Resiliency & Waterfronts Committee

Jessica Steinberg Albin, Legislative Counsel

Patrick Mulvihill, Senior Policy Analyst

Jonathan Seltzer, Senior Finance Analyst



**The New York City Council**

Jeffrey Baker, Legislative Director

**COMMITTEE REPORT OF THE INFRASTRUCTURE DIVISION**

Terzah Nasser, Deputy Director

**Committee on Resiliency and waterfronts**

Hon. Justin Brannan, Chair

March 18, 2021

**PROPOSED INT. NO. 2092-A:** By Council Members Constantinides, Kallos, Rosenthal, Lander, Cornegy, Levin, Rose, Vallone, Brannan and Rivera

**TITLE:** A Local Law to amend the administrative code of the city of New York, in relation to climate resiliency design guidelines and resiliency scoring

**ADMINISTRATIVE CODE:** Adds sections 3-131 and 3-132

**PROPOSED INT. NO. 2198-A:** By Council Members Matteo, Rosenthal and Rose

**TITLE:** A Local Law to amend the New York city building code, in relation to additional freeboard for structures in the floodplain

**BUILDING CODE:** Amends section G501.1

**Introduction**

On March 18, 2021, the Committee on Resiliency and Waterfronts, chaired by Council Member Justin Brannan, will hold a hearing to consider Proposed Int. No. 2092-A, sponsored by Council Member Constantinides, in relation to climate resiliency design guidelines and resiliency scoring and Proposed Int. No. 2198-A, sponsored by Council Member Matteo, in relation to additional freeboard for structures in the floodplain. This legislation was originally heard at a hearing held on January 25, 2021, during which the Committee received testimony from the Mayor’s Office of Resiliency, advocates and other interested parties. More information about these bills, along with the materials for that hearing, can be accessed [here](https://legistar.council.nyc.gov/MeetingDetail.aspx?ID=830495&GUID=6B1F175E-9AEB-4EF7-AFC3-EC30F2886AC6&Options=&Search=).

**Legislation**

Below is a brief summary of the legislation being considered today by this Committee. This summary is intended for informational purposes only and does not substitute for legal counsel. For more detailed information, you should review the full text of the bill, which is attached below.

**Proposed Int. No. 2092-A, A Local Law to amend the administrative code of the city of New York, in relation to climate resiliency design guidelines and resiliency scoring**

Proposed Int. No. 2092-A would require the Office of Long-Term Planning and Sustainability (OLTPS) to develop climate resiliency design guidelines, pursuant to a pilot program, for City capital projects. OLTPS, in consultation with other City agencies, environmental justice organizations with expertise in climate resiliency, and members of the public with expertise in climate resiliency, climate design, the built environment, engineering, and environmental justice issues, would also use the climate resiliency design guidelines to develop a climate resiliency score metric for capital projects. Such score would account for features such as elevation to prevent flooding risk, energy efficiency, energy resilience and on-site water capture and management. Every City capital project above a threshold construction cost would be evaluated for its resiliency and have to meet or exceed a minimum resiliency score.

This local law would take effect 120 days after it becomes law.

**Proposed Int. No. 2198-A, A Local Law to amend the New York city building code, in relation to additional freeboard for structures in the floodplain**

Int. No. 2198 would require that most structures located in the floodplain be elevated an additional one-to-two feet, or by the 500-year flood elevation, depending on the type of structure, to provide additional floodproofing of those structures.

This local law would take effect one year after it becomes law.

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Proposed Int. No. 2092-A

By Council Members Constantinides, Kallos, Rosenthal, Lander, Cornegy, Levin, Rose, Vallone, Brannan and Rivera

..Title

A Local Law to amend the administrative code of the city of New York, in relation to climate resiliency design guidelines and resiliency scoring

..Body

Be it enacted by the Council as follows:

Section 1. Subchapter 2 of chapter 1 of title 3 of the administrative code of the city of New York is amended by adding a new section 3-131, to read as follows:

§ 3-131 Climate resiliency design guidelines. a. Definitions. For the purposes of this section, the following terms have the following meanings:

Agency. The term “agency” shall have the same definition as such term is defined in section 1150 of the charter.

Capital Project. The term “capital project” means a capital project as defined in section 210 of the charter.

Climate stressor. The term “climate stressor” means a condition, event or trend related to climate variability and change that can exacerbate an event or condition that may cause damage to assets or cause injury, illness or death to people.

