



Legislation Text

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Int. No. 1096-A

By Council Members Oddo, Chin, Comrie, Dickens, Fidler, James, Koo, Lander, Mendez, Recchia, Richards, Rose, Gennaro, Van Bramer, Lappin, Rodriguez, Barron, Jackson and Williams

A Local Law to amend the New York city building code, the New York city mechanical code and the New York city fire code, in relation to relocating and protecting building systems in flood-prone areas.

Be it enacted by the Council as follows:

Section 1. Section G304.1.1 of the New York city building code is amended by adding new items 5.1,

5.2, 5.3 and 5.4 to read as follows:

5.1 Fire protection systems and equipment. The following fire protection systems and equipment shall be located at or above the design flood elevation specified in ASCE 24, Table 7-1, except that where the system or equipment or portion thereof serves only spaces located below such design flood elevation, the system or equipment or portion thereof may be located at or above such design flood elevation:

5.1.1. Sprinkler control valves that are not outside stem and yoke valves;

5.1.2. Fire standpipe control valves that are not outside stem and yoke valves;

5.1.3. Sprinkler booster pumps and fire pumps;

5.1.4. Dry pipe valve-related electrically operated alarm appurtenances;

5.1.5. Alarm control panels for water and non-water fire extinguishing systems;

5.1.6. Alarm control panels for sprinkler systems, pre-action sprinkler systems, deluge sprinkler systems, and combined dry pipe and pre-action sprinkler systems;

5.1.7. Electrically operated waterflow detection devices serving sprinkler systems and

5.1.8. Air compressors serving sprinkler systems and pre-action sprinkler systems.

5.2 Fire alarm systems and components. Where a zoning indicator panel is provided at the main building entrance in accordance with Section 907.6.3.1 and such panel is located at or below 5 feet (1524 mm) above the design flood elevation specified in ASCE 24, Table 7-1, at least one secondary zoning indicator panel complying with the following requirements shall be provided:

5.2.1. The secondary zoning indicator panel, associated controls, power supplies and means of transferring control shall be provided at least 5 feet (1524 mm) above the design flood elevation specified in ASCE 24, Table 7-1, in a location accessible to responding Fire Department personnel and approved by the department and the Fire Department and

5.2.2. Where the secondary zoning indicator panel or associated controls are only operable upon transfer of control from another zoning indicator panel, such transfer shall be by a means that is approved by the Fire Department.

5.3 Fuel-oil piping systems. The following requirements shall apply to fuel-oil piping systems, as defined by Section 202 of the *New York City Mechanical Code*:

5.3.1 Fill piping that does not terminate in a watertight terminal approved by the department shall terminate at least 3 feet (914 mm) above the design flood elevation specified in ASCE 24, Table 7-1 and

5.3.2 Normal vent piping and emergency vent piping shall terminate at least 3 feet (914 mm) above the design flood elevation specified in ASCE 24, Table 7-1.

5.4 Plumbing systems and components. The structure shall comply with the following requirements:

5.4.1 Relief vents and fresh air intakes. Relief vents and fresh air intakes serving building traps in accordance with Section 1002.6 of the *New York City Plumbing Code* shall be carried above grade and shall terminate in a screened outlet that is located outside of the building and at or above the design flood elevation specified in ASCE 24, Table 7-1 and

5.4.2 Reduced pressure zone backflow preventers. Reduced pressure principle backflow preventers complying with Section 608.13.2 of the *New York City Plumbing Code* and backflow preventers with intermediate atmospheric vents complying with Section 608.13.3 of the *New York City Plumbing Code* shall be located at or above the design flood elevation specified in ASCE 24, Table 7-1.

