

**TEXT**

**Parts 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, and 1229 of Title 19 of the Official Compilation of Codes, Rules and Regulations of the State of New York are repealed.**

**Title 19 of the Official Compilation of Codes, Rules and Regulations of the State of New York is amended by adding new Parts 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, and 1227 to read as follows:**

**PART 1219. NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE**

**Section 1219.1 New York State Uniform Fire Prevention and Building Code.**

The New York State Uniform Fire Prevention and Building Code (the Uniform Code), adopted pursuant to Article 18 of the Executive Law, includes Part 1220 (Residential Construction), Part 1221 (Building Construction), Part 1222 (Plumbing Systems), Part 1223 (Mechanical Systems), Part 1224 (Fuel Gas Equipment and Systems), Part 1225 (Fire Prevention), Part 1226 (Property Maintenance), and Part 1227 (Existing Buildings) of this Title and the publications incorporated by reference into those Parts.

**Section 1219.2 Definitions.**

(a) General. In this Part and in Parts 1220, 1221, 1222, 1223, 1224, 1225, 1226, and 1227 of this Title, the following terms shall have the following meanings:

(1) 2020 BCNYS. The publication entitled “2020 Building Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 BCNYS is incorporated by reference in Part 1221 of this Title.

(2) 2020 EBCNYS. The publication entitled “2020 Existing Building Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 EBCNYS is incorporated by reference in Part 1227 of this Title.

(3) 2020 FCNYS. The publication entitled “2020 Fire Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 FCNYS is incorporated by reference in Part 1225 of this Title.

(4) 2020 FGCNYS. The publication entitled “2020 Fuel Gas Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 FGCNYS is incorporated by reference in Part 1224 of this Title.

(5) 2020 MCNYS. The publication entitled “2020 Mechanical Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 MCNYS is incorporated by reference in Part 1223 of this Title.

(6) 2020 PCNYS. The publication entitled “2020 Plumbing Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 PCNYS is incorporated by reference in Part 1222 of this Title.

(7) 2020 PMCNYS. The publication entitled “2020 Property Maintenance Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 PMCNYS is incorporated by reference in Part 1226 of this Title.

(8) 2020 RCNYS. The publication entitled “2020 Residential Code of New York State” (publication date: June 2019), published by the International Code Council, Inc. The 2020 RCNYS is incorporated by reference in Part 1220 of this Title.

(9) Accessory structure. A structure that is accessory to and incidental to that of a dwelling and that is located on the same lot as the dwelling.

(10) Agricultural building. A structure that is designed, constructed, and used exclusively to house farm implements, poultry, livestock, hay, grain, or other horticultural products, excluding any structure that is designed, constructed, or used, in whole or in part for any of the following:

(i) for human habitation;

(ii) as a place where agricultural products are processed, treated, or packaged; or

(iii) as a place used by or open to the public.

(11) Bed and breakfast dwelling. An owner-occupied residence resulting from a conversion of a one-family dwelling, used for providing overnight accommodations and a morning meal to not more than ten transient lodgers, and containing not more than five bedrooms for such lodgers.

(12) Dwelling. Any building that contains one or two dwelling units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.

(13) Dwelling unit. A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

(14) Existing building. A building or structure that is legally occupied and/or for which a certificate of occupancy authorizing its use(s) has been issued, without regard to the date on which such legal occupancy began or the date on which such certificate of occupancy was issued. For avoidance of doubt, the term includes a building or structure that was legally occupied and/or for which such a certificate of occupancy was issued prior to the adoption of the rule adding this definition, and a building or structure that was legally occupied and/or for which such a certificate of occupancy was issued at any time after the adoption of said rule.

(15) Guestroom. Any room or rooms used or intended to be used by one or more guests for living or sleeping purposes.

(16) Live/work unit. A dwelling unit or sleeping unit in which a significant portion of the space includes a nonresidential use that is operated by the tenant.

(17) Lodging house. A one-family dwelling where one or more occupants are primarily permanent in nature, and rent is paid for guestrooms.

(18) Story above grade plane. Any story having its finished floor surface entirely above grade plane, or in which the finished surface of the floor next above is either of the following:

(i) more than 6 feet (1829 mm) above grade plane;

(ii) more than 6 feet (1829 mm) above the finished ground level for more than 50 percent of the total building perimeter; or

(iii) more than 12 feet (3658 mm) above the finished ground level at any point.

(19) Townhouse. A single-family dwelling unit constructed in a group of three or more attached units in which each unit

(i) extends from the foundation to the roof,

(ii) has open space on at least two sides, and

(iii) has a separate means of egress.

(b) Other terms. Terms used in the definitions in subdivision (a) of this section and not defined in said subdivision (a) shall have the meanings ascribed to those terms in the 2020 BCNYS, the 2020 EBCNYS, the 2020 FCNYS, the 2020 FGCNYS, the 2020 MCNYS, the 2020 PCNYS, the 2020 PMCNYS, and/or the 2020 RCNYS.

## **PART 1220. RESIDENTIAL CONSTRUCTION**

### **Section 1220.1 Definitions.**

In this Part, the terms 2020 BCNYS, 2020 RCNYS, bed and breakfast dwelling, dwelling, live/work unit, lodging house, story above grade plane, and townhouse shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

### **Section 1220.2 Requirements.**

(a) General. Except as otherwise provided in subdivision (d) of this section, the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, and demolition of the following buildings and structures shall comply with the provisions and requirements of the 2020 RCNYS:

(1) detached one-family dwellings that are not more than three stories above grade plane in height, and their accessory structures that are not more than three stories above grade plane in height;

(2) detached two-family dwellings that are not more than three stories above grade plane in height and in which each dwelling unit has a separate means of egress, and their accessory structures that are not more than three stories above grade plane in height;

(3) townhouses that are not more than three stories above grade plane in height, and their accessory structures that are not more than three stories above grade plane in height;

(4) bed and breakfast dwellings that are not more than three stories above grade plane in height, and their accessory structures that are not more than three stories above grade plane in height;

(5) live/work units that are located in townhouses that are not more than three stories above grade plane in height and comply with the requirements of Section 419 of the 2020 BCNYS, and their accessory structures that are not more than three stories above grade plane in height; and

(6) owner-occupied lodging houses that are not more than three stories above grade plane in height, have five or fewer guestrooms, and are provided with a residential fire sprinkler system complying with Section P2904 of the 2020 RCNYS, and their accessory structures that are not more than three stories above grade plane in height.

(b) Incorporation by reference. The 2020 RCNYS is incorporated herein by reference. Copies of the 2020 RCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.

500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 RCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001.

(c) Referenced standards. Certain published standards are denoted in the 2020 RCNYS as incorporated by reference into 19 NYCRR Part 1220. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 RCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 RCNYS. Such standards are available for public inspection and copying at the office of the New York State Department of State specified in subdivision (b) of this section.

(d) Exception. Notwithstanding the provisions of subdivision (a) of this section, application of the provisions and requirements of the 2020 BCNYS, rather than the provisions and requirements of the 2020 RCNYS, to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of any buildings or structures listed in subdivision (a) of this section is permitted, provided that such construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal or demolition complies with all applicable provisions and requirements of the 2020 BCNYS.

## **PART 1221. BUILDING CONSTRUCTION**

### **Section 1221.1 Definitions.**

In this Part, the terms 2020 BCNYS, 2020 RCNYS, and agricultural building shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

**Section 1221.2 Requirements.**

(a) General. Except as otherwise provided in subdivision (d) of this section, the construction, alteration, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure, and every appurtenance connected or attached to any building or structure, shall comply with the provisions and requirements of the 2020 BCNYS.

(b) Incorporation by reference. The 2020 BCNYS is incorporated herein by reference. Copies of the 2020 BCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 BCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001.

(c) Referenced standards. Certain published standards are denoted in the 2020 BCNYS as incorporated by reference into 19 NYCRR Part 1221. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 BCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 BCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

(d) Exceptions. Notwithstanding the provisions of subdivision (a) of this section:

(1) buildings and structures listed in subdivision (a) of section 1220.2 of Part 1220 of this Title shall comply with the provisions and requirements of the 2020 RCNYS, except as otherwise provided in subdivision (d) of said section 1220.2;

(2) agricultural buildings that are used directly and solely for agricultural purposes shall not be subject to the construction-related provisions and requirements of the 2020 BCNYS;

(3) construction trailers that are used as temporary offices for the purpose of monitoring construction at a construction site shall not be subject to the provisions and requirements of 2020 BCNYS; and

(4) structures such as radio and television transmission, communication and wind generation towers, and ground-mounted photovoltaic arrays that are neither a building appurtenance nor are attached to a building shall not be subject to the provisions and requirements of the 2020 BCNYS.

