that has an automatic fire suppression (sprinkler) system requiring a fire department construction (FDC) shall indicate the location of the FDC with the appropriate signage.

The FDC sign shall be lettered as shown in the examples and must have the address and suite / suite range (where applicable) that the FDC / sprinkler system covers.

The Fire Marshal's Office understands that there are unique situation to each building/site and have provided several options to facilitate fire suppression activities; however, due to the complexity of some buildings/sites, the Fire Marshal may require specific lettering or and/or additional signage.

**Please note: ALL SIGN LAYOUTS MUST BE APPROVED BY THE FIRE MARSHAL'S OFFICE.**

It is suggested that the approval is obtained prior to ordering any signage. This will help reduce cost in the event of an error. Below are several examples.



***12x12 - .080 Aluminum substrate  
"FDC" – 3" Height  
Address – 1" Height***

***Sign Construction shall be as indicated above***

All FDC(s) for new construction shall be Remote. In the event that an existing building has a wall mounted FDC or that FDC is adjacent to the building, the FDC sign may, with approval, be mounted to the wall behind/directly above the FDC seven (7) feet AFF.

For true remote FDC locations, the mounting of the FDC sign shall be on a sign post that extends a minimum of six (6) feet AFF; or, shall be mounted using pipe bolts directly to the FDC Pipe. If the pipe is too low for the sign a sign post will be required. This allows the arriving fire apparatus to locate the remote FDC in a promptly. In addition the street number shall be included as noted in the previous section on FDC signage.

## FDC PROTECTION



**12x6 - .080 Aluminum substrate**  
**"DO NOT BLOCK" – 3" Height**  
**"By Order of Fire Marshal" – 1" Height**

**Sign Construction shall be as indicated above**

If an FDC is not directly protected by a fire lane, it shall have posted a 12" x 6" sign that reads "DO NOT BLOCK – BY ORDER OF FIRE MARSHAL" placed on the sign post with the FDC sign or on the riser pipe. This serves as a notice to the general public and as a reminder to property owners and managers that it is a violation of fire code to obstruct the FDC with vehicles, landscaping, etc.

## RISER ROOM SIGNAGE

Fire sprinkler control rooms (riser rooms) shall be identified with a 12" x 12" sign. In the event the fire alarm system panel and/or other fire department equipment is in the same room as the riser, the sign shall include lettering identifying both.

If a **Pump** is utilized, the term "FIRE PUMP" shall replace "FIRE ALARM".

If the Alarm Panel is not located in the Riser Room the Term "FIRE ALARM" shall be deleted and the remainder of the text adjusted appropriately.

All signage must be approved by the Fire Marshal's Office and additional verbiage or signage may be required.



**12x12 - .080 Aluminum substrate**  
**Top Line ("Fire Alarm / Pump) – 1" Height**  
**"Riser Room" – 2" Height**  
**Address; Suite / Suite Range - .75"**  
**"Storage Prohibited" - .75"**

**Sign Construction shall be as indicated above**

**FIRE DEPARTMENT RISER ZONE SIGNS  
(for multiple riser systems)**

If a sprinkler system is supplied with multiple risers, each riser zone shall be identified using the required signage.

Each zone shall be uniquely identified by geographic service area or by other means and shall be accompanied by a reduced zone map (sprinkler plans) mounted to the wall(protected) and colored keyed.

The following are examples of Zone Signs:



*4x8 - .080 Aluminum substrate  
Letters – 1" Height*

*Sign Construction shall be as indicated above*

**POST INDICATOR VALVES**

Post indicator valves shall be identified. Sign specifications at the beginning of this document shall be used. Signs shall be posted, with the base of the sign located at 4 feet above grade, on the wall above the PIV or secured to a heavy duty U channel post and secured in the ground with cement. Lettering must be approved by the Fire Marshal's Office.

*FOR Single PIV  
12" x 12" - .080 Aluminum substrate  
Letters – 3" Height*

*Sign Construction shall be as indicated above*



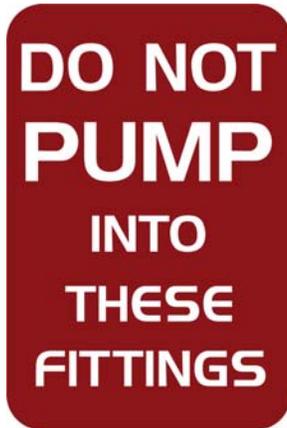
*FOR PIV with Bldg. Number  
12" x 12" - .080 Aluminum substrate  
Letters – 2.5" Height*

*Sign Construction shall be as indicated above*



## PUMP TEST HEADER

If a fire pump is installed as part of the building's fire suppression system, the following sign shall be placed above the pump test header and shall follow the sign construction specs at the beginning of this document.



*18x12 - .080 Aluminum substrate*

*"Do Not" – 2" Height*

*"Pump" – 2.5" Height*

*"Into These Fittings" - 1.5"*

*Sign Construction shall be as indicated above*

## FIRE ALARM

Rooms that contain the fire alarm panel shall be identified with a 6" x 8" sign that reads, "F.D. ALARM PANEL".



*6" x 8" - .080 Aluminum substrate*

*Letter – 1.25"*

*Sign Construction shall be as indicated above*

Remote Annunciators shall have a sign posted that indicates the location of the main FACP. Letter shall be a minimum of one (1) inch in height and shall read "FACP LOCATED \_\_\_\_\_"

## FIRE DEPARTMENT ACCESS

100 West Eldorado  
Little Elm, Texas 75068-5060

214-975-0424  
214-975-0776 (Fax)

In the event any fire department access systems (i.e. Knox box, key switches, etc.) serves multiple tenants or is in an area that is not obvious, confusing, not readily identifiable, or where required by the fire marshal the following sign shall be provided and located as approved. Sign specifications at the beginning of this document shall be used.

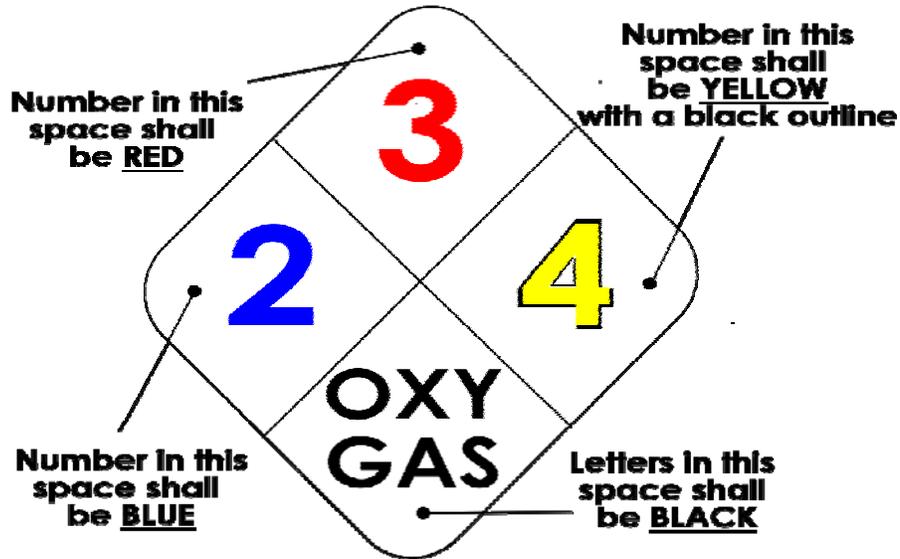


***6" x 8" - .080 Aluminum substrate  
Letter – 1.25"***

***Sign Construction shall be as indicated above***

## HAZARDOUS MATERIALS IDENTIFICATION

Where compressed gases, hazardous materials or required by the Fire Marshal, an NFPA 704 (Fire Diamond) shall be posted at a location on the premise as approved by the Fire Marshal's Office.



