

# COMMONWEALTH OF VIRGINIA



## Part I of the Virginia Uniform Statewide Building Code

### THE VIRGINIA CONSTRUCTION CODE (2003 Edition)

Effective November 16, 2005

Virginia Department of Housing and Community Development  
Division of Building and Fire Regulation  
501 North 2nd Street  
Richmond, Virginia 23219-1321

# PREFACE

## Introduction

The Virginia Uniform Statewide Building Code (USBC) is a state regulation promulgated by the Virginia Board of Housing and Community Development, a Governor-appointed board, for the purpose of establishing minimum regulations to govern the construction and maintenance of buildings and structures.

The provisions of the USBC are based on nationally recognized model building and fire codes published by the International Code Council, Inc.. The model codes are made part of the USBC through a regulatory process known as incorporation by reference. The USBC also contains administrative provisions governing the use of the model codes and establishing requirements for the enforcement of the code by the local building departments and other code enforcement agencies.

In keeping with the designations of the USBC used previously, since the 2003 editions of the International Codes are incorporated by reference into this version of the USBC, it is known as the 2003 edition of the USBC.

## Arrangement

The USBC is part of the Virginia Administrative Code (VAC), the official compilation of state regulations published under the authority and guidance of the Virginia Code Commission. Due to the difference in the section numbering system between the VAC and the model codes incorporated by reference into the USBC, the USBC utilizes a dual section numbering system. In the USBC, the VAC section numbers are listed first, followed by a section number matching the model code system. In this printing of the USBC, the VAC section numbers are omitted and only the model code numbering system is utilized. The version of the USBC containing both the VAC section numbers and the model code numbering is available from the Virginia Department of Housing and Community Development and may also be accessed through the website of the Virginia Code Commission or by subscription to the VAC.

## Overview

The USBC is divided into three stand-alone parts. Part I contains regulations specific to the construction of new buildings and structures and alterations, additions and change of occupancy in existing buildings and structures and is known as the Virginia Construction Code. Part II contains optional regulations specific to the rehabilitation of existing buildings that may be used as an acceptable alternative to the Virginia Construction Code. Part II is known as the Virginia Rehabilitation Code. Part III of the USBC contains the regulations for the maintenance of existing structures which is enforced at the option of the local governments. It is known as the Virginia Maintenance Code.

## Technical Assistance

The local building departments and enforcing agencies may be contacted for further information concerning the USBC. Staff of the Virginia Department of Housing and Community Development through the Division of Building and Fire Regulation's State Building Code Administrative Office and the State Fire Marshal's regional offices are also available for technical assistance and questions. The telephone number for the State Building Code Administrative Office is (804) 371-7160 and for the State Fire Marshal's Office is (804) 371-7170

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# Chapter 1

## ADMINISTRATION

### SECTION 101 GENERAL

**101.1 Short title.** The Virginia Uniform Statewide Building Code, Part I, Construction, may be cited as the Virginia Construction Code. The term “USBC” shall mean the Virginia Construction Code unless the context in which the term is used clearly indicates it to be an abbreviation for the entire Virginia Uniform Statewide Building Code or for a different part of the Virginia Uniform Statewide Building Code.

**101.2 Incorporation by reference.** Chapters 2 – 35 of the 2003 International Building Code, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the USBC. The term “IBC” means the 2003 International Building Code, published by the International Code Council, Inc. Any codes and standards referenced in the IBC are also considered to be part of the incorporation by reference, except that such codes and standards are used only to the prescribed extent of each such reference. In addition, any provisions of the appendices of the IBC specifically identified to be part of the USBC are also considered to be part of the incorporation by reference.

**Note 1:** The IBC references the whole family of International Codes including the following major codes:

- 2003 International Plumbing Code
- 2003 International Mechanical Code
- 2002 National Electrical Code
- 2003 International Fuel Gas Code
- 2003 International Energy Conservation Code
- 2003 International Residential Code

**Note 2:** The International Residential Code is applicable to the construction of detached one- and two-family dwellings and townhouses as set out in Section 310.

**101.3 Numbering system.** A dual numbering system is used in the USBC to correlate the numbering system of the Virginia Administrative Code with the numbering system of the IBC. IBC numbering system designations are provided in the catch-lines of the Virginia Administrative Code sections. Cross references between sections or chapters of the USBC use only the IBC numbering system designations. The term “chapter” is used in the context of the numbering system of the IBC and may mean a chapter in the USBC, a chapter in the IBC or a chapter in a referenced code or standard, depending on the context of the use of the term. The term “chapter” is not used to designate a chapter of the Virginia Administrative Code, unless clearly indicated.

**101.4 Arrangement of code provisions.** The USBC is comprised of the combination of (i) the provisions of Chapter 1, Administration, which are established herein, (ii) Chapters 2 – 35 of the IBC, which are incorporated by reference in Section 101.2, and (iii) the changes to the text of the incorporated chapters of the IBC that are specifically identified. The terminology “changes to the text of the incorporated chapters of the IBC that are specifically identified” shall also be referred to as the “state amendments to the IBC.” Such state amendments to the IBC are set out using corresponding chapter and section numbers of the IBC numbering system. In addition, since Chapter 1 of the IBC is not incorporated as part of the USBC, any reference to a provision of Chapter 1 of the IBC in the provisions of Chapters 2 - 35 of the IBC is generally invalid. However, where the purpose of such a reference would clearly correspond to a provision of Chapter 1 established herein, then the reference may be construed to be a valid reference to such corresponding Chapter 1 provision.

**101.5 Use of terminology and notes.** The term “this code,” or “the code,” where used in the provisions of Chapter 1, in Chapters 2 – 35 of the IBC or in the state amendments to the IBC means the USBC, unless the context clearly indicates otherwise. The term “this code,” or “the code,” where used in a code or standard referenced in the IBC means that code or standard, unless the context clearly indicates otherwise. The use of notes in Chapter 1 is to provide information only and shall not be construed as changing the meaning of any code provision. Notes in the IBC, in the codes and standards referenced in the IBC and in the state amendments to the IBC may modify the content of a related provision and shall be considered to be a valid part of the provision, unless the context clearly indicates otherwise.

**101.6 Order of precedence.** The provisions of Chapter 1 of this code supersede any conflicting provisions of Chapters 2 – 35 of the IBC and any conflicting provisions of the codes and standards referenced in the IBC. In addition, the state amendments to the IBC supersede any conflicting provisions of Chapters 2 – 35 of the IBC and any conflicting provisions of the codes and standards referenced in the IBC. Further, the provisions of Chapters 2 – 35 of the IBC supersede any conflicting provisions of the codes and standards referenced in the IBC.

**101.7 Administrative provisions.** The provisions of Chapter 1 establish administrative requirements, which include but are not limited to provisions relating to the scope of the code, enforcement, fees, permits, inspections and disputes. Any provisions of Chapters 2 –

35 of the IBC or any provisions of the codes and standards referenced in the IBC that address the same subject matter and impose differing requirements are deleted and replaced by the provisions of Chapter 1. Further, any administrative requirements contained in the state amendments to the IBC shall be given the same precedence as the provisions of Chapter 1. Notwithstanding the above, where administrative requirements of Chapters 2 – 35 of the IBC or of the codes and standards referenced in the IBC are specifically identified as valid administrative requirements in Chapter 1 of this code or in the state amendments to the IBC, then such requirements are not deleted and replaced.

**Note:** The purpose of this provision is to eliminate overlap, conflicts and duplication by providing a single standard for administrative, procedural and enforcement requirements of this code.

**101.8 Definitions.** The definitions of terms used in this code are contained in Chapter 2 along with specific provisions addressing the use of definitions. Terms may be defined in other chapters or provisions of the code and such definitions are also valid.

**Note:** The order of precedence outlined in Section 101.6 may be determinative in establishing how to apply the definitions in the IBC and in the referenced codes and standards.

**SECTION 102  
PURPOSE AND SCOPE**

**102.1 Purpose.** In accordance with Section 36-99 of the Code of Virginia, the purpose of the USBC is to protect the health, safety and welfare of the residents of the Commonwealth of Virginia, provided that buildings and structures should be permitted to be constructed at the least possible cost consistent with recognized standards of health, safety, energy conservation and water conservation, including provisions necessary to prevent overcrowding, rodent or insect infestation, and garbage accumulation; and barrier-free provisions for the physically handicapped and aged.

**102.2 Scope.** This section establishes the scope of the USBC in accordance with Section 36-98 of the Code of Virginia. The USBC shall supersede the building codes and regulations of the counties, municipalities and other political subdivisions and state agencies. This code also shall supersede the provisions of local ordinances applicable to single-family residential construction that (i) regulate dwelling foundations or crawl spaces, (ii) require the use of specific building materials or finishes in construction, or (iii) require minimum surface area or

numbers of windows; however, this code shall not supersede proffered conditions accepted as a part of a rezoning application, conditions imposed upon the grant of special exceptions, special or conditional use permits or variances, conditions imposed upon a clustering of single-family homes and preservation of open space development through standards, conditions, and criteria established by a locality pursuant to subdivision 8 of Section 15.2-2242 of the Code of Virginia or subdivision A 12 of Section 15.2-2286 of the Code of Virginia, or land use requirements in airport or highway overlay districts, or historic districts created pursuant to Section 15.2-2306 of the Code of Virginia, or local flood plain regulations adopted as a condition of participation in the National Flood Insurance Program.

**Note:** Requirements relating to functional design are contained in Section 103.11 of this code.

**102.2.1 Invalidity of provisions.** To the extent that any provisions of this code are in conflict with Chapter 6 (Section 36-97 et seq.) of Title 36 of the Code of Virginia or in conflict with the scope of the USBC, those provisions are considered to be invalid to the extent of such conflict.

**102.3 Exemptions.** The following are exempt from this code:

1. Equipment and related wiring installed by a provider of publicly regulated utility service or a franchised cable television operator and electrical equipment and related wiring used for radio, broadcast or cable television, telecommunications or information service transmission. The exemption shall apply only if under applicable federal and state law the ownership and control of the equipment and wiring is by the service provider or its affiliates. Such exempt equipment and wiring shall be located on either public rights-of-way or private property for which the service provider has rights of occupancy and entry; however, the structures, including their service equipment, housing or supporting such exempt equipment and wiring shall be subject to the USBC. The installation of equipment and wiring exempted by this section shall not create an unsafe condition prohibited by the USBC.
2. Manufacturing and processing machines, including all of the following service equipment associated with the manufacturing or processing machines.

- 2.1. Electrical equipment connected after the last disconnecting means.
- 2.2. Plumbing piping and equipment connected after the last shutoff valve or backflow device and before the equipment drain trap.
- 2.3. Gas piping and equipment connected after the outlet shutoff valve.
- 3. Parking lots and sidewalks, which are not part of an accessible route.
- 4. Recreational equipment such as swing sets, sliding boards, climbing bars, jungle gyms, skateboard ramps, and similar equipment when such equipment is not regulated by the VADR.
- 5. Industrialized buildings; except, the applicable requirements of this code affecting site preparation, footings, foundations, proper anchoring and utility connections of the unit remain in full force and effect, including requirements for issuing permits and certificates of occupancy.
- 6. Manufactured homes, except the applicable requirements of this code affecting site preparation, skirting installation, footings, foundations, proper anchoring and utility connections of the manufactured home remain in full force and effect, including requirements for issuing permits and certificates of occupancy.
- 7. Farm buildings and structures, except for a building or a portion of a building located on a farm that is operated as a restaurant as defined in Section 35.1-1 of the Code of Virginia and licensed as such by the Virginia Board of Health pursuant to Chapter 2 (Section 35.1-11 et. seq.) of Title 35.1 of the Code of Virginia. However, farm buildings and structures lying within a flood plain or in a mudslide-prone area shall be subject to flood-proofing regulations or mudslide regulations, as applicable.

**SECTION 103  
APPLICATION OF CODE**

**103.1 General.** In accordance with Section 36-99 of the Code of Virginia, the USBC shall prescribe building regulations to be complied with in the construction and rehabilitation of buildings and structures, and the equipment therein.

**103.2 When applicable to new construction.** Construction for which a permit application is submitted to the local building department after November 16, 2005, shall comply with the provisions of this code, except for permit applications submitted during a one-year period after November 16, 2005. The applicant for a permit during such one-year period shall be permitted to choose whether to comply with the provisions of this code or the provisions of the code in effect immediately prior to November 16, 2005. This provision shall also apply to subsequent amendments to this code based on the effective date of such amendments. In addition, when a permit has been properly issued under a previous edition of this code, this code shall not require changes to the approved construction documents, design or construction of such a building or structure, provided the permit has not been suspended or revoked.

**103.3 Change of occupancy.** No change shall be made in the existing occupancy classification of any structure when the current USBC requires a greater degree of structural strength, fire protection, means of egress, ventilation or sanitation. When such a greater degree is required, the owner or the owner’s agent shall make written application to the local building department for a new certificate of occupancy and shall obtain the new certificate of occupancy prior to the use of the structure under the new occupancy classification. When impractical to achieve compliance with this code for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3.

**Exception:** This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

**103.4 Additions.** Additions to buildings and structures shall comply with the requirements of this code for new construction and an existing building or structure plus additions shall comply with the height and area provisions of Chapter 5. Further, this code shall not require changes to the design or construction of any portions of the building or structure not altered or affected by an addition, unless the addition has the effect of lowering the current level of safety.

**Exception:** This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

**103.5 Reconstruction, alteration or repair.** The following criteria is applicable to reconstruction, alteration or repair of buildings or structures provided the

reconstruction, alteration or repair does not adversely affect the performance of the building or structure, cause the building or structure to become unsafe or lower existing levels of health and safety.

1. Parts of the building or structure not being reconstructed, altered or repaired shall not be required to comply with the requirements of this code applicable to newly constructed buildings or structures.
2. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of this code relating to the safe installation of such material or equipment.
3. Material or equipment, or both, may be replaced in the same location with material or equipment of a similar kind or capacity.

**Exception:** This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

**103.6. Use of rehabilitation code.** Compliance with Part II of the Virginia Uniform Statewide Building Code, also known as the "Virginia Rehabilitation Code," shall be an acceptable alternative to compliance with this code for the rehabilitation of such existing buildings and structures within the scope of that code. For the purposes of this section, the term "rehabilitation" shall be as defined in the Virginia Rehabilitation Code.

**103.7. Retrofit requirements.** The local building department shall enforce the provisions of Section 3411, which require certain existing buildings to be retrofitted with fire protection systems and other safety equipment. Retroactive fire protection system requirements contained in the International Fire Code shall not be applicable unless required for compliance with the provisions of Section 3411.

**103.8 Non-required equipment.** The following criteria for non-required equipment is in accordance with Section 36-103 of the Code of Virginia. Building owners may elect to install partial or full fire alarms or other safety equipment that was not required by the edition of the USBC in effect at the time a building was constructed without meeting current requirements of the code, provided the installation does not create a hazardous condition. Permits for installation shall be obtained in accordance with this code. In addition, as a requirement of this code, when such non-required equipment is to be

installed, the building official shall notify the appropriate fire official or fire chief.

**103.8.1 Reduction in function or discontinuance of nonrequired fire protection systems.** When a nonrequired fire protection system is to be reduced in function or discontinued, it shall be done in such a manner so as not to create a false sense of protection. Generally, in such cases, any features visible from interior areas shall be removed, such as sprinkler heads, smoke detectors or alarm panels or devices, but any wiring or piping hidden within the construction of the building may remain. Approval of the proposed method of reduction or discontinuance shall be obtained from the building official.

**103.9 Equipment changes.** Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with either the International Residential Code, the International Mechanical Code or the International Fuel Gas Code, depending on which is applicable based on the fuel source and the occupancy classification of the structure.
2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

**103.10 Use of certain provisions of referenced codes.** The following provisions of the IBC and of other indicated codes or standards are to be considered valid provisions of this code. Where any such provisions have been modified by the state amendments to the IBC, then the modified provisions apply.

1. Special inspection requirements in Chapters 2 – 35.
2. Chapter 34, Existing Structures, except that Section 3410, Compliance Alternatives, shall not be used to comply with the retrofit requirements identified in Section 103.7 and shall not be construed to permit noncompliance

with any applicable flood load or flood-resistant construction requirements of this code.

3. Testing requirements and requirements for the submittal of construction documents in any of the ICC codes referenced in Chapter 35.
4. Section R301.2 of the International Residential Code authorizing localities to determine climatic and geographic design criteria.
5. Flood load or flood-resistant construction requirements in the IBC or the International Residential Code, including, but not limited to, any such provisions pertaining to flood elevation certificates which are located in Chapter 1 of those codes. Any required flood elevation certificate pursuant to such provisions shall be prepared by a land surveyor licensed in Virginia or an RDP.

**103.11 Functional design.** The following criteria for functional design is in accordance with Section 36-98 of the Code of Virginia. The USBC shall not supersede the regulations of other state agencies which require and govern the functional design and operation of building related activities not covered by the USBC including but not limited to (i) public water supply systems, (ii) waste water treatment and disposal systems, (iii) solid waste facilities. Nor shall state agencies be prohibited from requiring, pursuant to other state law, that buildings and equipment be maintained in accordance with provisions of this code. In addition, as established by this code, the building official may refuse to issue a permit until the applicant has supplied certificates of functional design approval from the appropriate state agency or agencies. For purposes of coordination, the locality may require reports to the building official by other departments as a condition for issuance of a building permit or certificate of occupancy. Such reports shall be based upon review of the plans or inspection of the project as determined by the locality. All enforcement of these conditions shall not be the responsibility of the building official, but rather the agency imposing the condition.

**Note:** Identified state agencies with functional design approval are listed in the "Related Laws Package" which is available from DHCD.

**103.12 Amusement devices and inspections.** In accordance with Section 36-98.3 of the Code of Virginia, to the extent they are not superseded by the provisions of Section 36-98.3 of the Code of Virginia and the VADR, the provisions of the USBC shall apply to amusement devices. In addition, as a requirement of this code, inspections for compliance with the VADR shall be

conducted either by local building department personnel or private inspectors provided such persons are certified as amusement device inspectors under the VCS.

**103.13 State buildings and structures.** This section establishes the application of the USBC to state-owned buildings and structures in accordance with Section 36-98.1 of the Code of Virginia. The USBC shall be applicable to all state-owned buildings and structures, with the exception that Sections 2.2-1159, 2.2-1160 and 2.2-1161 of the Code of Virginia shall provide the standards for ready access to and use of state-owned buildings by the physically handicapped.

Any state-owned building or structure for which preliminary plans were prepared or on which construction commenced after the initial effective date of the USBC, shall remain subject to the provisions of the USBC that were in effect at the time such plans were completed or such construction commenced. Subsequent reconstruction, renovation or demolition of such building or structure shall be subject to the pertinent provisions of this code.