## **PART 1222. PLUMBING SYSTEMS**

### **Section 1222.1 Definitions.**

In this Part, the terms 2020 EBCNYS, 2020 PCNYS, and 2020 RCNYS shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

### **Section 1222.2 Requirements.**

(a) General. Except as otherwise provided in subdivision (d) of this section, the erection, installation, alteration, repair, relocation, replacement, addition to, use, and maintenance of plumbing systems and nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen, and sanitary and condensate vacuum collection systems, shall comply with the provisions and requirements of the 2020 PCNYS.

(b) Incorporation by reference. The 2020 PCNYS is incorporated herein by reference. Copies of the 2020 PCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.

500 New Jersey Avenue, NW, 6th Floor



Washington, DC 20001

The 2020 PCNYS is available for public inspection and copying at:

New York State Department of State

One Commerce Plaza, 99 Washington Avenue

Albany, NY 12231-0001.

(c) Referenced standards. Certain published standards are denoted in the 2020 PCNYS as incorporated by reference into 19 NYCRR Part 1222. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 PCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 PCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

(d) Exceptions. Notwithstanding the provisions of subdivision (a) of this section:

(1) buildings and structures listed in subdivision (a) of section 1220.2 of Part 1220 of this Title shall comply with the provisions and requirements of the 2020 RCNYS, except as otherwise provided in subdivision (d) of said section 1220.2; and

(2) plumbing systems in existing buildings that are undergoing repairs, alterations, changes in occupancy or construction of additions shall be permitted to comply with the provisions and requirements of the 2020 EBCNYS.

## **PART 1223. MECHANICAL SYSTEMS**

### **Section 1223.1 Definitions.**

In this Part, the terms 2020 EBCNYS, 2020 MCNYS, and 2020 RCNYS shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

### **Section 1223.2 Requirements.**

(a) General. Except as otherwise provided in subdivision (d) of this section, the design, installation, maintenance, alteration, and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings shall comply with the provisions and requirements of the 2020 MCNYS.

(b) Incorporation by reference. The 2020 MCNYS is incorporated herein by reference. Copies of the 2020 MCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 MCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001

(c) Referenced standards. Certain published standards are denoted in the 2020 MCNYS as incorporated by reference into 19 NYCRR Part 1223. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 MCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 MCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

(d) Exceptions. Notwithstanding the provisions of subdivision (a) of this section:

(1) buildings and structures listed in subdivision (a) of section 1220.2 of Part 1220 of this Title shall comply with the provisions and requirements of the 2020 RCNYS, except as otherwise provided in subdivision (d) of said section 1220.2; and

(2) mechanical systems in existing buildings that are undergoing repairs, alterations, changes in occupancy or construction of additions shall be permitted to comply with the provisions and requirements of the 2020 EBCNYS.

## **PART 1224. FUEL GAS EQUIPMENT AND SYSTEMS**

### **Section 1224.1 Definitions.**

In this Part, the terms 2020 EBCNYS, 2020 FGCNYS, and 2020 RCNYS shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

### **Section 1224.2 Requirements.**

(a) General. Except as otherwise provided in subdivision (d) of this section, the design, installation, maintenance, alteration, and inspection of fuel gas piping and equipment, fuel gas-fired appliances, and fuel gas-fired appliance venting systems that are (i) permanently installed and (ii) specifically addressed in the 2020 FGCNYS, shall comply with the provisions and requirements of the 2020 FGCNYS.

(b) Incorporation by reference. The 2020 FGCNYS is incorporated herein by reference. Copies of the 2020 FGCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 FGCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001

(c) Referenced standards. Certain published standards are denoted in the 2020 FGCNYS as incorporated by reference into 19 NYCRR Part 1224. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 FGCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 FGCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

(d) Exceptions. Notwithstanding the provisions of subdivision (a) of this section:

(1) buildings and structures listed in subdivision (a) of section 1220.2 of Part 1220 of this Title shall comply with the provisions and requirements of the 2020 RCNYS, except as otherwise provided in subdivision (d) of said section 1220.2; and

(2) fuel gas piping system in existing building that are undergoing repairs, alteration, or changes in occupancy or construction of additions shall comply with the provisions and requirements of the 2020 EBCNYS.

## **PART 1225. FIRE PREVENTION**

### **Section 1225.1 Definitions.**

In this Part, the term 2020 FCNYS shall have the meaning ascribed to that term in section 1219.2 of Part 1219 of this Title.

### **Section 1225.2 Requirements.**

(a) General. All buildings and structures, whether currently existing or hereafter constructed; all premises; all processes; the storage, handling, or use of buildings, structures, materials, or devices; the occupancy and operation of buildings, structures, and premises; and the construction, extension, repair, alteration or removal of fire suppression and alarm systems, shall comply with the provisions and requirements of the 2020 FCNYS.

(b) Incorporation by reference. The 2020 FCNYS is incorporated herein by reference. Copies of the 2020 FCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 FCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001

(c) Referenced standards. Certain published standards are denoted in the 2020 FCNYS as incorporated by reference into 19 NYCRR Part 1225. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 FCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 FCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

## **PART 1226. PROPERTY MAINTENANCE**

### **Section 1226.1 Definitions.**

In this Part, the terms 2020 PMCNYS and existing building shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

### **Section 1226.2 Requirements.**

(a) General. All existing buildings and all premises, and the occupancy and operation of all existing buildings and all premises, shall comply with the provisions and requirements of the 2020 PMCNYS.

(b) Incorporation by reference. The 2020 PMCNYS is incorporated herein by reference. Copies of the 2020 PMCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 PMCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001

(c) Referenced standards. Certain published standards are denoted in the 2020 PMCNYS as incorporated by reference into 19 NYCRR Part 1226. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 PMCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 PMCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

## **PART 1227. EXISTING BUILDINGS**

### **Section 1227.1 Definitions.**

In this Part, the terms 2020 EBCNYS, 2020 RCNYS, and existing building shall have the meanings ascribed to those terms in section 1219.2 of Part 1219 of this Title.

### **Section 1227.2 Requirements.**

(a) General. Except as otherwise provided in subdivision (d) of this section, the repair, alteration, change of occupancy, addition to, and relocation of existing buildings shall comply with the requirements of the 2020 EBCNYS.

(b) Incorporation by reference. The 2020 EBCNYS is incorporated herein by reference. Copies of the 2020 EBCNYS may be obtained from the publisher at the following address:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001

The 2020 EBCNYS is available for public inspection and copying at:

New York State Department of State  
One Commerce Plaza, 99 Washington Avenue  
Albany, NY 12231-0001

(c) Referenced standards. Certain published standards are denoted in the 2020 EBCNYS as incorporated by reference into 19 NYCRR Part 1227. Such standards are incorporated by reference into this Part. Such standards are identified in the 2020 EBCNYS, and the names and addresses of the publishers of such standards from which copies of such standards may be obtained are specified in the 2020 EBCNYS. Such standards are available for public inspection and copying at the Office of the New York State Department of State specified in subdivision (b) of this section.

(d) Exception. Notwithstanding the provisions of subdivision (a) of this section, buildings and structures listed in subdivision (a) of section 1220.2 of Part 1220 of this Title shall comply with the provisions and requirements of the 2020 RCNYS, except as otherwise provided in subdivision (d) of said section 1220.2.

**Subdivisions (b) and (e) of section 1264.4 of Title 19 of the Official Compilation of Codes, Rules and Regulations of the State of New York are amended to read as follows:**

(b) Signs shall be affixed where a building or a portion thereof is classified as Group A, B, E, F, H, I, M or S occupancy, and in hotels and motels classified as Group R-1 or R-2 occupancy, in accordance with the

provisions for the classification of buildings set forth in chapter 3 of the [2015 International Building Code, as amended by the 2017 Uniform Code Supplement] 2020 Building Code of New York State (said [publications] publication being incorporated by reference in Part 1221 of this Title).

