City of Las Cruces®

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Council Action and Executive Summary

Item # 8 Ordinance/Resolution# 2668

For Meeting of September 17, 2012 (Ordinance First Reading Date) For Meeting of October 1, 2012 (Adoption Date)

Please check box that applies to this item:

☐ QUASI JUDICIAL ☒ LEGISLATIVE ☐ ADMINISTRATIVE

TITLE: AN ORDINANCE AMENDING ARTICLE II, FIRE PREVENTION CODE, OF CHAPTER 11, FIRE PREVENTION AND PROTECTION, OF THE LAS CRUCES MUNICIPAL CODE (LCMC) BY ENACTING THE 2009 EDITION OF THE INTERNATIONAL FIRE CODE AS AMENDED WITH CERTAIN RELATED APPENDICES AND REPEALING THE ADOPTED 2006 EDITION OF THE INTERNATIONAL FIRE CODE.

PURPOSE(S) OF ACTION:

To adopt the 2009 International Fire Code.

COUNCIL DISTRICT: ALL		
Drafter/Staff Contact: Ted Sweetser	Department/Section: Fire	Phone: 528-4150
City Manager Signature:		

BACKGROUND / KEY ISSUES / CONTRIBUTING FACTORS:

The City of Las Cruces has been utilizing the 2006 edition of the International Fire Code (IFC) to govern conditions hazardous to life and property. The International Code Council (ICC) promulgates the IFC and prints a new version every three (3) years. The new edition is revised through code change hearings to keep code provisions updated and current.

The IFC is one of several codes in the international family of codes. It is designed to be the companion document for the International Building Code (IBC) as well as the remainder of the International Codes in publication. The Community Development Department is also recommending adoption of the 2009 edition of the IBC. The adoption of the 2009 IFC would provide consistency between building code and fire code requirements within our jurisdiction.

Most of the amendments are consistent with those currently in effect. They are being carried over into the new Ordinance to provide consistency within the community.

(Continue on additional sheets as required)

SUPPORT INFORMATION:

1. Ordinance.
2. Exhibit "A", Proposed Amendments.
3. Exhibit "B", Current Ordinance with recommended new language.

SOURCE OF FUNDING:

Is this action already budgeted?			
	Yes	☐	See fund summary below
	No	☐	If No, then check one below:
N/A	*Budget Adjustment Attached*	☐	Expense reallocated from: _____
		☐	Proposed funding is from a new revenue source (i.e. grant; see details below)
		☐	Proposed funding is from fund balance in the Fund.
Does this action create any revenue?			
	Yes	☐	Funds will be deposited into this fund: in the amount of $_____ for FY__.
N/A	No	☐	There is no new revenue generated by this action.

BUDGET NARRATIVE

N/A

FUND EXPENDITURE SUMMARY:

Fund Name(s)	Account Number(s)	Expenditure Proposed	Available Budgeted Funds in Current FY	Remaining Funds	Purpose for Remaining Funds
N/A	N/A	N/A	N/A	N/A	N/A

OPTIONS / ALTERNATIVES:

1. Vote "Yes"; this action will enact the 2009 edition of the International Fire Code as amended, and repeal the current 2006 edition of the International Fire Code.
2. Vote "No"; this action will not enact the 2009 edition of the International Fire Code as amended, and will maintain the 2006 edition of the International Fire Code.
3. Vote to "Amend"; this could change the Ordinance based on City Council direction.
4. Vote to "Table"; this could delay taking any action until a further date.

(Continue on additional sheets as required)

REFERENCE INFORMATION:

The resolution(s) and/or ordinance(s) listed below are only for reference and are not included as attachments or exhibits.

N/A

(Continue on additional sheets as required)

COUNCIL BILL NO. 13-013
ORDINANCE NO. 2668

AN ORDINANCE AMENDING ARTICLE II, FIRE PREVENTION CODE, OF CHAPTER 11, FIRE PREVENTION AND PROTECTION, OF THE LAS CRUCES MUNICIPAL CODE (LCMC) BY ENACTING THE 2009 EDITION OF THE INTERNATIONAL FIRE CODE AS AMENDED WITH CERTAIN RELATED APPENDICES AND REPEALING THE 2006 EDITION OF THE INTERNATIONAL FIRE CODE.

The City Council is informed that:

WHEREAS, the City of Las Cruces recognizes the need to have regulations governing conditions hazardous to life and property from fire, hazardous materials or explosion; and

WHEREAS, the 2006 International Fire Code currently in adoption within the City of Las Cruces has been updated into the 2009 edition of the International Fire Code; and

WHEREAS, the 2009 International Fire Code will provide consistency with the building code adopted within the City of Las Cruces; and

WHEREAS, it is in the public interest for the City Council to repeal the 2006 edition of the International Fire Code and enact the 2009 edition of the International Fire Code along with the specific appendices and amendments shown in Exhibit "A".

NOW, THEREFORE, be it ordained by the governing body of the City of Las Cruces:

(I)

THAT the Las Cruces City Council hereby repeals the 2006 edition of the International Fire Code and related appendices.

(II)

THAT the 2009 edition of the International Fire Code along with specific appendices and amendments shown in Exhibit "A" and attached hereto and made a part of this Ordinance is hereby enacted.

(III)

THAT City staff is hereby authorized to do all deeds necessary in the accomplishment of the herein above.

DONE AND APPROVED this _____ day of _____, 20_____.

APPROVED:

_____
Mayor

ATTEST:

_____
City Clerk

(SEAL)

VOTE:
Mayor Miyagishima: _____
Councillor Silva: _____
Councillor Smith: _____
Councillor Pedroza: _____
Councillor Small: _____
Councillor Sorg: _____
Councillor Thomas: _____

Moved by: _____

Seconded by: _____

APPROVED AS TO FORM:

_____
City Attorney

Chapter 11 FIRE PREVENTION AND PROTECTION*

ARTICLE II. FIRE PREVENTION CODE*

DIVISION 1. GENERALLY

Sec. 11-26. Adopted.