Acting through the Division of Engineering and Buildings, the Virginia Department of General Services shall function as the building official for state-owned buildings. The Department shall review and approve plans and specifications, grant modifications, and establish such rules and regulations as may be necessary to implement this section. It shall provide for the inspection of state-owned buildings and enforcement of the USBC and standards for access by the physically handicapped by delegating inspection and USBC enforcement duties to the State Fire Marshal's Office, to other appropriate state agencies having needed expertise, and to local building departments, all of which shall provide such assistance within a reasonable time and in the manner requested. State agencies and institutions occupying buildings shall pay to the local building department the same fees as would be paid by a private citizen for the services rendered when such services are requested by the Department. The Department may alter or overrule any decision of the local building department after having first considered the local building department's report or other rationale given for its decision. When altering or overruling any decision of a local building department, the Department shall provide the local building department with a written summary of its reasons for doing so.

Notwithstanding any provision of this code to the contrary, roadway tunnels and bridges owned by the Virginia Department of Transportation shall be exempt from this code. The Virginia Department of General Services shall not have jurisdiction over such roadway

tunnels, bridges and other limited access highways; provided, however, that the Department of General Services shall have jurisdiction over any occupied buildings within any Department of Transportation rights-of-way that are subject to this code.

Except as provided in Section 23-38.109 D of the Code of Virginia, and notwithstanding any provision of this code to the contrary, at the request of a public institution of higher education, the Virginia Department of General Services, as further set forth in this provision, shall authorize that institution of higher education to contract with a building official of the locality in which the construction is taking place to perform any inspection and certifications required for the purpose of complying with this code. The Department shall publish administrative procedures that shall be followed in contracting with a building official of the locality. The authority granted to a public institution of higher education under this provision to contract with a building official of the locality shall be subject to the institution meeting the conditions prescribed in Section 23-38.88 B of the Code of Virginia.

**Note:** In accordance with Section 36-98.1 of the Code of Virginia, roadway tunnels and bridges shall be designed, constructed and operated to comply with fire safety standards based on nationally recognized model codes and standards to be developed by the Virginia Department of Transportation in consultation with the State Fire Marshal and approved by the Virginia Commonwealth Transportation Board. Emergency response planning and activities related to the standards approved by the Commonwealth Transportation Board shall be developed by the Department of Transportation and coordinated with the appropriate local officials and emergency service providers. On an annual basis, the Department of Transportation shall provide a report on the maintenance and operability of installed fire protection and detection systems in roadway tunnels and bridges to the State Fire Marshal.

#### SECTION 104 ENFORCEMENT, GENERALLY

**104.1 Scope of enforcement.** This section establishes the requirements for enforcement of the USBC in accordance with Section 36-105 of the Code of Virginia. Enforcement of the provisions of the USBC for construction and rehabilitation shall be the responsibility of the local building department. Whenever a county or municipality does not have such a building department, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such enforcement. For

the purposes of this section, towns with a population of less than 3,500 may elect to administer and enforce the USBC; however, where the town does not elect to administer and enforce the code, the county in which the town is situated shall administer and enforce the code for the town. In the event such town is situated in two or more counties, those counties shall administer and enforce the USBC for that portion of the town which is situated within their respective boundaries.

The local governing body shall inspect and enforce this code for elevators except for elevators in single and two-family homes and townhouses. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body.

Upon a finding by the local building department, following a complaint by a tenant of a residential rental unit that is the subject of such complaint, that there may be a violation of the unsafe structures provisions of the code, the local building department shall enforce such provisions. If the local building department receives a complaint that a violation of the USBC exists that is an immediate and imminent threat to the health or safety of the owner or tenant of a residential dwelling unit or a nearby residential dwelling unit, and the owner or tenant of the residential dwelling unit that is the subject of the complaint has refused to allow the local building official or his agent to have access to the subject dwelling, the local building official or his agent may present sworn testimony to a court of competent jurisdiction and request that the court grant the local building official or his agent an inspection warrant to enable the building official or his agent to enter the subject dwelling for the purpose of determining whether violations of the USBC exist. The local building official or his agent shall make a reasonable effort to obtain consent from the owner or tenant of the subject dwelling prior to seeking the issuance of an inspection warrant under this section.

**Note:** The maintenance requirements for elevators and the provisions regulating existing unsafe buildings and structures are contained in Part III of the Virginia Uniform Statewide Building Code, also known as the "Virginia Maintenance Code."

**104.1.1 Rental inspections.** In accordance with Section 36-105.1:1 of the Code of Virginia, this section is applicable to rental inspection programs. For purposes of this section:

**"Dwelling unit"** means a building or structure or part thereof that is used for a home or residence by one or more persons who maintain a household.

**“Owner”** means the person shown on the current real estate assessment books or current real estate assessment records.

**“Residential rental dwelling unit”** means a dwelling unit that is leased or rented to one or more tenants. However, a dwelling unit occupied in part by the owner thereof shall not be construed to be a residential rental dwelling unit unless a tenant occupies a part of the dwelling unit which has its own cooking and sleeping areas, and a bathroom, unless otherwise provided in the zoning ordinance by the local governing body.

The local governing body may adopt an ordinance to inspect residential rental dwelling units for compliance with the USBC and to promote safe, decent and sanitary housing for its citizens, in accordance with the following:

1. Except as provided for in subdivision 3 of this subsection, the dwelling units shall be located in a rental inspection district established by the local governing body in accordance with this section, and
2. The rental inspection district is based upon a finding by the local governing body that (i) there is a need to protect the public health, safety and welfare of the occupants of dwelling units inside the designated rental inspection district; (ii) the residential rental dwelling units within the designated rental inspection district are either (a) blighted or in the process of deteriorating, or (b) the residential rental dwelling units are in the need of inspection by the building department to prevent deterioration, taking into account the number, age and condition of residential dwelling rental units inside the proposed rental inspection district; and (iii) the inspection of residential rental dwelling units inside the proposed rental inspection district is necessary to maintain safe, decent and sanitary living conditions for tenants and other residents living in the proposed rental inspection district. Nothing in this section shall be construed to authorize a locality-wide rental inspection district and a local governing body shall limit the boundaries of the proposed rental inspection district to such areas of the locality that meet the criteria set out in this subsection, or

3. An individual residential rental dwelling unit outside of a designated rental inspection district is made subject to the rental inspection ordinance based upon a separate finding for each individual dwelling unit by the local governing body that (i) there is a need to protect the public health, welfare and safety of the occupants of that individual dwelling unit; (ii) the individual dwelling unit is either (a) blighted or (b) in the process of deteriorating; or (iii) there is evidence of violations of the USBC that affect the safe, decent and sanitary living conditions for tenants living in such individual dwelling unit.

For purposes of this section, the local governing body may designate a local government agency other than the building department to perform all or part of the duties contained in the enforcement authority granted to the building department by this section.

Before adopting a rental inspection ordinance and establishing a rental inspection district or an amendment to either, the governing body of the locality shall hold a public hearing on the proposed ordinance. Notice of the hearing shall be published once a week for two successive weeks in a newspaper published or having general circulation in the locality.

Upon adoption by the local governing body of a rental inspection ordinance, the building department shall make reasonable efforts to notify owners of residential rental dwelling units in the designated rental inspection district, or their designated managing agents, and to any individual dwelling units subject to the rental inspection ordinance, not located in a rental inspection district, of the adoption of such ordinance, and provide information and an explanation of the rental inspection ordinance and the responsibilities of the owner thereunder.

The rental inspection ordinance may include a provision that requires the owners of dwelling units in a rental inspection district to notify the building department in writing if the dwelling unit of the owner is used for residential rental purposes. The building department may develop a form for such purposes. The rental inspection ordinance shall not include a registration requirement or a fee of any kind associated with the written notification pursuant to this subdivision. A rental inspection ordinance may not require that the written

notification from the owner of a dwelling unit subject to a rental inspection ordinance be provided to the building department in less than 60 days after the adoption of a rental inspection ordinance. However, there shall be no penalty for the failure of an owner of a residential rental dwelling unit to comply with the provisions of this subsection, unless and until the building department provides personal or written notice to the property owner, as provided in this section. In any event, the sole penalty for the willful failure of an owner of a dwelling unit who is using the dwelling unit for residential rental purposes to comply with the written notification requirement shall be a civil penalty of up to \$50. For purposes of this subsection, notice sent by regular first class mail to the last known address of the owner as shown on the current real estate tax assessment books or current real estate tax assessment records shall be deemed compliance with this requirement.

Upon establishment of a rental inspection district in accordance with this section, the building department may, in conjunction with the written notifications as provided for above, proceed to inspect dwelling units in the designated rental inspection district to determine if the dwelling units are being used as a residential rental property and for compliance with the provisions of the USBC that affect the safe, decent and sanitary living conditions for the tenants of such property.

If a multifamily development has more than 10 dwelling units, in the initial and periodic inspections, the building department shall inspect only a sampling of dwelling units, of not less than two and not more than 10% of the dwelling units, of a multifamily development, which includes all of the multifamily buildings which are part of that multifamily development. In no event, however, shall the building department charge a fee authorized by this section for inspection of more than 10 dwelling units. If the building department determines upon inspection of the sampling of dwelling units that there are violations of the USBC that affect the safe, decent and sanitary living conditions for the tenants of such multifamily development, the building department may inspect as many dwelling units as necessary to enforce the USBC, in which case, the fee shall be based upon a charge per dwelling unit inspected, as otherwise provided in the fee schedule established pursuant to this section.

Upon the initial or periodic inspection of a residential rental dwelling unit subject to a rental

inspection ordinance, the building department has the authority under the USBC to require the owner of the dwelling unit to submit to such follow-up inspections of the dwelling unit as the building department deems necessary, until such time as the dwelling unit is brought into compliance with the provisions of the USBC that affect the safe, decent and sanitary living conditions for the tenants.

Except as provided for above, following the initial inspection of a residential rental dwelling unit subject to a rental inspection ordinance, the building department may inspect any residential rental dwelling unit in a rental inspection district, that is not otherwise exempted in accordance with this section, no more than once each calendar year.

Upon the initial or periodic inspection of a residential rental dwelling unit subject to a rental inspection ordinance for compliance with the USBC, provided that there are no violations of the USBC that affect the safe, decent and sanitary living conditions for the tenants of such residential rental dwelling unit, the building department shall provide, to the owner of such residential rental dwelling unit, an exemption from the rental inspection ordinance for a minimum of four years. Upon the sale of a residential rental dwelling unit, the building department may perform a periodic inspection as provided above, subsequent to such sale. If a residential rental dwelling unit has been issued a certificate of occupancy within the last four years, an exemption shall be granted for a minimum period of four years from the date of the issuance of the certificate of occupancy by the building department. If the residential rental dwelling unit becomes in violation of the USBC during the exemption period, the building department may revoke the exemption previously granted under this section.

A local governing body may establish a fee schedule for enforcement of the USBC, which includes a per dwelling unit fee for the initial inspections, follow-up inspections and periodic inspections under this section.

The provisions of this section shall not, in any way, alter the rights and obligations of landlords and tenants pursuant to the applicable provisions of Chapter 13 (Section 55-217 et seq.) or Chapter 13.2 (Section 55-248.2 et seq.) of Title 55 of the Code of Virginia.

The provisions of this section shall not alter the duties or responsibilities of the local building

department under Section 36-105 of the Code of Virginia to enforce the Building Code.

Unless otherwise provided for in Section 36-105.1.1 of the Code of Virginia, penalties for violation of this section shall be the same as the penalties provided for violations of other sections of the USBC.

**104.2 Interagency coordination.** When any inspection functions under this code are assigned to a local agency other than the local building department, such agency shall coordinate its reports of inspection with the local building department.

## SECTION 105 LOCAL BUILDING DEPARTMENT

**105.1 Appointment of building official.** Every local building department shall have a building official as the executive official in charge of the department. The building official shall be appointed in a manner selected by the local governing body. After permanent appointment, the building official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority. DHCD shall be notified by the appointing authority within 30 days of the appointment or release of a permanent or acting building official.

**Note:** Building officials are subject to sanctions in accordance with the VCS.

**105.1.1 Qualifications of building official.** The building official shall have at least five years of building experience as a licensed professional engineer or architect, building, fire or trade inspector, contractor, housing inspector or superintendent of building, fire or trade construction or at least five years of building experience after obtaining a degree in architecture or engineering, with at least three years in responsible charge of work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The building official shall have general knowledge of sound engineering practice in respect to the design and construction of structures, the basic principles of fire prevention, the accepted requirements for means of egress and the installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The local governing body may establish additional qualification requirements.

**105.1.2 Certification of building official.** An acting or permanent building official shall be certified as a building official in accordance with the VCS within one year after being appointed as acting or permanent building official.

**Exception:** A building official in place prior to April 1, 1983, shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality.

**105.1.3 Noncertified building official.** Except for a building official exempt from certification under the exception to Section 105.1.2, any acting or permanent building official who is not certified as a building official in accordance with the VCS shall attend the core module of the Virginia Building Code Academy or an equivalent course in an individual or regional code academy accredited by DHCD within 180 days of appointment. This requirement is in addition to meeting the certification requirement in Section 105.1.2.

**105.1.4 Continuing education requirements.** Building officials shall attend periodic training courses designated by DHCD.

**105.2 Technical assistants.** The building official, subject to any limitations imposed by the locality, shall be permitted to utilize technical assistants to assist the building official in the enforcement of the USBC. DHCD shall be notified by the building official within 60 days of the employment of, contracting with or termination of all technical assistants.

**Note:** Technical assistants are subject to sanctions in accordance with the VCS.

**105.2.1 Qualifications of technical assistants.** A technical assistant shall have at least three years of experience and general knowledge in at least one of the following areas: building construction; building, fire or housing inspections; plumbing, electrical or mechanical trades; or fire protection, elevator or property maintenance work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The locality may establish additional qualification requirements.

**105.2.2 Certification of technical assistants.** A technical assistant shall be certified in the appropriate subject area within 18 months after becoming a technical assistant. When required by local policy to have two or more certifications, a

technical assistant shall obtain the additional certifications within three years from the date of such requirement.

**Exception:** A technical assistant in place prior to March 1, 1988 shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality.

**105.2.3 Continuing education requirements.** Technical assistants shall attend periodic training courses designated by DHCD.

**105.3 Conflict of interest.** The standards of conduct for building officials and technical assistants shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act, Chapter 31 (Section 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

**105.4 Records.** The local building department shall retain a record of applications received, permits, certificates, notices and orders issued, fees collected and reports of inspection in accordance with The Library of Virginia’s General Schedule Number Six.

**SECTION 106  
POWERS AND DUTIES OF THE BUILDING OFFICIAL**

**106.1 Powers and duties, generally.** The building official shall enforce this code as set out herein and as interpreted by the State Review Board.

**106.2 Delegation of authority.** The building official may delegate powers and duties except where such authority is limited by the local government. When such delegations are made, the building official shall be responsible for assuring that they are carried out in accordance with the provisions of this code.

**106.3 Issuance of modifications.** Upon written application by an owner or an owner’s agent, the building official may approve a modification of any provision of the USBC provided the spirit and functional intent of the code are observed and public health, welfare and safety are assured. The decision of the building official concerning a modification shall be made in writing and the application for a modification and the decision of the building official concerning such modification shall be retained in the permanent records of the local building department.

**Note:** The USBC references nationally recognized model codes and standards. Future amendments to such codes and standards are not automatically included in the

USBC; however the building official should give them due consideration in deciding whether to approve a modification.

**106.3.1 Substantiation of modification.** The building official may require or may consider a statement from an RDP or other person competent in the subject area of the application as to the equivalency of the proposed modification. In addition, the building official may require the application to include construction documents sealed by an RDP.

**106.3.2 Use of performance code.** Compliance with the provisions of a nationally recognized performance code when approved as a modification shall be considered to constitute compliance with this code. All documents submitted as part of such consideration shall be retained in the permanent records of the local building department.

**SECTION 107  
FEES**

**107.1 Authority for charging fees.** In accordance with Section 36-105 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement of the USBC.

**107.1.1 Fee schedule.** The local governing body shall establish a fee schedule incorporating unit rates, which may be based on square footage, cubic footage, estimated cost of construction or other appropriate criteria. A permit or any amendments to an existing permit shall not be issued until the designated fees have been paid, except that the building official may authorize the delayed payment of fees.

**107.1.2 Refunds.** When requested in writing by a permit holder, the locality shall provide a fee refund in the case of the revocation of a permit or the abandonment or discontinuance of a building project. The refund shall not be required to exceed an amount which correlates to work not completed.

**107.2 Code Academy fee levy.** In accordance with subdivision 7 of Section 36-137 of the Code of Virginia, the local building department shall collect a 1.75% levy of fees charged for building permits issued under this code and transmit it quarterly to DHCD to support training programs of the Virginia Building Code Academy. Localities which maintain individual or regional training academies accredited by DHCD shall retain such levy.

**SECTION 108  
APPLICATION FOR PERMIT**

**108.1 When applications are required.** Application for a permit shall be made to the building official and a permit shall be obtained prior to the commencement of any of the following activities, except that applications for emergency construction, alterations or equipment replacement shall be submitted by the end of the first working day that follows the day such work commences. In addition, the building official may authorize work to commence pending the receipt of an application or the issuance of a permit.

1. Construction or demolition of a building or structure, including the installation or altering of any equipment regulated by the USBC. For change of occupancy, application for a permit shall be made when a new certificate of occupancy is required under Section 103.3.
2. Movement of a lot line that increases the hazard to or decreases the level of safety of an existing building or structure in comparison to the building code under which such building or structure was constructed.
3. Removal or disturbing of any asbestos containing materials during the construction or demolition of a building or structure, including additions.

**108.2 Exemptions from application for permit.** Notwithstanding the requirements of Section 108.1, application for a permit and any related inspections shall not be required for the following; however, this section shall not be construed to exempt such activities from other applicable requirements of this code. In addition, when an owner or an owner's agent requests that a permit be issued for any of the following, then a permit shall be issued and any related inspections shall be required.

1. Installation of wiring and equipment that (i) operates at less than 50 volts, (ii) is for network powered broadband communications systems, or (iii) is exempt under Section 102.3(1), except when any such installations are located in a plenum, penetrate fire rated or smoke protected construction or are a component of any of the following:
  - 1.1. Fire alarm system.
  - 1.2. Fire detection system.