§2. Section G304.1.2 of the New York city building code is amended by adding a new item 2.3.1 to read as follows:

2.3.1 Additional requirements. The structure shall comply with Items 5.1 through 5.4 of Section G304.1.1.

§3. Section G304.2 of the New York city building code is amended by adding a new item 5.1 to read as follows:

5.1 Additional requirements. The structure shall comply with Items 5.1 through 5.4 of Section G304.1.1.

§4. Appendix G of the New York city building code is amended by adding a new section G304.4 to read as follows:

**G304.4 Construction standards for shaded X-Zones.** In shaded X-Zones, buildings that include I-2 occupancies that are hospitals shall comply with the requirements of this chapter and the applicable provisions

of ASCE 24 for A-Zone construction.

§5. Appendix G of the New York city building code is amended by adding a new section G307.5 to read as follows:

**G307.5 Elevation of certain tanks and containers serving critical facilities.** The following tanks and containers shall be located at or above the design flood elevation specified in ASCE 24, Table 7-1, unless such tanks and containers serve buildings that include I-2 occupancies that are hospitals, in which case such tanks and containers shall be located at or above the greater of (i) the design flood elevation specified in ASCE 24, Table 7-1, or (ii) the 500-year flood elevation. Such tanks and containers must be designed to maintain service to such structure during flood conditions and shall comply with section 9.6 of ASCE 24:

1. Medical and compressed gas storage tanks, oxygen tanks, and other cryogenic system storage tanks;
2. Hazardous material storage tanks;
3. Stationary compressed gas containers;
4. Stationary cryogenic containers and
5. Stationary flammable gas storage containers.

§6. Table 2-1 of Section 2.3, Table 4-1 of Section 4.4, Table 5-1 of Section 5.1, Table 6-1 of Section 6.2 and Table 7-1 of Section 7.1 of ASCE 24 as modified by section G501.1 of the New York city building code, as amended by a local law of the city of New York for the year 2013 amending the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code and the New York city fuel gas code, relating to bringing such codes up to date with the 2009 editions of the international building, mechanical, fuel gas and plumbing codes, as proposed in introduction number 1056, are amended to read as follows:

**TABLE 2-1**  
**MINIMUM ELEVATION OF THE TOP OF LOWEST FLOOR**  
**RELATIVE TO DESIGN FLOOD ELEVATION (DFE)-A-ZONES<sup>a</sup>**

| <b>STRUCTURAL OCCUPANCY CATEGORY<sup>b</sup></b> | <b>MINIMUM ELEVATION OF LOWEST FLOOR</b> |
|--|--|
| I  | DFE=BFE                                  |
| II (1- and 2-family dwellings)                   | DFE=BFE+ 2 ft                            |

|                                |               |
|--------------------------------|---------------|
| II <sup>c,d</sup> (all others) | DFE=BFE+ 1 ft |
| III <sup>c,d</sup>             | DFE=BFE+ 1 ft |
| IV <sup>c,d</sup>              | DFE=BFE+ 2 ft |

- a. Minimum elevations shown in Table 2-1 do not apply to V Zones (see Table 4-1). Minimum elevations shown in Table 2-1 apply to A-Zones unless specific elevation requirements are given in Section 3 of this standard.
- b. See Table 1-1 or Table 1604.5 of the *New York City Building Code*, for structural occupancy category descriptions.
- c. For nonresidential buildings and nonresidential portions of mixed-use buildings, the lowest floor shall be allowed below the minimum elevation if the structure meets the floodproofing requirements of Section 6.
- d. Buildings that include I-2 occupancies that are hospitals shall use the greater of (i) the DFE for the applicable structural occupancy category as indicated in this table or (ii) the 500-year flood elevation.