The sign shall be constructed out of .080 aluminum construction with rounded corners. The sign face shall have a white diamond grade reflective background. Numbers and Letters shall be arranged by color as shown above and be constructed of an engineer grade reflective vinyl..

**The materials on site will dictate the numbers in each category.** In the event of multiple hazardous materials, the numbers shall reflect the highest hazard of each category.

Numbering shall be a minimum of 3.5" high with an 11/16" stroke width.

Lettering for the Special Hazard Box shall be as follows:

One Line:	1 3/4" high w/ 9/16" stroke width
Two Lines:	1 3/8" high w/ 7/16" stroke with
Three Lines:	1 1/4" high w/ 3/8" stroke width

# Contractor Guide

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## Inspection Procedures

- Guidelines

# Little Elm Fire Department Fire Marshal's Office



## Inspection Procedures

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### GENERAL NOTES:

- All fees due in reference the permit being inspected must be paid in full prior to requesting an inspection.
- ONLY the PERMITTING COMPANY may request inspection and MUST be onsite for the inspection.
- No partial inspections will be performed.
- A Pre-Test Inspection Form must be filled out completely and signed. This form shall be faxed, emailed or delivered in person to the Fire Marshal's Office, and will act as your inspection request. Upon receipt, the Fire Marshal's Office will contact the permitting contractor to schedule the inspection.
- The system being inspection shall be complete and ready to inspect at the time scheduled. Any work being done at the time of inspection or failure of any part of the system is an automatic failure. A re-inspection fee will be assessed and the inspection will have to be rescheduled.
- All inspection must be scheduled with a minimum of 48 hour advanced noticed. Inspections are scheduled on a first-come, first-serve basis.

### FIRE ALARM:

- TxFMO Licensed Tech shall be onsite for all inspections.
- A total of two personnel shall be provided by the alarm company, with working, two-way communication
- All trades tied to the alarm panel must have a representative available at the acceptance test, including but not limited, HVAC, elevator, sprinkler, hood suppression, access control, etc.
- Central Station Monitoring must be set up and active at the time of inspection.
- All trades and final clean are required to be completed in accordance with NFPA prior to scheduling Alarm test.

### FIRE SPRINKLER:

- Beginning on January 1, 2009 a TxFMO License IMT shall be onsite for all inspections (except one-two family installations).
- All piping, hangers, connections, or other components shall be visible from the walking surface.

### HOOD SUPPRESSION SYSTEM:

- All electrical, gas, and mechanical (vents) shall be operational in order to perform this inspection.
- IF tied to an alarm system, the hood system inspection shall be conducted at the same time as the alarm.

### UNDERGROUND FIRE MAIN:

- For visual inspection, all bells and connections shall be visible as well as the pipe lettering (DR and Class No.) shall be facing up so it is readable from grade.
- Fire Department will inspect from the Tap to the riser stub-out inside of the building.
- Visual inspection may be conducted separate from the hydro.

# Little Elm Fire Department Fire Marshal's Office



## Inspection Procedures

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### UNDERGROUND STORAGE TANKS

- Call the Fire Marshal's Office with tank delivery schedule
- Air pressure reading will be taken / soap test performed, prior to setting tank.
- Once tank is in the excavation pit, air pressure will be read, strapping and sump tubes will be inspected.
- Distribution lines will be tested as appropriate when installed.

### FINAL INSPECTION:

- All Fire Department related permits must have successfully passed all required inspections and re-inspections, prior to scheduling final.
- All Fire Extinguishers, including newly purchased, must be inspected and display a current State Fire Marshal's Office Inspection Tag.
- A "key-safe" is required to be installed on all buildings. Location will be determined by the Fire Marshal's Office.
- Shell buildings shall have one Knox-Box of appropriate size for all tenants. Each Tenant is responsible to provide a key to the inspector at the time of fire final.
- Premise Address must be permanently affixed to the building, front and rear. Suite numbers shall be placed over the main entrance and rear doors. See '*Building Address and Identification Guide*' for address placement and size/stroke requirements.
- All utility (electric/gas/etc.) shall have the suite number affixed to the meter.
- All required Fire Department Signs shall be installed.
- Exiting systems shall be clear and unobstructed. Proper hardware shall be installed on all exit doors. Dead bolts, slide bolts, bars or other similar type of securing device are not allowed on secondary exits.
- Exit signs and emergency lights shall transfer to battery back-up and function properly when tested.
- Assembly occupancies must have a Maximum Occupancy Load Sign prominently displayed near the main entrance.
- The Fire Department will not release their approval for CO issuance until all Fire Department related items are completed and the Fire Final has passed without exception.

# Contractor Guide

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## Forms

- Permit Application
- Pre-Test / Inspection Request

Little Elm Fire Department  
Fire Marshal's Office



Fire Permit Application Form

All information must be provided or application will be rejected.

This is an application for permit only. Permit is not issued until plan approval is given by the Fire Marshal's Office and approved plans, permit and any plan review comments are in the possession of the contractor and on the job site.

Work done prior to such approval shall be subjected to a stop-work order and fines.

Building Permit Number (MyGov id#): \_\_\_\_\_ Submittal Date: \_\_\_\_\_

Project Name: \_\_\_\_\_ Type: \_\_\_\_\_

Project Address: \_\_\_\_\_ Suite: \_\_\_\_\_

Submitting Contractor: \_\_\_\_\_

Contact: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Fire Sprinkler and Alarm Systems Related:

- |  |   |
|--|---|
| <input type="checkbox"/> Fire Sprinkler System (Commercial)<br>\$75.00 + \$0.012 per square foot | <input type="checkbox"/> Fire Sprinkler System (Single Family)<br>\$75.00     |
| <input type="checkbox"/> Fire Alarm System<br>\$75.00 + \$0.012 per square foot                  | <input type="checkbox"/> Fire Alarm System (Water Flow Monitoring)<br>\$75.00 |
| <input type="checkbox"/> Fire Pump<br>\$75.00  | <input type="checkbox"/> Stand Pipe System<br>\$75.00                         |
| <input type="checkbox"/> Underground Fire Main # of Mains _____<br>\$75.00 per main              | <input type="checkbox"/> Remote FDC # of Lines _____<br>\$75.00 per line      |

Square Footage (Fire Sprinkler and Fire Alarm Systems): \_\_\_\_\_

Other Permits:

- |   |  |
|---|--|
| <input type="checkbox"/> Hood System # of systems _____<br>\$75.00 per system | <input type="checkbox"/> FM 200 System<br>\$75.00 per permit   |
| <input type="checkbox"/> Access Control System<br>\$75.00                     | <input type="checkbox"/> LPG or Compressed Gases<br>\$75.00  |
| <input type="checkbox"/> Hazardous Materials<br>\$175.00                      | <input type="checkbox"/> Flammable / Combustible Liquid Storage Tanks _____ # of tanks<br>\$175.00 for first tank \$75.00 for each additional tank |
| <input type="checkbox"/> Spray Booth<br>\$75.00 per Booth                     | <input type="checkbox"/> Gate Access System _____ # of gates<br>\$75.00 per gate   |
| <input type="checkbox"/> Fire Lane Modification / Alterations<br>\$75.00      | <input type="checkbox"/> Fire Lane Traffic Control Device<br>75.00   |
| <input type="checkbox"/> Temp. Membrane Structure, Tent or Canopy<br>\$75.00  | <input type="checkbox"/> Battery Systems<br>\$75.00  |

Paper Submittal: \$50.00

TOTAL FEE: \$ \_\_\_\_\_

- Three (3) sets of plans and one (1) submittal / specification book and fire alarm or sprinkler hydraulic calculations will be required. **\*\*CAD Submittals allowed. See Electronic Plan Review Guidelines**
- Permit fees shall be paid in full prior to scheduling inspections for this permit. See Contractor Guide: Inspection Procedures.
- Contact person will be notified upon completion of plan review.
- Work on any job, requiring a permit, prior to the issuance of a permit will result in a stop-work order and fine that must be paid prior to the releasing of a permit, or prior to any inspections being performed.