- 1.3. Fire suppression system.
  - 1.4. Smoke control system.
  - 1.5. Fire protection supervisory system.
  - 1.6. Elevator fire safety control system.
  - 1.7. Access or egress control system or delayed egress locking or latching system.
  - 1.8. Fire damper.
  - 1.9. Door control system.
2. Detached accessory structures used as tool and storage sheds, playhouses or similar uses, provided the floor area does not exceed 150 square feet (14 m<sup>2</sup>) and the structures are not accessory to a Group F or H occupancy.
  3. Detached pre-fabricated buildings housing the equipment of a publicly regulated utility service, provided the floor area does not exceed 150 square feet (14 m<sup>2</sup>).
  4. Tents or air-supported structures, or both, that cover an area of 900 square feet (84 m<sup>2</sup>) or less, including within that area all connecting areas or spaces with a common means of egress or entrance, provided such tents or structures have an occupant load of 50 or less persons.
  5. Fences and privacy walls not part of a building, structure or of the barrier for a swimming pool, provided such fences and privacy walls do not exceed six feet in height above the finished grade. Ornamental post caps shall not be considered to contribute to the height of the fence or privacy wall and shall be permitted to extend above the six feet height measurement.
  6. Retaining walls supporting less than two feet of unbalanced fill. This exemption shall not apply to any wall impounding Class I, II or III-A liquids or supporting a surcharge other than ordinary unbalanced fill.
  7. Swimming pools that have a surface area not greater than 150 square feet (13.95 m<sup>2</sup>), do not exceed 5,000 gallons (19 000 L) and are less than 24 inches (610 mm) deep.
  8. Ordinary repairs not including (i) the cutting away of any wall, partition or portion thereof; (ii) the removal or cutting of any structural

beam or loadbearing support; (iii) the removal or change of any required means of egress; (iv) the rearrangement of parts of a structure affecting the egress requirements; (v) the addition to, alteration of, replacement of or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas or oil, soil, waste, vent or similar piping, electric wiring or mechanical work; or (vi) any other work affecting public health or general safety. However, ordinary repairs shall include, but are not limited to, the following:

- 8.1. Either within the dwelling unit in Group R-2 occupancies that are four stories or less in height or in Group R-3, R-4 and R-5 occupancies, or both, replacement of (i) either mechanical or plumbing equipment or appliances, or both, provided such equipment or appliances are not fueled by gas or oil; (ii) floor coverings or porch flooring, or both; and (iii) windows, doors, electrical switches, electrical outlets, light fixtures or ceiling fans.
- 8.2. In Group R-3, R-4 or R-5 occupancies, replacement of either roof coverings or siding or the installation of siding, or both, provided the buildings or structures are not subject to wind speeds greater than 100 miles per hour (160 km/hr), determined in accordance with applicable requirements of this code.
- 8.3. Installation of cabinets, painting, replacement of interior floor finish or interior covering materials, or both, and repair of (i) plaster, (ii) interior tile, and (iii) any other interior wall covering.
9. Signs under the conditions in Section H101.2 of Appendix H.
10. Replacement of above-ground existing LP-gas containers of the same capacity in the same location and associated regulators when installed by the serving gas supplier.

### **108.3 Applicant information, processing by mail.**

Application for a permit shall be made by the owner or lessee of the relevant property or the agent of either or by the RDP, contractor or subcontractor associated with the work or any of their agents. The full name and address of the owner, lessee and applicant shall be provided in the application. If the owner or lessee is a corporate body, when and to the extent determined necessary by the

building official, the full name and address of the responsible officers shall also be provided. A permit application may be submitted by mail and such permit applications shall be processed by mail, unless the permit applicant voluntarily chooses otherwise. In no case shall an applicant be required to appear in person.

**108.4 Prerequisites to obtaining permit.** In accordance with Section 54.1-1111 of the Code of Virginia, any person applying to the building department for the construction, removal or improvement of any structure shall furnish prior to the issuance of the permit, either (i) satisfactory proof to the building official that he is duly licensed or certified under the terms of Chapter 11 (Section 54.1-1000 et seq.) of Title 54.1 of the Code of Virginia to carry out or superintend the same, or (ii) file a written statement, supported by an affidavit, that he is not subject to licensure or certification as a contractor or subcontractor pursuant to Chapter 11 of Title 54.1 of the Code of Virginia. The applicant shall also furnish satisfactory proof that the taxes or license fees required by any county, city, or town have been paid so as to be qualified to bid upon or contract for the work for which the permit has been applied.

**108.5 Mechanics' lien agent designation.** In accordance with Section 36-98.01 of the Code of Virginia, a building permit issued for any one- or two-family residential dwelling shall at the time of issuance contain, at the request of the applicant, the name, mailing address, and telephone number of the mechanics' lien agent as defined in Section 43-1 of the Code of Virginia. If the designation of a mechanics' lien agent is not so requested by the applicant, the building permit shall at the time of issuance state that none has been designated with the words "None Designated."

**108.6 Application form, description of work.** The application for a permit shall be submitted on a form or forms supplied by the local building department. The application shall contain a general description and location of the proposed work and such other information as determined necessary by the building official.

**108.7 Amendments to application.** An application for a permit may be amended at any time prior to the completion of the work governed by the permit. Additional construction documents or other records may also be submitted in a like manner. All such submittals shall have the same effect as if filed with the original application for a permit and shall be retained in a like manner as the original filings.

**108.8 Time limitation of application.** An application for a permit for any proposed work shall be deemed to

have been abandoned six months after the date of filing unless such application has been pursued in good faith or a permit has been issued, except that the building official is authorized to grant one or more extensions of time if a justifiable cause is demonstrated.

## SECTION 109 CONSTRUCTION DOCUMENTS

**109.1 Submittal of documents.** Construction documents shall be submitted with the application for a permit. The number of sets of such documents to be submitted shall be determined by the locality. Construction documents for one- and two-family dwellings may have floor plans reversed provided an accompanying site plan is approved.

**Exception:** Construction documents do not need to be submitted when the building official determines the proposed work is of a minor nature.

**Note:** Information on the types of construction required to be designed by an RDP is included in the "Related Laws Package" available from DHCD.

**109.2 Site plan.** When determined necessary by the building official, a site plan shall be submitted with the application for a permit. The site plan shall show to scale the size and location of all proposed construction, including any associated wells, septic tanks or drain fields. The site plan shall also show to scale the size and location of all existing structures on the site, the distances from lot lines to all proposed construction, the established street grades and the proposed finished grades. When determined necessary by the building official, the site plan shall contain the elevation of the lowest floor of any proposed buildings. The site plan shall also be drawn in accordance with an accurate boundary line survey. When the application for a permit is for demolition, the site plan shall show all construction to be demolished and the location and size of all existing structures that are to remain on the site.

**Note:** Site plans are generally not necessary for alterations, renovations, repairs or the installation of equipment.

**109.3 Engineering details.** When determined necessary by the building official, construction documents shall include adequate detail of the structural, mechanical, plumbing or electrical components. Adequate detail may include computations, stress diagrams or other essential technical data and when proposed buildings are more than two stories in height, adequate detail may specifically be required to include where floor penetrations will be made for pipes, wires, conduits, and

other components of the electrical, mechanical and plumbing systems and how such floor penetrations will be protected to maintain the required structural integrity or fire-resistance rating, or both. All engineered documents, including relevant computations, shall be sealed by the RDP responsible for the design.

**109.4 Examination of documents.** The building official shall examine or cause to be examined all construction documents or site plans, or both, within a reasonable time after filing. If such documents or plans do not comply with the provisions of this code, the permit applicant shall be notified in writing of the reasons, which shall include any adverse construction document review comments or determinations that additional information or engineering details need to be submitted. The review of construction documents for new one- and two-family dwellings for determining compliance with the technical provisions of this code not relating to the site, location or soil conditions associated with the dwellings shall not be required when identical construction documents for identical dwellings have been previously approved in the same locality under the same edition of the code and such construction documents are on file with the local building department.

**109.4.1 Expedited construction document review.** The building official may accept reports from an approved person or agency that the construction documents have been examined and conform to the requirements of the USBC and may establish requirements for the person or agency submitting such reports. In addition, where such reports have been submitted, the building official may expedite the issuance of the permit.

**109.5 Approval of construction documents.** The approval of construction documents shall be limited to only those items within the scope of the USBC. Either the word "Approved" shall be stamped on all required sets of approved construction documents or an equivalent endorsement in writing shall be provided. One set of the approved construction documents shall be retained for the records of the local building department and one set shall be kept at the building site and shall be available to the building official at all reasonable times.

**109.6 Phased approval.** The building official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own

risk with the building operation and without assurance that a permit for the entire structure will be granted.

## SECTION 110 PERMITS

**110.1 Approval and issuance of permits.** The building official shall examine or cause to be examined all applications for permits or amendments to such applications within a reasonable time after filing. If the applications or amendments do not comply with the provisions of this code or all pertinent laws and ordinances, the permit shall not be issued and the permit applicant shall be notified in writing of the reasons for not issuing the permit. If the application complies with the applicable requirements of this code, a permit shall be issued as soon as practicable. The issuance of permits shall not be delayed in an effort to control the pace of construction of new detached one- or two-family dwellings.

**110.2 Types of permits.** Separate or combined permits may be required for different areas of construction such as building construction, plumbing, electrical, and mechanical work, or for special construction as determined appropriate by the locality. In addition, permits for two or more buildings or structures on the same lot may be combined. Annual permits may also be issued for alterations to an existing structure. The annual permit holder shall maintain a detailed record of all alterations made under the annual permit. Such record shall be available to the building official and shall be submitted to the local building department if requested by the building official.

**110.3 Asbestos inspection in buildings to be renovated or demolished; exceptions.** In accordance with Section 36-99.7 of the Code of Virginia, the local building department shall not issue a building permit allowing a building for which an initial building permit was issued before January 1, 1985, to be renovated or demolished until the local building department receives certification from the owner or his agent that the affected portions of the building have been inspected for the presence of asbestos by an individual licensed to perform such inspections pursuant to Section 54.1-503 of the Code of Virginia and that no asbestos-containing materials were found or that appropriate response actions will be undertaken in accordance with the requirements of the Clean Air Act National Emission Standard for the Hazardous Air Pollutant (NESHAPS) (40 CFR Part 61, Subpart M), and the asbestos worker protection requirements established by the U.S. Occupational Safety and Health Administration for construction workers (29 CFR 1926.1101). Local educational agencies that are subject to the requirements established

by the Environmental Protection Agency under the Asbestos Hazard Emergency Response Act (AHERA) shall also certify compliance with 40 CFR 763 and subsequent amendments thereto.

To meet the inspection requirements above, except with respect to schools, asbestos inspection of renovation projects consisting only of repair or replacement of roofing, floorcovering, or siding materials may be satisfied by a statement that the materials to be repaired or replaced are assumed to contain friable asbestos and that asbestos installation, removal, or encapsulation will be accomplished by a licensed asbestos contractor.

The provisions of this section shall not apply to single-family dwellings or residential housing with four or fewer units, unless the renovation or demolition of such buildings is for commercial or public development purposes. The provisions of this section shall not apply if the combined amount of regulated asbestos-containing material involved in the renovation or demolition is less than 260 linear feet on pipes or less than 160 square feet on other facility components or less than 35 cubic feet off facility components where the length or area could not be measured previously.

An abatement area shall not be reoccupied until the building official receives certification from the owner that the response actions have been completed and final clearances have been measured. The final clearance levels for reoccupancy of the abatement area shall be 0.01 or fewer asbestos fibers per cubic centimeter if determined by Phase Contrast Microscopy analysis (PCM) or 70 or fewer structures per square millimeter if determined by Transmission Electron Microscopy analysis (TEM).

**110.4 Fire apparatus access road requirements.** The permit applicant shall be informed of any requirements for providing or maintaining fire apparatus access roads prior to the issuance of a building permit.

**110.5 Signature on and posting of permits; limitation of approval.** The signature of the building official or authorized representative shall be on or affixed to every permit. A copy of the permit shall be posted on the construction site for public inspection until the work is completed. Such posting shall include the street or lot number if one has been assigned, to be readable from a public way. In addition, each building or structure to which a street number has been assigned shall, upon completion, have the number displayed so as to be readable from the public way.

A permit shall be considered authority to proceed with construction in accordance with this code, the approved

construction documents, the permit application and any approved amendments or modifications. The permit shall not be construed to otherwise authorize the omission or amendment of any provision of this code.

**110.6 Suspension of a permit.** Any permit shall become invalid if work on the site authorized by the permit is not commenced within six months after issuance of the permit, or if the authorized work on the site is suspended or abandoned for a period of six months after the time of commencing the work; however, permits issued for building equipment such as plumbing, electrical and mechanical work shall not become invalid if the building permit is still in effect. It shall be the responsibility of the permit applicant to prove to the building official that work has not been suspended or abandoned. Upon written request, the building official may grant one or more extensions of time, not to exceed one year per extension.

**110.7 Revocation of a permit.** The building official may revoke a permit or approval issued under this code in the case of any false statement, misrepresentation of fact or incorrect information supplied by the applicant in the application or construction documents on which the permit or approval was based.

#### SECTION 111 RDP SERVICES

**111.1 When required.** In accordance with Section 54.1-410 of the Code of Virginia and under the general authority of this code, the local building department shall establish a procedure to ensure that construction documents under Section 109 are prepared by an RDP in any case in which the exemptions contained in Sections 54.1-401, 54.1-402 or Section 54.1-402.1 of the Code of Virginia are not applicable or in any case where the building official determines it necessary. When required under Section 54.1-402 of the Code of Virginia or when required by the building official, or both, construction documents shall bear the name and address of the author and his occupation.

**Note:** Information on the types of construction required to be designed by an RDP is included in the "Related Laws Package" available from DHCD.

**111.2 Special inspection requirements.** Special inspections shall be conducted under the supervision of registered design professionals and in accordance with Section 1704. Persons engaged in the testing and inspection of construction materials, and the facilities, equipment and procedures they use in the process, shall comply with ASTM E329 or other standards acceptable to the building official. The building official may require

written documentation of personnel certifications and laboratory accreditation, when appropriate, as evidence of conformance with this section. The permit applicant shall submit a statement of special inspections as a requisite to the issuance of a building permit. All fees and costs related to the special inspections shall be the responsibility of the building owner.

#### SECTION 112 WORKMANSHIP, MATERIALS AND EQUIPMENT

**112.1 General.** It shall be the duty of any person performing work covered by this code to comply with all applicable provisions of this code and to perform and complete such work so as to secure the results intended by the USBC.

**112.2 Alternative methods or materials.** In accordance with Section 36-99 of the Code of Virginia, where practical, the provisions of this code are stated in terms of required level of performance, so as to facilitate the prompt acceptance of new building materials and methods. When generally recognized standards of performance are not available, this section and other applicable requirements of this code provide for acceptance of materials and methods whose performance is substantially equal in safety to those specified on the basis of reliable test and evaluation data presented by the proponent. In addition, as a requirement of this code, the building official shall require that sufficient technical data be submitted to substantiate the proposed use of any material, equipment, device, assembly or method of construction.

**112.3 Documentation and approval.** In determining whether any material, equipment, device, assembly or method of construction complies with this code, the building official shall approve items listed by nationally recognized testing laboratories (NRTL), when such items are listed for the intended use and application, and in addition, may consider the recommendations of RDPs. Approval shall be issued when the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code and that the material, equipment, device, assembly or method of construction offered is, for the purpose intended, at least the equivalent of that prescribed by the code in quality, strength, effectiveness, fire resistance, durability and safety. Such approval is subject to all applicable requirements of this code and the material, equipment, device, assembly or method of construction shall be installed in accordance with the conditions of the approval and their listings. In addition, the building official may revoke such approval whenever it is discovered that such approval was issued in error or on

the basis of incorrect information, or where there are repeated violations of the USBC.

**112.3.1 Conditions of listings.** Where conflicts between this code and conditions of the listing or the manufacturer's installation instructions occur, the provisions of this code shall apply.

**Exception:** Where a code provision is less restrictive than the conditions of the listing of the equipment or appliance or the manufacturer's installation instructions, the conditions of the listing and the manufacturer's installation instructions shall apply.

**112.4 Used material and equipment.** Used materials, equipment and devices may be approved provided they have been reconditioned, tested or examined and found to be in good and proper working condition and acceptable for use by the building official.

## SECTION 113 INSPECTIONS

**113.1 General.** In accordance with Section 36-105 of the Code of Virginia, any building or structure may be inspected at any time before completion, and shall not be deemed in compliance until approved by the inspecting authority. Where the construction cost is less than \$2,500, however, the inspection may, in the discretion of the inspecting authority, be waived. The building official shall coordinate all reports of inspections for compliance with the USBC, with inspections of fire and health officials delegated such authority, prior to the issuance of an occupancy permit.

**113.1.1 Equipment required.** Any ladder, scaffolding or test equipment necessary to conduct or witness a requested inspection shall be provided by the permit holder.

**113.1.2 Duty to notify.** When construction reaches a stage of completion which requires an inspection, the permit holder shall notify the building official.

**113.1.3 Duty to inspect.** Except as provided for in Section 113.7, the building official shall perform the requested inspection in accordance with Section 113.6 when notified in accordance with Section 113.1.2.

**113.2 Prerequisites.** The building official may conduct a site inspection prior to issuing a permit. When conducting inspections pursuant to this code, all personnel shall carry proper credentials.

**113.3 Minimum inspections.** The following minimum inspections shall be conducted by the building official when applicable to the construction or permit:

1. Inspection of footing excavations and reinforcement material for concrete footings prior to the placement of concrete.
2. Inspection of foundation systems during phases of construction necessary to assure compliance with this code.
3. Inspection of preparatory work prior to the placement of concrete.
4. Inspection of structural members and fasteners prior to concealment.
5. Inspection of electrical, mechanical and plumbing materials, equipment and systems prior to concealment.
6. Inspection of energy conservation material prior to concealment.
7. Final inspection.

**113.4 Additional inspections.** The building official may designate additional inspections and tests to be conducted during the construction of a building or structure and shall so notify the permit holder.

**113.5 In-plant and factory inspections.** When required by the provisions of this code, materials, equipment or assemblies shall be inspected at the point of manufacture or fabrication. The building official shall require the submittal of an evaluation report of such materials, equipment or assemblies. The evaluation report shall indicate the complete details of the assembly including a description of the assembly and its components, and describe the basis upon which the assembly is being evaluated. In addition, test results and other data as necessary for the building official to determine conformance with the USBC shall be submitted. For factory inspections, an identifying label or stamp permanently affixed to materials, equipment or assemblies indicating that a factory inspection has been made shall be acceptable instead of a written inspection report, provided the intent or meaning of such identifying label or stamp is properly substantiated.

**113.6 Approval or notice of defective work.** The building official shall either approve the work in writing or give written notice of defective work to the permit holder. Upon request of the permit holder, the notice shall reference the USBC section that serves as the basis

for the defects and such defects shall be corrected and reinspected before any work proceeds that would conceal such defects. A record of all reports of inspections, tests, examinations, discrepancies and approvals issued shall be maintained by the building official and shall be communicated promptly in writing to the permit holder. Approval issued under this section may be revoked whenever it is discovered that such approval was issued in error or on the basis of incorrect information, or where there are repeated violations of the USBC.

**113.7 Approved inspection agencies.** The building official may accept reports of inspections and tests from approved individuals or approved inspection agencies, which satisfy qualifications and reliability requirements. Under circumstances where the building official is unable to make the inspection or test within two working days of a request or an agreed upon date, the building official shall accept reports for review from such approved individuals or agencies. Such reports shall be in writing and shall be certified by the individual inspector or by the responsible officer when the report is from an agency.

**Note:** Photographs, videotapes or other sources of pertinent data or information may be considered as constituting such reports and tests.

**113.7.1 Third-party inspectors.** Each building official charged with the enforcement of the USBC shall have a written policy establishing the minimum acceptable qualifications for third-party inspectors. The policy shall include the format and time frame required for submission of reports, any prequalification or pre-approval requirements and any other requirements and procedures established by the building official.

