

## **Fire prevention and codes for Development plans and Subdivisions:**

City Code of Ordinances: CHAPTER 93: FIRE PREVENTION - FIRE CODE ( see full chapter for other applicable sections)

§ 93.35 ACCESS ROADWAYS FOR FIRE APPARATUS. (A) (1) Access roadways for fire apparatus shall be provided to all premises upon which buildings or portions of buildings are hereafter constructed by way of access roadways with all-weather driving surface of not less than 20 feet of unobstructed width, with adequate roadway turning radius capable of supporting the imposed loads of fire apparatus and having a minimum of 13 feet, six inches of vertical clearance. (2) Fire lanes shall be provided for all buildings that are set back more than 150 feet from a public road or exceed 30 feet in height and are set back over 50 feet from a public road. (3) Dead-end Fire Department access roads in excess of 150 feet long shall be provided with approved provisions for the turning around of fire apparatus. (B) During periods of utility work or street and roadway construction or repairs, access of one lane of travel with a minimum of ten feet shall be maintained to provide access for fire apparatus to all areas upon which buildings or portions of buildings are hereafter constructed. (C) Fire lanes shall be marked with free standing signs and marked curbs, sidewalks or other traffic surfaces that have the words “fire lane - no parking” painted in contrasting colors at a size and spacing approved by the Fire Department.

§ 93.36 OBSTRUCTION OF FIRE PROTECTION EQUIPMENT. (A) No person shall place or keep any post, fence, vehicle, growth, trash or storage or other material or thing near any fire hydrant, Fire Department connection or fire protection control valve that would prevent the equipment or hydrant from being immediately discernable or in any other manner deter or hinder the Fire Department from gaining immediate access to the equipment or hydrant. (B) A minimum three-foot clear space shall be maintained around the circumference of the fire hydrants, except as otherwise required or approved by the Fire Chief.

§ 93.38 APPROVAL AND TESTING. All fire systems, fire hydrants and other fire protection systems and appurtenances there to shall meet the approval of the authority having jurisdiction as to the installation, location and testing as required in N.F.P.A. 13, 13A, 13D, 13E, 13R and the State Building Code and the applicable National Fire Codes and Standards.

§ 93.39 TIMING OF INSTALLATION. When fire hydrants and other fire protective systems are to be installed by the developer, the facilities including all surface roads shall be installed and made serviceable prior to construction beyond the foundation stage. All surface roads shall meet the dense grade specification of the City Engineer.

§ 93.40 PRIVATE FIRE PROTECTION SYSTEMS. (A) (1) Private fire protection systems consist of automatic sprinklers, hose standpipes, hydrants or a combination of these. (2) The cost of installation, maintenance and periodic inspection and repair cost shall be borne by the property owner as outlined in N.F.P.A. 291. (B) Whenever buildings are constructed, added to or located in a manner where access to a public fire hydrant is minimal or of a distance such that firefighting operations would be impaired, the Fire Chief may require the provisions of a water supply system (public or private) installed in accordance with the provisions of N.F.P.A. 24. All costs for the installation shall be borne by the property owner.

§ 93.41 COLOR OF PRIVATE HYDRANTS. All private hydrants, when in public streets, shall be painted entirely red to distinguish them from public hydrants (N.F.P.A. 291).

§ 93.42 WATER SUPPLIES. (A) Water supplies capable of supplying required fire flows or established by the Plant Board Engineering Division shall be provided to all premises upon which building or portions of building are hereafter constructed. (B) All premises which the fire department may be called upon to protect from fire or provide emergency medical services shall be provided suitable access as required in N.F.P.A. 1997 or current edition, as adopted by the commonwealth.

§ 93.43 WATER MAINS. (A) Water mains shall be not less than six inches in diameter, including fire hydrant branch connections for low-density residential properties (for example, one- to two-family residences). (B) Main sizes for high value commercial and high-density residential properties shall be established on the basis of the type, size, occupancy and exposures of the building(s), based upon sound engineering judgment. But in no case shall any main be less than six inches in diameter. All installations of water mains must be in compliance with the regulations of the Frankfort Plant Board.