Little Elm Fire Department  
Fire Marshal's Office



## Pre-Test & Inspection Request Form

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A pre-test of any system regulated by the Fire Department and that requires acceptance testing or inspection shall be performed with out failure. Once the pre-test has been performed, this certification form shall be submitted) to the Little Elm Fire Marshal, in person, via fax (214)-975-0776 or emailed to [broach@littleelm.org](mailto:broach@littleelm.org) as the request to schedule the inspections for the regulated system. Note: The Fire Department does not perform partial inspections. Inspections shall be scheduled at least 48 hours in advance.

**Form must be filled out completely.**

Inspection shall be scheduled only after receipt of this document and must be scheduled 48 hours in advanced. All permit fees shall be paid in full prior to scheduling any inspection.

Permit Number (MyGov id#): \_\_\_\_\_

Project Name: \_\_\_\_\_

Inspection Address: \_\_\_\_\_

Type of Test: \_\_\_\_\_  
(Sprinkler Hydro, Sprinkler Visual, Fire Alarm, Access Control, etc.)

Date Pre-Tested: \_\_\_\_\_

Contractor Company Name: \_\_\_\_\_

Contractor Contact Person to Schedule Inspection: \_\_\_\_\_

Contractor Contact Number: \_\_\_\_\_

**NOTE: REGULATED SYSTEMS INSPECTIONS CAN ONLY BE SCHEDULED BY THE PERMITTING COMPANY.**

***By signing this, I attest that a pre-test has been performed at the above location for the above named system type and found no failures to the functioning of the system. I also attest that the system will be ready to test at the time scheduled. I am aware that any failures to the system or not being ready to test or inspect at the time scheduled with the Fire Department will result in a test/inspection failure and a new pre-test shall be performed and a new inspection scheduled after appropriate re-inspection fees are paid.***

Contractor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Amendments to the International Fire Code, 2006 edition.**

The following noted portions of the International Fire Code, 2006 edition, are hereby amended to read as follows:

1. Section 102.1, is amended to add item #5:

5. The provisions of this code apply to buildings built under the IRC and IBC.

2. Section 102.4, is amended to read as follows:

*102.4 Application of other codes.* The design and construction of new structures shall comply with this code, and other codes as applicable, and any alterations, additions, changes in use or changes in structures required by this code, which are within the scope of the International Building Code, shall be made in accordance therewith.

3. Section 102.6, is amended to read as follows:

*102.6 Referenced codes and standards.* The codes and standards referenced in this code shall be those that are listed in Chapter 45 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.

4. Sections 103.1, 103.2 and 103.3, are amended to read as follows:

*103.1 General.* The Fire Code shall be enforced by the Division of Fire Prevention. The Division of Fire Prevention is hereby established as a division of the Fire Department of the Town of Little Elm and shall operate under the supervision of the Chief of the Fire Department.

*103.2 Appointment.* The Fire Marshal is in charge of the Division of Fire Prevention and shall be appointed by the Fire Chief on the basis of proper qualification.

*103.3 Deputies.* The Chief of the Fire Department may detail such members of the Fire Department as inspectors as shall from time to time be necessary and each member so assigned shall be authorized to enforce the provisions of this code.

5. Section 104.1.1, is added to read as follows:

*104.1.1 Code official.* For the purpose of this code, "Code Official" shall mean the Fire Chief or his designated representative(s).

6. Sections 105.1.4 and 105.1.5 are added to read as follows:

*105.1.4 Failure to obtain permit.* Failure to obtain permit shall constitute working without a permit and subject to the fines and provisions thereof.

*105.1.5 Working without a permit.* Any person working without a permit shall be liable to a fee as established in the Town of Little Elm Ordinance No. 900, or future ordinance(s) amending or repealing said ordinance. Working without a permit shall include non-compliance of Sec. 105.3.5 and 105.4.6.

7. Section 105.2.3, is amended by the addition of the following:

*105.2.3 Time limitation of application.* Reinstatement of expired permits will require the applicant to resubmit permit application and required documents and shall be liable for applicable permit fees.

8. Section 105.4.6, is amended to read as follows:

*105.4.6 Retention of construction documents.* One set of construction documents shall be retained by the fire code official until final approval of the work covered therein. One set of approved construction documents shall be returned to the applicant, and said set, along with the Fire Department Permit, shall be kept on the site of the building or work from the date issued and until the completion of the Division of Fire Prevention's Final Inspection. Construction documents shall be retained by the installing company as required by the Texas State Fire Marshal's Office, after final approval of work covered therein.

9. Section 105.6.28, is amended to read as follows:

*Section 105.6.28 LP-gas.* An operational permit is required for:

1. Storage and use of LP-gas

*Exception:* A permit is not required for individual containers with a 20-LB (9.08 kg) water capacity or less serving occupancies in Group R-3.

2. Operation of cargo tankers that transport LP-gas

10. Section 105.7, is amended to read as follows:

*105.7 Required construction permits.* The code official is authorized to issue construction permits for work set forth in Sections 105.7.1 to 105.7.16.

11. Sections 105.7.14-105.7.16, are amended by the addition of the following:

*105.7.14 Access control.* A permit shall be required to install or modify any system that is utilized during normal operation to delay access or secure a building or portion thereof.

*105.7.15 Gate Access Systems.* A permit shall be required to install any system that during normal operation delays or prevents entry to, or obstructs a fire lane or street into the premises of a residential or commercial area.

*105.7.16 Fire Lane Control Device / Modification.* A permit shall be required to install any traffic control devices designed to slow traffic, when such device is placed in a fire department access road or fire lane and/or when any modification, except normal maintenance, is made to a fire lane.

12. Sections 105.8, 105.8.1, are amended by the addition of the following:

*105.8 Permit Fees.* Fees for each permit required, other regulatory storage/handling, equipment use or process shall be charged to perform necessary plan reviews and field inspections.

*105.8.1 Construction/Permit fees/Re-Inspection Fees.* Permit fees for all new installation of, or modification to, automatic fire extinguishing systems, automatic detection systems, or automatic fire command and control systems shall be as established in the Town of Little Elm Ordinance No. 900, or future ordinance(s) amending or repealing said ordinance.

13. Section 106.2, is amended by the addition of the following:

*106.2.1 Inspection of existing premises.* The Fire Chief or designated representative shall inspect all buildings, premises, or portion thereof as often as may be necessary. An initial inspection and one (1) re-inspection shall be made free of charge. If the Fire Chief or his designee is required to make follow-up inspections after the initial inspection and re-inspection to determine whether a violation or violations observed during the previous inspection have been corrected, a fee shall be charged. The occupant, lessee, or person making use of the building or premises shall pay said fee or fees within thirty (30) days of being billed as a condition to continue lawful occupancy of the building or premises.

Fees for follow-up inspections after initial and re-inspection shall be as established in the Town of Little Elm Ordinance No. 900, or future ordinance(s) amending or repealing said ordinance.

Recurring violations from year to year will result in issuance of a citation and shall not be restricted to the inspection and re-inspection procedure as indicated in this section.