(a) The Las Cruces Fire Department is established for the purpose of protecting the health, safety and welfare of the citizens of Las Cruces by responding to fires, emergency medical calls, release of hazardous materials and other emergency and non-emergency incidents within the incorporated city limits. The Las Cruces Fire Department is further charged with preventing conditions hazardous to life and property from fire, hazardous materials or explosion through the adoption of that certain code known as the International Fire Code, 2009 edition, including the following appendix chapters:

(1) Appendix B, Fire-flow requirements for buildings

(2) Appendix C, Fire hydrant locations and distribution

(3) Appendix D, Fire apparatus access roads

(4) Appendix I, Fire Protection Systems

(5) Appendix J, Emergency Responder Radio Coverage

(b) The International Fire Code mentioned in subsection (a) of this section is adopted, save and except such portions as are deleted, modified or amended by section 11-33 and divisions 2 and 3 of this article. One copy of the code is filed in the office of the city clerk. The International Fire Code is adopted and incorporated as fully as if set out at length in this section, and the provisions thereof shall be controlling within the city limits.

(Code 1988, § 14-16; Ord. No. 1796, § I, 5-1-00)

Charter reference(s)--Code of technical regulations, § 2.12.

Sec. 11-27. Establishment and duties of fire prevention services.

The fire code as adopted in section 11-26 and as amended in this article shall be enforced by the fire prevention services in the fire and emergency services division of the city, which is established and which shall be operated under the supervision of the fire marshal.

(Code 1988, § 14-17)

Sec. 11-28. Definitions.

The following definitions shall be added to the fire code adopted in section 11-26:

Fire marshal is the chief of the fire prevention services; interchangeable with the term fire code official under this code.

Jurisdiction: This code shall be applicable to all property within the corporate limits of the City of Las Cruces, New Mexico.

(Code 1988, § 14-18)

Cross reference(s)--Definitions generally, § 1-2.

Sec. 11-29. Establishment of limits of districts in which storage of flammable or combustible liquids in outside aboveground tanks prohibited.

The limits referred to in sections 3404.2.9.5.1 and 3406.2.4.4 of the fire code adopted in section 11-26, in which the storage of flammable or combustible liquids is restricted, is established as and shall be in accordance with the city's zoning code in chapter 38.

(Code 1988, § 14-19)

Sec. 11-30. Establishments of limits in which storage of liquefied petroleum gases prohibited.

The limits referred to in section 3804.2 of the fire code adopted in section 11-26, in which storage and use of liquefied petroleum gas is restricted, are established and

shall be in accordance with the city's zoning code in chapter 38. The aggregate capacity of any one installation shall not exceed a 2,000-gallon water capacity in residential areas. Exception is a multi-container location such as a dispensing station, and bulk facilities.

(Code 1988, § 14-20)

Sec. 11-31. Establishment of limits of districts in which storage of flammable cryogenic fluids in stationary containers prohibited.

The limits referred to in section 3204.3.1.1 of the fire code adopted in section 11-26, in which storage of flammable cryogenic fluids in stationary containers is prohibited, shall be in accordance with the city's zoning code in chapter 38.

(Code 1988, § 14-21)

Sec. 11-33. Amendments.

The fire code adopted in section 11-26 is amended as set forth in this section. When an existing section number of the fire code is referred to in this section, the text in this section shall control. When a new section or subsection is referred to in this section it shall be added to the fire code as adopted. The fire code is amended and changed as follows:

Chapter 1 Scope and Administration.

Section 101.1 Title shall be amended to read as follows:

> These regulations shall be known as the Fire Code of the City of Las Cruces, hereinafter referred to as "this code"

Section 104.6 Official records shall be amended to read as follows:

> The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such records shall be retained in accordance with the record retention requirements established by the City of Las Cruces and State of New Mexico.

Section 104.10.2 Fire prevention personnel and police authority is added to read as follows:

A. Members of the fire prevention services shall have the powers of a police officer in performing their duties under this code when:

1. Such members of the fire prevention services have been certified by a law enforcement academy authorized by the State of New Mexico and;

2. Such members have been commissioned as police officers by the City of Las Cruces.

B. Members of the fire prevention services who meet the requirement stated in paragraphs (1) and (2) of subpart A of this section shall have the following powers:

1. Powers of arrest for criminal matters;

2. Authority to carry such weapons and utilize such equipment necessary in the discharge of their duties pursuant to this code;

3. Authority to investigate arson and related crimes if so appointed and authorized by the Las Cruces police chief.

C. All other members of the fire department who do not meet the requirements of subpart A of this section shall have the power to issue citations only for violations of this code and Chapter 11 of the Las Cruces Municipal Code.

Section 104.11.2 Obstructing operations shall be amended to read as follows:

No person shall obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, non-emergency incidents or training, or disobey any lawful command of the fire chief or member of the fire department or any lawful order of a police officer assisting the fire department.

Section 105.1 General shall be amended to read as follows:

Permits required by the fire code official shall be in accordance with section 105.

Exception: Permits issued by the City of Las Cruces Community Development Department

Section 105.4 Construction documents shall be amended to read as follows:

Construction documents shall be in accordance with this section and requirements established by the City of Las Cruces Community Development Department.

Section 105.7 Required construction permits shall be amended to read as follows:

The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.14. Such permits shall be processed through the City of Las Cruces Community Development Department and shall be in conformance with the requirements established by this code and the Community Development Department.

Section 105.7.1.1 Design Safety Margin shall be added to read as follows:

Unless otherwise approved by the Fire Code Official all automatic sprinkler systems shall be designed with a minimum 10 psi safety margin.

Section 105.7.1.2 Hydraulic calculations required shall be added to read as follows:

When required by the Fire Code Official, hydraulic calculations shall be provided for modification to an existing automatic fire-extinguishing system requiring the installation of additional heads when either of the following occur:

1. Number of heads being added exceeds 10.
2. Number of heads being added is greater than 10 percent of total heads for the system.

The fire code official may require hydraulic calculations be submitted for any modification to an existing system when deemed necessary to adequately evaluate the impact on the system.

Section 108.1 Board of appeals established shall be amended to read as follows:

Whenever the Fire Chief disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code do not apply or that the true intent and meaning of the code have been misconstrued or wrongly interpreted, applicant may appeal from the decision to city council by writing to the fire chief requesting an appeal within 30 days of the aggrieved action.

Section 108.2 Limitations on authority shall be deleted in its entirety.

Section 108.3 Qualifications shall be deleted in its entirety.

Section 109.3 Violation penalties shall be amended to read as follows:

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation for the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than 500 dollars or by imprisonment not exceeding 179 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 111.4 Failure to comply shall be amended to read as follows:

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be considered to

be in violation of this code and shall be subject to the penalties as set forth in Section 109.3.

