TEXT UPDATES IN GREEN

ARTICLE 25 - FLOOD HAZARD DISTRICTS[1]

Section 25-1. - Statement of Purpose.

The purpose of this article is to promote the health and safety of the occupants of land against the hazards of flooding, to preserve and protect the streams and other water courses in the city and their adjoining lands, to protect the community against detrimental use and development, and to minimize flood losses, by provisions designed to:

- Restrict or prohibit uses and structures which are dangerous to health, safety or property because of water hazards or which cause damaging increases in flood heights or flood velocities.
- 2. Consider floodplain management in neighboring areas.

Section 25-2. - Warning and Disclaimer of Liability.

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods may occur. This article does not imply that areas outside designated flood hazard districts or land uses permitted within such districts will be free from flooding or flood damages. This article shall not create liability on the part of the City of Boston or any officer or employee thereof for any flood damages that may result from reliance on this article or from any administrative decision lawfully made thereunder.

Section 25-3. – Definitions.

The words and phrases used in this Article, whether or not capitalized, shall have the meanings set forth in Article 2, this Article. except as set for in this Section 25-3 or as otherwise specified in this Article. For the purposes of this Article, the following words and phrases shall have the meanings indicated:

Article 25 Development, means any man-made change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. [US Code of Federal Regulations, Title 44, Part 59]

Article 25 Flood Boundary and Floodway Map, means an official map of a community issued by the Federal Emergency Management Agency (FEMA) that depicts, based on detailed analyses, the boundaries of the 100-year and 500-year floods and the 100-year floodway. (For maps done in 1987 and later, the floodway designation is included on the FIRM.)

Article 25 Flood Hazard Boundary Map (FHBM). An official map of a community issued by the Federal Insurance Administrator, where the boundaries of the flood and related erosion areas having special hazards have been designated as Zone A or E. [US Code of Federal Regulations, Title 44, Part 59]

Article 25 Floodway. The channel of the river, creek or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. [Base Code, Chapter 2, Section 202]

Article 25 Floodplain Administrator for the City of Boston is a position within the Inspectional Services Department. In the event the position of Floodplain Administrator is vacant (or in the Floodplain Administrator's absence), the Building Commissioner will act as the Floodplain Administrator.

Article 25 Functionally Dependent Use, means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities. [US Code of Federal Regulations, Title 44, Part 59] Also [Referenced Standard ASCE 24-14]

Article 25 Highest Adjacent Grade, means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. [US Code of Federal Regulations, Title 44, Part 59]

Article 25 Historic Structure, means any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- (d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1) By an approved state program as determined by the Secretary of the Interior or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

[US Code of Federal Regulations, Title 44, Part 59]

Article 25 New Construction. Structures for which the start of construction commenced on or after the effective date of the first floodplain management code, regulation, ordinance, or standard adopted by the authority having jurisdiction, including any subsequent improvements to such structures. New construction includes work determined to be substantial improvement. [Referenced Standard ASCE 24-14]

Article 25 Recreational Vehicle, means a vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable by a light duty truck; and
- (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

[US Code of Federal Regulations, Title 44, Part 59]

Article 25 Regulatory Floodway - see Floodway.

Article 25 Special Flood Hazard Area. The land area subject to flood hazards and shown on a Flood Insurance Rate Map or other flood hazard map as Zone A, AE, A1-30, A99, AR, AO, AH, V, VO, VE or V1-30. [Base Code, Chapter 2, Section 202]

Article 25 Start of Construction, the date of building permit application submission for new construction and substantial improvements to proposed and existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of building permit issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns.

Article 25 Permanent Construction does not include land preparation (such as clearing, excavation, grading or filling), the installation of streets or walkways, excavation for a basement, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building. [Base Code, Chapter 2, Section 202]

Article 25 Structure. For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. [US Code of Federal Regulations, Title 44, Part 59]

Article 25 Substantial Repair of a Foundation. When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of 780 CMR. [As amended by MA in 9th Edition BC]

Article 25 Substantial Improvement, means any reconstruction, rehabilitation, addition,

repair or improvement of a structure, the cost of which equals or exceeds 50% of the assessed value of the structure or structures before the start of construction of the improvement. Assessed value is the value recorded on the assessment rolls of the City as of the January 1 preceding the date of the building permit application filing, or, if no building permit is required, the date of initiation of the documentation process described in Section 25-7.