**113.8 Final inspection.** Upon completion of a building or structure and before the issuance of a certificate of occupancy, a final inspection shall be conducted to ensure that any defective work has been corrected and that all work complies with the USBC and has been approved, including any work associated with modifications under Section 106.3. The approval of a final inspection shall be permitted to serve as the new certificate of occupancy required by Section 116.1 in the case of additions or alterations to existing buildings or structures that already have a certificate of occupancy.

**SECTION 114  
STOP WORK ORDERS**

**114.1 Issuance of order.** When the building official finds that work on any building or structure is being executed contrary to the provisions of this code or any

pertinent laws or ordinances, or in a manner endangering the general public, a written stop work order may be issued. The order shall identify the nature of the work to be stopped and be given either to the owner of the property involved, to the owner’s agent or to the person performing the work. Following the issuance of such an order, the affected work shall cease immediately. The order shall state the conditions under which such work may be resumed.

**114.2 Limitation of order.** A stop work order shall apply only to the work identified in the order, provided that other work on the building or structure may be continued if not concealing the work covered by the order.

**SECTION 115  
VIOLATIONS**

**115.1 Violation a misdemeanor; civil penalty.** In accordance with Section 36-106 of the Code of Virginia, it shall be unlawful for any owner or any other person, firm or corporation, on or after the effective date of any code provisions, to violate any such provisions. Any locality may adopt an ordinance which establishes a uniform schedule of civil penalties for violations of specified provisions of the code which are not abated or remedied promptly after receipt of a notice of violation from the local enforcement officer.

**Note:** See the full text of Section 36-106 of the Code of Virginia for additional requirements and criteria pertaining to legal action relative to violations of the code.

**115.2 Notice of violation.** The building official shall issue a written notice of violation to the responsible party if any violations of this code or any directives or orders of the building official have not been corrected or complied with in a reasonable time. The notice shall reference the code section upon which the notice is based and direct the discontinuance and abatement of the violation or the compliance with such directive or order. The notice shall be issued by either delivering a copy to the responsible party by mail to the last known address or delivering the notice in person or by leaving it in the possession of any person in charge of the premises, or by posting the notice in a conspicuous place if the person in charge of the premises cannot be found. The notice of violation shall indicate the right of appeal by referencing the appeals section. When the owner of the building or structure, or the permit holder for the construction in question, or the tenants of such building or structure, are not the responsible party to whom the notice of violation is issued, then a copy of the notice shall also be delivered to the such owner, permit holder or tenants.

**115.2.1 Notice not to be issued under certain circumstances.** When violations are discovered more than two years after the certificate of occupancy is issued or the date of initial occupancy, whichever occurred later, or more than two years after the approved final inspection for an alteration or renovation, a notice of violation shall only be issued upon advice from the legal counsel of the locality that action may be taken to compel correction of the violation. When compliance can no longer be compelled by prosecution under Section 36-106 of the Code of Virginia, the building official shall document the existence of the violation and the edition of the USBC the violation is under.

**115.3 Further action when violation not corrected.** If the responsible party has not complied with the notice of violation, the building official shall submit a written request to the legal counsel of the locality to institute the appropriate legal proceedings to restrain, correct or abate the violation or to require the removal or termination of the use of the building or structure involved. In cases where the locality so authorizes, the building official may issue or obtain a summons or warrant. Compliance with a notice of violation notwithstanding, the building official may request legal proceedings be instituted for prosecution when a person, firm or corporation is served with three or more notices of violation within one calendar year for failure to obtain a required construction permit prior to commencement of work subject to this code.

**Note:** See Section 19.2-8 of the Code of Virginia concerning the statute of limitations for building code prosecutions.

**115.4 Penalties and abatement.** Penalties for violations of the USBC shall be as set out in Section 36-106 of the Code of Virginia. The successful prosecution of a violation of the USBC shall not preclude the institution of appropriate legal action to require correction or abatement of a violation.

## SECTION 116 CERTIFICATES OF OCCUPANCY

**116.1 General; when to be issued.** A certificate of occupancy indicating completion of the work for which a permit was issued shall be obtained prior to the occupancy of any building or structure, except as provided for in this section generally and as specifically provided for in Section 113.8 for additions or alterations. The certificate shall be issued after completion of the final inspection and when the building or structure is in compliance with this code and any pertinent laws or

ordinances, or when otherwise entitled. The building official shall, however, issue a certificate of occupancy within five working days after being requested to do so, provided the building or structure meets all of the requirements for a certificate.

**Exception:** A certificate of occupancy is not required for an accessory structure as defined in the International Residential Code.

**116.1.1 Temporary certificate of occupancy.** Upon the request of a permit holder, a temporary certificate of occupancy may be issued before the completion of the work covered by a permit, provided that such portion or portions of a building of structure may be occupied safely prior to full completion of the building or structure without endangering life or public safety.

**116.2 Contents of certificate.** A certificate of occupancy shall specify the following:

1. The edition of the USBC under which the permit is issued.
2. The group classification and occupancy in accordance with the provisions of Chapter 3.
3. The type of construction as defined in Chapter 6.
4. If an automatic sprinkler system is provided and whether or not such system was required.
5. Any special stipulations and conditions of the building permit and if any modifications were issued under the permit, there shall be a notation on the certificate that modifications were issued.

**116.3 Suspension or revocation of certificate.** A certificate of occupancy may be revoked or suspended whenever the building official discovers that such certificate was issued in error or on the basis of incorrect information, or where there are repeated violations of the USBC. The revocation or suspension shall be in writing.

**116.4 Issuance of certificate for existing buildings or structures.** Upon written request from the owner or the owner's agent, or as otherwise determined necessary by the building official, a certificate of occupancy shall be issued for an existing building or structure provided there are no current violations of the Virginia Maintenance Code or the Virginia Statewide Fire Prevention Code (13 VAC 5-51) and the occupancy classification of the building or structure has not changed. An inspection shall be performed prior to the issuance of the certificate

and such buildings and structures shall not be prevented from continued use.

**SECTION 117  
TEMPORARY AND MOVED BUILDINGS AND  
STRUCTURES; DEMOLITION**

**117.1 Temporary building and structures.** The building official is authorized to issue a permit for temporary buildings or structures. Such permits shall be limited as to time of service, but shall not be permitted for more than one year, except that upon the permit holder's written request, the building official may grant one or more extensions of time, not to exceed one year per extension. The building official is authorized to terminate the approval and order the demolition or removal of temporary buildings or structures during the period authorized by the permit when determined necessary.

**117.2 Moved buildings and structures.** Any building or structure moved into a locality or moved to a new location within a locality shall not be occupied or used until a certification of occupancy is issued for the new location. Such moved buildings or structures shall be required to comply with the requirements of this code for a newly constructed building or structure unless meeting all of the following requirements relative to the new location:

1. There is no change in the occupancy classification from its previous location.
2. The building or structure was in compliance with all state and local requirements applicable to it in its previous location and is in compliance with all state and local requirements applicable if originally constructed in the new location.
3. The building or structure did not become unsafe during the moving process due to structural damage or for other reasons.
4. Any alterations, reconstruction, renovations or repairs made pursuant to the move are in compliance with applicable requirements of this code.

**117.3 Demolition of buildings and structures.** Prior to the issuance of a permit for the demolition of any building or structure, the owner or the owner's agent shall provide certification to the building official that all service connections of utilities have been removed, sealed or plugged satisfactorily and a release has been obtained from the associated utility company. The

certification shall further provide that written notice has been given to the owners of adjoining lots and any other lots that may be affected by the temporary removal of utility wires or the temporary disconnection or termination of other services or facilities relative to the demolition. In addition, the requirements of Chapter 33 of the IBC for any necessary retaining walls or fences during demolition shall be applicable and when a building or structure is demolished or removed, the established grades shall be restored.

**SECTION 118  
BUILDINGS AND STRUCTURES BECOMING UNSAFE  
DURING CONSTRUCTION**

**118.1 Applicability.** This section applies to buildings and structures for which a construction permit has been issued under this code and construction has not been completed or a certificate of occupancy has not been issued, or both. In addition, this section applies to any building or structure that is under construction or that was constructed without obtaining the required permits under this edition or any edition of the USBC.

**Note:** Existing buildings and structures other than those under construction or subject to this section are subject to the Virginia Maintenance Code that also has requirements for unsafe conditions.

**118.2 Repair or removal of unsafe buildings or structures.** Any building or structure subject to this section that is either deteriorated, improperly maintained, of faulty construction, deficient in adequate exit facilities, a fire hazard or dangerous to life or the public welfare, or both, or any combination of the foregoing, is an unsafe building or structure and shall be made safe through compliance with this code or shall be taken down and removed if determined necessary by the building official.

**118.3 Inspection report and notice of unsafe building or structure.** The building official shall inspect any building or structure reported to be unsafe and shall prepare a report to be filed in the records of the local building department. In addition to a description of any unsafe conditions found, the report shall include the occupancy classification of the building or structure and the nature and extent of any damages caused by collapse or failure of any building components. If the building or structure is determined by the building official to be unsafe, a notice of unsafe building or structure shall be issued in person to the owner and any permit holder. The notice shall describe any unsafe conditions and specify any repairs or improvements necessary to make the building or structure safe, or alternatively, when determined necessary by the building official, require the

unsafe building or structure, or any portion of it, to be taken down and removed. The notice shall stipulate a time period for the repair or demolition of the unsafe building or structure and contain a statement requiring the person receiving the notice to determine whether to accept or reject the terms of the notice. If any persons to which the notice of unsafe building or structure is to be issued cannot be found after diligent search, as equivalent service, the notice shall be sent by registered or certified mail to the last known address of such persons and a copy of the notice posted in a conspicuous place on the premises.

**118.4 Vacating the unsafe building or structure.** If any portion of an unsafe building or structure has collapsed or fallen, or if the building official determines there is actual and immediate danger of any portion collapsing or falling, and when life is endangered by the occupancy of the unsafe building or structure, the building official shall be authorized to order the occupants to immediately vacate the unsafe building or structure. When an unsafe building or structure is ordered to be vacated, the building official shall post a notice at each entrance that reads as follows:

“This Building (or Structure) is Unsafe and its Occupancy (or Use) is Prohibited by the Building Official.”

After posting, occupancy or use of the unsafe structure shall be prohibited except when authorized to enter to conduct inspections, make required repairs or as necessary to demolish the building or structure.

**118.5 Emergency repairs and demolition.** To the extent permitted by the locality, the building official may authorize emergency repairs to unsafe buildings or structures when it is determined that there is an immediate danger of any portion of the unsafe building or structure collapsing or falling and when life is endangered. Emergency repairs may also be authorized when there is a code violation resulting in the immediate, serious and imminent threat to the life and safety of the occupants. The building official shall be permitted to authorize the necessary work to make the building or structure temporarily safe whether or not legal action to compel compliance has been instituted.

In addition, whenever an owner of an unsafe building or structure fails to comply with a notice to demolish issued under Section 118.3 in the time period stipulated, the building official shall be permitted to cause the unsafe building or structure to be. In accordance with Sections 15.2-906 and 15.2-1115 of the Code of Virginia, the legal counsel of the locality may be requested to institute appropriate action against the property owner to recover

the costs associated with any such emergency repairs or demolition and every such charge that remains unpaid shall constitute a lien against the property on which the emergency repairs or demolition were made and shall be enforceable in the same manner as provided in Articles 3 (Section 58.1-3940 et seq.) and 4 (Section 58.1-3965 et seq.) of Chapter 39 of Title 58.1 of the Code of Virginia.

**Note:** Building officials and local governing bodies should be aware that other statutes and court decisions may impact on matters relating to demolition, in particular whether newspaper publication is required if the owner cannot be located and whether the demolition order must be delayed until the owner has been given the opportunity for a hearing.

## SECTION 119 APPEALS

**119.1 Establishment of appeals board.** In accordance with Section 36-105 of the Code of Virginia, there shall be established within each local building department a LBBCA. Whenever a county or a municipality does not have such a LBBCA, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such appeals resulting therefrom. Fees may be levied by the local governing body in order to defray the cost of such appeals. In addition, as an authorization in this code, separate LBBCAs may be established to hear appeals of different enforcement areas such as electrical, plumbing or mechanical requirements. Each such LBBCA shall comply with the requirements of this section.

**119.2 Membership of board.** The LBBCA shall consist of at least five members appointed by the locality for a specific term of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be maintained in the office of the locality. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period.

**119.3 Officers and qualifications of members.** The LBBCA shall annually select one of its regular members to serve as chairman. When the chairman is not present at an appeal hearing, the members present shall select an acting chairman. The locality or the chief executive officer of the locality shall appoint a secretary to the LBBCA to maintain a detailed record of all proceedings.

Members of the LBBCA shall be selected by the locality on the basis of their ability to render fair and competent decisions regarding application of the USBC and shall to the extent possible, represent different occupational or professional fields relating to the construction industry. At least one member should be an experienced builder; at least one member should be an RDP, and at least one member should be an experienced property manager. Employees or officials of the locality shall not serve as members of the LBBCA.

**119.4 Conduct of members.** No member shall hear an appeal in which that member has a conflict of interest in accordance with the State and Local Government Conflict of Interests Act (Section 2.2-3100 et seq. of the Code of Virginia). Members shall not discuss the substance of an appeal with any other party or their representatives prior to any hearings.

**119.5 Right of appeal; filing of appeal application.** The owner of a building or structure, the owner's agent or any other person involved in the design or construction of a building or structure may appeal a decision of the building official concerning the application of the USBC to such building or structure and may also appeal a refusal by the building official to grant a modification to the provisions of the USBC pertaining to such building or structure. The applicant shall submit a written request for appeal to the LBBCA within 90 calendar days of the receipt of the decision being appealed. The application shall contain the name and address of the owner of the building or structure and in addition, the name and address of the person appealing, when the applicant is not the owner. A copy of the building official's decision shall be submitted along with the application for appeal and maintained as part of the record. The application shall be marked by the LBBCA to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of a building official's decision.

**Note:** To the extent that a decision of a building official pertains to amusement devices there may be a right of appeal under the VADR.

**119.6 Meetings and postponements.** The LBBCA shall meet within 30 calendar days after the date of receipt of the application for appeal, except that a longer time period shall be permitted if agreed to by all the parties involved in the appeal. A notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days prior to the date of the hearing, except that a lesser time period shall be permitted if agreed to by all the parties involved in the appeal. When a quorum of the LBBCA is not present at a hearing to hear an appeal, any

party involved in the appeal shall have the right to request a postponement of the hearing. The LBBCA shall reschedule the appeal within 30 calendar days of the postponement, except that a longer time period shall be permitted if agreed to by all the parties involved in the appeal.

**119.7 Hearings and decision.** All hearings before the LBBCA shall be open meetings and the appellant, the appellant's representative, the locality's representative and any person whose interests are affected by the building official's decision in question shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the record of all proceedings. The LBBCA shall have the power to uphold, reverse or modify the decision of the official by a concurring vote of a majority of those present. Decisions of the LBBCA shall be final if no further appeal is made. The decision of the LBBCA shall be by resolution signed by the chairman and retained as part of the record of the appeal. Copies of the resolution shall be sent to all parties by certified mail. In addition, the resolution shall contain the following wording:

“Any person who was a party to the appeal may appeal to the State Review Board by submitting an application to such Board within 21 calendar days upon receipt by certified mail of this resolution. Application forms are available from the Office of the State Review Board, 501 North Second Street, Richmond, Virginia 23219, (804) 371-7150.”

**119.8 Appeals to the State Review Board.** After final determination by the LBBCA in an appeal, any person who was a party to the appeal may further appeal to the State Review Board. In accordance with Section 36-98.2 of the Code of Virginia for state-owned buildings and structures, appeals by an involved state agency from the decision of the building official for state-owned buildings or structures shall be made directly to the State Review Board. The application for appeal shall be made to the State Review Board within 21 calendar days of the receipt of the decision to be appealed. Failure to submit an application within that time limit shall constitute an acceptance of the building official's decision. For appeals from a LBBCA, a copy of the building official's decision and the resolution of the LBBCA shall be submitted with the application for appeal to the State Review Board. Upon request by the office of the State Review Board, the LBBCA shall submit a copy of all pertinent information from the record of the appeal. In the case of appeals involving state-owned buildings or structures, the involved state agency shall submit a copy of the building official's decision and other relevant information with the application for appeal to the State

Review Board. Procedures of the State Review Board are in accordance with Article 2 (Section 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions

of the State Review Board shall be final if no further appeal is made.

## Chapter 2 DEFINITIONS

Add the following definitions to Section 202 of the IBC to read:

**Building regulations.** Any law, rule, resolution, regulation, ordinance or code, general or special, or compilation thereof, heretofore or hereafter enacted or adopted by the Commonwealth or any county or municipality, including departments, boards, bureaus, commissions, or other agencies thereof, relating to construction, reconstruction, alteration, conversion, repair, maintenance, or use of structures and buildings and installation of equipment therein. The term does not include zoning ordinances or other land use controls that do not affect the manner of construction or materials to be used in the erection, alteration or repair of a building or structure.

**Construction.** The construction, reconstruction, alteration, repair, or conversion of buildings and structures.

**Day-night average sound level (Ldn).** See Section 1202.1.

**DHCD.** The Virginia Department of Housing and Community Development.

**Equipment.** Plumbing, heating, electrical, ventilating, air-conditioning and refrigeration equipment, elevators, dumbwaiters, escalators, and other mechanical additions or installations.

**Farm building or structure.** A building or structure not used for residential purposes, located on property where farming operations take place, and used primarily for any of the following uses or combination thereof:

1. Storage, handling, production, display, sampling or sale of agricultural, horticultural, floricultural or silvicultural products produced in the farm.
2. Sheltering, raising, handling, processing or sale of agricultural animals or agricultural animal products.

3. Business or office uses relating to the farm operations.
4. Use of farm machinery or equipment or maintenance or storage of vehicles, machinery or equipment on the farm.
5. Storage or use of supplies and materials used on the farm.
6. Implementation of best management practices associated with farm operations.

**Industrialized building.** A combination of one or more sections or modules, subject to state regulations and including the necessary electrical, plumbing, heating, ventilating and other service systems, manufactured off-site and transported to the point of use for installation or erection, with or without other specified components, to comprise a finished building. Manufactured homes shall not be considered industrialized buildings for the purpose of this code.

**Local board of building code appeals (LBBCA).** See Section 119.1.

**Local building department.** The agency or agencies of any local governing body charged with the administration, supervision, or enforcement of this code, approval of construction documents, inspection of buildings or structures, or issuance of permits, licenses, certificates or similar documents.

**Local governing body.** The governing body of any city, county or town in this Commonwealth.

**Locality.** A city, county or town in this Commonwealth.

**Manufactured home.** A structure subject to federal regulation, which is transportable in one or more sections; is eight body feet or more in width and 40 body feet or more in length in the traveling mode, or is 320 or more square feet when erected on site; is built on a permanent chassis; is designed to be used

as a single-family dwelling, with or without a permanent foundation, when connected to the required utilities; and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure.

**Night club.** Any building in which the main use is a place of public assembly that provides exhibition, performance or other forms of entertainment; serves alcoholic beverages; and provides music and space for dancing.

