ORDINANCE NO. 06-24

ORDINANCE: To Retitle and Amend Chapter 5 of the Rockville City Code Entitled "Buildings and Building Regulations," by Adopting with Certain Additions, Deletions and Amendments the ICC International Building Code (2021 Edition), the ICC International Residential Code (2021 Edition), the NFPA 70 National Electrical Code (2023 Edition), the ICC International Energy Conservation Code (2021 Edition), the ICC International Fuel Gas Code (2021 Edition), the ICC International Mechanical Code (2021 Edition), the ICC International Plumbing Code (2021 Edition), the ICC International Property Maintenance Code (2021 Edition), the ICC International Existing Building Code (2021 Edition), and by Making Other Minor Technical Changes

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND as follows:

SECTION I - That Chapter 5 of the Rockville City Code, entitled "Buildings and Building Regulations," be retitled and amended as follows:

Chapter 5

BUILDING AND PROPERTY MAINTENANCE REGULATIONS

~~**BUILDINGS AND BUILDING REGULATIONS**~~

ARTICLE I. – IN GENERAL

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Sec. 5-2. – Definitions.

The definitions contained in this section apply throughout this chapter and ~~is~~ are in addition to the definitions contained in the individual articles and any document referred to therein:

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~~*Code Official* means the officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.~~

* * *

Sec. 5-7. Authority to stop work.

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(c) It shall be unlawful to remove a posted "STOP WORK" order unless directed by a ~~Code Official~~ Building Official.

* * *

Sec. 5-13. Enforcement; violations.

(a) Any person who shall violate any of the provisions of this chapter; or shall fail to comply herewith or shall permit or maintain such a violation; or shall violate or fail to comply with any order made hereunder; or shall build in violation of any details, statements, specifications or plans submitted or approved hereunder; or shall operate not in accordance with the provisions of any certificate, permit, or approval issued hereunder; or who shall fail to comply with such an order as affirmed or modified by the Board of Adjustments and Appeals within the time fixed therein, shall severally for each violation and noncompliance respectively, be guilty of a municipal infraction. The imposition of penalty for any violation shall not excuse the violation nor shall the violation be permitted to continue. Prosecution or lack thereof of either the owner, occupant, or the person in charge shall not be deemed to relieve any of the others.

(b) Any order or notice issued or served as provided in this chapter shall be complied with by the owner, operator, occupant, or other person responsible for the condition or violation to which the order or notice pertains. Every order or notice shall set forth a time limit for compliance dependent upon the hazard and danger created by the violation. In cases of extreme danger to persons or property immediate compliance shall be required. If the building or other premises is occupied by persons other than the owner, under lease or otherwise, and the order or notice requires additions or changes in the building or premises such as would immediately become real estate and be the property of the owner of the building or premises, such order or notice shall be complied with by the owner unless the owner and occupant have otherwise agreed between themselves, in which event the occupant shall comply.

Secs. 5-13~~4~~—5-15. Reserved.

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ARTICLE III. NUMBERING OF BUILDINGS

Sec. 5-36. Assignment of numbers.

The City Manager, or ~~his~~ their authorized representative, may assign or reassign building numbers to properties within the corporate limits of the City. All numbers so assigned shall, insofar as practicable, be a continuation of, or in conformance with, the present numbering system or any system hereafter adopted.

* * *

Sec. 5-52. Duties of Chief of Inspection Services Division.

The Chief of Inspection Services Division or ~~his/her~~ their authorized representative shall:

* * *

Sec. 5-53. Duties of the City Manager.

The City Manager shall:

(1) Upon receipt of a report of the Chief of Inspection Service Division or ~~his/her~~ their authorized representative as provided for in subsection 5-52(6), give written notice to the occupant, owner, and all other persons having interest in the property as shown by the property tax or assessment records of the City to appear before him on the date specified in the notice to show cause why the building or structure reported to be a dangerous building should not be repaired, vacated or demolished in accordance with the statement of particulars set forth in the Chief's notice provided for herein in subsection 5-52(5);

* * *

(4) Issue an order based upon findings of fact made pursuant to subsection (3) commanding the occupant, owner, and all other persons having interest in the property, as shown by the property tax or assessment records of the City, to repair, vacate or demolish any building found to be a dangerous building; provided that:

* * *

b. Any person not the owner of the dangerous building but having an interest in the building as shown by the property tax or assessment records of the City may demolish the dangerous building at ~~his~~ their own risk to prevent the acquiring of a lien against the land upon which the dangerous building stands by the City as provided for in subsection (5).

* * *

Sec. 5-54. Duties of the City Attorney.

The City Attorney or ~~his/her~~ their authorized representative shall:

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Sec. 5-57. Standards for repair, vacation or demolition.

The following standards shall be followed in substance by the Chief of Inspection Service Division and ~~his~~ their authorized representative in ordering repair, vacation or demolition:

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ARTICLE V. BASIC BUILDING CODE

DIVISION 1. GENERALLY

* * *

Sec. 5-68. Definitions.

Words defined in this article are intended only for use with sections of this article or any document referred to in this article. The following definitions are intended to be read in place of any definitions of the same words contained in the publication adopted in section 5-86.

* * *

~~*Code Official* means the officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.~~

* * *

Secs. 5-69—5-8575. - Reserved.

~~**DIVISION 2. - ADMINISTRATION AND ENFORCEMENT**~~

~~**Sec. 5-76. - Enforcement; violations.**~~

~~(a) Any person who shall violate any of the provisions of this article; or shall fail to comply herewith or shall permit or maintain such a violation; or shall violate or fail to comply with any order made hereunder; or shall build in violation of any details, statements, specifications or plans submitted or approved hereunder; or shall operate not in accordance with the provisions of any certificate, permit, or approval issued hereunder; or who shall fail to comply with such an order as affirmed or modified by the Board of Adjustments and Appeals within the time fixed therein, shall severally for each violation and noncompliance respectively, be guilty of a municipal infraction. The imposition of penalty for any violation shall not excuse the violation nor shall the violation be permitted to continue. Prosecution or lack thereof of either the owner, occupant, or the person in charge shall not be deemed to relieve any of the others.~~

~~(b) Any order or notice issued or served as provided in this article shall be complied with by the owner, operator, occupant or other person responsible for the condition or violation to which the order or notice pertains. Every order or notice shall set forth a time limit for compliance dependent upon the hazard and danger created by the violation. In cases of extreme danger to persons or property immediate compliance shall be required. If the building or other premises is owned by one (1) person and occupied by another, under lease or otherwise, and the order or notice requires additions or changes in the building or premises such as would immediately become real estate and be the property of the owner of the building or premises, such order or notice shall be complied with by the owner unless the owner and occupant have otherwise agreed between themselves, in which event the occupant shall comply.~~

~~Sees. 5-77—5-85. - Reserved.~~

DIVISION ~~3~~2. TECHNICAL STANDARDS

Sec. 5-86. International Building Code—Adopted.

The International Code Council (ICC) International Building Code, ~~2018~~ 2021 Edition, as modified herein, is hereby adopted as the building code for the City. One (1) copy of such publication as adopted shall be maintained by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication promulgated by the International Code Council shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-87. Same—Amendments.

The ICC International Building Code, ~~2018~~ 2021 Edition (IBC), is amended in the following respects:

* * *

Section 101.3.1 is added to the IBC to read as follows:

> **101.3.1 Application of references.** References to the International Building Code shall mean the ~~2018~~ 2021 Edition of the International Building Code issued by the International Code Council Inc. Unless otherwise specified, all references to an article, section number, table, chart, etc., or to provisions not specifically identified by number and not set forth textually in this article but included by reference only, shall be construed to refer to such article, section number, table, chart, or provision as specified in the "International Building Code", which article, section or provision is hereby made part of this article and shall have the same force and effect as if set forth in this article in full.

* * *

Section 101.4.5 of the IBC is amended to read as follows:

> **101.4.5 Fire prevention.** The provisions of the National Fire Protection Association (NFPA) 1 Fire Code and NFPA 101 shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression, automatic sprinkler systems and alarm systems or fire hazards in the structure or on the premises from occupancy or operation. All references throughout this code to the International Fire Code shall be replaced with "The fire prevention provisions identified in Section 101.4.5 of this code".

Section 102.4.1 of the IBC is amended to read as follows:

102.4.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of the ~~most restrictive code~~ most restrictive provisions shall apply.

* * *

Section 105.1.3 is added to the IBC to read as follows:

105.1.3 SFD Permit application notification. Before a permit is issued for construction of a new single-family dwelling, the owner, applicant, or their agent shall post and maintain a notice furnished by the ~~code official~~ Building Official at the front lot line facing the street of the proposed structure. The placard shall be conspicuously posted so as to be visible from the public way. The SFD permit shall not be issued by the ~~code official~~ Building Official until at least 30 calendar days after the date the notice is posted on the site and verified through an inspection performed by the ~~code official~~ Building Official.

Exception: Single Family Dwellings that are part of a sub-division containing more than 5 dwellings.

* * *

Section 105.2 of the IBC is amended to read as follows:

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures, accessory to Group R-3 occupancies, used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 200 square feet.

2. Fences not over 7 feet (2134 mm) high.

3~~1~~. Oil derricks.

4~~2~~. Retaining walls that support a surcharge and are not over 2 feet in height as measured from the lower grade level to the grade level on the high side of the wall, and/or supporting a surcharge or impounding Class I, II or IIIA liquids.

5~~3~~. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18,927 L) and the ratio of height to diameter or width does not exceed 2 to 1.

6~~4~~. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade and not over any basement or story below.

7~~5~~. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.

~~6~~8. Temporary motion picture, television and theater stage sets and scenery.

~~7~~9. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.

~~8~~10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.

~~9~~11. Swings and other playground equipment accessory to detached one-and two-family dwellings and townhouses.

~~10~~12. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

~~11~~13. Non-fixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

~~12~~14. ~~Re-roofing or residing an existing home without removing any structural components.~~ For group R-3 one- and two-family dwellings and townhouses, replacing roof covering and underlayment materials in-kind, where neither the existing roof deck nor structural members are replaced, repaired, removed or otherwise altered.

15. For group R-3 one- and two-family dwellings and townhouses, replacing the outermost exterior wall covering materials in-kind, where the existing wall sheathing, thermal envelope, water-resistive barrier and structural members are not replaced, repaired, removed or otherwise altered.

~~13~~16. Patios/decks, accessory to Group R-3 one- and two-family dwellings and townhouses, that are not greater than 47-3/4" inches in height above ground level. Height is measured from top of patio/decking to ground at lowest point.

~~14~~17. For detached single-family structures, ~~R~~removal and replacement of drywall not to exceed 320 square feet of drywall that is not part of a fire-resistance-rated assembly.

* * *

Section 105.2.~~2~~.3 is added to the IBC to read as follows:

105.2.~~2~~.3 Repairs. Application or notice to the ~~Code Official~~ Building Official is not required for ordinary repairs to structures. Such repairs shall not include the cutting away of any wall, partition, or portion thereof. The removal or cutting of any structural beams or load bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs including additions to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, service, waste, vent or similar piping, electrical wiring or mechanical or other work affecting public health or general safety.

* * *

Section 105.5.1 is added to the IBC to read as follows:

105.5.1 Extensions. The ~~code official~~ Building Official ~~can~~ may extend the time for action by the permittee if there is reasonable cause. A permittee holding an unexpired permit shall have the right to apply for an extension, in writing, for time to complete such work. The extension shall be requested for a justifiable cause.

* * *

Section 107.2.1.1 of the IBC is amended to read as follows:

107.2.1.1 Building Height and Area Calculations. On the Code Data Sheet ~~for a new structure or an addition to an existing structure~~ included in the construction documents, the design professional shall provide the height and area calculations used to determine if the structure meets the limitations of the building code.

Sections 107.2.2.1 & 107.2.2~~6~~.1.1 are added to the IBC to read as follows:

107.2.2.1 Shop Drawings. All fire protection shop drawings prepared by ~~sub-contractors~~ persons other than the fire protection engineer of record for the project shall be reviewed by the fire protection engineer of record; or where an FPEDE is required, the fire protection engineer who performed the FPEDE, prior to submittal to the City of Rockville. This section is applicable to, but not limited to, all elements or systems identified in Chapter 9 of the *International Building Code*. Shop drawings may include, but are not limited to, fire sprinkler plans, non-aqueous fire protection systems, fire alarm submittals, smoke control systems. The fire protection engineer shall review the plans for coordination of components and the performance of integrated systems. The fire protection engineer will also verify that the systems are designed in accordance with the appropriate standard, all fire protection systems are coordinated together to work in concert, and that all information is presented for a review.

107.2.2.1.1 Required Statement. Each set of fire protection shop drawings must have a signed and ~~stamped~~ sealed statement attached to the plans by the evaluating fire protection engineer, attesting: "In my professional engineering opinion these drawings and specifications have been reviewed, coordinated with other applicable fire protection systems, and are in compliance with the fire safety provisions of all adopted State and local building code, fire codes, mechanical codes, local amendments and referenced codes and standards to the best of ~~their~~ my knowledge and belief."

Section 107.2.9 is added to the IBC to read as follows:

107.2.9 Fire Protection Engineering Design Evaluation (FPEDE). All plans and specifications for which a building permit is required for buildings of the Use Groups listed in Section 107.2.~~9~~10 shall be evaluated in accordance with the requirements of this Section for design compliance with adopted fire related code requirements concerning:

* * *

15. Completion of the ~~2018~~ 2021 International Building Code Plan Review Record as published by the International Code Council.

A written Fire Protection Engineering Design Evaluation (FPEDE) concerning these items shall be submitted with the plans accompanying the application for a building permit. It shall be in a format established by the Fire Marshal and shall be signed and stamped by the preparer. If, in the course of performing the FPEDE, the evaluating fire protection engineer determines that there are fire related code deficiencies in the drawing or specifications, all such deficiencies shall be remedied prior to the submittal of the FPEDE and the building permit application and drawings. The FPEDE must include a signed and sealed statement by both the evaluating fire protection engineer and the engineer or architect of record attesting: "In my professional engineering opinion these drawings and specifications are in compliance with the fire safety provisions of all adopted State and local Building Code, Fire Codes, Mechanical Codes, local amendments and referenced codes and standards to the best of ~~their~~ my knowledge and belief".

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Section 107.2.10 is added to the IBC to read as follows:

107.2.10 Use Groups Requiring a Fire Protection Engineering Design Evaluation (FPEDE). An FPEDE is required when deemed necessary by the Building Official, during the pre-submittal phase, for the following buildings or fire protection systems for which a building permit application is made:

* * *

(6) All Use Groups with an estimated construction cost of Five Six Million Dollars ($~~5~~6,000,000.00) or more;

(7) Other complex or unique structures, as determined by the City of Rockville Fire Marshal.

* * *

Section 107.3.3 of the IBC is amended to read as follows:

107.3.3 Phased approval. The ~~Chief of Inspection Services~~ Building Official is authorized to issue a permit for the construction of foundations of a building or structure prior to approval of ~~the~~ construction documents~~,~~ for the whole building or structure~~, having been approved~~. The application for a foundation permit shall include all ~~relative~~ relevant information, including but not limited to setbacks, proposed building height and area, building construction type, and structural criteria ~~number of plans, applications, fees and complies with the appropriate codes~~. The holder of such permit for the foundation 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 107.3.3.1 is added to the IBC to read as follows:

107.3.3.1 Phased construction. Where construction of a building or structure is proposed to be phased, the applicant shall include a phasing plan and narrative with the submittal of construction documents. Such phasing plan shall clearly identify the extent of the work area included in each phase and clearly identify how elements such as the means of egress, active and passive fire protection, accessible routes, and restroom access will be provided or maintained during construction.

Section 107.3.4.2 is added to the IBC to read as follows:

107.3.4.2 Design Professional. All commercial and multifamily ~~project plans~~ construction documents shall be prepared ~~by a Maryland licensed registered design professional. Construction documents shall be,~~ signed, sealed and include the titleblock certification statement as required by Maryland State law (COMAR 09.21.02.04 and 09.23.03.09)

Section 110.3.4.1 is added to the IBC to read as follows:

110.3.4.1 Residential Building Height. The height of residential buildings in Group R-3 shall conform with Chapter 25, Zoning Ordinance, Section 25.10.05 of the Rockville City Code. A building height certification shall be submitted to the City of Rockville after all framing and roofing is complete. No close-in inspections will be performed until the certification has been approved by the City. The building height certification shall be prepared and signed by a licensed land surveyor in the State of Maryland, a civil engineer licensed in the State of Maryland or any individual who is deemed qualified by the ~~Chief of Inspection Services~~ Building Official.

Exception:

(1) Residential buildings in Group R-3 where the proposed addition, alteration or reconstruction does not exceed or increase the height of the existing structure. New SFD construction shall be excluded.

Sections 111.1.1, 111.1.2, and 111.1.3 are added to the IBC to read as follows:

111.1.1 New buildings. A building or structure hereafter erected shall not be used or occupied in whole or in part until the certificate of occupancy ~~shall have~~ has been issued by the ~~code official~~ Building Official.

111.1.2 Buildings hereafter altered. A building or structure hereafter enlarged, extended or altered to change from one (1) use group to another or to a different use within the same use group in whole or in part, and a building or structure hereafter altered for which a certificate of occupancy has not been heretofore issued, shall not be occupied or used until the certificate shall have been issued by the ~~code official~~ Building Official, certifying that the work has been completed in accordance with the provisions of the approved permit. Any use or occupancy, which was not discontinued during the work of alteration, shall be discontinued within thirty (30)

days after the completion of the alteration unless the required certificate is secured from the ~~code official~~ Building Official.

111.1.3 Change of tenant or ownership. Whenever the ownership or tenancy of any part of a non-residential ~~a commercial, industrial, or business Use or~~ building or space changes ~~ownership; or the tenancy of a commercial or industrial building or space changes~~, application must be made for a certificate of occupancy. Any violations of this Section or any applicable code as related to fire or life safety codes must be corrected prior to the issuance of the certificate of occupancy.

Section 111.3 ~~is added to the IBC~~ of the IBC is amended to read as follows:

111.3 Temporary Occupancy. The ~~Chief of Inspection Services~~ Building Official or designee may issue a temporary occupancy permit. A temporary occupancy permit may be issued if none of the remaining conditions to be complied with are a health or safety hazard.

A temporary occupancy permit may not be issued for a single-unit detached dwelling.

A temporary occupancy permit is valid for a period not to exceed thirty (30) days, in the discretion of the ~~Chief of Inspection Services~~ Building Official or designee.

For good cause, the ~~Chief of Inspection Services~~ Building Official or designee may extend a temporary occupancy permit when requested for additional periods, in accordance with the City of Rockville Zoning Ordinance Section 25.07.12, however no temporary occupancy permit, including any extensions, will be valid for more than sixty (60) days.

Section 113.1 of the IBC is amended to read as follows:

113.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the ~~Code Official~~ Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Section 115.~~3~~4 of the IBC is amended to read as follows:

115.~~3~~4 Unlawful Continuance. Any person who shall continue any work in or about the structure after having been issued a verbal or written stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine as set forth by resolution of the Mayor and Council.

Section 414.1.2.2 is added to the IBC to read as follows:

414.1.2.2 Laboratory chemicals. Upon application for construction permit, ~~any structure with a laboratory~~ the applicant shall provide a listing of ~~liquids~~ chemicals to be stored and used in any structure with a laboratory. ~~The applicant is responsible for the preparation and submittal of the~~The chemical list shall contain, at a minimum, the name and ~~the~~ quantity to be stored of each individual chemical, the Material Safety Data Sheets, and the container storage type and arrangement for review.

~~*Section 501.3* is added to the IBC to read as follows:~~

> ~~**501.3 Internal Fire Department Access in Complex Structures.** In all structures, at least one entrance to a stair shall be provided in the vicinity of the main fire department access point, which accesses all levels of the structure. If a standpipe system is required in the building, this stair must be provided with that means of manual fire protection. The automatic fire sprinkler floor control valves shall also be located in this stair.~~

* * *

Section 907.2.~~12~~13.2 of the IBC is amended to read as follows:

> **907.2.~~12~~13.2 Fire department communication system.** An approved two-way, fire department communication system designed and installed in accordance with NFPA 72 shall be provided for fire department use. It shall operate between a fire command center complying with Section 911, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed exit stairways. The fire department communication devices shall be provided on intermediate floor landings in stairwells and adjacent to fire department hose connections, unless otherwise permitted by the ~~code official~~ Building Official.

* * *

Section 914.3 is added to the IBC to read as follows:

> **914.3 Internal Fire Department Access in Complex Structures.** In all structures, at least one entrance to a stair shall be provided in the vicinity of the main fire department access point. Such stair must provide access to all levels of the structure. If a standpipe system is required in the building, this stair must be provided with that means of manual fire protection. The automatic fire sprinkler floor control valves shall also be located in this stair.

Section 918 of the IBC is amended to read as follows:

Section 918

Radio Amplification System for Emergency Service Personnel

* * *

918.3 Inspection and Testing. Emergency responder radio coverage and in-building public safety radio enhancement systems must be tested, and inspected by approved individuals. The results of the testing and inspection shall be certified to the ~~code official~~ Building Official and Montgomery County prior to issuance of an occupancy permit.

Section 919 is added to the IBC to read as follows:

Section 919

Fire Hydrants

* * *

919.4 Fire Hydrant Protection Systems. When a fire hydrant is considered to be vulnerable to vehicular traffic by the ~~Code Official~~ Building Official, a protective system shall be installed to prevent any damage. The system can be composed of bollards or another accepted physical barriers capable of impact without causing damage to the fire hydrant.

* * *

Section 1028.6 is added to the IBC to read as follows:

1028.6 Construction of Path to Egress Discharge. Egress discharge paths shall be made of permanent, formed materials arranged in a manner to lead occupants to a public way. Grass lawns, gravel and other filler materials ~~will~~ are not ~~be an~~ acceptable path bases.

~~*Chapter 11* of the IBC is to be deleted and replaced with:~~

~~**Chapter 11**~~
~~**ACCESSIBILITY**~~
~~**Section 1101**~~
~~**General**~~

~~**1101.1 Scope.** Chapter 11 is hereby replaced with the Maryland Accessibility Code set forth in COMAR 09.12.53.~~

Section 1101.2 is added to the IBC to read as follows:

1101.2 Maryland Accessibility Code. The Maryland Accessibility Code as set forth in COMAR 09.12.53 is hereby incorporated by reference.

1101.2.1 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state, or federal law.

1101.2.2 Conflicts. Where conflicts occur between the provisions of this Chapter and local, state, or federal law, the most restrictive provisions shall apply, provided the minimum provisions of state and federal law are met in all cases.

Section ~~1208~~1209.2.1 is added to the IBC to read as follows:

~~**1208**~~**1209.2.1 Dedicated Attic Walkways**. When a commercial or multi-family residential structure is provided with an attic, dedicated and permanent walkways shall be installed to provide an easy manner for maintenance personnel to ~~transverse~~ traverse the structural spans.

The walkway shall be of materials consistent with the construction of the building. The walkway shall be a maximum of 18 inches wide or meeting required widths as designated by other Codes and shall not be used for storage. The walkway shall be arranged so to prevent any contact with sprinkler piping or the insulation that protects the piping.

Sections 1507.1.3 and 1507.1.4 are added to the IBC to read as follows:

1507.1.3 Cool roof requirements. Roof coverings for roof slopes less than two units vertical in 12 units horizontal (less than 17-percent slope) for buildings and covered parking shall conform to ~~Sections 1507.1.1~~ this section and section 1507.1.~~24~~. Replacement, including any change to design or materials, of the roof of a building or structure in a Historic District Zone must be approved by the Historic District Commission. A minimum of 75% of the entire roof surface not used for roof penetrations, onsite renewable energy systems, or vegetated roofing systems shall be covered with products that comply with the following:

3. Have a minimum initial solar reflective index (SRI) of 78, as described in Section 1507.1.~~24~~; or

* * *

Section ~~2310~~ 2301.1.1 is added to the IBC to read as follows:

~~Section 2310~~

~~DECKS~~

~~2310~~2301.1.1 ~~Scope~~Residential wood-framed decks. Wood-framed decks of group R-3 and R-4 occupancies shall be designed and constructed in accordance with this ~~section~~ chapter, Section R507 of the 2021 *International Residential Code*, and the "City of Rockville Typical Deck Details" ~~handout~~ document. ~~This would only apply to Use Groups R-3 and R-4.~~

* * *

~~**Sec. 5-88. Adoption of Maryland Accessibility Code.**~~
~~The *Maryland Accessibility Code* (COMAR 09.12.53.) is adopted by reference.~~

Secs. 5-~~88~~89—5-95. Reserved.

ARTICLE VI. ONE- AND TWO-FAMILY DWELLING CODE

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DIVISION 2. ~~ADMINISTRATION AND ENFORCEMENT~~ TECHNICAL STANDARDS

Sec. 5-101. International Residential Code for One- and Two-Family Dwellings—Adopted.

The International Code Council (ICC) International Residential Code for One- and Two-Family Dwellings, ~~2018~~ 2021 Edition, as modified herein, is hereby adopted as the residential code for the City. One (1) copy of such publication as adopted shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication promulgated by the International Code Council shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-102. Same—Amendments.

The ICC International Residential Code for One- and Two-Family Dwellings, ~~2018~~ 2021 Edition (IRC), is amended as follows:

* * *

Section R101.2 of the IRC is amended to read as follows:

R101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height.
Exception: The following shall be permitted to be constructed in accordance with this code where provided with an automatic residential fire sprinkler system complying with NFPA 13D or 13R:

1. Live/work units located in townhouses and complying with the requirements of Section 508.5 of the International Building Code.

2. Owner-occupied lodging houses with five or fewer guestrooms.

3. A care facility with five or fewer persons receiving custodial care within a dwelling unit.

4. A care facility with five or fewer persons receiving medical care within a dwelling unit.

5. A care facility for five or fewer persons receiving care that are within a single-family dwelling.

6. A four-story townhouse where the top story meets the definition of a townhouse loft.

~~Exception: The following shall be permitted to be con- structed in accordance with this code where provided with a residential fire sprinkler system complying with Section NFPA 13:~~

* * *

Section R105.1.1 is added to the IRC to read as follows:

105.1.1 SFD Permit application notification. Before a permit is issued for construction of a new single-family dwelling, the owner, applicant, or their agent shall post and maintain a notice furnished by the ~~code official~~ Building Official at the front lot line facing the street of the proposed structure. The placard shall be conspicuously posted so as to be visible from the public way. The SFD permit shall not be issued by the ~~code official~~ Building Official until at least 30 calendar days after the date the notice is posted on the site and verified through an inspection performed by the ~~code official~~ Building Official.

Exception: Single Family Dwellings that are part of a sub-division containing more than 5 dwellings.

Section R105.2 of the IRC is amended to read as follows:

* * *

(b) See Chapter 25, Zoning Ordinance, Article 14 of the Rockville City Code:
Historic District Zone
Building:

1. Other than storm shelters, one-story detached accessory structures that do not contain habitable space, provided that the floor area does not exceed 200 square feet (18.58 m2).

2. Fences not over 7 feet (2134 mm) high.

3. Retaining walls that support a surcharge and are not over 2 feet in height, as measured from the lower grade level to the grade level on the high side of the wall, and/or supporting a surcharge or impounding Class I, II or IIIA liquids.

~~2~~4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18,927 L) and the ratio of height to diameter or width does not exceed 2 to 1.

~~3~~5. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade and not over any basement or story below.

46. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.

~~5~~7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.

~~6~~8. Swings and other playground ~~equipment accessory to detached one-and two family dwellings~~.

~~7~~9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

~~8~~10. ~~Re-roofing or residing an existing home without removing any structural components.~~Replacing roof covering and underlayment materials in-kind, where neither

the existing roof deck nor structural members are replaced, repaired, removed or otherwise altered.

11. Replacing the outermost exterior wall covering materials in-kind, where the existing wall sheathing, thermal envelope, water-resistive barrier and structural members are not replaced, repaired, removed or otherwise altered.

912. Patio/decks that are not greater than 4-7-3/4" inches in height above ground level. Height is measured from top of patio/decking to ground at lowest point.

1013. Removal and replacement of drywall not to exceed 320 square feet, of drywall that is not part of a fire-resistance-rated assembly.

* * *

Section 105.5.1 is added to the IRC to read as follows:

105.5.1 Extensions. The ~~code official~~ Building Official can extend the time for action by the permittee if there is reasonable cause. A permittee holding an unexpired permit shall have the right to apply for an extension, in writing, for time to complete such work. The extension shall be requested for a justifiable cause.

* * *

Section R109.1.4 of the IRC is amended to read as follows:

R109.1.4 Frame and masonry inspection. Inspection of framing and masonry construction shall be made after the roof, masonry, all framing, fire stopping, draft stopping, and the plumbing, mechanical and electrical rough-in work is complete. The building, electrical, mechanical and plumbing rough-in inspections shall be requested at the same time. Floor framing, including support beams, located 36 inches or closer to the ground must be inspected prior to installing any flooring materials. An inspection is required for masonry fireplaces after the fireplace and first flue section are completed.

* * *

Section R110.1 of the IRC is amended to read as follows:

R110.1 Use and occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy. Issuance of a certificate of occupancy shall not occur until the building has been inspected and found to be in compliance with the provisions of this code and all other applicable laws and ordinances. Temporary certificates of occupancy will not be issued for one- and two-family dwellings.

Exceptions:

1. Certificates of occupancy are not required for work exempt from permits under Section R105.2.

2. Accessory buildings or structures that do not include habitable space.

~~*Sections R110.2 and R110.3* of the IRC are deleted.~~

* * *

Section R112.1 of the IRC is amended to read as follows:

R112.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the ~~Code Official~~ Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Section R114.1 of the IRC is amended to read as follows:

R114.1 Notice to owner or the owner's authorized agent. Upon notice from the building official that work on any building, structure, electrical, gas, mechanical or plumbing system is being done contrary to the provisions of this code or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be verbal or in writing and shall be given to the owner of the property, or to ~~his~~ their agent, or to the person doing the work, and shall state the specific violations and the conditions under which work will be permitted to resume.

Section R202 Definitions of the IRC ~~are~~ is hereby amended by adding and amending definitions as follows:

* * *

VEGETATED ROOF. A layer of vegetation growing in a medium on top of a drainage layer and a synthetic, waterproof membrane on the roof of a structure.

WATER DISTRIBUTION PIPE. The outside pipe on private property serving potable water from the meter to and including the interior service valve terminating at the branch fitting serving the water heating appliance.

WATER SERVICE PIPE. The outside pipe from the public water main to and including the private water distribution system inside the building, terminating at the service valve.

* * *

Section R310.3.~~2.2~~4.3 of the IRC is amended by deleting the exception.

* * *

Section R314.3 of the IRC is amended ~~by adding the following~~ to read as follows:

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room.

2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.

3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

4. Not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this section.

5. In the hallway and in the room open to the hallway in dwelling units where the ceiling height of a room open to a hallway serving bedrooms exceeds that of the hallway by 24 inches (610 mm) or more

6. In each townhouse loft.

Section R319.1 of the IRC is amended ~~by replacing the value of "4 inches (102mm)" with "5 inches (122.5mm)"~~ to read as follows:

R319.1 Address identification. Buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 5 inches (122.5 mm) in height with a stroke width of not less than 0.5 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

* * *

Section R322.1 of the IRC is amended to read as follows:

R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas, including A or V Zones and Coastal A Zones, as established in Table R301.2 and chapter 10 of the Rockville City Code, and substantial improvement and repair of substantial damage of buildings and structures in flood hazard areas, shall be designed and constructed in accordance

with the provisions contained in this section and Chapter 10 of the Rockville City Code. Buildings and structures that are located in more than one flood hazard area shall comply with the provisions associated with the most restrictive flood hazard area. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24 and Chapter 10 of the Rockville City Code.

~~*Section R507.3.2* of the IRC is amended by deleting all the exceptions.~~

* * *

Section R1001.~~13~~ 14 is added to the IRC to read as follows:

R1001.~~13~~ 14 Fireplaces. New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.

* * *

~~*Section M1502.4.2* of the IRC is amended to read as follows:~~

~~**M1502.4.2 Duct installation.** Exhaust ducts shall be supported at intervals not to exceed 12 feet (3658 mm) and shall be secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Exhaust duct joints shall be sealed in accordance with Section M1601.4.1 and shall be mechanically fastened. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.~~

* * *

Section P2903.7 of the IRC is amended to read as follows:

P2903.7 Size of water-service mains, branch mains and risers. The minimum size water service pipe shall be 1 inch, from the point of connection to the public water supply. The size of water service mains, branch mains and risers shall be determined according to water supply demand {gpm(L/m)}, available water pressure {psi(kPa)} and friction loss caused by the water meter and developed length of pipe {feet (m)}, including equivalent length of fittings. The size of each water distribution system shall be determined according to the procedure outlined in this section or by other design methods conforming to acceptable engineering practice and approved by the administrative authority:

* * *

ARTICLE VII. ELECTRICAL CODE

DIVISION 1. GENERALLY

Sec. 5-111. Definitions.