(e) Signs identifying the existence of truss construction shall contain the roman alphanumeric designation of the construction type of the building, in accordance with the provisions for the classification of types of construction set forth in section 602 of the [2015 International Building Code, as amended by the 2017 Uniform Code Supplement] 2020 Building Code of New York State (said [publications] publication being incorporated by reference in Part 1221 of this Title), and an alphabetic designation for the structural components that are of truss construction, as follows:

“F” shall mean floor framing, including girders and beams

“R” shall mean roof framing

“FR” shall mean floor and roof framing

The construction type designation shall be placed at the 12 o’clock position over the structural component designation, which shall be placed at the six o’clock position.

**Subdivisions (c), (h), (j), and (k) of section 1265.3 of Title 19 of the Official Compilation of Codes, Rules and Regulations of the State of New York are amended to read as follows:**

(c) [IBC] 2020 BCNYS. The term [IBC] 2020 BCNYS shall mean the [2015 International Building Code, as amended by the 2017 Uniform Code Supplement] 2020 Building Code of New York State (said [publications] publication being incorporated by reference in Part 1221 of this Title).

(h) [IRC] 2020 RCNYS. The term [IRC] 2020 RCNYS shall mean the [2015 International Residential Code, as amended by the 2017 Uniform Code Supplement] 2020 Residential Code of New York State (said [publications] publication being incorporated by reference in Part 1220 of this Title).



(j) Residential structure. The term residential structure shall include one-family dwellings, two-family dwellings, and townhouses (as those terms are defined in the [IRC] 2020 RCNYS) and structures or portions of structures classified as residential group R in accordance with chapter 3 of the [IBC] 2020 BCNYS (excluding, however, hotels and motels which are classified as group R-1 or R-2 occupancy in accordance with chapter 3 of the [IBC] 2020 BCNYS and which are subject to the provisions of Part 1264 of this Title).

(k) Timber construction. The term timber construction shall mean construction that uses, for any load-supporting purpose(s), solid or laminated wood having the minimum dimensions required for structures built using type IV construction (HT) in accordance section 602.4 of the [IBC] 2020 BCNYS.

## REGULATORY IMPACT STATEMENT

(Uniform Code)

### 1. STATUTORY AUTHORITY

Article 18 of the Executive Law (§370-383) establishes the State Fire Prevention and Building Code Council (hereinafter “Code Council”) and authorizes such council to formulate a code to be known as the Uniform Fire Prevention and Building Code (hereinafter “Uniform Code”).

Executive Law §377 provides that the Uniform Code shall provide reasonably uniform standards and requirements for construction and construction materials for public and private buildings, including factory manufactured homes, consonant with accepted standards of engineering and fire prevention practices. Executive Law §372(3) defines “building” as a combination of any materials, whether portable or fixed, having a roof, to form a structure affording shelter for persons, animals, or property. Included within the legislative findings and purposes for the Uniform Code is that it shall provide a basic minimum level of protection to all people of the State from hazards of fire and inadequate building construction and to reconcile the myriad of existing and potentially conflicting regulations which apply to different types of buildings and occupancies. *See* Executive Law §371(2)(b)(1).

Executive Law §378 provides that the Uniform Code shall address the following subjects:

1. Standards for the construction of all buildings or classes of buildings, or the installation of equipment therein, including standards for materials to be used in connection therewith, and standards for safety and sanitary conditions;
2. Standards for the condition, occupancy, maintenance, conservation, rehabilitation and renewal of certain existing buildings, structures and premises and for the safeguarding of life and property therein and

thereabout from the hazards of fire, explosion or release of toxic gases arising from the storage, handling or use of combustible or hazardous substances, materials or devices;

3. Standards for passenger elevators;

4. Standards for areas of public assembly;

5. Standards requiring the posting of certain notices in hotels, motels and lodging houses;

6. Standards for installation of carbon monoxide detectors in commercial and residential buildings;

7. Standards for installation of single station smoke detecting alarm devices;

8. Standards for inspections of solid fuel burning heating appliances, chimneys and flues;

9. Standards for the use of lead in water supply systems constructed or portions added on or after January first, nineteen hundred eighty-six;

10. Standards for the construction of water supply systems which shall prohibit the use of asbestos cement pipe to convey potable water for any new or modified construction on or after January first, nineteen hundred ninety-two;

11. Standards for hotels, motels and lodging houses requiring (in addition to any other requirement) portable smoke-detecting alarm devices for the deaf and hearing impaired of audible and visual design;

12. Standards requiring the posting of certain notices in certain buildings housing senior citizens;

13. Standards for assistive listening systems for new construction commenced after January first, nineteen hundred ninety-one requiring the installation of assistive listening systems at all places of public assembly;

14. Standards for buildings shall authorize the installation of potable water heaters for all domestic uses, including space heating;

15. Standards for fire safety for bed and breakfast dwellings;

16. Standards for hospice residences;
17. Standards for the abandonment or removal of heating oil storage tanks and related piping in connection with the conversion of liquid fuel burning appliance to alternative fuel;
18. Standards for gates required to be provided in a swimming pool enclosure;
19. Standards for pool alarms for new or modified swimming pools;
20. Standards for hot tubs or spa safety covers;
21. Requirements for pool enclosures to be replaced by permanent enclosures within 90 days of the issuing of the building permit or commencement of the pool installation;
22. Standards for temporary swimming pool enclosures used during the installation or construction of swimming pools;
23. Standards for the installation and maintenance of diaper changing stations in certain buildings; and
24. Standards requiring signs in certain buildings in which at least one diaper changing station is installed.

Executive Law §377(1) provides that the Code Council shall periodically review the entire Uniform Code to assure that it effectuates the purposes of Article 18 of the Executive Law and the specific objectives and standards set forth in such article. Executive Law §377(1) also provides that the Code Council may from time to time amend particular provisions of the Uniform Code.

The current version of the Uniform Code is based on international codes developed and published by the International Code Council (hereinafter “ICC”). This rule making would repeal the current version of the Uniform Code which is based upon the 2015 editions of eight (8) individual model codes developed and published by the ICC, as modified by the 2017 Uniform Code Supplement, and adopt new text based primarily upon the 2018 editions of model codes developed and published by the ICC. The individual codes that would

be included in the Uniform Code as proposed by this rule are as follows: the 2020 Residential Code of New York State (2020 RCNYS), the 2020 Building Code of New York State (2020 BCNYS), the 2020 Plumbing Code of New York State (2020 PCNYS), the 2020 Mechanical Code of New York State (2020 MCNYS), the 2020 Fuel Gas Code of New York State (2020 FGCNYS), the 2020 Fire Code of New York State (2020 FCNYS), the 2020 Property Maintenance Code of New York State (2020 PMCNYS), and the 2020 Existing Building Code of New York State (2020 EBCNYS).

Please note that the Energy Conservation Construction Code will be the subject of a separate rule making.

## **2. LEGISLATIVE OBJECTIVES**

Executive Law §371(2) states that it shall be the public policy of the State of New York to provide for promulgation of a Uniform Code addressing building construction and fire prevention in order to provide a basic minimum level of protection to all people of the State from the hazards of fire and inadequate building construction. The Code Council is assigned the task of formulating the Uniform Fire Prevention and Building Code.

Executive Law §377 not only empowers the Code Council to amend provisions of the Uniform Code, it also directs the Code Council to periodically review the entire Uniform Code to assure that it effectuates the purposes, objectives, and standards set forth in Article 18 of the Executive Law. Further, Executive Law §371(2)(b)(4) provides that it is the policy of the State of New York to require new and existing buildings to keep pace with advances in technology concerning fire prevention and building construction.

Upon review of the current text of the Uniform Code, the Code Council has concluded that it would further the purposes, objectives, and standards of Article 18 to propose this rule, which would repeal the current

Uniform Code text and replace it with updated text based upon the 2020 RCNYS, 2020 BCNYS, 2020 PCNYS, 2020 FCNYS, 2020 MCNYS, 2020 FGCNYS, 2020 PMCNYS, and 2020 EBCNYS.

### **3. NEEDS AND BENEFITS GENERAL**

The current version of the Uniform Code is based upon the 2015 editions of the ICC model codes and a supplement that modifies the ICC model codes to make the Uniform Code more appropriate to New York State's statutes and special conditions. This rule making will repeal the current version of the Uniform Code and replace the text with the following New York specific code books based primarily upon the 2018 editions of the ICC model codes: 2020 RCNYS, 2020 BCNYS, 2020 FCNYS, 2020 PCNYS, 2020 MCNYS, 2020 FGCNYS, 2020 PMCNYS, and 2020 EBCNYS.

