

# ORDINANCE

### 5430

AN ORDINANCE OF THE CITY OF BOCA RATON 2 AMENDING THE CODE OF ORDINANCES RELATING TO 3 FIRE PREVENTION AND FIRE PROTECTION: REPEALING 4 CURRENT CHAPTER 7, CODE OF ORDINANCES, IN ITS 5 ENTIRETY; ADOPTING AN UPDATED CHAPTER 7, CODE 6 7 OF ORDINANCES: ADOPTING THE FLORIDA FIRE PREVENTION CODE; PROVIDING FOR LOCAL 8 AMENDMENTS TO THE FLORIDA FIRE PREVENTION 9 CODE: PROVIDING FOR SEVERABILITY; PROVIDING FOR 10 REPEALER; PROVIDING FOR CODIFICATION; PROVIDING 11 12 AN EFFECTIVE DATE

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WHEREAS, the City Council of the City of Boca Raton has determined that it would be in
the best interest of the City to repeal, in its entirety, the current Chapter 7, Code of Ordinances,
relating to the City Fire Code; and

WHEREAS, the City Council of the City of Boca Raton has determined that it would be in
the best interest of the City to adopt an updated Chapter 7, Code of Ordinances, including the
Florida Fire Prevention Code and local amendments thereto; now therefore

#### THE CITY OF BOCA RATON HEREBY ORDAINS:

Section 1. Chapter 7, Code of Ordinances, is hereby repealed in its entirety.

Section 2. Chapter 7, Code of Ordinances, is hereby created to read as follows:

**ARTICLE I. - IN GENERAL** 

Sec. 7-1. - Burning permit.

It shall be unlawful for anyone to set out a fire on any lot, street, alley or other public or private place within the corporate limits of the city without first obtaining a permit to do so and paying the fee(s) specified in the municipal facilities and services user fee schedule. The application shall be obtained from fire administration offices and reviewed for approval by the chief of the fire rescue services department or such fire rescue services department employee as may be designated by the chief. Approved permits may be revoked, if it is deemed that the open burn constitutes a hazard.

Sec. 7-2. - Recovery of hazardous substances—Response costs.

(1) For the purpose of this section, the following words and phrases shall have the meanings given herein:

(a) "Discharge" shall mean any intentional or unintentional action or omission resulting in the releasing, spilling, pumping, pouring, emitting, emptying or dumping of a hazardous substance upon public or private property located within the corporate limits of the city.

(b) "Hazardous substances" shall mean any substances or materials in a quantity or form which, in the determination of the city, poses an unreasonable and imminent risk to the life, health, safety or welfare of persons or property within the city, or poses a risk of harm to the environment, and shall include but not be limited to those substances listed in the National Fire 24 Protection Association Guide on Hazardous Materials, the Environmental Protection Agency's list of extremely hazardous substances, or the Florida Substance List promulgated by the State 25 Department of Labor and Employment Security. 26

(c) "Response actions" shall mean any activity which is carried out in response to any
 discharge or threatened discharge of a hazardous substance, including:

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1. The cleanup or removal of discharged hazardous substances from the environment;

2. Such actions as may be necessary to take in the event of the threat of discharge of hazardous substances into the environment;

3. Such actions as may be necessary to investigate, monitor, assess, and evaluate the
 discharge or threatened discharge of hazardous substances;

4. The disposal of removed material; or

9 5. The taking of such other actions as may be necessary to prevent, minimize, or 10 mitigate damage to the public health, safety or welfare or to the environment, which may 11 otherwise result from a discharge or threatened discharge. Response actions also include the 12 provision of security fencing or other means to limit access, the provision of alternative water 13 supplies, temporary evacuation of threatened individuals, and restoration of the site to pre-14 discharge conditions.

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(d) "Response costs" shall mean any costs incurred in undertaking response actions.

(2) The city is hereby authorized to undertake response actions in the event of
 discharges, or threatened discharges, of hazardous substances upon or into public or private
 property or facilities located within the corporate limits of the city.

(3) Any person responsible for causing or allowing an unauthorized discharge or
threatened discharge of hazardous substances that requires response actions by the city or its
authorized agents in order to protect the public health, safety or welfare, or the environment,
shall reimburse the city for the full amount of all response costs. Reimbursement shall be made
within 30 days after receipt of an itemized bill for response costs from the city.

(4) When responding to an emergency caused by the unauthorized discharge or
threatened discharge of hazardous substances, the city shall keep a detailed record of the
response costs.

(5) The authority to recover costs under this section shall not include costs incurred for 1 2 actual fire suppression services which are normally or usually provided by the city or its authorized agents, except where fire is caused by discharge of hazardous materials. 3 (6) Any person responsible for causing or allowing an unauthorized discharge or 4 threatened discharge of hazardous substances and who fails to reimburse the city within the 5 time set forth herein shall be subject to a late fee in the amount of 10 percent of the total amount 6 of the bill after 30 days. Thereafter, the late fee assessed on the unpaid balance shall be 7 8 increased by 2 percent for each additional 30-day period until the full amount, including the 9 applicable late fee, is paid. (7) The remedy provided for in this section shall be supplemental to and in addition to all 10 other available remedies at law or in equity. 11 Sec. 7-3. - Enforcement authority. 12 The fire chief and/or a designee shall have the authority to conduct investigations and to 13 do all other things necessary to enforce the provisions in this chapter. 14 Sec. 7-4. - Violations. 15 Failure to comply with any provisions of this chapter shall be deemed a violation. 16 Sec. 7-5. - Penalty for violations. 17 Any person or entity violating the provisions of this chapter shall be punishable as 18 provided in the Florida Fire Prevention Code, section 1-16 of NFPA 1, and as provided in the 19 City of Boca Raton Code of Ordinances. 20 Sec. 7-6 thru 7-25 - Reserved. 21 **ARTICLE II. – STANDARDS** 22 Sec. 7-26. - Codes—Adopted. 23 24 (1) The city adopts by reference and incorporates into this code as though fully set out 25 herein, that certain code known as the Florida Fire Prevention Code (6th edition) ("FFPC").

