

#### 2015 International Fire Code®

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#### **SECTION 504**

# ACCESS TO BUILDING OPENINGS AND ROOFS

504.1 Required access. Exterior doors and openings required by this code or the International Building Code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.

504.2 Maintenance of exterior doors and openings. Exterior doors

and their function shall not be eliminated without prior approval. Exterior doors that have been rendered nonfunctional and that retain a functional door exterior appearance shall have a sign affixed to the exterior side of the door with the words THIS DOOR BLOCKED. The sign shall consist of letters having a principal stroke of not less than 3/4 inch (19.1 mm) wide and not less than 6 inches (152 mm) high on a contrasting background. Required fire department access doors shall not be obstructed or eliminated. Exit and exit access doors shall comply with Chapter 10. Access doors for high-piled combustible

storage shall comply with Section 3206.6.1.

504.3 Stairway access to roof. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3percent slope), shall be provided with a stairway to the roof. Stairway access to the roof shall be in accordance with Section 1011.12. Such stairway shall be marked at street and floor levels with a sign indicating that the stairway continues to the roof. Where roofs are used for roof gardens or for other purposes, stairways shall be provided as required for



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such occupancy classification.

**SECTION 505** 

PREMISES IDENTIFICATION

505.1 Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property.

Address identification characters shall contrast with their background. Address numbers shall be Arabic

numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of 1 /2 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

505.2 Street or road signs. Streets and roads

shall be identified with approved signs.
Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles.
Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs.

#### SECTION 506 KEY BOXES

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving



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or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official.

506.1.1 Locks. An approved lock shall be installed on gates or similar barriers where required by the fire code official.

506.1.2 Key boxes for nonstandardized fire service elevator keys. Key boxes provided for nonstandardized fire service elevator keys shall comply with Section 506.1 and all of the following:

- 1. The key box shall be compatible with an existing rapid entry key box system in use in the jurisdiction and approved by the fire code official.
- 2. The front cover shall be permanently labeled with the words "Fire Department Use Only— Elevator Keys."
- 3. The key box shall be mounted at each elevator bank at the lobby nearest to the lowest level of fire department access.
- 4. The key box shall be mounted 5 feet 6 inches (1676 mm) above the finished floor to the right side of the

elevator bank.

- 5. Contents of the key box are limited to fire service elevator keys. Additional elevator access tools, keys and information pertinent to emergency planning or elevator access shall be permitted where authorized by the fire code official.
- 6. In buildings with two or more elevator banks, a single key box shall be permitted to be used where such elevator banks are separated by not more than 30 feet (9144 mm). Additional key boxes shall be provided for each individual elevator or elevator bank separated by more than 30 feet (9144 mm).

Exception: A single key



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box shall be permitted to be located adjacent to a fire command center or the nonstandard fire service elevator key shall be permitted to be secured in a key box used for other purposes and located in accordance with Section 506.1.

506.2 Key box maintenance. The operator of the building shall immediately notify the fire code official and provide the new key where a lock is changed or rekeyed. The key to such lock shall be secured in the key box.

SECTION 507
FIRE PROTECTION
WATER SUPPLIES

507.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

507.2 Type of water supply. A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

507.2.1 Private fire

service mains. Private fire service mains and appurtenances shall be installed in accordance with NFPA 24.

507.2.2 Water tanks. Water tanks for private fire protection shall be installed in accordance with NFPA 22.

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

507.4 Water supply test. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official or approved



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documentation of the test shall be provided to the fire code official prior to final approval of the water supply system.

507.5 Fire hydrant systems. Fire hydrant systems shall comply with Section 507.5.1 through 507.5.6.

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) 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 shall be 600 feet (183 m).
- 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 shall be 600 feet (183 m) equipped with a standpipe system installed in accordance with Section 905 shall have a fire hydrant within 100 feet (30 480

mm) of the fire department connections.

Exception: The distance shall be permitted to exceed 100 feet (30 480 mm) where approved by the fire code official.

507.5.2 Inspection, testing and maintenance. Fire hydrant systems shall be subject to periodic tests as required by the fire code official. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved



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standards. Records of tests and required maintenance shall be maintained.

507.5.3 Private fire service mains and water tanks. Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with

NFPA 25 at the following intervals:

- 1. Private fire hydrants of all types: Inspection annually and after each operation; flow test and maintenance annually.
- 2. Fire service main piping: Inspection of exposed, annually; flow test every 5 years.

3. Fire service main piping strainers: Inspection and maintenance after each use.

Records of inspections, testing and maintenance shall be maintained.

507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

507.5.5 Clear space around hydrants. A 3foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or approved.

507.5.6 Physical protection. Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.

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SECTION 508
FIRE COMMAND CENTER
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The International Code Council, a membership association dedicated to building safety and fire prevention, develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states that adopt codes choose the International Codes developed by the International Code Council.



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