

15.04.110 International Fire Code adopted.

The 2006 Edition of the International Fire Code (IFC), as published by the International Code Council as adopted by the state of Washington in Chapter 19.27 RCW and amended by the Building Code Council in Chapter 51-54 WAC, including those standards of the National Fire Protection Association specifically referenced in the International Fire Code, and including Appendices B, C and D is hereby adopted. The 2006 Edition of the International Fire Code is amended by the city to include the following new and amended provisions. In the event of any conflict between any provision of the IFC and this chapter, the provisions of this chapter shall apply. New sections or subsections shall be deemed deleted from the IFC and the amended provisions inserted in their place in accordance with the direction of this code.

A. IFC Section 101.1 Amended. Section 101.1 of the IFC is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the Fire Code of the City of Monroe, hereinafter referred to as the "IFC" or "Fire Code."

B. IFC Section 101.2 Amended. Section 101.2 of the IFC is hereby amended to read as follows:

101.2.1 Appendices. The following appendices of the IFC are hereby adopted by reference:

Appendix B: Fire-Flow Requirements for Buildings

Appendix C: Fire Hydrant Locations and Distribution

Appendix D: Fire Apparatus Access Roads

C. IFC Section 105.1.4 Added. A new Section 105.1.4 is hereby added to the IFC to read as follows:

105.1.4 Schedule of permit fees. The fee for each required permit shall be as set by periodic fee resolution of the Monroe City Council.

1. Refunds. The fire code official may authorize the refund of fees paid upon filing of a written application by the original permittee not later than 180 days after the date of fee payment, as follows:

i. 100% of any fee erroneously paid or collected;

ii. Up to 80% of the permit fee paid when no work has been done under a permit issued in accordance with the periodic fee resolution of the Monroe City Council; or

iii. Up to 80% of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review is done.

The request for a fee refund must be made in writing, prior to the expiration date of the 180 day plan review period, or the expiration date of the building permit, and with justifiable cause.

D. IFC Section 105.2.3 Amended. Section 105.2.3 of the IFC entitled “Time limitation of application” is hereby amended to read as follows:

105.2.3 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless a permit has been issued; except that the fire code official is authorized to grant one extension of time, for an additional period of 180 days. The extension shall be requested in writing, prior to the expiration date of the initial review period of 180 days, and justifiable cause demonstrated. The plans and other data submitted for review may thereafter be returned to the applicant or destroyed.

E. IFC Section 105.3.1 Amended. Section 105.3.1 of the IFC entitled “Expiration” is hereby amended to read as follows:

105.3.1 Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit. Construction permits issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. If the applicant has not called for a required inspection within 180 days from the date of issuance of the permit, or within 180 days from a previous inspection, the permit shall become invalid.

The fire code official is authorized to grant, in writing, one extension of time, for a period of 180 days. The extension shall be requested in writing, prior to the expiration date of the permit, and justifiable cause demonstrated. Permits are not transferable and any change in use, occupancy, tenancy, contractor or ownership shall require that a new permit be issued.

F. IFC Section 105.3.2 Deleted. Section 105.3.2 of the IFC entitled “Extensions” is hereby deleted in its entirety.

G. IFC Section 105.3.3 Amended. Section 105.3.3 of the IFC entitled “Occupancy prohibited before approval” is hereby amended to read as follows:

105.3.3 Occupancy prohibited before approval. The building or structure shall not be occupied prior to the fire code official signing the Certificate of Occupancy, indicating that applicable provisions of this code have been met.

H. IFC Section 105.3.4 Deleted. Section 105.3.4 of the IFC entitled “Conditional permits” is hereby deleted in its entirety.

I. IFC Section 105.4.1.1 Added. A new section 105.4.1.1 is hereby added to the IFC to read as follows:

105.4.1.1 Electronic Pre-Incident Data. Applicants for commercial building permits and commercial tenant improvement permits shall submit electronic building site and floor plans in a CAD *.dwg or *.pdf format to the Department of Fire Prevention

prior to the final fire inspection for occupancy. Such data shall be utilized by the Department for the creation of pre-incident plans.

J. IFC Section 105.6.15 Deleted. Section 105.6.15 of the IFC entitled “Fire hydrants and valves” is hereby deleted in its entirety.