Article 25 Floodplain Variance, means a grant of relief by a community from the terms of a floodplain management regulation. [US Code of Federal Regulations, Title 44, Part 59]

Article 25 Violation, means the failure of a structure or other development to be fully compliant with the City of Boston's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided. [US Code of Federal Regulations, Title 44, Part 59]

Section 25-4. - Definition and Location of Districts.

Flood hazard districts, also called special flood hazard areas, are defined as lands in a flood plain that are subject to a one percent probability of flooding in any given year. Such flooding is known as the base or 100-year flood. The Floodplain District is a type of special purpose overlay district established pursuant to Section 3-1A of the Code. The District includes all special flood hazard areas within the City of Boston designated as Zone A, AE, AH, AO, A99, V, or VE on the Suffolk County Flood Insurance Rate Map ("FIRM") issued by the Federal Emergency Management Agency ("FEMA") for the administration of the National Flood Insurance Program. The map panels of the Suffolk County FIRM that are wholly or partially within the City of Boston are panel numbers 0014J, 0018J, 0019J, 0038J, 0077J, 0079J, 0081J, 0082J, 0083J, 0084J, 0089J, 0091J, 0092J, 0093J, 0101J, 0102J, 0103J, 0104J, 0108J, 0111J, 0112J, 0157J, and 0176J dated March 16, 2016 and panel numbers 0056G, 0057G, 0058G, 0059G, 0062G, 0064G, 0066G, 0067G, 0068G, 0069G, 0076G, 0078G, 0086G, 0087G, and 0088G dated September 25, 2009. The exact boundaries of the District may be defined by the base flood elevations shown on the FIRM and further defined by the Suffolk County Flood Insurance Study ("FIS") report dated March 16, 2016 TBD, 2024. The FIRM and FIS report are incorporated herein by reference and are on file with the City Clerk, the Inspectional Services Department, the Conservation Commission and the Boston Redevelopment Authority.

The Flood Hazard District is herein established as an overlay district. The District includes all special flood hazard areas within Boston designated as Zone A, AE, AH, AO, A99, V, or VE on the Suffolk County Flood Insurance Rate Map (FIRM) dated July 3, 2024 issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The exact boundaries of the District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Suffolk County Flood Insurance Study (FIS) report dated July 3, 2024. The FIRM and FIS report are incorporated herein by reference and are on file with the City Clerk, the Inspectional Services Department, the Conservation Commission, the Engineering Division of the Public Works Department and the Boston

Redevelopment Authority or successor agencies or organizations.

A floodway is defined under Section 25-3. One floodway, for Mother Brook in Hyde Park, is identified by FEMA on a map entitled "Flood Insurance Rate Map, Suffolk County, Massachusetts, City of Boston", effective September 25, 2009, on map panels 0069, 0088 and 0157.

The maps are based on a scientific and engineering study by FEMA entitled "Flood Insurance Study, Suffolk County, Massachusetts, All Jurisdictions" and preliminarily dated October 14, 2008 TBD, 2024.

Said study and the FIRM shall be deemed to be, and are hereby made, a part of this Code. Said maps and study are on file in the offices of the Inspectional Services Department, the Conservation Commission, the Boston Redevelopment Authority and the Engineering Division of the Public Works Department.

(As amended on December 6, 1990, and September 10, 2009; <u>Text Amd. No. 418, § 1, 3-1-2016</u>.)

Section 25-5. - Interpretation of Maps.