§ 93.44 WATER MAIN; INTERSECTIONS. Water mains shall be arranged so that the distance between intersecting mains does not exceed 800 feet. When intersecting mains are a distance in excess of 800 feet, the size of the main shall be eight inches or larger as determined by sound engineering judgment.

§ 93.45 WATER MAIN; SIZES. A minimum of eight-inch mains shall be used where dead end and poor circulation grid-ironing is likely to exist for a considerable period of time or where the layout of the streets and topographical characteristics are not well adapted to a circulating system.

§ 93.46 DISTRIBUTION SYSTEMS. Distribution systems shall be equipped with a sufficient number of valves, so located that breakage will not cause the shutdown of any portion of a main greater than 800 feet.

§ 93.47 FIRE HYDRANTS. (A) The location, number and type of fire hydrants connected to the Water Plant Board service shall meet the required design of the Water Plant Board Engineering Division. (B) All hydrants shall be accessible to the Fire Department and located by the authority having jurisdiction. (1) Flow requirements. All hydrants installed shall be capable of delivering the necessary fire flow for protecting the zone-approved occupancies. The Water Plant Board Engineering Division shall be responsible for those determinations based on pertinent data. (2) Outlets. All fire hydrants shall be equipped with two two and one-half inch outlets and one four and one-half inch main steamer or pumper outlet. Installation shall be in a manner so that the four and one-half inch outlet will be at least 18 inches above the final pavement level or ground. (3) Gate valves. All fire hydrant installations must be accompanied by the installation of an approved gate valve between the hydrant connection and the street main. (4) Spacing. Hydrant spacing shall be determined by the fire flow demand established by engineering studies and based on upon the size and type of occupancy and exposure of structures. (5) Distance between hydrants and buildings. All fire hydrants shall be placed at approximately 50 feet from the exterior wall of any building to be protected. When the placement is impossible, hydrants shall be placed where the chance of injury by falling walls is minimized and where firefighters are not likely to be driven away by smoke or heat. Height of building shall be considered for minimum distance when the 50-foot distance is not possible. (6) Hydrant distances from Fire Department connections. Hydrants shall be located within 50 feet of pumper vaults and standpipe and/or sprinkler connections unless otherwise approved by the Fire Department. (7) Required protection for hydrants. Hydrants that must be installed in areas subject to heavy traffic shall be protected against damage for collision.

§ 93.48 HIGH-DENSITY RESIDENTIAL & COMMERCIAL. High-density residential, three units and above, and commercial property shall have hydrants located as to keep hose lines at a maximum of 500 feet. At a minimum, there shall be enough hydrants so spaced to make two streams available, capable of providing a flow of 500 gallons per minute, each line, at every part of the interior and exterior of each building not covered by standpipe protection.

§ 93.49 LOW-DENSITY RESIDENTIAL. For low-density residential areas (one- and two-family development), hydrant spacing shall not exceed 800 feet between hydrants. In high-density residential and commercial developments, hydrant spacing shall not exceed 500 feet between hydrants, nor shall any portion of a building be farther than 500 feet from a hydrant installed to protect it.

§ 93.50 FIRE HYDRANT INSTALLATIONS. Fire hydrants shall be located as close to a street intersection as possible with intermediate hydrants along the street or on the site of the premises so as to meet area requirements. Hydrants should be located between 7 to 12 feet from the road right-of-way

§ 93.51 HYDRANT MEASUREMENTS. Measurements for distances shall be made along all-weather hard surface road (never measured through or across yards, fields, woods, creeks, major thoroughfares or other avenues not accessible to fire apparatus) for laying hose lines.

§ 93.52 NAMING AND NUMBERING OF STREETS AND PROPERTIES. (A) The Planning and Building Codes Department shall be furnished a list of all proposed street names and numbers for purposes of review and approval to avoid conflict with existing named streets and for informational use. (B) Each structure and each unit of a multi-tenant structure to which a street number has been assigned shall have such number displayed in a position easily observed from the public right-of-way. Numbers shall contrast with their background so as to be easily distinguished. All numbers shall be in Arabic numbers at least three inches high and ½ inch stroke.

§ 93.53 APPLICABILITY. This subchapter shall be applicable to all properties within the city limits and to all development within five miles of the city limits and which is served by the Electric and Water Plant Board and all industrial and major commercial development to which the Fire Department provides initial fire response.