K. IFC Section 105.6.27 Amended. Section 105.6.27 of the IFC is hereby amended to read as follows:

105.6.27 LP-gas. An operational permit is required for:

1. Storage and use of LP-gas.

Exceptions:

1.1 A permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less serving occupancies in Group R-3.

1.2 A permit is not required if the only LP-gas in an occupancy is a single container in use as fuel on a powered industrial truck.

2. Operation of cargo tankers that transport LP-gas.

L. IFC Section 105.6.35 Deleted. Section 105.6.35 of the IFC entitled “Private fire hydrants” is hereby deleted in its entirety.

M. IFC Section 105.7.10 Deleted. Section 105.7.10 of the IFC entitled “Private fire hydrants” is hereby deleted in its entirety.

N. IFC Section 108 Amended. Section 108 of the IFC is hereby amended to read as follows:

Section 108 – APPEALS

108.1 Appeals. All appeals of orders, decisions, interpretations or determinations made by the fire official relative to the application and interpretation of the IFC shall be to the City of Monroe Hearing Examiner in accordance with MMC Title [21](#). The Hearing Examiner shall have no authority to waive requirements of this code.

O. IFC Section 109.3 Amended. Section 109.3 of the IFC is hereby amended to read as follows:

109.3 Violation penalties. Persons who violate a provision of the IFC or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of 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 gross misdemeanor, punishable by a fine of not more than five thousand dollars or by imprisonment not exceeding 365 days or both such fine and imprisonment. Each day that violation continues after due notice has been served shall be deemed a separate offense.

P. IFC Section 111.4 Amended. Section 111.4 of the IFC is hereby amended to read as follows:

111.4 Failure to comply. 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 liable to a fine of not less than five hundred dollars or more than five thousand dollars.

Q. IFC Section 503 Deleted. Section 503 of the IFC and all subsections are hereby deleted in their entirety. All references to IFC Section 503 shall mean Appendix D.

R. IFC Section 505 Amended. Section 505 of the IFC is hereby amended to read as follows:

505.1 Address numbers. 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. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 6 inches (152 mm) high with a minimum stroke width of 0.75 inch (19.1 mm).

505.1.1 Buildings farther than 50' from street or road. When the building is more than fifty feet (50') from the road or fire lane, the size of each address number shall be as specified in Table 505.1.1.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) shall have numbers or building identification in compliance with this section, but with a minimum of 4 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm).

**Table 505.1.1 Address Numbering
Size Table**

DISTANCE FROM STREET OR ROAD	MINIMUM SIZE
0 – 50 feet	6" H x 3/4" Stroke Width
51 – 150 feet	8" H x 1" Stroke Width
151 – 200 feet	10" H x 1 1/4" Stroke Width
201 feet and farther	12" H x 1 1/2" Stroke Width

505.2 Street or road signs. Streets and roads shall be identified with approved signs, in accordance with the City of Monroe Standards.

S. IFC Section 506 Amended. Section 506 of the IFC is hereby amended to read as follows:

506.1 Where required. A Knox Box® of a size and type approved by the fire code official shall be provided by the building or business owner for all occupancies except Group R-3 and U.

506.1.1 Locks. A Knox® lock or key switch shall be installed on gates or similar barriers when required by the fire code official. Knox® FDC caps shall be installed on all new fire department connections and, when required by the fire code official, on existing fire department connections.

506.2 Key box maintenance. The operator of a business with a Knox Box on the building shall provide entry; fire control room; elevator; fire alarm panel; mechanical; electrical; manual fire alarm box (pull station); keys to the Fire Prevention Division, and shall immediately notify the fire code official and provide the new key when a lock is changed or rekeyed. All such keys provided to the Fire Prevention Division shall be secured in the building's or business's Knox Box®.

T. IFC Section 508.5.1 Amended. Section 508.5.1 of the IFC is hereby amended to read as follows:

508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 150 feet 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.

Exception: For Group R-3 and Group U occupancies, the distance requirement shall be 300 feet.

U. IFC Section 511 Added. A new Section 511 and its subsections are hereby added to the IFC to read as follows:

SECTION 511

EMERGENCY RADIO SYSTEM COVERAGE

511.1 General. It is the intent of this section to ensure the uninterrupted operation of City of Monroe public safety, other emergency-related and county operational or planned wireless communications networks. The Snohomish County Emergency Radio System (SERS) wireless communications networks are essential to the health, safety, and welfare of the citizens of Monroe by providing communications for law enforcement activities, for emergency medical treatment, for fire suppression, for carrying on the business of government, and for providing communications in time of disasters. In addition, the construction or erection of tall or high-density structures can result in the need to relocate communications infrastructure or to provide additional infrastructure at a substantial cost to the public. This section is intended to require that persons or entities constructing or erecting structures in the City of Monroe do so in a manner that does not interfere with the SERS communication networks or to alternately provide the appropriate facilities necessary to eliminate that interference.