Critical facility. The term “critical facility” means a:

1. Hospital or healthcare facility;

2. Fire, rescue, ambulance, police station or emergency vehicle facility;

3. Jail, correctional facility or detention facility;

4. Facility used in emergency response;

5. Critical aviation facility;

6. Food distribution center with an annual expected volume of greater than 170,000,000 pounds;

7. Building or structure that manufactures, processes, handles, stores, disposes or uses toxic or explosive substances;

8. Component of infrastructure in transportation, telecommunications or power networks;

9. Ventilation building or fan plant;

10. Operations center;

11. Sanitary pumping station;

12. Stormwater pumping station;

13. Train and transit maintenance yard or shop;

14. Wastewater treatment plant;

15. Component of the water supply infrastructure;

16. Combined sewer overflow retention tank;

17. Fueling station;

18. Waste transfer station; and

19. Facility where residents have limited mobility or ability.

Office.  The term “office” means the office of long-term planning and sustainability.

Useful life. The term “useful life” means the period over which a building, structure or system is expected to be available for use by an entity and may exceed the design life of such building, structure or system.

b. The office shall establish climate resiliency design guidelines for the design and construction of certain capital projects, to be informed both by any existing climate resiliency design guidelines and by the pilot program pursuant to subdivision c. Such climate resiliency design guidelines shall consider the capacity of a covered project, as defined in section 3-132, to absorb disruption and manage stresses while maintaining the same basic structure and function, and shall provide guidance on incorporating forward-looking climate change data into the design of capital projects and city facilities, as such term is defined in section 203 of the charter, as well as into the design of covered projects, as defined in section 3-132, and instruction on determining the appropriate resilient design strategies, including consideration of the useful life and criticality of facilities.

c. Pilot program. No later than August 31, 2021, each agency shall identify capital projects that comprise no less than five percent of their respective capital construction budgets for fiscal years 2021 through 2024. The pilot program shall be in effect for not more than five years, and the office shall select no fewer than 35 such capital projects to include in the pilot program. No less than 35 percent of all such capital projects shall be located in an environmental justice area, as such term is defined in section 3-1001, and no fewer than four projects shall be located in each borough. Projects selected for the pilot program shall include, but not be limited to, the following:

1. The most common capital projects;

2. New construction and substantial improvements, as both terms are defined in section G201.2 of chapter G2 of appendix G of the New York city building code;

3. Projects with a useful life: (a) less than 10 years; (b) 10 to 50 years; and (c) over 50 years;

4. Projects with capital costs: (a) under $10 million; (b) $10-49 million; (c) $50-100 million; and (d) over $100 million;

5. Critical and non-critical facilities; and

6. Facilities that are exposed to a variety of climate stressors.

d. No later than December 31, 2026, the office shall submit to the speaker of the council and publish on its website the climate resiliency design guidelines developed pursuant to the pilot program described in subdivision c. Such guidelines shall be updated as necessary and no less than once every eight years from such date of submission.

§ 2. Subchapter 2 of chapter 1 of title 3 of the administrative code of the city of New York is amended by adding a new section 3-132, to read as follows:

§ 3-132 Resiliency scores of agency projects. a. Definitions. For the purposes of this section, the following terms have the following meanings:

Agency. The term “agency” shall have the same definition as such term is defined in section 1150 of the charter.

Covered project. The term “covered project” means a capital project of an agency with an estimated construction cost of no less than $10,000,000, provided that the office may by rule set such construction cost at a lower amount, that consists of:

1. New construction as defined in section G201.2 of chapter G2 of appendix G of the New York city building code of a building or structure;

2. Substantial improvement as defined in section G201.2 of chapter G2 of appendix G of the New York city building code of an existing building or structure; or

3. Construction of new or improvement of existing infrastructure including but not limited to sewers and other utilities, streets, landscape and transportation facilities with a minimum threshold construction value to be determined by rule or by meeting other specifications or qualifications to be set forth in such rules by the director of long-term planning and sustainability, provided that such term shall not include a public betterment consisting solely of a street that does not involve subsurface utility work, drainage or roadway grading, fencing, or combination thereof.

Such term shall include capital projects of the New York city housing authority and the New York city school construction authority provided that each such entity, in consultation and coordination with the office, may establish a distinct scoring metric for its respective capital projects to address climate hazards in accordance with subdivision c.