Except as specifically set forth in this article or any document referred to in this article, terms as used shall have the same definitions as the NFPA 70, National Electrical Code, ~~2017~~ 2023 Edition.

Approved means accepted or acceptable under the applicable specification stated or cited in this article and/or the NFPA 70, National Electrical Code ~~2017~~ 2023 Edition, or as accepted as suitable for the proposed use under procedures and powers of the administrative authority. Upon written request a certificate of approval may be issued indicating satisfactory completion of the electrical work.

* * *

DIVISION 3. TECHNICAL STANDARDS

Sec. 5-131. National Electrical Code—Adopted.

The National Fire Protection Association (NFPA) NFPA 70, National Electrical Code ~~2017~~ 2023 Edition as modified herein, is hereby adopted as the electrical code for the City. One (1) copy of such publication as adopted shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication promulgated by the National Fire Protection Association shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-132. Same—Definition.

In section 90-4 of the NFPA 70, National Electrical Code ~~2017~~ 2023 Edition, the phrase "authority having jurisdiction" shall mean the Chief of Inspection Services Division.

Sec. 5-133. Same—Amendments.

The NFPA 70, National Electrical Code, 20172023 Edition (NEC), is amended in the following respects:

* * *

Section 90.10 is added to the NEC to read as follows:

90.10 Appeals.

90.10.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the ~~Code Official~~ Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

* * *

Section 230.79, subsection (c) of the NEC is amended by deleting the value of "one hundred (100) amperes" and substituting therefor the value of "~~one hundred fifty (150)~~ two hundred (200) amperes" as the minimum service disconnecting means rating for one and two-family dwellings.

DIVISION 4. LICENSING OF ELECTRICIANS

Sec. 5-141. Required; violation declared misdemeanor.

(a) Except as otherwise provided in this code and Title 6 of the Business Occupations and Professions Article of the Maryland Annotated Code, any person who provides electrical services within the corporate limits of the City as an apprentice, journeyperson, or master electrician must hold a valid, corresponding license from the State of Maryland and comply with all other requirements of Title 6 of the Business Occupations and Professions Article of the Maryland Annotated Code. ~~Any person wishing to install, maintain, and/or repair any electrical circuits, equipment, or apparatus, or who wishes to supervise such work, within the corporate limits of the City shall obtain a master electrician's license from the administrative authority.~~

(b) Any person who provides electrical services within the corporate limits of the City without the requisite State license, including any required supervision, or who otherwise fails to comply with the requirements of Title 6 of the Business Occupations and Professions Article of the Maryland Annotated Code shall be guilty of a misdemeanor. ~~Any person wishing to install, maintain, and/or repair, or supervise the installation, maintenance, and/or repair of a particular appliance, equipment, or apparatus, such as air conditioning equipment, oil and gas heating furnaces, electric signs, and similar specialties within the corporate limits of the City shall obtain a master electrician's (limited) license from the administrative authority.~~

(c) For purposes of this section, to "provide electrical services" means to provide any service in the electrical trade, including but not limited to installing, repairing, maintaining, erecting, or altering any electrical equipment, wiring, fixture, appliance, apparatus, raceway, conduit, or system that (i) generates, transmits, transforms, or uses electrical energy in any form for light, heat, power, or communication; and (ii) is located within a plant, substation, or elsewhere. ~~Any person wishing to work under the supervision of a master electrician to install, maintain, and/or repair any electrical circuits, equipment or apparatus within the corporate limits of the City shall obtain a journeyman electrician's license by any county or municipality in the state approved by the administrative authority. All work done under this license shall be done under the supervision of a master electrician or master electrician (limited), who is licensed by the City.~~

(d) Any person who shall perform any electrical work within the corporate limits of the City who is not by or under the supervision of a licensee as provided in this article or is not otherwise qualified as set forth in section 5-121, subsection (b), shall be guilty of a misdemeanor.

(e) All company vehicles shall have the City's license number conspicuously displayed.

Sec. 5-142. Qualifications; examination.

(a) The administrative authority shall establish standards and procedures for the qualifications and licensing of master electricians and master electricians (limited). The administrative authority shall issue an appropriate license to each person who meets the qualifications and licensing requirements therefor.

(b) No additional examination will required by the administrative authority when an applicant presents a valid license issued by the State or County or any other municipality or County within the State, provided such City or County administers examinations and has qualification procedures equivalent to those required for licensing by the City.

(c) No license shall be granted to any person under the age of twenty-one (21) years.

(d) The examination fee shall be as set by the agency approved by the administrative authority to give the examination.

Sec. 5-143. Fee.

A license shall be issued under this division to qualified applicants only upon payment of a fee in the amount established by resolution.

Sec. 5-144. Term.

Licenses required by this division shall expire at the end of odd numbered calendar years.

Sec. 5-145. Bond or insurance.

Any person who has been issued a master electrician's license or master electrician's (limited) license shall execute and deposit with the administrative authority a bond in the sum of five thousand dollars ($5,000.00) or proof of insurance with a minimum of three hundred thousand dollars ($300,000.00) general liability and one hundred thousand dollars ($100,000.00) property damage coverage. Such bond shall be conditioned that all electrical work performed by the licensee or under his supervision shall be performed in accordance with this Code and that he will pay all fines and penalties properly imposed upon him for violation of the provisions of this article. A master electrician's license or a master electrician's (limited) license shall not be valid unless a bond is executed and deposited as herein stipulated, or proof of insurance submitted. No additional insurance or bond is required of persons who have a current, active and insured State Master Electrician License.

Sec. 5-146. Use of licensee's name by another; change of address, etc.

~~No person who has obtained a master electrician's license or master electrician's (limited) license shall allow his name to be used by another person either for the purpose of obtaining permits, or doing business or work under the license. Every person licensed shall notify the administrative authority of the address of his place of business and the name under which such business is carried on and shall give immediate notice to the administrative authority of any change in either.~~

Secs. 5-~~147~~142—5-155. Reserved.

ARTICLE VIII. ENERGY CONSERVATION CODE

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DIVISION 2. TECHNICAL STANDARDS

Sec. 5-161. International Energy Conservation Code—Adopted.

The International Code Council (ICC) International Energy Conservation Code, ~~2018~~ 2021 Edition, as modified herein, is hereby adopted as the energy conservation code for the City. One (1) copy of such publication as adopted shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such code promulgated by the International Code Council shall not become part of this article until the modifications have been duly adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-162. Same—Amendments.

The ICC International Energy Conservation Code, ~~2018~~ 2021 Edition (IECC), is amended in the following respects:

Section C101.1 of the IECC is amended to read as follows:

> **C101.1 Title**. This code shall be known as the ~~International~~ Energy Conservation Code of the City of Rockville, and shall be cited as such. It is referred to herein as "this code".

Section C101.3 of the IECC is amended to read as follows:

> **C101.3 Intent.** This code shall regulate the design and construction of buildings for the reduction of greenhouse gas emissions and for the efficient production, use and storage of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

Section C102.1.1 of the IECC is amended to read as follows:

> **C102.1.1 Above code programs**. The ~~code official~~ Building Official or other authority having jurisdiction shall be permitted to deem a national, state or local energy efficiency program to exceed the energy efficiency required by this code if the program provides a detailed written energy analysis study demonstrating that the requirements in the program exceed all requirements of this code and includes a requirement for inspections of each building by an accredited independent party to determine compliance. Buildings approved in writing by such an energy efficiency program and that meet all mandatory provisions of this Article shall be considered in compliance with this code.

Section C103.2 of the IECC is amended to ~~add item #13~~ read as follows:

C103.2 Information on construction documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted where approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include, but are not limited to, the following as applicable:

1. Energy compliance path.
2. Insulation materials and their R-values.
3. Fenestration U-factors and solar heat gain coefficients (SHGCs).
4. Area-weighted U-factor and solar heat gain coefficient (SHGC) calculations.
5. Mechanical system design criteria.
6. Mechanical and service water-heating systems and equipment types, sizes fuel source and efficiencies.
7. Economizer description.
8. Equipment and system controls.
9. Fan motor horsepower (hp) and controls.
10. Duct sealing, duct and pipe insulation and location.
11. Lighting fixture schedule with wattage and control narrative.
12. Location of daylight zones on floor plans.
13. Air barrier and air sealing details, including the location of the air barrier.
14. Location of pathways for routing of raceways or cable from the renewable energy system to the electrical service panel and electrical energy storage system area and solar readiness zones.
15. Location and layout of a designated area for electrical energy storage system.
16. Location of designated EVSE spaces, EV-Ready spaces, and EV-Capable spaces in parking facilities.
17. Energy Code Compliance Checklist.

Sections C103.2.2 and *C103.2.3* of the IECC are added to read as follows:

C103.2.2 Electrification system. The construction documents shall provide details for additional electric infrastructure, including branch circuits, conduit, or pre-wiring, and panel capacity in compliance with the provisions of this code.

C103.2.3 Solar-ready system. The construction documents shall provide details for dedicated roof area, structural design for roof dead and live load, and routing of conduit or pre-wiring from solar-ready zone to electrical service panel or plumbing from solar-ready zone to service water heating system.

Section C104.~~1~~2 of the IECC is amended as follows:

C104.~~1~~2 Schedule of Permit Fees~~:~~. A fee for each permit shall be paid as required, in accordance with the schedule ~~The fees shall be~~ as established by resolution of the Mayor and Council.

Sections ~~C104.2,~~ C104.3, C104.4 and C104.5 of the IECC are deleted.

Section C105.2.5 of the IECC is amended to read as follows:

C105.2.5 Electrical system. Inspections shall verify lighting system controls, components, meters, and additional electric infrastructure as required by the code, approved plans and specifications. Where a storage-ready zone is required, inspections shall verify space availability and pathways to electrical service.

Section C~~107~~108.1.1 of the IECC is amended to read as follows:

C~~107~~108.1.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the ~~provisions of the~~ most restrictive ~~code~~ provisions shall apply.

Section C108.1.3 is added to the IECC to read as follows:

C108.1.3 Appendices. The following appendices are incorporated by reference and are applicable to the extent they are referenced in this code:

1. Appendix CB Solar-Ready Zone – Commercial
2. Appendix CC Zero Energy Commercial Building Provisions

Section C~~109~~110.1 of the IECC is amended to read as follows:

C~~109~~110.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the ~~Code Official~~ Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Section C202 General Definitions of the IECC is amended to add new definitions as follows:

ALL-ELECTRIC BUILDING. A *building* that contains no combustion equipment, or plumbing for *combustion equipment*, installed within the *building* or *building site*.

APPLIANCE. A device or apparatus that is manufactured and designed to utilize energy and for which this code provides specific requirements.

AUTOMATIC LOAD MANAGEMENT SYSTEMS (ALMS). A control system that allows multiple connected *EVSE* to share a circuit or panel and automatically reduce power at each charger, reducing the total connected electrical capacity of all *EVSE*.

BLOCK. A generic concept used in energy simulation. It can include one or more thermal zones. It represents a whole building or portion of a building with the same use type served by the same HVAC system type.

COMBUSTION EQUIPMENT. Any *equipment* or *appliance* used for space heating, *service water heating*, cooking, clothes drying and/or lighting that uses *fuel gas* or *fuel oil*.

COMMERCIAL COOKING APPLIANCES. Appliances used in a commercial food service establishment for heating or cooking food and which produce grease vapors, steam, fumes, smoke or odors that are required to be removed through a local exhaust ventilation system. Such appliances include deep fat fryers, upright broilers, griddles, broilers, steam-jacketed kettles, hot-top ranges, under-fired broilers (charbroilers), ovens, barbecues, rotisseries, and similar appliances. For the purpose of this definition, a food service establishment shall include any *building* or a portion thereof used for the preparation and serving of food.

DEMAND RESPONSIVE CONTROL. An automatic control that can receive and automatically respond to demand response requests from a utility, electrical system operator, or third-party demand response program provider.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Plug-in hybrid electric vehicles are electric vehicles having a second source of motive power. Off-road, self-propelled electric mobile equipment, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not considered electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

EQUIPMENT. Piping, ducts, vents, control devices and other components of systems other than appliances that are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.

EV-CAPABLE SPACE. A parking space for which is there is sufficient electrical service capacity and physical space within the panel to support future installation of a minimum 40-ampere, 208/240-volt dedicated branch circuit for each EVSE space, and the installation of raceways, both underground and surface mounted, to support the EVSE.

EV-READY SPACE. A parking space that is served by a NEMA 14-50R receptacle on a dedicated 40-ampere, 208/240-volt branch circuit. Such receptacle shall be located at an *approved* location within close proximity to the parking space.

EVSE-INSTALLED SPACE. A parking space that is provided with dedicated *EVSE* that is fully installed from the electrical panel to the parking space.

FUEL GAS. A natural gas, manufactured gas, liquified petroleum gas or a mixture of these.

FUEL OIL. Kerosene or any hydrocarbon oil having a flash point not less than 100°F (38°C).

HVAC TOTAL SYSTEM PERFORMANCE RATIO (HVAC TSPR). The ratio of the sum of a building's annual heating and cooling load in thousands of Btus to the sum of annual site energy consumption of the building HVAC systems in BTU.

MIXED-FUEL BUILDING. A *building* that contains *combustion equipment* or includes piping for such *equipment.*

PROPOSED DESIGN. A description of the proposed building used to estimate annual energy use for determining compliance based on total building performance and *HVAC total system performance ratio.*

RENEWABLE ENERGY CERTIFICATE (REC). An instrument that represents the environmental attributes of one megawatt-hour of renewable electricity; also known as an energy attribute certificate (EAC).

STANDARD REFERENCE DESIGN. A version of the proposed design that meets the minimum requirements of this code and is used to determine the maximum annual energy use requirement for compliance based on total building performance and *HVAC total system performance ratio.*

Section C301.1 of the IECC is amended to read as follows:

C301.1 General. Climate zone "4A except Marine" shall be used for the City of Rockville in determining the applicable requirements from Chapter 4.

* * *

Section C402.1.1 of the IECC is amended as follows:

C402.1.1 Low energy buildings and greenhouses. The following low-energy buildings, or portions thereof separated from the remainder of the building by *building thermal envelope assemblies* complying with this section shall be exempt from the building thermal envelope provisions of Section C402.

1. Those containing no *combustion equipment* with a peak design rate of energy usage less than 3.4 Btu/h·ft2 (10.7 W/m2) or 1.0 watt/ft2 of floor area for space conditioning purposes.
2. Those that do not contain conditioned space.

Section C402.1.1.1 of the IECC is amended to read as follows:

C402.1.1.1 Greenhouses. Greenhouse structures or areas containing no *combustion equipment* that are mechanically heated or cooled and that comply with all of the following shall be exempt from the building envelope requirements of this code:

1. Exterior opaque envelope assemblies that comply with Sections C402.2 and C402.4.5.

Exception: Low energy greenhouses that comply with Section C402.1.1.

2. Interior partition building thermal envelope assemblies that separate the greenhouse from conditioned space that comply with Sections C402.2, C402.4.3 and C402.4.5.

3. Fenestration assemblies that comply with the thermal envelope requirements in Table C402.1.1.1. The U-factor for a roof shall be for the roof assembly or a roof that includes the assembly and an internal curtain system.

Exception: Unconditioned greenhouses.

Section C402.1.2 of the IECC is amended to read as follows:

C402.1.2 Equipment buildings. Buildings that comply with the following shall be exempt from the building thermal envelope provisions of this code:

1. Are separate buildings with floor area not more than 1,200 square feet (110 m2).

2. Are intended to house electric equipment with installed equipment power totaling not less than 7 watts per square foot (75 W/m2) and not intended for human occupancy.

3. Have a heating system capacity not greater than (17,000 Btu/hr) (5 kW) and a heating thermostat setpoint that is restricted to not more than 50°F (10°C).

4. Have an average wall and roof U-factor less than 0.200 in Climate Zones 1 through 5 and less than 0.120 in Climate Zones 6 through 8.

5. Comply with the roof solar reflectance and thermal emittance provisions for Climate Zone 1.

6. Contain no *combustion equipment.*

Section C403.1 of the IECC is amended to read as follows:

C403.1 General. Mechanical systems and equipment serving the building heating, cooling, ventilating or refrigerating needs shall comply with one of the following:

1. Sections C403.1.1 and C403.2 through C403.14

2. Data Centers shall comply with C403.1.1, C403.1.2 and C403.6 through C403.14

3. Section C403.1.3 and sections within Section C403 that are listed in Table C407.2

Section C403.1.3 is added to the IECC to read as follows:

C403.1.3 HVAC total system performance ratio (HVAC TSPR). HVAC systems serving buildings or portions of buildings listed in C403.1.3.1 that are not served by systems listed in C403.1.3.2 shall have an HVAC total system performance ratio (HVAC TSPR) of the proposed design HVAC systems that is greater than or equal to the HVAC TSPR of the standard reference design divided by the applicable mechanical performance factor (MPF) from Table C409.4

C403.1.3.1 Included Building Types. HVAC systems that serve the following building use types are eligible to use HVAC TSPR as a compliance path:

1. office (including medical office) (occupancy group B),

2. retail (occupancy group M), library (occupancy group A-3),

3. education (occupancy group E),

4. hotel/motel occupancies (occupancy group R-1),

5. the dwelling units and common areas within occupancy group R-2 multifamily buildings.

C403.1.3.2 Excluded Systems. The following HVAC systems are not eligible to use HVAC TSPR as a compliance path

1. Systems using:

1.1 district heating water, chilled water or steam

1.2. small duct high velocity air cooled, space constrained air cooled, single package vertical air conditioner, single package vertical heat pumps,

1.3 double-duct air conditioner or double-duct heat pump as defined in subpart F to 10CFR part 431

1.4 packaged terminal air conditioners and packaged terminal heat pumps that have cooling capacity greater than 12,000 BTU/hr (3500 kW)

1.5 a common heating source serving both HVAC and service water heating equipment

2. Systems that provide recovered heat for service water heating

3. Systems not included in Table C409.6.1.10.1

4. Systems included in table C409.6.1.10.1 with parameters in Table C409.6.1.10.2(1), not identified as applicable to that system type.

5. Systems with chilled water supplied by absorption chillers, heat recovery chillers, water to water heat pumps, air to water heat pumps, or a combination of air- and water-cooled chillers on the same chilled water loop.

6. Systems served by heating water plants that include air to water or water to water heat pumps.

7. Underfloor air distribution and displacement ventilation HVAC systems.

8. Space conditioning systems that do not include mechanical cooling.

9. Systems serving laundry rooms, elevator rooms, mechanical rooms, electrical rooms, data centers, and computer rooms.

10. Buildings or areas of medical office buildings that comply fully with ASHRAE Standard 170, including but not limited to surgical centers, or that are required by other applicable codes or standards to provide continuous air handling unit operation.

11. Systems serving:

11.1 laboratories with fume hoods

11.2 Locker rooms with more than 2 showers

11.3 Natatoriums and rooms with saunas

11.4 Restaurants and commercial kitchens with total cooking capacity greater than 100,000 Btu/h

11.5 Areas of buildings with commercial refrigeration equipment exceeding 100 kW of power input

11.6 Cafeterias and dining rooms

C403.1.3.3 TSPR Method Partial Prescriptive Requirements. HVAC systems using the HVAC Performance Rating Method shall meet relevant prescriptive requirements in Section C403 as follows:

1. Air economizers shall meet the requirements of Section C403.5.3.4 and Section C403.5.5.

2. Variable-air-volume system systems shall meet requirements of Sections C403.6.5, C403.6.6, and C403.6.9.

3. Hydronic systems shall meet the requirements of C403.4.4.

4. Plants with multiple chillers or boilers shall meet the requirements of Section C403.4.5.

5. Hydronic Heat Pumps and Water-Cooled Unitary Air Conditioners shall meet the requirements of Section C403.4.3.3.

6. Cooling tower turndown shall meet requirements of Section C403.10.4.

7. Heating of unenclosed spaces shall meet the requirements of Section C403.13.1.

8. Hot-gas bypass shall meet the requirements of Section C403.3.3.

9. Refrigeration systems shall meet the requirements of Section C403.11.

Section C403.4.1 is added to the IECC to read as follows:

C403.4.1.6 Demand responsive controls. All thermostatic controls shall be provided with demand responsive controls capable of the following:

1. Automatically increasing the zone operating cooling set points by a minimum of 4°F (2.2°C)

2. Automatically decreasing the zone operating heating set points by a minimum of 4°F (2.2°C)

3. Automatically decreasing the zone operating cooling set points by a minimum of 2°F (1.1°C).

4. Both ramp-up and ramp-down logic to prevent the building peak demand from exceeding that expected without the DR implementation.

The thermostatic controls shall be capable of performing all other functions provided by the control when the demand responsive controls are not available. Systems with direct

digital control of individual zones reporting to a central control panel shall be capable of remotely complying.

Exceptions:

1. Health care and assisted living facilities.
2. Systems serving areas deemed by the owner to be critical in nature, where approved by the Building Official.

Section C404.2.1 of the IECC is amended to read as follows:

C404.2.1 High input service water-heating systems. Gas-fired water-heating equipment installed in new buildings shall be in compliance with this section. Where a singular piece of water-heating equipment serves the entire building and the input rating of the equipment is 1,000,000 Btu/h (293 kW) or greater, such equipment shall have a thermal efficiency, Et, of not less than 92 percent or a UEF of not less than 0.92 UEF. Where multiple pieces of water-heating equipment serve the building and the combined input rating of the water-heating equipment is 1,000,000 Btu/h (293 kW) or greater, the combined input-capacity-weighted-average thermal efficiency, Et, of not less than 92 percent or a UEF of not less than 0.92 UEF.

Exceptions:

1. Where not less than 50 percent of the annual *service water heating* requirement is provided by *on-site renewable energy* or site-recovered energy not including any capacity used for compliance with Section C405.13 or C406 of this code, the minimum thermal efficiency requirements of this section shall not apply.

2. The input rating of water heaters installed in individual dwelling units shall not be required to be included in the total input rating of *service water-heating* equipment for a building.

Section C404.10 is added to the IECC to read as follows:

C404.10 Demand responsive water heating. All electric storage water heaters, or a group of water heaters, in a building with a total storage tank capacity greater than 37 gallons (140 L) shall be provided with demand responsive controls that comply with ANSI/CTA-2045-B or another approved demand responsive control.

Exception: Health care facilities.

Section C405.2 of the IECC is amended to read as follows:

C405.2 Lighting controls. Lighting systems shall be provided with controls that comply with one of the following.

1. Lighting controls as specified in Sections C405.2.1 through C405.2.7.
2. Luminaire level lighting controls (LLLC) and lighting controls as specified in Sections C405.2.1, C405.2.4 and C405.2.5. The LLLC luminaire shall be independently capable of:

   2.1.Monitoring occupant activity to brighten or dim lighting when occupied or unoccupied, respectively.

2.2.Monitoring ambient light, both electric light and daylight, and brighten or dim artificial light to maintain desired light level.

2.3.For each control strategy, configuration and reconfiguration of performance parameters including; bright and dim setpoints, timeouts, dimming fade rates, sensor sensitivity adjustments, and wireless zoning configurations.

2.4 Reducing lighting power in a uniform manner by no less than 15 percent and no more than 50 percent when signaled by a *demand responsive control.*

Exceptions: Lighting controls are not required for the following:

1. Areas designated as security or emergency areas that are required to be continuously lighted.
2. Interior exit stairways, interior exit ramps and exit passageways.
3. Emergency egress lighting that is normally off.

Table C405.12.2 of the IECC is amended as follows:

TABLE C405.12.2 ENERGY USE CATEGORIES

LOAD CATEGORY	**DESCRIPTION OF ENERGY USE**
Total HVAC system	Heating, cooling and ventilation, including but not limited to fans, pumps, boilers, chillers, and water heating. Energy used by 120-volt equipment, or by 208/120-volt equipment that is located in a building where the main service is 480/277-volt power, is permitted to be excluded from total HVAC system energy use.
Interior lighting	Lighting systems located within the building.
Exterior lighting	Lighting systems located on the building site but not within the building.
Plug loads	Devices, appliances and equipment connected to convenience receptacle outlets.
Process load	Any single load that is not included in HVAC, lighting or plug load category and that exceeds 5 percent of the peak connected load of the whole building, including but not limited to data centers, manufacturing equipment, and commercial kitchens.
Electric vehicle charging	*Electric vehicle* charging loads.

Building operations and other miscellaneous	The remaining loads not included in this table, including but not limited to vertical transportation systems, automatic doors, motorized shading systems, ornamental fountains, ornamental fireplaces, swimming pools, in-ground spas and snow-melt systems.

Section C405.13 is added to the IECC to read as follows:

C405.13 On site renewable energy. Each building site shall comply with Appendix CB: Solar-Ready Zone - Commercial.

Exceptions:

1. Sites containing only buildings with unconditioned space.
2. Sites containing only Group U occupancy buildings.

Section C405.14 is added to the IECC to read as follows:

C405.14 Electric vehicle charging infrastructure. Parking facilities shall be provided with electric vehicle charging infrastructure in accordance with this section and Table C405.14.

C405.14.1 Minimum quantity. The minimum number of parking spaces provided with electric vehicle infrastructure shall be based on the total number of parking spaces provided, and rounded up to the nearest whole number. Where reductions are applied in accordance with Section C405.14.2, in no case shall fewer than one of each type of space be provided.

C405.14.1.1 More than one parking facility. Where more than one parking facility is provided on a building site, the number of parking spaces provided with electric vehicle infrastructure shall be calculated separately for each parking facility.

C405.14.1.2 Serving multiple occupancies. Where one shared parking facility serves multiple building occupancies, the required number of parking spaces provided with electric vehicle infrastructure shall be determined proportionally based on the floor area of each building occupancy.

C405.14.1.3 Accessible spaces. The required number of parking spaces provided with electric vehicle infrastructure that are designed for accessibility shall be in accordance with Section 1107.2 of the *International Building Code.* None of the reductions permitted by section C405.14.2 shall reduce the number of required accessible spaces.

C405.14.2 Reductions. The minimum number of spaces required to be provided with electric vehicle charging infrastructure may be reduced as follows:

1. The number of required *EVSE-Installed spaces* for Groups A, B, E, F, I, M and S-2 Occupancies may be reduced by ten (10) for each DC Fast-Charging *EVSE* installed.
2. Parking spaces designated for vehicles other than passenger vehicles are permitted to be excluded from the total number of on-site parking spaces.

3. Parking spaces designated for quick transactions, such as takeout, pickup, and drop-off are permitted to be excluded from the total number of on-site parking spaces.
4. EVSE-installed spaces above the minimum required number are permitted to be installed to meet the minimum required number of EV-Ready Spaces or the minimum required number of EV-Capable Spaces.
5. EV-Ready spaces above the minimum required number are permitted to be installed to meet the minimum required number of EV-Capable Spaces.
6. The number of required EV-Capable Spaces for Groups R-1, R-2 and R-4 Occupancies may be reduced by 50% where a Long-Term EV Charging Management Plan has been submitted and approved by the *building official.*

TABLE C405.14 ELECTRIC VEHICLE CHARGING INFRASTRUCTURE REQUIREMENTS

OCCUPANCY GROUP	EVSE INSTALLED	EVSE READY	EVSE CAPABLE
Groups A, B, E, F, I, M, S-2	2%	8%	10%
Groups R-1, R-2, R-4	10%	10%	30%

C405.14.3 Classification of Spaces. The parking spaces required by this section shall be classified in accordance with C405.14.3.1, C405.14.3.2, or C405.14.3.3.

C405.14.3.1 EV-Capable Spaces. For a parking space to qualify as an *EV-Capable Space*, the following requirements must be met:

1. A raceway or other *approved* means of cable protection, installed between the panel and the point of termination.
2. The point of termination shall be an *approved* enclosure, such as a junction box, and shall be installed within 36" (914 mm) of the parking space, or within close proximity of the parking space, as determined by the *Building Official.*
3. Dedicated physical space shall be provided within the panel for future installation of a 40-ampere overcurrent protective device.

4. Durable *approved* labels shall be installed at the panel and the point of termination, identifying the infrastructure "For Electric Vehicle Charging"

C405.14.3.2 EV Ready Spaces. For a parking space to qualify as an *EV Ready Space*, a dedicated 40-Ampere, 208/240v branch circuit shall be provided, which meets all of the following requirements:

1. The branch circuit shall serve no other appliances or equipment
2. The branch circuit shall terminate in an *approved* enclosure within 36" (914 mm) of the parking space, or where site conditions prohibit, within close proximity of the parking space, as determined by the *Building Official*.
3. The overcurrent protective device and the *approved* enclosure in which the circuit terminates shall be provided with durable *approved* labels, identifying the infrastructure "For Electric Vehicle Charging."

C405.14.3.3 EV-Installed Spaces. Equipment serving *EVSE-Installed Spaces* shall meet all of the following requirements:

1. The equipment shall be capable of supplying an output of not less than 6.2 kW.

   Exception: Where connected to an *approved Automatic Load Management System (ALMS)*, the EVSE shall be permitted to supply a reduced output, provided that every EVSE connected to the *ALMS* is capable of charging at a minimum rate of 1.4 kW simultaneously.

2. The equipment shall be located within 36" of the parking space, or where site conditions prohibit, within close proximity of the parking space, as determined by the Building Official.

Section C405.15 is added to the IECC to read as follows:

C405.15 Energy storage infrastructure. Each building site shall be provided with a dedicated space for on-site energy storage equipment. Such space shall be not less than 2 feet (610 mm) in one horizontal dimension and 4 feet (1219 mm) in another horizontal dimension, and shall be located and protected in accordance with NFPA 1, NFPA 101, and NFPA 70.

Exception: Where an *approved* onsite electrical energy system storage system is installed.

C405.15.1 Electrical service reserved space. The main electrical service panel shall have a reserved space to allow installation of a two-pole circuit breaker for future electrical energy storage system installation This space shall be labeled "For Future Electric Storage." The reserved space shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

Section C405.16 is added to the IECC to read as follows:

C405.16 Additional electric infrastructure. Buildings that contain *combustion equipment* and end-uses shall be required to install electric infrastructure in accordance with this section.

C405.16.1 Electric infrastructure for dwelling and sleeping units. *Combustion equipment* and end-uses serving individual *dwelling units* or *sleeping units* shall comply with Section R404.6.

C405.16.2 Combustion space heating. Space heating *equipment* that uses *fossil fuels* shall comply with either C405.16.2.1 or C405.16.2.2

C405.16.2.1 Low-capacity heating. Warm-air furnaces with a capacity less than 225,000 Btu/h and gas- and oil-fired boilers with a capacity less than 400,000 Btu/h shall be provided with a designated exterior location(s) in accordance with the following:

a. Natural drainage for condensate from cooling equipment operation or a condensate drain located within 3 feet (914 mm) of the location of the space heating equipment.

b. A dedicated branch circuit in compliance with NFPA70 Section 424.4 based on heat pump space heating equipment sized in accordance with the requirements of C403.1.1 and terminating within 3 feet (914 mm) of the location of the space heating equipment with no obstructions. Both ends of the branch circuit shall be labeled "For Future Heat Pump Space Heater."

   Exception: Where an electrical circuit in compliance with NFPA70 Sections 440.4(B) and 440.35 exists for space cooling equipment.

C405.16.2.2 High-capacity heating. All other space heating *equipment* shall be provided with conduit that is continuous between a junction box located within 3 feet (914 mm) of the *equipment* and an electrical panel. The junction box, conduit and bus bar in the electrical panel shall be rated and sized to accommodate a branch circuit with sufficient capacity for an equivalent electric *equipment* with an equivalent equipment capacity. The electrical junction box and electrical panel shall have labels stating, "For Future Electric Space Heating Equipment".

