

# **City of Plano**



## **Fire - Rescue**

January 2015  
Site Development Guidelines

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# Site Development Guidelines For Plano Fire Rescue

Development Guidelines are provided based on the 2012 International Fire Code, Local Amendments, and Planning Department Regulation as of November, 2012.

For additional information see our web site at [www.planofire.org](http://www.planofire.org)

## **Commercial Development Guidelines**

### **FIRE LANE COVERAGE**

- 150' coverage along all exterior walls must be provided from a Fire Lane or street, measured from the curb or edge of the Fire Department Access. Dead ends are not allowed
- 10' wide flat path around external walls of the building shall be provided for the 150' coverage requirement. 5' path between cars or through gates is allowed.
- 24' Minimum width is required.
- 20' Minimum Radii is required.
- 14' minimum clear height over fire lanes is required.
- All fire lanes within 60 feet of the building shall be concrete. All others to be concrete or asphalt per local amendments.
- 600' maximum Cul-de-sac length (center to center) is allowed.
- 1200' maximum block length (center to center) for two points of access.
- 140' separation between the two points of access shall be provided.

### **FIRE HYDRANTS**

- 500' spacing along fire lanes for fire sprinkled buildings.
- 300' spacing along fire lanes for non-fire sprinkled buildings.

- 2 fire hydrants minimum serving each property.
- Hydrant to be located 4 to 7 feet behind curb.
- Hydrant shall not be located in the fire lane radii
- Avoid collapse zone locations (50' or height +10')
- Minimum 3' clearance around hydrant but typically 5' needed to stay out of easement.
- 8" looped main needed for more than 2 hydrants.
- 8" single feed allowed for up to 2 fire hydrants.
- 6" single feed allowed for 1 hydrant if line length is 50' or less

**FIRE SPRINKLERS REQUIRED IN THE FOLLOWING CIRCUMSTANCES:**

- As required by the 2012 International Fire Code and local amendments.
- Throughout all buildings 6,000 sq. ft. or greater.
- Throughout all existing buildings with new additions when the total new and existing area is 6,000 sq. ft. or greater.
- All self-service storage facilities
- All I Occupancies
- All H Occupancies
- A-1, A-3, A-4 Occupancies:
  - 6,000 sq. ft. or greater, or
  - occupant load of 300 or more, or
  - fire area above or below level of exit discharge, or
  - contains a multi-theater complex.
- A-2 Occupancies: Includes: Restaurants, Bars, Night Clubs, Banquet Halls, Taverns
  - 5,000 sq. ft. or greater, or
  - over 100 occupant load, or
  - fire area above or level of exit discharge.
- All Multifamily R Occupancies
  - Attic protection required for greater than 1 story Multifamily R Occupancies
- Buildings where highest floor level is 35' or more above Fire Department Access.

- Woodworking occupancies over 2500 sq. ft.
- High Piles storage over 500 sq. ft. (12' storage height)

### **FIRE SPRINKLER SUPPLY PIPING**

- To be sized and installed by state licensed sprinkler contractor.
- Maximum one underground sprinkler supply per building.
- Must come from looped city water main with valve separation from adjacent fire hydrants.

### **PROPANE TANKS – COMMERCIAL**

- All propane storage tank installations must meet NFPA 58 requirements.
- Distance to buildings, public ways, lot lines of adjoining property that can be built upon:
  - 125gallon = 5',
  - 126-500 gallons = 10',
  - 501-2000 gallons = 25'
- 10' minimum from ignition sources
- Guidelines:
  - Maximum of 2,000 gallons
  - Minimum of 100' from property line of E, I or R
  - Off-street/fire lane loading space
- See Flammable Liquids and LPG Guidelines book for submittal to Fire Marshal's Office.

### **UNDERGROUND STORAGE TANKS**

- Requires off-street / fire lane loading space for fuel truck to park.
- Must be designed to meet 2012 International Fire Code for distances to property lines, buildings, etc.
- Tanks shall not be located in the fire lane or other easements.
- See Flammable Liquids and LPG Guidelines Book for submittal to Fire Marshal's Office.

## **ABOVE GROUND STORAGE TANKS**

- Only allowed in Light Industrial Zoning Districts (except by policy)
- Must be designed to meet 2012 International Fire Code for distances to property lines, buildings, etc.
- Requires off-street / fire lane loading space for fuel truck to park.
- Tanks shall not be located in the fire lane or other easements.
- Policy above ground storage tanks in in other than light industrial zoning
  - 0-250 gallons in UL 142 Double Wall located a minimum of 100 feet from property lines of E, I, R Occupancies
  - 250-2000 gallons in UL 2085 Double Wall located a minimum of 100 feet from property lines of E, I, R Occupancies
  - 2000-3000 gallons UL 2085 Double Wall located a minimum of 200 feet from property lines of E, I R Occupancies
  - Policy applies in CC, RE, LC, CE, RC Zoning (Not residential)
- See Flammable Liquids and LPG Guidelines Book for submittal to Fire Marshal's Office.