(2) The city adopts by reference and incorporates into this code, as though fully set out

2 herein, those specific codes and standards, from the national fire codes as published by the

3 National Fire Protection Agency ("NFPA") as set forth below:

NFPA	18	2011	Wetting Agents		
NFPA	22	2013	Nater Tanks For Private Fire Protection		
NFPA	53	2011	Oxygen-Enriched Atmospheres		
NFPA	67	2013	Explosive Protection for Gaseous Mixtures in Pipe Systems		
NFPA	69	2014	Standard on Explosion Protection Systems		
NFPA	102	2016	Assembly Seating, Tents, and Membrane Structures		
NFPA	105	2013	Smoke Control Door Assemblies		
NFPA	115	2016	Laser Fire Protection		
NFPA	140	2013	Motion Picture and TV Production Facilities		
NFPA	160	2011	Flame Effects Before an Audience		
NFPA	170	2012	Fire Safety Symbols		
NFPA	204	2015	Smoke and Heat Venting		
NFPA	241	2013	Construction, Alteration, and Demolition Operations		
NFPA	287	2012	Flammability of Materials in Clean Rooms		
NFPA	291	2013	Recommended Practice for Fire Flow Testing and Marking of Hydrants		
NFPA	302	2015	Pleasure and Commercial Motor Craft		
NFPA	306	2014	Control of Gas Hazards on Vessels		
NFPA	408	2010	Aircraft Hand Portable Fire Extinguishers		
NFPA	423	2010	Construction and Protection of Aircraft Engine Test Facilities		
NFPA	496	2013	Purged and Pressurized Enclosures for Electrical Equipment		
	502	2014	Road Tunnels, Bridges, and Limited Access Highways		

NFPA	601	2015	Security Services in Fire Loss Prevention
NFPA	720	2015	Household Carbon Monoxide Warning Equipment
NFPA	780	2014	Installation of Lightning Protection Systems
NFPA	801	2014	Facilities Handling Radioactive Materials
NFPA	820	2012	Fire Protection and Waste Water Treatment and Collection Facilities
NFPA	914	2015	Fire Protection in Historic Structures
NFPA	1141	2013	Planned Building Groups
NFPA	1961	2013	Fire Hose
NFPA	1962	2013	Care, Use, and Service Testing of Fire Hose Including Connections
			and Nozzles
NFPA	2001	2015	Clean Agent Fire Extinguishing Systems

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### Sec. 7-27. - Same—Amendments.

The city hereby adopts the following local amendments to the FFPC, adopted in this article:

(1) All systems, equipment, tanks, piping, devices, appliances, controls, or storage
facilities over which the code contains regulatory provisions, or which are required by any other
law, shall be maintained in operative condition at all times, to provide the service for which
installed.

9 (2) All fire sprinkler, standpipe, fire pump, and all other fire suppression systems shall 10 be maintained under a written service contract with service companies licensed by the State of 11 Florida to provide such services. Regular maintenance and testing of the aforementioned 12 systems shall be completed in accordance with the applicable standards specified under the 13 Florida Fire Prevention Code, NFPA 1, NFPA 13, NFPA 14, NFPA 25, NFPA 17, NFPA 17A, 14 NFPA 33, NFPA 96, and NFPA 2001.

(3) The service company performing the maintenance and tests shall forward a written
 report to the fire rescue services department indicating:

(a) the nature of any deficiencies, impairments, repairs, modifications, and/or corrections
 completed by the service company,

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(b) the date and time of such tests and inspections, and

(c) any other information that may be required by the fire rescue services department. Notification shall be made to the fire rescue services department, life safety division, two business days prior to bi-annual inspections of commercial cooking fire suppression systems. In addition a copy of the service report must be maintained on the premises, and it shall be subject to inspection by the fire rescue services department at any time.

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Sec. 7-28. - Fire lanes on private property.

(1) For the purpose of this chapter: A "fire lane" shall mean a space, sufficient in width
 and length to permit the parking of fire trucks and other firefighting apparatus and located
 nearest to, or at the best location to permit firefighting operations to, a building or structure.

(2) Fire lanes shall be established and maintained on private property where the public 16 17 has the right to travel by motor vehicle, or where the public is permitted by invitation or by license to travel by motor vehicle, to the extent that any such lane is necessary for access to 18 19 buildings by fire trucks or other firefighting apparatus, as determined by the fire chief. Any person owning, or in possession and control of, any such property, including but not necessarily 20 21 limited to, any parking lot, shopping plaza, shopping center or other commercial, industrial or multifamily residential area, shall establish and maintain such fire lanes through striping, 22 marking and posting of signs. 23

(3) After notification by the fire chief or a designee of the necessity to establish one or
 more fire lanes upon a particular property, the owner, or person in possession and control of the
 property, shall submit two sets of site plans for the property to the fire chief, for review and

approval of the design and location of the fire lanes. The site plans shall be drawn to scale and
shall show all related buildings, driveways, streets and other information necessary to evaluate
the sufficiency of the fire lanes.

(4) Approval by the fire chief, or a designee, of the fire lanes shall constitute authorization for the required installation of official signs prohibiting the stopping, standing or parking of motor vehicles within the fire lanes, and posting the lanes as two-away zones. Such signs and necessary pavement marking and striping shall be furnished and installed by, and at the cost of, the owner or person in possession and control of the property, who shall thereafter be responsible for the maintenance of the signs, markings and striping of the required fire lanes.

(5) All fire lane signs required by and installed pursuant to this section shall have red
lettering, not less than 2 inches or more than 3 inches in height, on a white background. Each
sign shall be 12 inches wide by 18 inches in height, and shall be consistent with the manual on
uniform traffic control devices of the state department of transportation and exhibit 18.5 of NFPA
(2009 edition).

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Sec. 7-29. - Use of outdoor cooking appliances.

(1) This section shall apply to all buildings and structures, except two-family dwellings of one story design, and single-family dwellings. This section shall not apply to commercial cooking appliances.

(2) For the purpose of this section:

20 "Outdoor cooking appliance" shall mean any portable and non-portable cooking appliance, grill,
21 stove, or smoker, fueled or powered by electricity, wood, charcoal, liquefied petroleum gas,
22 natural gas, gasoline, kerosene, naphtha, alcohol or other liquid or gaseous fuel.