Chapter 4 Emergency Planning and Preparedness

Table 405.2 Fire and evacuation drill frequency and participation shall be amended as follows:

Group H occupancies shall be included with Group A occupancies in the table

Chapter 5 Fire Service Features

Section 505.1 Address numbers shall be amended to read as follows:

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 contrast with their background. Numbers shall be not less than two inches in width and three inches in height. Address identification shall also conform to Section 30-1 of the Las Cruces Municipal Code.

Section 507.5.1.1 Fire protection in recreational vehicle, mobile home and manufactured housing parks, sales lots and storage lots is added to read as follows:

Fire protection in recreational vehicle, mobile home and manufactured housing parks, sales lots and storage lots shall provide and maintain fire hydrants and access roads in accordance with sections 503 and 507.

Section 507.5.7 Hydrant reflectors is added to read as follows:

Where new hydrants are required, an approved reflective marker shall be installed in fire department access roadways to make hydrants more discernible to approaching apparatus. Placement and location of markers shall be determined by the fire code official.

Chapter 9 Fire Protection Features

Section 902.1 Definitions shall have the definition of Standpipe System, Classes of amended to read as follows:

Standpipe classes are as follows:

Class I system. A system providing 2.5-inch (64 mm) hose connections to supply water for use by fire departments and those trained in handling heavy fire streams.

Class II system. A system providing 1.5-inch (38 mm) hose stations to supply water for use primarily by the building occupants or by the fire department during initial response. 1.5-inch hoses & hose cabinets shall not be provided, unless required by the Fire Code Official.

Class III system. A system providing 1.5-inch (38 mm) hose stations to supply water for use by building occupants and 2.5-inch (64 mm) hose connections to supply a larger volume of water for use by fire departments and those trained in handling heavy fire streams. 1.5-inch hoses & hose cabinets shall not be provided, unless required by the Fire Code Official.

Section 903.2 Exception shall be deleted in its entirety.

Section 903.4 Exceptions shall be amended to read as follows:

2. Limited area systems serving fewer than 20 sprinklers in other than Group H and Group I occupancies.

Section 903.4.4 *Multi Story Buildings* shall be added to read as follows:

When required by the Fire Code Official, approved supervised indicating control valves shall be provided in multi-story buildings and attached tenant spaces. For the purpose of this section a basement shall be considered a story.

Section 913.4 Valve supervision shall be amended to read as follows:

Where provided, the fire pump suction, discharge and bypass valves, and the isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods.

1. Central-station, proprietary, or remote-station signaling service.
2. Local signaling service that will cause the sounding of an audible signal at a constantly attended location when approved by the fire code official.

Numbers 3 and 4 shall be deleted in their entirety.

Chapter 15 Flammable Finishes

Section 1504.9.2 Frequency shall be amended to read as follows:

Spraying operations shall not be of a continuous nature and shall not exceed 9 square feet per day.

Chapter 22 Motor Fuel-Dispensing Facilities and Repair Garages

Section 2206.2.3.1 Existing above-ground tanks used for dispensing into motor vehicles is added to read as follows:

Existing above-ground tanks shall comply with Section 2206.2.3

Chapter 33 Explosives and Fireworks

Section 3301.1.3 Exceptions shall be amended as follows:

Exception 2 shall be deleted in its entirety.

Chapter 38 Liquefied Petroleum Gases

Section 3808.1 General shall be amended to read as follows:

Fire protection shall be provided for installations having storage containers with a water capacity of more than 4,000 (15,140 L) gallons as required by Section 6.25 of NFPA 58.

Sec. 11-34. Penalties.

(a) Any person who violates any of the provisions of the fire code as adopted and amended in this article, who fails to comply with the fire code, who violates or fails to comply with any order made under the fire code, who builds in violation of any order made under the fire code, who builds in violation of any detailed statement of specifications or plans submitted and approved under the fire code or any certificate or permit issued under the fire code and from which no appeal has been taken, or who fails to comply with such an order as affirmed or modified by this article or by a court or competent jurisdiction, within the required time, shall severally for each and every such violation and noncompliance, respectively, be guilty of a misdemeanor, punishable by a fine of not more than $500.00 or by imprisonment for not more than 179 days or by both such fine and imprisonment. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue, and all such persons shall be required to correct or remedy such violations or defects within a reasonable time. When not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

(b) The application of the penalty in subsection (a) of this section shall not be held to prevent the enforced removal of prohibited conditions.

Secs. 11-35---11-60. Reserved.

DIVISION 2. FIRE APPARATUS ACCESS ROADS

Sec. 11-61. Scope.

Appendix D of the fire code adopted in section 11-26 shall be amended to read as set forth in this division. In the case of conflict with differing codes, the most restrictive of code will prevail.

Sec. 11-62. Required access.

Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34,050 kg)

Sec. 11-63. Minimum specifications.

(a) Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 20 feet (6096 mm).

(b) Fire apparatus access roads shall not exceed 10 percent in grade unless approved by the fire code official.

(c) The minimum turning radius shall be determined by the fire code official.

(d) Dead-end fire apparatus access roads in excess of 150 feet (45,720mm) shall be provided with width and turnaround provisions in accordance with City of Las Cruces Design Standards or as approved by the fire code official.

(e) Where required by the fire code official, gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. The minimum gate width shall be 20 feet (6096 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.

4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Manual opening gates shall not be locked with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools.
7. Locking device specifications shall be submitted for approval by the fire code official.
8. Electric gate operators, where provided, shall be listed in accordance with UL 325.
9. Gates intended for automatic operation shall be designed, constructed and installed to comply with requirements of ASTM F 2200.

Sec. 11-64. Required signs.

(a) Where required by the fire code official, fire apparatus access roads shall be marked with permanent signs complying with Chapter 11, Article VI of the Las Cruces Municipal Code.

(b) Fire apparatus access roads 20 to 26 feet wide shall be posted on both sides as a fire lane.

(c) Fire apparatus access roads more than 26 feet wide to 32 feet wide shall be posted on one side of the road as a fire lane.

Sec. 11-65. Commercial and industrial developments.

(a) Buildings or facilities exceeding 30 feet or three stories in height shall have at least two means of fire apparatus access for each structure.

(b) Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.

> Exception: When approved by the Fire Code Official, projects having a gross building area of up to 124,000 square feet (11 520 m2) that have a single approved fire apparatus access road

when all buildings are equipped throughout with approved automatic sprinkler systems.