**Skirting.** A weather-resistant material used to enclose the space from the bottom of the manufactured home to grade.

**Sound transmission class (STC) rating.** See Section 1202.1.

**State regulated care facility (SRCF).** A building with an occupancy in Group R-2, R-3, R-4 or R-5 occupied by persons in the care of others where program oversight is provided by the Virginia Department of Social Services, the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services, the Virginia Department of Education or the Virginia Department of Juvenile Justice.

**State Review Board.** The Virginia State Building Code Technical Review Board as established under Section 36-108 of the Code of Virginia.

**Technical assistant.** Any person employed by or under an extended contract to a local building department or local enforcing agency for enforcing the USBC, including but not limited to inspectors and plans reviewers. For the purpose of this definition, an extended contract shall be a contract with an aggregate term of 18 months or longer.

**VADR.** The Virginia Amusement Device Regulations (13 VAC 5-31).

**VCS.** The Virginia Certification Standards (13 VAC 5-21).

**Working day.** A day other than Saturday, Sunday or a legal local, state or national holiday.

Change the following definitions in Section 202 of the IBC to read:

**Building.** A combination of materials, whether portable or fixed, having a roof to form a structure

for the use or occupancy by persons, or property. The word "building" shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning. "Building" shall not include roadway tunnels and bridges owned by the Virginia Department of Transportation, which shall be governed by construction and design standards approved by the Virginia Commonwealth Transportation Board.

For application of this code, each portion of a building which is completely separated from other portions by fire walls complying with Section 705 shall be considered as a separate building (see IBC Section 503.1).

**Owner.** The owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee or lessee in control of a building or structure.

**Registered Design Professional (RDP).** An architect or professional engineer, licensed to practice architecture or engineering, as defined under Section 54.1-400 of the Code of Virginia.

**Structure.** An assembly of materials forming a construction for occupancy or use including stadiums, gospel and circus tents, reviewing stands, platforms, stagings, observation towers, radio towers, water tanks, storage tanks (underground and aboveground), trestles, piers, wharves, swimming pools, amusement devices, storage bins, and other structures of this general nature but excluding water wells. The word "structure" shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning. "Structure" shall not include roadway tunnels and bridges owned by the Virginia Department of Transportation, which shall be governed by construction and design standards approved by the Virginia Commonwealth Transportation Board.

Delete the following definitions from Section 202 of the IBC:

**Agricultural, building.**

**Existing structure.**

## Chapter 3

### USE AND OCCUPANCY CLASSIFICATION

Change Section 302.3.2 of the IBC to read:

**302.3.2 Separated uses.** Each portion of the building shall be individually classified as to use and shall be completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire-resistance rating determined in accordance with Table 302.3.2 for uses being separated. Each fire area shall comply with this code based on the use of that space. Each fire area shall comply with the height limitations of Section 503 based on the use of that space and the type of construction classification. The height, in both feet and stories, of each fire area shall be measured from the grade plane, and for fire areas above other fire areas, stories of intervening fire areas shall be included. In each story, the building area shall be such that the sum of the ratios of the floor area of each use divided by the allowable area for each use shall not exceed one.

**Exception:** Except for Group H and I-2 areas, where the building is equipped throughout with an automatic sprinkler system, installed in accordance with Section 903.3.1.1, the fire-resistance ratings in Table 302.3.3 shall be reduced by one hour but to not less than one hour and to not less than that required for floor construction according to the type of construction.

Change exception 15 of Section 307.9 of the IBC to read:

15. The storage of black powder, smokeless propellant and small arms primers in Groups M, R-3 and R-5 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the International Fire Code, as amended in Section 307.9.1.

Add Section 307.9.1 to the IBC to read:

**307.9.1 Amendments.** The following changes shall be made to the International Fire Code for the use of Exception 15 in Section 307.9.

1. Change Section 314.1 of the IFC to read as follows:

**314.1 General.** Indoor displays constructed within any building or structure shall comply with Sections 314.2 through 314.5.

2. Add new Section 314.5 to the IFC to read as follows:

**314.5 Smokeless powder and small arms primers.** Vendors shall not store, display or sell smokeless powder or small arms primers during trade shows inside exhibition halls except as follows:

1. The amount of smokeless powder each vender may store is limited to the storage arrangements and storage amounts established in Section 3306.5.2.1.
2. Smokeless powder shall remain in the manufacturer's original sealed container and the container shall remain sealed while inside the building. The repackaging of smokeless powder shall not be performed inside the building. Damaged containers shall not be repackaged inside the building and shall be immediately removed from the building in such manner to avoid spilling any powder.
3. There shall be at least 50 feet separation between vendors and 20 feet from any exit.
4. Small arms primers shall be displayed and stored in the manufacturer's original packaging and in accordance with the requirements of Section 3306.5.2.3.

3. Change Exception 4 and add Exceptions 10 and 11 to Section 3301.1 of the IFC as follows:

4. The possession, storage and use of not more than 15 pounds (6.75 kg) of commercially manufactured sporting black powder, 20 pounds

(9 kg) of smokeless powder and any amount of small arms primers for hand loading of small arms ammunition for personal consumption.

- 10. The display of small arms primers in Group M when in the original manufacturer's packaging.
- 11. The possession, storage and use of not more than 50 pounds (23 kg) of commercially manufactured sporting black powder, 100 pounds (45 kg) of smokeless powder, and small arms primers for hand loading of small arms ammunition for personal consumption in Group R-3 or R-5, or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures at least 10 feet (3048 mm) from inhabited buildings and are accessory to Group R-3 or R-5.
- 4. Change the definition of Smokeless Propellants in Section 3302.1 of the IFC as follows:

**SMOKELESS PROPELLANTS.** Solid propellants, commonly referred to as smokeless powders, or any propellants classified by DOTn as smokeless propellants in accordance with NA3178 (Smokeless Powder for Small Arms), used in small arms ammunition, firearms, cannons, rockets, propellant-actuated devices and similar articles.

- 5. Change Section 3306.4 of the IFC to read as follows:

**3306.4 Storage in residences.** Propellants for personal use in quantities not exceeding 50 pounds (23 kg) of black powder or 100 pounds (45 kg) of smokeless powder shall be stored in original containers in occupancies limited to Group R-3 and R-5 or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures at least 10 feet (3048 mm) from inhabited buildings and are accessory to Group R-3 or R-5. In other than Group R-3 or R-5,

smokeless powder in quantities exceeding 20 pounds (9 kg) but not exceeding 50 pounds (23 kg) shall be kept in a wooden box or cabinet having walls of at least one inch (25 mm) nominal thickness or equivalent.

- 6. Delete Sections 3306.4.1 and 3306.4.2 of the IFC.
- 7. Change Section 3306.5.1.1 of the IFC to read as follows:
- 8. Delete Section 3306.5.1.3 of the IFC.
- 9. Change Section 3306.5.2.1 of the IFC as follows:

**3306.5.1.1 Smokeless propellant.** No more than 100 pounds (45 kg) of smokeless propellants in containers of eight pounds (3.6 kg) or less capacity shall be displayed in Group M occupancies.

**3306.5.2.1 Smokeless propellant.** Commercial stocks of smokeless propellants shall be stored as follows:

- 1. Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of at least one inch (25 mm) nominal thickness or equivalent.
- 2. Quantities exceeding 100 pounds (45 kg), but not exceeding 800 pounds (363 kg), shall be stored in storage cabinets having walls at least one inch (25 mm) nominal thickness or equivalent. Not more than 400 pounds (182 kg) shall be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of at least one hour.
- 3. Storage of quantities exceeding 800 pounds (363 kg), but not exceeding 5,000 pounds (2270 kg) in a building shall comply with all of the following:

- 3.1. The storage is inaccessible to unauthorized personnel. magazine in accordance with Section 3304 and NFPA 495.
- 3.2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least one inch (25 mm) nominal thickness or equivalent and having shelves with no more than three feet (914 mm) of vertical separation between shelves.
- 3.3. No more than 400 pounds (182 kg) is stored in any one cabinet.
- 3.4. Cabinets shall be located against walls with at least 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets may be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades must extend a minimum of 10 feet (3048 mm) outward, be firmly attached to the wall, and be constructed of steel not less than 0.25 inch thick (6.4 mm), 2-inch (51 mm) nominal thickness wood, brick, or concrete block.
- 3.5. Smokeless propellant shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids, or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of 1 hour.
- 3.6. The building shall be equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
- 4. Smokeless propellants not stored according to Item 1, 2, or 3 above shall be stored in a Type 2 or 4
- 10. Change Section 3306.5.2.3 of the IFC to read as follows:
  - 3306.5.2.3 Small arms primers.** Commercial stocks of small arms primers shall be stored as follows.
    - 1. Quantities not to exceed 750,000 small arms primers stored in a building shall be arranged such that not more than 100,000 small arms primers are stored in any one pile and piles are at least 15 feet (4572 mm) apart.
    - 2. Quantities exceeding 750,000 small arms primers stored in a building shall comply with all of the following:
      - 2.1. The warehouse or storage building shall not be accessible to unauthorized personnel.
      - 2.2. Small arms primers shall be stored in cabinets. No more than 200,000 small arms primers shall be stored in any one cabinet.
      - 2.3. Shelves in cabinets shall have vertical separation of at least 2 feet (610 mm).
      - 2.4. Cabinets shall be located against walls of the warehouse or storage room with at least 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets may be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall be firmly attached to the wall, and shall be constructed of steel not less than 0.25 inch thick (6.4 mm), two-inches (51 mm)

nominal thickness wood, brick, or concrete block.

2.5. Small arms primers shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids, or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of one hour.

2.6. The building shall be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

3. Small arms primers not stored in accordance with Item 1 or 2 of this section shall be stored in a magazine meeting the requirements of Section 3304 and NFPA 495.

Add an exception to Section 308.2 of the IBC to read:

**Exception:** Group homes licensed by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services or the Virginia Department of Social Services that house no more than eight persons with one or more resident counselors shall be classified as Group R-2, R-3, R-4 or R-5. Not more than five of the persons may require physical assistance from staff to respond to an emergency situation.

Change Section 308.5.2 of the IBC to read:

**308.5.2 Child care facility.** A facility other than family day homes under Section 310.4 that provides supervision and personal care on less than a 24-hour basis for more than five children 2-1/2 years of age or less shall be classified as Group I-4.

**Exception:** A child day care facility that provides care for more than five but no more than 100 children 2-1/2 years or less of age, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.

Add a new occupancy classification to Section 310 of the IBC to read:

**R-5** Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures.

Add Section 310.3 to the IBC to read:

**310.3 Group R-5.** The construction of Group R-5 structures shall comply with the International Residential Code, also referred to as the "IRC." The amendments to the IRC set out in Section 310.6 shall be made to the IRC for its use as part of this code. In addition, all references to Section 101.2 in the IBC relating to the construction of one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height shall be considered to be references to this section.

Add Section 310.3.1 to the IBC to read:

**310.3.1 Additional requirements.** Methods of construction, materials, systems, equipment or components for Group R-5 structures not addressed by prescriptive or performance provisions of the IRC shall comply with applicable IBC requirements.

Add Section 310.4 to the IBC to read:

**310.4 Family day homes.** Family day homes where program oversight is provided by the Virginia Department of Social Services shall be classified as Group R-2, R-3 or R-5.

**Note:** Family day homes may generally care for up to 12 children. See the DHCD Related Laws Package for additional information.

Add Section 310.5 to the IBC to read:

**310.5 Radon-resistant construction in Group R-3 and R-4 structures.** Group R-3 and R-4 structures shall be subject to the radon-resistant construction requirements in Appendix F in localities enforcing such requirements pursuant to Section R324 of the IRC.

Add Section 310.6 to the IBC to read:

**310.6 Amendments to the IRC.** The following changes shall be made to the IRC for its use as part of this code.

1. Change Section R301.2.1 to read:

**R301.2.1 Wind limitations.** Buildings and portions thereof shall be limited by wind speed, as defined in Table R301.2(1), and construction methods in accordance with this code. Basic wind speeds shall be determined from Figure R301.2(4). Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where loads for windows, skylights and exterior doors are not otherwise specified, the loads listed in Table R301.2(2) adjusted for height and exposure per Table R301.2(3), shall be used to determine design load performance requirements for windows and doors. Wind speeds for localities in special wind regions, near mountainous terrain and near gorges shall be based on elevation. Areas at 4,000 feet in elevation or higher shall use 110 V mph (48.4 m/s) and areas under 4,000 feet in elevation shall use 90 V mph (39.6 m/s). Gorge areas shall be based on the highest recorded speed per locality or in accordance with local jurisdiction requirements determined in accordance with Section 6.5.4 of ASCE 7. Wind speed considerations for roof coverings shall be as set out in Section R905.

2. Change the first sentence in Section R302.1 to read:

**R302.1 Exterior walls.** Exterior walls with a fire separation distance of less than five feet (1524 mm) shall not have less than a one-hour fire-resistive rating with exposure from both sides.

3. Change Section R302.2 to read:

**R302.2 Openings.** Openings shall not be permitted in the exterior wall of a dwelling or accessory building with a fire separation distance less than three feet (914 mm). Openings in excess of 25% of the area of the entire wall surface, which shall include bay windows, shall not be permitted in the exterior wall of a dwelling or an accessory building with a fire separation distance between three feet (914 mm) and five feet (1524 mm). The building face of a bay window shall not be considered a separate wall with respect to the computation of the 25% opening limitations. This distance

shall be measured perpendicular to the line used to determine the fire separation distance.

**Exceptions:**

1. Openings shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.
  2. Foundation vents installed in compliance with this code are permitted.
4. Add an exception to Section R303.8 to read:

**Exception:** Seasonal structures not used as a primary residence for more than 90 days per year, unless rented, leased or let on terms expressed or implied to furnish heat, shall not be required to comply with this section.

5. Add Section R303.8.1 to read:

**R303.8.1 Nonowner occupied required heating.** Every dwelling unit or portion thereof which is to be rented, leased or let on terms either expressed or implied to furnish heat to the occupants thereof shall be provided with facilities in accordance with Section R303.8 during the period from October 15 to May 1.

6. Add Section R303.9 to read:

**R303.9 Insect screens.** Every door, window and other outside opening required for ventilation purposes shall be supplied with approved tightly fitted screens of not less than 16 mesh per inch and every swinging door shall have a self-closing device.

7. Add Section R306.5 to read:

**R306.5 Water supply sources and sewage disposal systems.** The water and drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public or private water-supply and a public or private sewer system. Where applicable, water supply sources and sewage disposal systems shall

be regulated by the Virginia Department of Health.

8. Change Section R310.1 to read:

**R310.1 Emergency escape and rescue required.** Basements and each sleeping room designated on the construction documents shall have at least one openable emergency escape and rescue opening. Such opening shall be directly to the exterior of the building or to a deck, screen porch or egress court, all of which shall provide access to a public street, public alley or yard. Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside, except that tilt-out or removable sash designed windows shall be permitted to be used. Emergency escape and rescue openings with a finished height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

**Exceptions:**

1. Dwelling units equipped throughout with an approved automatic sprinkler system installed in accordance with NFPA 13, 13R or 13D.
2. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m<sup>2</sup>).

9. Change Section R310.1.1 to read:

**R310.1.1 Minimum opening area.** All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.530 m<sup>2</sup>), including the tilting or removal of the sash as the normal

operation to comply with sections R310.1.2 and R310.1.3.

**Exception:** Grade floor openings shall have a minimum net clear opening of 5 square feet (0.465 m<sup>2</sup>).

10. Change Section R311.4.3 to read:

**R311.4.3 Landings at doors.** There shall be a floor or landing on each side of each exterior door. The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel.

**Exception:** Where a stairway of two or fewer risers is located on the exterior side of a door, other than the required exit door, a landing is not required for the exterior side of the door.

11. Add Section R311.4.3.1 to read:

**R311.4.3.1 Elevation of landing.** The floors or landings at both sides of any exterior door shall not be more than 1-1/2 inches (38 mm) lower than the top of the threshold.

**Exception:** The floor or landing at the exterior side of any exterior door shall have a rise no greater than permitted in Section R311.5.3 provided the door, other than an exterior storm or screen door, does not swing over the landing.

12. Change Section R311.5.3.1 to read:

**R311.5.3.1 Riser height.** The maximum riser height shall be 8-1/4 inches (210 mm). The riser shall be measured vertically between the leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

13. Change Section R311.5.3.2 to read:

**R311.5.3.2 Tread depth.** The minimum tread depth shall be 9 inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The

greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12 inch (305 mm) walk line shall not exceed the smallest by more than 3/8 inch (9.5 mm).

14. Change Section R311.5.5 to read:

**R311.5.5 Stairway walking surface.** The walking surface of treads and landings of stairways shall be level or sloped no steeper than one unit vertical in 48 inches horizontal (two-percent slope).

15. Change Item 2 of Section R314.2.6 to read:

2. The maximum thickness of the trim is 0.5 inch (12.7 mm) and the maximum width is 8 inches (204 mm).

16. Change the first sentence in Section R319.1 to read:

**R319.1 Location required.** In areas subject to decay damage as established by Table R301.2(1), the following locations shall require the use of an approved species and grade of lumber, pressure treated in accordance with AWPA U1 for the species, product, preservative and end use or of the decay-resistant heartwood or redwood, black locust or cedars. Preservatives shall conform to AWPA P1/13, P2, P3 or P5.

17. Add Section R324 Radon-Resistant Construction.

18. Add Section R324.1 to read:

**R324.1 Local enforcement of radon requirements.** Following official action under Article 7 (Section 15.2-2280 et seq.) of Chapter 22 of Title 15.2 of the Code of Virginia by a locality in areas of high radon potential, as indicated by Zone 1 on the U.S. EPA Map of Radon Zones (IRC Figure AF101), such locality shall enforce the provisions contained in Appendix F.

**Exception:** Buildings or portions thereof with crawl space foundations which are ventilated to the exterior, shall not be required to provide radon-resistant construction.

19. Add Section R325 Swimming Pools, Spas and Hot Tubs.

20. Add Section R325.1 to read:

**R325.1 Use of Appendix G for swimming pools, spas and hot tubs.** In addition to other applicable provisions of this code, swimming pools, spas and hot tubs shall comply with the provisions in Appendix G.

21. Add Section R326 Patio Covers.

22. Add Section R326.1 to read:

**R326.1 Use of Appendix H for patio covers.** Patio covers shall comply with the provisions in Appendix H.

23. Add Section R327 Sound Transmission.

24. Add Section R327.1 to read:

**R327.1 Sound transmission between dwelling units.** Construction assemblies separating dwelling units shall provide airborne sound insulation as required in Appendix K.

25. Add Section R327.2 to read:

**R327.2 Airport noise attenuation.** This section applies to the construction of the exterior envelope of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress within airport noise zones when enforced by a locality pursuant to Section 15.2-2295 of the Code of Virginia. The exterior envelope of such structures shall comply with Section 1207.4 of the state amendments to the IBC.