Office. The term “office” means the office of long-term planning and sustainability.

b. The director of long-term planning and sustainability, in consultation with the New York city panel on climate change, the commissioner of design and construction, the commissioner of environmental protection, the commissioner of citywide administrative services, the commissioner of transportation, the commissioner of emergency management, the commissioner of buildings, the commissioner of parks and recreation, the commissioner of housing preservation and development, the commissioner of health and mental hygiene, the fire commissioner, the director of management and budget, the director of city planning, the head of any other office or agency as appropriate, the president of the New York city economic development corporation, environmental justice organizations with expertise in climate resiliency, and members of the public with expertise in climate resiliency, climate design, the built environment, engineering, and environmental justice issues shall develop a resiliency score metric. For the purposes of calculating such resiliency score, the office shall by rule establish a system of points or metrics, considering potential performance of resiliency features, and develop a methodology for applying such scoring to covered projects, provided such methodology shall include one or more minimum thresholds of resiliency that covered projects shall meet, to be informed by and include features detailed in the climate resiliency design guidelines pursuant to section 3-131, and which may also include but need not be limited to features such as:

1. Elevation to reduce the risk of flooding over the anticipated useful life;

2. Flood-proofing of structures or equipment;

3. Site elevation or responsible site considerations;

4. Heat mitigation;

5. Efficient energy resilience, including energy storage with or without use of on-site renewable energy generation;

6. On-site storm water capture and management;

7. Integration with naturally resilient shoreline features;

8. Salt or flood tolerant landscaping;

9. Green infrastructure;

10. Pervious pavement;

11. Resilient building materials;

12. Living walls or structures; and

13. Integration with and preservation of naturally occurring vegetation and habitat.

c. No later than December 31, 2026, the office shall establish by rule a minimum resiliency score that could be met or exceeded by most covered projects, provided that separate minimum resiliency scores may be established for: i) new construction; ii) substantial improvements; and iii) infrastructure. The New York city housing authority and the New York city school construction authority may each also establish, with the review and approval of the office, an alternative resiliency scoring metric for its capital projects to address climate hazards.

d. The office shall publish on its website the minimum resiliency score and the number of points that resilient features are assigned for calculating the resiliency score or scores, and other resiliency score methodology.

e. Each covered project that is a new construction of buildings and structures or new infrastructure shall be required to meet or exceed the minimum resiliency score. The project design shall be submitted to the office for calculation of a resiliency score and scored by such office prior to being made available for review by the respective council committee, borough president and the community board pursuant to section 223 of the charter. If a covered project is not subject to section 223 of the charter, the project design shall be submitted to the office for the calculation of a resiliency score prior to registration of a construction contract. Agencies must resubmit the covered project to the office for scoring if there are design changes that could result in a change to the resiliency score.

f. Each covered project that is a substantial improvement or the reconstruction, installation, retrofit, improvement or alteration to infrastructure shall be required to either:

1. Meet or exceed the minimum resiliency score; or

2. Receive approval from the office, after submission of the project design with a written statement explaining how resilient features have been incorporated into the design to the extent practicable.

g. After each update of the climate resiliency design guidelines pursuant to subdivision d of section 3-131, the office shall review the resiliency score methodology developed pursuant to subdivision b and, if necessary, revise such score methodology.

§ 3. Section 2 of this local law shall not apply to any projects for which the design has been made available for review by the respective council committee, borough president and the community board pursuant to section 223 of the charter prior to the effective date of this local law, except section 2 of this local law shall apply to such projects if registration of a capital project change order occurs after the effective date of this local law and such change order has a value that exceeds 60 percent of the original registered construction contract value of such project.

§ 4. This local law takes effect 120 days after it becomes law.

NAB/JSA

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3/10/21 11:23pm

Proposed Int. No. 2198-A

By Council Members Matteo, Rosenthal and Rose

..Title

A Local Law to amend the New York city building code, in relation to additional freeboard for structures in the floodplain

..Body

Be it enacted by the Council as follows:

Section 1. The New York city amendments to section 2.3 of ASCE 24-05 as set forth in section G501.1 of chapter G5 of appendix G of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

**Section 2.3.** Table 2-1 of Section 2.3 (Elevation Requirements) is amended to read as follows:

**TABLE 2-1  
MINIMUM elevation of the top of lowest floor**

**Relative to design flood elevation (DFE)—A-Zonesa**

|  |  |
| --- | --- |
| **Structural Occupancy Categoryb** | **Minimum Elevation of Lowest Floor** |
| I | DFE = BFE + 2 ft |
| [II (1-and 2- family dwellings)] | [DFE = BFE + 2 ft] |
| IIc, d [(all others)] | DFE = BFE + [1]­ 2 ft |
| IIIc, d | DFE = BFE + [1] 2 ft |
| IVc | DFE = BFE + 2 ft or  500-year flood  elevation, whichever  is higher |

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.

§ 2. The New York city amendments to section 4.4 of ASCE 24-05 as set forth in section G501.1 of chapter G5 of appendix G of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

**Section 4.4.** Table 4-1 of Section 4.4 (Elevation Requirements) is amended to read as follows:

**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**  **categorya** | **Member orientation relative to the**  **Direction of wave approach** | |
| **Parallelb** | **Perpendicularb** |
| I | DFE=BFE + 2 ft | DFE=BFE + 2 ft |
| [II (1-and 2- family dwellings)] | [DFE=BFE + 2 ft] | [DFE=BFE + 2 ft] |
| IIc [(all others)] | DFE=BFE + 2 ft | DFE-BFE + [1] 2 ft |
| IIIc | DFE=BFE + [1] 2 ft | DFE=BFE + 2 ft |
| IVc | DFE=BFE + [1] 2 ft | DFE=BFE + 2 ft or  500-year flood  elevation, whichever  is higher |

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.