C405.16.3 Combustion water heating. Water heating *equipment* that uses *fossil fuels* shall comply with either C405.16.3.1 or C405.16.3.2

C405.16.3.1 Low-capacity water heating. Water heaters with a capacity less than 300,000 Btu/h (88 kW) shall be installed in accordance with the following:

1. A dedicated 208/240-volt branch circuit with a minimum capacity of 30 amps shall terminate within 3 feet (914 mm) from the water heater and be accessible to the water heater with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Heat Pump Water Heater" and be electrically isolated.
2. A condensate drain that is no more than 2 inches (51 mm) higher than the base of the installed water heater and allows natural draining without pump assistance shall be installed within 3 feet (914 mm) of the water heater.
3. The water heater shall be installed in a space with minimum dimensions of 3 feet (914 mm) by 3 feet (914 mm) by 7 feet (2134 mm) high.
4. The water heater shall be installed in a space with a minimum volume of 700 cubic feet (20,000 L) or the equivalent of one 16-inch (406 mm) by 24-inch (610 mm) grill to a heated space and one 8-inch (203 mm) duct of no more than 10 feet (3048 mm) in length for cool exhaust air.

C405.16.3.2 High-capacity water heating. Water heaters with a capacity greater than or equal to 300,000 Btu/h (88 kW) shall be provided with the following:

1. Conduit that is continuous between a junction box located within 3 feet (914 mm) of the *equipment* and an electrical panel. The junction box, conduit and bus bar in the electrical panel shall be rated and sized to accommodate a branch circuit with sufficient capacity for an equivalent electric *equipment* with an equivalent equipment capacity. The electrical junction box and electrical panel shall have labels stating, "For Future Electric Water Heating Equipment".
2. A condensate drain that is no more than 2 inches (51 mm) higher than the base of the installed water heater and allows natural draining without pump assistance shall be installed within 3 feet (914 mm) of the water heater.

C405.16.4 Combustion cooking. Cooking equipment that use fossil fuel shall comply with either C405.16.4.1 or C405.16.4.2.

C405.16.4.1 Commercial cooking. Commercial cooking appliances shall be provided with a dedicated branch circuit with a minimum capacity of 12 kVA per 1 kBtu of appliance input capacity. The branch circuit shall terminate within 3 feet (914 mm) of the appliance with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Cooking Equipment" and be electrically isolated.

C405.16.4.2 Light and medium duty cooking. Light- and medium duty cooking equipment not designated as commercial cooking appliances shall be provided with a dedicated branch circuit in compliance with NFPA 70 Section 422.10. The branch circuit shall terminate within 6 feet (1829 mm) of fossil fuel ranges, cooktops and ovens and be accessible with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Cooking Equipment" and be electrically isolated.

C405.16.5 Combustion clothes drying. Clothes drying *equipment* that use *fossil fuels* shall comply with either C405.16.5.1 or C405.16.5.2

C405.16.5.1 Commercial drying. Clothes drying *equipment*, and end-uses for commercial laundry applications shall be provided with conduit that is continuous between a junction box located within 3 feet (914 mm) of the *equipment* and an electrical panel. The junction box, conduit and bus bar in the electrical panel shall be rated and sized to accommodate a branch circuit with sufficient capacity for an equivalent electric *equipment* with an equivalent equipment capacity. The electrical junction box and electrical panel shall have labels stating, "For Future Electric Clothes Drying Equipment".

C405.16.5.2 Residential drying. Clothes drying *equipment*, *appliances*, and end-uses serving multiple *dwelling units* or sleeping areas with a capacity less than or equal to 9.2 cubic feet shall be provided with a dedicated 240-volt branch circuit with a minimum capacity of 30 amps shall terminate within 6 feet (1829 mm) of *fossil fuel* clothes dryers and shall be accessible with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Clothes Drying Equipment" and be electrically isolated.

C405.16.6 Other combustion equipment. Combustion equipment not covered by Sections C405.16.2-3 shall be provided with conduit that is continuous between a junction box located within 3 feet (914 mm) of the appliance or equipment and an electrical panel. The junction box, conduit and bus bar in the electrical panel shall be rated and sized to accommodate a branch circuit with sufficient capacity for an equivalent electric appliance, equipment or end use with

an equivalent equipment capacity. The electrical junction box and electrical panel shall have labels stating, "For future electric equipment".

Section C406.1 of the IECC is amended to read as follows:

C406.1 Additional energy efficiency credit requirements. New *all-electric buildings* shall achieve a total of 10 credits and new *mixed-fuel buildings* shall achieve a total of 15 credits from Tables C406.1(1) through C406.1(5) where the table is selected based on the use group of the building and from credit calculations as specified in relevant subsections of C406. Where a building contains multiple use groups, credits from each use group shall be weighted by floor area of each group to determine the weighted average building credit. Credits from the tables or calculation shall be achieved where a building complies with one or more of the following:

1. More efficient HVAC performance in accordance with Section C406.2.
2. Reduced lighting power in accordance with Section C406.3.
3. Enhanced lighting controls in accordance with Section C406.4.
4. On-site supply of renewable energy in accordance with Section C406.5.
5. Provision of a dedicated outdoor air system for certain HVAC equipment in accordance with Section C406.6.
6. High-efficiency service water heating in accordance with Section C406.7.
7. Enhanced envelope performance in accordance with Section C406.8.
8. Reduced air infiltration in accordance with Section C406.9
9. Where not required by Section C405.12, include an energy monitoring system in accordance with Section C406.10.
10. Where not required by Section C403.2.3, include a fault detection and diagnostics (FDD) system in accordance with Section C406.11.
11. Efficient kitchen equipment in accordance with Section C406.12.

Table 406.1(1), 406.1(2), 406.1(3), 406.1(4), and 406.1(5) of the IECC are amended to add the following rows:

Table C406.1(1) Additional Energy Efficiency Credits for Group B Occupancies

Sub-section / Climate Zone:	**4A**
C406.13 *HVAC TSPR*	6

Table C406.1(2) Additional Energy Efficiency Credits for Group R and I Occupancies

Sub-section / Climate Zone:	**4A**

C406.13 *HVAC TSPR*	6

Table C406.1(3) Additional Energy Efficiency Credits for Group E Occupancies

Sub-section / Climate Zone:	**4A**
C406.13 *HVAC TSPR*	8

Table C406.1(4) Additional Energy Efficiency Credits for Group M Occupancies

Sub-section / Climate Zone:	**4A**
C406.13 *HVAC TSPR*	8

Table C406.1(5) Additional Energy Efficiency Credits for Other[a] Occupancies

Sub-section / Climate Zone:	**4A**
C406.13 *HVAC TSPR*	6

Section C406.5.1 of the IECC is amended to read as follows:

C406.5.1 Onsite renewable energy. The total minimum ratings of on-site renewable energy systems, not including onsite renewable energy system capacity used for compliance with Section C405.13, shall be one of the following:

1. Not less than 0.86 Btu/h per square foot (2.7 W/m^2) or 0.25 watts per square foot (2.7 W/m^2) of *conditioned floor area.*
2. Not less than 2 percent of the annual energy used within the building for building mechanical and service water-heating equipment and lighting regulated in Section C405.

Section C409 is added to the IECC to read as follows:

SECTION C409 HVAC TOTAL SYSTEM PERFORMANCE RATIO

C409.1 Purpose. This Section establishes criteria for demonstrating compliance with the requirements of section C403.1.1, *HVAC total system performance ratio (HVAC TSPR)*

C409.2 Scope. This Section applies to new HVAC systems that are not excluded from using *HVAC TSPR* by any of the exceptions to section C403.1.1, and

1. serve office (including medical office), retail, library, hotel/motel, and education occupancies, or.
2. serve *dwelling units* and common areas within multifamily buildings.

C409.2 Phased Installation. Where the building permit applies to only a portion of the HVAC system in a building and the remaining components will be designed under a future building permit or were previously installed, the future or previously installed components shall be modeled as follows:

1. Where the HVAC zones that do not include HVAC systems in the current permit will be or are served by independent systems, then the block including those zones shall not be included in the model.
2. Where the HVAC zones that do not include complete HVAC systems in the permit are intended to receive HVAC services from systems in the permit, their proposed zonal systems shall be modeled with equipment that meets, but does not exceed, the requirements of C403.
3. Where the zone equipment in the permit receives HVAC services from previously installed systems that are not in the permit, the previously installed systems shall be modeled withequipment matching the certified value of what is installed or equipment that meets the requirements of C403.
4. Where the central plant heating and cooling equipment is completely replaced and HVAC zones with existing systems receive HVAC services from systems in the permit, their proposed zonal systems shall be modeled with equipment that meets, but does not exceed, the requirements of Section C403.

C409.3 HVAC TSPR Compliance. Systems required to use *HVAC TSPR* in accordance with C403.1.3 shall comply with all of the following:

1. Systems shall meet the applicable provisions of Section C403.1.3.3 and Sections within Section C403 that are listed in Table C407.2.
2. The *HVAC TSPR* of the *proposed design* shall be greater than or equal to the *HVAC TSPR* of the *standard reference design* divided by the mechanical performance factor (MPF) using Equation 4- 16.

   TSPRp > TSPRr / MPF *Equation 4-16*

   Where:

   TSPRp= HVAC TSPR of the proposed design calculated in accordance with Sections C409.4, C409.5 and C409.6.

   TSPRr = HVAC TSPR of the reference building design calculated in accordance with Sections C409.4, C409.5 and C409.6.

   MPF = Mechanical Performance Factor from Table C409.4 based on climate zone and building use type

   Where a building has multiple building use types, MPF shall be area weighted using Equation 4-17

   MPF = (A1 * MPF1 + A2 * MPF2 + . . . + An * MPFn) / (A1 + A2 + . . . + An)
   Equation 4-17

Where:

MPF1, MPF2 through MPFn = Mechanical Performance Factors from Table C409.4 based on climate zone and building use types 1,2, through n

A1, A2 through An = Conditioned floor areas for building use types 1, 2, through n

Table C409.4 Mechanical Performance Factors

Climate Zone: ***Building*** **type**	**Ocp. Group**	**4A**
Office (small and medium)[a]	B	0.81
Office (Large)[a]	B	0.67
Retail	M	0.45
Hotel/Motel	R-1	0.45
Multi-Family/ Dormitory	R-2	0.53
School/ Education and Libraries	E (A-3)	0.73

[a] large office (gross conditioned floor area >150,000 ft^2 (14,000 m^2) or > 5 floors); all other offices are small or medium

C409.4.1 HVAC TSPR. *HVAC TSPR* is calculated according to Equation 4-18:

$$HVAC\ TSPR = \frac{annual\ heating\ and\ cooling\ load}{annual\ energy\ consumption\ of\ the\ building\ HVAC\ systems}$$

Where:

Annual energy consumption of the building HVAC systems

=

Sum of the site energy consumption for heating, cooling, fans, energy recovery,

pumps, and heat rejection in thousands of BTU's

Annual heating and cooling load	=	Sum of the annual heating and cooling loads met by the building HVAC system in thousands of BTU's

C409.5.1 Simulation Program. Simulation tools used to calculate HVAC TSPR of the *Standard Reference Design* shall comply with the following:

1. The simulation program shall calculate the *HVAC TSPR* based only on the input for the *proposed design* and the requirements of Section 409. The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design*.
2. Performance analysis tools meeting the applicable subsections of Section 409 and tested according to ASHRAE Standard 140 shall be permitted to be *approved*. The *code official* shall be permitted to approve tools for a specified application or limited scope.

C409.5.2 Climatic data. The simulation program shall perform the simulation using hourly values of climatic data, such as temperature and humidity, using TMY3 data for the site as specified by the Department of Energy's Office of Energy Efficiency and Renewable Energy.

C409.5.3 Documentation. Documentation conforming to the provisions of this section shall be provided to the *code official*.

C409.5.3.1 Compliance report. Building permit submittals shall include:

1. A report produced by the simulation software that includes the following:
   - 1.1 Address of the building.
   - 1.2 Name of individual completing the compliance report.
   - 1.3 Name and version of the compliance software tool.
   - 1.4 The dimensions, floor heights and number of floors for each *block*.
   - 1.5 By *block*, the U-factor, C-factor, or F-factor for each simulated opaque envelope component and the U-factor and SHGC for each fenestration component.
   - 1.6 By *block* or by surface for each block, the fenestration area.
   - 1.7 By *block*, a list of the HVAC equipment simulated in the *proposed design* including the equipment type, fuel type, equipment efficiencies and system controls.
   - 1.8 Annual site HVAC energy use by end use for the proposed and baseline building
   - 1.9 Annual sum of heating and cooling loads for the baseline building.
   - 1.10 The HVAC total system performance ratio for both the *standard reference design* and the *proposed design*.
2. A mapping of the actual building HVAC component characteristics and those simulated in the proposed design showing how individual pieces of HVAC equipment identified above have been combined into average inputs as required by Section C409.6.1.10 including:
   - 2.1 Fans

2.2 Hydronic pumps

2.3 Air handlers

2.4 Packaged cooling equipment

2.5 Furnaces

2.6 Heat pumps

2.7 Boilers

2.8 Chillers

2.9 Cooling towers

2.10 Electric resistance coils

2.11 Condensing units

2.12 Motors for fans and pumps

2.13 Energy recovery devices

For each piece of equipment identified above include the following as applicable:

1. Equipment name or tag consistent with that found on the design documents.
2. Rated Efficiency level.
3. Rated Capacity.
4. Electrical input power for fans and pumps (before any speed or frequency control device) at design condition and calculation of input value (W/cfm or W/gpm)

3. Floor plan of the building identifying:

3.1. How portions of the buildings are assigned to the simulated blocks.

3.2. Areas of the building that are not covered under the requirements of Section C403.1.1.

C409.6 Calculation Procedures Except as specified by this Section, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

C409.6.1 Simulation of the proposed building design. The proposed design shall be configured and analyzed as specified in this section.

C409.6.1.1 Block geometry. The geometry of buildings shall be configured using one or more *blocks*. Each *block* shall define attributes including *block* dimensions, number of floors, floor to floor height and floor to ceiling height. Simulation software may allow the use of simplified shapes (such as rectangle, L shape, H Shape, U shape or T shape) to represent *blocks*. Where actual building shape does not match these pre- defined shapes, simplifications are permitted providing the following requirements are met:

1. The *conditioned floor area* and volume of each *block* shall match the proposed design within 10 percent.

2. The area of each exterior envelope component from Table C402.1.4 is accounted for within 10 percent of the actual design.
3. The area of vertical fenestration and skylights is accounted for within 10 percent of the actual design.
4. The orientation of each component in 2 and 3 above is accounted for within 45 degrees of the actual design.

The creation of additional *blocks* may be necessary to meet these requirements.

Exception: Portions of the building that are unconditioned or served by systems not covered by the requirements of Section C403.1.1 shall be omitted.

C409.6.1.1.1 Number of blocks. One or more *blocks* may be required per building based on the following restrictions:

1. Each *block* can have only one occupancy type (multifamily *dwelling unit*, multifamily common area, office, library, education, hotel/motel or retail). Therefore, at least one single *block* shall be created for each unique use type.
2. Each *block* can be served by only one type of HVAC system. Therefore, a single *block* shall be created for each unique HVAC system and use type combination. Multiple HVAC units of the same type may be represented in one *block*. Table D601.10.2 provides directions for combining multiple HVAC units or components of the same type into a single *block*.
3. Each *block* can have a single definition of floor to floor or floor to ceiling heights. Where floor heights differ by more than two feet, unique *blocks* should be created for the floors with varying heights.
4. Each *block* can include either above grade or below grade floors. For buildings with both above grade and below grade floors, separate *blocks* should be created for each. For buildings with floors partially above grade and partially below grade, if the total wall area of the floor(s) in consideration is greater than or equal to 50 percent above grade, then it should be simulated as a completely above grade *block*, otherwise it should be simulated as a below grade *block*.
5. Each wall on a façade of a *block* shall have similar vertical fenestration. The product of the proposed design U-factor times the area of windows (UA) on each façade of a given floor cannot differ by more than 15 percent of the average UA for that façade in each *block*. The product of the proposed design SHGC times the area of windows (SHGCA) on each façade of a given floor cannot differ by more than 15 percent of the average SHGCA for that façade in each *block*. If either of these conditions are not met, additional *blocks* shall be created consisting of floors with similar fenestration.
6. For a building model with multiple *blocks*, the *blocks* should be configured together to have the same adjacencies as the actual building design.

C409.6.1.2 Thermal zoning. Each floor in a *block* shall be modeled as a single thermal zone or as five thermal zones consisting of four perimeter zones and a core zone. Below grade floors shall be modeled as a single thermal *block*. If any façade in the *block* is less than 45 feet in length, there shall only be a single thermal zone per floor. Otherwise each floor shall be

modeled with five thermal zones. A perimeter zone shall be created extending from each façade to a depth of 15 feet. Where facades intersect, the zone boundary shall be formed by a 45 degree angle with the two facades. The remaining area or each floor shall be modeled as a core zone with no exterior walls.

C409.6.1.3 Occupancy. C409.6.1.3.1 Occupancy type. The occupancy type for each *block* shall be consistent with the building area type as determined in accordance with C405.4.2.1. Portions of the building that are building area types other than multifamily *dwelling unit*, multifamily common area, office, school (education), library, or retail shall not be included in the simulation. Surfaces adjacent to such building portions shall be modeled as adiabatic in the simulation program.

C409.6.1.3.2 Occupancy schedule, density, and heat gain. The occupant density, heat gain, and schedule shall be for multifamily, office, retail, library, hotel/motel or school as specified by ASHRAE Standard 90.1 Normative Appendix C.

C409.6.1.4 Envelope components. C409.6.1.4.1 Roofs. Roofs will be modeled with insulation above a steel roof deck. The roof U-factor and area shall be modeled as in the proposed design. If different roof thermal properties are present in a single *block*, an area weighted U-factor shall be used. Roof solar absorptance shall be modeled at 0.70 and emittance at 0.90.

C409.6.1.4.2 Above grade walls. Walls will be modeled as steel frame construction. The U-factor and area of above grade walls shall be modeled as in the proposed design. If different wall constructions exist on the façade of a *block* an area-weighted U-factor shall be used.

C409.6.1.4.3 Below grade walls. The C-factor and area of below grade walls shall be modeled as in the proposed design. If different slab on grade floor constructions exist in a *block*, an area-weighted C- factor shall be used.

C409.6.1.4.4 Above grade exterior floors. Exterior floors shall be modeled as steel frame. The U-factor and area of floors shall be modeled as in the proposed design. If different wall constructions exist in the *block* an area-weighted U-factor shall be used.

C409.6.1.4.5 Slab on grade floors. The F-factor and area of slab on grade floors shall be modeled as in the proposed design. If different below grade wall constructions exist in a *block*, an area-weighted F- factor shall be used.

C409.6.1.4.6 Vertical fenestration. The window area and area weighted U-factor and SHGC shall be modeled for each façade based the proposed design. Each exterior surface in a *block* must comply with Section D601.2.1 item 5. Windows will be combined into a single window centered on each façade based on the area and sill height input by the user. When different U values, SHGC or sill heights exist on a single facade, area weighted average for each shall be input by the user.

C409.6.1.4.7 Skylights. The skylight area and area weighted U-factor and SHGC shall be modeled for each floor based the proposed design. Skylights will be combined in to a single skylight centered on the roof of each zone based on the area input by the user

C409.6.1.4.8 Exterior Shading. Permanent window overhangs shall be modeled. When windows with and without overhangs or windows with different overhang projection factors exist on a façade, window width weighted projection factors shall be input by the user in accordance with equation 4-19.

$$P_{avg} = \frac{A_1 \times L_{O1} + A_2 \times L_{O2} \ldots + A_n \times L_{On}}{L_{W1} + L_{W2} \ldots + L_{Wn}}$$

Equation 4-19

Where,

P_{avg} = Average overhang projection modeled in the simulation tool

A = Distance measured horizontally from the furthest continuous extremity of any overhang, eave, or permanently attached shading device to the vertical surface of the glazing.

L_O = Length off the overhang

L_W = Length of the window

C409.6.1.5 Lighting. Interior lighting power density shall be equal to the allowance in Table C405.4.2(1) for multifamily, office, retail, library, or school. The lighting schedule shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C. The impact of lighting controls is assumed to be captured by the lighting schedule and no explicit controls shall be modeled. Exterior lighting shall not be modeled.

C409.6.1.6 Miscellaneous equipment. The miscellaneous equipment schedule and power shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C. The impact of miscellaneous equipment controls is assumed to be captured by the equipment schedule and no explicit controls shall be modeled.

Exceptions.

1. Multifamily dwelling units shall have a miscellaneous load density of 0.42 W/ft^2
2. Multifamily common areas shall have a miscellaneous load density of 0 W/ft^2

C409.6.1.7 Elevators. Elevators shall not be modeled.

C409.6.1.8 Service water heating equipment. Service water heating shall not be modeled.

C409.6.1.9 On-site renewable energy systems. On-site Renewable Energy Systems shall not be modeled.

C409.6.1.10 HVAC equipment. HVAC systems shall meet the requirements of Section C403 Mechanical Systems.

C409.6.1.10.1 Supported HVAC systems. At a minimum, the HVAC systems shown in Table C409.6.1.10.1 shall be supported by the simulation program.

Table C409.6.1.10.1 PROPOSED BUILDING HVAC SYSTEMS SUPPORTED BY HVAC TSPR SIMULATION SOFTWARE

System No.	System Name	System Abbreviation
1	Packaged Terminal Air Conditioner	PTAC

2	Packaged Terminal Air Heat Pump	PTHP
3	Packaged Single Zone Gas Furnace	PSZGF
4	Packaged Single Zone Heat Pump (air to air only)	PSZHP
5	Variable Refrigerant Flow (air cooled only)	VRF
6	Four Pipe Fan Coil	FPFC
7	Water Source Heat Pump	WSHP
8	Ground Source Heat Pump	GSHP
9	Packaged Variable Air Volume (DX cooling)	PVAV
10	Variable Air Volume (hydronic cooling)	VAV
11	Variable Air Volume with Fan Powered Terminal Units	VAVFPTU
12	Dedicated Outdoor Air System (in conjunction with systems 1-8)	DOAS

C409.6.1.10.2 Proposed building HVAC system simulation. The HVAC systems shall be modeled as in the proposed design with clarifications and simplifications as described in Tables C409.6.1.10.2(1) and C409.6.1.10.2(2). System parameters not described in the following sections shall be simulated to meet the minimum requirements of Section C403. All zones within a *block* shall be served by the same HVAC system type as described in Section C409.6.1.1.1 item 2. Heat loss from ducts and pipes shall not be modeled.

For packaged single-zone air conditioners (cooling only), water-loop heat pumps, ground-source heat pumps and packaged rooftop heat pumps, heating COP and cooling COP, exclusive of fan power, shall be determined using the following equations:

Equation 4 20 - For Table C409.6.1.10.1 Systems 4, 7, and 8 heating efficiency

$COP_{nfheating} = 1.48E\text{-}7 \times COP_{47} \times Q + 1.062 \times COP_{47}$

Equation 4-21 - For Table C409.6.1.10.1 System 3 heating efficiency

$COP_{nfheating} = -0.0296 \times HSPF^2 + 0.7134 \times HSPF$

Equation 4-22 - For Table C409.6.1.10.1 System 4, 7, 8, and 9 cooling efficiency

$COP_{nfcooling} = 7.84E\text{-}8 \times EER \times Q + 0.338 \times EER$

Equation 4-23 - For Table C409.6.1.10.1 System 1 and 2 cooling efficiency

$\mathbf{COP_{nfcooling} = -0.0076 \times SEER^2 + 0.3796 \times SEER}$

Equation 4-24 - For Table C409.6.1.10.1 System 1 and 2 cooling efficiency

$COP_{nfcooling} = 0.3322 \times EER - 0.2145$

Equation 4-25 - For Table C409.6.1.10.1 System 2 heating efficiency

$COP_{nfheating} = 1.1329 \times COP - 0.214$

Where:

EER, SEER, COP and HSPF shall be at AHRI full load test conditions

Q = AHRI rated cooling capacity in BTU/h. If Q > 760,000BTU/h use 760,000 in the calculation

Where multiple system components serve a *block*, average values weighed by the appropriate metric as described in this section shall be used.

1. Where multiple fan systems serve a single block, fan power shall be based on weighted average using the design supply air cfm
2. Where multiple cooling systems serve a single block, COP shall be based on a weighted average using cooling capacity. DX coils shall be entered as multi-stage if more than 50% of coil capacity serving the block is multi-stage with staged controls.
3. Where multiple heating systems serve a single block, thermal efficiency or heating COP shall be based on a weighted average using heating capacity.
4. Where multiple boilers or chillers serve a heating water or chilled water loop, efficiency shall be based on a weighted average for using heating or cooling capacity.
5. When multiple cooling towers serving a condenser water loop are combined, the cooling tower efficiency, cooling tower design approach and design range are based on a weighted average of the design water flow rate through each cooling tower.
6. Where multiple pumps serve a heating water, chilled water or condenser water loop, pump power shall be based on a weighted average for using design water flow rate.
7. When multiple system types with and without economizers are combined, the economizer maximum outside air fraction of the combined system shall be based on weighted average of 100% supply air for systems with economizers and design outdoor air for systems without economizers.
8. Multiple systems with and without ERVs cannot be combined.
9. Systems with and without supply air temperature reset cannot be combined.
10. Systems with different fan control (constant volume, multi-speed or VAV) for supply fans cannot be combined.

C409.6.1.10.3 Demand Control Ventilation. Demand Controlled Ventilation (DCV) shall be modeled using a simplified approach that adjusts the design outdoor supply air flow rate based on the area of the building that is covered by DCV.

TABLE C409.6.1.10.2(1) PROPOSED BUILDING SYSTEM PARAMETERS

Category	Parameter	Fixed or User Defined	Required	Applicable Systems

HVAC System Type	System Type	User Defined	Selected from Table C409.6.1.10.1	All
System Sizing	Design Day Information	Fixed	99.6% heating design and 1% dry-bulb and 1% wet-bulb cooling design	All
	Zone Coil Capacity	Fixed	Sizing factors used are 1.25 for heating equipment and 1.15 for cooling equipment	All
	Supply Airflow	Fixed	Based on a supply-air-to-room-air temperature *set-point* difference of 20°F or	1-11
		Fixed	Equal to required outdoor air ventilation	12
Outdoor Ventilation Air	Portion of supply air with proposed Filter 2MERV 13	User-defined	Percentage of supply air flow subject to higher filtration (Adjusts baseline Fan Power higher. Prorated)	All
	Outdoor Ventilation Air Flow Rate	Fixed	As specified in ASHRAE Standard 90.1 Normative Appendix C, adjusted for proposed DCV control	All
	Outdoor *Ventilation* Supply Air Flow Rate Adjustments	Fixed	Based on ASHRAE Standard 62.1 Section 6.2.4.3 System Ventilation Efficiency (Evs) is 0.75	9-11
		Fixed	System Ventilation Efficiency (Evs) is 1.0	1-8, 12
		Fixed	Basis is 1.0 Zone Air Distribution Effectiveness	All
System Operation	Space temperature Set points	Fixed	As specified in ASHRAE Standard 90.1 Normative Appendix C, except multifamily which shall use 68 deg. F heating and 76 deg. F cooling setpoints	1-11
	Fan Operation – Occupied	User Defined	Runs continuously during occupied hours or cycles to meet load. Multispeed fans reduce airflow related to thermal loads.	1-11

	Fan Operation – Occupied	Fixed	Fan runs continuously during occupied hours	12

Category	Parameter	Fixed or User Defined	Required	Applicable Systems
	Fan Operation – Night Cycle	Fixed	Fan cycles on to meet setback temperatures	1-11
Packaged Equipment Efficiency	DX Cooling Efficiency	User Defined	Cooling COP without fan energy calculated in accordance with Section C409.6.1.10.2	1, 2, 3, 4, 5,7, 8, 9, 11,12
	DX Coil Number of Stages	User-defined	Single Stage or Multistage	3, 4, 9
	Heat Pump Efficiency	User Defined	Heating COP without fan energy calculated in accordance with Section C409.6.1.10.2	2, 4, 5, 7, 8
	Furnace Efficiency	User Defined	Furnace thermal efficiencyc	3, 11
Heat Pump Supplemental Heat	Control	Fixed	Supplemental electric heat locked out above 40°F. Runs In conjunction with compressor between 40°F and 0°F.	2, 4
System Fan Power and Controls	Part-load Fan Controls	User-defined	Constant volume or two speed	1-8
	Part-load Fan Controls[a]	User-defined	Constant volume or variable air volume	12
	Part-load Fan Controls[a]	Fixed	Variable air volume. VFD with static pressure reset	9-11
	Design Fan Power (W/cfm)	User Defined	Input electric power for all fans in required to operate at fan system design conditions divided by the supply airflow rate. This is a "wire to air" value including all drive, motor *efficiency* and other losses.	All
	Low-speed fan power	User Defined	Low speed input electric power for all fans required to operate at low speed conditions divided by the low speed supply airflow rate. This is a	1-8

			"wire to air" value including all drive, motor *efficiency* and other losses.	
Variable Air Volume Systems	Supply Air Temperature (SAT) Controls	User defined	If not SAT reset then constant at 55°F. Options for reset based on outside air temperature (OAT) or warmest zone. If warmest zone, then the user can specify the minimum and maximum temperatures. If OAT reset, SAT is reset higher to 60°F at outdoor low of 50°F. SAT is 55°F at outdoor high of 70°F.	9, 10, 11
	Minimum Terminal Unit airflow percentage	User Defined	Average minimum terminal unit airflow percentage for *block* weighted by cfm or minimum required for outdoor air ventilation, whichever is higher.	9, 10, 11
	Terminal Unit Heating Source	User Defined	Electric or hydronic	9, 10, 11
	Dual *set point* minimum *VAV* damper position	User-defined	Heating maximum airflow fraction	9,10.
	Fan Powered Terminal Unit (FPTU) Type	User Defined	Series or parallel FPTU	11
	Parallel FPTU Fan	Fixed	Sized for 50% peak primary air at 0.35 W/cfm	11
	Series FPTU Fan	Fixed	Sized for 50% peak primary air at 0.35 W/cfm	11
Economizer	Economizer Presence	User Defined	Yes or No	3, 4, 9, 10,11
	Economizer Control Type	Fixed	Differential dry-bulb	3, 4, 9, 10,11

Energy Recovery	Sensible Effectiveness	User Defined	Heat exchanger sensible effectiveness at design heating and cooling conditions	3, 4, 9, 10, 11, 12
	Latent Effectiveness	User Defined	Heat exchanger latent effectiveness at design heating and cooling conditions	3, 4, 9, 10, 11, 12
	Economizer Bypass	User Defined	If ERV is bypassed during economizer conditions	3, 4, 9, 10, 11, 12
	Bypass SAT Setpoint	User Defined	If bypass, target supply air temperature	3, 4, 9, 10, 11, 12
	Fan Power Reduction during Bypass (W/cfm)	User Defined	If ERV system include bypass, static pressure set point and variable speed fan, fan power can be reduced during economizer conditions	3, 4, 9, 10, 11, 12
Demand Controlled Ventilation	DCV Application	User Defined	Percent of block floor area under DCV control	3, 4, 9, 10, 11, 12
DOAS	DOAS Fan Power W/cfm	User Defined	Fan electrical input power in W/cfm of supply airflowa	12
	DOAS Supplemental Heating and Cooling	User Defined	Heating source, cooling source	12
	Maximum SAT Set point (Cooling)	User-defined	SAT set point if DOAS includes supplemental cooling	12
	Minimum SAT Set point (Heating)	User-defined	SAT set point if DOAS includes supplemental heating	12
Heating Plant	Boiler Efficiency	User Defined	Boiler thermal efficiency	1, 6, 7, 9, 10, 11, 12
	Heating Water loop Configuration[a]	User-defined	Constant flow primary only; Variable flow primary only; Constant flow primary – variable flow secondary	1, 6, 7, 9, 10, 11, 12

	Heating Water Primary Pump Power (W/gpm)	User-defined	Heating water primary pump input W/gpm heating water flow	1, 6, 7, 9, 10, 11, 12
	Heating Water Secondary Pump Power (W/gpm)	User-defined	Heating water secondary pump input W/gpm heating water flow (if primary/secondary)	1, 6, 7, 9, 10, 11, 12
	Heating Water Loop Temperature	Fixed	180°F supply, 130°F return	1, 6, 9, 10,11
	Boiler Type	Fixed	Non-condensing boiler where input thermal efficiency is less than 86%; Condensing boiler otherwise	1, 6, 7, 9, 10, 11, 12
Chilled Water Plant	Chiller Compressor Type	User Defined	Screw/Scroll, Centrifugal or Reciprocating	6,1 0, 11, 12
	Chiller Condenser Type	User Defined	Air cooled or water cooled	6, 10, 11, 12
	Chiller Full Load Efficiency	User Defined	Chiller COP	6, 10, 11, 12
	Chilled Water loop Configuration[a]	User Defined	Variable flow primary only, constant flow primary – variable flow secondary	6, 10, 11, 12
	Chilled Water Primary Pump Power (W/gpm)	User-defined	Primary pump input W/gpm chilled water flow	6, 10, 11,12
	Chilled Water Secondary Pump Power (W/gpm)	User-defined	Secondary Pump input W/gpm chilled water flow (if primary/secondary)	6, 10, 11,12
	Chilled Water Temperature Reset Included	User Defined	Yes/No	6, 10, 11,12
Chilled Water Plant (cont.)	Chilled Water Temperature Reset Schedule (if included)	Fixed	Outdoor air reset: CHW supply temperature of 44°F at 80°F outdoor air dry bulb and above, CHW supply temperature of 54°F at 60°F outdoor air dry bulb temperature and below, ramped linearly between	6, 10, 11,12