*106.2.2 Inspection requests.* It shall be the duty of the holder of the permit of their duly authorized agent to notify the fire code official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

Inspections and their request shall comply with the Town of Little Elm Fire Marshal's Office Inspection Procedures.

*106.2.3 Approval required.* Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the fire code official. The fire code official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the fire code official.

14. Section 109.3, is amended to read as follows:

*109.3 Violation Penalties.* Any person, firm, or corporation violating any of the provisions or terms of this Article or Code adopted herein shall be guilty of a misdemeanor and, upon conviction in the Municipal Court of the Town of Little Elm, shall be subject to a fine not to exceed two thousand and no/100 dollars (\$2000.00) for each offense, and each and every day any such violation shall continue shall be deemed to constitute a separate offense.

15. Section 111.4, is amended to read as follows:

*111.4 Failure to comply.* Any person who shall continue any work after having been served with a stop order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not more than TWO THOUSAND AND NO/00 (\$2000.00) DOLLARS for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

16. Section 202, is amended to replace the definition of "Fire watch" to read as follows:

*Fire watch.* A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or standby personnel when required by the fire code official, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

17. Section 202, is amended to add definitions to read as follows:

*Addressable fire detection system.* Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

*Analog intelligent addressable fire detection system.* Any system capable of calculating a change in value by directly measurable quantities (voltage, resistance, etc.) at the sensing point. The physical analog may be conducted at the sensing point or at the main control panel. The system shall be capable of compensating for long-term changes in sensor response while maintaining a constant sensitivity. The compensation shall have a preset point at which a detector maintenance signal shall be transmitted to the control panel. The sensor shall remain capable of detecting and transmitting an alarm while in maintenance alert.

*High-rise building.* A building having any floors used for human occupancy located more than 55 feet (16,764 mm) above the lowest level of fire department vehicle access.

*Self-service storage facility.* Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

*Standby personnel.* Qualified fire service personnel, approved by the Fire Chief. When utilized, the number required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

18. Section 307.2, is amended to read as follows:

*307.2 Permit required.* A permit shall be obtained from the fire code official in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality guidelines and/or restrictions.
2. State, County or Local temporary or permanent bans on open burning.
3. Local written policies as established by the Code Official.

19. Section 307.4, is amended to read as follows:

*307.4 Location.* The location for open burning shall not be less than 300 feet (91,440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 300 feet (91,440 mm) of any structure. Open burning without a permit is prohibited throughout the corporate limits of the Town of Little Elm and extending for a total of 5,000 feet outside the city limits; provided that this Section shall not be in effect within any portion of such 5,000 feet area which is contained within the territory of any other municipal corporation.  
(exceptions unchanged)

20. Amend the International Fire Code, 2006 edition, to add section 307.4.3 to read as follows:

*307.4.3 Trench Burns.* Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.

21. Section 307.5, is amended to read as follows:

*307.5 Attendance.* Open burning, trench burns, bonfires or recreational fires shall be constantly attended until the . . . {remainder of section unchanged}.

22. Section 308.3.1, is amended to read as follows:

*308.3.1 Open-flame cooking and heating devices.* Open-flame cooking devices, charcoal grills, outdoor fireplaces and other similar devices used for cooking, heating or any other purpose shall not be located or used on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

*Exceptions:*

1. One- and two-family dwellings.
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

23. Section 308.3.1.1, is amended to add the following exceptions to read as follows:

*Exceptions:*

1. One- and two-family dwellings may have containers with a water capacity not greater than 20 pounds (9.08 kg) [nominal 8 pound (3.632 kg) LP-gas capacity] with an aggregate capacity not to exceed 100 lbs (5 containers).
2. Other residential occupancies where buildings, balconies and decks are protected by an approved automatic sprinkler system, may have containers with a water capacity not greater than 20 pounds (9.08 kg) [nominal 8 pound (3.632 kg) LP-gas capacity], with an aggregate capacity not to exceed 40 lbs (2 containers).

24. Amend the International Fire Code, 2006 edition to add Section 316 to read as follows:

*316.1 General.* In the event that a fire emergency declaration (burn ban) is issued by the County of Denton, Texas, through proclamation or Executive Order of the Denton County Commissioners Court; that ban shall become enforceable within the Town limits of Little Elm and be in effect from the date executed until such time the declaration/ban expires or is terminated.

*316.2 Definition.* The definition of combustible materials in the section shall include but not limited to, the use of all fireworks, discarding of cigarettes or other flammable materials, materials used in activities such as welding and any other activity that could result in fire.

*316.3 Violation.* The use of a combustible material or knowingly and willingly allowing the use of a combustible material on private property or in any outdoor environment by any person is prohibited while this section is in effect.

A violation of this section is a separate and distinct offense of other provisions of this code.

*316.4 Outdoor cooking.* All outdoor cooking or open flame device while this section is in effect are prohibited.

*Exceptions:*

1. The cooking device is propane or natural gas and has a complete and full enclosure that is utilized at all times.
2. The cooking device is wood or charcoal and has a complete and full enclosure that is utilized, and all areas around the cooking device shall be clear of vegetation and/or combustible materials or debris for a 5' radius

*316.5 Hot work / Welding.* Where welding must be performed in the field, the following mitigating efforts will be in force while this section is in effect.

*316.5.1 Open hot-work*

1. All areas where welding, cutting or grinding operations are being performed will be free of vegetation and/or combustibles for at least thirty feet in all directions;
2. Winds speed must be no more than 20 miles per hour while performing welding, cutting or grinding operations outside of approved barriers or enclosures;
3. Relative humidity must be above 25%
4. Each site will have the ability to call 911 for emergency response;
5. A dedicated fire watch person will attend each welder, cutter, grinder or any activity that causes a spark;
6. A minimum of one (1) water pressure fire extinguisher or pressurized water source per fire watch person is required;
7. If an emergency exists where welding has to be performed, the Fire Marshal may issue a temporary exception to the order.
8. All persons must report the intent to perform hot work to the Town of Little Elm Fire Marshal's Office prior to work commencing. Unreported hot work is in violation of this order.

*316.5.2 Enclosed hot-work*

1. All welding, cutting and grinding operations may be performed in a total welding enclosure, or "welding box", that is sufficiently high to control sparks and includes a fire retardant cover over the top.
2. All areas where welding, cutting or grinding operations are being performed will be free of vegetation and/or combustibles for at least twenty feet in all directions;
3. Winds speed must be no more than 22 miles per hour while performing welding, cutting or grinding operations;
4. Relative humidity must be above 20%
5. Each site will have the ability to call 911 for emergency response;
6. A dedicated fire watch person will attend each welder, cutter, grinder or any activity that causes a spark;
7. A minimum of one (1) water pressure fire extinguisher or pressurized water source per fire watch person is required;
8. Where welding (above ground and sub-surface) is required in an area where there is a potential for a hazardous atmosphere, barriers will be substituted for total enclosures (e.g. "wind walls") to prevent sparks from coming in contact with any combustible material and/or vegetation;
9. The barriers will be installed to allow ventilation of the work area and ingress and egress to the work area for personnel safety;
10. Sub-surface, or "bell hole", welding and grinding operations within approved excavations are allowed if all other "enclosed" mitigation efforts are in compliance;
11. If an emergency exists where welding has to be performed, the Fire Marshal may issue a temporary exception to the order.
12. All persons must report the intent to perform hot work to Little Elm Fire Marshal's Office prior to work commencing. Unreported hot work is in violation of this order.

*316.6 Burn Permits.* All burn permits, regardless of whether previously issued shall be suspended for the duration of the burn ban.

*316.7 Penalty.* Penalty for violation(s) of the section are established in Sec 109.3 of this code as adopted.