(3) Outdoor cooking appliances shall be operated a minimum of 20 feet from the exterior
 of buildings or structures.

(4) It shall be unlawful for any person to use or cause to be used any outdoor cooking
appliance on any balcony, within any screened enclosure, in any covered parking area, in any

corridor or hallway, under any overhang or within any area of any building or structure;
 notwithstanding the foregoing, a tabletop or countertop electric grill that is 400 square inches or
 less in size may be used on a balcony, as long as the balcony is not enclosed.

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Sec. 7-30. - Closing of private driveways, roadways and entrances.

It shall be unlawful for any person to have or cause to have any driveway, roadway or entrance barricaded or blocked by obstacles which would interfere with the response of fire rescue services department or other emergency vehicles. If an existing building requires a change of access, the owners shall provide revised site plans and obtain a permit from the building division and the fire rescue services department.

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Sec. 7-31. - Processes deemed hazardous to life and property.

(1) The chief of the fire rescue services department, the fire marshal, or fire inspector of the fire and life safety division may order the immediate cessation of any activity, operation or process, when such operation, activity, or process is deemed to constitute a severe and immediate hazard to persons or property.

(2) It is unlawful for any person who, after being served with either a verbal or written
 order to cease such severe and immediate hazardous activity, operation or process, to fail or
 refuse to comply with such an order.

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Sec. 7-32. - Evacuation of occupied buildings or structures.

In accordance with the Florida Fire Prevention Code and NFPA 1, sec. 1.7.15, the chief of the fire rescue services department, fire marshal, any fire inspector of the fire and life and safety division or any fire rescue services department officer may order the immediate evacuation of any occupied building or structure or assembly area when such building, structure or assembly area is deemed hazardous due to fire hazard, obstruction to exits, overcrowding of the premises, or any other hazard or potential which presents immediate danger to the occupants. The premises, or any portion thereof, may not be reoccupied until it has been

examined and deemed free of the hazard or potential hazard that caused the evacuation to be
 ordered.

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Sec. 7-33. - Control of automatic elevators.

In all buildings three stories or more in height hereafter erected, which are equipped with automatic elevators, all elevators of the structure shall be arranged for emergency use (firefighter's service) by fire rescue services department personnel. All elevators shall remain available for emergency use by fire department personnel at all times. The control of automatic elevators shall meet the requirements as set forth under the state elevator code, emergency operation and signal devices. In addition to these requirements, the following specifications shall be met:

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(1) Emergency auxiliary power required.

(a) Emergency auxiliary electrical power shall be provided for all elevators equipped with
 the key switch service for fire rescue services department personnel. The auxiliary power supply
 shall be capable of supplying power to the elevators for a period of at least 24 hours The
 auxiliary power supply shall be approved by the fire rescue services department.

(b) Emergency auxiliary power shall remain on for the car in use by firefighters
 regardless of selection switch devices, which may also be installed to rotate emergency power
 to other cars in the building.

(c) No more than 10 seconds shall be required for the auxiliary power to be in full
 operation and the operation of the emergency power supply shall automatically transfer to the
 firefighters' service car.

(d) A maintenance schedule shall be maintained in the generator equipment room to
 record all tests and operation of such auxiliary power equipment. The records shall be posted
 and available to the fire rescue services department at all times.

(e) All auxiliary power equipment and automatic transfer apparatus shall be tested
weekly.

(f) For all buildings, which are designed and constructed having separate towers, each
 tower shall be treated as though it were a separate building.
 (2) Key switch operation (firefighter's service).

(a) "Authorized personnel," as used in this section, shall mean the fire chief and any fire
rescue services department officer designated in writing by the fire chief as authorized to
possess the standard emergency elevator control key or key to a keykeeper box.

(b) A keykeeper box shall be installed adjacent to all firefighter's service elevators. The
performance standards of the keykeeper box shall equal or exceed those of the Bommer keykeeper box, type 5620, F28. The keykeeper box shall be equipped with a lock that can be
opened with the Emergency Response Region 7 Key (Yale Key No. R-80833-2006-7).

(c) The standard emergency elevator control key shall be issued only to authorized
 personnel.

(d) All buildings constructed following the adoption of this code regardless of the number
of stories, shall use the emergency elevator control key for Emergency Response Region 7
(Yale Key No. R-80833-2006-7).

(e) Any building having undergone "substantial improvement," as defined in F.S. §
 161.54(12), must comply with subsection 7-33(b)(2) of this Code.

(f) All elevators in the City of Boca Raton shall utilize the Emergency Response Region 7
key for the keykeeper box lock.

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(3) Minimum size and weight capacity.

(a) Elevators shall have a platform with dimensions of at least 6 feet deep by 5 feet, 5
inches wide.

(b) Elevators shall have a minimum headroom inside the car of at least 7 feet, 6 inches.

(c) Doors to elevators shall be at least 6 feet, 8 inches high by 3 feet wide.

(d) Elevators shall have a weight capacity of at least 3,500 pounds.

(4) Emergency access keys.

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(a) A standard emergency access door key shall be provided for all elevators in the city.

(b) An emergency key slot shall be provided on each door on every floor landing on each elevator installed.

(5) A standard instruction notice shall be permanently posted directly above each hall call button, on each floor, for each elevator and shall contain the following information: "In Case of Fire: Use Exit Stairways-Do Not Use This Elevator."

(a) The sign shall be at least  $2\frac{1}{2}$  inches high by  $3\frac{1}{2}$  inches wide.

(b) The letters shall be on a contrasting background.

(6) Emergency use elevator to be identified.

(a) The elevator provided with the fire rescue services department key switch and 10 emergency power shall be identified by a sign of at least 3 inches wide by 2 inches high displaying at least 3/4-inch letters with the following information: "Fire Rescue Services 12 Department Emergency Power." 13

(b) The background of the sign shall be red with white letters.

(c) The sign shall be posted in the center of the door frame directly above the door 15 opening on the floor where the key switch is located. 16

Sec. 7-34. - Examination of building permits.

(1) No building permit shall be issued for new construction, demolition, moving of 18 existing buildings, or renovation of existing structures, normally requiring a building permit, until 19 a complete set of plans and/or specifications, which are in compliance with Section 1.14 of the 20 Florida Fire Prevention Code, 6<sup>th</sup> Edition, and with Subtitle 61-G15 of the Florida Administrative 21 22 Code, as applicable, have been examined and approved by the fire and life safety division.