§ 3. The New York city amendments to section 5.1 of ASCE 24-05 as set forth in section G501.1 of chapter G5 of appendix G of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

**Section 5.1.** Table 5-1 of Section 5.1 (Materials, General) is amended to read as follows:

**Table 5-1**

**Minimum Elevation, Relative to Design Flood**

**Elevation (DFE), Below which Damage-Resistant**

**Materials Shall be Used**

|  |  |  |  |
| --- | --- | --- | --- |
| **Structural**  **Occupancy**  **categorya** | **A-ZONE** | **Coastal High Hazard Areas and**  **Coastal A-Zones** | |
| **Orientation Parallelb** | **Orientation**  **Perpendicularb** |
| I | DFE=BFE + 2 ft | DFE=BFE + 2 ft | DFE=BFE + 2 ft |
| [II (1-and 2- family dwellings)] | [DFE=BFE + 2 ft] | [DFE=BFE + 2 ft] | [DFE=BFE + 2 ft] |
| IIc [(all others)] | DFE=BFE + [1] 2 ft | DFE=BFE + [1] 2 ft | DFE=BFE + 2 ft |
| IIIc | DFE=BFE + [1] 2 ft | DFE=BFE + 2 ft | DFE=BFE + 3 ft |
| IVc | DFE=BFE + 2 ft or  500-year flood  elevation, whichever  is higher | DFE=BFE + 2 ft or  500-year flood  elevation, whichever  is higher | DFE=BFE + 3 ft or  500-year flood  elevation, whichever  is higher |

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.

§ 4. The New York city amendments to section 6.2 of ASCE 24-05 as set forth in section G501.1 of chapter G5 of appendix G of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

**Section 6.2.** Table 6-1 of Section 6.2 (Dry Floodproofing) is amended to read as follows:

**TABLE 6-1**

**MINIMUM ELEVATION OF FLOODPROOFING, RELATIVE TO**

**DESIGN FLOOD ELEVATION (DFE)—A-ZONES**

|  |  |
| --- | --- |
| **STRUCTURAL OCCUPANCY CATEGORYa** | **MINIMUM ELEVATION OF**  **FLOODPROOFINGb** |
| I | DFE=BFE+ [1] 2 ft |
| IIc,d | DFE=BFE+ [1] 2 ft |
| IIId | DFE=BFE+ [1] 2 ft |
| IVd | DFE=BFE+ 2 ft or 500-year flood elevation, whichever is higher |

§ 5. The New York city amendments to section 7.1 of ASCE 24-05 as set forth in section G501.1 of chapter G5 of appendix G of the New York city building code, as amended by local law number 141 for the year 2013, is amended to read as follows:

**Section 7.1.** Table 7-1 of Section 7.1 (General) is amended to read as follows (see Table 7-1 below):

**Table 7-1**

**Minimum Elevation of utilities and attendant equipment relative to design flood elevation (dfe)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Structural**  **Occupancy**  **categorya** | **LOCATE UTILITIES AND ATTENDANT EQUIPMENT ABOVEb** | | |
| **A-Zones** | **Coastal High Hazard Area and Coastal A-Zones** | |
| **Orientation Parallelc** | **Orientation**  **Perpendicularc** |
| I | DFE=BFE + 2 ft | DFE=BFE + 2 ft | DFE=BFE + 2 ft |
| [II (1-and 2- family dwellings)] | [DFE=BFE + 2 ft] | [DFE=BFE + 2 ft] | [DFE=BFE + 2 ft] |
| IIc [(all others)] | DFE=BFE + [1] 2 ft | DFE=BFE + [1] 2 ft | DFE=BFE + 2 ft |
| IIIc | DFE=BFE + [1] 2 ft | DFE=BFE + 2 ft | DFE=BFE + 3 ft |
| IVc | DFE=BFE + 2 ft or 500-year flood elevation, whichever is higher | DFE=BFE + 2 ft or 500-year flood elevation, whichever is higher | DFE=BFE + 3 ft or 500-year flood elevation, whichever is higher |

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.

§ 6. This local law takes effect 1 year after it becomes law, except that this local law shall not apply to construction work related to applications for construction document approval filed prior to such effective date.

JSA

LS #13023

3/10/21 9:10p.m.