26. Section 401.3, is amended to add section 401.3.4 as follows:

*401.3.4 Fire alarms and nuisance alarms.* False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

25. Section 401.3.2, is amended to read as follows:

*401.3.2 Alarm activation.* Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department. All occupants of that facility shall follow their fire department approved evacuation plan or immediately evacuate the facility and shall not return until authorized by fire department personnel.

26. Section 503.1.1, is amended to add the following sentences to the first paragraph to read as follows:

Except for single- or two-family residences, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed pathway around the external walls of the structure. Fire lanes provided during the platting process shall be so indicated on the plat as an easement. Where fire lanes are provided and a plat is not required, the limits of the fire lane shall be shown on a site plan and placed on permanent file with the Town's Planning Department.

27. Section 503.1.2 is amended by the addition of the following paragraph to read as follows:

*503.1.2 Additional Access.* All structures and subdivisions shall provide two points of access. Two points shall be a minimum of 140 feet apart. The maximum block length shall be 1000' and the maximum cul-de-sac length shall not exceed 500' in length as measured from centerline of the intersection, street to the center point of the radius.

28. Section 503.2.1, is amended to read as follows:

*503.2.1 Dimensions.* Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7,315 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4,267 mm). When servicing a structure of greater than two stories in height, a 26 foot fire lane is required. Any such fire lane easement shall either connect both ends to a dedicated street or be provided with a turnaround having a minimum outer radius of 50 feet. If two or more interconnecting lanes are provided, interior radius for that connection shall be required in accordance with the following.

For 90 degree or greater turns only

- (1) 24-foot fire lane - 30-foot inside turning radius
- (2) 30-foot fire lane - 10-foot inside turning radius

For turns tighter than 90 degrees, American Association of State and Highway Transportation Officials (AASHTO) Geometric design of Highways and Streets shall be utilized.

*Exception:* Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved.

29. Section 503.2.2, is amended to read as follows:

*503.2.2 Authority.* The fire code official shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

30. Section 503.2.3, is amended to read as follows:

*503.2.3 Surface.* Fire Lane easements shall be constructed to meet the Town of Little Elm Engineering Standards.

All fire lanes shall be maintained and kept in good state of repair at all times by the owner and the Town of Little Elm shall not be responsible for maintenance thereof. It shall further be the responsibility of the owner to ensure that all fire lane markings required by Sec. 503.3 be kept so that they are easily distinguishable to the public.

31. Section 503.2.5, is amended to read as follows:

*503.2.5 Dead ends.* Dead end fire apparatus access roads are not permitted. An approved fire department vehicle access turn-around shall be required.

32. Section 503.3, is amended to read as follows:

*503.3 Marking.* Striping, signs, or other markings, when approved by the code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

1. *Striping.* Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

2. *Sign.* Signs shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and borders in red, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

33. Section 503.4, is amended to read as follows:

*503.4 Obstruction of fire apparatus access roads.* Fire apparatus roads shall not be obstructed in any manner, including the parking of vehicles, whether attended or unattended for any period of time. Persons in charge of a construction project, such as, but not limited to, a General Contractor, are responsible to ensure that fire lanes are kept clear of vehicles and other obstructions at all times and may be issued a citation for non-compliance under this section. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times. The Fire Chief and Police Chief, and their designated representatives are authorized to remove or cause to be removed any material, vehicle or object obstructing a fire lane at the expense of the owner of such material, vehicle or object.

34. Sections 503.4.1 and 503.4.2, are amended by the addition of the following:

*503.4.1 Obstruction and Control.* No owner or person in charge of any premises served by a fire lane or access easement shall abandon, restrict or close any fire lane or easement without first securing a permit as required in Section 105.7 of this code and securing from the Town of Little Elm approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane.

*503.4.2 Speed control devices.* Speed bumps or other similar obstacles designed to slow the speed of traffic and that have the effect of slowing or impeding the response of fire apparatus shall require a permit as required in Sec. 105.7 of this code prior to installation. Speed control devices shall be constructed out of concrete or by approved molded plastic or similar material.

35. Section 503.6, is amended to read as follows:

*503.6 Security Gates.* The installation of security gates or other devices intended to limit the access of vehicles or persons shall comply with the Fire Marshal's Office established written policy statement.

36. Section 505.1, is amended to read as follows:

*505.1 Address numbers.* New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall be in contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Address numbering shall comply with Sections 505.1.1 - 505.1.5

37. Sections 505.1.1 - 505.1.5, are amended by the addition of the following:

*505.1.1 Single family homes.* Minimum 4" high, 5/8" stroke

*505.1.2 Multifamily Communities.* Street Address shall be a minimum of 12" high with a 2" stroke. Individual building numbers shall be a minimum of 18" high with a 3" stroke. Buildings over 100 feet in length require a minimum of two (2) numbers per building. Apartment spread numbers shall be a minimum of 7" high with a one inch stroke and corridor spread numbers shall be a minimum of 4" high with a 5/8 inch brush stroke. Individual apartment unit numbers shall be a minimum of 4" in height with a 5/8 inch stroke.

*505.1.3 Large Office and Warehouse Buildings.* Address must be visible from all access directions. Number shall be a minimum of 24 inches in height with a 4 inch stroke. Buildings over 500 feet long shall have two address locations if more than one access point is visible. Suite numbers shall be required for multi-tenant complexes and shall be located over the front door and on the rear door, six inches in height with a one inch brush stroke.

*505.1.4 Shopping Centers, High Rise Buildings and Other Applications.* A minimum of 12" high numbers with a 2" brush stroke shall be visible from all access directions. Suite numbers are required over the door with 4" high numbers with a 5/8 inch brush stroke. Buildings beyond 100 feet from the street and 10,000 square feet shall install 18 inch numbers with a three inch stroke.

*505.1.5 Marquee and Monument.* Addresses installed on a marquee located next to the street will require numbers 12" high with a two inch brush stroke to be located a minimum of 3 feet above grade. Marquee and Monument signs must meet Town of Little Elm Sign Ordinance Requirements.

38. Section 505.3, is amended by the addition of the following:

*505.3 Directional /Equipment ID Signage.* Directional and equipment identification signage may be required, on new and existing buildings, by the code official and shall meet the requirements as set forth in the Fire Marshal's Office Sign specifications.

39. Section 506.1, is amended by the addition of the following:

*506.1 Where required.* All new and existing occupancies, except single-family residences, shall provide (a) lock box(es) as specified in the Fire Marshal's Office written policy statement. Existing

properties that are equipped with a lockbox that is of inadequate size as specified in the Fire Marshal's Office Knox Box Guidelines shall be upgraded to the appropriate size as required.

40. Section 508.5.1, is amended to read as follows:

*508.5.1 Where required.* As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table 508.5.1. Distances between hydrants shall be measured along the route that fire hose is laid by a fire vehicle from hydrant to hydrant.

TABLE 508.5.1  
MAXIMUM DISTANCE BETWEEN HYDRANTS

TABLE INSET:

OCCUPANCY	SPRINKLERED	NOT SPRINKLERED
Residential (1 & 2 Family)	600 feet	500 feet
Residential (Multi-Family)	400 feet	300 feet
All Other	500 feet	300 feet

There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distance listed in Table 508.5.1.

*Protected Properties.* Fire Hydrants shall be installed along fire lanes with spacing as required for street installations specified in 508.5.1. In addition, hydrants required to provide supplemental water supply for automatic fire protection systems shall be within 100 feet of the fire department connection (FDC) for such systems.