23 (2) The fire and life safety division shall note all violations of this chapter on the plans and specifications and may reject the plans and/or specifications until such time as appropriate 24 25 corrections have been made, thereby eliminating such violations.

(3) This section shall not apply to single-family or duplex residential units, except where
 fire suppression and/or alarm systems are required by this code, the Florida Building Code or
 the state fire code.

(4) Any new building or existing building undergoing a level 3 alteration as defined by the
Florida Building Code ("FBC") or extensive modification or reconstruction as per the FFPC, shall
provide floor plan drawings on media type as specified by Fire Rescue for the purpose of pre
fire planning. This shall be required prior to issuance of the fire final inspection, temporary
certificate of occupancy (TCO), or certificate of occupancy (CO), as applicable.

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Sec. 7-35. - Fire rescue services department permits; fee schedule.

The following enumerated installations and activities require a permit from the fire rescue services department. The applicable fees, as enumerated in the city municipal facilities and services user fee schedule, shall be paid after the application for the permit is approved. Main building permits shall not be approved by the fire rescue services department until all necessary fire rescue services department installation permits for special systems and/or equipment have been applied for by the appropriate subcontractors and issued by the fire rescue services department, or as may be specifically approved by the fire chief or a designee.

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(1) Motor vehicle painting—Spray booths and bake ovens.

(2) Gas and fuel-oil-fired outdoor equipment.

(3) Elevators.

- (4) Liquid petroleum or natural gas storage.
- (5) Flammable or combustible liquid storage.
- (6) Flammable or combustible liquid dispensing.

(7) Fire alarm systems.

(8) Fixed automatic fire protection systems.

(9) Automatic fire sprinkler systems.

(10) Standpipe systems, independent or part of sprinkler system.

1	(11) Fire pumps.
2	(12) Required emergency generators.
3	(13) Fire hydrant flow test.
4	(14) Hazardous substances storage.
5	(15) Fireworks display (see sec. 7-38)
6	(16) Outdoor burning (see sec. 7-1)
7	Sec. 7-36 Work started without a permit.
8	(1) When work for which a permit is required by this chapter is started prior to issuance
9	of a permit, the fees herein specified shall be tripled.
10	(2) The payment of such fee shall not relieve any person from fully complying with the
11	requirements of this chapter in the execution of the work, nor from any other penalties
12	prescribed herein.
13	Sec. 7-37 Fire flow requirements.
14	(1) Intent. The intent of this section is to ensure an adequate water supply for fire
15	suppression by establishing minimum flow rates required to control and extinguish fires that may
16	occur within prescribed occupancy classifications. The requirements of this section shall be
17	applicable to public and private water systems, including individual properties and land
18	development projects.
19	(2) Required fire flow.
20	(a) The "required fire flow" is the rate of flow needed for firefighting purposes to confine a
21	major fire to the buildings within a block or other contiguous grouping. The determination of this
22	flow depends upon the size, construction, occupancy and exposure of buildings within and
23	surrounding the block or group of buildings, and upon the existence of automatic sprinkler
24	protection. The determination of required fire flow in each case shall be made by the fire chief,

or a designee, according to the criteria established by this section and by the Guide for
Determination of Required Fire Flow, published by the Insurance Services Office, ISO Edition

08-2005, and as it may from time to time be amended, which are adopted and incorporated
 herein by reference.

(b) The minimum required fire flow in the various zoning district classifications shall be 3 as listed in Table I at the end of this section. Where conditions indicate that consideration must 4 be given to possible simultaneous fires, as determined by the fire chief utilizing the criteria 5 established or adopted herein, an additional 1,000 to 8,000 gallons per minute shall be required. 6 However, the maximum fire flow requirement for any system shall be 12,000 gallons per minute. 7 8 The required minimum duration for fire flow for private fire protection systems not serviced by the city shall be as listed in Table II at the end of this section. All required fire flow rates shall be 9 10 in addition to the water flow rates necessary to supply the needs of normal flow demands.

(3) Normal flow demands. Flow demands for design systems shall be calculated on the
basis of full ultimate development as known or projected. The average daily flow for domestic
use shall be calculated pursuant to normal flow demand criteria as detailed in the city utilities
services department standards manual.

(4) Fire hydrants and fire flow requirements; exemptions and qualifications; interim criteria.

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(a) All new buildings and all existing buildings being altered to increase the area, height,
or occupancy shall have available the required number of fire hydrants as specified in Table III
at the end of this section connected to a public water supply which meets the fire flow
requirements specified in Tables I and II at the end of this section, except as follows:

(b) All duplex and single-family detached homes not requiring water main extensions for
domestic purposes. For purposes of this subsection, "water main extension" shall mean the
extension of a water supply system by installation and construction of a new water main, 6
inches in diameter or larger, as required by the public utility.

(c) Additions to existing buildings and accessory buildings not exceeding 25 percent of
 the square footage of existing structure, but in no event greater than 5,000 square feet.

(d) Neighborhood shopping centers with buildings totaling an area of less than 100,000 square feet with no building under 1 roof of more than 10,000 square feet, with no building exceeding 2 stories in height, and with at least 25-foot separations between buildings, shall meet fire flow requirements of at least 1,250 gallons per minute. 4

(e) Individual industrial or commercial buildings or structures not part of a neighborhood shopping center or industrial park, less than 5,000 square feet in area, and with low or ordinary hazard content shall meet a fire flow requirement of at least 750 gallons per minute.

8 (f) If the rate of fire flow required under the terms of this section is not available from the public utility at the time of application for a building permit, and none of the exemptions or 9 qualifications in (a) through (c) above apply, then the following interim criteria shall govern the 10 11 issuance of building permits:

1. Properties classified as having low hazard contents, and not exceeding 2 stories in height, will be required to provide a minimum of 50 percent of the flow rate described in Table I for its zoning district at the end of this section.

2. Properties classified as having ordinary hazard contents, and not exceeding 2 stories 15 in height, will be required to provide a minimum of 70 percent of the flow rate described in Table 16 17 I for its zoning district at the end of this section.