**TABLE 4-1  
MINIMUM ELEVATION OF BOTTOM OF LOWEST SUPPORTING  
HORIZONTAL STRUCTURAL MEMBER OF LOWEST FLOOR  
RELATIVE TO DESIGN FLOOD ELEVATION (DFE)-V-ZONES AND COASTAL A-ZONES**

| STRUCTURAL OCCUPANCY CATEGORY <sup>a</sup> | MEMBER ORIENTATION RELATIVE TO THE DIR OF WAVE APPROACH |                            |
|--|---|----------------------------|
|  | Parallel <sup>b</sup>                                   | Perpendicular <sup>b</sup> |
| I  | DFE=BFE   | DFE=BFE                    |
| II (1-and 2- family dwellings)             | DFE=BFE[ ]+ 2 ft  | DFE=BFE[ ]+ 2 ft           |
| II <sup>c</sup> (all others)               | DFE=BFE   | DFE=BFE+ 1 ft              |
| III <sup>c</sup>                           | DFE=BFE+ 1 ft   | DFE=BFE+ 2 ft              |
| IV <sup>c</sup>                            | DFE=BFE+ 1 ft   | DFE=BFE+ 2 ft              |

- a. See Table 1-1, or Table 1604.5 of the *New York City Building Code*, for structural occupancy category descriptions.
- b. Orientation of lowest horizontal structural member relative to the general direction of wave approach; parallel shall mean less than or equal to +20 degrees from the direction of approach; perpendicular shall mean greater than +20 degrees from the direction of approach.
- c. Buildings that include I-2 occupancies that are hospitals shall use the greater of (i) the DFE for the applicable structural occupancy category as indicated in this table or (ii) the 500-year flood elevation.

**TABLE 5-1  
MINIMUM ELEVATION, RELATIVE TO DESIGN FLOOD  
ELEVATION (DFE), BELOW WHICH FLOOD-DAMAGE-RESISTANT  
MATERIALS SHALL BE USED**

| STRUCTURAL OCCUPANCY CATEGORY <sup>a</sup> | A-ZONE        | Coastal High Hazard Areas and Coastal A |                     |
|--|---------------|---|---------------------|
|  |               | Orientation Parallel <sup>b</sup>       | Orientation Perpend |
| I  | DFE=BFE       | DFE=BFE                                 | DFE=BFE             |
| II (1-and 2- family dwellings)             | DFE=BFE+ 2 ft | DFE=BFE+ 2 ft                           | DFE=BFE+ 2 ft       |
| II <sup>c</sup> (all others)               | DFE=BFE+ 1 ft | DFE=BFE+ 1 ft                           | DFE=BFE+ 2 ft       |
| III <sup>c</sup>                           | DFE=BFE+ 1 ft | DFE=BFE+ 2 ft                           | DFE=BFE+ 3 ft       |

|                 |               |               |               |
|-----------------|---------------|---------------|---------------|
| IV <sup>e</sup> | DFE=BFE+ 2 ft | DFE=BFE+ 2 ft | DFE=BFE+ 3 ft |
|-----------------|---------------|---------------|---------------|

- a. See Table 1-1, or Table 1604.5 of the *New York City Building Code*, for structural occupancy category descriptions.
- b. Orientation of lowest horizontal structural member relative to the general direction of wave approach; parallel shall mean less than or equal to +20 degrees from the direction of approach; perpendicular shall mean greater than +20 degrees from the direction of approach.
- c. Buildings that include I-2 occupancies that are hospitals shall use the greater of (i) the DFE for the applicable structural occupancy category as indicated in this table or (ii) the 500-year flood elevation.

**TABLE 6-1  
MINIMUM ELEVATION OF FLOODPROOFING, RELATIVE TO  
DESIGN FLOOD ELEVATION (DFE)-A-ZONES**

| STRUCTURAL OCCUPANCY CATEGORY <sup>a</sup> | MINIMUM ELEVATION OF FLOODPROOFING <sup>b</sup> |
|--|---|
| I  | DFE=BFE+ 1 ft                                   |
| II <sup>c,d</sup>                          | DFE=BFE+ 1 ft                                   |
| III <sup>d</sup>                           | DFE=BFE+ 1 ft                                   |
| IV <sup>d</sup>                            | DFE=BFE+ 2 ft                                   |

- a. See Table 1-1, or Table 1604.5 of the *New York City Building Code*, for structural occupancy category descriptions.
- b. Wet or dry floodproofing shall extend to the same level.
- c. Dry floodproofing of residential buildings and residential portions of mixed use buildings shall not be permitted.
- d. Buildings that include I-2 occupancies that are hospitals shall use the greater of (i) the DFE for the applicable structural occupancy category as indicated in this table or (ii) the 500-year flood elevation.