26. Change Section R401.4 to read:

**R401.4 Soil tests.** In areas proven by quantifiable data created by sound soil science methodologies to have expansive,

compressible, shifting or unknown soil characteristics, the building official shall determine whether to require a soil test to determine the soil's characteristics at a particular location. This test shall be made by an approved agency using an approved method.

structural elements are primarily formed by a system of repetitive wood or light gauge steel framing members, with walls and roof of light weight material, not slate, tile, brick or masonry.

27. Change Section R403.1 to read:

**R403.1 General.** All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

**Exception:** One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, not exceeding 256 square feet (23.7824 m<sup>2</sup>) of building area, provided all of the following conditions are met:

1. The building height is not more than 12 feet.
2. The maximum height from the finished floor level to grade does not exceed 18 inches.
3. The supporting structural elements in direct contact with the ground shall be placed level on firm soil and when such elements are wood they shall be approved pressure preservative treated suitable for ground contact use.
4. The structure is anchored to withstand wind loads as required by this code.
5. The structure shall be of light-frame construction whose vertical and horizontal

28. Add Section R502.2.1.1 to read:

**R502.2.1.1 Deck ledger connection to band joist.** For residential applications and a total design load of 50 psf, the connection between a pressure preservative treated southern pine (or approved decay-resistant species) deck ledger and a two-inch nominal band joist bearing on a sill plate or wall plate shall be constructed with 1/2-inch lag screws or bolts with washers per Table R502.2.1.1.

29. Add Table R502.2.1.1 to read:

TABLE R502.2.1.1 FASTENER SPACING FOR A RESIDENTIAL SOUTHERN PINE DECK LEDGER AND A 2-INCH NOMINAL SOLID- SAWN BAND JOIST (50 PSF TOTAL LOAD) <sup>c</sup>				
Joist Span (ft)	6' and less	6'-1" to 8'	8'-1" to 10'	10'-1" to 12'
On-Center Spacing of Fasteners <sup>d,e</sup>				
1/2"x 4" Lag Screw <sup>a,b</sup>	30	23	18	15
1/2" Bolt with washers	36	36	34	29
Joist Span (ft)	12'-1" to 14'	14'-1" to 16'	16'-1" to 18'	
On-Center Spacing of Fasteners <sup>d,e</sup>				
1/2"x 4" Lag Screw <sup>a,b</sup>	13	11	10	
1/2" Bolt with washers	24	21	19	

- a. The maximum gap between the face of the ledger board and face of the house band joist shall be 1/2 inch.
- b. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- c. Ledgers shall be flashed to prevent water from contacting the house band joist.
- d. Lag screws and bolts shall be staggered as set out in Section R502.2.1.1.1.
- e. Deck ledger shall be 2x8 PPT No. 2 Southern Pine (minimum) or other approved method and material as established by standard engineering practice.

30. Add Section R502.2.1.1.1 to read:

**R502.2.1.1.1 Placement of lag screws or bolts in residential deck ledgers.** The lag screws or bolts shall be placed two inches

in from the bottom or top of the deck ledgers and two inches in from the ends. The lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger.

- 31. Change Section R506.2.1 to read:

**R506.2.1 Fill.** Fill material shall be free of vegetation and foreign material and shall be natural nonorganic material that is not susceptible to swelling when exposed to moisture. The fill shall be compacted to assure uniform support of the slab, and except where approved, the fill depth shall not exceed 24 inches (610 mm) for clean sand or gravel and 8 inches (203 mm) for earth.

**Exception:** Material other than natural material may be used as fill material when accompanied by a certification from an RDP and approved by the building official.

- 32. Change Section R506.2.2 to read:

**R506.2.2 Base.** A 4-inch-thick (102 mm) base course consisting of clean graded sand, gravel or crushed stone passing a 2-inch (51 mm) sieve shall be placed on the prepared subgrade when the slab is below grade.

**Exception:** A base course is not required when the concrete slab is installed on well drained or sand-gravel mixture soils classified as Group I according to the United Soil Classification System in accordance with Table R405.1. Material other than natural material may be used as base course material when accompanied by a certification from an RDP and approved by the building official.

- 33. Change Figure R602.10.5 as follows:

- 1. Outside Corner Detail.
  - 1.1. 8d nails are required on both sides of the outside corner nailed through the panel and into the corner framing member.

- 1.2. Figure R602.3(2) governs the placement of the corner framing members.
- 1.3. The 16d nails shown connecting the framing members on the inside of the corner may be omitted.
- 1.4. The spacing of the 16d nails connecting the framing members on the outside corner shall be 12 inches on center.

- 2. Inside Corner Detail.

- 2.1. Figure R602.3(2) governs the placement of the corner framing members.
- 2.2. The 16d nail shown connecting the framing members on the outside of the corner may be omitted.
- 2.3. The spacing of the 16d nails connecting the framing members on the inside corner shall be 12 inches on center.

- 34. Delete Exception 1 of Section M1501.3 and renumber Exception 2 as Exception 1.

- 35. Add Section M1801.1.1 to read:

**M1801.1.1 Equipment changes.** Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

- 1. Vent or chimney systems are sized in accordance with this code.
- 2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

- 36. Add Section M2201.7 to read:

**M2201.7 Tanks abandoned or removed.**

All exterior above-grade fill piping shall be removed when tanks are abandoned or removed.

37. Change Section P2602.1 to read:

**P2602.1 General.** The water and drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public or private water-supply and a public or private sewer system. Where applicable, water supply sources and sewage disposal systems shall be regulated by the Virginia Department of Health.

38. Change Section P2903.5 to read:

**P2903.5 Water hammer.** The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing valves are utilized, unless otherwise approved. Water hammer arrestors shall be installed in accordance with manufacturer's specifications. Water hammer arrestors shall conform to ASSE 1010.

39. Change the trap size as shown in the following category of Table P3201.7:

PLUMBING FIXTURE	TRAP SIZE MINIMUM (INCHES)
Shower	1-1/2

40. Add Section G2425.1.1 to read:

**G2425.1.1 Equipment changes.** Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with this code.
2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

41. Add Section E3501.8 to read:

**E3501.8 Energizing service equipment.**

The building official shall give permission to energize the electrical service equipment of a one- or two-family dwelling unit when all of the following requirements have been approved:

1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
2. The grounding electrode system shall be installed and terminated.
3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.
4. Service equipment covers shall be installed.
5. The building roof covering shall be installed.
6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

42. Change Chapter 43 of the IRC as follows:

STANDARD REFERENCE NUMBER	TITLE	REFERENCED IN CODE SECTION NUMBER
AWPA C1-00	Deleted	
AWPA C2-01	Deleted	
AWPA C3-99	Deleted	
AWPA C4-99	Deleted	
AWPA C9-00	Deleted	
AWPA C15-00	Deleted	
AWPA C18-99	Deleted	
AWPA C22-96	Deleted	
AWPA C23-00	Deleted	
AWPA C24-96	Deleted	
AWPA C28-99	Deleted	

AWPA C31-01	Deleted	
AWPA U1-02	USE CATEGORY SYSTEM: User Specification for Treated Wood except Section 7 Commodity Specification H	R319.1, R402.1.2, R504.3, Table R905.8.5
AWPA P5-02	Standard for Waterborne Preservatives	R319.1, R323.1.7

## Chapter 4

### SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

Change Section 404.4 of the IBC to read:

**404.4 Smoke control.** A smoke control system shall be installed in accordance with Section 909.

**Exceptions:**

1. Smoke control is not required for floor openings meeting the requirements of Section 707.2, Exception 2, 7, 8 or 9.
2. Smoke control is not required for floor openings meeting the requirements of Section 1019.1, Exception 8 or 9.
3. Smoke control is not required for atriums that connect only two stories.

Add Section 407.8 to the IBC to read:

**407.8 Special locking arrangement.** Means of egress doors shall be permitted to contain locking devices restricting the means of egress in areas in which the clinical needs of the patients require restraint of movement, where all of the following conditions are met:

1. The locks release upon activation of the fire alarm system or the loss of power.
2. The building is equipped with an approved automatic sprinkler system in accordance with Section 903.3.1.1.
3. A manual release device is provided at a nursing station responsible for the area.
4. A key-operated switch or other manual device is provided adjacent to each door

equipped with the locking device. Such switch or other device, when operated, shall result in direct interruption of power to the lock – independent of the control system electronics.

5. All staff shall have keys or other means to unlock the switch or other device or each door provided with the locking device.

Change Section 408.3.5 of the IBC to read:

**408.3.5 Sallyports.** A sallyport shall be permitted in a means of egress where there are provisions for continuous and unobstructed passage through the sallyport during an emergency egress condition. A sallyport is a security vestibule with two or more doors where the intended purpose is to prevent continuous and unobstructed passage by allowing the release of only one door at a time.

Add Section 415.1.1 to the IBC to read:

**415.1.1 Flammable and combustible liquids.** Notwithstanding the provisions of this chapter, the storage, handling, processing, and transporting of flammable and combustible liquids shall be in accordance with the mechanical code and the fire code listed in Chapter 35 of this code. Regulations governing the installation, repair, upgrade, and closure of underground and aboveground storage tanks under the Virginia State Water Control Board regulations 9 VAC 25-91 and 9 VAC 25-580 are adopted and incorporated by reference to be an enforceable part of this code. Where differences occur between the provisions of this code and the incorporated provisions of the State Water Control Board regulations, the provisions of the State Water Control Board regulations shall apply.

Add IBC Section 419 Site Work for Manufactured Homes and Industrialized Buildings.

**SECTION 419  
SITE WORK FOR MANUFACTURED HOMES AND  
INDUSTRIALIZED BUILDINGS**

Add Section 419.1 to the IBC to read:

**419.1 General.** The provisions of this section shall apply to the installation of manufactured homes and industrialized buildings.

Add Section 419.2 to the IBC to read:

**419.2 Site work.** Construction work associated with the installation of a manufactured home or industrialized building shall comply with the manufacturer's installation instructions and to the extent not provided for in the manufacturer's installation instructions applicable requirements of this code. Where the manufacturer's installation instructions for manufactured homes are not available, the NCSBCS/ANSI A225.1 standard, 1994 edition, may be substituted for the manufacturer's installation instructions. In addition, Appendix E of the International Residential Code entitled, "Manufactured Housing Used As Dwellings," shall be an acceptable alternative to this code for construction work associated with the installation of manufactured homes and for additions, alterations and repairs to manufactured homes.

Add Section 419.3 to the IBC to read:

**419.3 Wind load requirements for manufactured homes.** Manufactured homes shall be anchored to withstand the wind loads established by the federal regulation for the area in which the manufactured home is installed. For the purpose of this code, Wind Zone II of the federal regulation shall include the cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach.

Add Section 419.4 to the IBC to read:

**419.4 Skirting requirements for manufactured homes.** As used in this section, "skirting" means a weather-resistant material used to enclose the space from the bottom of the manufactured home to grade. Manufactured homes installed or relocated shall have skirting installed within 60 days of occupancy of the home. Skirting materials shall be durable, suitable for exterior exposures and installed in accordance with the manufacturer's installation instructions. Skirting shall be secured as necessary to ensure stability, to minimize vibrations, to minimize susceptibility to wind damage and to compensate for possible frost heave. Each manufactured home shall have a minimum of one opening in the skirting providing access to any water supply or sewer drain connections under the home. Such openings shall be a minimum of 18 inches (457 mm) in any dimension and not less than three square feet (.28 m<sup>2</sup>) in area. The access panel or door shall not be fastened in a manner requiring the use of a special tool to open or remove the panel or door. On-site fabrication of the skirting by the owner or installer of the home shall be acceptable, provided that the material meets the requirements of this code.

## Chapter 5

### GENERAL BUILDING HEIGHTS AND AREAS

Add Exception 3 to Section 507.2 of the IBC to read:

3. Group A-1, A-2 and A-3 occupancies are permitted provided:
  - 3.1. All assembly occupancies are separated from other spaces as required for separated uses in Section 302.3.2.
  - 3.2. Each Group A tenant does not exceed the maximum allowable height and area under Section 503.

- 3.3. All required exits shall discharge directly to the exterior.

## Chapter 7

## FIRE-RESISTANT-RATED CONSTRUCTION

Add Section 701.2 to the IBC to read:

**701.2 Fire-resistance assembly marking.**

Concealed fire walls, vertical fire separation assemblies, fire barriers, fire partitions and smoke barriers shall be designated above ceilings and on the inside of all ceiling access doors which provide access to such fire rated assemblies by signage having letters no smaller than one inch (25.4 mm) in height. Such signage shall indicate the fire-resistance rating of the assembly and the type of assembly and be provided at horizontal intervals of no more than eight feet (2438 mm).

**Note:** An example of suggested formatting for the signage would be "ONE HOUR FIRE PARTITION."

Add exceptions 12 and 13 to Section 707.2 of the IBC to read:

12. Noncombustible shafts connecting communicating floor levels in Group I-3 occupancies where the area complies with Section 408.5. Where additional stories are located above or below, the shaft shall be permitted to continue with fire and smoke damper protection provided at the fire resistance rated floor/ceiling assembly between the noncommunicating stories.
13. A floor opening that complies with Section 408 in an occupancy in Group I-3.

Delete Section 707.14.1 of the IBC.

Add exception 4 to Section 715.3.3 of the IBC to read:

4. Horizontal sliding doors in smoke barriers that comply with Section 408.3 are permitted in smoke barriers in occupancies in Group I-3.

Add an exception to Section 715.4.4 of the IBC to read:

**Exception:** Security glazing protected on both sides by an automatic sprinkler system shall be permitted in doors and windows in smoke barriers in Group I-3 occupancies. Individual panels of glazing shall not exceed 1,296 square inches (0.84 m<sup>2</sup>), shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) glazing before the sprinkler system

operates. The sprinkler system shall be designed to wet completely the entire surface of the affected glazing when actuated.

Change Section 716.5.3.1 of the IBC to read:

**716.5.3.1 Penetrations of shaft enclosures.** Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

**Exceptions:**

1. Fire and smoke dampers are not required where steel exhaust subducts extend at least 22 inches (559 mm) vertically in exhaust shafts provided there is a continuous airflow upward to the outside.
2. Fire dampers are not required where penetrations are tested in accordance with ASTM E 119 as part of the fire-resistance rated assembly.
3. Fire and smoke dampers are not required where ducts are used as part of an approved smoke-control system in accordance with Section 909.
4. Fire and smoke dampers are not required where the penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.
5. Smoke dampers are not required where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

## Chapter 9 FIRE PROTECTION SYSTEMS

Change the following definition in Section 902 of the IBC to read:

**Automatic fire-extinguishing system.** An approved system of devices and equipment which automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire and shall include among other systems an automatic sprinkler system, unless otherwise expressly stated.

Change Item 2 of Section 903.2.1.3 of the IBC to read:

2. In Group A-3 occupancies other than churches, the fire area has an occupant load of 300 or more.

Change Section 903.2.7 of the IBC to read:

**903.2.7 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area, except in the following Group R-2 occupancies when the necessary water pressure or volume, or both, for the system is not available:

**Exceptions:**

1. Buildings which do not exceed two stories, including basements which are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.
2. Buildings where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

Add Section 903.3.1.2.2 to the IBC to read:

**903.3.1.2.2 Attics.** Sprinkler protection shall be provided for attics in buildings of Type III, IV or V construction in the following occupancies.

1. Group R-2 which are designed, or developed and marketed to senior citizens, 55 years of age or older.
2. Group I-1.

Add an exception to Section 905.2 of the IBC to read:

**Exception:** The residual pressure of 100 psi for 2-1/2 inch hose connection and 65 psi for 1-1/2 inch hose connection is not required in buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access.

Change Section 906.1 of the IBC to read:

**906.1 General.** Portable fire extinguishers shall be provided in occupancies and locations as required by the International Fire Code, except that portable fire extinguishers shall not be required to be installed in Group R-2 occupancies.

Change Section 907.2.1.1 of the IBC to read:

**907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more and in certain night clubs.** Activation of the fire alarm in Group A occupancies with an occupant load of 1,000 or more and in night clubs with an occupant load of 300 or more shall initiate a signal using an emergency voice and alarm communications system in accordance with NFPA 72.

**Exception:** Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed three minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

Change Section 907.2.9 of the IBC to read:

**907.2.9 Group R-2.** A manual fire alarm system shall be installed in Group R-2 occupancies.

2.3. At least one manual fire alarm box is installed at an approved location.

**Exceptions:**

1. A fire alarm system is not required in buildings not over two stories in height where all dwelling units or sleeping rooms and contiguous attic and crawl spaces are separated from each other and public or common areas by at least one-hour fire partitions and each dwelling unit or sleeping room has an exit directly to a public way, exit court or yard.
2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:
  - 2.1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
  - 2.2. The notification appliances will activate upon sprinkler flow, and

Add Section 907.9.1.1.1 to the IBC to read:

**907.9.1.1.1 Location of appliances in Group I-3 occupancies.** Wall-mounted visible alarm notification appliances in Group I-3 occupancies shall be permitted to be a maximum of 120 inches (3048 mm) above the floor or ground, measured to the bottom of the appliance and shall otherwise comply with Section 702.3.3.1 of ICC A117.1.

Change Section 909.6 of the IBC to read:

**909.6 Pressurization method.** When approved by the building official, the means of controlling smoke shall be permitted by pressure differences across smoke barriers. Maintenance of a tenable environment is not required in the smoke-control zone of fire origin.

Add footnote “c” to Table 910.3 to read:

c. Smoke and heat vents are not required when storage areas are protected by early-suppression fast-response (ESFR) sprinklers installed in accordance with NFPA 13 or NFPA 231.

**Chapter 10**

**MEANS OF EGRESS**

Change Section 1004.1 of the IBC to read:

**1004.1 Design occupant load.** In determining means of egress requirements, the number of occupants for whom means of egress facilities shall be provided shall be determined in accordance with this section. Where occupants from accessory areas egress through a primary space, the calculated occupant load for the primary space shall include the total occupant load of the primary space plus the number of occupants egressing through it from the accessory area.

Delete Section 1004.1.1 of the IBC and renumber Section 1004.1.2 and Table 1004.1.2 to Section 1004.1.1 and Table 1004.1.1.

Add Section 1004.1.2 to the IBC to read:

**1004.1.2 Areas without fixed seating.** The numbers of occupants computed at the rate of one occupant

per unit of area as prescribed in Table 1004.1.1. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant per unit area factor assigned to the occupancy as set forth in Table 1004.1.1. Where an intended use is not listed in Table 1004.1.1, the building official shall establish a use based on a listed use that most nearly resembles the intended use.

**Exception:** Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.

Delete Section 1004.1.3 of the IBC.

Change the reference in Section 1004.2 of the IBC to Table 1004.1.2 to a reference to Table 1004.1.1.

Change Section 1004.9 of the IBC to read:

**1004.9 Multiple occupancies.** Where a building contains two or more occupancies, the means of egress requirements shall apply to each portion of the building based on the occupancy of that space. Where two or more occupancies utilize portions of the same means of egress system, those egress components shall meet the more stringent requirements of all occupancies that are served.

**Exception:** A 750 square feet or less room or space used for assembly purposes by less than 50 persons and which is accessory to another group shall be included as a part of that main group.