3. Properties classified as having low or ordinary hazard contents, and having more than 18 19 2 stories but not exceeding 5 stories in height, will be required to provide a minimum of 75 percent of the flow rate described in Table I for its zoning district at the end of this section. 20

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4. Properties classified as having high hazard contents will be required to provide 100 percent of the flow rate described in Table I for its zoning district at the end of this section.

23 5. All properties in excess of 5 stories in height will be required to provide 100 percent of the flow rate described in Table I for its zoning district. 24

6. As used herein, "low hazard contents," "ordinary hazard contents" and "high hazard contents" shall be defined as set forth in Florida Fire Prevention Code NFPA 101 section 6-2.2, which section is adopted and incorporated herein by reference.

7. In all cases of new construction where less than the flow rate described in Table I at the end of this section is permitted pursuant to the provisions of (d) above, engineering and construction of new facilities to meet the total fire flow requirements as described in Table I will be provided so that at the time the public utility is capable of providing full fire flow, the properties receiving the flow will be capable of utilizing the full fire flow provided by the utility.

8. In all cases wherein the interim criteria of (d) above are utilized, no less than a 500gallon-per-minute fire flow shall be permitted for any type of improved property, and all fire flow tests will be calculated with a minimum of 20 psi residual pressure remaining in the water main.

(5) Supplemental flow systems. If the minimum fire flow requirements set out in this section cannot be met by the water supply utility, then the applicant for a building permit shall be required to supplement those flows through an on-site, or readily available, system meeting the minimum fire flow requirements of this section and meeting with the approval of the fire rescue services department.

(6) Extensions of time; bond. If the required fire flow is not available to allow an applicant 17 to obtain a certificate of occupancy, but it is determined by the fire rescue services department 18 that system improvements are in process and are imminent so that the applicant will be able to 19 20 meet the fire flow requirements, then the fire rescue services department may extend the time to meet the requirements of this section for an initial interim period not to exceed 90 days and may 21 authorize a temporary certificate of occupancy based thereon. A bond sufficient to assure 22 completion of the required system improvements in order to meet the fire flow requirements 23 shall be posted by the applicant with the city manager. The amount of the bond shall be 24 25 determined by the fire rescue services department and shall be equivalent to 200 percent of the cost to complete the fire flow improvements. 26

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(7) Fire hydrants and fire hydrant branches.

(a) The location, number and sizes of the fire hydrants, and fire hydrant branches, shall be designated by the fire rescue services department in accordance with Table III at the end of 3 this section.

(b) Fire hydrants of the approved municipal design and system pattern shall be provided along all primary roadways and fire lanes throughout any proposed project. When such development fronts on 1 or more existing public street(s), fire hydrants shall be located along the public street(s) as well as throughout the entire project. Spacing shall be measured along the actual route fire apparatus will travel.

(c) Unobstructed access to fire hydrants, or on-site private systems, shall be provided 10 11 and maintained to accommodate firefighting apparatus.

(8) Distribution systems. The supply mains shall be of adequate size and have properly arranged connections to the arterial mains, which shall extend throughout the system and have numerous connections to the secondary feeders that supply the minor distribution.

(9) Main sizes. Main sizes and system patterns shall be subject to approval of all applicable agencies pursuant to fire and normal flow demand criteria. Design standards shall be in conformance with current editions of the city utilities services department standards manual.

(10) Pressure. Sufficient pressures shall be provided within the system to maintain 20 18 19 psi residual pressure while providing required fire flows. In those cases where system supply design and hydrant locations are capable of meeting full domestic, commercial and fire flow 20 21 demands, residual pressures of 10 psi will be permitted.

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(11) Violations. It shall be a violation for any person to:

23 (a) Use or operate any fire hydrant or other valve on any fire system, which is intended for use by the city, for any purpose, unless a fire hydrant use permit has been issued by the city 24 25 to such person and such person complies with the appropriate provisions of chapter 17, Code of 26 Ordinances.

(b) Remove, tamper with or otherwise disturb any fire hydrant or firefighting appliance except for the purpose of: extinguishing fires, firefighting training or making necessary repairs, without first obtaining written approval by the fire rescue services department.

## TABLE I. REQUIRED FIRE FLOWS BY ZONING CLASSIFICATION

Zoning Districts	Requirement
Group 1: R-1-F, R-1-G, AR, RS,	The system shall deliver not less than 500
	gallons per minute at 20 psi residual on the
	system. Each fire hydrant shall deliver not
	less than 500 gallons per minute.
Group 2: R-1-A, R-1-B, R-1-C, R-1-D,	The system shall deliver not less than 1,000
R-1-E, NCBD, PUD, RE1, RE2	gallons per minute at 20 psi residual on the
	system. Each fire hydrant shall deliver not
	less than 750 gallons per minute.
Group 3: R-2, R-3, B-1, RM	The system shall deliver not less than 1,500
	gallons per minute at 20 psi residual on the
	system. Each fire hydrant shall deliver not
	less than 750 gallons per minute.
Group 4: R-B-1, R-3-A, R-3-B, R-3-C,	The system shall deliver not less than 2,000
R-4, B-2, B-3, B-4, C-1, LIRP, M-1, MC,	gallons per minute at 20 psi residual on the
REC, PT, PL, CG, CN, CS, AG	system. Each fire hydrant shall deliver not
	less than 750 gallons per minute.
Group 5: R-3-D, R-3-E, R-3-F, R-5, R-5-A,	The system shall deliver not less than 3,000
M-2, M-3, W-I, POI, LB, PUD, PCD, PID,	gallons per minute at 20 psi residual on the
IG/S1, DDRI, SE, RID/DDRI, VC, LIRP-5,	system. Each fire hydrant shall deliver not
PM0.25	less than 1,000 gallons per minute.