**TABLE 7-1  
MINIMUM ELEVATION OF UTILITIES AND ATTENDANT EQUIPMENT RELATIVE TO DESIGN  
FLOOD ELEVATION (DFE)**

| STRUCTURAL OCCUPANCY CATEGORY <sup>a</sup> | LOCATE UTILITIES AND ATTENDANT EQUIPMENT ABOVE <sup>b</sup> |  |  |
|--|---|--|--|
|  | A-Zones   | Coastal High Hazard Area and Coastal A-Zones |  |
|  |   | Orientation Parallel <sup>c</sup>            | Orientation Perpendicular <sup>c</sup> |
| I  | DFE=BFE   | DFE=BFE                                      | DFE=BFE                                |
| II (1-and 2- family dwellings)             | DFE=BFE+ 2 ft   | DFE=BFE+ 2 ft                                | DFE=BFE+ 2 ft                          |
| II <sup>c,d</sup> (all others)             | DFE=BFE+ 1 ft   | DFE=BFE+ 1 ft                                | DFE=BFE+ 2 ft                          |
| III <sup>d</sup>                           | DFE=BFE+ 1 ft   | DFE=BFE+ 2 ft                                | DFE=BFE+ 3 ft                          |
| IV <sup>d</sup>                            | DFE=BFE+ 2 ft   | DFE=BFE+ 2 ft                                | DFE=BFE+ 3 ft                          |

- a. See Table 1-1, or Table 1604.5 of the *New York City Building Code*, for structural occupancy category descriptions.
- b. Locate utilities and attendant equipment above elevations shown unless otherwise provided in the text.

- c. Orientation of lowest horizontal structural member relative to the general direction of wave approach; parallel shall mean less than or equal to +20 degrees from the direction of approach; perpendicular shall mean greater than +20 degrees from the direction of approach.
- d. Buildings that include I-2 occupancies that are hospitals shall use the greater of (i) the DFE for the applicable structural occupancy category as indicated in this table or (ii) the 500-year flood elevation.

§7. Section G501.1 of the New York city building code is amended by adding a new modification to section 7.2.4 of ASCE 24 to read as follows:

**Section 7.2.4.** Section 7.2.4 (Disconnect Switches and Circuit Breakers) is amended to read as follows:

7.2.4 Disconnect Switches and Circuit Breakers. The main disconnect switch, all service disconnecting means, and all circuit breakers shall be located above and be accessible from the elevation specified in Table 7-1. Switches, all service disconnecting means, and circuit breakers shall be located no more than 6 feet 7 inches (2 m) above the floor, or a platform shall be installed to provide access.

§8. The modification to section 23.2.2.4(c) of NFPA 13 set forth in section Q102.1 of Appendix Q of the New York city building code, as amended by a local law of the city of New York for the year 2013 amending the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code and the New York city fuel gas code, relating to bringing such codes up to date with the 2009 editions of the international building, mechanical, fuel gas and plumbing codes, as proposed in introduction number 1056, is amended to read as follows:

(c) Such pumps shall also comply with the applicable provisions of this Referenced Standard and the *New York City Building Code* pertaining to Fire Pumps, except that only one water supply [and no enclosure] shall be required.

§9. The modification to section 9.1.5(2)(f) of NFPA 14 set forth in section Q105.1 of Appendix Q of the New York city building code, as amended by a local law of the city of New York for the year 2013 amending the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code and the New York city fuel gas code, relating to bringing such codes up to date with the 2009 editions of the international building, mechanical, fuel gas and plumbing codes, as proposed in introduction number 1056, is amended to read as follows:

(f) Fire pumps shall be placed on concrete pads at least 12 in. (305mm) above the pump room floor with a clearance of at least 3 ft. (914 mm) maintained on all sides from walls or from other equipment in the pump room. In the event of the use of a vertical shaft centrifugal fire pump, the 12 in. (305 mm) high concrete pad

may be omitted, provided the bottom of the electric driving motor and all electrical appurtenances are raised at least 12 in. (305 mm) above the pump room floor. Fire pumps shall be located in a 2-hour fire-rated enclosure.