511.2 Definitions.

“ADEQUATE RADIO COVERAGE” is as specified in Section 511.4 below.

“BUILDING OWNER” means the person responsible for making final decisions relating to additions or modifications to the building. Building Owner may include a Building Owner’s property manager or agent.

“PERSON” includes individuals, corporations, limited liability companies, associations and other forms of business organization.

“SUBSTANTIALLY ALTER” means to modify a structure when such modifications could degrade SERS performance, either in the structure, or in the context of the current or planned SERS microwave paths.

“CELLULAR TELEPHONE JAMMER” means transmitters that are specifically intended to disrupt the reception of cellular telephone signals in the frequency range of 800 MHz to 900 MHz. Such devices may interfere with the proper operation of public safety radio systems operating at 800 MHz.

511.2. Applicability.

1. No person shall erect, construct, change the use of, or Substantially Alter, any building or structure or any part thereof, or cause the same to be done in a manner which fails to support Adequate Radio Coverage for Snohomish County Emergency Radio System (SERS). Underground structures, whether separate or adjoining other structures, are required to comply with the requirements of this section. Parking structures and stairwells are included in the definition of “building” and stairwell shafts and elevators are included in the definition of “all parts of a building.”

Exception: This section shall not apply to buildings less than 5000 gross square feet or any building constructed of wood frame, as long as none of the aforementioned buildings make use of any metal frame construction, high radio frequency attenuation glazing and window frames, or any below-grade storage or parking areas.

2. Additionally, new or modified structures taller than 55 feet above grade shall require an evaluation and determination that the structure will not interrupt existing or future microwave radio paths, which connect the facilities that make up the SERS infrastructure. This evaluation and determination shall take place as part of the City’s SEPA process, or, if exempt from SEPA, at the time of building permit application and prior to the issuance of a building permit. The City shall require as mitigation for any identified impacts to Adequate Radio Coverage for SERS, the measures identified in this section, as appropriate and applicable. This demonstration will be prepared by a Washington state registered professional engineer confirming that the proposed construction will not interfere with the present or planned microwave paths. This demonstration of compliance will be provided to both the City of Monroe for use and construction permits, as well as to SERS.

3. Any person required to maintain Adequate Radio Coverage as specified in Section 511.3.1 above shall provide prior written notification to the SERS System Manager at the time a building permit application is submitted to the City of Monroe. The Building Official shall require written evidence of such prior written notification before accepting a building permit application.

4. Persons constructing new or remodeled facilities which include systems intended for providing in-building service for other wireless services shall make provision for including public safety radio signals into such system. This capability shall at a minimum include provision of bi-directional amplification as required. This requirement shall apply to structures of all sizes whenever such in-building wiring or services are to be provided.

5. No person shall install in buildings of any type or size devices specifically intended to prevent the reception of signals intended for cellular telephones, pagers, wireless communications devices, or public safety radios.

6. No person shall install or use building materials specifically marketed or engineered to prevent the ingress of radio signals, except where such materials may be required to shield laboratory or research facilities. Use of any such materials in laboratory or research facilities shall be clearly noted in any construction permit application documents and written notification of the use of any such materials shall be provided to SERS at the time of permit application submittal. Signs notifying occupants, emergency services and law enforcement personnel of such shielding conditions shall be conspicuously posted both at the entrance and on the interior of such areas.

511.3 Performance. A study shall be prepared and reviewed prior to plan approval that demonstrates that the signal levels within the proposed structure meet or exceed the criteria established below. When measuring the performance of a bi-directional amplifier, signal strength measurements are based on an input signal from the SERS system adequate to obtain a maximum continuous operating output level. Multiple carrier environments shall take into account the presence of non-SERS signals in the design of the amplifier system. Adequate Radio Coverage shall include all of the following measurement requirements:

1. A minimum signal strength of -95 dBm available in 90% of the area of each floor of the building when transmitted to a belt-worn portable radio equipped with a speaker microphone, from the closest SERS site;
2. A minimum signal strength of -95 dBm received at the closest SERS site when transmitted from a belt-worn portable radio equipped with a speaker microphone from 90% of the area of each floor of the building;
3. The frequency ranges which must be supported shall be 746 – 824 MHz and 851 – 869 MHz; and
4. The signal strengths shall be present at a 100% reliability factor at the -95 dBm level.