## TABLE II. REQUIRED DURATION FOR FIRE FLOW

Required Fire Flow	Required Duration
	(hours)
10,000 and greater	10.00
9,500	9
9,000	9
8,500	8
8,000	8
7,500	7
7,000	7
6,500	6
6,000	6
5,500	5
5,000	5
4,500	4
4,000	4
3,500	3
3,000	3
2,500 and less	2

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## TABLE III. FIRE HYDRANT SPACING

	Districts	Hydrant Spacing (feet)
1.00	Multifamily structures 2 or more stories in height	300.00
2.00	Commercial, industrial, and similar structures regardless of height	300.00
3.00	Areas with multilaned, divided highways (hydrants shall be provided along	400.00
	both sides of such roads with the location of curb cuts and median cuts	
	considered)	
4.00	Residential districts, single-family and duplex areas with dead-end streets	500.00
5.00	Residential districts, single-family and duplex areas with complete internal	600.00
	circulation	
6.00	Residential districts, cluster developments 1 story in height	400.00

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Sec. 7-38. - Fireworks, pyrotechnic special effects, flame effects.

(1) The discharge, firing or use of the following are prohibited inside buildings, tents, structures, and other enclosed spaces:

(a) Firecrackers, rockets, torpedoes, roman candles or other fireworks or substances designed and intended for pyrotechnic display, and of pistols, canes, cannons or other appliances using blank cartridges or caps containing chlorate or potash mixture; and

(b) Pyrotechnic special effects include, but are not limited to, chemical mixtures used in the entertainment industry to produce visible, audible, or thermal effects by combustion, deflagration, or detonation. Flame effects include, but are not limited to, batons, and/or torches fueled by liquid, solid or gaseous fuels, flame projectors which produce heat effects and/or flames, flash powders composed of fuel(s) and oxidizer(s), flares and similar devices.

(2) Prior to any outdoor use of fireworks, pyrotechnic special effects, flame effects, or any other item listed in (1) (a) or (b) of this section, a permit shall be obtained from the city manager, or designee, after submission of an application for such permit and payment of an application fee. Such outdoor use shall be in accordance with NFPA Code 1123 and NFPA Code 1124. The city manager, or designee, may include such conditions in such permit as deemed necessary to ensure compliance with all applicable requirements and protect the public health, welfare and safety, including but not limited to payment of inspection fees.

(3) Prior to the issuance of a permit pursuant to (2), the applicant shall furnish proof of
financial responsibility, in the form of liability insurance with a minimum of \$1,000,000.00
coverage for each occurrence, to satisfy claims for damages to property or personal injuries
arising out of any act or omission on the part of the applicant or any agent or employee thereof.
The insurance policy shall name the city, and its officers and employees as additional insureds,
and shall otherwise be in a form acceptable to the city.

(4) The fire chief or the chief of police shall seize, take, remove or cause to be removed,
at the expense of the owner, all stocks of fireworks stored or held in violation of this section, and

1 shall dispose of the fireworks in the manner deemed safe by the fire chief when the fireworks 2 are no longer required as evidence of a violation of this section.

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Sec. 7-39. – Public Safety Radio Communication System

In all new buildings, minimum radio signal strength for public safety radio signals shall be required within the building. In buildings that cause reduction of public safety radio signals below the acceptable level for reliable communications, a Bi Directional Amplifier (BDA) shall be required. In buildings where phone jacks are required as part of an alarm system, a BDA shall be installed and maintained by the building owner, in lieu of the phone jacks. Installation and signal strength shall be the minimum requirements per NFPA 1, Annex O (In-Building Public Safety Radio Enhancement Systems) or NFPA 72 edition, or as specified by the AHJ.

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ARTICLE III. - FIRE ALARMS AND AUTOMATIC FIRE EXTINGUISHING SYSTEMS

Sec. 7-59. - Central station alarm disposition.

Alarm disposition between a central station and Boca Raton fire rescue may be 13 transmitted via any of the transmission modes approved by NFPA 72. However, the maximum 14 15 duration between the initiation of an alarm signal at the protected premise to transmission to and receipt of the signal by Boca Raton fire dispatch shall not exceed 90 seconds. 16

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Sec. 7-60. - Automatic fire-extinguishing and detection systems.

Any automatic or manual fire alarm signal system and automatic fire-extinguishing or 18 19 automatic fire detection system hereafter installed, in addition to complying with the Florida Fire 20 Prevention Code, the Florida Building Code, and the state fire marshal's rules and regulations, shall be listed by a Nationally Recognized Testing Laboratory (NRTL) approved in accordance 22 with the provisions of F.S. § 633.334, and shall conform to the following requirements:

23 (1) Any fire alarm system, automatic fire sprinkler system, smoke, ionization or heat 24 detection system, clean agent extinguishing system, automatic fire-extinguishing devices. 25 (except stand alone automatic extinguishing systems in hoods and ducts), installed in any 26 occupancy, which may be required by applicable provisions of these regulations, shall be so

arranged that the normal operation of any required alarm-initiating device or the operation of
 any automatic fire-extinguishing system shall automatically transmit an alarm to a NRTL central
 station inspected and approved by the fire and life safety division. The fire and life safety
 division shall maintain a listing of all approved NRTL central station companies.

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(2) A NRTL central station, in accordance with NFPA 72 (2010) sec. 10.4, shall be identified by the NRTL certificated service provider for all newly installed and required fire alarm systems. An existing required fire alarm system, wherein the control panel or alarm components are being replaced, shall be considered a new fire alarm system for the purposes of this section, and such system shall meet the certificating requirements of this code. NRTL listed central station service, in full compliance with NFPA 72 (2010) sec. 10.4, shall be maintained at the protected property, so long as the requirement for the fire alarm system exists.

(3) All fire alarm signal systems, and automatic extinguishing and detection systems,
 installed in accordance with this section shall be maintained under a written service contract
 providing for regular maintenance and testing of the system in accordance with the state fire
 marshal's rules and regulations.

(4) The service company performing the maintenance and tests shall forward a written report to the fire and life safety division indicating the nature of any deficiencies, impairments, repairs, modifications, and/or corrections completed by the service company, the date and time of such tests and inspections, and any other information, which may be required by the fire and life safety division. In addition, a copy of the service report must be maintained on the premises and it shall be subject to inspection by the fire and life safety division at any time.

(5) In accordance with NFPA 72 (2010), all fire alarm signal systems, automatic
extinguishing and/or detection systems shall be provided with an approved annunciator panel
designed to indicate the floor number and the section of the building reporting a fire alarm or fire
condition. Each alarm-initiating device shall indicate an individual location on such annunciator.
The alarm initiating device shall indicate its individual location to the monitoring central station.