The Building Commissioner shall make interpretations, where needed, as to the exact boundaries of flood hazard districts or floodways. If the map information does not reflect actual site conditions in relation to the base flood elevation, said Commissioner may determine that a location is within or outside a flood hazard district, based on actual elevations provided by a registered professional surveyor or registered professional engineer. Such determination may be appealed to the Board of Appeal under the provisions of Section 5-2 of this code.

The Floodplain Administrator is responsible for the initial determination of the boundaries of flood hazard districts or floodways. The City or an individual may appeal to the Federal Emergency Management Agency to amend the FIRM or Floodway maps or the Flood Insurance Study.

Section 25-6- Regulations.

Development in flood hazard districts, including structural and non-structural activities and any manmade change to improved or unimproved real estate, such as buildings or other structures, dredging, filling, driving of piles, grading, paving, excavation or drilling operations, shall be subject to the following regulations, as well as to all applicable local, state, and federal regulations.

A building permit is required for all proposed construction or other development in the floodplain overlay district, including new construction or changes to existing buildings, placement of manufactured homes, placement of urban agricultural facilities as defined by Article 89 and the like, fences, sheds, storage facilities or drilling, mining, paving and any other development that might increase flooding or adversely impact flood risks to other properties. Where a building permit is not required, proposals will be reviewed for flood impacts, if any, and documented. Documentation will include whether there are

flood impacts and mitigation required, if any.

- 1. **Permit Checklist.** The City's permit review process includes the use of a checklist of all local, state and federal permits that will be necessary in order to carry out the proposed development in the floodplain overlay district. The proponent must acquire all necessary permits, and must submit the completed checklist demonstrating that all necessary permits have been acquired.
- Residential Floodplain Construction. All development in the Floodplain District, including structural and non-structural activities, whether permitted as-of-right or by conditional use permit, must be in compliance with Chapter 131, Section 40 of the Massachusetts General Laws and with the following:
 - (a) Sections of the Massachusetts State Building Code (780 CMR) which address floodplain and coastal high hazard areas;
 - (b) Wetlands Protection Regulations, Department of Environmental Protection ("DEP") (310 CMR 10.00, as may be amended from time to time);
 - (c) Inland Wetlands Restriction, DEP (310 CMR 13.00, as may be amended from time to time);
 - (d) Coastal Wetlands Restriction, DEP (310 CMR 12.00, as may be amended from time to time);
 - (e) Minimum Requirements for the Subsurface Disposal of Sanitary Sewage, DEP (310 CMR 15, Title 5, as may be amended from time to time); and,
 - (f) City of Boston Local Wetlands Protection Ordinance and Regulations.

Any variances from the provisions and requirements of the above-referenced state and municipal regulations may only be granted in accordance with the required variance procedures of these state and municipal regulations.

- 3. **Development Proposals.** All development proposals in the floodplain overlay district shall be reviewed to ensure that:
 - (a) Such proposals minimize flood damage;
 - (b) Public utilities and facilities are located and constructed so as to minimize flood damage; and
 - (c) Adequate drainage is provided. Inland Wetlands Restriction, DEP (310 CMR 13.00, as may be amended

4. Base Flood Elevation and Floodway Data.

- (a) Floodway Data. In Zones A, A1-30, and AE, along watercourses that have not had a regulatory floodway designated, the best available Federal, State, local, or other floodway data shall be used to prohibit encroachments in floodways which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- (b) Base Flood Elevation Data. Base flood elevation data is required for subdivision proposals or other developments greater than fifty (50) lots or five (5) acres, whichever is the lesser, within unnumbered A zones.