511.4. Amplification Systems Allowed.

1. Buildings and structures that cannot support Adequate Radio Coverage, as identified, shall be equipped with either a radiating cable system or an internal multiple antenna system with FCC type accepted bi-directional 700 – 800 MHz amplifiers as needed.

2. If any part of the installed system or systems contains an electrically powered component, the system shall be capable of operating on an independent battery system for a period of at least twelve (12) hours without external power input. The battery system shall automatically charge in the presence of an external AC power input.

3. SERS may require that bi-directional amplifiers include filters to reduce adjacent band frequency interference at least 35 dB below the channels placed in operation by SERS. Consultation with the SERS Manager shall be required to determine if the specific installation requires this additional filtering.

4. The SERS Manager shall be notified two (2) weeks in advance of when an amplification system is installed and operational.

511.5 Alternative methods. Other acceptable methods of providing in-building coverage may also include construction of low-power "filler" trunked radio sites that are integrated into the SERS. These alternative approaches may be considered where the use of bi-directional amplifiers proves impractical. Such alternative methods will require the involvement of SERS representatives in the design process. The requirements established by 511.4, 511.5.2, 511.5.3, and 511.5.4 apply to any such alternate methods.

511.6 Additional requirements for new construction or substantial revisions to structures. Any person who constructs or develops a commercial or industrial building or structure of any size shall provide two (2) inch non-conductive raceways in the walls into which radiating or coaxial cable may be laid. Such raceways shall include an easily accessible opening to the roof surface that allows for placement of an exterior antenna and riser access within the building core to each floor within the structure.

511.7 Initial Inspection and Signal Strength Acceptance Test Procedures.

1. When an engineering study performed for the building contractor or owner has determined that an in-building radio system is required, and upon completion of installation, it will be the Building Owner's responsibility to have the radio system tested to ensure that two-way communications coverage on each floor of the building meets the requirements established in Section 511.4 and 511.5. Each floor of the building shall be divided into a grid of approximately twenty (20) equal areas. A maximum of two (2) nonadjacent areas will be allowed to fail the test by not meeting the minimum signal levels established in Section 511.4. Testing of parking garages, stairwells, and non-enclosed areas will be performed as separate tests with statistics gathered separately for signal levels in the primary structure and parking areas. Signal levels shall meet the requirements of Section 511.4 for all areas enclosed by the structure and statistical methods shall not be used to dilute the intent of the coverage requirements established in Section 511.4.

2. In the event that three (3) of the areas fail the test, in order to be more statistically accurate, the floor may be divided into forty (40) equal areas. In such an event, a maximum of four (4) nonadjacent areas will be allowed to fail the test. After the forty (40) area test, if the system continues to fail, the Building Owner shall have the system altered to meet the coverage requirement established in Section 511.4.

3. The test shall be conducted using a SERS approved portable radio, communicating through the SERS as specified by the authority having jurisdiction. A spot located approximately in the center of a grid area will be selected for the test, then the radio transmitter will be activated to verify two-way communications to and from the outside of the building through the SERS system. Once the spot has been selected, prospecting for a better spot within the grid area will not be permitted.

4. The gain values of all systems used to support the signal level requirements of Section 511.4 shall be measured and the test measurement results shall be kept on file with the building owner so that the measurements can be verified each year during the annual tests. In the event that the measurement results became lost, the building owner will be required to rerun the acceptance test to re-establish that the facility provides the signal levels established in Section 511.4.

511.8 Annual equipment condition testing.

1. When an in-building radio system is required, the Building Owner shall test all active components of the system, including but not limited to amplifiers, power supplies, backup batteries, and related equipment, a minimum of once every twelve (12) months. Amplifiers shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance. These annual tests shall apply to both the bi-directional amplifier method of enhancing signal strength, as well as to any alternative methods that might be employed. The Building Owner shall notify the SERS System Manager in writing two (2) weeks in advance of when annual tests occur, and shall also notify SERS and Monroe Fire Department's Fire Prevention Division and the Monroe Police Department by certified mail of the results of the test. Test records shall be retained on the inspected premises by the Building Owner.