41 Sections. 508.5.7 - 508.5.16, is amended to read as follows:

*508.5.7 Fire Hydrant Type.* All hydrants shall be of the three-way type with National Standard threads, breakaway construction, minimum 5 1/4" valve opening and shall comply with the latest AWWA specification C-502. The hydrant shall have a 4 1/2" large connection with a 5" Hydr-Storz quick connection by Hydra-Shield and with two 2 1/2" side connections and shall be placed on water mains of no less than six inches (6") in size. Fire hydrants shall be Mueller "Centurion" or approved equal.

*508.5.8 Valves.* Valves shall be placed on all fire hydrants leads.

*508.5.9 Breakaway point.* Fire hydrants shall be installed so that the breakaway point is no less than three (3) inches, and no greater than five (5) inches above the grade surface.

*508.5.10 Curb line.* Fire hydrants shall be located a minimum of two (2) feet and a maximum of six (6) feet behind the curb line. No fire hydrant shall be placed in a cul-de-sac or the turning radius of fire lanes.

*508.5.11 Positioning.* All fire hydrants shall be installed so that the 4 1/2" connection will face the fire lane or street.

*508.5.12 Limiting access obstruction.* Fire hydrants, when placed at intersections or access drives to parking lots, shall be placed so that the minimum obstruction of the intersection or access drive will occur when the hydrant is in use.

*508.5.13 Private property.* Fire hydrants located on private property shall be accessible to the fire department at all times.

All fire hydrants placed on private property shall be adequately protected by either curb stops or concrete post or other approved methods. Such stops shall be the responsibility of the landowner on which the fire hydrant is installed.

*508.5.14 Location to building.* No fire hydrant shall be located closer than 40 feet to a non-residential building or structure.

*508.5.15 Identification.* An approved blue, two-sided reflector shall be utilized to identify each hydrant location. The reflector shall be affixed to the center line of each roadway or fire access lane opposite fire hydrants.

*508.5.16 Color.* Fire hydrant caps and bonnet shall be painted according Little Elm Engineering Department Standards.

42. The International Fire Code, 2006 edition, is amended to add section 511 to read as follows:

*Section 511 Emergency radio communications*

*511.1 Signal strength in buildings.* In all new and existing buildings in which the type of construction or distance from an operational emergency services antenna or dispatch site does not provide adequate frequency or signal strength as determined by the code official, the building owner shall be responsible for providing the equipment, installation and maintenance of said equipment in a manner to strengthen the radio signal. The radio signal shall meet the minimum input / output strengths according to the emergency radio system's provider and system manager.

43. Section 704.1, is amended to read as follows:

*704.1 Enclosure.* Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as specified in Table 704.1.

44. Section 807.4.3.2 and Section 807.4.4.2, are amended to add an exception to read as follows:

*Exception:* Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

45. Section 901.5, is amended to read as follows:

*901.5 Installation acceptance testing.* All required test shall be conducted by and at the expense of the owner or his representative. Neither the Fire Department nor the Town of Little Elm shall be responsible for any damage incurred in such test. Where it is required that the Fire Department witness any such test, such test shall be scheduled with a minimum of 48 hour notice to the Fire Marshal.

46. Section 901.6.1, is amended to add section 901.6.1.1 to read as follows:

*901.6.1.1 Standpipe Testing.* Building owners/managers must utilize a licensed fire protection contractor to test and certify standpipe systems. In addition to the testing and maintenance requirements of NFPA 25 applying to standpipe systems, the following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be hydrostatically tested for all FDCs on any type of standpipe system. Hydrostatic

testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the contractor shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. There are no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.

3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25.

4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDCs. Contact the Fire Marshal for additional information.

5. Upon successful completion of standpipe test, the contractor shall place a blue tag (as per "Texas Administrative Code, Title 28. Insurance, Part I. Texas Department of Insurance, Chapter 34. State Fire Marshal, Subchapter G. Fire Sprinkler Rules, 28 TAC § 34.720. Inspection, Test and Maintenance Service (ITM) Tag") at the bottom of each standpipe riser in the building. An example of this tag is located at the end of this SOP. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.

6. The contractor shall follow the procedures as required by "Texas Administrative Code, Title 28. Insurance, Part I. Texas Department of Insurance, Chapter 34. State Fire Marshal, Subchapter G. Fire Sprinkler Rules, 28 TAC" with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (Fire Marshal).

7. Additionally, records of the testing shall be maintained by the owner and contractor, as required by the State Rules mentioned above and NFPA 25.

8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected nighttime freezing conditions.

9. Contact the Fire Marshal for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this fire fighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

47. Section 901.7, is amended to read as follows:

*901.7 Systems out of service.* Where a required fire protection system is out of service or in the event of an excessive number of activations, the fire department and the code official shall be notified immediately and, where required by the code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

Where utilized, standby personnel shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

48. Section 902.1; Under “Standpipe, Types of” definition, amend “manual dry” to read as follows:

*Manual Dry.* A dry standpipe system that does not have a permanent water supply attached to the system. Manual dry standpipe systems require water from a fire department pumper to be pumped into the system through the fire department connection in order to supply the system demand. The system must be supervised as specified in Section 905.2

49. Amend the International Fire Code, 2006 edition, by adding section 903.1.1.2 to read as follows:

*903.1.1.2 Residential Systems.* Unless specifically allowed by this code or the International Building Code, residential sprinkler systems installed in accordance with NFPA 13D or NFPA 13R shall not be recognized for the purpose of exceptions or reductions, commonly referred to as "trade-offs", permitted by other requirements of this code.

In addition, residential sprinkler systems installed in accordance with NFPA13R must include attics, breezeways and patios. Garage areas must also be covered if any occupiable space is located directly above in residential sprinkler systems installed in accordance with NFPA13D & NFPA13R.

50. Section 903.2, is amended to delete the exception.

51. The International Fire Code, 2006 edition, is amended to add section 903.2.8.3 to read as follows:

*903.2.8.3 Self-service storage facility.* An automatic sprinkler system shall be installed throughout all self-service storage facilities. A screen shall be installed at eighteen (18") inches below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one (1) inch not greater than six (6") inches in size. This screen and its supports shall be installed such that all elements are at least eighteen (18") inches below any sprinkler head.

*Exception:* One-story self-service storage facilities that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

52. The title of Section 903.2.10 of the International Fire Code, 2006 edition is amended, to read "Windowless stories in all occupancies except R-3 and U."

53. Section 903.2.10, is amended to amend section 903.2.10.3 and to add sections 903.2.10.4, 903.2.10.5, 903.2.10.6 and 903.2.10.6.1 to read as follows:

*903.2.10.3 Buildings more than 35 feet in height.* An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code that is located 35 feet (10,668 mm) or more above the lowest level of fire department vehicle access.

*Exception:* Open parking structures in compliance with Section 406.3 of the International Building Code.

*903.2.10.4 High-piled combustible storage.* For any building with a clear height exceeding 12 feet (4,572 mm), see Chapter 23 to determine if those provisions apply.

*903.2.10.5 Spray booths and rooms.* New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

*903.2.10.6 Buildings over 5,000 sq. ft.* An automatic sprinkler system shall be installed throughout all buildings with a building area over 5,000 sq. ft. For the purpose of this provision, fire walls shall not define separate buildings.

*Exceptions:*

1. Open parking garages in compliance with Section 406.3 of the International Building Code.
2. Type A-5.

*903.2.10.6.1 Modifications, repairs and additions to existing buildings.* An automatic sprinkler system shall be installed throughout in accordance with NFPA 13,13D or 13R as applicable and this code in all existing buildings that are:

1. Enlarged to be 5,000 sq. ft. or greater.
2. Greater than 5,000 sq. ft. and the square footage is increased.
3. The cumulative remodel of any building, over any period of time, from the adoption of this ordinance that is equal to or is greater than 5,000 square feet.