## **GATES AND FENCES**

- Gates across fire lanes must provide full fire lane width and have Fire Department approved Knox access
- Gates through fences must be located to maintain 150' fire lane coverage on the building and be a minimum of 5' wide
- Automatic gates at Multi Family Residential shall have Opticom entry system, be Fail Safe, and have a Knox electronic key switch.
- Automatic gates at commercial buildings shall be fail safe and have Knox key switch access.
- Manual Gates may have Knox Padlock.

## **Single Family Dwelling Development Guidelines**

### **FIRE DEPARTMENT ACCESS**

- 600' maximum Cul-de-sac length
- Meet City of Plano Street Standards
- 14' minimum height clearance
- Two points of access a minimum of 140' separation
- 1200' maximum block length

### **FIRE HYDRANTS**

- 600' spacing along Fire Department Access for developments with fire sprinkler protection
- 500' spacing along Fire Department Access for developments without fire sprinklers
- Hydrant to be located 4 to 7 feet behind curb.
- Hydrant shall not be located in the fire lane radii
- Avoid collapse zone locations (50' or height +10')
- Minimum 3' clearance around hydrant but typically 5' needed to stay out of easement.
- 8" looped main needed for more than 2 hydrants.
- 8" single feed allowed for up to 2 fire hydrants.
- 6" single feed allowed for 1 hydrant if line length is 50' or less
- Hydrant shall not be located in the fire lane radii

**FIRE SPRINKLERS REQUIRED IN THE FOLLOWING CIRCUMSTANCES:**

- As required by the 2012 International Residential Code, 2012 International Fire Code, and local amendments.
- Throughout all single family homes 6,000 sq. ft. or greater.

**FIRE DEPARTMENT ACCESS GATES**

- Gates across public streets or fire lanes shall have Fire Department approved access.
- Gates must provide full lane width and have Fire Department approved Knox access.
- Automatic gates shall have Opticom entry system, be Fail Safe, and have a Knox electronic key switch.
- Manual Gates may have Knox Padlock.

## **MULTI FAMILY & SINGLE FAMILY ATTACHED GUIDELINES**

### **FIRE LANE COVERAGE**

- 150' coverage along all exterior walls must be provided from a Fire Lane or street, measured from the curb or edge of the Fire Department Access. Dead ends are not allowed
- 10' wide flat path around external walls of the building shall be provided for the 150' coverage requirement. 5' path between cars or through gates is allowed.
- 24' Minimum width is required.
- 20' Minimum Radii is required.
- 14' minimum clear height over fire lanes is required.
- All fire lanes within 60 feet of the building shall be concrete. All others to be concrete or asphalt per local amendments.
- 600' maximum Cul-de-sac length (center to center) is allowed.
- 1200' maximum block length (center to center) for two points of access.
- 140' separation between the two points of access shall be provided.

### **FIRE HYDRANTS**

- 400' spacing along fire lanes for fire sprinkled buildings.
- 300' spacing along fire lanes for non-fire sprinkled buildings.
- 2 fire hydrants minimum serving each property.
- Hydrant to be located 4 to 7 feet behind curb.
- Hydrant shall not be located in the fire lane radii
- Avoid collapse zone locations (50' or height +10')
- Minimum 3' clearance around hydrant but typically 5' needed to stay out of easement.
- 8" looped main needed for more than 2 hydrants.
- 8" single feed allowed for up to 2 fire hydrants.

- 6" single feed allowed for 1 hydrant if line length is 50' or less

#### **FIRE SPRINKLERS REQUIRED IN THE FOLLOWING CIRCUMSTANCES:**

- As required by the 2012 International Fire Code and local amendments.
- Throughout all buildings 6,000 sq. ft. or greater.
- Throughout all existing buildings with new additions when the total new and existing area is 6,000 sq. ft. or greater.
- All Multifamily R Occupancies
  - Attic protection required for greater than 1 story Multifamily R Occupancies
- Buildings where highest floor level is 35' or more above Fire Department Access.

#### **FIRE SPRINKLER SUPPLY PIPING**

- To be sized and installed by state licensed sprinkler contractor.
- Maximum one underground sprinkler supply per building. Single family attached may have one underground per unit if NFPA 13D systems are being installed in each unit.
- Must come from looped city water main with valve separation from adjacent fire hydrants.

#### **GATES AND FENCES**

- Gates across fire lanes must provide full fire lane width and have Fire Department approved Knox access
- Gates through fences must be located to maintain 150' fire lane coverage on the building and be a minimum of 5' wide
- Automatic gates at Multi Family Residential shall have Opticom entry system, be Fail Safe, and have a Knox electronic key switch.
- Automatic gates at commercial buildings shall be fail safe and have Knox key switch access.
- Manual Gates may have Knox Padlock.