(c) Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

Sec. 11-66. Aerial fire apparatus access roads.

(a) Where required by the fire code official, buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

(b) Fire apparatus access roads shall have a minimum unobstructed width of 26 feet in the immediate vicinity of any building or portion of building more than 30 feet in height.

(c) At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

Sec. 11-67. Multiple-family residential developments.

(a) Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire access roads.

Exception: When approved by the fire code official, projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the fire code adopted in Section 11-26.

(b) Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

Sec. 11-68. One-or two-family residential developments.

Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with separate and approved fire apparatus access roads, and shall meet the requirements of Sec. 11-65(c). For the purpose of this section a structure meeting the definition of a townhouse and constructed in accordance with the 2009 International Residential Code (IRC) shall be considered a one family dwelling.

Exception 1. When approved by the fire code official, where there are 30 or more dwelling units on a single public or private access way and all dwelling units are protected by an approved automatic sprinkler systems, access from two directions shall not be required.

Exception 2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.

Secs. 11-69--11-105. Reserved.

DIVISION 3. FIRE-FLOW REQUIREMENTS FOR BUILDINGS AND FIRE HYDRANT LOCATIONS AND DISTRIBUTION

Sec. 11-106. Scope.

(a) Appendix B and C of the fire code adopted in section 11-26 shall be amended to read as set forth in this division.

(b) The procedure determining fire-flow requirements for buildings or portions of buildings constructed shall be in accordance with this division. This division requires that adequate fire flow be provided for protection of life and property. It establishes and develops guidelines and rules for providing fire hydrant locations.

Sec. 11-107. Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Building means any structure used or intended for supporting or sheltering any use or occupancy.

Fire flow calculation area means the floor area, in square feet, used to determine the required fire flow.

Fire flow means the flow rate of water supply, measured at 20 psi residual pressure, that is available for firefighting.

Cross reference(s)--Definitions generally, § 1-2.

Sec. 11-108. Modifications.

(a) *Increases.* The fire code official is authorized to increase fire flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

(b) *Decreases.* The fire code official is authorized to reduce the fire flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

Sec. 11-109. Fire area.

(a) *Computation.* For the purpose of this division, the fire flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in type IA and type IB construction.

(b) *Area separation.* Portions of buildings which are separated by fire walls without openings, constructed in accordance with the International Building Code are

allowed to be considered as separate fire flow calculation areas.

(c) *Type IA and type IB construction.* The fire flow calculation area of buildings constructed of type IA and type IB construction shall be the area of the three largest successive floors.

Exception: Fire flow calculation area for open parking garages shall be determined by the area of the largest floor.

Sec. 11-110. Fire-flow requirements for one- and two-family dwellings.

The minimum fire-flow requirements for one- and two-family dwellings shall not be less than 1,000 gallons per minute. The fire-flow duration for one- and two-family dwellings shall not be less than that specified in table A in section 11-117.

Exception: A reduction in required fire flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system.

Sec. 11-111. Buildings other than one- and two-family dwellings.

The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall not be less than that specified in table A in section 11-117.

Exception: A reduction in required fire flow of up to 75 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the International Fire Code. The resulting fire flow shall not be less than 1,500 gallons per minute in addition to the sprinkler demand for the prescribed duration as specified in table A in section 11-117.

Sec. 11-112. Fire hydrant location.

Fire hydrants shall be provided in accordance with table B in section 11-117, for the protection of buildings or portions of buildings constructed. Fire hydrants shall be

provided along required fire apparatus access roads and public streets.

Sec. 11-113. Number of fire hydrants.

The minimum number of fire hydrants available to a building shall not be less than that listed in table B in section 11-117. The number of fire hydrants available to a complex or subdivision shall not be less than that determined by spacing requirements listed in table B in section 11-117, when applied to fire apparatus access roads and perimeter public streets from which fire operations could be conducted.

Sec. 11-114. Consideration of existing fire hydrants.

For the purpose of this division, existing fire hydrants on public streets are allowed to be considered as available when approved by the fire code official. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads.

Sec. 11-115. Distribution of fire hydrants.

(a) Each new development will be analyzed for fire flow and fire hydrant needs. Fire hydrant requirements will vary with the size and layout of the buildings, building design and construction materials, and access from and proximity to the public right-of-way.

(b) The average spacing between fire hydrants shall not exceed that listed in table B in section 11-117. Exceptions to this requirement are as follows:

(1) Exception 1. The fire chief may accept a deficiency of up to ten percent where existing fire hydrants provide all or a portion of the required fire hydrant service.

(2) Exception 2. The fire hydrant spacing in one- and two-family dwelling subdivisions may be increased to 600 feet.

(c) Regardless of the average spacing, fire hydrants shall be located such that all points on street and access roads adjacent to a building are within the distances listed in table B in section 11-117.

Sec. 11-116. Installation of fire hydrants.

Fire hydrants shall be installed in accordance with the city standards and policies and shall be available for use prior to the beginning of development or building construction.

Sec. 11-117. Tables.

Table A and table B referred to in this division shall be as follows:

TABLE A
MINIMUM REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS

Fire Area (square feet)						
x 0.0929 for m^2					Fire Flow (GPM)[2]	
Type IA and IB[1]	Type IIA and IIIA[1]	Type IV and V-A[1]	Type IIB and IIIB[1]	Type V-B[1]	x 3.785 for L/min.	Flow Duration (hours)
Up to 22,700	Up to 12,700	Up to 8,200	Up to 5,900	Up to 3,600	1,500	2
30,200	17,000	10,900	7,900	4,800	1,750	2
38,700	21,800	12,900	9,800	6,200	2,000	2
48,300	24,200	17,400	12,600	7,700	2,250	2
59,000	33,200	21,300	15,400	9,400	2,500	2