	Condenser Water Pump Power (W/gpm)	User Defined	Pump input W/gpm condenser water flow	6, 7, 8, ,10, 11, 12
	Condenser Water Pump Control	User Defined	Constant speed or variable speed	6, 7, 8, 10, 11,12
	Cooling Tower Efficiency	User Defined	gpm/hp tower fan	6, 7, 10, 11,12
	Cooling Tower Fan Control	User Defined	Constant or variable speed	6, 7, 10, 11,12
	Cooling Tower Approach and Range	User Defined	Design cooling tower approach and range temperature	6, 7, 10, 11,12
Heat Pump Loop Flow Control	Loop flow and Heat Pump Control Valve	Fixed	Two position Valve with VFD on Pump. Loop flow at 3 gpm/ton	7, 8
Heat Pump Loop Temperature Control		Fixed	Set to maintain temperature between 50°F and 70°F	7
GLHP Well Field		Fixed	Bore depth = 250' Bore length 200'/ton for greater of cooling or heating load Bore spacing = 15' Bore diameter = 5" ¾" Polyethylene pipe Ground and grout conductivity = 4.8 Btu-in/h-ft2-0F	8

Category	**Parameter**	**Fixed or User Defined**	**Required**	**Applicable Systems**
	Fan Power Reduction during Bypass (W/cfm)	User Defined	If ERV system include bypass, static pressure set point and variable speed fan, fan power can be reduced during economizer conditions	3, 4, 9, 10, ~~11, 12~~

Demand Controlled Ventilation	DCV Application	User Defined	Percent of block floor area under DCV control	3, 4, 9, 10, 11, 12
DOAS	DOAS Fan Power W/cfm	User Defined	Fan electrical input power in W/cfm of supply airflowa	12
	DOAS Supplemental Heating and Cooling	User Defined	Heating source, cooling source	12
	Maximum SAT Set point (Cooling)	User-defined	SAT set point if DOAS includes supplemental cooling	12
	Minimum SAT Set point (Heating)	User-defined	SAT set point if DOAS includes supplemental heating	12
Heating Plant	Boiler Efficiencyd	User Defined	Boiler thermal efficiency	1, 6, 7, 9, 10, 11, 12
	Heating Water loop Configuration[a]	User-defined	Constant flow primary only; Variable flow primary only; Constant flow primary – variable flow secondary	1, 6, 7, 9, 10, 11, 12
	Heating Water Primary Pump Power (W/gpm)	User-defined	Heating water primary pump input W/gpm heating water flow	1, 6, 7, 9, 10, 11, 12
	Heating Water Secondary Pump Power (W/gpm)	User-defined	Heating water secondary pump input W/gpm heating water flow (if primary/secondary)	1, 6, 7, 9, 10, 11, 12
	Heating Water Loop Temperature	Fixed	180°F supply, 130°F return	1, 6, 9, 10,11
	Boiler Type	Fixed	Non-condensing boiler where input thermal efficiency is less than 86%; Condensing boiler otherwise	1, 6, 7, 9, 10, 11, 12
Chilled Water Plant	Chiller Compressor Type	User Defined	Screw/Scroll, Centrifugal or Reciprocating	6,1 0, 11, 12
	Chiller Condenser Type	User Defined	Air cooled or water cooled	6, 10, 11, 12

	Chiller Full Load Efficiencyd	User Defined	Chiller COP	6, 10, 11, 12
	Chilled Water loop Configuration[a]	User Defined	Variable flow primary only, constant flow primary – variable flow secondary	6, 10, 11, 12
	Chilled Water Primary Pump Power (W/gpm)	User-defined	Primary pump input W/gpm chilled water flow	6, 10, 11,12
	Chilled Water Secondary Pump Power (W/gpm)	User-defined	Secondary Pump input W/gpm chilled water flow (if primary/secondary)	6, 10, 11,12
	Chilled Water Temperature Reset Included	User Defined	Yes/No	6, 10, 11,12
Chilled Water Plant (cont.)	Chilled Water Temperature Reset Schedule (if included)	Fixed	Outdoor air reset: CHW supply temperature of 44°F at 80°F outdoor air dry bulb and above, CHW supply temperature of 54°F at 60°F outdoor air dry bulb temperature and below, ramped linearly between	6, 10, 11,12
	Condenser Water Pump Power (W/gpm)	User Defined	Pump input W/gpm condenser water flow	6, 7, 8, ,10, 11, 12
	Condenser Water Pump Control	User Defined	Constant speed or variable speed	6, 7, 8, 10, 11,12
	Cooling Tower Efficiency	User Defined	gpm/hp tower fan	6, 7, 10, 11,12
	Cooling Tower Fan Control	User Defined	Constant or variable speed	6, 7, 10, 11,12
	Cooling Tower Approach and Range	User Defined	Design cooling tower approach and range temperature	6, 7, 10, 11,12
Heat Pump Loop Flow Control	Loop flow and Heat Pump Control Valve	Fixed	Two position Valve with VFD on Pump. Loop flow at 3 gpm/ton	7, 8
Heat Pump Loop		Fixed	Set to maintain temperature between 50°F and 70°F	7

Temperature Control				
GLHP Well Field		Fixed	Bore depth = 250' Bore length 200'/ton for greater of cooling or heating load Bore spacing = 15' Bore diameter = 5" ¾" Polyethylene pipe Ground and grout conductivity = 4.8 Btu-in/h-ft2-0F	8

a. Part load fan power and pump power modified in accordance with Table C409.6.1.10.2(2)

Table C409.6.1.10.2(2) Fan and Pump Power Curve Coefficients

Equation Term	Fan Power Coefficients		Pump Power Coefficients	
		VSD + SP reset	Ride Pump Curve	VSD + DP/valve reset
b	0.0013	0.0408	0	0
x	0.147	0.088	3.2485	0.0205
x^2	0.9506	-0.0729	-4.7443	0.4101
x^3	-0.0998	0.9437	2.5295	0.5753

C409.6.2 Simulation of the standard reference design. The standard reference design shall be configured and analyzed as specified in this section.

C409.6.2.1 Utility rates. Same as proposed.

C409.6.2.2 Blocks. Same as proposed.

C409.6.2.3 Thermal zoning. Same as proposed.

C409.6.2.4 Occupancy type, schedule, density, and heat gain. Same as proposed.

C409.6.2.5 Envelope components. Same as proposed.

C409.6.2.6 Lighting. Same as proposed.

C409.6.2.7 Miscellaneous equipment. Same as proposed.

C409.6.2.8 Elevators. Not modeled. Same as proposed.

C409.6.2.9 Service water heating equipment. Not modeled. Same as proposed.

C409.6.2.10 On-site renewable energy systems. Not modeled. Same as proposed.

C409.6.2.11 HVAC equipment. The *reference building design* HVAC equipment consists of separate space conditioning systems as described in Table C409.6.2.11(1) through Table C409.6.2.11(3) for the appropriate building use types.

Table C409.6.2.11(1) Reference Building Design HVAC Complex Systems

Building Type Parameter	**Large Office**	**School**
System Type	*VAV*/ RH Water-cooled Chiller/ Gas *Boiler*	*VAV*/ RH Water-cooled Chiller/ Gas *Boiler*
Fan control	VSD (no SP Reset)	VSD (no SP Reset)
Main fan power (W/CFM (W·s/L) 3roposed 2 MERV13	1.165 (2.468)	1.165 (2.468)
Main fan power (W/CFM (W·s/L) proposed < MERV13	1.066 (2.259)	1.066 (2.259)
Zonal fan power (W/CFM (W·s/L))	NA	NA
Minimum zone airflow fraction	1.5* Voz	1.2 * Voz
Heat/cool sizing factor	1.25/1.15	1.25/1.15
Outdoor air economizer	Yes except 4A	Yes except 4A
Occupied OSA (= proposed)	Sum(Voz)/0.75	Sum(Voz)/0.65
Energy recovery ventilator *efficiency* ERR (Enthalpy Recovery Ratio) ERV bypass SAT *set point*	NA	50% 60□F except 4A
DCV	No	No
Cooling Source	(2) Water-cooled	(2) Water- Cooled Screw Chillers

	Centrifugal Chillers	
Cooling *COP* (net of fan)	Path B for profile	Path B for profile
Heating source (reheat)	Gas *Boiler*	Gas *Boiler*
Furnace or *boiler efficiency*	75% Et	80% Et
Condenser heat rejection	Cooling Tower	Cooling Tower
Cooling tower *efficiency* (gpm/fan-hp (L/s·fan-*kW*))	38.2 (3.23)	38.2 (3.23)
Tower turndown (> 300 ton (1060 *kW*))	50%	50%
Pump (constant flow/variable flow)	Constant Flow; 10□F (5.6□C) range	Constant Flow; 10□F (5.6□C) range
Tower approach	25.72 – (0.24 x WB), where WB WB is the 0.4% evaporation design wet-bulb temperature (°F)	
Cooling condenser pump power (W/gpm (W·s/L))	19 (300)	19 (300)
Cooling primary pump power (W/gpm (W·s/L))	9 (142)	9 (142)
Cooling secondary pump power (W/gpm (W·s/L))	13 (205)	13 (205)
Cooling coil chilled water delta-T, □F (□C)	12 (6.7)	12 (6.7)
Design chilled water supply temperature, □F (□C)	44 (6.7)	44 (6.7)
Chilled water supply temperature (CHWST) reset set point vs OAT, □F (□C)	CHWST/OAT : 44-54/ 80-60 (6.7-12.2/ 26.7-15.6)	CHWST/OAT : 44-54/ 80-60 (6.7-12.2/ 26.7-15.6)
CHW cooling loop pumping control	2-way Valves & pump VSD	2-way Valves & pump VSD
Heating pump power (W/gpm (W·s/L))	16.1 (254)	19 (254)
Heating oil HW dT. °F (°C)	50 (10)	50 (10)
Design HWST. °F (°C)	180 (82)	180 (82)

HWST reset set point vs OAT, °F (°C)	HWST/OAT: 180-150/ 20-50 (82-65.6/ -6.7-10)	HWST/OAT: 180-150/ 20-50 (82-65.6/ -6.7-10)
Heat loop pumping control	2-way Valves & pump VSD	2-way Valves & pump VSD

Table C409.6.2.11(2) TSPR Reference Building Design HVAC Simple Systems

Building Type Parameter	**Medium Office**	**Small Office**	**Retail**
System type	Package *VAV* - Hydronic Reheat	PSZ-AC	PSZ-AC
Fan control	VSD (no SP Reset)	Constant Volume	Constant Volume
Main fan power (W/CFM (W·s/L)) proposed 2 MERV13	1.285 (2.723)	0.916 (1.941)	0.899 (1.905)
Main fan power (W/CFM (W·s/L)) proposed < MERV13	1.176 (2.492)	0.850 (1.801)	0.835 (1.801)
Zonal fan power (W/CFM (W·s/L))	NA	NA	NA
Minimum zone airflow fraction	30%	NA	NA
Heat/cool sizing factor	1.25/1.15	1.25/1.15	1.25/1.15
Supplemental heating availability	NA	NA	NA
Outdoor air economizer	Yes except 4A	Yes except 4A	Yes except 4A
Occupied OSA source	Packaged unit, occupied damper, all *building* use types		
Energy recovery ventilator	No	No	No
DCV	No	No	No
Cooling source	DX, multi- stage	DX, single stage	DX, single stage
Cooling *COP* (net of fan)	3.40	3.00	3.50
Heating source	Gas *Boiler*	Furnace	Furnace

Heating *COP* (net of fan) / furnace or *boiler efficiency*	75% E*t*	80% E*t*	80% E*t*

Table C409.6.2.11(3)-TSPR Reference Building Design HVAC Simple Systems

Building Type Parameter	**Hotel**	**Multifamily**
System type	*PTAC*	*PTAC*
Fan control	Constant Volume	Constant Volume
Main fan power (W/CFM (W·s/L))	0.300 (0.636)	0.300 (0.636)
Heat/cool sizing factor	1.25/1.15	1.25/1.15
Supplemental heating availability	NA	NA
Outdoor air economizer	No	No
Occupied OSA source	Packaged unit, occupied damper	Packaged unit, occupied damper
Energy recovery ventilator	No	No
DCV	No	No
Cooling source	DX, 1 stage	DX, 1 stage
Cooling *COP* (net of fan)	3.20	3.20
Heating source	(2) Hydronic *Boiler*	(2) Hydronic *Boiler*
Heating *COP* (net of fan) / furnace or *boiler efficiency*	75% E*t*	75% E*t*
Heating *pump* power (W/gpm (W·s/L))	19 (300)	19 (300)
Heating coil heating water delta-T, °F (°C)	50 (27.8)	50 (27.8)
Design HWST, °F (°C)	180 (82.2)	180 (82.2)
HWST reset *set point* vs OAT, °F (°C)	HWST/OAT: 180-150/ 20-50 (82-65.6/ -6.7-10)	HWST/OAT: 180/150 20/50 (82-65.6/ -6.7-10)
Heat loop *pump*ing control	2-way Valves & ride *pump* curve	2-way Valves & ride *pump* curve

C409.7 Target Design HVAC Systems. Target system descriptions described in Tables C409.7(1) through C409.7(3) are provided as reference for Section C403.1.3 Exception 10. The target systems are used for developing MPF values and do not need to be programmed into TSPR software.

Table C409.7(1) Target Building Design Criteria HVAC Complex Systems

Building Type Parameter	**Large Office**	**School**
System Type	*VAV*/ RH Water-cooled Chiller/ Gas *Boiler*	*VAV*/ RH Water-cooled Chiller/ Gas *Boiler*
Fan control	VSD (with SP Reset)	VSD (with SP Reset)
Main fan power (W/CFM (W·s/L) Proposed 2 MERV13	1.127 (2.388)	1.127 (2.388)
Zonal fan power (W/CFM (W·s/L))	NA	NA
Minimum zone airflow fraction	1.5* Voz	1.2 * Voz
Heat/cool sizing factor	1.25/1.15	1.25/1.15
Outdoor air economizer	Yes	Yes
Occupied OSA (= proposed)	Sum(Voz)/0.75	Sum(Voz)/0.65
Energy recovery ventilator *efficiency* ERR	NA	50%
DCV	Yes	Yes
% Area Variable Control	15%	70%
% Area On/Off Control	65%	20%
Cooling Source	(2) Water- cooled Centrif Chillers	(2) Water- Cooled Screw Chillers
Cooling *COP* (net of fan)	Path B for profile	Path B for profile
Heating source (reheat)	Gas *Boiler*	Gas *Boiler*
Furnace or *boiler efficiency*	90% Et	80% Et
Condenser heat rejection	Cooling Tower	Cooling Tower

Cooling tower *efficiency* (gpm/hp (L/s·*kW*))—See G3.1.3.11	40.2 (3.40)	40.2 (3.40)
Tower turndown (> 300 ton (1060 *kW*))	50%	50%
Pump (constant flow/variable flow)	Constant Flow; 10°F (5.6°C) range	Constant Flow; 10°F (5.6°C) range
Tower approach	G3.1.3.11	G3.1.3.11
Cooling condenser *pump* power (W/gpm (W·s/L))	19 (300)	19 (300)
Cooling primary *pump* power (W/gpm (W·s/L))	9 (142)	9 (142)
Cooling secondary *pump* power (W/gpm (W·s/L))	13 (205)	13 (205)
Cooling coil chilled water delta-T, □F (□C)	18 (10)	18 (10)
Design chilled water supply temperature, □F (□C)	42 (5.56)	42 (5.56)
Chilled water supply temperature (CHWST)	CHWST/OAT:	CHWST/OAT:
reset *set point* vs OAT, □F (□C)	44-54/ 80-60 (6.7-12.2/ 26.7-15.6) (see Apx G)	44-54/ 80-60 (6.7-12.2/ 26.7-15.6) (see Apx G)
CHW cooling loop *pump*ing control	2-way Valves & *pump* VSD	2-way Valves & *pump* VSD
Heating *pump* power (W/gpm (W·s/L))	16.1 (254)	19 (254)
Heating HW dT. □F (□C)	20 (11.11)	20 (11.11)
Design HWST. □F (□C)	140 (60)	140 (60)
HWST reset *set point*	HWST/OAT: 180-150/ 20-50 (82-65.6/ -6.7-	HWST/OAT: 180-150/ 20-50 (82-65.6/ -6.7-

	10)	10)
vs OAT, □F (□C)		
Heat loop *pumping* control	2-way Valves & *pump* VSD	2-way Valves & *pump* VSD

Table C409.7(2) Target Building Design Criteria HVAC Simple Systems

Building Type	**Medium Office**	**Small Office**	**Retail**
System type	*Package VAV - Hydronic Reheat*	*PSZ-AC*	*PSZ-AC*
Fan control	*VSD* (with SP Reset)	*Constant Volume*	*2-speed*
Main fan power (W/CFM (W·s/L))	0.634	0.486	0.585
SURSRVHG • 0(59	(1.343)	(1.03)	(1.245)
Zonal fan power (W/CFM (W·s/L))	NA	NA	NA
Minimum zone airflow fraction	1.5* Voz	NA	NA
Heat/cool sizing factor	1.25/1.15	1.25/1.1 5	1.25/1.1 5
Supplemental heating availability	NA	NA	NA
Outdoor air economizer	Yes	Yes	Yes
Occupied OSA source	Packaged unit, occupied damper, all building use types		
Energy recovery ventilator	No	No	Yes all A, 6,7,8 CZ
ERR			50%
DCV	Yes	No	Yes
% Area Variable Control	15%		80%
% Area On/Off Control	65%		0%

Cooling source	DX, multi- stage	DX, single stage	DX, 2 stage
Cooling COP (net of fan)	3.83	3.8248	3.765
Heating source	Gas Boiler	Furnace	Furnace
Heating COP (net of fan) / furnace or boiler efficiency	81% Et	81% Et	81% Et
Heating coil HW dT. □F (□C)	20 (11.11)	NA	NA
Design HWST. □F (□C)	140 (60)	NA	NA
HWST reset set point vs OAT, □F (□C)	HWST/OAT : 180-150/ 20-50 (82-65.6/ -6.7-10)	NA	NA
Heat loop *pump*ing control	2-way Valves & ride *pump* curve	NA	NA
Heating pump power (W/gpm (W·s/L))	16.1	NA	NA

Table C409.7(3) Target Building Design Criteria HVAC Simple Systems

Building Type	**Hotel**	**Multifamily**
Parameter		
System type	*PTAC with Hydronic Boiler*	*Split AC*
Fan control	Cycling	Cycling
Main fan power (W/CFM (W·s/L))	0.300 (0.638)	0.271 (0.576)
Heat/cool sizing factor	1.25/1.15	1.25/1.15
Supplemental heating availability	NA	NA
Outdoor air economizer	No	No
Occupied OSA source	DOAS	DOAS except 3C
Energy recovery ventilator	NA	Yes except 3C
DCV	Yes	No
% Area Variable Control	70%	
% Area On/Off Control	0%	
Cooling source	DX, 1 stage	DX, 1 stage
Cooling *COP* (net of fan)	3.83	3.6504
Heating source	(2) Hydronic *Boiler*	Furnace
Heating *COP* (net of fan) / furnace or *boiler efficiency*	81% Et	80% AFUE
Heating *pump* power (W/gpm (W·s/L))	16.1	NA
Heating coil heating water delta-T, □F (□C)	20 (11.11)	NA
Design HWST, □F (□C)	140 (60)	NA
HWST reset *set point* vs OAT, □F (□C)	HWST/OAT: 180-150/ 20-50 (82-65.6/ -6.7-10)	NA

Heat loop *pump*ing control	2-way Valves & ride *pump* curve	NA

Chapter 6 of the IECC is amended to add the following:

CTA Consumer Technology Association
1919 S. Eads Street
Arlington, VA 22202

Standard reference number	Title	Referenced in code section number
ANSI/CTA-2045-B	Modular Communications Interface for Energy Management	. . . . . C404.11

Section R101.1 of the IECC is amended to read as follows:

R101.1 Title. This code shall be known as the ~~International~~ Energy Conservation Code of the City of Rockville, and shall be cited as such. It is referred to herein as "this code".

Section R101.3 of the IECC is amended to read as follows:

R101.3 Intent. This code shall regulate the design, and construction of buildings for the reduction of greenhouse gas emissions and for the efficient production, use and storage of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

Section R102.1.1 of the IECC is amended to read as follows:

R102.1.1 Above code programs. The ~~code official~~ Building Official or other authority having jurisdiction shall be permitted to deem a national, state or local energy efficiency program to exceed the energy efficiency required by this code if the program provides a detailed written energy analysis study demonstrating that the requirements in the program exceed all requirements of this code and includes a requirement for inspections of each building by an accredited independent party to determine compliance. Buildings approved in writing by such an energy efficiency program and that meet all mandatory provisions of this Article shall be considered in compliance with this code.

Section R103.2 of the IECC is amended ~~add item #9~~ to read as follows:

R103.2 Information on construction documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted where approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include the following as applicable:

1. Energy compliance path.
2. Insulation materials and their R-values.
3. Fenestration U-factors and solar heat gain coefficients (SHGC).
4. Area-weighted U-factor and solar heat gain coefficients (SHGC) calculations.
5. Mechanical system design criteria.
6. Mechanical and service water heating systems and equipment types, sizes, fuel sources and efficiencies.
7. Equipment and system controls.
8. Duct sealing, duct and pipe insulation and location.
9. Air sealing details.
10. Energy Code Compliance Checklist.

Section R103.2.2 of the IECC is added to read as follows:

R103.2.2 Solar-ready system. The construction documents shall provide details for dedicated roof area, structural design for roof dead and live load, and routing of conduit or pre-wiring from solar-ready zone to electrical service panel or plumbing from solar-ready zone to service water heating system.

Section R103.2.3 of the IECC is added to read as follows:

R103.2.3 Energy storage-ready system. The construction documents shall provide the location of pathways for routing of raceways or cable from the electrical service panel and energy storage system area and the location and layout of a designated area for electrical energy storage system.

Section R103.2.4 of the IECC is added to read as follows:

R103.2.4 Electrification system. The construction documents shall provide details for additional electric infrastructure, including branch circuits, conduit, or pre-wiring, and panel capacity in compliance with the provisions of this code.

Section R104.~~1~~2 of the IECC is amended to read as follows:

R104.~~1~~2 Schedule of Permit Fees~~:~~. A fee for each permit shall be paid as required, in accordance with the schedule as established by resolution of the Mayor and Council.

Sections ~~R104.2,~~ R104.3, R104.4 and R104.5 of the IECC are deleted.

Section R105.2.5 of the IECC is amended to read as follows:

R105.2.5 Electrical rough-in inspection. Inspections at electrical rough-in shall verify compliance as required by the code and the approved plans and specifications as to the locations, distribution, and capacity of the electrical system. Where the solar-ready zone is installed for electricity generation, inspections shall verify conduit or pre-wiring from solar-ready zone to electrical panel. Where the energy storage system area is not in the same space as the electrical panel, inspections shall verify conduit or pre-wiring from the energy storage ready zone to the electrical panel.

Section R105.2.6 is added to the IECC to read as follows:

R105.2.6 Final Inspection. The building shall have a final inspection and shall not be occupied until approved. The final inspection shall include verification of the installation of all required building systems, equipment and controls and their proper operation and the required number of high-efficacy lamps and fixtures.

Section R~~107~~108.1.1 of the IECC is amended to read as follows:

R~~107~~108.1.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the ~~provisions of the~~ most restrictive ~~code~~ provisions shall apply.

Section R109 of the IECC is amended to read as follows:

R109.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the ~~Code Official~~ Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Section R202 of the IECC is amended to add new definitions as follows:

ALL-ELECTRIC BUILDING. A building that contains no combustion equipment, or plumbing for combustion equipment, installed within the building, or building site.

APPLIANCE. A device or apparatus that is manufactured and designed to utilize energy and for which this code provides specific requirements.

COMBUSTION EQUIPMENT. Any equipment or appliance used for space heating, service water heating, cooking, clothes drying, or lighting that uses fuel gas or fuel oil.

DEMAND RESPONSIVE CONTROL. An automatic control that can receive and automatically respond to demand response requests from a utility, electrical system operator, or third-party demand response program provider.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Plug-in hybrid electric vehicles are electric vehicles having a second source of motive power. Off-road, self-propelled electric mobile equipment, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not considered electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

EQUIPMENT. Piping, ducts, vents, control devices and other components of systems other than appliances that are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.

EV-READY SPACE. A parking space that has electrical panel capacity and full circuit installation of a minimum 40-ampere, 208/240-volt circuit raceway wiring, a NEMA 14-50r receptacle, and circuit overcurrent protection devices.

EVSE-INSTALLED PARKING SPACE. A parking space with electric vehicle supply equipment that is fully installed from the electrical panel to the parking space.

FUEL GAS. A natural gas, manufactured gas, liquified petroleum gas or a mixture of these.

FUEL OIL. Kerosene or any hydrocarbon oil having a flash point not less than 100°F (38°C).

LEVEL 2 CHARGING. The charging capability of the electric vehicle supply equipment includes the ability to charge a battery or any other energy storage device in an electric vehicle through means of an alternating current electric service with a minimum of 208 volts and meets applicable industry safety standards.

MIXED-FUEL BUILDING. A building that contains combustion equipment or includes piping for combustion equipment.

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

Section R301.1 of the IECC is amended to read as follows:

R301.1 General. Climate zone "4A except Marine" shall be used for the City of Rockville in determining the applicable requirements from Chapter 4.

* * *

Section R401.2 of the IECC is amended to read as follows:

R401.2 Application. Residential buildings shall comply with Section R401.2.5 and either Section R401.2.1 or R401.2.3.

Section R401.2.2 of the IECC is amended to read as follows:

R401.2.2 Reserved.

Section R401.2.4 of the IECC is amended to read as follows:

R401.2.2 Reserved.

Section R401.2.5 of the IECC is amended to read as follows:

R401.2.5 Additional energy efficiency. This section establishes additional requirements applicable to all compliance approaches to achieve additional energy efficiency.

1. For *all-electric buildings* complying with Section R401.2.1, one of the additional efficiency package options shall be installed according to Section R408.2.
2. For mixed-fuel buildings complying with Section R401.2.1, the building shall be required to install either R408.2.1 or R408.2.5 of the additional efficiency package options, and any two of R408.2.2, R408.2.3, or R408.2.4 of the additional efficiency package options.
3. For buildings complying with the Energy Rating Index alternative Section R401.2.3, the Energy Rating Index value shall be at least 5 percent less than the Energy Rating Index target specified in Table R406.5.

The options selected for compliance shall be identified in the certificate required by Section R401.3.

Section R401.3 of the IECC is amended to read as follows:

R401.3 Certificate. A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certification shall indicate the following:

1. The types, sizes, fuel sources, and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace or baseboard electric heater is installed in the residence, the certificate shall indicate "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be indicated for gas-fired unvented room heaters, electric furnaces and electric baseboard heaters.

2. The fuel sources for cooking and clothes drying equipment.

3. Where combustion equipment is installed, the certificate shall indicate information on the installation of additional electric infrastructure including which *equipment* and/or *appliances* include additional electric infrastructure, capacity reserved on the electrical service panel for replacement of each piece of combustion *equipment* and/or *appliance*

4. Where a *solar-ready zone* is provided, the certificate shall indicate the location, dimensions, and capacity reserved on the electrical service panel.

Section R402.1 of the IECC is amended to read as follows:

R402.1 General. The building thermal envelope shall comply with the requirements of Sections R402.1.1 through R402.1.2.

Exceptions:

1. The following low-energy buildings, or portions thereof, separated from the remainder of the building by *building thermal envelope assemblies* complying with this section shall be exempt from the building thermal envelope provisions of Section R402.

1.1 Those containing no *combustion equipment* with a peak design rate of energy usage less than 3.4 Btu/h·ft2 (10.7 W/m2) or 1.0 watt/ft2 of floor area for space conditioning purposes.

1.2 Those containing no *combustion equipment* that do not contain *conditioned space.*

Section R403.1.1 of the IECC is amended to read as follows:

R403.1.1 Thermostat. The thermostat controlling the primary heating or cooling system of the dwelling unit shall be California Title 24 compliant and capable of controlling the heating and cooling system on a daily schedule to maintain different temperature setpoints at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures of not less than 55°F (13°C) to not greater than 85°F (29°C). The thermostat shall be programmed initially by the manufacturer with a heating temperature setpoint of not greater than 70°F (21°C) and a cooling temperature setpoint of not less than 78°F (26°C). The thermostat shall be provided with a *demand responsive control* capable of increasing the cooling setpoint by no less than 4°F (2.2°C) and decreasing the heating setpoint by no less than 4°F (2.2°C) in response to a demand response request.

Section R403.5.4 is added to the IECC to read as follows:

R403.5.4 Demand responsive water heating. All electric storage water heaters with a storage tank capacity greater than 20 gallons (76 L) shall be provided with *demand responsive controls* that comply with ANSI/CTA-2045-B or another *approved demand responsive control.*

Section R404.4 and its subsections are added to the IECC to read as follows:

R404.4 Renewable energy infrastructure. The building shall comply with the requirements of R404.4.1 or R404.4.2

R404.4.1 One- and two- family dwellings and townhouses. One- and two-family dwellings and townhouses shall comply with Sections R404.4.1.1 through R404.4.1.4.

Exceptions:

1. A building with a permanently installed on-site renewable energy system.

2. A building with less than 600 square feet (55 m2) of roof area oriented between 110 degrees and 270 degrees of true north.

3. A building where all areas of the roof that would otherwise meet the requirements for a solar-ready zone are in full or partial shade for more than 70 percent of daylight hours annually.

R404.4.1.1 Solar-ready zone area. The total area of the solar-ready zone shall not be less than 300 square feet (28 m2) and shall be composed of areas not less than 5.5 feet (1676 mm) in width and not less than 80 square feet (7.4 m2) exclusive of access or set back areas as required by the International Fire Code.

Exception: Townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (186 m2) per dwelling shall be permitted to have a solar-ready zone area of not less than 150 square feet (14 m2).

R404.4.1.2 Obstructions. Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

R404.4.1.3 Electrical service reserved space. The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

R404.4.1.4 Electrical interconnection. An electrical junction box shall be installed within 24 inches (610 mm) of the main electrical service panel and shall be connected to a capped roof penetration sleeve or a location in the attic that is within 3 feet (914 mm) of the solar ready zone by one of the following:

Section R404.4.2 is added to the IECC to read as follows:

R404.4.2 Group R occupancies. Buildings in Group R-2, R-3 and R-4 shall comply with Section C405.13.

Section R404.5 is added to the IECC to read as follows:

R404.5 Electric vehicle charging infrastructure. Electric infrastructure for the current and future charging of *electric vehicles* shall be installed in accordance with this section.

Section R404.5.1 is added to the IECC to read as follows:

R404.5.1 One- and two- family dwellings and townhouses. One- and two-family dwellings and townhouses with a dedicated attached or detached garage or carport or on-site parking spaces and new detached garages shall be provided with one *EVSE-installed parking space* capable of providing at least Level 2 charging or one *EV-ready parking space* per *dwelling unit.* The branch circuit shall meet the following requirements:

1. A minimum capacity of 9.6 kVA
2. Terminates at a junction box or receptacle located within 3 feet (914 mm) of the parking space and labelled "For electric vehicle charging", and
3. The electrical panel directory shall designate the branch circuit as "For electric vehicle charging".

Section R404.5.2 is added to the IECC to read as follows:

R404.5.2 Group R occupancies. Parking facilities serving Group R-2, R-3 and R-4 occupancies shall comply with Section C405.14.

Section R404.6 and its subsections are added to the IECC to read as follows:

R404.6 Energy storage infrastructure. Each building site shall have a dedicated location for the installation of future on-site energy storage in accordance with this section.

Exception: Where an onsite electrical energy system storage system is installed.