2. Backup batteries and power supplies shall be tested under full load for a period of one (1) hour to verify that, they will properly operate during an actual power outage. If within the one (1) hour test period, in the opinion of the testing technician, the battery exhibits symptoms of failure, the test shall be extended for an additional one (1) hour period until the testing technician confirms the integrity of the battery. Alternative load testing which places a higher short-term demand on the battery system may be required upon verbal request by the testing technician. Batteries which fail the load test shall be replaced and retested within ten (10) working days.

3. All other active components shall be checked to determine that they are operating within the manufacturer's specifications for the intended purpose.

511.9 Five year signal strength testing.

1. In addition to the annual test, the Building Owner shall perform a radio coverage test a minimum of once every five (5) years to ensure that the radio system continues to meet the signal strength requirements of the original acceptance test. The signal levels established in 511.4 and the procedures established in 511.8 shall apply to such tests. The results of the five year test will be provided to SERS and Monroe Fire Department's Fire Prevention Division and the

Monroe Police Department by certified mail. Test records shall also be retained on the inspected premises by the Building Owner.

2. The Building Owner shall notify the SERS System Manager in writing two (2) weeks in advance of the initial, annual, and five (5) year tests.

511.10 Qualifications of testing personnel. Tests shall be conducted, documented and signed by a person in possession of a current FCC license, or a current technician certification issued by the Associated Public-Safety Communications Officials International (APCO), the Personal Communications Industry Association (PCIA), or a technician employed by SERS.

511.11 Field testing. Public safety personnel, after providing reasonable notice to the Building Owner or his representative, shall have the right to enter onto the property to conduct ad-hoc field testing to be certain that the required level of radio coverage is present.

V. IFC Section 903.2.14 Added. A new section 903.2.14 is hereby added to the IFC read as follows:

903.2.14 Other sprinkler requirements. In addition to the requirements of Section 903.2, approved automatic fire sprinkler systems shall be installed throughout all buildings and structures described in this Section 903.2.14. For the purposes of this Section 903.2.14, fire walls, fire barriers, fire partitions and fire-resistance-rated horizontal assemblies do not constitute separate buildings.

1. In all new buildings and structures with an Occupancy Classification assigned under the IBC and with a gross floor area of five thousand or greater square feet, regardless of type or use.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour fire-resistance-rated walls and 2-hour fire-resistance-rated floor/ceiling assemblies.

2. In existing buildings with a gross floor area of ten thousand or greater square feet undergoing additions, repairs, reconstruction, or improvements exceeding sixty percent of the assessed value of such building or structure.

3. In existing buildings or structures with a gross floor area of ten thousand or greater square feet undergoing a change of use or change of occupancy in accordance with IBC Chapter 34 and the IEBC.

W. IFC Section 903.3.7 Amended. Section 903.3.7 of the IFC is hereby amended to read as follows:

903.3.7 Fire department connections. Fire department connections shall be installed remote from the building in an approved location. Fire department connections shall be installed outside the collapse zone of the structure, and within

50 feet of a fire hydrant. The fire department connection shall be a 4" Storz connection with a 30-degree down angle installed in accordance with City of Monroe standards.

X. IFC Section 903.3.8 Added. A new section 903.3.8 is hereby added to the IFC to read as follows:

903.3.8 Fire Control Room. All multiple tenant buildings; buildings constructed speculatively ("spec") as shells or warehouses; and all buildings in excess of 20,000 square feet which require fire sprinkler protection shall be constructed with a dedicated fire control room in accordance with Section 903.3.8.

903.3.8.1 Size and construction. The fire control room shall be adequately sized to allow 3 feet of clearance around the circumference of the sprinkler riser for inspection, testing, and maintenance. The fire control room shall not be excessively large so that storage of disallowed items is discouraged. The construction of the fire control room shall consist of materials similar to adjacent areas, except that there shall be no requirements to provide fire resistive construction on the interior walls which form the fire control room.

903.3.8.2 Location. The fire control room shall be located adjacent to an outside wall of the building, and a dedicated outside entrance with a minimum 36" swinging door shall be provided.