70,900	39,700	25,500	18,400	11,300	2,750	2
83,700	47,100	30,100	21,800	13,400	3,000	3
97,700	54,900	35,200	25,900	15,600	3,250	3
112,700	63,400	40,600	29,300	18,000	3,500	3
128,700	72,400	46,400	33,500	20,600	3,750	3
145,900	82,100	52,500	37,900	23,300	4,000	4
164,200	92,400	59,100	42,700	26,300	4,250	4
183,400	103,100	66,000	47,700	29,300	4,500	4
203,700	114,600	73,300	53,000	32,600	4,750	4
225,200	126,700	81,100	58,600	36,000	5,000	4
247,700	139,400	89,200	65,400	39,600	5,250	4
271,200	152,600	97,700	70,600	43,400	5,500	4
295,900	166,500	106,500	77,000	47,400	5,750	4
Greater	Greater	115,800	83,700	51,500	6,000	4
"	"	125,500	90,600	55,700	6,250	4
"	"	135,500	97,900	60,200	6,500	4
"	"	145,800	106,800	64,800	6,750	4
"	"	156,700	113,200	69,600	7,000	4
"	"	167,900	121,300	74,600	7,250	4

"	"	179,400	129,600	79,800	7,500	4
"	"	191,400	138,300	85,100	7,750	4
"	"	Greater	Greater	Greater	8,000	4

1 Types of construction are based upon the building code.

2 Measured at 20 psi (137.9 kPa). See the definition of fire flow in section 11-107.

TABLE B
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

Fire-Flow Requirement (GPM)	Minimum No. of Hydrants	Spacing Between Hydrants [1, 2, 3] (feet)	Maximum Distance From Any Point on Street or Road Frontage to Hydrant[4]
x 3.785 for L/min.		x 304.8 for mm	
1,750 or less	1	500	250
1,750--2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500--4,000	4	350	210

4,500--5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500--7,000	7	250	150
7,500 or more	8 or more[5]	200	120

1 Reduce by 100 feet (30 480mm) for dead-end streets or roads.

2 Where streets are provided with median dividers which cannot be crossed by firefighters pulling hose lines, or arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet (152.4) on each side of the street and shall be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute (26 495 L/min.) and 400 feet (122 m) for higher fire-flow requirements.

3 Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000-foot (305m) to provide for transportation hazards or as required by the chief.

4 Reduce by 50 feet (15 240mm) for dead-end streets or roads.

5 One hydrant for each 1,000 gallons per minute (3785 L/min.) or fraction thereof.

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Chapter 11 FIRE PREVENTION AND PROTECTION*

ARTICLE II. FIRE PREVENTION CODE*

DIVISION 1. GENERALLY

Sec. 11-26. Adopted.

(a) The Las Cruces Fire Department is established for the purpose of protecting the health, safety and welfare of the citizens of Las Cruces by responding to fires, emergency medical calls, release of hazardous materials and other emergency and non-emergency incidents within the incorporated city limits. The Las Cruces Fire Department is further charged with preventing conditions hazardous to life and property from fire, hazardous materials or explosion through the adoption of that certain code known as the International Fire Code, 200~~6~~**9** edition, including the following appendix chapters:

(1) Appendix B, Fire-flow requirements for buildings

(2) Appendix C, Fire hydrant locations and distribution

(3) Appendix D, Fire apparatus access roads

(4) Appendix I, Fire Protection Systems

(5) Appendix J, Emergency Responder Radio Coverage

(b) The International Fire Code mentioned in subsection (a) of this section is adopted, save and except such portions as are deleted, modified or amended by section 11-33 and divisions 2 and 3 of this article. One copy of the code is filed in the office of the city clerk. The International Fire Code is adopted and incorporated as fully as if set out at length in this section, and the provisions thereof shall be controlling within the city limits.

(Code 1988, § 14-16; Ord. No. 1796, § I, 5-1-00)

Charter reference(s)--Code of technical regulations, § 2.12.

(Text ~~struck-through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Sec. 11-27. Establishment and duties of fire prevention services.

The fire code as adopted in section 11-26 and as amended in this article shall be enforced by the fire prevention services in the fire and emergency services division of the city, which is established and which shall be operated under the supervision of the fire marshal.

(Code 1988, § 14-17)

Sec. 11-28. Definitions.

The following definitions shall be added to the fire code adopted in section 11-26:

Fire marshal is the chief of the fire prevention services; interchangeable with the term fire code official under this code.

Jurisdiction: This code shall be applicable to all property within the corporate limits of the City of Las Cruces, New Mexico.

(Code 1988, § 14-18)

Cross reference(s)--Definitions generally, § 1-2.

Sec. 11-29. Establishment of limits of districts in which storage of flammable or combustible liquids in outside aboveground tanks prohibited.

The limits referred to in sections 3404.2.9.5.1 and 3406.2.4.4 of the fire code adopted in section 11-26, in which the storage of flammable or combustible liquids is restricted, is established as and shall be in accordance with the city's zoning code in chapter 38.

(Code 1988, § 14-19)

Sec. 11-30. Establishments of limits in which storage of liquefied petroleum gases prohibited.

The limits referred to in section 3804.2 of the fire code adopted in section 11-26, in which storage and use of liquefied petroleum gas is restricted, are established and

shall be in accordance with the city's zoning code in chapter 38. The aggregate capacity of any one installation shall not exceed a 2,000-gallon water capacity in residential areas. Exception is a multi-container location such as a dispensing station, and bulk facilities.

(Code 1988, § 14-20)

Sec. 11-31. Establishment of limits of districts in which storage of flammable cryogenic fluids in stationary containers prohibited.

The limits referred to in section 3204.3.1.1 of the fire code adopted in section 11-26, in which storage of flammable cryogenic fluids in stationary containers is prohibited, shall be in accordance with the city's zoning code in chapter 38.

(Code 1988, § 14-21)

Sec. 11-33. Amendments.

The fire code adopted in section 11-26 is amended as set forth in this section. When an existing section number of the fire code is referred to in this section, the text in this section shall control. When a new section or subsection is referred to in this section it shall be added to the fire code as adopted. The fire code is amended and changed as follows:

Chapter 1 ~~*Administration*~~ **Scope and Administration.**

Section 101.1 Title shall be amended to read as follows:

> These regulations shall be known as the Fire Code of the City of Las Cruces, hereinafter referred to as "this code"

Section 104.6 Official records shall be amended to read as follows:

> The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such records shall be retained in accordance with the record retention requirements established by the City of Las Cruces and State of New Mexico.