54. Section 903.3.1.1.1, is amended to read as follows:

*903.3.1.1.1 Exempt locations.* When approved by the code official, automatic sprinklers shall not be required in the following rooms or areas where such . . . {bulk of section unchanged} . . . because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.

55. Section 903.3.1.2, is amended to read as follows:

*903.3.1.2 NFPA 13R sprinkler systems.* Where allowed in buildings of Group R, up to and including four stories in height, automatic sprinklers shall be installed throughout in accordance with NFPA 13R. Sprinkler systems installed in accordance with 13R shall include sprinkler protection in combustible attics of buildings two (2) or more stories in height.

56. Section 903.3.5, is amended to add a second paragraph to read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor.

57. Section 903.3.7 is amended to read as follows:

*903.3.7 Fire Department Connections.* The location of fire department connections shall be approved by the fire code official and shall be remote from the building, placed adjacent to the primary fire lane access for the building served and signed in accordance with the Town of Little Elm Fire Marshal's Office Sign Specifications.

FDC shall be five-inch (5") Storz connection with a 30-45 degree down elbow with chained cap. Traditional 2-way Siamese connection with caps may be used when approved by the Fire Department.

Where the FDC is serving more than 500 GPM the building shall be provided with one 5-inch Storz connection and one 2-way Siamese connection.

58. Section 903.4, is amended to add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

59. Section 903.4.2, is amended to add a second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

60. The International Fire Code, 2006 edition, is amended to add sections 903.6.2 and 903.6.3 to read as follows:

*903.6.2 Spray booths and rooms.* New and existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 1504.

*903.6.3 Existing R-1 and 2 Occupancies.* In R1 and 2 Occupancies where a fire has occurred and displaces one or more occupants, the affected building shall be fire-sprinkled prior to re-occupancy of the unit/building.

61. The International Fire Code, 2006 edition, is amended to add section 903.7 to read as follows:

*903.7 Automatic Fire Sprinkler Control Room (Riser Rooms).* Riser rooms shall be used for the purpose of fire suppression, fire alarm and control systems only. The following are prohibited equipment and/or facilities in a riser room: mop sinks, roof access, electrical equipment and all storage.

Riser rooms shall be so constructed to a size that facilitates maintenance and fire operations can be performed.

Riser rooms shall be provided with an emergency light.

All Riser rooms shall be directly accessible from the exterior of the structure. All new and existing riser rooms shall be signed in accordance to the Fire Marshal's Office Sign Specification.

62. Section 904.11, is amended by the addition of the following sentence:

All new and existing automatic hood suppression systems shall use metal caps on nozzles that are located between the cooking surface and hood filters.

63. Section 905.2, is amended to read as follows:

*905.2 Installation standards.* Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

64. The International Fire Code, 2006 edition, is amended to add section 905.3.8 and exception to read as follows:

*905.3.8 Building area.* In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building's interior area is more than 200 feet (60,960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access.

*Exception:* Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

65. Section 905.4, item #5, is amended to read as follows:

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located either . . . {remainder of paragraph unchanged}.

66. Section 905.9, is amended to add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds and not more than 90 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

67. Section 906.1, is amended to delete the exception.

68. The International Fire Code, 2006 edition, is amended to add section 907.1.3 to read as follows:

*907.1.3 Design standards.* All alarm systems new or replacement serving 20 or more alarm actuating devices shall be addressable fire detection systems. Alarm systems serving more than 40 smoke detectors or more than 100 total alarm activating devices shall be analog intelligent addressable fire detection systems.

*Exception:* Existing systems need not comply unless the total building remodel or expansion initiated after the effective date of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

69. Section 907.2.1, is amended to read as follows:

*907.2.1 Group A.* A manual fire alarm system shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

70. Section 907.2.3, is amended to read as follows:

*907.2.3 Group E.* A manual fire alarm system shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' of open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

71. Section 907.2.3, is amended to change exception #1 and add exception #1.1 to read as follows:

1. Group E educational and day care occupancies with an occupant load of less than 50 when provided with an approved automatic sprinkler system.

1.1 Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)

72. Section 907.2.12, is amended to read as follows:

*907.2.12 High-rise buildings.* Buildings with any floor used for human occupancy located more than 55 feet (16,764 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communications system in accordance with Section 907.2.12.2.

73. Section 907.2.12, exception #3, is amended to read as follows:

3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code, when used for open air seating; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

74. Section 907.4, is amended to add a second paragraph to read as follows:

Manual alarm actuating devices shall be an approved double action type.

75. The International Fire Code, 2006 edition, is amended to add section 907.6.1 to read as follows:

*907.6.1 Installation.* All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All initiating circuit conductors shall be Class "A" wired with a minimum of six feet separation between supply and return circuit conductors. IDC - Class "A" Style D; SLC - Class "A" Style 6; NAC - Class "B" Style Y. The IDC from an addressable device used to monitor the status of a suppression system may be wired Class B, Style B provided the distance from the addressable device is within 10 feet of the suppression system device.

76. Section 907.9.2, is amended to read as follows:

*907.9.2 High-rise buildings.* In buildings that have any floor used for human occupancy that is located more than 55 feet (16,764 mm) above the lowest level . . . {remainder of section unchanged}.

77. Section 907.15 is amended to read as follows:

*907.15 Monitoring.* All fire alarms systems shall be monitored by an approved UL Central Station Monitoring company

78. Section 907 of the International Fire Code, 2006 Edition is amended to add Section 907.22 to read as follows:

*907.22 Password Protection Prohibited.* No fire alarm system shall be protected by a password or pin number that would hinder immediate silencing capabilities by the fire department.

79. Section 910.1, exception #4, is amended to read as follows:

4. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, only manual smoke and heat vents shall be required within these areas.

80. Section 910.2, is amended to add section 910.2.4 and exceptions to read as follows:

*910.2.4 Group H.* Buildings and portions thereof used as a Group H occupancy as follows:

In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1,394 m<sup>2</sup>) in single floor area.

*Exceptions:*

1. Buildings of noncombustible construction containing only noncombustible materials.
2. In areas of buildings in Group H used for storing Class 2, 3 and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.
3. Buildings of noncombustible construction containing only noncombustible materials.

81. Table 910.3, is amended to change the title of the first row of the table from "Group F-1 and S-1" to include "Group H" and to read as follows:

Group H, F-1 and S-1

82. Section 910.3.2.2, is amended to add a second paragraph to read as follows:

The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees (F) (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

83. Section 913.1, is amended to add a second paragraph and exception to read as follows:

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

*Exception:* When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required by Section 506.1.

84. Section 913.4 of the International Fire Code, 2006 edition is amended to add a second paragraph to read as follows:

The fire-pump system shall also be supervised for "loss of power," "phase reversal" and "pump running" conditions by supervisory signal on distinct circuits.

85. Section 1008.1.3.4, is amended to replace exception #3 to read as follows:

3. The doors shall be arranged to unlock by panic hardware.

86. Section 1008.1.3.4, is amended to add exception #7 to read as follows:

7. If a full building smoke detection system is not provided, approved smoke detectors shall be provided on both the access and egress sides of doors and in a location approved by the authority having jurisdiction of NFPA 72. Actuation of a smoke detector shall automatically unlock the door.

87. Section 1017.1, is amended to add an exception #5 to read as follows:

5. In Group B office buildings, corridor walls and ceilings need not be of fire-resistive construction within office spaces of a single tenant when the space is equipped with an approved automatic fire alarm system with corridor smoke detection. The actuation of any detector shall activate alarms audible in all areas served by the corridor. The smoke-detection system shall be connected to the building's fire alarm system where such a system is provided.