903.3.8.3 Contents. The fire control room shall contain only the fire sprinkler riser(s), fire alarm control panel, fire pump(s), and other necessary fire protection appliances and communications equipment. No storage of combustible items is allowed inside the fire control room.

903.3.8.4 Signage. The outside door providing access to the fire control room shall bear a sign or placard with minimum 4" white lettering on a red background which reads: "FIRE CONTROL ROOM."

Y. IFC Section 907.24 Added. A new Section 907.24 is hereby added to the IFC to read as follows:

907.24 Day Cares. An approved automatic smoke detection system shall be installed throughout day care occupancies. The detection system shall be supervised by an approved central, proprietary, or remote station service.

Z. IFC Section 910.1 Amended. Section 910.1 of the IFC is hereby amended to read as follows:

910.1 General. Where required by this code or by the fire code official, or otherwise installed, smoke and heat vents, or mechanical smoke exhaust systems, and draft curtains shall conform to the requirements of this section.

Exception: Frozen food warehouses used solely for storage of Class I and Class II commodities where protected by an approved automatic sprinkler system.

AA. IFC Section 1207.2.1 Amended. IFC Section 1207.2.1 is hereby amended to read as follows:

1207.2.1 Fire-fighting access. Type II dry cleaning plants shall be located so that access is provided and maintained from one side for fire-fighting and fire control purposes in accordance with IFC Appendix D.

BB. IFC Section 1903.6 Amended. IFC Section 1903.6 is hereby amended to read as follows:

1903.6 Fire apparatus access roads. Fire apparatus access roads shall be provided for buildings and facilities in accordance with IFC Appendix D.

CC. IFC Section 2604.1.8.1 Added. A new section 2604.1.8.1 is hereby added to the IFC to read as follows:

2604.1.8.1 Fuel-powered vehicles. No hot work shall be performed inside buildings on fuel-powered vehicles unless the building is protected with fire sprinklers designed to a minimum density of 0.30 gpm/ft² over 2,500 ft² (Extra Hazard Group 1).

DD. IFC Section B105.2 Amended. Section B105.2 of the IFC is hereby amended to read as follows:

B105.2 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 be as specified in Table B105.1.

Exception: A reduction in required fire-flow of 30 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. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table B105.1.

EE. Section D102 Amended. Section D102 of the IFC is hereby amended in its entirety to read as follows:

SECTION D102

REQUIRED ACCESS

D102.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exception: The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where:

1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.
2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
3. There are not more than two Group R-3 or Group U occupancies.

D102.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

D102.1.3 High-piled storage. Fire department vehicle access to buildings used for high-piled combustible storage shall comply with the applicable provisions of Chapter 23.

FF. IFC Section D103 Amended. Section D103 of the IFC is hereby amended to read in its entirety as follows:

SECTION D103

MINIMUM SPECIFICATIONS

D103.1 Specifications. Fire apparatus access roads shall be installed, maintained, and arranged in accordance with this Section D103.

D103.1.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

D103.1.2 Authority. The fire code official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations.

D103.1.3 Section. The minimum acceptable structural section of fire apparatus access roads shall be 3 inches of Class "B" Asphalt placed over four inches of crushed surfacing top course. The subgrade shall meet the compaction requirements of the city engineer. Equivalent road sections may be allowed by the city engineer.

D103.1.4 Turning radius. The required turning radius of a fire apparatus access road shall be designed and constructed to accommodate an inside turning radius of 25 feet and an outside turning radius of 40 feet.

D103.1.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45,720 mm) in length shall be provided with a cul-de-sac turn-around which meets the specifications of City of Monroe Standard Plan 304.

Exceptions: A hammerhead turn-around which meets the specifications of City of Monroe Standard Plan 316 or equivalent is allowed where:

1. The city engineer has declared that the dead-end fire apparatus access road is temporary; or
2. There are not more than four dwelling units served by the dead-end road.

D103.1.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO Standards or equivalents approved by the city engineer. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the fire code official.

D103.1.7 Grade. The maximum grade of a fire apparatus access road shall be 15%, with a maximum vertical curve of 9% over 50 linear feet.

D103.2 Fire Lane Marking and Signage. Fire apparatus access roads shall be marked and signed in accordance with Sections D103.2.1 through D103.2.2.