R404.6.1 One- and two- family dwellings and townhouses. One- and two-family dwellings and townhouses shall be provided with an energy storage ready area in accordance with the following:

1. Floor area not less than 2 feet (610 mm) in one dimension and 4 feet (1219 mm) in another dimension and located in accordance with NFPA 1 and NFPA 70.
2. The main electrical service panel shall have a reserved space to allow installation of a two-pole circuit breaker for future electrical energy storage system installation. This space shall be labeled "For Future Electric Storage." The reserved spaces shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

R404.6.2 Group R occupancies. Buildings with Group R-2, R-3 and R-4 occupancies shall comply with Section C405.15.

Section R404.7 and its subsections are added to the IECC to read as follows:

R404.7 Additional electric infrastructure. *Combustion equipment* shall be installed in accordance with this section.

R404.7.1 Equipment serving multiple units. *Combustion equipment* that serves multiple *dwelling units* shall comply with Section C405.13.

R404.7.2 Combustion water heating. Water heaters shall be installed in accordance with the following:

1. A dedicated 240-volt branch circuit with a minimum capacity of 30 amps shall terminate within 3 feet (914 mm) from the water heater and be accessible to the water heater with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Heat Pump Water Heater" and be electrically isolated.
2. A condensate drain that is no more than 2 inches (51 mm) higher than the base of the installed water heater and allows natural draining without pump assistance shall be installed within 3 feet (914 mm) of the water heater.
3. The water heater shall be installed in a space with minimum dimensions of 3 feet (914 mm) by 3 feet (914 mm) by 7 feet (2134 mm) high.
4. The water heater shall be installed in a space with a minimum volume of 700 cubic feet (20,000 L) or the equivalent of one 16-inch (406 mm) by 24-inch (610 mm) grill to a heated space and one 8-inch (203 mm) duct of no more than 10 feet (3048 mm) in length for cool exhaust air.

R404.7.3 Combustion space heating. Where a building has combustion equipment for space heating, the building shall be provided with a designated exterior location(s) in accordance with the following:

1. Natural drainage for condensate from cooling equipment operation or a condensate drain located within 3 feet (914 mm), and
2. A dedicated branch circuit in compliance with IRC Section E3702.11 based on heat pump space heating equipment sized in accordance with R403.7 and terminating within 3 feet (914 mm) of the location with no obstructions. Both ends of the branch circuit shall be labeled "For Future Heat Pump Space Heater."

   Exception: Where an electrical circuit in compliance with IRC Section E3702.11 exists for space cooling equipment.

R404.7.4 Combustion clothes drying. A dedicated 240-volt branch circuit with a minimum capacity of 30 amps shall terminate within 6 feet (1829 mm) of natural gas clothes dryers and shall be accessible with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Clothes Drying" and be electrically isolated.

R404.7.5 Combustion cooking. A dedicated 240-Volt, 40A branch circuit shall terminate within 6 feet (1829 mm) of natural gas ranges, cooktops and ovens and be accessible with no obstructions. Both ends of the branch circuit shall be labeled with the words "For Future Electric Range" and be electrically isolated.

Section R405 of the IECC is deleted in its entirety.

Table R406.2 of the IECC is amended as follows:

Table R406.2 Requirements for Energy Rating Index

SECTION	TITLE

General	
R401.2.5	Additional efficiency packages
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors
R402.2.10.1	Crawl space wall insultation installation
R402.4.1.1	Installation
R402.4.1.2	Testing
Mechanical	
R403.1	Controls
R402.2.3	Ducts
R402.2.4.1	Mechanical system piping insulation
R403.5 except Section R403.5.2	Service water heating
R403.6	Mechanical ventilation
R403.7	Equipment Sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9	Snow melt and ice systems
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls

R404.4	Renewable energy infrastructure
R404.5	Electric vehicle charging infrastructure
R404.6	Energy storage infrastructure
R404.7	Additional electric infrastructure
R406.3	Building thermal envelope

Section R406.5 of the IECC is amended to read as follows:

R406.5 ERI-based compliance. Compliance based on an ERI analysis requires that the rated *proposed* design and confirmed built dwelling be shown to have an ERI less than or equal to 47 for proposed *mixed-fuel buildings* or 54 for proposed *all-electric buildings*, when compared to the *ERI reference design*.

Section R407 of the IECC is deleted in its entirety.

Section 408.2.3 of the IECC is amended to read as follows:

R408.2.3 Reduced energy use in service water-heating option. The hot water system shall meet one of the following efficiencies:

1. Greater than or equal to 82 EF fossil fuel service water-heating system.
2. Greater than or equal to 2.0 EF electric service water-heating system.
3. Greater than or equal to 0.4 solar fraction solar water-heating system.
4. Greater than or equal to 82 EF instantaneous fossil fuel service water-heating system and drain water heat recovery unit meeting the requirements of Section R403.5.3 installed on at least one shower.

Chapter 6 of the IECC is amended to add the following:

CTA Consumer Technology Association
1919 S. Eads Street
Arlington, VA 22202

Standard reference number	Title	Referenced in code section number
ANSI/CTA-2045-B	Modular Communications Interface for Energy Management	. . . . R403.5.4

* * *

ARTICLE IX. GAS CODE

DIVISION 1. GENERALLY

Sec. 5-171. Definitions.

Except as specifically set forth below and in section 5-68, terms as used in this article shall have the same definitions as the International Code Council (ICC) International Fuel Gas Code, ~~2018~~ 2021 Edition, and National Fire Protection Association 51, 54, and 58.

* * *

Approved means accepted or acceptable under an applicable specification stated or cited in this Article and/or the ICC International Fuel Gas Code, ~~2018~~ 2021 Edition, or accepted as suitable for the proposed use under procedures and powers of the administrative authority. Oral approval by the administrative authority or their ~~his~~ duly authorized agents shall constitute full and complete approval irrespective of the ICC International Fuel Gas Code, ~~2018~~ 2021 Edition for written approval, except under circumstances where the master plumber or master gasfitter specifically request the same be in writing.

* * *

DIVISION 2. ADMINISTRATION AND ENFORCEMENT

* * *

Sec. 5-183. Emergency repairs.

When observation by a person permitted by section 5-203 to do gasfitting discloses the necessity to correct leakage of any portion of the gas company's distribution system within the premises up to and including the meter, such person may make necessary ~~temporary~~ emergency repairs without a permit, but must notify the gas company and the administrative authority immediately upon the completion of such temporary repairs.

* * *

DIVISION 3. TECHNICAL STANDARDS

Sec. 5-196. International Fuel Gas Code, ~~2018~~ 2021 Edition, and National Fire Protection Association Codes, 51, 54, and 58—Adopted.

The International Code Council (ICC) International Fuel Gas Code, ~~2018~~ 2021 Edition, and National Fire Protection Association (NFPA) Codes NFPA 51, NFPA 54, and NFPA 58, as modified herein, is hereby adopted as the fuel gas code for the City. Additionally, elevated pressure gas systems (two (2) PSIG and above) shall be installed in accordance with the guidelines for Copper Tubing Natural Gas Systems, published by the Washington Gas Light Company. One (1)

copy of such publication as adopted shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication promulgated by the International Code Council shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-197. Same—Amendments.

The ICC International Fuel Gas Code, ~~2018~~ 2021 Edition (IFGC), is amended in the following respects:

* * *

Section 102.8.1 of the IFGC is amended to read as follows:

> **102.8.1 Conflicts**. Where conflicts occur between provisions of this code and referenced codes and standards, the ~~provisions of the~~ most restrictive ~~code~~ provisions shall apply.

* * *

Section 106.3.~~2~~1 of the IFGC is amended to read as follows:

> **106.3.~~2~~1 Time limitation of application**. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the ~~code official~~ Building Official shall have the authority to grant one or more extensions, not to exceed 3 extensions, of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause shall be demonstrated.

* * *

Section 106.5.4 of the IFGC is amended to read as follows:

> **106.5.4 Extensions**. The ~~code official~~ Building Official can extend the time for action by the permittee if there is reasonable cause. A permittee holding an unexpired permit shall have the right to apply for an extension, in writing, for time to complete such work. The extension shall be requested for a justifiable cause.

Section ~~106.6.2~~109.2 of the IFGC is amended as follows:

> **~~106.6.2~~109.2 Fee Schedule~~:~~.** The fees for fuel gas work shall be as established by resolution of the Mayor and Council.

Section ~~106.6.3~~109.6 of the IFGC is deleted.

Section ~~107.2.1.1~~112.3.1.1 is added to the IFGC to read as follows:

~~107.2.1.1~~112.3.1.1 Soap Test Inspection. If the gas line is less than ten feet (10') in length and has less than four (4) bends or fittings, testing of the joints with soap will be permitted.

Section ~~109~~114 of the IFGC is amended to read as follows:

~~109~~114.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the ~~Code Official~~Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

* * *

DIVISION 4. MISCELLANEOUS REQUIREMENTS

* * *

Sec. 5-207. Bond.

A person who has been issued a gasfitter's license shall execute and deposit with the administrative authority a bond in the sum of five thousand dollars ($5,000.00), or certificate of insurance with a minimum of three hundred thousand dollars ($300,000.00) personal injury coverage and one hundred thousand dollars ($100,000.00) property damage coverage. Such bond shall be conditioned that all gasfitting work performed by the licensee or under ~~his~~ their supervision shall be performed in accordance with this article and that he will pay all fines and penalties properly imposed upon him for violation of the provisions of this article. A gasfitter's license shall not be valid unless a bond is executed and deposited as herein provided or specified insurance certificate presented. Individuals who hold a valid Maryland State Master Plumber's license are exempt from bond or insurance requirements.

Sec. 5-208. Use of licensee's name by another; change of address. etc.

No person who has obtained a gasfitter's license shall allow ~~his~~ their name to be used by another person either for the purpose of obtaining permits, or for doing business or work under the license. Every person licensed shall notify the administrative authority of the address of ~~his~~ their place of business, if any, and the name under which such business is carried on and shall give immediate notice to the administrative authority of any change in either.

* * *

ARTICLE X. MECHANICAL CODE

* * *

DIVISION 2. ~~ADMINISTRATION AND ENFORCEMENT~~ TECHNICAL STANDARDS

Sec. 5-221. International Mechanical Code—Adopted.

The International Code Council (ICC) International Mechanical Code, ~~2018~~ 2021 Edition, as modified herein, is hereby adopted as the mechanical code for the City. One (1) copy of such publication as adopted shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication hereafter promulgated by the International Code Council shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-222. Same—Amendments.

The ICC International Mechanical Code, ~~2018~~ 2021 Edition (IMC), is amended in the following respects:

* * *

Section 106.1 of the IMC is amended to read as follows:

> **106.1 ~~When~~ Where required**. An owner, authorized agent or contractor who desires to erect, install, enlarge, alter, repair, remove, convert or replace a mechanical system, the installation of which is regulated by this code, or to cause such work to be done, shall first make application to the ~~code official~~ Building Official and obtain the required permit for the work. Such permit shall be issued to an HVACR contractor, licensed by the State of Maryland for the type of work covered under the permit.
>
> > Exception: Where equipment and appliance replacements or repairs must be performed in an emergency, the permit application shall be submitted within the next working business day of the department of mechanical inspection.

* * *

Section 106.4.4 of the IMC is amended to read as follows:

> **106.4.4 Extensions**. The ~~code official~~ Building Official can extend the time for action by the permittee if there is reasonable cause. A permittee holding an unexpired permit shall have the right to apply for an extension, in writing, for time to complete such work. The extension shall be requested for a justifiable cause.

Sections ~~106.5.1~~109.2 and ~~106.5.2~~109.4 of the IMC are amended to read as follows:

109.2 Fee Schedule. The fees for mechanical work shall be as established by resolution of the Mayor and Council.

~~106.5.1~~109.4 Work commencing before permit issuance. Any person who commences work on a mechanical system, except as provided for in Section 106.1, before obtaining the necessary permits shall be subject to, an investigation fee as set forth by resolution, and 100 percent of the usual permit fee.

~~**106.5.2 Fee Schedule**. The fees for mechanical work shall be as established by resolution of the Mayor and Council.~~

Section ~~106.5.3~~109.6 of the IMC is deleted in its entirety.

Section 113.4 of the IMC is amended to read as follows:

113.4 Failure to Comply. Any person who shall continue any work on the system after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine as established by resolution of the Mayor and Council.

Section 114 of the IMC is amended to read as follows:

Section 114

Means of Appeals

114.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Sections ~~108~~115.4 ~~and 108.5~~ of the IMC ~~are~~ is amended to read as follows:

~~108~~115.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the approved construction documents or directive of the ~~code official~~ Building Official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a municipal infraction Each day that a violation continues after notice has been served shall be deemed a separate offense.

~~**108.5 Stop work orders**. Upon notice from the code official that mechanical work is being done contrary to the provisions of this code or in a dangerous or unsafe manner, such work shall immediately cease. Such notice shall be verbal or in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work on the system after having been served with a stop~~

~~work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine as established by resolution of the Mayor and Council.~~

~~*Section 109* of the IMC is amended to read as follows:~~

~~**109.1 Board of Adjustments and Appeals.** Appeals of administrative interpretations or decisions made by the Code Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.~~

* * *

Section 506.1.1 is added to the IMC to read as follows:

506.1.1 Placards for Kitchen Exhaust Extinguishing Systems. Placards installed for the operating instructions of kitchen exhaust hood-extinguishing systems shall be in English and any other language necessary to ensure all staff are able to comprehend the operating instructions. ~~have bilingual language provided. The main language shall be English with a secondary language representative of the work force of the restaurant.~~

~~*Section 507.2* of the IMC is amended to read as follows:~~

~~**507.2 Type I hoods.** Type I hoods shall be installed where cooking appliances produce grease or smoke, such as occurs with griddles, fryers, broilers, ovens, ranges and wok ranges. Installation and maintenance of commercial kitchen Type I hoods shall be governed by this code and the 2014 NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Operations, 2014 Edition.~~

~~**Exceptions**: Shall remain per the code.~~

Section 507.1 of the IMC is amended to read as follows:

507.1 General. Commercial kitchen exhaust hoods shall comply with the requirements of this section. Hoods shall be Type I or II and shall be designed to capture and confine cooking vapors and residues. A Type I or Type II hood shall be installed at or above *appliances* in accordance with Sections 507.2 and 507.3. Where any cooking *appliance* under a single hood requires a Type I hood, a Type I hood shall be installed. Where a Type II hood is required, a Type I or Type II hood shall be installed. Where a Type I hood is installed, the installation of the entire system, including the hood, ducts, exhaust equipment and makeup air system shall comply with the requirements of Sections 506, 507, 508, 509, and NFPA 96.

Exceptions: Shall remain as published in the code.

* * *

ARTICLE XI. PLUMBING CODE

DIVISION 1. GENERALLY

Sec. 5-231. Definitions.

Except as set forth below and in section 5-68, the terms used in this article shall have the same definitions as in the International Code Council (ICC) International Plumbing Code, ~~2018~~2021 Edition.

Approved means accepted or acceptable under an applicable specification stated or cited in this code and/or the ICC International Plumbing Code, ~~2018~~2021 Edition, as issued by the International Code Council, Inc., or accepted as suitable for the proposed use under the procedures and powers of the administrative authority. Oral approval by the administrative authority or ~~his~~ their duly authorized agents shall constitute full and complete approval irrespective of the requirements of the ICC International Plumbing Code, ~~2018~~2021 Edition, for written approval except those circumstances wherein the master plumber shall specifically request the same in writing.

* * *

DIVISION 2. ADMINISTRATION AND ENFORCEMENT

* * *

Sec. 5-243. Inspections and tests.

(a) It shall be the duty of the administrative authority to make the inspections and tests required by this article. The master plumber or ~~his~~ their representative shall request inspections and tests following the Division's established procedure for inspection scheduling.

* * *

DIVISION 3. TECHNICAL STANDARDS

Sec. 5-251. International Plumbing Code—Adopted.

The International Code Council (ICC) International Plumbing Code, ~~2018~~2021 Edition, as modified herein, is hereby adopted as the plumbing code for the City. One (1) copy of such publication, as adopted shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication promulgated by the International Code Council shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation.

Sec. 5-252. Same—Amendments.

The ICC International Plumbing Code, ~~2018~~2021 Edition (IPC), is amended in the following respects:

* * *

Section 106.3 of the IPC is amended to read as follows:

> **106.3 Application for permit**. Each application for a permit, with the required fee, shall be filed with the ~~code official~~ Building Official on a form furnished for that purpose and shall contain a general description of the proposed work. The application shall be signed by the City licensed Master Plumber or if residential work that the International Residential Code allows the homeowner to do, the homeowner can sign the application.

~~*Section 106.3.1.1* is added to the IPC to read as follows:~~

> ~~**106.3.1.1 Water Meter Sizing.** The code official shall determine meter size, type, and metering schemes for all properties within the lot line. In general, water meters shall be right-sized based on plumbing hydraulic load, in accordance with IPC Section 604 and Appendix E. Oversized meters shall be prohibited, unless authorized by the Director of Public Works.~~

Section 106.5.1 of the IPC is amended to read as follows:

> **106.5.1 Reviewed construction documents**. When the ~~code official~~ Building Official issues the permit where construction documents are required, the construction documents shall be endorsed in writing and stamped "REVIEWED." Such reviewed construction documents shall not be changed, modified or altered without authorization from the ~~code official~~ Building Official. All work shall be done in accordance with the reviewed construction documents.

* * *

Section 106.5.4 of the IPC is amended to read as follows:

> **106.5.4 Extensions**. The ~~code official~~ Building Official can extend the time for action by the permittee if there is reasonable cause. A permittee holding an unexpired permit shall have the right to apply for an extension, in writing, for time to complete such work. The extension shall be requested for a justifiable cause.

Sections 108.2.4, 108.2.5.1, and *108.2.5.2* of the IPC are deleted.

Sections ~~106.6~~109.1, ~~106.6.1~~109.3 and ~~106.6.2~~109.2 of the IPC are amended to read as follows:

~~106.6~~109.1 **Fees**. A permit shall not be issued until the fees prescribed in Section ~~106.6.2~~109.2 have been paid.

109.2 Fee schedule. The fees for all plumbing work shall be established by resolution of the Mayor and Council.

~~106.6.1~~109.3 **Work commencing before permit issuance**. Any person who commences any work on a plumbing system before obtaining the necessary permits shall be subject to 100 percent of the usual permit fee in addition to the investigation fees established by resolution of the Mayor and Council.

~~**106.6.2 Fee schedule**. The fees for all plumbing work shall be established by resolution of the Mayor and Council.~~

~~*Sections 107.2.4, 107.2.5.1,* and *107.2.5.2* of the IPC are deleted.~~

Section 110.1.1 is added to the IPC to read as follows:

110.1.1 Water Meter Sizing. The Building Official shall determine meter size, type, and metering schemes for all properties within the lot line. In general, water meters shall be right-sized based on plumbing hydraulic load, in accordance with IPC Section 604 and Appendix E. Oversized meters shall be prohibited, unless authorized by the Director of Public Works.

Section 114 of the IPC is amended to read as follows:

Section 114

Means of Appeal

114.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the Plumbing official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Section ~~108~~115.4 of the IPC is amended to read as follows:

~~108~~115.4 **Violation penalties**. Any persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair plumbing work in violation of the approved construction documents or directive of the ~~code official~~ Building Official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a municipal infraction. Each day that a violation continues after notice has been served shall be deemed a separate offense.

~~*Section 109* of the IPC is amended to read as follows:~~

~~**109.1 Board of Adjustments and Appeals.** Appeals of administrative interpretations or decisions made by the Code Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.~~

* * *

Section 701.8 is added to the IPC to read as follows:

701.8 Identification of drain, waste and vent lines. Where specifically required by sections 701.8.1, 701.8.2 or 701.8.3, drain, waste and vent lines shall be marked in accordance with these sections to identify them.

701.8.1 Identification of grease interceptor lines. No plumbing fixtures shall be connected to a dedicated plumbing line routed to the grease interceptor. These lines shall be labeled "Grease Line" in a minimum two inch (2") high letters spaced a minimum of four feet (4') apart.

701.8.2 Identification of Underground Storm and Sanitary Lines. All discharge sanitary and storm lines underground shall be identified by 2" stencils or stickers every 4' where clearly visible.

701.8.3 Identification of above ground storm, waste and vent lines. All above-ground sanitary and piping shall be identified by 2" stencil or stickers every 5' clearly visible from all directions.

~~**701.8 Marking of grease interceptor lines.** No plumbing fixtures shall be connected to a dedicated plumbing line routed to the grease interceptor. These lines shall be labeled "Grease Line" in a minimum two inch (2") high letters spaced a minimum of four feet (4') apart.~~

~~Section 708.2 of the IPC is amended to read as follows:~~

~~**708.2 Cleanout plugs.** Cleanout plugs shall be of brass, and shall have countersunk square heads. Cleanout plugs with borosilicate glass systems shall be of borosilicate glass.~~

* * *

Section 1003.2 of the IPC is amended to read as follows:

1003.2 Approval. The size, type and location of each interceptor and of each separator shall be designed and installed in accordance with the manufacturer's instructions, the City's Water Quality Ordinance, and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

Section 1003.3.5 of the IPC is amended to read as follows:

1003.3.5 Hydromechanical grease interceptors, fats, oils and greases disposal systems and automatic grease removal devices. Hydromechanical grease interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be sized in accordance with ASME A112.14.3, ASME A112.14.4, ASME A112.14.6, CSA B481.3 PDI G101, or Appendix G. Hydromechanical grease interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be designed and tested in accordance with ASME A112.14.3, ASME A112.14.4, CSA B481.1, PDI G101 or PDI G102. Hydromechanical grease interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be installed in accordance with the manufacturer's instructions. Where manufacturer's instructions are not provided, hydromechanical grease interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be installed in compliance with ASME A112.14.3, ASME A112.14.4, ASME A112.14.6, CSA B481.3 or PDI G101.

Section 1003.3.5.1 of the IPC is amended to read as follows:

1003.3.5.1 Grease interceptor capacity. Capacity of grease interceptors shall be determined either in accordance with Table 1003.3.5.1 for the flow-through rates indicated, or in accordance with Appendix G, Section 302.10 of the 2021 WSSC Water Plumbing and Fuel Gas Code.

Section 1003.3.7 of the IPC is amended to read as follows:

1003.3.7 Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems. The required capacity of gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems shall be determined by multiplying the peak drain flow into the interceptor in gallons per minute by a retention time of 30 minutes, or in accordance with Appendix G, Section 302.10 of the 2021 WSSC Water Plumbing and Fuel Gas Code. Gravity grease interceptors shall be designed and tested in accordance with IAPMO/ANSI Z1001. Gravity grease interceptors with fats, oils, and greases disposal systems shall be designed and tested in accordance with ASME A112.14.6 and IAPMO/ANSI Z1001. Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems shall be installed in accordance with manufacturer's instructions. Where manufacturer's instructions are not provided, gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems shall be installed in compliance with ASME A112.14.6 and IAPMO/ANSI Z1001.

~~*Section 1003* is deleted in its entirety, and replaced to read as follows:~~

~~**SECTION 1003**~~

INTERCEPTORS AND SEPARATORS

1003.1 Grease Abatement Systems - General. Grease abatement systems shall be provided to prevent the discharge of Fats, Oil, Grease (FOG), and other substances harmful or hazardous to the building drainage system, the public sewer, the private sewage disposal system or the sewage treatment plant or processes. This system shall be installed in accordance with the City's Water Quality Ordinance, Section 23.5-23 Food Service Establishments.

1003.1.1 Applicability. The regulations in this Section shall apply to establishments where food is served to or provided for the public, with or without charge, including, but not limited to restaurants, cafeterias, hotel kitchens, church kitchens, school kitchens, hospital cafeterias, bars, or any other commercial operation that has the potential to discharge grease laden wastewater; hereafter referred to as Food Service Establishments (FSE).

1003.1.2 Definitions

1003.1.2.1 Grease Abatement System: Any grease interceptor, grease trap, grease recovery device, or any treatment system designed to remove Fats, Oils and Grease (FOG) from FSE wastewater, with two general subcategories as follows:

1003.1.2.2 Volume-Based Grease Interceptor: Grease interceptor design based on volume and retention time with no specific requirement for upstream sink tail piece flow restrictions or a flow control device. Sizing is based on the number of drainage fixture units connected to the grease interceptor. Minimum size = 300 gallons. Typically - installed outdoors and underground. Typically - cleaned by pumping contractors. Sometimes - referred to as a gravity grease interceptor or outdoor grease interceptor.

1003.1.2.3 Flow-Based Grease Interceptor: Grease interceptor design based on flow rate with a specific requirement for upstream sink tailpiece flow restriction (for indirectly connected fixtures) and a flow control device. Solids screens or strainers with a maximum screen size of 1/8" perforations must be provided to capture the solids discharge from dish/pot washing sinks and floor sinks to avoid overloading the grease interceptor with solids. Sizing is based on the reasonable maximum flow anticipated from the fixtures connected to the grease interceptor based on the WSSC Tail Piece Flow Rate Table (new) for indirect connections, and IPC Chapter 10/ASME A112.14.3 for direct connections. Minimum size = 7 gallons per minute. Flow-based grease interceptors shall conform to ASME A112.14.3 or ASME A112.14.4 at the calculated flow rate. The following flow-based grease interceptors are differentiated based on whether or not there are mechanical grease removal features:

1003.1.2.3.1. Passive Flow-Based Grease Interceptor: Grease interceptor design with no mechanical grease removal features. Typically -installed indoors under a sink or outdoors in-ground. Cleaned by the FSE or pumping contractors. Sometimes referred to as a hydro-mechanical grease interceptor (when designed

and installed with a flow control device with air intake) or a grease trap (when designed and installed with a flow control device without air intake).

1003.1.2.3.2. Mechanical Flow Based Grease Interceptor: Grease interceptor design with mechanical grease removal features. Typically – installed indoors under a sink. Cleaned and maintained by the FSE, contractors, or specialty maintenance contractors. Sometimes – referred to as a grease removal (or recovery) device.

1003.2 Where Required.

1003.2.1 Grease abatement system required. A grease abatement system shall be required to receive the drainage from fixtures and equipment with potential grease laden waste. Fixtures and equipment shall include, but not be limited to: pot sinks; pre-rinse sinks; soup kettles or similar devices; fresh meat cutting and prepping; wok stations; floor drains; floor sinks; automatic hood wash units; and dishwashers.

1003.2.2 Flow Based Grease Intereceptors. Flow Based Grease Interceptors shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged.

1003.2.3 Volume Based Grease Intereceptors. Volume Based Grease Interceptors shall receive the discharge of the entire kitchen and shall be sized accordingly.

> **Exception:** Waste from sinks or fixtures with permitted food waste disposers shall discharge directly to the sanitary drainage system.

1003.2.4 Responsibility. Property owners of commercial properties, or their official designee(s), shall be responsible for the installation and maintenance of grease abatement systems serving multiple Food Service Establishments that are located on a single parcel.

1003.3 Where Not Required - Conditional Variance (Existing FSEs Only).

1003.3.1 Conditional Variance. At the request of the FSE, the Code Official may grant a conditional variance of the grease abatement system requirements if, in the judgment of the Code Official, there is limited potential for FOG in the discharge when considering, including but not limited to, the frequency of operation, the miscibility of the discharge, the volume of flow and the potential for fats, oils and grease discharge based upon the menu.

1003.3.1.2 Revocation. The conditional variance can be revoked due to an actual blockage or sanitary sewer overflow attributed to the FSEs FOG discharge.

1003.3.1.3 Additional requirements. This conditional variance applies to the requirement to install a grease abatement system only. FSEs granted this variance may still be subject to regular inspections.

1003.4 Prohibited Connections

~~**1003.4.1 Human waste.** Waste from bathrooms or similar fixtures conveying human waste shall connect directly to the building sanitary drain and shall not connect through any grease abatement system.~~

~~**1003.4.2 Signage required.** Where fixtures not generally subject to grease, such as fruit and vegetable washing sinks, connect to the regular building drain, a permanent engraved sign shall be posted at such sinks indicating their limited use. (Example: "VEGETABLE WASHING ONLY" or "NO GREASE").~~

~~**1003.4.3 Food Waste Disposers.** Food Waste Disposers shall not be installed on any fixture that requires grease abatement.~~

~~**1003.4.4 Pumps.** All grease abatement systems shall receive only stabilized flow from gravity-flow grease waste collection systems and shall not receive pressurized discharge such as from sewage pumps or lift stations. Where pumping is required, grease must be separated prior to the lift station.~~

~~**1003.5 Flow Based Grease**~~

~~**1003.5.1 General**~~

~~**1003.5.1.1 Approval.** The location, size and piping details shall require plan approval prior to installation.~~

~~**1003.5.1.2 Specifications.** Flow-based grease interceptors shall conform to ASME A112.14.3 and/or ASME A112.14.4 and shall be installed in accordance with manufacturer's specifications.~~

~~**1003.5.1.3 Flow-control device.** The manufacturer required flow control device shall be installed, sized to match the interceptors flow rate, and shall be readily accessible for inspection, cleaning and maintenance. The flow-control device shall be vented and terminate not less than 6 inches (152 mm) above the flood rim level or be installed in accordance with the manufacturer's instructions.~~

~~**1003.5.1.4 Solids screening.** Solids screens or strainers with a maximum of ½" perforations shall be provided to capture the solids discharge from dish/pot washing sinks and floor sinks to minimize the solids loading on flow-based grease interceptors.~~

~~**1003.5.2 Location And Installation**~~

~~**1003.5.2.1 Location.** Flow-based grease interceptors shall be installed below grade, direct buried, where listed for such application or within a vault; or indoors within a conditioned space; or in accordance with manufacturer's requirements. Mechanical flow-based interceptors shall not be installed in a vault.~~

~~**1003.5.2.2 Access.** Flow-based grease interceptors shall be readily accessible for daily maintenance, servicing and inspection.~~

~~**1003.5.2.3 Headroom.** Headroom above flow-based grease interceptors as well as solid sediment strainers shall be sufficient to fully open lid and easily remove internal components.~~

1003.5.2.4 Flow control device. The flow control device shall be accessible for maintenance.

1003.5.3 Sizing

1003.5.3.1 Directly Connected Fixtures. For sinks, fixtures and drains directly connected to a flow-based grease interceptor (no requirement for an air gap), flow-based grease interceptor sizing shall be determined pursuant to IPC 1003.3.4, and shall conform to ASME A112.14.3.

1003.5.3.2 Indirectly Connected Fixtures. For sinks, fixtures and drains indirectly connected to a flow-based grease interceptor (air gap required), a restricted flow tail piece is required and the flow-based grease interceptor shall be sized utilizing Table 1003.a and Table 1003.b.

1003.5.3.3 Single indirectly connected fixture flow rate. For a single indirectly connected fixture served by a flow-based grease interceptor, the full tail piece flow rate from Table 1003.a shall be used.

1003.5.3.4 Multiple indirectly connected fixtures flowr ates. For multiple indirectly connected fixtures served by a single flow-based grease interceptor, fixtures with the highest flow rates shall be considered first, with the full tail piece flow rates for the two highest flow fixtures/drains, ½ of the tail piece flow rates for the next two highest flowing fixture/drains, and ¼ of the tail piece flow rates for each subsequent fixtures/drains shall be used (see Table 1003.b below).

1003.5.3.5 Combination flow rates. Flow-based grease interceptors serving both indirectly and directly connected sinks, fixtures and/or drains shall be sized based on a proper combination of the methods listed above.

Table 1003.a
Flow Rates for Various Drain Tail Piece Sizes

Tail Piece Diameter	Flow Rate
½"[a]	7 gpm
¾"[a]	12 gpm
1"	20 gpm
1-¼"	30 gpm
1-½"	40 gpm
2"	65 gpm

a. If used the pipe cannot have any 90-degree fittings

Table 1003.b
Multiple Indirect Connection Flow Factor Table

Fixture/Drain #1	Full Tail Piece Flow Rate
Fixture/Drain #2	Full Tail Piece Flow Rate

Fixture/Drain #3	½ Tail Piece Flow Rate
Fixture/Drain #4	½ Tail Piece Flow Rate
All additional Fixtures/Drains	¼ Tail Piece Flow Rate

Note: Each tub/basin of multi-compartment sinks shall be counted as individual fixtures.

1003.6 Volume Based Grease Interceptors

1003.6.1 General

1003.6.1.1 Volume-Based Grease interceptors. Volume Based Grease interceptors shall be designed and installed in accordance with current details per Appendix F.