The annunciator shall respond to either manual or automatic devices, and all devices within the system shall be connected to the annunciator. The location of the annunciator panel shall be designated by the fire and life safety division, and it shall be so located as to be immediately available to the fire rescue services department at all times. In a complex with multiple buildings, each building shall have its own transmitter for alarm signal disposition to the central station.

(6) All fire alarm signal and detection systems shall be provided with a secondary source
 of power always available for use in the event of failure of the primary power supply to insure
 continuous operation of the system, pursuant to the requirements of NFPA 72 sec. 10.5 (2010).

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(7) Pre-signal fire alarm systems shall not be permitted.

(8) A change in service provider or a transmitter requires a permit and verification by the
 fire department that the alarm system is reporting the appropriate signals to the central station
 as required by code.

(9) Communications methods shall be in compliance with the requirements of NFPA 72
(2010 Ed.), Chap. 26, Sec. 26.6.3., and shall be approved by the Fire Chief or designee.

Sec. 7-61. - Alarm registration.

All required fire alarm systems must comply with the requirements of the chapter 9,
 Code of Ordinances.

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Sec. 7-62. - Fire alarm installation permits.

(1) The fire department shall issue a fire alarm installation permit after receiving and
approving a completed fire alarm application, plans, and required supporting documentation,
and only after it is determined the fire alarm system meets the criteria of this section. The
reason underlying a permit denial shall be documented on the city permitting system and be
provided to the applicant.

(2) The fire alarm system shall be installed in compliance with the Fire Alarm/Central
 Station Applicable Regulations and Official Policies Guidelines of the fire department.

Sec. 7-63. - Fire alarm system certification requirements.

2	(1). The applicant for a required fire alarm installation permit shall submit to fire rescue
3	services department plan review, along with the permit application, documentation listing the
4	NRTL central station for the alarm system, and provide documentation of NRTL certification at
5	time of acceptance testing of the fire alarm system or added components.
6	(2) The applicant must demonstrate that the fire alarm monitoring will be performed by a
7	NRTL certificated central station.
8	(3) All required NRTL certificated fire alarm systems must maintain NRTL compliance
9	and NRTL monitoring.
10	Sec. 7-64 False alarms.
11	False alarms are defined, and fees therefore, are as provided for in chapter 9, Boca
12	Raton Code of Ordinances.
13	Sec. 7-65 Limitation of liability.
14	Neither the city nor any of its officers and agents shall be under any obligation or duty to
15	an alarm user or to any other person. The city specifically disclaims liability for any damages,
16	injuries, or losses caused by or resulting from a failure to respond to an alarm.
17	ARTICLE IV FIRE PROTECTION SYSTEMS
18	Sec. 7-80 Applicability.
19	Chapter 9, Fire Protection Systems, of the Florida Building Code is supplemented as
20	follows:
21	(1) The requirements of this article shall apply to all buildings, structures and installations
22	constructed after November 23, 1993.
23	(2) The requirements of this article shall also apply to any existing building or structure if
24	"alteration, modernization, and/or renovation" occurs, as defined in the Florida Building Code
25	(Existing Code) and the Florida Building Code as a Level 3 Alteration, both of which are adopted
26	herein.

#### Sec. 7-81. - Definitions.

For the purpose of this article, the following words, terms and phrases shall have the meanings given in this section, unless the context clearly indicates otherwise:

"Approved double check valve assembly" is an assembly of 2 independently operating 4 check valves with Outside Stem and Yoke (O.S. & Y.) valves on each side of the check valves, 5 plus properly located test cocks for the testing of each check valve. The assembly shall be listed 6 in the "UL Fire Protection Equipment Directory" under "Backflow Special Check Valve Devices 7 (BAEU)." The O.S. & Y. valves shall be listed in the "UL Fire Protection Equipment Directory" 8 9 under "Gate Valve (HMRZ)." The assembly shall be installed in the horizontal position, outside, 10 above ground and shall be readily accessible for maintenance, testing and inspection. The O.S. & Y. valves shall be supervised with properly installed tamper switches connected to the fire 11 alarm system. The O.S. & Y. valves shall also be secured with a chain and two interlocked 12 padlocks, one of which shall be a #2396 key, Master lock, painted red, for fire rescue services 13 department access. Fire Rescue Services department connections shall not be directly attached 14 to the assembly. 15

"Approved dual check valve assembly" is an assembly of 2 independently operating 16 check valves. For fire main use a single O.S. & Y. valve shall be installed on the supply side of 17 18 the approved dual check valve. The O.S. & Y. valve shall serve as the main control valve for the 19 fire protection system. The assembly shall be listed in the "UL Fire Protection Equipment Directory" under "Backflow Special Check Valve Devices (BAEU)." The O.S. & Y valve shall be 20 listed in the "UL Fire Protection Equipment Directory" under "Gate Valve (HMRZ)." The 21 assembly shall be installed in the horizontal position, outside, above ground, and shall be 22 23 readily accessible for maintenance and inspection. The O.S. & Y. valve shall be secured with a chain and a #2396 key, Master lock. 24

25 "Fire main" is that pipe, and its appurtenances, on private property between a source of water and the base of the riser for automatic fire sprinkler systems, open fire sprinkler systems. 26

fixed water spray systems, fire standpipe systems and/or inlets to firefighting foam making systems. When connected to the public water system, the fire main begins at the supply side of the approved double check valve assembly or the approved dual check valve assembly. On NFPA 13D systems, the fire main begins at the point where the water supply line for the fire sprinkler system splits from the domestic water service.

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Sec. 7-82. - Backflow prevention for fire protection systems.

An approved double check valve assembly shall be installed on all fire mains serving all structures, except single-family homes and duplexes, as provided in NFPA 13 and NFPA 13R. An approved dual check valve assembly shall be installed on all fire mains serving single-family homes and duplexes (NFPA 13D).

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Sec. 7-83. - Fire mains.