- (b) Base flood elevation data for subdivision proposals. When proposing subdivisions or other developments greater than 50 lots or 5 acres (whichever is less), the proponent must provide technical data to determine base flood elevations for each developable parcel shown on the design plans.
- (c.) In A Zones, in the absence of FEMA BFE data and floodway data, the building department will obtain, review and reasonably utilize base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring new construction, substantial improvements, or other development in Zone A as the basis for elevating residential structures to or above base flood elevation, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways
- (d) If the City acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the City will, within six months, notify FEMA of these changes by submitting the technical or scientific data that supports the change(s.) Notification shall be submitted to:

FEMA Region I Risk Analysis Branch Chief 99 High St., 6th floor, Boston, MA 02110

And copy of notification to:

Massachusetts NFIP State Coordinator

MA Dept. of Conservation & Recreation, 251 Causeway Street, Boston, MA 02114

- 5. In a riverine situation, the Engineering Division of the Public Works Department shall notify the following of any alteration or relocation of a watercourse:
 - (a) Adjacent communities;
 - (b) Bordering states (optional);
 - (c) NFIP State Coordinator Massachusetts Department of Conservation and Recreation

251 Causeway Street, Suite 600-700

Boston, MA 02114-2104

(d) NFIP Program Specialist
Federal Emergency Management Agency, Region I
99 High Street, 6 th Floor
Boston, MA 02110

6. Pre-existing Structures. In the case of a building or structure that lawfully exists or for which a building permit has been lawfully issued prior to the effective date of this article, the Board of Appeal may grant permission for reconstruction, structural change or extension thereof under the provisions of Section 9-1, provided that any nonconformity with items 1 and 2 above is not increased. any proposed project that qualifies as substantial improvement is brought into

compliance with the provisions of Article 25.

- 7. Storage of Materials and Equipment. Storage or processing of materials that are flammable, explosive or injurious to water quality or to human, animal or plant life is forbidden in any flood hazard district. Storage of other material or equipment shall be firmly anchored to prevent flotation or be readily removable from the area.
- 8. **Grading, Filling, Excavating, Dredging, Driving of Piles.** No building permit shall be issued for any work that involves grading, filling, excavating, dredging, driving of piles, paving or other activity that is subject to Chapter 131, Section 40, as amended, of the Massachusetts General Laws unless such work complies with a final order of conditions issued by the Boston Conservation Commission.
- 9. **Mobile Homes.** No mobile home shall be placed in a flood hazard district.
- 10. Floodways. In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the City of Boston's FIRM's encroachments are prohibited, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- 11. High Hazard Coastal Districts. In any V zone, any structure or substantial improvement of any existing structure shall be located landward of the reach of mean high tide.
- 12. **Drainage Paths.** Within Zones AH and AO on the FIRM, adequate drainage paths must be provided around structures on slopes to guide floodwaters around and away from proposed structures.
- 13. Recreational Vehicles. In A1-30, AH, AE Zones, V1-30, VE, and V Zones In A, A1-30, AH, AO, AE Zones, V1-30, VE, and V Zones, all recreational vehicles to be placed on a site must be elevated and anchored in accordance with the zone's regulations for foundation and elevation requirements or be on the site for less than 180 consecutive days or be fully licensed and highway ready.
- 14. **Protection of Dunes.** Alteration of sand dunes is prohibited when the alteration would increase potential flood damage.

(As amended on September 10, 2009; <u>Text Amd. No. 418, § 2, 3-1-</u>

2016 .) Section 25-7. - Variances.

Subject to the provisions of Sections 7-2, 7-3, and 7-4, the Board of Appeal may, in a specific case and after public notice and hearing, grant a variance from the provisions of this article provided it meets the requirements set out by State law and the Board of Appeal finds

(a) good and sufficient cause and exceptional non-financial hardship exists,

- (b) the variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public,
- (c) the variance is the minimum action necessary to afford relief,
- (d) the proposed use or structure will not derogate from the purpose of this article,
- (e) the proposed use or structure will comply with the provisions of the underlying subdistrict or subdistricts,
- (f) the proposed use or structure will not overload any public water, drainage or sewer system to such an extent that the proposed use or any developed use in the area or in any other area will be unduly subjected to hazards affecting health, safety or the general welfare, and
- (g) the proposed use or structure will not be located within a floodway unless it is demonstrated to the satisfaction of the Board of Appeal that there will be no increase in flood levels during the base flood discharge.

Such variances shall lapse and become null and void unless used within two years after the record of said Board's proceedings pertaining thereto is filed with the Building Commissioner pursuant to Section 8 of Chapter 665 of the Acts of 1956 as amended.