This change is necessary for New York State to remain competitive with the rest of the nation in matters involving building construction and to provide an adequate level of building safety to its residents. It is also necessary if New York State wishes to keep pace with evolving technology concerning fire prevention and building construction and to have a building and fire prevention code which is consistent with nationally accepted model codes.

The significant changes to the existing Uniform Code are separately discussed below outlining the needs and benefits and any costs associated.

## 2020 RCNYS

### Habitable Attics

2020 RCNYS: Section R325.6

### Needs and Benefits:

This code amendment changes the definition of habitable attic. According to the new definition, a habitable attic constitutes “a story above grade plane.”

Habitable attics create an inconsistency between the Residential Code and Building Code. The Scope statement found in Section 101.2.1 of the 2017 Uniform Code Supplement indicates that the 2015 International Residential Code (2015 IRC) is applicable to residential structures “*not more than three stories above grade plane in height...*” However, the definition for habitable attic found in the 2015 IRC (and within the 2018 IRC) reads: “*a finished or unfinished area, not considered a story...*” and therefore allows habitable space to be created above the third story of a dwelling since, by definition, it does not constitute a “story.”

Habitable attics pose a significant fire-safety risk. According to the US Fire Administration, there are an estimated 10,000 residential attic fires every year, resulting in 30 deaths, 125 injuries and \$477 million in property damage<sup>1</sup>. Allowing habitable spaces above the third story, with no other protection than an emergency escape and rescue opening (EERO), poses a significant unmitigated life-safety hazard. EEROs above the third story are ineffective both as a means of escape and as access for rescue, to the point that the 2015 International Building Code (2015 IBC) does not require EEROs above the third story.

Considering a habitable attic a story above grade plane means that a 3-story dwelling with a habitable attic will constitute a 4-story dwelling and no longer be regulated by the Residential Code, but by the Building Code. The main consequence is that an NFPA 13D sprinkler system with a 10-minute sprinkler duration is no

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<sup>1</sup><https://www.usfa.fema.gov/downloads/pdf/statistics/v11i6.pdf>

longer permissible in a Type VB structure. Instead, the 2020 BCNYS requires either an NFPA 13R system with a 30-minute sprinkler duration, or an NFPA 13D system with a higher construction type according to Table 601 of the 2020 BCNYS. The live loads on table R301.5 of the 2020 RCNYS remain unchanged and have no effect in habitable attics used as sleeping rooms. The requirements for stud sizes on Table R602.3(5) of the 2020 RCNYS remain unchanged.

New York State must change the definition of habitable attic in the 2020 RCNYS in order to mitigate the life-safety risks posed by habitable spaces above the third story above grade plane.

**Cost:**

This code change does not pose a cost implication for residential structures of 2 stories or less above grade plane and a habitable attic, nor to residential structures of 3 stories above grade plane without a habitable attic.

This proposal imposes a higher cost of construction for residential structures with 3 stories and a habitable attic. The owner may choose to upgrade from an NFPA 13D to an NFPA 13R sprinkler with an increased cost estimated at \$1.35 per square foot, or a total of \$3,594 for an averaged sized house of 2,662 square feet<sup>2</sup>. This represents a 1.03% cost increase.

Another option is to upgrade to a higher level of construction classification. The increased cost to upgrade from VB to IIIB, by utilizing a fire-retardant treated wood (FRTW) and type X gypsum board exterior wall assembly, is estimated at \$3.64 per square foot, or \$11,779 for an averaged sized house of 2,662 square feet. This represents a 3.38% cost increase.

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<sup>2</sup>Averaged size house from <https://www.treehugger.com/green-architecture/what-would-our-homes-look-if-designed-around-how-we-use-them.html>



**Alternatives:**

One alternative is to retain the ICC’s definition of habitable attic. This alternative does not address the unmitigated risks and hazards associated with residential structures 3 stories with a habitable attic. For this reason, this alternative was rejected.

**Tiny Houses**

2020 RCNYS: Appendix Q (New)

**Needs and Benefits:**

This code change provides regulatory guidance for the construction of Tiny Houses.

The possibility of building one’s own home and the rising cost of home ownership, coupled with a desire for minimalist, simple living and to reduce the environmental impact of housing, have all fueled the Tiny House architectural and social movement. However, the increase in popularity and in the number of amateur builders has led to safety concerns among design professionals and code enforcement officials.

Further, while some have argued that a Tiny House could be built in compliance with the Residential code, in practice, to do so under 400 square feet and with a code-compliant loft has proven challenging, if not impossible. To address these significant obstacles, the 2018 International Residential Code (2018 IRC) added Appendix Q, which affords some lenience to dwelling units meeting the new definitions for “*Tiny Houses*” and to “*Lofts*,” without reducing the level of safety.

New York State must adopt the provisions of Appendix Q of the 2018 IRC in order to provide regulatory compliance tools to designers and code enforcement officials in municipalities that choose to allow Tiny Houses in their zoning law.

The public will benefit from this code change through increased flexibility, lower housing costs, and the environmental benefits of a reduction in the manufacture, use, and delivery of construction materials.

**Cost:**

There is a decrease in the cost of residential construction associated with this proposal. The average size of a new house in 2013 was 2,662 square feet<sup>3</sup>. With an average per square foot cost of \$131.03 in New York State<sup>4</sup>, this translates to \$348,801 per home. Conversely, the typical cost of Tiny Houses in 2012 was about \$20,000 to \$50,000.

**Alternatives:**

An alternative to this proposal is not to adopt Appendix Q. This alternative does not address the demands of Tiny House proponents, nor does it afford regulatory compliance tools to municipalities that choose to respond to those demands. For these reasons, this alternative was rejected.

## **2020 BCNYS**

### **Emergency Elevator Communications**

2020 BCNYS: Section 3001.2 (New)

**Needs and Benefits:**

The timely and appropriate response of emergency personnel to situations causing an elevator car to stop but not discharge passengers, relies on communication with the person(s) entrapped in the stopped elevator car. As it pertains to individuals with disabilities, the 2015 IBC makes use of standard ICC A117.1, Accessible and Usable Buildings and Facilities, to provide minimum requirements for accessibility. However, this standard

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<sup>3</sup> [https://en.wikipedia.org/wiki/Tiny\\_house\\_movement](https://en.wikipedia.org/wiki/Tiny_house_movement)

<sup>4</sup> RS Means Residential Cost Data 2015

does not include communication features that are needed for enabling two-way communication with persons with hearing and speech impairments. Such features are also absent from the currently adopted version of ASME A17.1/CSA B44, Safety Code for Elevators and Escalators, which is referenced by the 2015 IBC.

The ability to communicate in ways that permit disabled individuals to make use of the system is essential to minimizing the hazards associated with entrapment of said individuals.

Without the provisions of Section 3001.2, an elevator in compliance with the Uniform Code may be out of compliance with the Americans with Disabilities Act (ADA), by not providing equal access and accommodations to hearing and speech impaired individuals. The ADA is a federal mandate and guarantees indiscriminate access to the built environment.

The public will benefit from this code change through an increase in the level of safety beyond that which exists currently under the 2015 IBC for hearing and speech impaired persons. Other persons may benefit from the change as well, such as someone having a medical emergency that renders them temporarily unable to speak. This is not a New York-specific amendment. The language of the provision, which was first introduced in the 2018 edition of the IBC, will be part of the 2021 edition of the IBC.

The Division found, through research conducted with elevator monitoring contractors and elevator providers, that approximately 98% of alarms are the result of unintentional button presses or otherwise not emergency related. The presence of a two-way visual communication system in the elevator cab would provide the added benefit of reducing the time and effort spent in diagnosing and responding to unintentional alarms.<sup>5</sup>

**Cost:**

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<sup>5</sup> Kings III of America, LLC, Dennis Mason, CEO via email. National Elevator Industry, Inc, Kevin Brinkman, Codes and Safety Director via phone.

The addition of these features to the elevator communications system is expected to increase the cost of construction. The additional cost was given by the code change proponent to the ICC as \$250 to \$5000. However, as a new technology with low demand to date, there is insufficient data to arrive at reliable costs. One option for compliance is a panel and camera with an ASL operator on standby. The initial material cost of a 2-way communications system with a panel and camera is approximately \$2,000 to \$3,000, plus an annual ongoing cost of \$500 to \$1,000; installation is likely done by the elevator contractor; ongoing monitoring cost, including American Sign Language (ASL) operators, are approximately \$30 per month; plus, a high speed internet connection with sufficient frame-to-frame speed to enable ASL.<sup>6</sup> The total cost will vary depending on a number of factors including the size of the facility in which the elevator is located, available infrastructure and other facility data needs, and in the case of a retrofit, the specifications and availability of existing communications equipment. The nature of these variables makes the determination of an accurate increased cost impractical. The code provision does not specifically require video communication, therefore, less expensive options for compliance may be available.