12 Fire main taps connected to the public water system shall be sized for, and serve, only 13 the building for which they were installed. Fire main taps shall not be shared with other buildings. Fire mains shall be constructed of class 52 ductile iron pipe (DIP) or other pipe UL 14 listed for underground fire main use, as approved by the fire department. Fire main taps may be 15 shared only where a single fire pump is shared in accordance with section 7-84. Fire mains shall 16 only enter a building above ground through an exterior wall, and shall not run under foundations 17 or footers. In high-rise buildings (as defined in the Florida Fire Prevention Code and the Florida 18 19 Building Code), fire main configurations shall be in accordance with the Florida Building Code, 20 Chapter 4, and any alternative fire main configurations shall be subject to the approval of the fire chief or designee at the time of initial permit application. 21

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Sec. 7-84. - Fire pumps.

Fire pumps shall serve only the building or structure for which they were installed and shall not be shared with other buildings or structures, except that a single fire pump may be shared between a building and up to 2 parking structures if all of the following are provided:

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(a) All buildings and structures are under the same ownership.

(b) A "unity of title" for the buildings and structures is provided before the installation permit is issued.

(c) The fire mains serving each building/structure are installed underground in accordance with NFPA 24, and this Article.

Sec. 7-85. - Fire protection system closet.

(1) A fire protection system closet shall be provided for all buildings and structures equipped with a fire alarm or fire sprinkler protection.

9 (a) The closet shall house the fire sprinkler system riser, all appropriate control valves,
10 all appropriate flow and tamper switches, the fire alarm system control panel, annunciator panel,
11 annunciator map/legend and the transmitter/control unit. Portions of the fire alarm system may
12 be located elsewhere in the building subject to approval by the fire and life safety division.

(b) The annual fire alarm registration and copies of the most recent fire alarm, and fire
sprinkler, inspection reports shall be posted in the closet.

(c) The closet shall not be used for storage and shall not be used for any other electrical,
 plumbing or mechanical equipment.

(d) The minimum size of the closet shall be 2 feet deep by 4 feet wide, which shall be
increased to accommodate the provided equipment.

(e) The closet shall be separated from all other portions of the building with 1 hour fire
resistive construction as a minimum. The closet shall be located along an outside wall, at grade,
with access from an outside swinging door, which need not be fire rated.

(f) The door shall be labeled with a sign that reads "Fire Protection Closet." The closet
shall be kept locked at all times. A key box approved by the fire and life safety division shall be
installed on the outside wall, within 3 feet of the closet. The key box shall be installed 42" — 48"
above grade. The key box shall contain a key to access the closet and all the keys necessary to

control the fire alarm system. The property owner may provide additional keys for access to the
 interior of the building.

(g) A weatherproof horn/strobe or speaker/strobe shall be installed directly above the key box at a height easily seen upon approach to the area.

(h) The closet shall be designed and constructed to provide and maintain the air
conditioned temperature of no greater than 80 degrees Fahrenheit.

(2) Fire protection system closets are not required in high rise buildings and other buildings where a fire pump room and a fire control room are required or provided. Fire protection system closets are not required for fire sprinkler systems provided in single family homes and duplexes.

Sec. 7-86. - Fire rescue services department connections.

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(1) A single 2½-inch freestanding fire rescue services department connection, located
 within 50 feet of a fire hydrant shall be provided on all NFPA 13R fire sprinkler systems with 20
 or more fire sprinkler heads.

(2) A double (Siamese) 2½-inch freestanding fire rescue services department
 connection, located within 50 feet of fire hydrant shall be provided on all NFPA 13 fire sprinkler
 systems with 20 or more fire sprinkler heads.

(3) Two double (Siamese) 2½-inch freestanding fire rescue services department
 connections, each located within 50 feet of a fire hydrant shall be provided on all the following
 fire sprinkler systems:

(a) Light hazard and ordinary hazard NFPA 13 fire sprinkler systems with 400 or more
 fire sprinkler heads.

(b) Extra hazard NFPA 13 fire sprinkler systems with 200 or more fire sprinkler heads.

(c) On special fire protection systems or situations as designated by the fire chief or
 designee.

(d) Multiple fire rescue services department connections shall be installed in locations as 1 2 remote as possible from each other. Sec. 7-87. - Hose connections as a part of fire sprinkler systems. 3 (1) Approved 2½-inch fire department hose connections, in accordance with NFPA 13 4 sec. 8.16.5.2, shall be installed in buildings and structures as follows: 5 (a) All 1-story buildings with a floor area of 52,000 square feet or more. 6 (b) All 2-story buildings with a combined floor area of 52,000 square feet or more. 7 8 (c) All 3-story buildings with a combined floor area of 52,000 square feet or more. 9 (2) Hose connections shall be fed from an adjoining sprinkler zone on the same floor or from a sprinkler zone on a different floor. Hose connections may be fed directly from the riser 10 ahead of a zone valve. All hose connections, including those that are part of a standpipe 11 12 system, shall be installed at locations approved by the fire chief or designee such that all areas of the building can be reached with 100 feet of hose and 25 feet of fire stream throw. Hose 13 connections shall be equipped with caps to protect hose threads. 14 (3) Class I standpipe systems shall be provided with 21/2" hose connections in the 15 following locations: 16 17 (a) On the inside of the stairwell at each landing. (b) On the outside of the stairwell at each landing. 18 (c) On each side of the wall adjacent to the opening of horizontal exits. 19 (d) On the roof, near the point where the stairwell terminates. This shall be a double  $2\frac{1}{2}$ " 20 21 hose connection. It shall be provided with a UL or FM listed gauge. 22 (e) At other locations required by the fire chief or a designee. (4) All standpipe systems permitted and installed after the effective date of this 23 24 ordinance shall be the Automatic Wet System as defined by the FBC or NFPA 14. Section 3. If any section, subsection, clause or provision of this ordinance is held 25 invalid, the remainder shall not be affected by such invalidity. 26

Section 5. Codification of this ordinance in the City Code of Ordinances is hereby authorized and directed. Section 6. This ordinance shall take effect January 1, 2018. PASSED AND ADOPTED by the City Council of the City of Boca Raton this  $\frac{124}{12}$  day of 2017. CITY OF BOCA RATON, FLORIDA ATTEST: Susan Haynie, Mayor Súsan S. Saxton, City Clerk Approved as to form: Diana Grub Frieser City Attorney 

YES	NO	ABSTAINED
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