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Section 104.10.2 Fire prevention personnel and police authority is added to read as follows:

A. Members of the fire prevention services shall have the powers of a police officer in performing their duties under this code when:

1. Such members of the fire prevention services have been certified by a law enforcement academy authorized by the State of New Mexico and;

2. Such members have been commissioned as police officers by the City of Las Cruces.

B. Members of the fire prevention services who meet the requirement stated in paragraphs (1) and (2) of subpart A of this section shall have the following powers:

1. Powers of arrest for criminal matters;

2. Authority to carry such weapons and utilize such equipment necessary in the discharge of their duties pursuant to this code;

3. Authority to investigate arson and related crimes if so appointed and authorized by the Las Cruces police chief.

C. All other members of the fire department who do not meet the requirements of subpart A of this section shall have the power to issue citations only for violations of this code and Chapter 11 of the Las Cruces Municipal Code.

Section 104.11.2 Obstructing operations shall be amended to read as follows:

No person shall obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, non-emergency incidents or training, or disobey any lawful command of the fire chief or member of the fire department or any lawful order of a police officer assisting the fire department.

Section 105.1 General shall be amended to read as follows:

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Permits required by the fire code official shall be in accordance with section 105.

Exception: Permits issued by the City of Las Cruces Community Development Department

Section 105.4 Construction documents shall be amended to read as follows:

Construction documents shall be in accordance with this section and requirements established by the City of Las Cruces Community Development Department.

Section 105.7 Required construction permits shall be amended to read as follows:

The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through ~~105.12.7.13~~ **105.7.14.** Such permits shall be processed through the City of Las Cruces Community Development Department and shall be in conformance with the requirements established by this code and the Community Development Department.

Section 105.7.1.1 Design Safety Margin shall be added to read as follows:

Unless otherwise approved by the Fire Code Official all automatic sprinkler systems shall be designed with a minimum 10 psi safety margin.

Section 105.7.1.2 Hydraulic calculations required shall be added to read as follows:

When required by the Fire Code Official, hydraulic calculations shall be provided for modification to an existing automatic fire-extinguishing system requiring the installation of additional heads when either of the following occur:

1. Number of heads being added exceeds 10.
2. Number of heads being added is greater than 10 percent of total heads for the system.

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

The fire code official may require hydraulic calculations be submitted for any modification to an existing system when deemed necessary to adequately evaluate the impact on the system.

Section 108.1 Board of appeals established shall be amended to read as follows:

Whenever the **Fire** chief disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code do not apply or that the true intent and meaning of the code have been misconstrued or wrongly interpreted, applicant may appeal from the decision to city council by writing to the fire chief requesting an appeal within 30 days of the aggrieved action.

Section 108.2 Limitations on authority shall be deleted in its entirety.

Section 108.3 Qualifications shall be deleted in its entirety.

Section 109.3 Violation penalties shall be amended to read as follows:

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation for the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than 500 dollars or by imprisonment not exceeding 179 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 111.4 Failure to comply shall be amended to read as follows:

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be considered to

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

be in violation of this code and shall be subject to the penalties as set forth in Section 109.3.

Chapter 4 Emergency Planning and Preparedness

Table 405.2 Fire and evacuation drill frequency and participation shall be amended as follows:

Group H occupancies shall be included with Group A occupancies in the table

Chapter 5 Fire Service Features

Section 505.1 Address numbers shall be amended to read as follows:

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 contrast with their background. Numbers shall be not less than two inches in width and three inches in height. Address identification shall also conform to Section 30-1 of the Las Cruces Municipal Code.

Section ~~508.5.1~~ **507.5.1** *Where required* shall be amended to read as follows:

~~Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 300 (91 m)~~ **400 feet (122m)** ~~from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.~~

~~Exceptions:~~

~~1. For Group R-3 and Group U occupancies, the distance requirement may be increased to 400 feet (122 m)~~ **600 feet (183m)** ~~upon approval of the fire code official.~~

~~2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement may be~~

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

~~increased to 400 feet (122 m)~~ **~~600 feet (183m)~~** ~~upon approval of the fire code official.~~

Section 50~~8~~ 7.5.1.1 Fire protection in recreational vehicle, mobile home and manufactured housing parks, sales lots and storage lots is added to read as follows:

> Fire protection in recreational vehicle, mobile home and manufactured housing parks, sales lots and storage lots shall provide and maintain fire hydrants and access roads in accordance with sections 503 and 50~~8~~ **7**.

Section 50~~8~~7.5.7 Hydrant reflectors is added to read as follows:

> Where new hydrants are required, an approved reflective marker shall be installed in fire department access roadways to make hydrants more discernible to approaching apparatus. Placement and location of markers shall be determined by the fire code official.

Chapter 9 Fire Protection Features

Section 902.1 Definitions shall have the definition of Standpipe System, Classes of amended to read as follows:

> Standpipe classes are as follows:
>
> Class I system. A system providing 2.5-inch (64 mm) hose connections to supply water for use by fire departments and those trained in handling heavy fire streams.
>
> Class II system. A system providing 1.5-inch (38 mm) hose stations to supply water for use primarily by the building occupants or by the fire department during initial response. 1.5-inch hoses & hose cabinets shall not be provided, unless required by the Fire Code Official.
>
> Class III system. A system providing 1.5-inch (38 mm) hose stations to supply water for use by building occupants and 2.5-inch (64 mm) hose connections to supply a larger volume of water for use by fire departments and those trained in handling heavy fire

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

streams. 1.5-inch hoses & hose cabinets shall not be provided, unless required by the Fire Code Official.

Section 903.2 Exception shall be deleted in its entirety.

Section 903.4 Exceptions shall be amended to read as follows:

2. Limited area systems serving fewer than 20 sprinklers in other than Group H and Group I occupancies.

Section 903.4.3 Floor control valves shall be amended to read as follows:

When required by the Fire Code Official, ~~approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high rise buildings. and shall also be provided on in multi-story buildings and attached tenant spaces when required by the Fire Code Official. For the purpose of this section a basement shall be considered a story.~~

Section 903.4.4 *Multi Story Buildings* shall be added to read as follows:

When required by the Fire Code Official, approved supervised indicating control valves shall be provided in multi-story buildings and attached tenant spaces. For the purpose of this section a basement shall be considered a story.

~~*Section 904.12 Commercial cooking systems in existing facilities* is added to read as follows:~~

~~Existing facilities with an automatic fire-extinguishing system that does not conform to Section 904.11 shall replace their non-conforming system.~~

~~*Section 906.1 Exception* shall be amended to read as follows:~~

~~Exception: When approved by the fire code official, in all Group A, B, and E occupancies equipped throughout with quick response sprinklers, fire extinguishers shall be required only in special hazard areas.~~

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Section 913.4 Valve supervision shall be amended to read as follows:

Where provided, the fire pump suction, discharge and bypass valves, and the isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods.