1003.6.1.2 Approval. The location, size and piping details shall require plan approval prior to installation.

1003.6.1.3 Specifications. Precast Concrete interceptors shall conform to the structural requirements contained in ASTM 1613 Standard Specification for Precast Concrete Interceptor Tanks

1003.6.2. Location

1003.6.2.1 In general. In general, volume based grease interceptors shall be located below grade outdoors or indoors; or above grade indoors where listed for such applications and within a conditioned space.

1003.6.2.2 Access. Volume based grease interceptors shall be readily accessible for daily maintenance, servicing and inspection.

1003.6.2.3 Manholes and cleanouts. Manholes and cleanouts shall be readily accessible for convenient inspection and maintenance.

1003.6.2.4 Kept clear of structures. No structures shall be placed directly upon or over the interceptor.

1003.6.2.5 Indoor installation. Where an outdoor location is not possible or is impractical, volume-based interceptors may be installed indoors within twenty (20) feet of an accessible service entrance, unless otherwise approved.

1003.6.2.6 Depth. All volume based interceptors shall be installed at a maximum depth of twelve (12) feet; measured from the bottom of the tank to the highest manhole rim elevation. In addition, the maximum elevation difference between the tank bottom and the pavement (where the hauler will be parked during service), shall be twenty (20) feet.

1003.6.3 Sizing. The volume of the interceptor shall be determined by using table 1003.e. If the drainage fixture units (DFUs) are not known, the interceptor shall

be sized based on the maximum DFUs allowed for the pipe size connected to the inlet of the interceptor.

Table 1003.e
Volume Based Grease Interceptor Sizing
(from 2006 Uniform Plumbing Code Table 10-3)

DFUs[1]	Interceptor Volume
8	500 gallons
21	750 gallons
35	1,000 gallons
90	1,250 gallons
172	1,500 gallons
216	2,000 gallons
307	2,500 gallons
342	3,000 gallons
428	4,000 gallons
576	5,000 gallons
720	7,500 gallons
2,112	10,000 gallons
2,640	15,000 gallons

Notes:

1. The maximum allowable DFUs plumbed to the kitchen drain lines that will be connected to the grease interceptor.

1003.7Scale trap seafood prep sinks. Seafood prep sinks shall discharge through a local scale separator prior to entering any portion of the drainage system or grease abatement system.

1003.8 Oil & Sand Separators Required

1003.8.1 General. All oil and sand interceptor details shall be approved in writing prior to installation and shall meet industrial waste discharge limitations.

1003.8.2 Size. Oil and sand interceptor size shall be determined by application as follows:

Small Interceptor - 64 cu. ft.

Large Interceptor - 216 cu. ft.

1003.8.2.1 Engineered Sizing. Manufactured mechanical separators or separators utilizing other means of abatement shall be submitted as an engineer's design. Plan submittal shall include calculations, manufacturer's guidelines, and engineer's seal and signature. This is subject to Code Official's review and approval.

~~**1003.8.3 Parking Garages.** Parking garages not open to the outdoors and protected from surface and storm water run-off may have inside floor and trough drains connected to the sanitary sewer through an interceptor. Parking garages without wash down facilities may be served by a small interceptor; those with wash down facilities shall be served by a large interceptor.~~

~~**1003.8.4 Vehicle Washing Establishments.** All vehicle washing facilities shall have required drains connected to the sanitary drainage system through a large interceptor.~~

~~**1003.8.5 Vehicle Service Stations.** Vehicle service stations, maintenance, and service garages, etc., shall have all required inside floor and trough drains connected to the sanitary drainage system through an interceptor.~~

~~a. Up to four (4) bays may be served by a small interceptor. Up to sixteen (16) bays may be served by a large interceptor.~~

~~b. No more than one (1) business shall be served by an interceptor.~~

~~c. Facilities providing vehicle lubrication service shall be supplemented by a manufactured oil separator with a used oil holding tank.~~

~~**1003.9 Laundries.** Laundry facilities not installed within an individual dwelling unit or intended for individual family use shall be equipped with an interceptor with a wire basket or similar device, removable for cleaning, that prevents passage into the drainage system of solids 0.5 in (12.7 mm) or larger in size, string, rags, buttons or other materials detrimental to the public sewage system.~~

~~**1003.10 Bottling Establishments.** Bottling plants shall discharge process wastes into an interceptor that will provide for the separation of broken glass or other solids before discharging waste into the sanitary sewer system.~~

~~**1003.11 Venting of interceptors and separators.** Interceptors and separators shall be designed so as not to become air bound where tight covers are utilized. Each interceptor or separator shall be vented where subject to a loss of trap seal.~~

~~**1003.12 Access and maintenance of interceptors and separators.** Access shall be provided to each interceptor and separator for service and maintenance. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator.~~

* * *

Appendix G is added to the IPC to incorporate Section 302.10 of the 2021 WSSC Water Plumbing and Fuel Gas Code~~The City of Rockville standards for Identifications of Storm and Sanitary Discharge Lines~~

Sec. 5-253. Same—Exceptions and supplemental standards.

The following apply to all installations, repairs, and alterations of plumbing and subject to the provisions of this article, anything to the contrary contained in the ICC International Plumbing Code, ~~2018~~2021 Edition or the International Residential Code, ~~2018~~2021 Edition, notwithstanding. It is the intent of the City to provide supplemental regulations and exceptions to the ICC International Plumbing Code, ~~2018~~2021 Edition, and the International Residential Code, ~~2018~~2021 Edition.

* * *

(6) *Water service pipe.* Water service pipe installed underground between the City's main and the property line shall be type "K" copper tubing with flare fittings only for sizes up to and including two (2) inches. ~~A #12 copper wire shall be taped to all nonmetallic water service pipe to provide a means of locating the lateral by a metal detector or other device;~~

* * *

(8) *Water-cooled air conditioning, refrigeration machinery and compressor installations.*

* * *

d. *Cross-connections.* All such installations shall be installed without cross-connections and ~~without possibility of back siphonage~~ with an approved means of backflow prevention installed;

* * *

DIVISION 4. LICENSING OF PLUMBERS

Sec. 5-266. Use of licensee's name by another; change of address, etc.

No person who has obtained a plumber's license shall allow ~~his~~ their name to be used by another person either for the purpose of obtaining permits, or for doing business or work under the license. Every person licensed shall notify the administrative authority of the address of ~~his~~ their place of business, if any, and the name under which such business is carried on and shall give immediate notice to the administrative authority of any change in either.

ARTICLE XII. PROPERTY MAINTENANCE CODE

* * *

DIVISION 2. TECHNICAL STANDARDS

Sec. 5-286. ~~BOCA National~~ International Property Maintenance Code—Adopted.

The International Code Council (ICC) International Property Maintenance Code, 2021 Edition, as modified herein, is hereby adopted as the building code for the City. One (1) copy of such publication as adopted shall be maintained by the Inspection Services Division and made available for inspection by the public during regular office hours. Any amendment or change in such publication promulgated by the International Code Council shall not become a part of this article until adopted by ordinance. References to other ordinances and codes of the City shall be interpreted and applied in accordance with the terms and effect of such ordinances and codes at the time of such application and interpretation. ~~The BOCA National Property Maintenance Code, Fifth Edition, 1996, is adopted by reference. One (1) copy of same shall be maintained by the City Clerk in the office of the Council and made available for inspection by the public during regular office hours.~~

Sec. 5-287. Same—Amendments.

The ~~BOCA National~~ International Property Maintenance Code, ~~Fifth Edition, 1996,~~ 2021 edition, is amended in the following respects:

Section 101.1 of the IPMC is amended to read as follows:

> **101.1 Title.** These regulations shall be known as the Property Maintenance Code of the *City of Rockville*, hereinafter referred to as "this code."

Section 102.8.1 of the IPMC is amended to read as follows:

> **102.8.1 Conflicts.** Where conflicts occur between provisions of this code and the referenced standards, the most restrictive provisions shall apply.

Section 103 of the IPMC is deleted in its entirety

Section 104.1 of the IPMC is amended to read as follows:

> **104.1 Fees.** Fees shall be as established by resolution of the Mayor and Council.

Section 104.2 of the IPMC is deleted in its entirety

Section 105.3 is amended to read as follows:

> **105.3 Right of entry.** Where it is necessary to make an inspection to enforce the provisions of this code, or whenever the code official has reasonable cause to believe that there exists in a structure or upon a premises a condition in violation of this code, the code official is authorized to enter the structure or premises at reasonable times to inspect or perform the duties imposed by this code, provided that if such structure or premises is occupied the code official shall present credentials to

the occupant and request entry. If such structure or premises is unoccupied, the code official shall first make a reasonable effort to locate the owner, owner's authorized agent or other person having charge or control of the structure or premises and request entry. If entry is refused, the code official shall have recourse to the remedies provided by law to secure entry. If any owner, occupant, or other person in charge of a structure subject of the provisions of this code refuses, impedes, inhibits, interferes with, restricts, or obstructs entry and free access to any part of the structure or premises where inspection authorized by this code is sought, the City may institute any appropriate civil action or proceeding and seek any appropriate order necessary to enforce the City's right of entry."

Section 107 of the IPMC is amended to read as follows:

SECTION 107
BOARD OF ADJUSTMENTS AND APPEALS

107.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the Code Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Sections 107.2, 107.3, and 107.4 of the IPMC are deleted in their entirety

Section 108 of the IPMC is deleted in its entirety

Section 109.4 of the IPMC is amended to read as follows:

109.4 Violation penalties. Any person who shall violate a provision of this code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense. The violation of any provision of this code shall constitute a municipal infraction for which a citation may be issued and a fine in an amount established by resolution of the Mayor and Council may be imposed.

Section 109.4.1 is added to the IPMC to read as follows:

109.4.1 Other civil remedies. In addition to the penalty provided for in section 109.4, the City may institute any appropriate proceeding at law or equity to require compliance with provisions of this code and with administrative orders made under this code."

Section 109.4.2 is added to the IPMC to read as follows:

109.4.2 Additional remedy for certain violations. In addition to any other penalties and remedies provided for in this code, where there is a violation of any of the provisions of this Property Maintenance Code, any court of proper jurisdiction may authorize the City to enter onto the subject property and cause the violation to be corrected and charge the costs and expenses thereof, including administrative expenses of the City, to the property owner, operator, and/or occupant. Such costs and expenses may be collected by way of any appropriate legal proceedings. In addition, the cost and expense of correcting the violations may be assessed as a lien against the subject property and be collected in the same manner as property taxes.

Section 201.3 of the IPMC is amended to read as follows:

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the International Building Code, International Existing Building Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Residential Code, NFPA 1, NFPA 101, or NFPA 70, such terms shall have the meanings ascribed to them as stated in those codes. Where terms are not defined in this code or any of its referenced standards, and such terms are defined in the Rockville City Code, such terms shall have the meanings ascribed to them as stated in the Rockville City Code.

Exception: When used within this code, the terms unsafe and dangerous shall have only the meanings ascribed to them in this code and shall not have the meanings ascribed to them by the International Existing Building Code.

Section 202 of the IPMC is amended by adding and amending definitions as follows:

COMPOSTING. The biological decomposition of organic material such as yard trimmings and food waste into a stable, humus-like product.

EASEMENT. A recorded grant or reservation by the owner of land for the use of all or a portion of such property to the public or others, for a specific purpose.

GRAFFITI. Any inscription, mark, word, figure, painting or other defacement that is written, marked, etched, scratched, sprayed, drawn, painted, or engraved on or otherwise applied to any surface of public or private property without the authorization of the owner of the property.

Section 301.2 of the IPMC is amended to read as follows:

301.2 Responsibility. The owner of the premises shall maintain the structures and exterior property in compliance with these requirements, except as otherwise provided for in this code. A person shall not occupy as owner-occupant or permit another person to occupy premises that are not in a sanitary and safe condition and that do not comply with the requirements of this chapter. Occupants of a dwelling unit, rooming unit or housekeeping unit are responsible for keeping in a clean, sanitary and safe condition that part of the dwelling unit, rooming unit, housekeeping unit or premises they occupy and control.

Section 301.2.1 is added to the IPMC to read as follows:

301.2.1 Owner not relieved of responsibilities. The liability of a tenant or occupant of a dwelling or dwelling unit arising by reason of a violation of this code shall not relieve the owner and/or operator of their duties and responsibilities under the provisions of this code.

Section 301.2.2 is added to the IPMC to read as follows:

301.2.2 Access for repairs. Every occupant of a dwelling or dwelling unit shall give the owner thereof, or his agent or employee, access to any part of such dwelling or dwelling unit, or its premises, at all reasonable times for the purpose of making such inspection and repairs or alterations as are necessary to effect compliance with the

provisions of this code or with any lawful rule or regulation adopted or any lawful order issued pursuant to the provisions of this code.

Section 301.2.3 is added to the IPMC to read as follows:

301.2.3 Prohibited occupancy. No owner or operator shall lease or permit the subletting to another for occupancy any vacant or vacated dwelling or dwelling unit which does not comply with the provisions of this code, unless permission for such occupancy has been granted by the Chief of the Division of Inspection Services.

Section 301.2.4 is added to the IPMC to read as follows:

301.2.4 Prohibited subletting. An occupant or tenant shall not sublet any dwelling or dwelling unit which does not comply with the provisions of this code. In particular, but not by way of limitation, an occupant shall not permit any portion of a dwelling or dwelling unit to be occupied in violation of the standards and requirements for light, ventilation and occupancy as provided in this code."

Section 301.2.5 is added to the IPMC to read as follows:

301.2.5 Posting of identification-owner or agent. In any multiple-unit dwelling in which the owner does not reside, the name, address and telephone number of the owner or their agent or other responsible person, if any, shall be posted in a public or prominent place on the premises, and the information thereon shall be accurate and kept up to date. In any single-family and two (2) family dwelling in which the owner does not reside, the information required herein shall either be posted as aforesaid or supplied in writing to the occupants of the dwelling. A post office box number shall be unacceptable for the address required by this section."

Section 301.2.6 is added to the IPMC to read as follows:

301.2.6 Accessory apartments. The owner of a one-family dwelling in which there is an accessory apartment for which a special exception has been granted must:

(a) Certify annually on a form provided by the Division of Inspection Services: (i) where the owner of the dwelling resides; and (ii) whether or not any portion of the structure in which the accessory apartment is located is rented.

(b) Permit periodic inspections by the Division of Inspection Services of both the accessory apartment and the main dwelling. The Division of Inspection Services shall inspect each one-family dwelling in which there is an accessory apartment at least annually.

(c) Pay all fees that may be imposed for certification.

Section 301.3.1 is added to the IPMC to read as follows:

301.3.1 Vacant structures; limits on boarding. All vacant residential and commercial structures shall at all times have all windows and doors secured and in place, including glass panes and locks, and shall not otherwise exhibit the appearance of being vacant or otherwise not occupied for its intended purpose. The property must at all times be maintained in compliance with the provisions of this Chapter and other applicable provisions of the Rockville City Code.

Exceptions: A structure may be secured by boarding the exterior of the structure for a period no longer than ninety (90) days. An owner, operator, agent or other person responsible for maintaining the structure in compliance with the Rockville City Code may apply to the Chief of Police for permission to extend the boarding of the structure. For good cause shown, the Chief of Police may permit boarding of the structure to be extended by up to, but not exceeding, an additional sixty (60) days. Nothing in this section shall prohibit the boarding of windows and doors from the interior of the structure where such boarding is not visible from the outside.

Section 302.1 of the IPMC is amended to read as follows:

302.1 Sanitation. *Exterior property* and *premises* shall be maintained in a clean, safe and sanitary condition. The *occupant* shall keep that part of the *exterior property* that such *occupant* occupies or controls in a clean and sanitary condition. All interior and exterior property area and premises shall be maintained so as to prevent the creation of any public nuisance.

Section 302.1.2 is added to the IPMC to read as follows:

302.1.2 Cleanliness of City right-of-way. No occupant or owner of any dwelling, dwelling unit, or property bordering any street, alley, or right-of-way, shall deposit or permit to be deposited garbage, refuse, or rubbish into the right-of-way, street, or alley abutting the premises.

Section 302.1.2.1 is added to the IPMC to read as follows:

302.1.2.1 Shopping Carts. Where shopping carts are found to be abandoned in areas outside of designated cart storage areas, including but not limited to public rights-of-way, streets, alleys, and public use spaces, the City shall notify the business or establishment to which such carts belong. The owner or agent for such business or establishment shall remove or cause to be removed such carts within 24 hours of notice being given. Failure to comply with this section within the prescribed timeframe shall constitute a violation of this section. If carts are not removed from public areas within the time specified, the City may, in its sole discretion and in addition to any other remedies provided for in this code, cause the carts to be removed and disposed of as abandoned property, and charge the cost of such removal and disposal to the business owner, operator and/or occupant. The cost and expenses incident to such removal shall become a tax lien against the property and shall be collected in the same manner as taxes. Where ownership of carts is not readily identifiable, such carts may be removed and disposed of as abandoned property at the discretion of the City.

Section 302.2 of the IPMC is amended to read as follows:

302.2 Grading and drainage. All premises shall be graded and maintained to prevent the erosion of soil to prevent the accumulation of stagnant water thereon, or within any structure are located thereon. Any surface drainage, roof drainage, sump pump discharges or other similar drainage or discharge which creates a structural or health hazard, or any other nuisance, to the owner or occupants of adjacent premises, or to the public by reason of discharge into, onto or across any adjacent building, premises or public thoroughfare, shall be abated by the owner

of the improperly drained area. Drainage shall be disposed of in accordance with Section 507 and the plumbing provisions of referenced standards.

Exception: Approved retention areas and reservoirs.

Section 302.2.1 is added to the IPMC to read as follows:

302.2.1 Ground cover. The entire outside area of all properties shall be provided with suitable ground cover such as sod, plant growth or other suitable material to prevent dust or erosion.

Section 302.3 of the IPMC is amended to read as follows:

302.3 Sidewalks and driveways. All public and private sidewalks, walkways, stairs, driveways, parking spaces and similar paved areas, including the paved right of way sidewalk immediately fronting or abutting the property, access ramps and curb cuts, shall be kept in a proper state of repair, maintained free from hazardous conditions, and maintained free of all snow, ice, mud and other debris. If, in the opinion of the Code Official, any such space or portion thereof by virtue of its state of repair shall constitute a danger to public health or safety, the Code Official shall order the property owner or their authorized agent to make necessary repairs or replacement.

Section 302.3.1 is added to the IPMC to read as follows:

302.3.1 Duty to clear snow and ice. The owner of the premises shall remove or cause to be removed snow and ice from the areas identified in Section 302.3 within 24 hours after the end of a snowfall resulting in three inches (3") or less accumulation, and within forty-eight (48) hours after the end of a snowfall resulting in more than three inches (3") accumulation, and seventy-two (72) hours after the end of a snowfall resulting in more than ten (10") inches accumulation, in such a manner as to provide a safe, unobstructed, passable path of travel between and within properties, said path to be a minimum of 36 inches width. Where such area or areas are less than 36 inches in width, snow and ice shall be removed from the entire area.

Section 302.3.1.1 is added to the IPMC to read as follows:

302.3.1.1 Snow and ice removal. The average of the the National Weather Service snow accumulation figures at Ronald Reagan National Airport (DCA), Dulles International Airport (IAD), and Baltimore/Washington International Thurgood Marshall Airport (BWI) will be used to determine which timeframe for snow removal is applicable. In icy conditions, the ice must be removed or treated within 24 hours after the end of icy precipitation in a manner sufficient to provide a reasonably non-slick surface. Public areas must be treated and maintained in a manner sufficient to prevent the repeated melting and refreezing of ice.

Section 302.3.1.2 is added to the IPMC the read as follows:

302.3.1.2 Abatement by City in Event of Delinquency. If snow or ice is not treated or removed from public areas within the time specified, the City may, in its sole discretion and in addition to any other remedies provided for in this code, cause the snow and/or ice to be removed or treated and charge the cost of its

removal or treatment to the property owner, operator and/or occupant. The cost and expenses incident to such removal shall become a tax lien against the property and shall be collected in the same manner as taxes.

Section 302.4 of the IPMC is amended to read as follows:

302.4 Vegetation. *Premises* and *exterior property*, including the public right-of-way adjacent to the *premises* or *exterior property*, shall be maintained free from weeds in excess of ten (10) inches (254mm). Weeds shall be defined as all grasses, annual plants, and vegetation, excluding trees, shrubs, and cultivated flowers, gardens, and planned natural landscaping. Noxious weeds shall be prohibited. It shall be the duty of the property *owner* or their authorized agent to maintain *premises* and *exterior property* in accordance with this section. Upon failure of the *owner* or agent having charge of a property to cut or destroy vegetation within the prescribed timeframe specified in a notice of violation, the City may, in its sole discretion, and in addition to any other remedies provided for in this code, cause such vegetation to be cut or destroyed and charge the costs of such removal or treatment to the property *owner* or their authorized agent. The cost and expenses incident to the cutting of weeds shall become as a tax lien against the property and shall be collected in the same manner as taxes.

Section 302.4.1 is added to the IPMC to read as follows:

302.4.1 Pruning. All trees, bushes, hedges, shrubs, vines and other plant growth shall be kept pruned so as not to obstruct the vision of operators of vehicles traveling upon any public street, road or highway or pedestrians using public sidewalks; constitute a hazard to vehicular or pedestrian traffic; be hazardous to the public health and welfare; or otherwise constitute a detriment to the neighborhood or exist in violation of any other code or ordinance of the City.

Section 302.7.1 is added to the IPMC to read as follows:

302.7.1 Dangerous Fences. Fences which include barbed wire or an electrical current shall be considered dangerous and a public nuisance and are prohibited, unless specifically approved by the Building Official.

Section 302.8.1 is added to the IPMC to read as follows:

302.8.1 Parking. All motor vehicles shall be parked, kept, or stored in approved off-street parking areas or on an improved street. The parking or driving of motor vehicles over curbs, sidewalks, yards, courts, planting areas or other places not intended for vehicular traffic is prohibited.

Section 302.8.2 is added to the IPMC to read as follows:

302.8.2 Repair, service, or maintenance. The repairing, servicing, replacement of parts, or the performance of maintenance work on a vehicle on public street or any private lands or premises is prohibited, except as provided below:

(a) Major repairs may be performed by an occupant of the premises on a vehicle owned by the occupant or other occupant of the premises in an enclosed garage, provided that such repairs do not result in noxious odors, fumes or noise, or

constitute any other detriment to the neighborhood. Examples of major repairs are replacing a transmission, front or rear end, springs, socks, valves, pistons, rings, carburetor or other major parts of a motor or engine; repair body work over fifty (50) percent of the vehicle; repaint of more than fifty (50) percent of the vehicle.

(b) Minor repairs may be performed by an occupant of the premises on a vehicle owned by the occupant or other occupant of the premises, provided such repair is performed on or immediately in front of the premises. Examples of minor repairs are: tune-up; changing of oil/filter (provided no public space is polluted or damaged); fixing a flat tire; replacing a battery, lights, bulbs, or brakes; rotating tires; flushing radiator system.

(c) The above permitted repairs may be performed, provided that they are completed within fifteen (15) days after their commencement and thereafter the vehicle upon the repairs are made is legally operable upon any public street or highway; and further provided that not more than four (4) repair periods of fifteen (15) days or less occur on or in front of any given premises within one (1) year.

(d) All new or used vehicle fluids are prohibited from being placed or stored in proximity to a City waterway or storm drain system such that the pollutants can be reasonably expected to wash, run off, leach, drain, or otherwise be conveyed or carried into a City waterway. No new or used vehicle fluids can be discharged into a City waterway or storm drain system.

Section 302.8.3 is added to the IPMC to read as follows:

302.8.3 Junk vehicles. No junk vehicle shall be kept or maintained, except in an area lawfully licensed as a junkyard.

Section 302.8.4 is added to the IPMC to read as follows:

302.8.4 Unlicensed vehicle. Not more than one (1) currently unlicensed motor vehicle shall be parked on any property in a residential zone. Such vehicle shall not at any time be in a state of major disassembly or disrepair, nor in the process of being stripped or dismantled, unless complying with section 302.8.2.

Section 302.8.5 is added to the IPMC to read as follows:

302.8.5 Storage of vehicles and equipment. Boats, trailers, campers, vans and recreational vehicles shall be stored in accordance with the following sequence of parking availability:

(a) behind the front building line, on an approved surface.

(b) in the driveway which is constructed of approved materials as required by Chapter 25 of the Rockville City Code.

Section 302.8.6 is added to the IPMC to read as follows:

302.8.6 Vehicles for habitation prohibited. No trailer, recreation vehicle, car or truck shall be brought within the corporate limits of the City of Rockville for the purpose of habitation and dwelling therein for a period of more than twenty-four hours.

Section 302.9 of the IPMC is amended to read as follows:

302.9 Defacement of property.

A person shall not willfully or wantonly damage, mutilate or deface any exterior surface of any *structure* or building on any private or public property by placing thereon any marking, carving or graffiti. It shall be the responsibility of the *owner* to restore said surface to an *approved* state of maintenance and repair.

Exceptions:

1. Temporary, easily removable chalk or other water-soluble markings on public or private sidewalks, streets or other paved surfaces which are used in connection with traditional children's activities, or in connection with any lawful business or public purpose

2. Any City-approved public art project or activity

Section 302.9.1 is added to the IPMC to read as follows:

302.9.1 Removal of Graffiti Required. Graffiti shall be removed or effectively obscured within seven calendar days of notice being given to the property owner, their authorized agent, or the legal occupant of a structure.

Section 302.10 Outdoor illumination is added to the IPMC to read as follows:

302.10 Outdoor illumination: A person may not operate any outdoor artificial illumination device on private property in such a manner as to interfere with the use or enjoyment of abutting or confronting property and consistent with the provisions of the Landscaping, Screening and Lighting Manual, adopted by resolution 17-08, and as may be amended from time to time.

Section 304.20 is added to the IPMC to read as follows:

304.20 Areaway protection: All window wells, exterior door openings, ventilations, and access opening areaways over twenty-four (24) inches in vertical depth below adjacent ground level shall be provided with a horizontal grille, vertical railing thirty (30) inches in height or other approved protection. All grilles, railings and coverings shall be firmly fastened and capable of bearing normally imposed loads and shall be maintained in good condition. Where such devices are installed at an areaway or window well serving an *emergency escape and rescue opening*, such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the *emergency escape and rescue opening*. Where such bars, grilles, covers, screens, or similar devices are installed in existing buildings, they shall not reduce the net clear opening of the *emergency escape and rescue opening* and *smoke alarms* shall be installed in accordance with section 907.2.10 of the *International Building Code*.

Section 305.3 of the IPMC is amended to read as follows:

305.3 Interior surfaces. All interior surfaces, such as windows, doors, drawers, cabinets, countertops, shelves, vanities and the like shall be maintained in clean and sanitary condition and good repair, with appropriate hardware. Peeling, chipping,

flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected.

Section 305.4.1 is added to the IPMC to read as follows:

305.4.1 Finished floor surfaces. All floors shall be finished in an *approved* manner and maintained in clean and sanitary condition and good repair. Floors in kitchens, bathrooms and other areas where water or moisture is likely to be present shall be constructed and maintained so as to be substantially impervious to water and so as to permit such floor to be easily kept in a clean and sanitary condition.

Section 305.6 of the IPMC is amended to read as follows:

305.6 Interior doors. Every interior door shall fit reasonably well within its frame and shall be capable of being opened, closed, and latched by being properly and securely attached to jambs, headers or tracks as intended by the manufacturer of the attachment hardware. Every bedroom and bathroom shall have a door which provides privacy. This door shall be maintained in good condition and have a door latch or other locking device that is operable and under the control of the occupant so that privacy is maintained within such room.

Section 305.7 is added to the IPMC to read as follows:

305.7 Free from dampness. Cellars, basements and crawl spaces shall be maintained free from standing water, and reasonably free from dampness.

Section 307.1 of the IPMC is amended to read as follows:

307.1 General. Every exterior and interior flight of stairs having more than four risers shall have a handrail on one side of the stair and every open portion of a stair, landing, balcony, porch, deck, ramp or other walking surface that is more than 30 inches (762 mm) above the floor or grade below shall have *guards*. Handrails shall be not less than 30 inches (762 mm) in height or more than 42 inches (1067 mm) in height measured vertically above the nosing of the tread or above the finished floor of the landing or walking surfaces. *Guards* shall be not less than 30 inches (762 mm) in height above the floor of the landing, balcony, porch, deck, or ramp or other walking surface.

Exceptions:

1. *Guards* shall not be required where exempted by the adopted building code.
2. Existing handrails and *guards* which do not meet the specific requirements of this code, and which are deemed by the Building Official to be safe, may remain in place without alteration.

Section 308.1 of the IPMC is amended to read as follows:

308.1 Accumulation of rubbish or garbage. *Exterior property* and *premises*, and the interior of every *structure*, shall be free from any accumulation of *rubbish*, *garbage*, yard waste, or recyclables.

Section 308.3.1 of the IPMC is amended to read as follows:

308.3.1 Containers. The owner or operator of any property producing refuse containing *garbage* or other putrescible materials shall provide, in sufficient numbers and in a location accessible to all occupants of the property, and at all times cause to be utilized, *approved* leakproof containers provided with close-fitting covers for the storage of such materials until removed from the *premises* for disposal. Containers placed at the curb must be removed from the right-of-way within 24 hours following collection.

Exception: Organic materials disposed in accordance with section 308.3.2 are not required to be disposed in containers.

Section 308.3.2 of the IPMC is amended to read as follows:

308.3.2 Disposal by use of compost piles. The use of compost piles for the disposal of organic materials, such as yard waste or non-animal food scraps, is permitted only when the pile is completely rodent proofed.

Exception: Compost piles consisting entirely of leaves and dirt do not require rodent proofing.

Section 401.2 of the IPMC is amended to read as follows:

401.2 Responsibility. The *owner* or operator of the *structure* shall provide and maintain light, *ventilation* and space conditions in compliance with these requirements. A person shall not occupy as *owner-occupant*, or permit another person to occupy, any *premises* that do not comply with the requirements of this chapter.

Section 505.1 of the IPMC is amended to read as follows:

505.1 General. Every sink, lavatory, bathtub or shower, drinking fountain, water closet or other plumbing fixture shall be properly connected to the public water system. Kitchen sinks, lavatories, laundry facilities, bathtubs and showers shall be supplied with hot or tempered and cold running water in accordance with the *International Plumbing Code*.

Exception: Existing private water supply systems maintained in good repair that do not constitute a sanitary hazard are permitted to remain in use. At such time as the system needs replacement, the owner or occupant shall either vacate the building or connect to the public water system.

Section 506.1 of the IPMC is amended to read as follows:

506.1 General. Plumbing fixtures shall be properly connected to the public sewer system.

Exception: Existing private sewage disposal systems maintained in good repair that do not constitute a sanitary hazard are permitted to remain in use. At such time as the system needs replacement, the owner or occupant shall either vacate the building or connect to the public sewer system.

Section 507.1 of the IPMC is amended to read as follows:

507.1 General. Drainage of roofs and paved areas, *yards* and courts, and other open areas on the *premises* shall not be discharged in a manner that creates a public nuisance or causes direct water flow across or onto an abutting or adjacent property.

Section 507.2 is added to the IPMC to read as follows:

507.2 Intentional discharge. Intentional discharge of water from private property, including sump pumps, foundation drains or other sources, that is allowed to enter the right-of-way shall not create an unsafe condition upon a sidewalk, driveway approach, or street. Unsafe conditions include, but are not limited to algae, ice, dirt, mud, stone or rock that accumulates or is present upon a surface. The code official shall require the necessary actions to abate the unsafe condition.

Section 507.2.1 is added to the IPMC to read as follows:

507.2.1 Obstructions prohibited. No person shall allow or cause any obstruction to be created, installed, or maintained within any drainage way, detention facility, or engineered swale which will create ponding on adjacent property, divert water onto the adjoining property, or impede drainage. Fences may be erected in such areas provided that they do not unnecessarily restrict the flow of water.

Section 602.3 of the IPMC is amended to read as follows:

602.3 Heat supply. Every *owner* and *operator* of any building who rents, leases or lets one or more *dwelling units* or *sleeping units* on terms, either expressed or implied, to furnish heat to the *occupants* thereof shall supply heat during the period from October 1 to May 15 to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms*.

Section 603.7 is added to the IPMC to read as follows:

603.7 Cooking and heating equipment. All cooking and heating equipment, components, and accessories in every cooking and heating device shall be maintained free from leaks and obstructions and kept functioning properly so as to be free from fire, health, and accident hazards. All installations and repairs shall be made in accordance with the provisions of the building code, or other laws or ordinances applicable thereto.