Studies have shown that the premium for new-technology introduction costs diminishes when the technology enters full implementation, and its application has become routine.<sup>7</sup>

**Alternatives:**

An alternative to this proposal is not to add these provisions to the code. This alternative does not address the life safety issues of hearing and visually impaired individuals using elevators. This alternative fails to provide guidance to installers, designers, and code enforcement officials who are already reconciling the code provisions with the two reference standards. For this reason, this alternative was rejected.

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<sup>6</sup> According to Kings III of America, LLC and their partner TouchSource.

<sup>7</sup> Ehlen, Mark A., and Harold E. Marshall. 1996. *The Economics of New-Technology Materials: A Case Study of FRP Bridge Decking*. NISTIR 5864. Gaithersburg, MD: National Institute of Standards and Technology.

Another alternative considered by the Division was to adopt the provisions as written in the 2018 edition of the IBC. However, we found the language of the 2021 edition to be clearer and a better reflection of the provision's intent. Further, the language of the 2018 edition required a video-based 24/7 interactive system. We found the language of the 2021 edition to be more flexible and potentially permitting simpler technology without compromising safety.

The Division also considered adopting the 2019 edition of the reference standard ASME A17.1/CSA B44, which requires video of the entire cab floor to be sent when the emergency button is pressed, as well as two-way messaging between the cab and the monitoring operator. This alternative was rejected for two reasons: the 2019 edition of the reference standard was not available when the 2018 IBC was being evaluated, and the proposed language of the reference standard alone does not afford full compliance with the ADA.

## **2020 FCNYS**

### **Mobile Food Preparation Vehicles**

2020 FCNYS:           Section 319 (New)

#### **Needs and Benefits:**

Currently, mobile food preparation vehicles are in use across the State. While these uses provide a great service and industry, they also present some unique hazards to the public, to employees, and to fire-fighters. Present in these mobile establishments may be the hazards associated with the production of grease-laden vapors, electrical hazards, and propane hazards. These hazards are addressed by the Fire Code for permanent structures, but the current provisions are not applicable to mobile establishments. This code change will provide a statewide standard for mobile food preparation vehicles equipped with appliances that produce smoke or grease-laden vapors.

Without a statewide regulation, a few local jurisdictions have adopted their own permitting process and regulations, which leads to non-uniform enforcement. Some municipalities that already require some level of fire protection are the cities of Albany, Buffalo, Rochester, and Ithaca<sup>8</sup>. The Office of General Services (OGS) has also established a set of regulations for Food Trucks operating in the Empire State Plaza in Albany which includes regulations for electricity and LP gas use, as well as fire suppression.<sup>9</sup>

The National Fire Protection Association (NFPA) has recognized the fire hazards associated with food trucks. The NFPA states, “After the 2014 Philadelphia food truck explosion killed a mother and daughter, the International Fire Marshals Association (IFMA) developed a task group to address this issue and submitted public input to NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, and NFPA 1, Fire Code. In February, the 2017 edition of NFPA 96 was released. This edition now addresses the minimum fire safety requirements for mobile/temporary cooking in new Annex Chapter B.”<sup>10</sup> The 2014 edition of the NFPA 96 Standard is incorporated by reference into the current Uniform Code. The 2017 edition of NFPA 96 will be incorporated by reference into the 2020 FCNYS.

A fire quickly caused severe damage to a food truck in July of 2018 in Orchard Park, New York, despite a fire crew being located “right across the street from them” and available for quick response.<sup>11</sup> Food truck fires pose a danger not only to the truck itself, but also to operators, patrons, and adjacent properties. A food truck fire spread to a neighboring home in Front Street, Olean, New York in December of 2018, causing damage to

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<sup>8</sup> <https://www.cityofrochester.gov/foodtruckfiresafety/>  
<https://www.albanyny.gov/Government/Departments/CityClerk/LicensesAndPermits.aspx>  
<https://cityofithaca.org/217/Mobile-Street-Vendor-Outside-Ithaca-Comm>  
<https://ecode360.com/16265484>

<sup>9</sup> <https://empirestateplaza.ny.gov/system/files/documents/2019/04/2019rulesguidelinesv3.pdf>

<sup>10</sup> <https://www.nfpa.org/Public-Education/By-topic/Property-type-and-vehicles/Food-truck-safety>

<sup>11</sup> <https://buffalonews.com/2018/07/26/chefs-on-the-go-food-truck-damaged-by-fire-at-taste-of-orchard-park/>

the home, injuries to the food truck operator, and the complete loss of the truck. The fire originated in the recently-filled propane tank of the food truck.<sup>12</sup>

The public will benefit from this code change through an increase in the safety around mobile food operations. The employees of mobile food operations will benefit from this code change through an increase in the safety and air quality within the mobile food vehicle. Owners and operators of mobile food vehicles will benefit from uniform minimum requirements across municipalities, allowing greater mobility from community to community.

**Cost:**

The requirements of Section 319 are only applicable to, and only pose a cost implication for, mobile food preparation establishments that are equipped with appliances that produce grease-laden vapors. For vendors in municipalities that already have regulations in place, the increased costs will likely be minimal. For others, depending on the level of fire safety already available, vendors will likely incur one or more potential costs. Some of the costs are relatively minor, such as an LP-gas alarm in the range of \$54 to \$166<sup>13</sup> and a fire extinguisher at approximately \$146<sup>14</sup>. The more significant cost increases will be the exhaust hood system and the fire suppression system.

The materials cost of the exhaust hood system is in the range of \$1,300 to \$2,600 for a concession hood 30” deep by 4 to 12-feet wide, which is less than the \$1,700 to \$3,600 cost of a typical 48” deep by 4 to 12-feet wide hood used in a conventional indoor cooking facility. The materials cost of the fire suppression system for a

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<sup>12</sup> [http://www.oleantimesherald.com/news/fire-destroys-rafi-s-food-cart-in-olean-causes-damage/article\\_17251308-fce4-11e8-b09c-ab51d980f289.html](http://www.oleantimesherald.com/news/fire-destroys-rafi-s-food-cart-in-olean-causes-damage/article_17251308-fce4-11e8-b09c-ab51d980f289.html)

<sup>13</sup> <https://www.grainger.com>

<sup>14</sup> <https://www.webstaurantstore.com>

food truck is in the range of \$2,000 to \$2,600, which is less than the \$2,300 to \$4,500 range for a fire suppression system used in a conventional indoor cooking facility.<sup>15</sup>

**Alternatives:**

An alternative to this proposal is not to adopt the provisions of Section 319 and instead to rely on local municipalities to pass regulations regarding the safety of mobile food preparation. This will lead to a lack of uniformity and varying degrees of safety across the state, as well as confusion among mobile food vendors, as they often operate within more than one jurisdiction. For these reasons, this alternative was rejected.

**Outdoor Pallet Storage**

2020 FCNYS: Sections 315, 315.7 (New), 2810 (New)

**Needs and Benefits:**

Currently, the 2015 International Fire Code (2015 IFC) does not adequately address the fire risks involved in large amounts of idle combustible pallets stored outdoors. This code change addresses the need for code requirements in the 2015 IFC addressing those risks. The requirements of this code change are applicable to new and existing buildings. In the 2018 edition of the IFC, Section 315, General Storage, now contains provisions that are specific to outdoor pallet storage at commercial and industrial facilities and Section 2810 is applicable to outdoor pallet storage on the same site as a pallet manufacturing and recycling facility.

There has been an increase in the number of large-scale fires involving the storage of combustible pallets, including the March 2016 fire in Jamesville, and the May 2018 fire in Pembroke, New York. To address this risk, New York State must adopt the new pallet storage provisions found in the 2018 IFC.

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<sup>15</sup> <https://www.hoodmart.com/shop/fire-suppression/kidde-fire-suppression-systems.html/> and <https://www.hoodmart.com/shop/hoods/concession-hood-packages/concessiontrailerhoods.html/>



According to “*Significant Changes to the IFC 2018 Edition*,” idle pallet storage creates a severe fire condition. In addition, stacks of pallets against an exterior wall of a building has repeatedly resulted in fire spreading into the building.