1. Central-station, proprietary, or remote-station signaling service.
2. Local signaling service that will cause the sounding of an audible signal at a constantly attended location when approved by the fire code official.

Numbers 3 and 4 shall be deleted in their entirety.

Chapter 15 Flammable Finishes

Section 1504.9.2 Frequency shall be amended to read as follows:

Spraying operations shall not be of a continuous nature and shall not exceed 9 square feet per day.

Chapter 22 Motor Fuel-Dispensing Facilities and Repair Garages

Section 2206.2.3.1 Existing above-ground tanks used for dispensing into motor vehicles is added to read as follows:

Existing above-ground tanks shall comply with Section 2206.2.3

Chapter 33 Explosives and Fireworks

Section 3301.1.3 Exceptions shall be amended as follows:

Exception 2 shall be deleted in its entirety.

Chapter 38 Liquefied Petroleum Gases

Section 3808.1 General shall be amended to read as follows:

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Fire protection shall be provided for installations having storage containers with a water capacity of more than ~~1,000(3,850 L),~~ **4,000 (15,140 L)** gallons as required by Section ~~3-10~~ **6.25** of NFPA 58.

Sec. 11-34. Penalties.

(a) Any person who violates any of the provisions of the fire code as adopted and amended in this article, who fails to comply with the fire code, who violates or fails to comply with any order made under the fire code, who builds in violation of any order made under the fire code, who builds in violation of any detailed statement of specifications or plans submitted and approved under the fire code or any certificate or permit issued under the fire code and from which no appeal has been taken, or who fails to comply with such an order as affirmed or modified by this article or by a court or competent jurisdiction, within the required time, shall severally for each and every such violation and noncompliance, respectively, be guilty of a misdemeanor, punishable by a fine of not more than $500.00 or by imprisonment for not more than 179 days or by both such fine and imprisonment. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue, and all such persons shall be required to correct or remedy such violations or defects within a reasonable time. When not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

(b) The application of the penalty in subsection (a) of this section shall not be held to prevent the enforced removal of prohibited conditions.

Secs. 11-35---11-60. Reserved.

DIVISION 2. FIRE APPARATUS ACCESS ROADS

Sec. 11-61. Scope.

Appendix D of the fire code adopted in section 11-26 shall be amended to read as set forth in this division. **In the case of conflict with differing codes, the most restrictive of code will prevail.**

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Sec. 11-62. Required access.

Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34,050 kg)

Sec. 11-63. Minimum specifications.

(a) Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 20 feet (6096 mm).

(b) Fire apparatus access roads shall not exceed 10 percent in grade unless approved by the fire code official.

(c) The minimum turning radius shall be determined by the fire code official.

(d) Dead-end fire apparatus access roads in excess of 150 feet (45,720mm) shall be provided with width and turnaround provisions in accordance with City of Las Cruces Design Standards or as approved by the fire code official.

(e) Where required by the fire code official, gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. The minimum gate width shall be 20 feet (6096 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.

(Text ~~struck-through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

6. Manual opening gates shall not be locked with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools.
7. Locking device specifications shall be submitted for approval by the fire code official.
8. **Electric gate operators, where provided, shall be listed in accordance with UL 325.**
9. **Gates intended for automatic operation shall be designed, constructed and installed to comply with requirements of ASTM F 2200.**

Sec. 11-64. Required signs.

(a) Where required by the fire code official, fire apparatus access roads shall be marked with permanent signs complying with Chapter 11, Article VI of the Las Cruces Municipal Code.

(b) Fire apparatus access roads 20 to 26 feet wide shall be posted on both sides as a fire lane.

(c) Fire apparatus access roads more than 26 feet wide to 32 feet wide shall be posted on one side of the road as a fire lane.

Sec. 11-65. Commercial and industrial developments.

(a) Buildings or facilities exceeding 30 feet or three stories in height shall have at least two means of fire apparatus access for each structure.

(b) Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.

> Exception: When approved by the Fire Code Official, projects having a gross building area of up to 124,000 square feet (11 520 m2) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

(c) Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of

the property or area to be served, measured in a straight line between accesses.

Sec. 11-66. Aerial fire apparatus access roads.

(a) Where required by the fire code official, buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

(b) Fire apparatus access roads shall have a minimum unobstructed width of 26 feet in the immediate vicinity of any building or portion of building more than 30 feet in height.

(c) At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

Sec. 11-67. Multiple-family residential developments.

(a) Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire access roads.

Exception: When approved by the fire code official, projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the fire code adopted in Section 11-26.

(b) Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an **approved** automatic sprinkler system.

Sec. 11-68. One-or two-family residential developments.

Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with separate and approved fire apparatus access roads, and shall meet the requirements of Sec. 11-65(c). For the purpose of this section a structure meeting the definition of a townhouse and constructed in accordance with the ~~2006~~ **2009** International Residential Code (IRC) shall be considered a one family dwelling.

Exception 1. When approved by the fire code official, where there are 30 or more dwelling units on a single public or private access way and all dwelling units are protected by an approved automatic sprinkler systems, access from two directions shall not be required.

Exception 2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.

Secs. 11-69--11-105. Reserved.

DIVISION 3. FIRE-FLOW REQUIREMENTS FOR BUILDINGS AND FIRE HYDRANT LOCATIONS AND DISTRIBUTION

Sec. 11-106. Scope.

(a) Appendix B and C of the fire code adopted in section 11-26 shall be amended to read as set forth in this division.

(b) The procedure determining fire-flow requirements for buildings or portions of buildings constructed shall be in accordance with this division. This division requires that adequate fire flow be provided for protection of life and property. It establishes and develops guidelines and rules for providing fire hydrant locations.

Sec. 11-107. Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Building means any structure used or intended for supporting or sheltering any use or occupancy.

Fire flow calculation area means the floor area, in square feet, used to determine the required fire flow.

Fire flow means the flow rate of water supply, measured at 20 psi residual pressure, that is available for firefighting.

Cross reference(s)--Definitions generally, § 1-2.

Sec. 11-108. Modifications.

(a) *Increases.* The fire code official is authorized to increase fire flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

(b) *Decreases.* The fire code official is authorized to reduce the fire flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

Sec. 11-109. Fire area.

(a) *Computation.* For the purpose of this division, the fire flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in type IA and type IB construction.