Section 603.8 is added to the IPMC to read as follows:

603.8 Refrigeration. Every dwelling unit shall contain a refrigeration unit adequate for the temporary preservation of perishable foods. Such a unit shall be capable of maintaining an average temperature below forty-five (45) degrees Fahrenheit, and shall be properly installed, operated, and maintained, and shall be kept in a clean and sanitary condition.

Section 701.2 of the IPMC is amended to read as follows:

701.2 Responsibility. The owner and/or operator of the structure shall provide and maintain such fire safety facilities and equipment in compliance with these requirements and the requirements of NFPA 1, The Fire Code. A person shall not occupy as *owner-occupant* or permit another person to occupy or use any structure

or part thereof or *premises* which does not comply with the requirements of this article.

Section 701.3 is added to the IPMC to read as follows:

701.3 Other standards applicable. This section is intended to be used with and supplemented by the applicable provisions of the NFPA 1, the Fire Code and NFPA 101, the Life Safety Code, which are hereby incorporated by reference.

Section 702.1 of the IPMC is amended to read as follows:

702.1 General. A safe, continuous, and unobstructed path of travel shall be provided from any point in a building or structure to the *public way*. Means of egress shall comply with the NFPA 1, the Fire Code.

Section 702.2 of the IPMC is amended to read as follows:

702.2 Aisles. The required width of aisles in accordance with NFPA 1, the Fire Code shall be unobstructed.

Section 702.4 of the IPMC is amended to read as follows:

702.4 Emergency escape and rescue openings. Required emergency escape and rescue openings shall be maintained in accordance with the code in effect at the time of construction, and both of the following.

1. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.
2. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided that the minimum net clear opening size complies with the code that was in effect at the time of construction and the unit is equipped with smoke alarms installed in accordance with Section 907.2.10 of the International Building Code and NFPA 72. Such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening.

Section 702.4.1 is added to the IPMC to read as follows:

702.4.1 Sleeping rooms below grade. Sleeping rooms located below grade shall have at least one (1) openable window or door conforming to the requirements of NFPA 101, the Life Safety Code.

Such window or door shall be openable from the inside without the use of tools, keys, or special effort and shall provide a clear opening of not less than 5.0 ft2 (0.53 m2) at grade. The width shall be not less than 20 in. (510 mm), and the height shall be not less than 24 in. (610 mm). The bottom of the opening shall be not more than 44 in. (1120 mm) above the floor. Such means of escape shall be acceptable where one of the following criteria is met:

1) The window shall be within 20 ft (6100 mm) of the finished ground level.
2) The window shall be directly accessible to fire department rescue apparatus as approved by the authority having jurisdiction.

3) The window or door shall open onto an exterior balcony.

4) Windows having a sill height below the adjacent finished ground level shall be provided with a window well meeting all of the following criteria:

a) The window well shall have horizontal dimensions that allow the window to be fully opened.

b) The window well shall have an accessible net clear opening of not less than 9 ft2 (0.82 m2) with a length and width of not less than 36 in. (915 mm).

c) A window well with a vertical depth of more than 44 in. (1120 mm) shall be equipped with an approved permanently affixed ladder or with steps meeting both of the following criteria:

I. The ladder or steps shall not encroach more than 6 in. (150 mm) into the required dimensions of the window well.

II. The ladder or steps shall not be obstructed by the window.

EXCEPTION: Buildings equipped throughout with a complete automatic fire suppression system.

Section 702.4.2 is added to the IPMC to read as follows:

702.4.2 Emergency lighting. Emergency lighting facilities for means of egress shall be provided and maintained for every building or structure where required by NFPA 101, the Life Safety Code.

Section 702.4.3 is added to the IPMC to read as follows:

702.4.3 Fire safety instructions. Hotels, motels, apartment houses, and all other residential occupancies except one- and two-family dwellings, shall have a printed copy of fire safety instructions permanently and conspicuously posed in each occupancy unit and at other locations as required by the Community Planning and Development Services. The text and posting locations shall be subject to the approval of the Building Official.

Section 702.4.4 is added to the IPMC to read as follows:

702.4.4 Means of egress. The occupant of any dwelling or dwelling unit shall not obstruct in any manner any means of egress from any portion of the premises.

Section 702.4.5 is added to the IPMC to read as follows:

702.4.5 Portable Fire Extinguishers. Portable fire extinguishers shall be provided and maintained in all areas required by the NFPA 1, the Fire Code.

Section 703.2 of the IPMC is amended to read as follows:

703.2 Unsafe conditions. Where any components are not maintained and do not function as intended or do not have the fire resistance required by the code under which the building was constructed or altered, such components or portions thereof shall be deemed unsafe conditions in accordance with Section 12.3 of NFPA 1, the Fire Code and NFPA 221. Components or portions thereof determined to be unsafe

shall be repaired or replaced to conform to that code under which the building was constructed or altered. Where the condition of components is such that any building, structure, or portion thereof presents an imminent danger to the occupants of the building, structure or portion thereof, the fire code official shall act in accordance with Section 1.7.16.1 of *NFPA 1, the Fire Code.*

Section 703.4.1 of the IPMC is amended to read as follows:

703.4.1 Signs. Where required by the code official, a sign shall be permanently displayed on or near each fire door in letters not less than 1 inch (25 mm) high in accordance with NFPA 1, the Fire Code and NFPA 101, the Life Safety Code:

1. For doors designed to be kept normally open: FIRE DOOR – DO NOT BLOCK.
2. For doors designed to be kept normally closed: FIRE DOOR – KEEP CLOSED
3. Stairway Identification: Shall comply with Chapter 10 of NFPA 1, the Fire Code and Chapter 7 of NFPA 101, the Life Safety Code.

Section 703.6 of the IPMC is amended to read as follows:

703.6 Testing. Horizontal and vertical sliding and rolling fire doors shall be inspected and tested annually to confirm operation and full closure. Records of inspections and testing shall be maintained in accordance with NFPA 80.

Section 703.7 of the IPMC is amended to read as follows:

703.7 Vertical shafts. Interior vertical shafts, including stairways, elevator hoist ways and service and utility shafts, which connect two or more stories of a building shall be enclosed or protected as required in the International Building Code and NFPA 101, the Life Safety Code. New floor openings in existing buildings shall comply with NFPA 101, the Life Safety Code.

Section 704.1 of the IPMC is amended to read as follows:

704.1 Inspection, testing and maintenance. Fire protection and life safety systems shall be maintained in accordance with NFPA 1, the Fire Code, NFPA 25 and NFPA 72 in an operative condition at all times and shall be replaced or repaired where defective.

Section 704.1.1 of the IPMC is amended to read as follows:

704.1.1 Fire protection and life safety systems. Fire protection and life safety systems shall be installed, repaired, operated, and maintained in accordance with this code, NFPA 1, the Fire Code and the International Building Code.

Section 704.1.2 of the IPMC is amended to read as follows:

704.1.2 Required fire protection and life safety systems. Fire protection and life safety systems required by this code, *NFPA 1, the Fire Code* or the *International Building Code* shall be installed, repaired, operated, tested, and maintained in accordance with this code. A fire protection and life safety system for which a design option, exception, or reduction to the provisions of this code, *NFPA 1, the*

Fire Code or the *International Building Code* has been granted shall be considered to be a required system.

Section 704.1.3 of the IPMC is amended to read as follows:

704.1.3 Fire protection systems. The owner, operator, or occupant, or any person in control of a building or premises shall keep records of all maintenance, inspections, and testing of fire protection systems in accordance with NFPA 1, *the Fire Code* requirements.

1. Automatic sprinkler systems
2. Automatic fire-extinguishing systems protecting commercial cooking systems
3. Automatic water mist extinguishing systems
4. Carbon dioxide extinguishing systems
5. Carbon monoxide alarms and carbon monoxide detection systems
6. Clean agent extinguishing systems
7. Dry-chemical extinguishing systems
8. Fire alarm and fire detection systems
9. Fire department connections
10. Fire pumps
11. Foam extinguishing systems
12. Halon extinguishing systems
13. Single- and multiple-station smoke alarms
14. Smoke and heat vents and mechanical smoke removal systems
15. Smoke control systems
16. Wet-chemical extinguishing systems
17. Private fire hydrants

Section 704.3.1 of the IPMC is amended to read as follows:

704.3.1 Emergency impairments. Where unplanned impairments of fire protection systems occur, appropriate emergency action shall be taken to minimize potential injury and damage. The impairment coordinator shall implement the steps outlined in Section 9-21, the Rockville Fire Code.

Section 704.4 of the IPMC is amended to read as follows:

704.4 Removal of or tampering with equipment. It shall be unlawful for any person to remove, tamper with or otherwise disturb any fire protection or life safety systems required by this code and Section 9-19, the Rockville Fire Code except for the purposes of extinguishing fire, training, recharging, or making necessary repairs.

Section 704.4.2 of the IPMC is amended to read as follows:

704.4.2 Removal of existing occupant-use hose lines. The fire code official is authorized to permit the removal of existing occupant-use hose lines where all of the following apply:

1. The installation is not required by NFPA 14 or NFPA 1, the Fire Code, or the International Building Code.
2. The hose line would not be utilized by trained personnel or the fire department.
3. The remaining outlets are compatible with local fire department fittings.

Section 704.4.3 of the IPMC is amended to read as follows:

704.4.3 Termination of monitoring service. For fire alarm systems required to be monitored by NFPA 1, the Fire Code notice shall be made to the fire code official whenever alarm monitoring services are terminated. Notice shall be made in writing by the provider of the monitoring service being terminated.

Section 704.5 of the IPMC is amended to read as follows:

704.5 Fire department connection. Where the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall have a red background with white letters.

Section 704.5.1 of the IPMC is amended to read as follows:

704.5.1 Fire department connection access. Ready access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or movable object. Access to fire department connections shall be approved by the fire marshal.

Exception: Fences, where provided with an access gate equipped with a sign complying with the requirements of NFPA 1, the Fire Code and a means of emergency operation. The gate and the means of emergency operation shall be approved by the fire marshal and maintained operational at all times.

Section 704.5.2 of the IPMC is amended to read as follows:

704.5.2 Clear space around connections. A working space of not less than 36 inches (914 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height and shall be provided and maintained in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department connections.

Section 704.6 of the IPMC is amended to read as follows:

704.6 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 704.6.1 through 704.6.3, the International Building Code, and NFPA 101, the Life Safety Code.

Section 704.6.1.4 of the IPMC is amended to read as follows:

704.6.1.4 Installation near bathrooms. Smoke alarms shall not be installed within a 36 in. (910 mm) horizontally path from a door to a bathroom containing a bathtub or shower unless listed for installation in close proximity to such locations per NFPA 72, the National Fire Alarm and Signaling Code.

Section 704.6.4 of the IPMC is amended to read as follows:

704.6.4 Smoke detection system. Smoke detectors listed in accordance with UL 268 and provided as part of the building's fire alarm system shall be an acceptable alternative to single- and multiple-station smoke alarms and shall comply with the following:

1. The fire alarm system shall comply with all applicable requirements in NFPA 72, the Fire Alarm and Signaling Code.
2. Activation of a smoke detector in a dwelling or sleeping unit shall initiate alarm notification in the *dwelling* or *sleeping unit* in accordance with NFPA 72, the Fire Alarm and Signaling Code.
3. Activation of a smoke detector in a *dwelling* or *sleeping unit* shall not activate alarm notification appliances outside of the *dwelling* or *sleeping unit*, provided that a supervisory signal is generated and monitored in accordance with NFPA, the Fire Alarm and Signaling Code or NFPA 101, the Life Safety Code.

Section 705.1 of the IPMC is amended to read as follows:

705.1 General. Carbon monoxide alarms shall be installed in dwellings in accordance with NFPA 72, except that alarms in dwellings covered by the *International Residential Code* shall be installed in accordance with Section R315 of that code.

Section 705.2 of the IPMC is amended to read as follows:

705.2 Carbon monoxide alarms and detectors. Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 72. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

~~*Section PM-101.1* is amended to read as follows:~~

~~*"PM-101.1 Title:* This code shall be known as the Property Maintenance Code of the City of Rockville, Maryland. It is referred to herein as "this code" and is referred to elsewhere in City ordinances as the 'Property Maintenance Code.'"~~

~~*Section PM-105.1* is amended to read as follows:~~

~~*"PM-105.1 Officer:* The City Manager is hereby authorized and directed to designate an employee of the City to administer the provisions of this code. The person authorized may delegate any powers and duties under this code to any assistant or official of the City."~~

Section PM-105.3 is amended to read as follows:

"PM-105.3 Right of entry: If any owner, occupant, or other person in charge of a structure subject of the provisions of this code refuses, impedes, inhibits, interferes with, restricts, or obstructs entry and free access to any part of the structure or premises where inspection authorized by this code is sought, the City may institute any appropriate civil action or proceeding and seek any appropriate order necessary to enforce the City's right of entry."

Section PM-105.11 is deleted.

Section PM-106.2 is amended to read as follows:

"Section PM-106.2 Penalty: The violation of any provision of this code shall constitute a municipal infraction for which a citation may be issued and a fine in an amount established by resolution may be imposed. A fine in the amount of twice the initial fine may be imposed for each repeat offense."

Section PM-106.3 is amended to read as follows:

"Section PM-106.3 Other civil remedies: In addition to the penalty provided for in section PM-109.2, the City may institute any appropriate proceeding at law or equity to require compliance with provisions of this code and with administrative orders made under this code."

Section PM-106.4 is added to read as follows:

"Section PM-106.4 Additional remedy for certain violations: In addition to any other penalties and remedies provided for in this code, where there is a violation of any of the provisions of Article 2, Division 1 of this Property Maintenance Code, any court of proper jurisdiction may authorize the City to enter onto the subject property and cause the violation to be corrected and charge the costs and expenses thereof, including administrative expenses of the City, to the property owner, operator, and/or occupant. Such costs and expenses may be collected by way of any appropriate legal proceedings. In addition, the cost and expense of correcting the violations may be assessed as a lien against the subject property and be collected in the same manner as property taxes."

Section PM-107.1 is amended to read as follows:

"Section PM-107.1 Notice to owner or to person or persons responsible. Whenever the code official determines that there has been a violation of this code or has reasonable grounds to believe that a violation has occurred, he shall give notice to the owner or the person or persons responsible therefor in the manner prescribed in Sections PM-107.2 and PM-107.3."

Section PM-108.1 is deleted.

Section PM-108.1.1 is deleted.

Section PM-108.1.2 is deleted.

Section PM-108.1.4 is deleted.

Section PM-108.2 is amended to read as follows:

"Section PM-108.2 Closing of vacant structures. If the structure or part thereof is vacant and unfit for human habitation, occupancy or use, and is not in danger of structural collapse, the code official shall be permitted to post a Do Not Occupy order on the premises and order the structure secured so as not to be an attractive nuisance or permit entry by the general public. Upon failure of the owner to secure the premises within the time specified in the order, the code official shall cause the premises to be closed through any available public agency, or by contract or arrangement by private persons and the cost thereof shall be charged against the real estate upon which the structure is located and shall be a lien upon such real estate."

Section PM-108.3 is deleted.

Section PM-108.4 is deleted.

Section PM-108.5 is deleted.

Section PM-108.6 is deleted.

Section PM-109.6 is deleted.

Section PM-110.0 is deleted.

Section PM-111.0 is deleted.

Section PM-112 is added to read as follows:

"SECTION PM-112.0 MISCELLANEOUS PROVISIONS"

"PM-112.1 Vandalism: The tenant or occupant of any dwelling or dwelling unit shall not destroy, deface, damage, impair or carry away, nor permit any other person on the premises with his permission to destroy, deface, damage, impair or carry away any of the facilities, equipment, appurtenances or any part of the structures of a dwelling or dwelling unit."

"PM-112.2 Owner not relieved of responsibilities: The liability of a tenant or occupant of a dwelling or dwelling unit arising by reason of a violation of section 112.1 or 506.3 of this code shall not relieve the owner and/or operator of his duties and responsibilities under the provisions of this code."

"PM-112.3 Access for repairs: Every occupant of a dwelling or dwelling unit shall give the owner thereof, or his agent or employee, access to any part of such dwelling or dwelling unit, or its premises, at all reasonable times for the purpose of making such inspection and repairs or alterations as are necessary to effect compliance with the provisions of this code or with any lawful rule or regulation adopted or any lawful order issued pursuant to the provisions of this code."

"PM-112.4 Prohibited occupancy: No owner or operator shall lease or permit the subletting to another for occupancy any vacant or vacated dwelling or dwelling unit which does not comply with the provisions of this code, unless permission for such occupancy has been granted by the Chief of the Division of Inspection Services. Such permission shall not be unreasonably withheld by the Chief."

"PM-112.4.1 Prohibited subletting: An occupant or tenant shall not sublet any dwelling or dwelling unit which does not comply with the provisions of this code. In

particular, but not by way of limitation, an occupant shall not permit any portion of a dwelling or dwelling unit to be occupied in violation of the standards and requirements for light, ventilation and occupancy as provided in this code."

"PM-112.5 Posting of identification-owner or agent: In any multiple dwelling in which the owner does not reside, the name, address and telephone number of the owner or his agent or other responsible person, if any, shall be posted in a public or prominent place on the premises, and the information thereon shall be accurate and kept up to date. In any single-family and two (2) family dwelling in which the owner does not reside, the information required herein shall either be posted as aforesaid or supplied in writing to the occupants of the dwelling. A post office box number shall be unacceptable for the address required by this section."

"PM-112.6 The owner of a one family dwelling in which there is an accessory apartment for which a special exception has been granted must:

(a) Certify annually on a form provided by the Division of Inspection Services: (i) where the owner of the dwelling resides; and (ii) whether or not any portion of the structure in which the accessory apartment is located is rented.

(b) Permit periodic inspections by the Division of Inspection Services of both the accessory apartment and the main dwelling. The Division of Inspection Services shall inspect each one-family dwelling in which there is an accessory apartment at least annually.

(c) Pay all fees that may be imposed for certification."

Chapter 8, "Referenced Standards," is hereby amended by adding: "CABO (Council of American Building Officials) CABO 95 One and Two-family Dwelling Code." and

Section PM-201.2 is amended to read as follows:

"Section PM-201.2 Interchangeability: Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular; the phrase "used for" shall include the phrase "arranged for," "designed for," "intended for," "maintained for," and "occupied for"."

Section PM-202.0 is amended as follows:

"1. The definitions of the following terms are hereby deleted: dwellings (and all subdefinitions set forth thereunder), family, and hotel.

2. The following definitions are hereby adopted in lieu of the definitions deleted by subsection 1.:"

"Dwelling: A building or portion thereof arranged or designed to provide living facilities for one (1) or more families."

"Dwelling, detached: A building arranged or designed as a dwelling and entirely separated from any other building or structure by space on all sides. Dwelling, detached includes a one-family dwelling that is modified to include an accessory apartment, approved by special exception pursuant to Chapter 25."

"Dwelling, multiple family: A building containing three (3) or more dwelling units (an apartment house)."

"Dwelling, one family: A building containing not more than one (1) dwelling plus an accessory apartment approved by special exception pursuant to Chapter 25. A one family dwelling with an approved accessory apartment is not a semi-detached dwelling as defined in this section."

"Dwelling, semi-detached: One (1) of two (2) buildings, arranged or designed as dwellings located on abutting lots; separated from each other by a party wall, without openings, extending from the cellar floor to the highest point of the roof, along the dividing lot line; and separated from any other building or structure by space on all other sides."

"Dwelling unit: A building or portion thereof arranged or designed for permanent occupancy by not more than one (1) family, as defined by Chapter 25. Dwelling unit includes accessory apartments."

"Dwelling unit, attached: One (1) of a group of three (3) or more dwelling units separated from each other by a party wall without openings extending from the cellar floor to the highest point of the roof, along the dividing lot line, and having separate front and rear or front and side entrances from the outside."

"Family:

(a) An individual, or two (2) or more persons, all of whom are related to each other by blood, marriage, domestic partnership, adoption, guardianship or other duly authorized custodial relationship, and not more than two (2) other unrelated persons as long as all of the occupants are living together as a single housekeeping group in a dwelling unit; or

(b) A group of not more than five (5) persons who are not collectively related to each other by blood, marriage, domestic partnership, adoption, guardianship, or other duly authorized custodial relationship, and are living together as a single housekeeping group in a dwelling unit."

3. The following definitions are hereby adopted and added:

"Accessory apartment: A second dwelling unit that is part of, or attached to, an existing one family detached dwelling and which contains cooking, eating, sanitation and sleeping facilities. An accessory apartment is subordinate to the main dwelling unit."

"Adequate: Of sufficient quantity or degree as determined by the code enforcement official or his authorized representative."

"Agent: Any person, firm, or corporation who is responsible for the management, maintenance, operation, rental of, leasing of or sale of any property in any particular case, or who makes application for, or seeks a license, permit or certification from the appropriate City authority on behalf of the owner of any property in any particular case, or who in any other way represents the owner of any property in any particular case."

"BOCA Code: The BOCA National Property Maintenance Code/1996."

~~"*City:* The City of Rockville, Maryland, the corporate name thereof being, 'The Mayor and Council of Rockville, Maryland."~~

~~"*City manager:* The City Manager of the City of Rockville, Maryland."~~

~~"*Code:* The BOCA National Property Maintenance Code/1996, as amended; otherwise known as the Property Maintenance Code of the City of Rockville, Maryland."~~

~~"*Debris:* shall mean the same thing as "rubbish"."~~

~~"*Historic vehicle:* Any vehicle that meets the definition of historic vehicle under state law."~~

~~"*Human occupancy:* The use of any building, room or space by any person for continuous periods of two (2) hours or more, or for such periods that will amount to four (4) or more hours out of twenty-four (24) hours in any one (1) day."~~

~~"*Junk vehicle:* Any vehicle which meets any of the following conditions:~~

~~1. Is in an abandoned condition;~~

~~2. Is in such a rusted, wrecked, dismantled or deteriorated condition so as not to be lawfully operable on public roads;~~

~~3. Is in such an abandoned, deteriorated or decayed condition, whether or not it is operable, so as to constitute a breeding ground for rats, mosquitoes or other vermin or insects."~~

~~"*Lessee:* The holder of a contract (written, oral or implied) for the possession and/or profits of lands and tenements for a fixed term, for life, or at will."~~

~~"*Means of egress:* A continuous and unobstructed path of travel from any point in a building or structure to a public way. It consists of three (3) separate and distinct parts: (a) the exitway access, (b) the exitway and (c) the exitway discharge. A means of egress comprises the vertical and horizontal means of travel and shall include intervening room spaces, doors, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts, and yards."~~

~~"*Motor vehicle:* shall be as defined by state law."~~

~~"*Refuse:* All putrescible and nonputrescible solid waste (except human body waste), including garbage, rubbish, ashes, street cleanings, dead animals, junk vehicles, abandoned machinery or appliances, discarded household items, and solid market and industrial wastes."~~

~~"*Repair:* The reconstruction or renewal of any part of an existing building for the purpose of its maintenance."~~

~~"*Required:* This term, when used in this code, is to be constructed as mandatory."~~

~~"*Roominghouse:* Shall mean a rental facility consisting of a single structure in which rooms, without cooking facilities, are furnished as dwelling units to three (3) or more persons for compensation."~~

~~"*Shall:* This term, when used in this code, is to be construed as mandatory."~~

"Smoke detector: An approved listed detector sensing visible or invisible particles of combustion."

"Stairway: One (1) or more flights of stairs, and the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one (1) floor to another. A flight of stairs for the purpose of this article, must have a minimum of three (3) risers."

"State: The State of Maryland."

"Structure, accessory: A building, the use of which is customarily incidental to that of the dwelling unit or principal building or structure and which is on the same lot as that occupied by the main building."

"Tenant: Any person occupying or using a building, premises or any part or parts thereof owned by another."

"Trash: Combustible and noncombustible waste materials, except garbage, and the term shall include the residue from the burning of wood, coal, coke, and other combustible materials, paper, rags, cartons, boxes, wood, excelsior, rubber, leather, tree branches, yard trimmings, tin cans, metals, mineral matter, glass crockery and dust and other similar materials."

"Unlicensed vehicle: Any vehicle which is without a current valid license."

"Use: The principal purpose for which a lot or portion thereof or the building(s) or structure(s) thereon or part thereof is designed, arranged, or intended for which it is or may be used, occupied or maintained."

"Vehicle: Any motor vehicle as defined by state law."

Section PM-301.2 is amended to read as follows:

"PM-301.2 Responsibility: The owner and/or operator of the premises shall maintain such structures and premises in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy or use premises which do not comply with the following requirements of this article."

Section PM-302.1 is amended with respect to the following definitions. All other definitions have the meanings shown in Section PM-302.1 of the BOCA National Property Maintenance Code/1996:

"Operator: Any person who has charge, care or control of a structure or part thereof, in which dwelling units or rooming units are let or offered for occupancy, and shall include a lessee, sublessee, and any vendee in possession, who is managing or operating such structure, or part thereof."

"Owner: Any person, agent, firm, association, company or corporation having a legal or equitable interest in the property, including but not limited to a mortgagee and an assignee of rents. It shall include any nonstock corporation to which area in a planned residential unit development has been conveyed pursuant to section 25-594 of the Rockville City Code. It shall also mean any person who, alone or jointly or severally with others, shall have charge, care, or control of any structure as executor, administrator, trustee or guardian of the estate of the owner. Any person, firm, company, association or

corporation whose name appears on the property tax bills shall be deemed to be an owner of the subject property."

"Person: Any individual, association, firm, partnership, corporation or government agency."

"Yard: Open space on the lot with a building or group of buildings, lying between the building (or outer building of a group) and the nearest lot or street line, and unoccupied and unobstructed from the ground upward."

Section PM-301.3 is amended by adding a new subsection PM-301.3.1 to read as follows:

"PM-301.3 Vacant Structures and land: All vacant structures and premises thereof or vacant land shall be maintained in a clean, safe, secure and sanitary condition as provided herein so as not to cause a blighting problem or adversely affect the public health or safety.

"PM-301.3.1. Vacant structures; limits on boarding

All vacant residential and commercial structures shall at all times have all windows and doors secured and in place, including glass panes and locks, and shall not otherwise exhibit the appearance of being vacant or otherwise not occupied for its intended purpose. The property must at all times be maintained in compliance with the provisions of this Chapter and other applicable provisions of the Rockville City Code.

Exceptions: A structure may be secured by boarding the exterior of the structure for a period no longer than ninety (90) days. An owner, operator, agent or other person responsible for maintaining the structure in compliance with the Rockville City Code may apply to the Chief of Police for permission to extend the boarding of the structure. For good cause shown, the Chief of Police may permit boarding of the structure to be extended by up to, but not exceeding, an additional sixty (60) days. Nothing in this section shall prohibit the boarding of windows and doors from the interior of the structure where such boarding is not visible from the outside.

Section PM-303.1 is amended to read as follows:

"PM-303.1 Sanitation: All exterior property areas and premises shall be maintained in a clean, safe and sanitary condition free from any accumulation of rubbish, refuse or garbage."

Section PM-303.1.1 is added to read as follows:

"PM-303.1.1 Containers: The owner or operator of any property producing garbage, vegetable wastes or other putrescible materials shall provide in sufficient numbers, and at all times cause to be used, leakproof approved containers provided with close fitting covers for the storage of such materials until removed from the premises for disposal."

Section PM-303.2 is amended to read as follows:

"PM-303.2 Grading and drainage: All premises shall be graded and maintained to prevent the accumulation of stagnant water thereon, or within any structure located thereon. Any surface or roof drainage which creates a structural or health hazard, or any other nuisance, to the owners or occupants of adjacent premises, or to the public by reason of discharge into, onto or across any adjacent building, premises or public

thoroughfare, shall be abated by the owner of the improperly drained area. The code official shall require the drainage to be disposed of in accordance with the provisions of the plumbing code listed in Chapter 8."

Section PM 303.2.1 is added to read as follows:

"PM 303.2.1 Ground cover: The entire outside area of all properties shall be provided with suitable ground cover such as sod, plant growth or other suitable material in order to prevent dust or erosion."

Section PM 303.3 is amended to read as follows:

"PM 303.3 Public areas: All sidewalks, steps, driveways, parking spaces and similar paved areas for public use, and the paved right of way sidewalk immediately fronting or abutting the property, including access ramps and curb cuts designed and intended for use by persons with disabilities, shall be kept in a proper state of repair and free of all snow, ice, mud and other debris. If any sidewalk or driveway or portion thereof by virtue of its state of repair shall constitute a danger to public heath and safety, the sidewalk or driveway or portion shall be replaced.

Snow must be removed from these areas within twenty-four (24) hours after the end of a snowfall resulting in three (3) inches or less accumulation; within forty-eight (48) hours after the end of a snowfall resulting in more than three (3) inches and less than ten (10) inches accumulation; and within seventy-two (72) hours after the end of a snowfall resulting in more than ten (10) inches accumulation, in such a manner as to provide a safe, unobstructed, passable path of travel between and within properties, said path to be a minimum of thirty-six (36) inches width.

The National Weather service snow accumulation figure at National Airport will be used to determine which timeframe for snow removal is applicable. In icy conditions, the ice must be removed or treated within twenty-four (24) hours after the end of icy precipitation in a manner sufficient to provide a reasonably non-slick surface. Public areas must be treated and maintained in a manner sufficient to prevent the repeated melting and refreezing of ice. If snow or ice is not treated or removed from public areas within the time specified, the City may, in its sole discretion and in addition to any other remedies provided for in thiscod e, cause the snow and/or ice to be removed or treated and charge the cost of its removal or treatment to the property owner, operator and/or occupant. The cost and expenses incident to such removal shall become a tax lien against the property and shall be collected in the same manner as taxes."

Section PM 303.3.1 is added as follows:

"PM 303.3.1 Common areas of planned residential units: All common areas of planned residential unit developments, including but not limited to roads, sidewalks, driveways, curbs, gutters, parking areas, and storm drainage facilities, shall be kept in a proper state of repair and free of all snow, ice, mud and other debris. Such common areas shall be maintained so as to prevent their unnecessary deterioration and shall be repaired and/or replaced when necessary. Authorized City officials shall periodically inspect the common areas to determine their state of repair and the adequacy of the maintenance thereof."

Section PM 303.3.2 is added to read as follows:

"PM-303.3.2 Private areas: All private driveways, walkways, patios and off-street parking area shall be so drained as to prevent damage in abutting properties or public rights of way and shall be constructed of materials which have a surface resistant to erosion, and shall be maintained in good repair."

"Residential driveways and off-street parking areas constructed after April 1, 1991, shall be constructed of concrete or asphalt as specified by Chapter 25 of the Rockville City Code entitled "Zoning and Planning" and shall be maintained in good repair."

"Commercial and industrial properties must meet the requirements of the applicable use permit and approved site plan as required by the Zoning Ordinance."

Section PM-303.4 is amended to read as follows:

"PM-303.4 Noxious weeds: All areas, including the public right-of-way adjacent to the property, shall be kept free from weeds or plant growth in excess of ten (10) inches (254 mm). Weeds shall be defined as all grasses, annual plants and vegetation other than trees or shrubs; provided, however, this term shall not include cultivated flowers and gardens. It shall be the duty of any person owning, leasing, occupying, or controlling any plot of ground in the jurisdiction to prevent the growth of weeds thereon. If weeds in excess of ten (10) inches (254 mm) are not cut within the time specified in a notice or order to do so, the City may, in its sole discretion, and in addition to any other remedies provided for in this code, cause the weeds to be cut and charge the cost thereof to the property owner, operator and/or occupant. The cost and expenses incident to the cutting of weeds shall become as a tax lien against the property and shall be collected in the same manner as taxes."

Section PM-303.4.1 is added to read as follows:

"PM-303.4.1 Pruning: All trees, bushes, hedges, shrubs, vines and other plant growth shall be kept pruned so as not to: obstruct the vision of operators of vehicles traveling upon any public street, road or highway; constitute a hazard to vehicular or pedestrian traffic; be hazardous to the public health and welfare; or otherwise constitute a detriment to the neighborhood, or exist in violation of any other code or ordinance of the City."

Section PM-303.7.1 is added to read as follows:

"PM-303.7.1 Retaining Wall: Retaining walls or areaway walls having a vertical drop of more than thirty (30) inches from one (1) adjacent elevation to another shall have a guardrail meeting the requirements of the CABO One and Two- Family Dwelling Code referenced in Chapter 8 at the top of the wall. Every guardrail shall be firmly fastened and capable of bearing normally imposed loads and shall be maintained in good condition."

Section PM-303.7.2 is added to read as follows:

"PM-303.7.2 Dangerous fences: Fences on residential use properties which include barbed wire or an electrical current shall be considered dangerous and a public nuisance and are prohibited."