The traditional method of stacking idle pallets in piles is a good arrangement to save space, but it also promotes rapid spread of fire, heat release, and complete combustion. A fire involving even a modest number of idle pallets inside a building can rapidly overtax a fire sprinkler system, weaken structural steel, and lead to the collapse of a building.<sup>16</sup> The high temperatures cause the water to evaporate and very little water from the sprinkler system is able to reach the base of the fire. Therefore, storing idle pallets outdoors, where possible, is preferable and adequate fire-suppression provisions are necessary for indoor storage.

This code change will increase the level of fire safety beyond that which exists under the 2015 IFC. The public will benefit from this code change through an increased level of fire safety.

**Cost:**

Commercial and industrial pallet users with small yards will be among those most affected. One alternative for commercial and industrial users with small yards or without the ability to make changes to the site plan, is to re-sell excess pallets or to utilize the services of a pallet pooling and management service. Pallet services can supply, retrieve, and re-issue pallets to users in lieu of storing them onsite. Companies such as Home Depot<sup>17</sup> and other big box retailers already have such collection agreements in place.

The additional cost to recycling and manufacturing facilities is minimal.

It is anticipated that users might potentially incur one of the costs listed in the chart below depending on the type of facility and a number of other variables. Thus, the values of the table are not to be used in aggregate.

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<sup>16</sup> Storage of Idle Combustible Pallets. Hanover Risk Solutions. [www.hanover.com/linec/docs/171-1740.pdf](http://www.hanover.com/linec/docs/171-1740.pdf)

<sup>17</sup> <http://community.homedepot.com/howto/discussiondetail/pallets-9065000000082B>

Section	Provision	One-time Cost	Ongoing Cost	Notes
315.7	Indoor storage per Chapter 32	No additional fire detection or suppression cost		For piles less than 500 square feet (See Table 3206.6)
		\$117.28/SF		Square Foot Costs <sup>18</sup> for a commercial/industrial warehouse (includes a 1.07 average location multiplier for NYS, exclusive of NYC)
			\$1.65/SF <sup>19</sup>	US average private sector industrial facility ongoing expenses
315.7.1	Storage beneath projections	\$6.89/SF		Cost of extending an existing fire protection system into eaves, canopies, and other projections
315.7.2 315.7.6 315.7.7	Storage within 10' of property line, separation distance, and prohibited locations	\$27,19620	\$0.25/SF	Could imply more surface area for users with small yards. Average cost of 0.10 acre (4,356 SF) Industrial/commercial land. Business unable to expand would have limited storage capacity.
	Pallet Service Option		\$4.75-6.00 per pallet <sup>21</sup>	Dependent on volume of pallets and turn-over ratio.
			\$0.5 Million in annual savings <sup>22</sup>	Utilizing a pallet service could also result in savings depending on how pallets are currently managed.
2810.2	Site Plan	\$1,000 to \$3,000		Depends on whether a property survey or site plans are available.
2810.10	Portable Fire Extinguishers within 75-feet		\$250 each <sup>23</sup>	Including cabinet and signage.

18 RS Means Square Foot Costs 2015.

19 2018 Industrial Experience Exchange Report. Building Owners and Managers Association International and Kingsley Associates. [www.boma.org/BOMA/Research-Resources/3-BOMA-Spaces/Newsroom/PR91818.aspx](http://www.boma.org/BOMA/Research-Resources/3-BOMA-Spaces/Newsroom/PR91818.aspx). Figures include a 1.07 average NYS multiplier.

20 New York Real Estate Market – Average Costs Statistics. Pyramid Brokerage Company.

21 [https://www.mmh.com/article/pallets\\_and\\_containers\\_a\\_chep\\_off\\_the\\_old\\_block](https://www.mmh.com/article/pallets_and_containers_a_chep_off_the_old_block)

22 <https://www.chep.com/us/en/consumer-goods/case-study-general-mills> and <https://www.pecopallet.com/press-release/dramatic-cost-savings/>

23 [www.uline.com](http://www.uline.com)

**Alternatives:**

An alternative to this proposal is to leave the code language as it currently exists. This alternative does not address the fire safety issues of pallet storage and does not adequately protect life and property. For these reasons, this alternative was rejected.

**Special Amusement Buildings**

2020 FCNYS: Section 3103.3.1 (New)

**Needs and Benefits:**

This code change provides regulatory guidance for special amusement buildings located in temporary tents and temporary structures. Special amusement buildings are defined in the building code as *“any temporary or permanent building or portion thereof that is occupied for amusement, entertainment or educational purposes and that contains a device or system that conveys passengers or provides a walkway along, around or over a course in any direction so arranged that the means of egress path is not readily apparent due to visual or audio distractions or is intentionally confounded or is not readily available because of the nature of the attraction or mode of conveyance through the building or structure.”*

The hazards associated with special amusement buildings are currently addressed in Section 411 of the 2015 IFC, which requires automatic fire detection and suppression. The hazards associated with tent and membrane structures are addressed in Chapter 31 of the IBC and in Chapter 31 of the 2018 IFC. However, the combined hazard of placing an amusement building in a temporary tent structure was not adequately addressed in the 2015 version of the IFC nor the IBC. This code change closes that gap by including a provision in Chapter 31 of the 2020 FCNYS requiring a sprinkler system in compliance with Section 411.3 of the 2020 BCNYS to be installed in special amusement uses located in temporary tent structures. This code provision

essentially extends the same sprinkler system protection of permanent special amusement buildings to temporary special amusement buildings, except that temporary special amusement buildings are permitted to use an approved temporary water supply by Section 411.3 of the 2020 BCNYS.

To mitigate the compounded risks posed by special amusement buildings placed in tents and membrane structures, New York State must adopt the provisions of Section 3103.3.1. The code change will increase the level of safety beyond that which exists under the current code. The public will benefit from this code change through an increased level of fire protection in these tent structures.

**Cost:**

There is no cost increase for temporary special amusement buildings with an area of less than 1,000 square feet and an exit travel distance of less than 50 feet, since they are exempted from the requirements of Section 411.3 of the 2020 BCNYS.

The initial cost of a permanently installed sprinkler system is estimated at \$6.89 per square foot (see RS Means Square Foot Costs 2015 including an average multiplier of 1.07 for New York State - exclusive of New York City). There will also be an ongoing cost to dismantle and re-install and re-inspect the system for temporary use. There may be a reduction in cost where an approved temporary water supply is available, or where a permanent water supply is available onsite, and depending on whether a water pump is permanent or rented. The nature of these variables makes determining the potentially reduced cost impractical.

**Alternatives:**

An alternative to this proposal is not to add these provisions to the code. This alternative does not address the fire safety issues associated with temporary special amusement buildings located in tents and membrane structures and does not adequately protect life and property. For these reasons, this alternative was rejected.

## **Outdoor Assembly Events in Membrane Structures**

2020 FCNYS: Section 3106 (New)

### **Needs and Benefits:**

This code change provides regulatory guidance for Outdoor Assembly Events taking place in membrane structures.

The provisions for emergency preparedness for outdoor assembly events are addressed in Section 403.12 of the 2015 IFC. The provisions for means of egress are addressed in Section 1004 of the 2015 IFC, and some provisions for outdoor cooking near tent structures are found in Section 3104.15.6 of the same. However, these sections are not comprehensive enough to address other hazards associated with outdoor assembly events that take place in membrane structures. This code change accomplishes three goals: (1) it closes that gap by including additional regulatory guidance; (2) consolidates all the requirements into one single, coherent section; and (3) provides greater correlation between the requirements of the Building Code and the Fire Code. Some of the additional requirements include provisions for an approved means of fire apparatus access and protection of the fire service features, a public safety plan that includes weather monitoring and response and crowd management, portable fire extinguishers, treatment of combustible materials, and regulations for cooking equipment and electrical wiring.

The risks specific to outdoor assembly events can be fatal, as illustrated by the failures at the Lancaster Fairgrounds tent collapse in New Hampshire and the Wood Dale Prairie Fest in Chicago in 2015. To mitigate these risks, New York State must adopt the provisions of Section 3106 of the 2020 FCNYS.

The code changes will increase the level of safety beyond that which exists under the current code. The public will benefit from this code change through an increased level of fire protection in outdoor assembly events.