(b) *Area separation.* Portions of buildings which are separated by fire walls without openings, constructed in accordance with the International Building Code are allowed to be considered as separate fire flow calculation areas.

(c) *Type IA and type IB construction.* The fire flow calculation area of buildings constructed of type IA and type IB construction shall be the area of the three largest successive floors.

Exception: Fire flow calculation area for open parking garages shall be determined by the area of the largest floor.

Sec. 11-110. Fire-flow requirements for one- and two-family dwellings.

The minimum fire-flow requirements for one- and two-family dwellings shall not be less than 1,000 gallons per minute. The fire-flow duration for one- and two-family dwellings shall not be less than that specified in table A in section 11-117.

Exception: A reduction in required fire flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system.

Sec. 11-111. Buildings other than one- and two-family dwellings.

The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall not be less than that specified in table A in section 11-117.

Exception: A reduction in required fire flow of up to 75 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the International Fire Code. The resulting fire flow shall not be less than 1,500 gallons per minute in addition to the sprinkler demand for the prescribed duration as specified in table A in section 11-117.

Sec. 11-112. Fire hydrant location.

Fire hydrants shall be provided in accordance with table B in section 11-117, for the protection of buildings or portions of buildings constructed. Fire hydrants shall be provided along required fire apparatus access roads and public streets.

Sec. 11-113. Number of fire hydrants.

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

The minimum number of fire hydrants available to a building shall not be less than that listed in table B in section 11-117. The number of fire hydrants available to a complex or subdivision shall not be less than that determined by spacing requirements listed in table B in section 11-117, when applied to fire apparatus access roads and perimeter public streets from which fire operations could be conducted.

Sec. 11-114. Consideration of existing fire hydrants.

For the purpose of this division, existing fire hydrants on public streets are allowed to be considered as available when approved by the fire code official. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads.

Sec. 11-115. Distribution of fire hydrants.

(a) Each new development will be analyzed for fire flow and fire hydrant needs. Fire hydrant requirements will vary with the size and layout of the buildings, building design and construction materials, and access from and proximity to the public right-of-way.

(b) The average spacing between fire hydrants shall not exceed that listed in table B in section 11-117. Exceptions to this requirement are as follows:

(1) Exception 1. The fire chief may accept a deficiency of up to ten percent where existing fire hydrants provide all or a portion of the required fire hydrant service.

(2) Exception 2. The fire hydrant spacing in one- and two-family dwelling subdivisions may be increased to 600 feet.

(c) Regardless of the average spacing, fire hydrants shall be located such that all points on street and access roads adjacent to a building are within the distances listed in table B in section 11-117.

Sec. 11-116. Installation of fire hydrants.

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

Fire hydrants shall be installed in accordance with the city standards and policies and shall be available for use prior to the beginning of development or building construction.

Sec. 11-117. Tables.

Table A and table B referred to in this division shall be as follows:

TABLE A
MINIMUM REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS

Fire Area (square feet)						
x 0.0929 for m^2					Fire Flow (GPM)[2]	
Type IA and IB[1]	Type IIA and IIIA[1]	Type IV and V-A[1]	Type IIB and IIIB[1]	Type V-B[1]	x 3.785 for L/min.	Flow Duration (hours)
Up to 22,700	Up to 12,700	Up to 8,200	Up to 5,900	Up to 3,600	1,500	2
30,200	17,000	10,900	7,900	4,800	1,750	2
38,700	21,800	12,900	9,800	6,200	2,000	2
48,300	24,200	17,400	12,600	7,700	2,250	2
59,000	33,200	21,300	15,400	9,400	2,500	2
70,900	39,700	25,500	18,400	11,300	2,750	2
83,700	47,100	30,100	21,800	13,400	3,000	3
97,700	54,900	35,200	25,900	15,600	3,250	3

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

112,700	63,400	40,600	29,300	18,000	3,500	3
128,700	72,400	46,400	33,500	20,600	3,750	3
145,900	82,100	52,500	37,900	23,300	4,000	4
164,200	92,400	59,100	42,700	26,300	4,250	4
183,400	103,100	66,000	47,700	29,300	4,500	4
203,700	114,600	73,300	53,000	32,600	4,750	4
225,200	126,700	81,100	58,600	36,000	5,000	4
247,700	139,400	89,200	65,400	39,600	5,250	4
271,200	152,600	97,700	70,600	43,400	5,500	4
295,900	166,500	106,500	77,000	47,400	5,750	4
Greater	Greater	115,800	83,700	51,500	6,000	4
"	"	125,500	90,600	55,700	6,250	4
"	"	135,500	97,900	60,200	6,500	4
"	"	145,800	106,800	64,800	6,750	4
"	"	156,700	113,200	69,600	7,000	4
"	"	167,900	121,300	74,600	7,250	4
"	"	179,400	129,600	79,800	7,500	4
"	"	191,400	138,300	85,100	7,750	4
"	"	Greater	Greater	Greater	8,000	4

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

1 Types of construction are based upon the building code.

2 Measured at 20 psi (137.9 kPa). See the definition of fire flow in section 11-107.

TABLE B
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

Fire-Flow Requirement (GPM)	Minimum No. of Hydrants	Spacing Between Hydrants [1, 2, 3] (feet)	Maximum Distance From Any Point on Street or Road Frontage to Hydrant[4]
x 3.785 for L/min.		x 304.8 for mm	
1,750 or less	1	500	250
1,750--2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500--4,000	4	350	210
4,500--5,000	5	300	180
5,500	6	300	180
6,000	6	250	150

(Text ~~struck through~~ is to be deleted. Text in **Black Bold underline** is to be to be enacted.)

6,500--7,000	7	250	150
7,500 or more	8 or more[5]	200	120

1 Reduce by 100 feet (30 480mm) for dead-end streets or roads.

2 Where streets are provided with median dividers which ~~can~~ **cannot** be crossed by firefighters pulling hose lines, or arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet (152.4) on each side of the street and shall be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute (26 495 L/min.) and 400 feet (122 m) for higher fire-flow requirements.

3 Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at **spacing** not ~~less than~~ **to exceed** 1,000-foot (305m) ~~spacing~~ to provide for transportation hazards or as required by the chief.

4 Reduce by 50 feet (15 240mm) for dead-end streets or roads.

5 One hydrant for each 1,000 gallons per minute (3785 L/min.) or fraction thereof.