
Section 5.16 Fire Protection

A. *General Provisions.*

1. The Fire Marshal of the City of Keller will review all plans and specifications of all proposed commercial and residential development in the City and will determine whether or not adequate fire protection may be afforded the building or buildings situated or proposed to be situated on such property with existing or proposed fire hydrants, water lines **and fire lanes**.
2. If, in the opinion of the Fire Chief, adequate fire protection requires additional fire hydrants and water lines to serve proposed developments, they will direct the owner of the property, in writing, to locate at pre-designated positions on the property a fire hydrant or hydrants and adequate water lines to provide adequate fire protection at the owner's expense. The location and number of fire hydrants and water lines shall be situated as to afford adequate fire protection to all buildings located or proposed to be located on the property. Such installation to be completed in such reasonable period of time as the Fire Chief may direct.

B. *Fire Hydrant Location and Coverage Requirements.*

1. *Commercial and Industrial Areas.*

- a. Fire hydrants shall be located no more than a five hundred foot (500') truck hose lay distance to all points of any structure or combustible storage area on the lot.
- b. Fire hydrants located on the opposite side of a street, designated as four lanes or larger on the current City Thoroughfare Plan, shall not be considered acceptable for meeting hydrant coverage requirements.
- c. Fire hydrants shall be positioned to allow truck hose lays to follow normal traffic access to the site.
- d. Fire hydrants shall be spaced at no more than three hundred feet (300') intervals.

2. *Residential Areas.*

- a. Fire hydrants shall be placed on block corners or near the center of the block to place every structure within a five hundred foot (500') truck hose lay distance from fire hydrant coverage.
- b. Fire hydrants located on the opposite side of a street, designated as four lanes or larger on the current City Thoroughfare Plan, shall not be considered acceptable for meeting hydrant coverage requirements.
- c. Fire hydrants shall be positioned to allow truck hose lays to follow normal traffic access to the site.
- d. Fire hydrants shall be spaced at no more than five hundred feet (500') intervals.

C. *Fire Hydrants Specifications.* All fire hydrants must meet required City of Keller Standard Fire Hydrant Specifications.

1. All fire hydrants shall have one (1) 5" Hydra-Storz pumper connection and two (2) 2.5" hose outlets with the National Standard hose threads; shall have a main barrel valve opening of not less than 5.25"; shall be placed on mains of not less than six inches (6") in diameter. Six-inch (6") gate valves shall be placed on all fire hydrant leads. All fire hydrants shall have a valve at the main with flange-to-flange fittings.
2. All fire hydrants shall be of a "break-away" design in accordance with City of Keller Standard Fire Hydrant Specifications.

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3. Each hydrant shall have a minimum of two primer coats. The final coat of paint on the body of all hydrants shall be a silver color of an approved aluminum paint.
- D. *Fire Protection Distribution Systems.* Water distribution systems shall be of sufficient size to provide adequate water for fire protection to the development and shall conform to the City's Master Water Distribution Plan.
1. *Residential Areas.*
 - a. *Sizes and Allowable Dead End Lengths.* In residential areas the minimum water line size shall be eight inches (8"). Dead end lines over three hundred feet (300') and up to six hundred feet (600') in length shall be ten inches (10") minimum. Dead end lines over six hundred feet (600') in length will not be allowed. Dead end lines shall terminate at a fire hydrant that shall be installed for maintenance purposes and may not necessarily be considered for fire hydrant density as required. Flush hydrants may be installed in lieu of hydrants at terminating points of dead end lines for maintenance purposes only.
 - b. *Valves.* Additional isolation valves may be required to be installed depending upon the configuration of the system as determined by the City.
 - c. *Construction Standards.* All water line construction shall conform to construction standards located in Design Standards and Technical Construction Standards of this UDC.
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 - b. *Valves.* Additional isolation valves may be required to be installed depending upon the configuration of the system as determined by the City.
 - c. *Construction Standards.* All water line construction shall conform to construction standards located in Design Standards and Technical Construction Standards of this UDC.
- E. ***Fire Lanes.* All new fire lanes shall be constructed in accordance with the specifications as set forth in the Design Standards and Technical Construction Standards of this UDC (§ 5.24 (A) (2) (b) (2) (g)). Existing pavement and sub-grade proposed for fire lane use shall be tested by an accredited laboratory to ensure the performance specifications are met as set forth in the Design Standards and Technical Construction Standards of this UDC.**