**Cost:**

The variables determining the potential cost of these requirements are too broad to make a practical determination of increased cost. Several requirements will be addressed through foresight and careful planning, such as the implementation of a fire-safety plan. Others require monitoring during the event to ensure that fire apparatus access and access to fire service features is not impeded. Presumably, some level of monitoring is already in place and the requirements of Section 3106 enable that monitoring to be more purposeful. Where required by the fire code official, a weather monitoring person may imply either equipment and training of available staff, or an outside consultant.

**Alternatives:**

An alternative to this proposal is not to add these provisions to the code. This alternative does not address the fire safety issues associated with outdoor assembly events and does not adequately protect life and property. For these reasons, this alternative was rejected.

**Processing and Extraction Facilities**

2020 FCNYS:           Section 202, Chapter 39 (New)

**Needs and Benefits:**

This new Chapter provides regulatory guidance for plant oil processing and extraction facilities using solvents as a medium for extraction. The guidance is provided in response to the rapidly growing oil processing and extraction industry, for which there are no specific regulations in place in the current code. While several extraction methods are available, these provisions are specific to the extraction process using solvents. The solvents typically constitute flammable or combustible liquids or gasses. The provisions will establish specific

requirements for handling the solvents and associated materials and establish inspection standards to ensure the life and safety of occupants, first responders, and the general public.

The hazards associated with plant oil extraction have come to light as a result of the 2013 explosions, fires, and fatalities in Bellevue and Spokane, WA. This proposal provides administrative direction, sets definitions, establishes requirements for either equipment listing or technical reports, and identifies construction requirements. To mitigate the risks posed by extraction activities, New York State must adopt the provisions of the 2020 FCNYS which include:

1. a prohibition on the use of domestic or commercial cooking appliances
2. requirements applicable to industrial ovens,
3. fume exhaust requirements,
4. listing requirements or technical reports for equipment used,
5. use of hazardous materials,
6. gas detection, and
7. prohibited locations.

The code change will increase the level of safety beyond that which exists under the 2015 IFC. The public will benefit from this code change through an increased level of fire protection in these extraction facilities.

**Cost:**

Section	Provision	One-time Cost	Notes
3903.5	Hazardous fume exhaust	\$1,200 to \$11,900	Based on <a href="http://www.globallabsupply.com">www.globallabsupply.com</a> and <a href="https://www.grainger.com/category/fume-extractors">https://www.grainger.com/category/fume-extractors</a>

3903.4	Post-process equipment shall be listed	Unknown	No cost increase if the equipment to be used is already listed.
3904.3 and 3904.4	Technical Report and Site Inspection	Unknown	Reports and inspections are only required when unlisted equipment is proposed. Some equipment vendors provide engineering reports as a standard service. When not provided by the vendor, the cost of reports could range based on a number of variables, including whether an approved design professional is already involved on the project or not.
3905	Continuous gas detection system	\$50 to \$1729	Only required if the process uses flammable gases as solvents. Price varies based on type of gas used. Based on <a href="https://www.grainger.com/category/fixed-gas-detectors">https://www.grainger.com/category/fixed-gas-detectors</a>

**Alternatives:**

An alternative to this code change is not to add these provisions to the code. This alternative does not address the safety issues associated with plant oil extraction and processing and does not adequately protect life and property. For these reasons, this alternative was rejected.

**Building Resiliency**

The following is a summary of proposed changes to the 2020 RCNYS, 2020 BCNYS, 2020 FCNYS, and Reference Standard ASCE 7-16 that will result in increased building resiliency in New York State.

**2020 RCNYS**

**2020 RCNYS: Section R322.3.4 (New).** Concrete Slabs. Concrete slabs shall be either structurally independent of the main structure or be self-supporting. This section expands the requirements of the former section R322.3 by adding thickness, reinforcement and joint requirements for structurally independent slabs. This section also provides more specific requirements for self-supporting slabs.



**2020 RCNYS: Section R322.3.7 (New).** Stairways and Ramps. This section establishes new requirements for stairways and ramps “located below the lowest floor elevations.” Post-disaster investigations have revealed that attached stairs break-away during floods; and that when they do, they cause damage to the remaining building. Four compliance alternatives are given for stairways and ramps: (1) open or partially open risers and guards; (2) breakaway; (3) retractable; or (4) designed to resist flood loads. In all cases, the area below stairs and ramps must not be enclosed with walls unless the walls are designed to break away.

**2020 RCNYS: Section R322.3.8 (New).** Decks and Porches. This section requires that attached decks and porches meet the same elevation and foundation requirements of the main building. Further, it requires that self-supporting decks and porches be “designed and constructed to remain in place during base flood conditions” or break away in small enough pieces to minimize the potential of causing significant damage to other structures when they become water-borne debris.

**Needs and Benefits of 2020 RCNYS Changes:**

The above changes to Section R322 apply to newly constructed dwellings in coastal high-hazard V Zones and Coastal A Zones. These areas are located along the Long Island coastline and are subject to wave action during the 100-yr flood.

The proposed amendments to the 2020 RCNYS will clarify and expand the requirements for three main obstructions that could be detrimental to the dwelling and to other buildings during a flood event: (1) concrete slabs, (2) stairways and ramps, (3) decks and porches. Recent extreme weather events in New York State have demonstrated that public health and safety were threatened, and severe property damage was caused, by obstructions that transferred flood loads to the buildings during flood events and wave-velocity flow conditions.

The new requirements are based on reference standard ASCE 24-14 Flood Resistant Design and Construction, the Federal Emergency Management Administration (FEMA) Technical Bulletin 5, Free-of-

Obstructions Requirements, and are consistent with the requirements of the National Flood Insurance Program (NFIP).

In 2013, Congress requested a study on the impact, effectiveness, and feasibility of including building codes in the NFIP. The conclusion of the study was that including building codes in the NFIP management criteria would have an overall positive impact in reducing physical flood losses and other hazard losses. Since reduced losses results in reductions in insurance premiums, the proposed code changes would benefit not only the dwelling owners, but also the general public.<sup>24</sup>

These proposed changes increase the resiliency of dwellings in coastal high-hazard V Zones and Coastal A Zones in the aftermath of a flood event. This will provide better protection for human life and minimize damage to buildings and disruption to normal living activities.

**Cost:**

These proposed changes do not change the cost of construction for communities that participate in the NFIP, as the elevation requirements and the free of obstruction requirements have been part of the NFIP requirements and FEMA guidance. 1,504 communities across the State participate in the NFIP, including 415 minimally flood prone communities.<sup>25</sup>

There are currently nine communities that do not participate in the NFIP.<sup>2</sup> These communities constitute less than 0.16% of the State's population<sup>26</sup> and are not located in a coastal floodplain; therefore, a cost impact for these communities is not anticipated.

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<sup>24</sup> Including Building Codes in the National Flood Insurance Program. Fiscal Year 2013 Report to Congress. Federal Emergency Management Agency. <https://www.fema.gov/media-library/assets/documents/85960>

<sup>25</sup> The National Flood Insurance Program. Community Status Book. <https://www.fema.gov/cis/NY.html>

<sup>26</sup> US Census Bureau. <https://www.census.gov/prod/www/decennial.html>

## **2020 BCNYS and 2020 FCNYS**

**2020 BCNYS:**       **Section 2702.1.8.** Group I-2 Occupancies (located in flood hazard areas). The section has been changed to apply the same provisions for new essential electrical systems to new essential electrical system generators. Both are now required to be located and installed in accordance with ASCE 24. Further, connections for hook up of temporary generators, where provided, must be at or above the elevation required in ASCE 24.

**2020 FCNYS:**       **Section 1203.1.8.** Group I-2 occupancies. For consistency with the 2020 BCNYS, this section requires new and replacement essential electrical system generators that are located in flood hazard areas to be located and installed in accordance with ASCE 24.

### **Needs and Benefits of 2020 BCNYS and 2020 FCNYS:**

Essential System Generators. Extending the requirements for new essential electrical systems in Chapter 27 of the 2020 BCNYS to essential system generators will ensure the continued function of the system, which is the intent of providing the generators. Section 1203.1.8 was added to the 2020 FCNYS for consistency with the 2020 BCNYS. These provisions will improve the resiliency of Group I-2 occupancies and increase the likelihood that the facilities and their systems remain operational during an adverse weather event, at a minimum, during evacuation. Generators are a crucial component of the system, without which, the system would not function during a power outage. Similarly, applying the elevation requirements of ASCE 24 to the generator hook up, ensures that the generator will be viable during a flood event.