§10. Section 301.13 of the New York city mechanical code, as added by local law number 33 for the year 2007, is amended to read as follows:

**301.13 Flood hazard.** For structures located in areas of special flood hazard, and buildings that include I-2 occupancies that are hospitals located in shaded X-Zones, mechanical systems, equipment and appliances shall comply with Appendix G of the *New York City Building Code*.

§11. The New York city fire code is amended by adding a new section 904.3.6 to read as follows:

**904.3.6 Flood hazard.** Non-water fire extinguishing system control panels located in areas of special flood hazard or on the premises of Group I-2 occupancies that are hospitals located in shaded X-Zones (as defined in Section G201.2 of Appendix G of the Building Code) shall be located at or above the design flood elevation in accordance with Appendix G of the Building Code.

§12. Section 2703.2.4 of chapter 27 the New York city fire code, as added by local law number 26 for the year 2008, is amended to read as follows:

**2703.2.4 Installation of tanks.** Installation of tanks shall be in accordance with Sections 2703.2.4.1 through [2703.2.4.2.1] 2703.2.4.3 and with the regulations of the New York State Department of Environmental Conservation as set forth in 6 NYCRR Sections 599.6, 614.7 and 614.13.

**2703.2.4.1 Underground tanks.** Underground tanks used for the storage of liquid hazardous materials shall be provided with secondary containment.

**2703.2.4.2 Aboveground tanks.** Aboveground stationary tanks used for the storage of liquid hazardous materials shall be located and protected in compliance with the requirements for outdoor storage of the particular material involved.

**2703.2.4.2.1 Marking.** Aboveground stationary tanks shall be marked as required by Section 2703.5.

**2703.2.4.3 Flood hazard.** Hazardous material storage tanks located in areas of special flood hazard or on the premises of Group I-2 occupancies that are hospitals located in shaded X-Zones (as defined in Section G201.2 of the Building Code) shall comply with Section G307.5 of Appendix G of the Building Code.

§13. Section 3003.3.1 of chapter 33 of the New York city fire code, as added by local law number 26 for the year 2008, is amended to read as follows:

**3003.3.1 [Reserved.] Flood hazard.** Stationary compressed gas containers located in areas of special flood hazard or on the premises of Group I-2 occupancies that are hospitals located in shaded X-Zones (as defined in Section G201.2 of Appendix G of the Building Code) shall comply with Section G307.5 of the Building Code.

§14. Section 3203.1.2 of chapter 32 of the New York city fire code, as added by local law number 26 for the year 2008, is amended to read as follows:

**3203.1.2 [Reserved.] Flood hazard.** Stationary cryogenic containers located in areas of special flood hazard or on the premises of Group I-2 occupancies that are hospitals located in shaded X-Zones (as defined in Section G201.2 of Appendix G of the Building Code) shall comply with Section G307.5 of the Building Code.

§15. The New York city fire code is amended by adding a new section 3501.5 to read as follows:

**3501.5 Flood hazard.** Stationary flammable gas containers located in areas of special flood hazard or on the premises of Group I-2 occupancies that are hospitals located in shaded X-Zones (as defined in Section G201.2 of Appendix G of the Building Code) shall comply with Section G307.5 of the Building Code.

§16. This local law shall take effect on the same date that a local law of the city of New York for the year 2013 amending the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code and the New York city fuel gas code, relating to bringing such codes up to date with the 2009 editions of the international building, mechanical, fuel gas and plumbing codes, as proposed in introduction number 1056, takes effect.

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