Section PM-303.8 is amended to read as follows:

"PM-303.8 Motor vehicles: Motor vehicles shall be subject to the following requirements of Sections PM-301.8.1, PM-301.8.2 and PM-301.8.3."

Section PM-303.8.1 is added to read as follows:

"PM-303.8.1 Parking: All motor vehicles shall be parked in approved off-street parking areas or on an improved street. The parking or driving of motor vehicles over curbs, sidewalks, yards, courts, planting areas or other places not intended for vehicular traffic is prohibited."

Section PM-303.8.2 is added to read as follows:

"PM-303.8.2 Repair, service or maintenance: The repairing, servicing, replacement of parts, or the performance of maintenance work on a vehicle on a public street or any private lands or premises is prohibited, except as provided below:

(a) Major repairs may be performed by an occupant of the premises on a vehicle owned by the occupant or other occupant of the premises in an enclosed garage, provided that such repairs do not result in noxious odors, fumes or noise, or constitute any other detriment to the neighborhood. Examples of major repairs are: replacing a transmission, front or rear end, springs, shocks, valves, pistons, rings, carburetor or other major parts of a motor or engine; repair body work over fifty (50) percent of the vehicle; repainting of more than fifty (50) percent of the vehicle.

(b) Minor repairs may be performed by an occupant of the premises on a vehicle owned by the occupant or other occupant of the premises, provided such repair is performed on or immediately in front of the premises. Examples of minor repairs are: tune-up; changing of oil/filter (provided no public space is polluted or damaged); fixing a flat; replacing a battery, lights/bulbs, brakes; rotating tires; flushing radiator system.

(c) The above permitted repairs may be performed, provided that they are completed within fifteen (15) days after their commencement and thereafter the vehicle upon which the repairs are made is legally operable upon any public street or highway; and further provided that not more than four (4) repair periods of fifteen (15) days or less occur on or in front of any given premises within one (1) year."

Section PM-303.8.3 is added to read as follows:

"PM-303.8.3 Junk vehicles: No junk vehicle shall be kept or maintained, except in an area lawfully licensed as a junkyard."

Section PM-303.8.4 is added to read as follows:

"PM-303.8.4 Unlicensed vehicles: Not more than one (1) currently unlicensed motor vehicle shall be parked on any property in a residential zone, and such vehicle shall not at any time be in a state of major disassembly or disrepair, nor in the process of being stripped or dismantled."

Section PM-303.9 is added to read as follows:

"PM-303.9 Storage of equipment: Boats, trailers, campers, vans and recreational vehicles shall be stored in accordance with the following sequence of parking availability: (a) behind the front building line, on an approved surface; (b) in the driveway which is constructed of approved materials as required by Chapter 25 of the Rockville City Code entitled "Zoning and Planning."

Section PM-303.10 is added to read as follows:

"PM-303.10 Public nuisance: All interior and exterior property area and premises shall be maintained so as to prevent the creation of any public nuisance as defined in this code."

Section PM-303.11 is added to read as follows:

"PM-303.11 Abandoned refrigerators: No icebox, refrigerator, freezer, or other large airtight container, which is no longer used for refrigeration purposes, shall be placed, kept, stored or discarded on any public or private property without the attached doors, hinges, locks or latches being first removed."

Section PM-303.12 is added to read as follows:

"PM-303.12 Outdoor illumination: A person may not operate any outdoor artificial illumination device on private property in such a manner as to interfere with the use or enjoyment of abutting or nearby property."

Section PM-303.13 is added to read as follows:

"PM-303.13 Vehicles for habitation prohibited: No trailer, recreation vehicle, car or truck shall be brought within the corporate limits of the City for the purpose of habitation and dwelling therein for a period of more than twenty-four hours."

Section PM-303.14 is added to read as follows:

"PM-303.14 Cleanliness of City right-of-way: No occupant or owner of any dwelling, dwelling unit, or property bordering any street, alley, or right-of-way, shall deposit garbage, refuse or rubbish into the right-of-way, street, or alley abutting the premises."

Section PM-304.3 is amended as follows:

"PM-304.3 Street numbers:

(1) It shall be the responsibility of the owner of any single-family detached or attached residential structure to display, facing the front lot line, numerals at least three (3) inches in height designating the address assigned to the structure by the City. It shall be the responsibility of the owner of any commercial, industrial and multi-family residential structure to display, facing the front lot line and at all entrances facing parking areas, numerals at least six (6) inches in height designating the address assigned to the structure by the City.

(2) All address displays shall be posted on contrasting background displayed in a conspicuous place and in a manner as to be clearly visible from the nearest street, except that displays required at entrances facing parking areas shall be

clearly visible from such parking areas. When a structure has more than one (1) address, numerals shall be used to designate the address in sequence."

Section PM-304.7 is amended to read as follows:

"PM-304.7 Roofs and drainage: The roof and flashing shall be sound, tight, and not have defects which might admit rain. Roof drainage shall be adequate to prevent dampness or deterioration in the walls or interior portion of the building. Roof water shall not be discharged onto an abutting or adjacent property."

Section PM-304.7.1 is added to read as follows:

"PM-304.7.1 Gutters, downspouts and splashblocks: All roofs of all buildings, unless the roof overhang exceeds twenty-four (24) inches, shall have gutters, downspouts and splashblocks installed in an approved manner and maintained unobstructed and in good repair so as to assist in property storm drainage."

Section PM-304.10 is deleted.

Section PM-304.13 is amended to read as follows:

"PM-304.13 Handrails and guardrails: Every flight of stairs which is three or more risers high shall have a handrail on at least one (1) side of the stair, and every open portion of a stair, landing or balcony which is more than thirty (30) inches (762 mm) above the floor or grade below shall have guardrails. Required handrails and guardrails shall meet the requirements set forth in the Building Code and One and Two-family Dwelling Code referenced in Chapter 8. Existing handrails and guardrails which do not meet the specific requirements of these codes, and which are deemed by the building official to be safe, may remain in place without alteration. Every handrail and guardrail shall be firmly fastened, maintained in good condition, and capable of bearing normally imposed loads."

Section PM-304.15 is amended to read as follows:

"PM-304.15 Insect screens: Every door, window and other outside opening used or required for ventilation purposes serving any building containing habitable rooms, food preparation areas, food service areas, or any areas where products used 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 in good working condition. Exception: Screen doors shall not be required for out-swinging doors or other types of openings which make screenings impractical, provided other approved means, such as air curtains or insect repellant fans are employed."

Section PM-304.16.1 is added to read as follows:

"PM-304.16.1 Deadlocks and deadbolts: Every owner and/or operator shall supply and install on every exitway door which serves as an entrance door to an individual dwelling unit a vertical bolt deadlock or a deadbolt with at least a one-half-inch throw. Such deadbolt and deadlatch shall be capable of being locked and unlocked with a key or keys from outside the dwelling unit. Alternate devices of equal force may be substituted at the discretion of the code official. Exit doors shall be capable of being opened from the

inside without the use of a key, except as provided for in the building code listed in Chapter 8."

Section PM-304.19 is added to read as follows:

"PM-304.19 Areaway protection: All window wells, exterior door openings, ventilations, and access opening areaways over twenty-four (24) inches in vertical depth below adjacent ground level shall be provided with a horizontal grille, vertical railing thirty (30) inches in height or other approved protection. All grilles, railings and coverings shall be firmly fastened and capable of bearing normally imposed loads and shall be maintained in good condition."

Section PM-305.7 is amended to read as follows:

"PM-305.7 Handrails and guardrails: Every flight of stairs which is three or more risers high shall have a handrail on at least one (1) side of the stair, and every open portion of a stair, landing or balcony which is more than thirty (30) inches (762 mm) above the floor or grade below shall have guardrails. Required handrails and guardrails shall meet the requirements set forth in the Building Code and One and Two-family Dwelling Code referenced in Chapter 8. Existing handrails and guardrails which do not meet the specific requirements of these codes and which are deemed by the building official to be safe, may remain in place without alteration. Every handrail and guardrail shall be firmly fastened, maintained in good condition, and capable of bearing normally imposed loads."

Section PM-305.8 is added to read as follows:

"PM-305.8 Interior doors and hardware: Every bedroom and bathroom shall have a door which provides privacy. This door shall be maintained in good condition and have a door latch or other locking device that is operable and under the control of the occupant so that privacy is maintained within such room."

Section PM-305.9 is added to read as follows:

"PM-305.9 Bathroom and kitchen furnishings: Every supplied bathroom and kitchen drawer, cabinet, shelf, and vanity shall be maintained in a safe, sound, and in good repair with appropriate hardware."

Section PM-305.10 is added to read as follows:

"PM-305.10 Bathroom and kitchen floors: Every toilet, bathroom and kitchen floor surface shall be constructed and maintained so as to be substantially impervious to water and so as to permit such floor to be easily kept in a clean and sanitary condition."

Section PM-305.11 is added to read as follows:

"PM-305.11 Free from dampness: Cellars, basements and crawl spaces in every building shall be maintained free from standing water, and reasonably free from dampness."

Section PM-305.12 is added to read as follows:

"PM-305.12 Cleanliness: Every occupant of a structure or part thereof shall keep that part of the structure or premises thereof which he occupies, controls or uses, in a

clean and sanitary condition. Every owner and/or operator of a dwelling containing two (2) or more dwelling units shall maintain in a clean and sanitary condition the shared or public areas of the dwelling and premises thereof."

Section PM-305.13 is added to read as follows:

"PM-305.13 Supplied fixture and equipment: The owner, operator or occupant of a structure or part thereof shall keep the supplied equipment and fixtures therein clean and sanitary, and shall be responsible for the exercise of reasonable care in their proper use and operation."

Section PM-305.14 is added to read as follows:

"PM-305.14 Furnished by occupant: The equipment and fixtures furnished by the occupant of a structure shall be properly installed, and shall be maintained in good working condition, kept clean and sanitary, and free of defects, leaks, or obstructions."

Section PM-305.15 is added to read as follows:

"PM-305.15 Sanitary maintenance: Every occupant of a dwelling or dwelling unit shall keep in a clean and sanitary condition that part of the dwelling or dwelling unit and the premises thereof which he occupies and controls. A clean and sanitary condition shall include but is not limited to the following standards:

"(a) Floors, floor coverings and other walking surfaces shall be kept clean and free of dirt, filth, garbage, human and animal wastes, litter, refuse and any other insanitary matter."

"(b) Walls, ceilings, windows and doorways shall be kept clean and free of dirt, greasy film, soot and any other insanitary matter."

"(c) Plumbing fixtures shall be kept in a clean and sanitary condition; and no material shall be deposited in any such fixture which may result in the obstruction of such fixture or of any lines connected thereto. Every occupant shall be responsible for the exercise of reasonable care in the proper use and operation thereof."

"(d) Hoods and ducts over kitchen ranges shall be cleaned by the occupant at least twice each year of grease and other flammable materials that collect therein."

Section PM-306.3.1 is deleted.

Section PM-306.3.2 is amended to read as follows:

"PM-306.3.2 Containers: The owner or operator of every property producing garbage shall provide in sufficient quantities, and at all times cause to be used, leakproof approved containers provided with closefitting covers for the storage of such materials until removed from the premises for disposal."

Section PM-306.4 is added to read as follows:

"PM-306.4 Garbage, rubbish and ashes: For every building containing three (3) or more dwelling units, the owner and/or operator shall provide, in a location accessible to all dwelling units, an adequate number of receptacles into which garbage, rubbish and ashes from the dwelling unit receptacles may be emptied for storage between the days of

collection. Receptacles shall be made of metal, be watertight and provided with handles and tight covers. Chutes for the conveyance of garbage other than to an approved incinerator are prohibited."

Section PM-307.2 is amended as follows:

"PM-307.2 Owner: The owner and/or operator of any structure shall be responsible for extermination within the structure prior to renting, leasing or selling the structure."

Section PM-307.5 is amended as follows:

"PM-307.5 Occupant: The occupant of any structure shall be responsible for maintaining the structure and exterior areas in a clean and sanitary condition so as not to provide for harborage of or infestation by rodents."

Section PM-307.6 is added as follows:

"PM-307.6 Continued rodent infestation: Continuing or repeated incidents of rodent infestation shall require the installation of ratproof and verminproof walls, floor or other barriers. Ratproof and verminproof barriers shall be installed in accordance with the Building Code listed in Chapter 8 of this Property Maintenance Code."

Section PM-401.2 is amended to read as follows:

"PM-401.2 Responsibility: The owner and/or operator of the structure shall provide and maintain light, ventilation and space conditions in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy or use any structure or portion thereof or premises which does not comply with the following requirements of this article."

Section PM-405.10 is amended to read as follows:

"PM-405.10 Food preparation: All spaces used or intended to be used for food preparation shall contain suitable space and equipment to store, prepare and serve foods in a sanitary manner. There shall be adequate facilities and services for the sanitary disposal of food wastes and refuse, including facilities for temporary storage where necessary."

Section PM-501.2 is amended to read as follows:

"PM-501.2 Responsibility: The owner and/or operator of the structure shall provide and maintain such plumbing facilities and fixtures in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy or use any structure or portion thereof or premises which does not comply with the following requirements of this article."

Section PM-506.5 is added as follows:

"PM-506.5 Protection: Where the heating facilities of any dwelling or dwelling unit are under the control of the occupant thereof, it shall be the responsibility of the occupant to operate the heating facilities in order to maintain above-freezing temperatures at all times in all portions of the dwelling or dwelling unit and the premises thereof which he or she occupies and controls so as to prevent injury or damage to water pipes and plumbing."

Section PM-507.3 is added to read as follows:

"PM-507.3 Existing well and septic systems: All existing well and septic systems shall be maintained in good operating condition. Upon failure of the septic system, the owner or occupant shall vacate the building or connect to the public water and sewer system."

Section PM-508.1 is amended to read as follows:

"PM-508.1 General: Drainage of roofs and paved areas, yards and courts, and other open areas on the premises shall not be discharged in a manner that creates a public nuisance or causes direct water flow across or onto an abutting or adjacent property."

Section PM-601.2 is amended to read as follows:

"PM-601.2 Responsibility: The owner and/or operator of the structure shall provide and maintain such mechanical and electrical facilities and equipment in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy or use any structure or portion thereof on premises which does not comply with the following requirements of this article."

Section PM-602.2 is amended to read as follows:

"PM-602.2 Residential buildings: Every owner or operator of any structure who rents, leases, or lets one (1) or more dwelling units shall supply sufficient heat to the occupants thereof during the period from October 1 to May 15 to maintain a room temperature of not less than sixty-five (65) degrees F. (18 degrees C.) in all habitable spaces, bathrooms, and toilet rooms during the hours between 6:30 a.m. and 10:30 p.m. of each day, and maintain a temperature of not less than sixty (60) degrees F. (16 degrees C.) during other hours. The temperature shall be measured at a point three (3) feet (914 mm) above the floor and three (3) feet (914 mm) from the exterior walls. Exception: When the exterior temperature falls below zero (0) degrees F. (-18 degrees C.) and the heating system is operating at its full capacity, a minimum room temperature of sixty (60) degrees F. (16 degrees C.) shall be maintained at all times."

Section PM-602.3 is amended to read as follows:

"PM-602.3 Nonresidential structures. Every enclosed occupied work space shall be supplied with sufficient heat during the period from October 1 through May 15 to maintain a temperature of not less than 65 degrees F (18 degrees C.) during all working hours."

Exceptions: 1. Processing storage and operation areas that require cooling or special temperature conditions;

2. Areas in which persons are primarily engaged in vigorous physical activities."

Section PM-603.3 is amended to read as follows:

"PM-603.3 Cooking and heating equipment: All cooking and heating equipment, components, and accessories in every heating, cooking and water heating device shall be maintained free from leaks and obstructions, and kept functioning properly so as to be free from fire, health, and accident hazards. All installations and repairs shall be made in accordance with the provisions of the building code, or other laws or ordinances

applicable thereto. Portable cooking equipment is prohibited, except for approved residential type food trays or salvers which are heated by a candle or alcohol lamp."

Section PM-603.3.1 is added to read as follows:

"PM-603.3.1 Refrigeration: Every dwelling unit shall contain a refrigeration unit adequate for the temporary preservation of perishable foods. Such a unit shall be capable of maintaining an average temperature below forty-five (45) degrees Fahrenheit, and shall be properly installed, operated and maintained, and shall be kept in a clean and sanitary condition."

Section PM-603.9 is added to read as follows:

"PM-603.9 Climate control: When facilities for interior climate control (heating, cooling, and/or humidity) are integral functions of structures used as dwelling units or other occupancies, such facilities shall be maintained and operated in a continuous manner in accordance with the designed capacity."

Section PM-605.2 is amended to read as follows:

"PM-605.2 Receptacles: Every habitable space in a dwelling shall contain at least two separate and remote receptacle outlets. Every laundry area shall contain at least one (1) grounded type receptacle. Every bathroom shall contain at least one (1) receptacle protected by a ground fault interrupter circuit."

Section PM-606.1 is amended to read as follows:

"PM-606.1 General: Elevators, dumbwaiters and escalators shall be maintained to sustain safely all imposed loads, to operate properly and in compliance with all State regulations, and to be free from physical and fire hazards."

Section PM-701.2 is amended to read as follows:

"PM-701.2 Responsibility: The owner and/or operator of the structure shall provide and maintain such fire safety facilities and equipment in compliance with the requirements of the fire code. A person shall not occupy as owner-occupant or permit another person to occupy or use any structure or part thereof or premises which does not comply with the following requirements of this article."

Section PM-702.3 is deleted.

Section PM-702.5.1 is added as follows:

"PM-702.5.1 Notification of exits: It shall be the responsibility of the owner, or his operator or agent, to notify the occupant of the passageway to all required exits, except in those hotels or motels where a scale floor plan of the passageways and exits is posted in each room."

Section PM-702.6 is amended to read as follows:

"PM-702.6 Corridor enclosure: All corridors serving an occupant load greater than thirty (30) and the opening therein shall provide an effective barrier to resist the movement of smoke. All transoms, louvers, doors and other openings shall be closed or shall be self-closing, except as may be permitted by the Building Code listed in Chapter 8."

Section PM-702.7 is amended to read as follows:

"PM-702.7 Dead-end travel distance: All corridors that serve more than one (1) exit shall provide direct connection to such exits. The length of a dead-end corridor shall not exceed that permitted by the Building Code listed in Chapter 8."

Section PM-702.9 is amended to read as follows:

"PM-702.9 Stairways, handrails and guards: Every exterior and interior flight of stairs having three or more risers shall have a handrail, and every open portion of a stair, landing or balcony which is more than 30 inches above the floor or grade below shall have guards. Handrails shall be not less than 30 inches nor more than 42 inches high, measured vertically above the nosing of the tread or above the finished floor of the landing or walking surfaces. Guards shall not be less than 36 inches high above the floor of the landing on the balcony, porch, deck or other walking surfaces."

Section PM-702.12 is amended to read as follows:

"PM-702.12 Emergency escape: Every sleeping room located in a basement shall have at least one (1) openable window conforming to the following requirements:

1. Window sill height no greater than forty-four (44) inches from the interior floor immediately below it;
2. Window must not open into an exterior window well less than three feet wide measured perpendicular to the window glass;
3. Window must have a minimum net clear opening of five (5) square feet, with a minimum clear opening height of twenty-four (24) inches and a minimum clear width dimension of twenty inches.

In lieu of a window which meets the requirements above, such room may have an exterior door approved for emergency egress or rescue, or shall have access to not less than two approved independent exits.

EXCEPTION: Buildings equipped throughout with a complete automatic fire suppression system."

Section PM-702.13 is added to read as follows:

"PM-702.13 Emergency lighting: Emergency lighting facilities for means of egress shall be provided and maintained for every building or structure where required by the NFPA 101 Life Safety Code."

Section PM-702.14 is added to read as follows:

"PM-702.14 Fire safety instructions: Hotels, motels, apartment houses, and all other residential occupancies except one and two-family dwellings, shall have a printed copy of fire safety instructions permanently and conspicuously posted in each occupancy unit and at other locations as required by the Division of Inspection Services. The text and posting locations shall be subject to the approval of the Chief of Inspection Services."

Section PM-702.15 is added to read as follows:

"PM-702.15 Means of egress: The occupant of any dwelling or dwelling unit shall not obstruct in any manner any means of egress from any portion of the premises."

~~*Section PM-705.4.1* is added to read as follows:~~

~~"*PM-705.4.1 Location:* Portable fire extinguishers shall be provided and maintained in all ares required by the BOCA Building Code listed in Chapter 8."~~

~~*Section PM-705.5* is amended to read as follows:~~

~~"*PM-705.5 Smoke detectors:* Smoke detectors shall be provided, installed and maintained as may be required by other applicable, legislation or ordinance."~~

~~*Section PM-705.8* is added to read as follows:~~

~~"*PM-705.8 Other standards applicable:* This section is intended to be used with and supplemented by the applicable provisions of the National Fire Protection Association Standards Nos. 71 (1982), 72E (1982) and 74 (1984), which are hereby incorporated by reference herein; however, if there shall be any conflict between this code and any rules and regulations adopted pursuant thereto and the referenced standards, the provision of this code shall prevail."~~

* * *

ARTICLE XIII. EXISTING BUILDING CODE

DIVISION 1. GENERALLY

Sec. 5-289. Scope.

The provisions of this article apply to existing buildings in accordance with the Maryland Building Rehabilitation Code (COMAR 09.12.58) and the International Existing Building Code.

* * *

DIVISION 2. TECHNICAL STANDARDS

Sec. 5-291. Maryland Building Rehabilitation Code (COMAR 09.12.58).

The Maryland Building Rehabilitation Code (COMAR 09.12.58) ~~dated March 25, 2019~~ as may be amended from time to time, and as may hereby be amended, is adopted by reference. One (1) copy of such publication, as adopted, shall be housed by the Inspection Services Division and made available for inspection by the public during regular office hours.

Sec. 5-292. Same – Amendments

The *ICC International Existing Building Code*, 2021 Edition (IEBC), as incorporated by reference and amended in COMAR 09.12.58, is amended in the following respects:

Section 101.1 of the IEBC is amended to read as follows:

101.1 Title. These regulations shall be known as the Existing Building Code of the *City of Rockville*, hereinafter referred to as "this code."

Section 101.6 of the IEBC is amended to read as follows:

101.6 Appendices. Appendices A and C, and Resource A are adopted as part of this code.

Section 101.2.1 of the IEBC is amended to read as follows:

101.2.1 Application of fire code. Where work regulated by this code is also regulated by the construction requirements for existing buildings in Chapter 9 of the Rockville City Code, such work shall comply with applicable requirements in both codes.

Section 102.4.1 of the IEBC is amended to read as follows:

102.4.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the most restrictive provisions shall apply.

Section 102.6 is added to the IEBC to read as follows:

102.6 Relation to the Maryland Building Rehabilitation Code. Where conflicts occur between provisions of the Maryland Building Rehabilitation Code and this

code, the most restrictive provisions shall apply. In all cases, the minimum requirements of the Maryland Building Rehabilitation Code shall be met.

Sections 102.7 is added to the IEBC to read as follows:

102.7 Relation to the Maryland Accessibility Code. The Maryland Accessibility Code (COMAR 09.12.53) is incorporated by reference. Where conflicts occur between provisions of the Maryland Accessibility Code and this code, the provisions providing the greatest level of access, as determined by the Building Official, shall apply. In all cases, the minimum requirements of the Maryland Accessibility Code shall be met.

Section 103 of the IEBC is deleted in its entirety.

Section 105.2 of the IEBC is amended to read as follows:

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

1. **Building:**
    1. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
    2. Temporary motion picture, television, and theater stage sets and scenery.
    3. Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.
    4. Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.
    5. Nonfixed and movable cases, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
2. **Electrical:**
    1. Repairs and maintenance: Minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
    2. Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers and antennas.
    3. Temporary testing systems: A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.
3. **Gas:**
    1. Portable heating appliance.

2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

4. Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

5. Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided that such *repairs* do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

Section 106.2.1.1 is added to the IEBC to read as follows:

106.2.1.1 Design Professional. All commercial and multifamily construction documents shall be prepared by a Maryland Licensed registered design professional. Construction documents shall be signed, sealed, and include the titleblock certification statement as required by Maryland State law (COMAR 09.21.02.04 and 09.23.03.09)

Section 106.2.3 of the IEBC is amended to read as follows:

106.2.3 Means of egress. The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. The construction documents shall designate the number of occupants to be accommodated in every work area of every floor and in all affected rooms and spaces.

Section 106.3.3 of the IEBC is amended to read as follows:

106.3.3 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 prior to the construction documents for the whole building or structure having been

approved. The application for foundation permit shall include all relevant information, including but not limited to: setbacks, proposed building height and area, building construction type, and structural criteria. The holder of such permit for the foundation 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 106.3.3.1 is added to the IEBC to read as follows:

106.3.3.1 Phased construction. Where construction of a building or structure is proposed to be phased, the applicant shall include a phasing plan and narrative with the submittal of construction documents. Such phasing plan shall clearly identify the extent of the work area included in each phase and clearly identify how elements such as the means of egress, active and passive fire protection, accessible routes, and restroom access will be provided or maintained during construction.

Section 108.2 of the IEBC is amended to read as follows:

108.2 Schedule of permit fees. The fees shall be as established by resolution of the Mayor and Council.

Section 108.4 of the IEBC is amended to read as follows:

108.4 Work commencing before permit issuance. Any person who commences work on an existing building, except as provided for in Section 105.1. before obtaining the necessary permits shall be subject to an investigation fee as set forth by resolution, and 100 percent of the usual permit fee.

Section 108.6 of the IEBC is deleted in its entirety.

Section 110.1.1 is added to the IEBC to read as follows:

110.1.1 Change of tenant or ownership. Whenever the ownership or tenancy of any part of a non-residential building or space changes, application must be made for a certificate of occupancy. Any violations of this Section or any applicable code as related to fire or life safety codes must be corrected prior to the issuance of the certificate of occupancy.

Section 110.3 of the IEBC is amended to read as follows:

110.3 Temporary Occupancy. The building official may issue a temporary occupancy permit. A temporary occupancy permit may be issued if none of the remaining conditions to be complied with are a health or safety hazard.

A temporary occupancy permit may not be issued for a single-unit detached dwelling.

A temporary occupancy permit is valid for a period not to exceed thirty (30) days, in the discretion of the Building Official.

For good cause, the Building Official may extend a temporary occupancy permit when requested for additional periods, in accordance with the City of Rockville

Zoning Ordinance Section 25.07.12; however no temporary occupancy permit, including any extensions, will be valid for more than sixty (60) days.

Section 112.1 of the IEBC is amended to read as follows:

112.1 Board of Adjustments and Appeals. Appeals of administrative interpretations or decisions made by the Code Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Sections 112.2, 112.3 and 112.4 of the IEBC are deleted in their entirety.

Notwithstanding Section 09.12.58.03(C)(6) of the Maryland Rehabilitation Code, Section 306 of the IEBC shall apply to existing buildings.

Section 306.2 of the IEBC is amended to read as follows:

306.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code, the Maryland Accessibility Code (COMAR 09.12.53), and the alteration and existing building provisions in ICC A117.1, as applicable.

Chapter 16 of the IEBC is amended by replacing all references to the *International Fire Code* with *Chapter 9* of the Rockville City Code.

Secs. 5-~~292~~293—5-300 Reserved.

ARTICLE XIV. GREEN BUILDING REGULATIONS

* * *

DIVISION 2. ADMINISTRATION AND ENFORCEMENT

Sec. 5-311. Administration.

(a) The Chief of Zoning or ~~his/her~~ their designee will review projects for compliance with this article during the design phase of new construction. This includes:

(1) Reviewing the submitted green building checklists and supporting documentation for completeness and accuracy, as it pertains to site development.

(b) The Chief of Inspection Services or ~~his/her~~ their designee will review projects for compliance with this article during the design phase of new construction. This includes:

(1) Reviewing the submitted green building checklists and supporting documentation for completeness and accuracy, as it pertains to building construction.

Sec. 5-312. Enforcement.

The Chief of Inspection Services or ~~his/her~~ their designee will review projects for compliance with this article during construction and prior to occupancy. This includes:

* * *

DIVISION 3. DEFINITIONS

Sec. 5-316. Definitions.

Words defined in this article are intended only for use with sections of this article or any document referred to in this article.

* * *

City Manager means the City Manager for the City of Rockville, or ~~his/her~~ their designee.

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DIVISION 4. NON-RESIDENTIAL AND MULTI-UNIT RESIDENTIAL GREEN BUILDINGS

* * *

Sec. 5-322. Same—Amendments.

The ICC International Green Construction Code, 2015 Edition (IgCC), is amended in the following respects:

* * *

Section 102.6 of the IgCC is amended to read as follows:

> **102.6 Existing structures**. The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Building Code, the International Existing Building Code, or the Rockville Fire Code, or as is deemed necessary by the ~~code official~~ Building Official for the general safety and welfare of building occupants and the public.

Section 106.1 of the IgCC is amended to read as follows:

> **106.1 Required**. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any energy, electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the ~~code official~~ Building Official and obtain the required permit under the applicable code or regulation relevant to the intended work. A Green Building application will be filed with the Inspection Services Division; however, a separate permit shall not be issued under this code. Exemptions from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other applicable laws, codes or ordinances of this jurisdiction.

* * *

Section 108 of the IgCC is amended to read as follows:

> **108 Board of Adjustments and Appeals**. Appeals of administrative interpretations or decisions made by the ~~code official~~ Building Official shall be administered in accordance with Chapter 5, Article I, Section 5-12 of the Rockville City Code.

Section 301.1.1 of the IgCC is amended to read as follows:

> **301.1.1 Application**. The requirements contained in this code are applicable to buildings, or portions of buildings. As indicated in Section 101.3, these buildings shall meet either the requirements of ASHRAE 189.1 or the requirements contained in this code or demonstrate compliance using an equivalent option that must be first

approved by the ~~code official~~ Building Official and where the applicant demonstrates equivalency and compliance.

* * *

Section 902.1.1.1 of the IgCC is amended to read as follows:

902.1.1.1 Qualifications of approved agencies. An approved agency shall be qualified and shall demonstrate competence, to the satisfaction of the ~~code official~~ Building Official, for the commissioning of the particular type of construction or operation. The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency provided those personnel meet the qualification requirements of this section to the satisfaction of the ~~code official~~ Building Official. The approved agency shall provide written documentation to the ~~code official~~ Building Official demonstrating competence and relevant experience or training. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of commissioning activities for projects of similar complexity and material qualities.

* * *

Section A103.2 of the IgCC is amended to read as follows:

A103.2 Required number of and selection of project electives. A total of not less than 10 project electives shall be selected by the owner or the owner's authorized agent from Table A103.2. Selected project electives shall be applied as mandatory requirements for the project. Selected project electives shall be communicated to the ~~code official~~ Building Official by means of checking the appropriate boxes in the tables and providing a copy of the tables, or by inclusion of a list of selected project electives, with the construction documents.

* * *

DIVISION 5. ONE- AND TWO-FAMILY DWELLING REQUIREMENTS

* * *

Sec. 5-333. Rockville Green Homes required.

Homes must achieve a minimum Silver performance level in Chapters 5 through 10 of the ICC 700-2015 (National Green Building Standard) or equivalent system that must be first approved by the ~~code official~~ Building Official and where the applicant demonstrates equivalency and compliance.

SECTION II – This ordinance shall become effective on May 29, 2024, except for the following amendments, which shall become effective on December 1, 2024:

- Incorporation of Chapter 11 of the IBC, 2021 Edition, as amended by Section 5-87 this ordinance;
- Incorporation of the following sections of the IECC, 2021 Edition, as amended by Section 5-162 of this ordinance: Sections C402.1.1; C402.1.1.1; C402.1.2; C403.4.1.6; C404.2.1; C404.10; C405.2; C405.13; C405.14; C405.14.1; C405.15; C405.15.1; C405.16, including all subsections; C406.1; C406.5.1; R401.2.5; R402.1; R403.1.1; R403.5.4; R404.4, including all subsections; R404.5, including all subsections; R404.6, including all subsections; R404.7, including all subsections; and
- Incorporation of Section 306 of the IEBC, 2021 Edition, as amended by Section 5-292 of this ordinance.

****

NOTE: ~~Strikethrough~~ indicates material deleted.

Underlining indicates material added.

Asterisks * * * indicate material unchanged by this ordinance.

I hereby certify that the foregoing is a true and correct copy of an Ordinance adopted by the Mayor and Council of Rockville at its meeting of May 20, 2024.

Sara Taylor-Ferrell

City Clerk/Director of Council Operation