Change Item 2 of Section 1008.1.8.3 of the IBC to read:

2. In buildings in occupancy Groups B, F, M and S, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
  - 2.1. The locking device is readily distinguishable as locked.
  - 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters one inch (25 mm) high on a contrasting background.
  - 2.3. The use of the key-operated locking device is revokable by the building official for due cause.

Change Section 1008.1.8.6 of the IBC to read:

**1008.1.8.6 Delayed egress locks.** Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy including Group A-3, airport facilities, except Group A, E and H occupancies in buildings which are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with the items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.
 

**Exception:** Where approved, such sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 30 SECONDS.
6. Emergency lighting shall be provided at the door.

Add Section 1008.1.8.8 to the IBC to read:

**1008.1.8.8 Locking arrangements in correctional facilities.** In occupancies in Groups A-3, A-4, B, E, F, I, M and S within penal facilities, doors in means of egress serving rooms or spaces occupied by persons whose movements must be controlled for security reasons shall be permitted to be locked if equipped with egress control devices which shall unlock manually and by at least one of the following means:

1. Actuation of an automatic fire suppression system required by Section 903.2.

2. Actuation of a key-operated manual alarm station required by Section 907.2.
3. A signal from a central control station.

Add Section 1008.1.10 to the IBC to read:

**1008.1.10 Locking certain residential sliding doors.** In dwelling units of Group R-2 buildings, exterior sliding doors which are one story or less above grade, or shared by two dwelling units, or are otherwise accessible from the outside, shall be equipped with locks. The mounting screws for the lock case shall be inaccessible from the outside. The lock bolt shall engage the strike in a manner that will prevent it from being disengaged by movement of the door.

**Exception:** Exterior sliding doors which are equipped with removable metal pins or charlie bars.

Add Section 1008.1.11 to the IBC to read:

**1008.1.11 Door viewers in certain residential buildings.** Entrance doors to dwelling units of Group R-2 buildings shall be equipped with door viewers with a field of vision of not less than 180 degrees.

**Exception:** Entrance doors having a vision panel or side vision panels.

Change Exception 5 of Section 1009.3 of the IBC to read:

5. In occupancies in Group R-3, as applicable in Section 101.2, within dwelling units in occupancies of Group R-2, as applicable in Section 101.2, and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, the maximum riser height shall be 8.25 inches (210 mm) and the minimum tread depth shall be nine inches (229 mm), the minimum winder tread depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall be six inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

Add Exception 7 to Section 1009.3 of the IBC to read:

7. Stairways in penal facilities serving guard towers, observation stations and control rooms not more than 250 square feet (23 m<sup>2</sup>) in area shall be permitted to have risers not exceeding 8 inches (203 mm) in height and treads not less than 9 inches (229 mm) in depth.

Change Section 1013.2 of the IBC to read:

**1013.2 Egress through intervening spaces.** Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy; and provide a discernible path of egress travel to an exit. A maximum of one exit access is permitted to pass through kitchens, store rooms, closets or spaces used for similar purposes provided such a space is not the only means of exit access. An exit access shall not pass through a room that can be locked to prevent egress. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.

**Exceptions:**

1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or guestroom.
2. Means of egress are not prohibited through rooms or spaces in a high-hazard occupancy where such rooms or spaces are the same occupancy group.

Change Exception 2 of Section 1014.2.1 of the IBC to read:

2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access doorways shall not be less than one-fourth of the length of the maximum overall diagonal dimension of the area served.

Change Table 1016.1 of the IBC to read:

TABLE 1016.1 CORRIDOR FIRE-RESISTANCE RATING			
Occupancy	Occupant Load Served By Corridor	Required Fire-Resistance Rating (hours)	
		Without sprinkler system	With sprinkler system <sup>b</sup>
H-1, H-2, H-3	All	1	1

H-4, H-5	Greater than 30	1	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	1	0.5
I-2 <sup>a</sup> , I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	0

- a. For requirements for occupancies in Group I-2, see Section 407.3.
- b. Buildings equipped throughout with an automatic sprinkler system in accordance with Sections 903.3.1.1 or 903.3.1.2.

## Chapter 11 ACCESSIBILITY

Add Section 1106.8 to the IBC to read:

**1106.8 Identification of accessible parking spaces.** In addition to complying with applicable provisions of this chapter, all accessible parking spaces shall be identified by above grade signs. A sign or symbol painted or otherwise displayed on the pavement of a parking space shall not constitute an above grade sign. All above grade parking space signs shall have the bottom edge of the sign no lower than four feet (1219 mm) nor higher than seven feet (2133 mm) above the parking surface. All disabled parking signs shall include the following language: PENALTY, \$100-500 Fine, TOW-AWAY ZONE. Such language may be placed on a separate sign and attached below existing above grade disabled parking signs, provided that the bottom edge of the attached sign is no lower than four feet above the parking surface.

## Chapter 12 INTERIOR ENVIRONMENT

Add the following definitions to Section 1202.1 of the IBC:

**Day-night average sound level (Ldn).** A 24-hour energy average sound level expressed in dBA, with a 10 decibel penalty applied to noise occurring between 10 p.m. and 7 a.m.

**Sound transmission class (STC) rating.** A single number characterizing the sound reduction performance of a material tested in accordance with ASTM E90-90, "Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions."

**1203.4.4 Insect screens in occupancies other than Group R.** Every door, window and other outside opening for natural ventilation serving structures classified as other than a residential group containing habitable rooms, food preparation areas, food service areas, or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged, or stored, shall be supplied with approved tightly fitting screens of not less than 16 mesh per inch and every swinging door shall have a self-closing device.

**Exception:** Screen doors shall not be required for out swinging doors or other types of openings which make screening impractical,

Add Section 1203.4.4 to the IBC to read:

provided other approved means, such as air curtains or insect repellent fans are provided.

Add Section 1203.4.5 to the IBC to read:

**1203.4.5 Insect screens in Group R occupancies.** Every door, window and other outside opening required for natural ventilation purposes which serves a structure classified as a residential group shall be supplied with approved tightly fitted screens of not less than 16 mesh per inch and every swinging door shall have a self-closing device.

Change Section 1207.1 of the IBC to read:

**1207.1 Scope.** Sections 1207.2 and 1207.3 shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and adjacent public areas such as halls, corridors, stairs or service areas. Section 1207.4 applies to the construction of the exterior envelope of Group R occupancies within airport noise zones and to the exterior envelope of Group A, B, E, I and M occupancies in any locality in whose jurisdiction a United States Master Jet Base is located or any adjacent locality when such requirements are enforced by a locality pursuant to Section 15.2-2295 of the Code of Virginia.

Add Section 1207.4 to the IBC to read:

**1207.4 Airport noise attenuation standards.** Where the Ldn is determined to be 65 dBA or greater, the minimum STC rating of structure components shall be provided in compliance with Table 1207.4. As an alternative to compliance with Table 1207.4, structures shall be permitted to be designed and constructed so as to limit the interior noise level to no greater than 45 Ldn. Exterior structures, terrain and permanent plantings shall be permitted to be included as part of the alternative design. The alternative design shall be certified by an RDP.

Add Table 1207.4 to the IBC to read:

Ldn	STC of exterior walls and roof/ceiling assemblies	STC of doors and windows
65-69	39	25
70-74	44	33
75 or greater	49	38

## Chapter 13

### ENERGY EFFICIENCY

Add Section 1301.1.2 to the IBC to read:

**1301.1.2 Changes to the International Energy Conservation Code.** The following changes shall be made to the International Energy Conservation Code:

1. Change the referenced standards in Chapter 10 of the International Energy Conservation Code as follows:

STANDARD REFERENCE NUMBER	TITLE	REFERENCED IN CODE SECTION NUMBER
ASHRAE 90.1-2004	Energy Standard for Buildings Except Low-Rise Residential Buildings	701.1, 801.2, 802.1, 802.2

## Chapter 16

### STRUCTURAL DESIGN

Change Section 1609.3 of the IBC to read:

**1609.3 Basic wind speed.** The basic wind speed, in mph, for the determination of the wind loads shall be determined by Figure 1609 or by ASCE 7 Figure 6-1 when using the provisions of ASCE 7. Wind speeds for localities in special wind regions, near mountainous terrains and near gorges shall be based on elevation. Areas at 4,000 feet in elevation or higher shall use 110 V mph (48.4 m/s) and areas under 4,000 feet in elevation shall use 90 V mph (39.6 m/s). Gorge areas shall be based on the highest recorded speed per locality or in accordance with local jurisdiction requirements determined in accordance with Section 6.5.4 of ASCE 7.

In nonhurricane-prone regions, when the basic wind speed is estimated from regional climatic data, the basic wind speed shall be not less than the wind speed associated with an annual probability of 0.02 (50-year mean recurrence interval), and the estimate shall be adjusted for equivalence to a 3-second gust wind speed at 33 feet (10 m) above ground in exposure Category C. The data analysis shall be performed in accordance with Section 6.5.4 of ASCE 7.

Add Section 1612.1.1 to the IBC to read:

**1612.1.1 Elevation of manufactured homes.** New or replacement manufactured homes to be located in any flood hazard zone shall be placed in accordance with the applicable elevation requirements of this code.

**Exception:** Manufactured homes installed on sites in an existing manufactured home park or subdivision shall be permitted to be placed no less than 36 inches (914 mm) above grade in lieu of being elevated at or above the base flood elevation provided no manufactured home at the same site has sustained flood damage exceeding 50% of the market value of the home before the damage occurred.

Change the second paragraph of Section 1615.1 of the IBC to read:

The mapped maximum considered earthquake spectral response acceleration at short periods ( $S_s$ ) and at 1-second period ( $S_1$ ) shall be determined from Figures 22-1 and 22-2 of ASCE 7. Where a site is

between contours, straight-line interpolation or the value of the higher contour shall be used. Any references in this code to Figures 1615(1) through (10) shall be considered to be references to Figures 22-1 and 22-2 of ASCE 7.

Change the exception to Section 1616.3 of the IBC to read:

**Exception:** The seismic design category is permitted to be determined from Table 1616.3(1) alone when all of the following apply:

1. In each of the two orthogonal directions, the approximate fundamental period of the structure,  $T_a$ , determined in accordance with Section 9.5.5.3.2 of ASCE 7, is less than  $0.8 T_s$  where  $T_s$  is determined in accordance with Section 1615.1.4,
2. In each of the two orthogonal directions, the fundamental period of the structure,  $T$ , used to calculate the story drift is less than  $T_s$ ,
3. Equation 9.5.5.2.1-1 of ASCE 7 is used to determine the seismic response coefficient,  $C_s$ , and
4. The diaphragms are rigid as defined in Section 1602 or for diaphragms that are flexible, the distance between vertical elements of the seismic force-resisting system does not exceed 40 feet.

Chapter 17

STRUCTURAL TEST AND SPECIAL INSPECTIONS

Change Section 1704.1 of the IBC to read:

**1704.1 General.** Where application is made for construction as described in this section, the owner or the RDP in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections during construction on the types of work listed under Section 1704. The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction or operation requiring special inspection. These inspections are in addition to the inspections specified in Section 113.3.

**Exceptions:**

1. Special inspections are not required for work of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by the laws of this Commonwealth and regulations governing the professional registration and certification of engineers and architects.
3. Unless otherwise required by the building official, special inspections are not required for occupancies in Groups R-3, R-4 or R-5 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

Change Section 1704.1.1 of the IBC to read:

**1704.1.1 Building permit requirement.** The permit applicant shall submit a statement of special inspections prepared by the RDP in responsible charge in accordance with Section 111.1. This statement shall include a complete list of materials and work requiring special inspections by this section, the inspections to be performed and a list of the individuals, approved agencies or firms intended to be retained for conducting such inspections.

Add a category "11" to Table 1704.4 of the IBC to read:

VERIFICATION AND INSPECTION	CONT.	PERIODIC	REFERENCED STANDARD	IBC REF.
11. Inspection of concrete formwork, shoring and reshoring.	-	X	ACI 318: 6.1, 6.2	1906

## Chapter 18 SOILS AND FOUNDATIONS

Change the exception to Section 1803.5 of the IBC to read:

**Exception:** Compacted fill material less than 12 inches (305 mm) in depth need not comply with an approved report, provided it is a natural non-organic material that is not susceptible to swelling when exposed to moisture and it has been compacted to a minimum of 90% Modified Proctor in accordance with ASTM D1557. The compaction shall be verified by a qualified inspector approved by the building official. Material other than natural material may be used as fill material when accompanied by a certification from an RDP and approved by the building official.

## Chapter 27 ELECTRICAL

Change Section 2701.1 of the IBC to read:

**2701.1 Scope.** This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of this code and NFPA 70. Any references in this code to the ICC Electrical Code shall be considered to be references to NFPA 70.

grade, cables shall be concealed within walls, floors or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.

For the purpose of Items 2 and 3 above, the first floor of a building shall be that floor that has 50% or more of the exterior wall surface area level with or above finished grade. One additional level that is the first level and not designed for human habitation and used only for vehicle parking, storage or similar use shall be permitted.

Add Section 2701.1.1 to the IBC to read:

**2701.1.1 Changes to NFPA 70.** The following change shall be made to NFPA 70:

1. Change Sections 334.10(2) and 334.10(3) of NFPA 70 to read:
  - (2) Multifamily dwellings not exceeding four floors above grade and multifamily dwellings of any height permitted to be of Types III, IV and V construction except in any case as prohibited in 334.12.
  - (3) Other structures not exceeding four floors above grade and other structures of any height permitted to be of Types III, IV and V construction except in any case as prohibited in 334.12. In structures exceeding four floors above

Add Section 2701.1.2 to the IBC to read:

**2701.1.2 Temporary connection to dwelling units.**

The building official shall give permission to energize the electrical service equipment of a one- or two-family dwelling unit when all of the following requirements have been approved:

1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
2. The grounding electrode system shall be installed and terminated.

3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.
4. Service equipment covers shall be installed.
5. The building roof covering shall be installed.
6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

## Chapter 28

### MECHANICAL SYSTEMS

Change Section 2801.1 of the IBC to read:

**2801.1 Scope.** Mechanical appliances, equipment and systems shall be constructed and installed in accordance with this chapter, the International Mechanical Code and the International Fuel Gas Code. Masonry chimneys, fireplaces and barbecues shall comply with the International Mechanical Code and Chapter 21 of this code.

**Exception:** This code shall not govern the construction of water heaters, boilers and pressure vessels to the extent which they are regulated by the Virginia Boiler and Pressure Vessel Regulations (16 VAC 25-50). However, the building official may require the owner of a structure to submit documentation to substantiate compliance with those regulations.

Add IBC Section 2802 Heating Facilities.

Add Section 2802.1 to the IBC to read:

**2802.1 Required heating in dwelling units.** Heating facilities shall be required in every dwelling unit or portion thereof which is to be rented, leased or let on terms, either expressed or implied, to furnish heat to the occupants thereof. The heating facilities shall be capable of maintaining the room temperature at 65°F (18°C) during the period from October 15 to May 1 during the hours between 6:30 a.m. and 10:30 p.m. of each day and not less than 60°F (16°C) during other hours when measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls. The capability of the heating system shall be based on the outside design temperature required for the locality by this code.

Add Section 2802.2 to the IBC to read:

**2802.2 Required heating in nonresidential structures.** Heating facilities shall be required in every enclosed occupied space in nonresidential structures. The heating facilities shall be capable of producing sufficient heat during the period from October 1 to May 15 to maintain a temperature of not less than 65°F (18°C) during all working hours. The required room temperature shall be measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls.

Processing, storage and operation areas that require cooling or special temperature conditions and areas in which persons are primarily engaged in vigorous physical activities are exempt from these requirements.

Add Section 2803.1 to the IBC to read:

**2803.1 Changes to the International Mechanical Code.** The following changes shall be made to the International Mechanical Code:

1. Add the following to the end of Section 510.1 of the International Mechanical Code:

For the purposes of the provisions of Section 510, a laboratory shall be defined as a facility where the use of chemicals is related to testing, analysis, teaching, research or development activities. Chemicals are used or synthesized on a non-production basis, rather than a manufacturing process.

2. Add an exception to Section 510.2 of the International Mechanical Code to read:

**Exception:** Laboratories, as defined in Section 510.1, except where the concentrations listed in Item 1 are exceeded or a vapor, gas, fume, mist or dust with a health-hazard rating of 1, 2, 3 or 4 is present in concentrations exceeding 1 percent of the median lethal concentration of the substance for acute inhalation toxicity.

3. Change Section 510.4 of the International Mechanical Code to read:

**510.4 Independent system.** Hazardous exhaust systems shall be independent of other types of exhaust systems. Incompatible materials, as defined in the International Fire Code, shall not be exhausted through the same hazardous exhaust system. Hazardous exhaust systems shall not share common shafts with other duct systems, except where such systems are hazardous exhaust systems originating in the same fire area.

**Exception:** The provision of this section shall not apply to laboratory exhaust systems where all of the following conditions apply:

1. All of the hazardous exhaust ductwork and other laboratory exhaust within both the occupied space and the shafts is under negative pressure while in operation.
2. The hazardous exhaust ductwork manifolded together within the occupied space must originate within the same fire area.
3. Each control branch has a flow regulating device.
4. Perchloric acid hoods and connected exhaust shall be prohibited from manifolding.
5. Radioisotope hoods are equipped with filtration or

carbon beds, or both, where required by the RDP.

6. Biological safety cabinets are filtered.
7. Provision is made for continuous maintenance of negative static pressure in the ductwork.

Contaminated air shall not be recirculated to occupied areas unless the contaminants have been removed. Air contaminated with explosive or flammable vapors, fumes or dusts; flammable, highly toxic or toxic gases; or radioactive material shall not be recirculated.

4. Add Exception 3 to Section 510.7 of the International Mechanical Code to read:

3. For laboratories, as defined in Section 510.1, automatic fire protection systems shall not be required in laboratory hoods or exhaust systems.

5. Change Section 604.3 of the International Mechanical Code to read:

**604.3 Coverings and linings.** Coverings and linings, including adhesives when used, shall have a flame spread index not more than 25 and a smoke-developed index not more than 50, when tested in accordance with ASTM E 84, using the specimen preparation and mounting procedures of ASTM E 2231. Duct coverings and linings shall not flame, glow, smolder or smoke when tested in accordance with ASTM C 411 at the temperature to which they are exposed in service. The test temperature shall not fall below 250°F (121°C).

6. Add Section 801.1.1 to the International Mechanical Code to read:

**801.1.1 Equipment changes.** Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with this code.
2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

7. Change Section 1204.1 of the International Mechanical Code to read:

**1204.1 Insulation characteristics.** Pipe insulation installed in buildings shall conform to the requirements of the International Energy Conservation Code, shall be tested in accordance with ASTM E 84, using the specimen preparation and mounting procedures of ASTM E 2231, and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. Insulation installed in an air plenum shall comply with Section 602.2.1.

**Exception:** The maximum flame spread index and smoke-developed index shall not apply to one- and two-family dwellings.