88. Section 1020.1.7, is amended to read as follows:

*1020.1.7 Smokeproof enclosures.* In buildings required to comply with Section 403 or 405 of the IBC, each of the exits of a building that serves stories where any floor surface is located more than 55 feet (16,764 mm) above the lowest level of fire . . . {remainder of section unchanged}.

89. Section 1028.2, is amended to read as follows:

*1028.2 Reliability.* Required exit accesses, exits or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. Security devices affecting means of egress shall be subject to approval of the fire code official.

90. Section 1504.4, is amended to read as follows:

*1504.4 Fire Protection.* New and existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system . . . [remainder of section unchanged].

91. Section 2204.1, is amended to read as follows:

*2204.1 Supervision of dispensing.* The dispensing of fuel at motor fuel-dispensing facilities shall be in accordance with the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2204.3.

At any time the qualified attendant of item #1 or #2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2204.3.

92. Section 2302, is amended to add a second paragraph to the definition of "High-Piled Combustible Storage" to read as follows:

Any building exceeding 5,000 sq.ft. that has a clear height in excess of 12 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage and shall comply with the provisions of this section. When a specific product cannot be identified, a fire protection system shall be installed as for Class IV commodities, to the maximum pile height.

93. Table 2306.2, is amended to replace text of "footnote j" to read as follows:

j. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, only manual smoke and heat vents shall be required within these areas.

94. Section 2703.1, is amended by adding section 2703.1.5 to read as follows:

*2703.1.5 Residential Occupancies.* Hazardous material storage prohibited in residential occupancies.

Exception: Quantities are permitted for the maintenance of pertinent equipment of systems for such uses and shall be in accordance with Chapter 27 of this code.

95. The International Fire Code, 2006 Edition, is amended to add section 2706 and section 2706.1 to read as follows:

*Section 2706 Hazardous materials route*

*2706.1 General.* Through vehicles carrying materials determined to be HAZARDOUS by the United States Department of Transportation are prohibited from transporting such materials over and upon the public streets and thoroughfares of the Town of Little Elm except upon a designated HAZARDOUS MATERIALS ROUTE.

96. Section 3301.1.3, is amended to read as follows:

*3301.1.3 Fireworks.* The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

97. Section 3301.1.3, is amended to read as follows:

*3301.1.3.1 Fireworks declared a Public Nuisance.* The presence or use of any fireworks within the jurisdiction of the Town of Little Elm in violation of this ordinance is hereby declared to be a misdemeanor as well as a common and public nuisance. The Fire Chief is authorized and directed to seize and immediately cause to be safely destroyed any firework found within the jurisdiction or extraterritorial jurisdiction of the Town of Little Elm in violation of this Ordinance. Any member of the Little Elm Fire Department or any Police Officer of the Town of Little Elm is empowered to stop the transportation of and detain any fireworks found being transported illegally or to close any building where any fireworks are found stored illegally until the fireworks can be safely destroyed.

*3301.1.3.2 Territorial applicability.* The restrictions of this Article shall be applicable and in force throughout the territory of the Town of Little Elm, Texas and extending for a distance outside the city limits for a total of 5,000 feet outside the city limits; provided that this Article will not be in effect within any portion of such 5,000 feet area which is contained within the territory of any other municipal corporation.

*3301.1.3.3 Fireworks displays.* The Fire Chief is authorized to adopt reasonable rules and regulations for the granting of permits for supervised public displays or fireworks by a jurisdiction, fair association, amusement park, other organizations, or for the use of fireworks by artisans in pursuit of their trade. Every such display shall be handled by a competent operator approved by the Fire Chief and shall be of such character and so located, discharged, or fired so as to not be hazardous to life and property. Applications for such permits shall be made in writing at least 10 days in advance of the display to the Fire Chief and shall be accompanied by a financial bond in amount sufficient to protect the permittee from damages to person or property arising from public display. Any fireworks that remain unfired after the display is concluded shall be immediately disposed of in a way safe for the particular type of fireworks remaining.

98. Section 3301.3, is amended to read as follows:

*3301.3 Prohibited explosives.* Storage of explosive material and blasting agents are prohibited within the incorporated limits of the Town of Little Elm, Texas.

99. Section 3302, is amended to change the definition of "fireworks" to read as follows:

*Fireworks.* Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration, detonation, and/or activated by ignition with a match or other heat producing device that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.

100. Section 3404.2.11.5, is amended to add a sentence to read as follows:

An approved method of secondary containment shall be provided for underground tank and piping systems.

101. Section 3404.2.11.5.2, is amended to read as follows:

*3404.2.11.5.2 Leak detection.* Underground storage tank systems . . . [bulk of provision unchanged] . . . and installed in accordance with NFPA 30 and as specified in Section 3404.2.11.5.3.

102. The International Fire Code, 2006 edition, is amended to add section 3404.2.11.5.3 to read as follows:

*3404.2.11.5.3 Dry sumps.* Approved sampling tubes of a minimum 6 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling sump at the corners of the excavation with a minimum of 4 sumps. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

103. Section 3404.3.4 #7, is amended to read as follows:

7. Group R occupancies: Quantities in Group R occupancies shall not exceed that necessary for maintenance purposes and operation of equipment and shall not exceed 20 U.S. Gallons.

104. Section 3406.5.4.5, is deleted and replaced with the following:

*3406.5.4.5 Commercial, industrial, governmental or manufacturing.* Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with Sections 3406.5.4.5.1 through 3406.5.4.5.3.

*3406.5.4.5.1 Site requirements.*

1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate:
  - a. All buildings, structures, and appurtenances on site and their use or function;
  - b. All uses adjacent to the property lines of the site;

- c. The locations of all storm drain openings, adjacent waterways or wetlands;
  - d. Information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and,
  - e. The scale of the site plan.
3. The Code Official is authorized to impose limits upon: the times and/or days during which mobile fueling operations are allowed to take place and specific locations on a site where fueling is permitted.
  4. Mobile fueling operations shall be conducted in areas not generally accessible to the public.
  5. Mobile fueling shall not take place within 15 feet (4.572 m) of buildings, property lines, or combustible storage.

*3406.5.4.5.2 Refueling Operator Requirements.*

1. The owner of a mobile fueling operation shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.
3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.
5. The dispensing nozzles and hoses shall be of an approved and listed type.
6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48m) in length.
7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, an approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.
8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1893 L) between resettings of the limit switch.

*Exception:* Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.

9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the Code Official upon request.

10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

*3406.5.4.5.3 Operational Requirements.*

1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.
2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.
3. The engines of vehicles being fueled shall be shut off during dispensing operations.
4. Nighttime fueling operations shall only take place in adequately lighted areas.
5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.
6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.
7. Motor vehicle fuel tanks shall not be topped off.
8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.
9. The Code Official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

105. The International Fire Code, 2006 edition, is amended to add section 3803.2.1.8 to read as follows:

*3803.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies.* Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

106. Section 3804.2, is amended to read as follows:

*3804.2 Maximum capacity within established limits.* Above ground and underground storage of LP gas is prohibited within each and every zoning district within the Town of Little Elm. Installation of above ground and underground tanks shall be permitted at the discretion of the Fire Chief following his review of the proposed installation location, and the fire protection for the storage area. Storage shall not be located within one hundred feet (100') of the property line of E, A, I or R occupancies.

107. Section 3804.3 of International Fire Code, 2006 edition, is amended by the adding Section 3804.3.2 to read as follows:

*3804.3.2 Spa, pool heaters and other listed devices.* Where natural gas service is not available, LP-Gas containers are allowed to be used to supply spa and pool heaters or other listed devices. A permit is required for this use as required by this code. Such containers shall not exceed 250-gallon water capacity. See Table 3804.3 for location of containers.