D103.2.1 Marking of Curbs and Roadway Surface. Fire apparatus access roads shall be marked whenever necessary to maintain the unobstructed minimum required width of fire apparatus access roads. Marked fire apparatus access roads, or "fire lanes" as defined in Section 502.1 of the code, shall be established or relocated upon orders from the fire code official at the time of plan review; pre-construction site inspection; post-construction site inspection; and any time during the life of the occupancy requiring fire apparatus access.

D103.2.1.1 Installation and Maintenance. Marked fire lanes shall be installed and maintained in accordance with this Section. Only those fire apparatus access roads established or authorized by the fire code official may be marked as a "fire lane." Fire lanes shall be marked as directed by the fire code official with one or more of the following types of marking:

1. Curbs shall be identified by red traffic paint with a 6 inch wide stripe on the top and front, extending the length of the designated fire lane.
2. Rolled curbs shall be identified by red traffic paint with a 6 inch wide stripe on the curb, extending the length of the designated fire lane.
3. Lanes without curbs shall be identified by red traffic paint with a 6 inch wide stripe on the pavement, extending the length of the designated fire lane.

4. The words "NO PARKING – FIRE LANE" shall be in 3 inch stroke white letters 18 inches in height, and placed 8 inches measured perpendicular from the red paint stripe on the pavement. In most cases, both sides of the access road shall be marked. Where long drives are to be marked, the repetitions shall alternate sides of the drive.

5. Where directed by the fire code official, specific areas shall be designated and those areas are to be marked with diagonal striping across the width of the fire lane. Diagonal marking shall be used in conjunction with painted curbs and/or edge striping and shall run at an angle of 30 to 60 degrees from one side to the other. These diagonal lines shall be in red traffic paint, parallel with each other, at least 6 inches in width, and 24 inches apart. Lettering shall occur as specified above.

D103.2.2 Signage. Where required by the fire code official, fire apparatus access roads shall be marked with permanent NO PARKING – FIRE LANE signs complying with Figure D103.2.2. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.2.2.1 or D103.2.2.2.

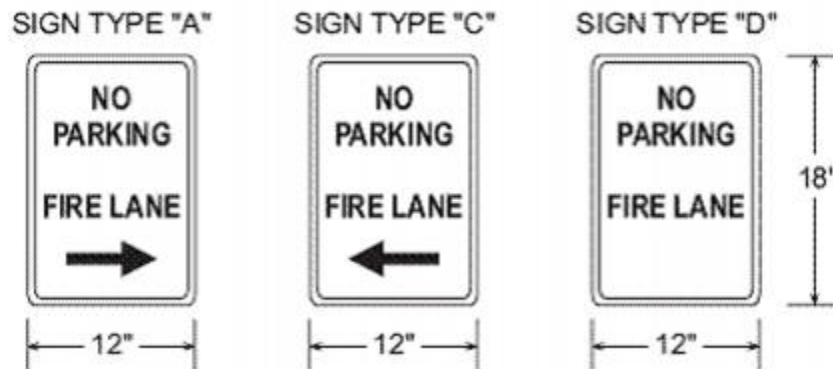


FIGURE D103.3.2

FIRE LANE SIGNAGE

D103.2.2.1 Roads 20 to 26 feet in width. Fire apparatus access roads 20 to 26 feet wide (6096 to 7925 mm) shall be posted on both sides as no parking.

D103.2.2.2 Roads more than 26 feet in width. Fire apparatus access roads more than 26 feet wide (7925 mm) to 32 feet wide (9754 mm) shall be posted on one side of the road as no parking.

D103.3 Obstruction of fire apparatus access roads. No person shall stop, stand or park a vehicle or maintain any obstruction in any such designated fire lane whether occupied or not, except temporarily for the purposes of and while actually engaged in loading or unloading property or passengers.

D103.4 Required gates or barricades. The fire code official is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways.

D103.4.1 Secured gates and barricades. When required, gates and barricades shall be secured in an approved manner. Roads, trails and other accessways that have been closed and obstructed in the manner prescribed by Section D103.4 shall not be trespassed on or used unless authorized by the owner and the fire code official.

Exception: The restriction on use shall not apply to public officers acting within the scope of duty.

D103.5 Security gates. 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 an approved Knox Box® containing the key(s) to the lock is installed at the gate in an approved location.
7. Locking device specifications shall be submitted for approval by the fire code official prior to installation of the gate.

(Ord. 033/2008 § 4; Ord. 015/2007 § 8; Ord. 006/2005; Ord. 012/2004)