8. Add Section 1301.5 to the International Mechanical Code to read:

**1301.5 Tanks abandoned or removed.** All exterior above-grade fill piping shall be removed when tanks are abandoned or removed. Tank abandonment shall be in accordance with the International Fire Code.

9. Change the referenced standards in Chapter 15 of the International Mechanical Code as follows:

STANDARD REFERENCE NUMBER	TITLE	REFERENCED IN CODE SECTION NUMBER
ASTM E 2231-02	Standard Practice for Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess Surface Burning Characteristics.	604.3, 1204.1

Add Section 2804.1 to the IBC to read:

**2804.1 Changes to the International Fuel Gas Code.** The following changes shall be made to the International Fuel Gas Code:

1. Change Section 301.1 of the International Fuel Gas Code to read:

**301.1 Scope.** This code shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, and related accessories as follows:

1. Coverage of piping systems shall extend from the point of delivery to the connections with gas utilization equipment. (See “point of delivery.”)
2. Systems with an operating pressure of 125 psig (862 kPa gauge) or less.

Piping systems for gas-air mixtures within the flammable range with an operating pressure of 10 psig (69 kPa gauge) or less.

LP-Gas piping systems with an operating pressure of 20 psig (140 kPa gauge) or less.

3. Piping systems requirements shall include design, materials, components, fabrication, assembly, installation, testing and inspection.
4. Requirements for gas utilization equipment and related accessories shall include installation, combustion and ventilation air and venting.

This code shall not apply to the following:

1. Portable LP-Gas equipment of all types that are not connected to a fixed fuel piping system.
2. Installation of farm equipment such as brooders, dehydrators, dryers, and irrigation equipment.

3. Raw material (feedstock) applications except for piping to special atmosphere generators.
  4. Oxygen-fuel gas cutting and welding systems.
  5. Industrial gas applications using gases such as acetylene and acetylenic compounds, hydrogen, ammonia, carbon monoxide, oxygen, and nitrogen.
  6. Petroleum refineries, pipeline compressor or pumping stations, loading terminals, compounding plants, refinery tank farms, and natural gas processing plants.
  7. Integrated chemical plants or portions of such plants where flammable or combustible liquids or gases are produced by chemical reactions or used in chemical reactions.
  8. LP-Gas installations at utility gas plants.
  9. Liquefied natural gas (LNG) installations.
  10. Fuel gas piping in power and atomic energy plants.
  11. Proprietary items of equipment, apparatus, or instruments such as gas generating sets, compressors, and calorimeters.
  12. LP-Gas equipment for vaporization, gas mixing, and gas manufacturing.
  13. Temporary LP-Gas piping for buildings under construction or renovation that is not to become part of the permanent piping system.
  14. Installation of LP-Gas systems for railroad switch heating.
  15. Installation of LP-Gas and compressed natural gas (CNG) systems on vehicles.
  16. Except as provided in Section 401.1.1, gas piping, meters, gas pressure regulators, and other appurtenances used by the serving gas supplier in the distribution of gas, other than undiluted LP-Gas.
  17. Building design and construction, except as specified herein.
2. Add Section 404.8.3 to the International Fuel Gas Code to read:
 

**404.8.3 Coating application.** Joints in gas piping systems shall not be coated prior to testing and approval.
  3. Add Section 501.1.1 to the International Fuel Gas Code to read:
 

**501.1.1 Equipment changes.** Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

    1. Vent or chimney systems are sized in accordance with this code.
    2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

## Chapter 29 PLUMBING SYSTEMS

Change Section 2901.1 of the IBC to read:

**2901.1 Scope.** The provisions of this chapter and the International Plumbing Code shall govern the design and installation of all plumbing systems and equipment, except that water supply sources and sewage disposal systems are regulated and approved by the Virginia Department of Health. The approval of pumping and electrical equipment associated with such water supply sources and sewage disposal systems shall, however, be the responsibility of the building official.

Add Section 2901.1.1 to the IBC to read:

**2901.1.1 Changes to the International Plumbing Code.** The following change shall be made to the International Plumbing Code:

1. Delete Sections 311 and 311.1.

## Chapter 30 ELEVATORS AND CONVEYING EQUIPMENT

Change Section 3001.2 of the IBC to read:

**3001.2 Referenced standards.** Except as otherwise provided for in this code, the design, construction, installation, alteration and repair of elevators and conveying systems and their components shall conform to ASME A17.1, ASME A90.1, ASME B20.1, ALI ALCTV. In addition, ASCE 24 shall apply to construction in flood hazard areas established in Section 1612.3.

frame on the designated and alternate landing floors required to be established by ASME A17.1.

**Exception:** Elevators in multistory dwelling units or guest rooms.

Change Section 3002.4 of the IBC to read:

**3002.4 Elevator car to accommodate ambulance stretcher.** In buildings four or more stories in height where an elevator or elevators are provided, at least one of the elevators shall be capable of providing fire department personnel emergency access to all floors and shall have the elevator car of such a size and arrangement to accommodate a 24-inch by 76-inch (610 mm by 1930 mm) ambulance stretcher in the horizontal, open position. The elevator shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both sides of the hoistway door

Chapter 33

**SAFEGUARDS DURING CONSTRUCTION**

Delete IBC Sections 3305 and 3305.1.

Chapter 34

**EXISTING STRUCTURES**

Change Section 3401.1 of the IBC to read:

**3401.1 Scope.** The provisions of this chapter and the applicable requirements of Chapter 1 shall control the alteration, repair, addition and change of occupancy of existing structures.

Delete IBC Sections 3401.2 and 3401.3.

Delete IBC Section 3403.

Change Section 3405.1 of the IBC to read:

**3405.1 Standards for replacement glass.** In accordance with Section 36-99.2 of the Code of Virginia, any replacement glass installed in buildings constructed prior to the first edition of the USBC shall meet the quality and installation standards for glass installed in new buildings as are in effect at the time of installation. In addition, as a requirement of this code, the installation or replacement of glass in buildings constructed under any edition of the USBC shall be as required for new installations.

Delete IBC Section 3406.

Delete IBC Section 3408.

Change Section 3410.2 of the IBC to read:

**3410.2 Applicability.** When specifically requested by an owner or an owner’s agent in structures where there is work involving additions, alterations or changes of occupancy, the provisions in Sections 3410.2.1 through 3410.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in Group H or I.

Add an exception to Section 3410.2.1 of the IBC to read:

**Exception:** Plumbing, mechanical and electrical systems in buildings undergoing a change of

occupancy shall be subject to any applicable requirements of Section 103.3 of this code.

Add IBC Section 3411 Retrofit Requirements.

Add Section 3411.1 to the IBC to read:

**3411.1 Scope.** In accordance with Section 103.7 and as setout herein, the following buildings are required to be provided with certain fire protection equipment or systems or other retrofitted components.

Add Section 3411.2 to the IBC to read:

**3411.2 Smoke detectors in colleges and universities.** In accordance with Section 36-99.3 of the Code of Virginia, college and university buildings containing dormitories for sleeping purposes shall be provided with battery-powered or AC-powered smoke detector devices installed therein in accordance with this code in effect on July 1, 1982. All public and private college and university dormitories shall have installed such detectors regardless of when the building was constructed. The chief administrative office of the college or university shall obtain a certificate of compliance with the provisions of this subsection from the building official of the locality in which the college or university is located or in the case of state-owned buildings, from the Director of the Virginia Department of General Services. The provisions of this section shall not apply to any dormitory at a state-supported military college or university which is patrolled 24 hours a day by military guards.

Add Section 3411.3 to the IBC to read:

**3411.3 Smoke detectors in certain juvenile care facilities.** In accordance with Section 36-99.4 of the Code of Virginia, battery-powered or AC-powered smoke detectors shall be installed in all local and regional detention homes, group homes, and other residential care facilities for children and juveniles which are operated by or under the auspices of the Virginia Department of Juvenile Justice, regardless

of when the building was constructed, by July 1, 1986, in accordance with the provisions of this code that were in effect on July 1, 1984. Administrators of such homes and facilities shall be responsible for the installation of the smoke detector devices.

Add Section 3411.4 to the IBC to read:

**3411.4 Smoke detectors for the deaf and hearing-impaired.** In accordance with Section 36-99.5 of the Code of Virginia, smoke detectors providing an effective intensity of not less than 100 candela to warn a deaf or hearing-impaired individual shall be provided, upon request by the occupant to the landlord or proprietor, to any deaf or hearing-impaired occupant of any of the following occupancies, regardless of when constructed:

1. All dormitory buildings arranged for the shelter and sleeping accommodations of more than 20 individuals;
2. All multiple-family dwellings having more than two dwelling units, including all dormitories, boarding and lodging houses arranged for shelter and sleeping accommodations of more than five individuals; or
3. All buildings arranged for use of one-family or two-family dwelling units.

A tenant shall be responsible for the maintenance and operation of the smoke detector in the tenant's unit.

A hotel or motel shall have available no fewer than one such smoke detector for each 70 units or portion thereof, except that this requirement shall not apply to any hotel or motel with fewer than 35 units. The proprietor of the hotel or motel shall post in a conspicuous place at the registration desk or counter a permanent sign stating the availability of smoke detectors for the hearing impaired. Visual detectors shall be provided for all meeting rooms for which an advance request has been made.

Add Sections 3411.5, 3411.5.1 and 3411.5.2 to the IBC to read:

**3411.5 Assisted living facilities (formerly known as adult care residences or homes for adults).** Existing assisted living facilities licensed by the Virginia Department of Social Services shall comply with this section.

**3411.5.1. Fire protective signaling system and fire detection system.** A fire protective signaling system and an automatic fire detection system meeting the requirements of the USBC, Volume I, 1987 Edition, Third Amendment, shall be installed in assisted living facilities by August 1, 1994.

**Exception:** Assisted living facilities that are equipped throughout with a fire protective signaling system and an automatic fire detection system.

**3411.5.2. Single and multiple station smoke detectors.** Battery or AC-powered single and multiple station smoke detectors meeting the requirements of the USBC, Volume I, 1987 Edition, Third Amendment, shall be installed in assisted living facilities by August 1, 1994.

**Exception:** Assisted living facilities that are equipped throughout with single and multiple station smoke detectors.

Add Section 3411.6 to the IBC to read:

**3411.6 Smoke detectors in buildings containing dwelling units.** AC-powered smoke detectors with battery backup or an equivalent device shall be required to be installed to replace a defective or inoperative battery-powered smoke detector located in buildings containing one or more dwelling units or rooming houses offering to rent overnight sleeping accommodations, when it is determined by the building official that the responsible party of such building or dwelling unit fails to maintain battery-powered smoke detectors in working condition.

Add Section 3411.7 to the IBC to read:

**3411.7 Fire suppression, fire alarm and fire detection systems in nursing homes and facilities.** Fire suppression systems as required by the edition of this code in effect on October 1, 1990, shall be installed in all nursing facilities licensed by the Virginia Department of Health by January 1, 1993, regardless of when such facilities or institutions were constructed. Units consisting of certified long-term care beds located on the ground floor of general hospitals shall be exempt from the requirements of this section.

Fire alarm or fire detector systems, or both, as required by the edition of this code in effect on October 1, 1990, shall be installed in all nursing

homes and nursing facilities licensed by the Virginia Department of Health by August 1, 1994.

Add Section 3411.8 to the IBC to read:

**3411.8 Fire suppression systems in hospitals.** Fire suppression systems shall be installed in all hospitals licensed by the Virginia Department of Health as required by the edition of this code in effect on October 1, 1995, regardless of when such facilities were constructed.

Add Section 3411.9 to the IBC to read:

**3411.9 Identification of handicapped parking spaces by above grade signs.** All parking spaces reserved for the use of handicapped persons shall be identified by above grade signs, regardless of whether identification of such spaces by above grade signs was required when any particular space was reserved for the use of handicapped persons. A sign or symbol painted or otherwise displayed on the pavement of a parking space shall not constitute an above grade sign. Any parking space not identified by an above grade sign shall not be a parking space reserved for the handicapped within the meaning of this section. All above grade handicapped parking space signs shall have the bottom edge of the sign no lower than four feet (1219 mm) nor higher than seven feet (2133 mm) above the parking surface. Such signs shall be designed and constructed in accordance with the provisions of Chapter 11 of this code. All disabled parking signs shall include the following language: PENALTY, \$100-500 Fine, TOW-AWAY ZONE. Such language may be placed on a separate sign and attached below existing above grade disabled parking signs, provided that the bottom edge of the attached sign is no lower than four feet above the parking surface.

Add Section 3411.10 to the IBC to read:

**3411.10 Smoke detectors in hotels and motels.** Smoke detectors shall be installed in hotels and motels as required by the edition of VR 394-01-22, USBC, Volume II, in effect on March 1, 1990, by the dates indicated, regardless of when constructed.

Add Section 3411.11 to the IBC to read:

**3411.11 Sprinkler systems in hotel and motels.** By September 1, 1997, an automatic sprinkler system shall be installed in hotels and motels as required by the edition of VR 394-01-22, USBC, Volume II, in effect on March 1, 1990, regardless of when constructed.

Add Section 3411.12 to the IBC to read:

**3411.12 Fire suppression systems in dormitories.**

An automatic fire suppression system shall be provided throughout all buildings having a Group R-2 fire area which are more than 75 feet (22,860 mm) or six stories above the lowest level of exit discharge and which are used, in whole or in part, as a dormitory to house students by any public or private institution of higher education, regardless of when such buildings were constructed, in accordance with the edition of this code in effect on August 20, 1997 and the requirements for sprinkler systems under the edition of the NFPA 13 standard referenced by that code. The automatic fire suppression system shall be installed by September 1, 1999. The chief administrative office of the college or university shall obtain a certificate of compliance from the building official of the locality in which the college or university is located or in the case of state-owned buildings, from the Director of the Virginia Department of General Services.

Exceptions:

1. Buildings equipped with an automatic fire suppression system in accordance with Section 903.3.1.1 or the 1983 or later editions of NFPA 13.
2. Any dormitory at a state-supported military college or university which is patrolled 24 hours a day by military guards.
3. Application of the requirements of this section shall be modified in accordance with the following:
  - 3.1. Building systems, equipment or components other than the fire suppression system shall not be required to be added or upgraded except as necessary for the installation of the fire suppression system and shall only be required to be added or upgraded where the installation of the fire suppression system creates an unsafe condition.
  - 3.2. Residential sprinklers shall be used in all sleeping rooms. Other sprinklers shall be quick response or residential unless deemed unsuitable for a space. Standard response sprinklers shall be used

in elevator hoist ways and machine rooms.

3.3. Sprinklers shall not be required in wardrobes in sleeping rooms that are considered part of the building construction or in closets in sleeping rooms, when such wardrobes or closets (i) do not exceed 24 square feet (2.23 <sup>2</sup>) in area, (ii) have the smallest dimension less than 36 inches (914 mm), and (iii) comply with all of the following:

3.3.1.A single station smoke detector monitored by the building fire alarm system is installed in the room containing the wardrobe or closet that will activate the general alarm for the building if the single station smoke detector is not cleared within five minutes after activation.

3.3.2.The minimum number of sprinklers required for calculating the hydraulic demand of the system for the room shall be increased by two and the two additional sprinklers shall be corridor sprinklers where the wardrobe or closet is used to divide the room. Rooms divided by a wardrobe or closet shall be considered one room for the purpose of this requirement.

3.3.3.The ceiling of the wardrobe, closet or room shall have a fire resistance rating of not less than 1/2 hour.

3.4. Not more than one sprinkler shall be required in bathrooms within sleeping rooms or suites having a floor area between 55 square feet (5.12 m<sup>2</sup>) and 120 square feet (11.16 m<sup>2</sup>) provided the sprinkler is located to protect the lavatory area and the plumbing fixtures are of a noncombustible material.

3.5. Existing standpipe residual pressure shall be permitted to be

reduced when the standpipe serves as the water supply for the fire suppression system provided the water supply requirements of NFPA 13 - 94 are met.

3.6. Limited service controllers shall be permitted for fire pumps when used in accordance with their listing.

3.7. Where a standby power system is required, a source of power in accordance with Section 701-11 (d) or 701-11 (e) of NFPA 70 - 96 shall be permitted.

Add Section 3411.13 to the IBC to read:

**3411.13 Fire extinguishers and smoke detectors in SRCF's.** SRCF's shall be provided with at least one approved type ABC portable fire extinguisher with a minimum rating of 2A10BC installed in each kitchen. In addition, SRCF's shall provide at least one approved and properly installed battery operated smoke detector outside of each sleeping area in the vicinity of bedrooms and bedroom hallways and on each additional floor.

Add Section 3411.14 to the IBC to read:

**3411.14 Smoke detectors in adult day care centers.** Battery-powered or AC-powered smoke detector devices shall be installed in all adult day care centers licensed by the Virginia Department of Social Services, regardless of when the building was constructed. The location and installation of the smoke detectors shall be determined by the provisions of this code in effect on October 1, 1990. The licensee shall obtain a certificate of compliance from the building official of the locality in which the center is located, or in the case of state-owned buildings, from the Director of the Virginia Department of General Services.

Add Section 3411.15 to the IBC to read:

**3411.15 Posting of occupant load.** Every room or space that is an assembly occupancy shall have the occupant load of the room or space as determined by the building official posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or authorized agent.

**Chapter 35**  
**REFERENCED STANDARDS**

Change the referenced standards in Chapter 35 of the IBC as follows (standards not shown remain the same):

STANDARD REFERENCE NUMBER	TITLE	REFERENCED IN CODE SECTION NUMBER
ASCE/SEI 7-05 (in addition to ASCE/SEI 7-02)	Minimum Design Loads for Buildings and Other Structures (Figures 22-1 and 22-2 only)	1615.1
ASME A17.1-2000 (replacing A17.1-00)	Safety Code for Elevators and Escalators – with A17.1a 2002 and A17.1b 2003 Addenda	1007.4, 1607.8.1, 3001.2, 3001.4, 3002.5, 3003.2, 3409.7.2
ASTM E329-02	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	111.2
ICC/ANSI A117.1-03 (replacing A117.1-98)	Accessible and Usable Buildings and Facilities	406.2.2, 907.9.1.3, 1007.6.5, 1010.1, 1010.6.5, 1010.9, 1011.3, 1101.2, 1102.1, 1103.2.13, 1106.6, 1107.2, 1109.2.2, 1109.3, 1109.4, 1109.8, 1109.15, 3001.3, 3409.5, 3409.7.2, 3409.7.3

**APPENDIX F**  
**RODENT PROOFING**

The following provisions of Appendix F of the IBC are part of this code:

- F101.2 Foundation wall ventilation openings.
- F101.6 Pier and wood construction. (Includes all provisions.)

**APPENDIX H**  
**SIGNS**

The following provisions of Appendix H of the IBC are part of this code:

- H101.2 Signs exempt from permits.
- H102 Definitions. (Includes all definitions.)
- H103 Location. (Includes Section H103.1.)
- H105 through H114. (Includes all provisions.)

**APPENDIX I**  
**PATIO COVERS**

The following provisions from Appendix I of the IBC are part of this code:

- I101 through I104 (Includes all provisions.)