### **Cost:**

Essential System Generators. Requiring that essential electrical system generators, where provided in I-2 occupancies, comply with ASCE 24, may imply an additional few feet of conduits and electrical wiring, thus resulting in a minimal increase to the cost of construction.

## **Reference Standard ASCE 7-16**

(Minimum Design Loads and Associated Criteria for Buildings and Other Structures)

The updated ASCE 7 reference standard includes Basic Wind Speed Maps that are specific to Risk Category IV Buildings. These buildings are structures necessary for responding to emergency situations and natural disasters. Examples include hospitals, police stations, fire stations, emergency communication centers, and ancillary structures required for the operation of these facilities. This change provides clear guidance to code users and facilitates code enforcement.

The ASCE 7-16 reference standard corrects inaccuracies in the special wind region of New York. Special wind regions are areas that exhibit unusual wind conditions, such as mountainous terrain and gorges. According to the current Uniform Code<sup>27</sup>, the ultimate design wind speed for special wind regions shall be in accordance with local jurisdiction requirements and in accordance with Section 26.5.1 of ASCE 7. ASCE 7-16 allows local governments to adjust wind speeds to account for higher local wind speeds based on meteorological information. Updated wind maps will provide an additional degree of resiliency against extreme wind events by incorporating local meteorological information. Overall, this change will result in a decrease in the cost of construction for a majority of the State for areas that were previously designated as part of the special wind region but now have been removed; however, certain areas that will now be included within the special wind region will realize an increase the cost of construction.

In addition, the updated ASCE 7 reference standard addresses rooftop mounted solar panels. The revised standard specifically addresses the roof loads associated with current solar panel installation practices. This updated standard will help ensure that roof loads are accurately accounted which will result in safer, stronger,

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<sup>27</sup> Section 1609.3 of the 2015 IBC.

and more durable buildings. The structural requirements are part of the current version of the code, therefore, the update will not increase the cost of construction.

#### **4. COST**

a. **COST TO REGULATED PARTIES FOR THE IMPLEMENTATION OF, AND CONTINUING COMPLIANCE, WITH THE PROPOSED RULE**

The new provisions of the Uniform Code are expected to reduce some building and development costs and increase others. While costs vary depending on the construction or modification project, the Department does not anticipate that the costs will differ greatly from those associated with the current code. This rule reflects performance based regulatory requirements providing regulated parties more alternatives to protect the occupants and users of buildings while at the same time fulfilling programmatic space needs with the most cost-effective solution. The costs associated with the significant changes to the existing Uniform Code are separately discussed in Item #3 above.

b. **COST TO THE AGENCY, THE STATE AND LOCAL GOVERNMENTS FOR THE IMPLEMENTATION OF, AND CONTINUED ADMINISTRATION OF, THE RULE**

The Department of State's Division of Building Standards and Codes will provide training on the new provisions of the Uniform Code for all local government code enforcement personnel in the State at no cost to the municipalities.

The Department of State, State agencies that administer and enforce the Uniform Code, State agencies that own or construct buildings, and local governments that administer and enforce the Uniform Code will be required to obtain copies of the new code books. It is anticipated that the set of code books will cost between

\$620 and \$862.<sup>28</sup> Smaller agencies and local governments typically require only one set of code books. Larger local governments may require multiple sets. Approximately 4,000 code enforcement officials in 1,600 municipalities will be affected by a new version of the Uniform Code.

Further information concerning costs and savings of the most significant of the new provisions of the Uniform Code are discussed within Item #3 above.

## **5. LOCAL GOVERNMENT MANDATES**

This rule making will impose some programs, services, duties, and responsibilities upon counties, cities, towns, villages, school districts, fire districts, and other special districts. When any of the aforementioned governmental entities undertake the construction of a building or structure, the construction process is subject to the provisions of the proposed rule to the same extent that the construction of a private building or structure would be regulated.

Pursuant to Executive Law §381, every city, town, and village is responsible for administering and enforcing the Uniform Code. Consequently, local government personnel will require training in the details of this rule. However, the Department of State's Division of Building Standards and Codes has funding available to provide for training local government code enforcement officials. This training will provide knowledge to enable local government to enforce this regulation.

## **6. PAPERWORK**

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<sup>28</sup> The cost is only for the code books and a range is provided depending upon whether electronic copies versus hard-copy prints are purchased. Note there would likely be additional costs for the reference standards that are cited within the code books.

This rule will not impose any additional reporting or record keeping requirements. No additional paperwork is anticipated.

## **7. DUPLICATION**

The Uniform Code provides standards for the construction and maintenance of buildings and structures and for the protection of buildings and structures and their occupants from the hazards of fire. The federal government does not impose comprehensive requirements for these matters. The federal government has addressed the topic of accessible and usable facilities for persons with disabilities through adoption of the Americans with Disabilities Act (ADA) and the Fair Housing Act. Although the existence of federal and state standards may raise issues of overlap or conflict, no such overlap or conflict exists with this proposed rule.

Several State agencies have promulgated regulations which impose requirements upon buildings or structures that house activities licensed or regulated by the particular agency. Although such regulations may affect the construction and/or maintenance of particular buildings or structures, they are not a comprehensive building and fire prevention code like the Uniform Code. Such regulations may impose an additional layer of regulation upon the construction, maintenance, or use of certain categories of buildings. These other regulations, however, are focused upon activities or occupants regulated or protected by the particular State agency and have been promulgated pursuant to statutory authority other than Article 18 of the Executive Law. To the extent that any other State agency regulation conflicts with provisions of the Uniform Code, such other regulation is superseded by the code. *See* Executive Law §383(1).

## **8. ALTERNATIVES**

It is the policy of the Department of State to modernize and amend the Uniform Code, so as to maintain consistency with the national model codes, to keep building practices in New York State consistent with practice nationally, and to incorporate new technical developments in a timely manner. Consequently, the alternative of maintaining existing provisions of the Uniform Code was rejected.

To assist the Code Council, staff at the Department of State, Building Standards and Codes Division reviewed the ICC model Codes and made recommendations to the Code Council to ensure that the new provisions of the Uniform Code would remain appropriate and applicable to continually developing design and construction issues and needs in New York State.

Proposed New York modifications were posted on the DOS website for public inspection. In addition, the Department maintains a list of over 10,000 interested parties that have signed up for e-bulletins regarding code issues.

Public hearings will be held after a notice of proposed rule making has been published in the State Register in accordance with the provisions of the State Administrative Procedure Act. A draft of the proposed code will also be available on the Department's website and an e-bulletin will be sent announcing that fact.

## **9. FEDERAL STANDARDS**

The Uniform Code provides standards for the construction and maintenance of buildings and structures and for the protection of buildings and structures and their occupants from the hazards of fire. The federal government does not impose comprehensive requirements for these matters. The federal government has addressed the topic of accessible and usable facilities for persons with disabilities through adoption of the Americans with Disabilities Act (ADA) and the Fair Housing Act. Although the existence of federal and state standards may raise issues of overlap or conflict, no such overlap or conflict exists with this proposed rule.



## **10. COMPLIANCE SCHEDULE**

The target date for publishing a notice of adoption for this rule making is Fall 2019. Upon adoption of the rule making a transition period will commence. During this period, regulated parties will have the option of submitting building permit applications in compliance with either current code provisions or the newly adopted provisions. Transition periods are authorized by Executive Law §378(18), which provides that “(a) . . . [N]o change to the building code shall become effective until at least ninety days after the date on which notice of such change has been published in the state register. . . .” and Subdivision 18 further states that “(b) . . . [T]he council may provide that, in the period during which changes to the code have been adopted but are not yet effective . . . a person shall have the option of complying with either the provisions of the code as changed or with the code provisions as they were set forth immediately prior to the change.”

The magnitude of the proposal to adopt new provisions for the Uniform Code makes it necessary that the Code Council establish a plan for transition to the new provisions. This transition provides flexibility for large construction projects that are in the planning and development stages prior to adoption of the new code provisions. However, the option of compliance with either the “old” Uniform Code or the “new” Uniform Code would not allow persons to mix the application of current and proposed code provisions. The new code provisions will take effect fully at the end of the transition period. A delay of the effective date of the new Uniform Code provisions for a specified time after their adoption, and the option of compliance with either the existing or the proposed code during that period ensure that regulated parties will be able to achieve compliance with the rule on the date that it becomes effective.