Factors to be Considered. In considering a petition for a variance from the provisions of this article, the Board of Appeal shall consider all technical evaluations hydrologic and hydraulic analyses, standards in other sections of the article and:

- a. the danger that materials may be swept onto other lands to the injury of others;
- b. the danger to life and property due to flooding;
- c. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- d. the importance of the services provided by the proposed facility to the community;
- e. the necessity to the facility of a waterfront location, where applicable;
- f. the availability of alternative locations for the proposed use which are not subject to flood damage;
 - g. the compatibility of the proposed use with existing and anticipated development;
- h. the relationship of the proposed use to the comprehensive plan and floodplain management program of the area;
- i. the safety of access to the property in times of flood for ordinary and emergency vehicles;
- j. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
- k. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

Procedures. At the time a variance from item 2 or item 4 of Section 25-9 is issued, the Executive Secretary of the Board of Appeal shall notify the petitioner in writing that

- (1) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
- (2) construction below the base flood elevation increases risks to life and property.

Such notification shall be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.

The Board of Appeal and Floodplain Administrator shall maintain a record of all variances granted from Section 25-7, including justification for the variance in the City's building permit files, delineating the technical reason for the variance, and stating that the variance is the minimum necessary (considering the flood hazard) to afford relief. Such variances shall be reported by the Floodplain Administrator to the Federal Emergency Management Agency in such annual or periodic report as may be requested by the Agency.

Historic Structures. A variance from the provisions of this article may be granted by the Board of Appeal, after due notice and hearing, for the reconstruction or restoration of a structure, or of a structure in a district, which is listed in the National Register of Historic Places or which has been designated by the Boston Landmarks Commission under the provisions of Chapter 772 of the Acts of 1975, even though the requirements of this section are not met.

(As amended on December 6, 1990)

Section 25-78A. - Exceptions.

Subject to the provisions of Article 6A, the Board of Appeal may, in a specific case and after public notice and hearing, grant an exception to the requirement in Section 25-8.10, provided that the project for fill, new construction, substantial improvement, or other development has received a Conditional Letter of Map Revision (CLOMR) from the Federal Emergency Management Agency.

(Inserted on December 6, 1990)

Section 25-8. - Variances to Building Code Floodplain Standards

The Massachusetts Office of Public Safety and Inspections Board of Building Regulations and Standards, or successor agency, may grant a variance from the provisions of the state floodplain development regulations in compliance with all standards and requirements of the Massachusetts State Building Code (780 CMR). The Board of Appeal may also, in a specific case and after public notice and hearing, grant a variance from the provisions of the state floodplain development regulations provided the Board of Appeal finds

- (a) a showing of good and sufficient cause,
- (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and
- (c) a determination that the granting of a variance will not result in increased

flood heights, additional threats to public safety, extraordinary public expense,

create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

The Board of Appeal shall maintain a written justification for the variance in the City's building permit files, delineating the technical reason for the variance, and stating that the variance is the minimum necessary (considering the flood hazard) to afford relief.

The City shall also issue a letter to the property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property, in writing over the signature of a community official that

- 1. the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and
- 2. such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.

Section 25-9. - Application.

The provisions of this article are not intended to repeal, amend, abrogate, annul, or interfere with any lawfully adopted statutes, ordinances, covenants, regulations or rules. However, where this article imposes greater restrictions, the provisions of this article shall govern. (Note: The jurisdiction of the Boston Conservation Commission under Chapter 131, Section 40, of the Massachusetts General Laws includes areas not shown on the FIRM and Floodway maps.)

Section 25-10. - Severability.

The provisions and requirements of this Article are severable, and if any such requirements or provisions shall be held invalid by any decision of any court of competent jurisdiction, such decision shall not impair or otherwise affect any other provision or requirement of this Article.—If any section, provision or portion of this article is deemed to be unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.

(Article 25 was originally inserted on March 24, 1977 and was replaced in its entirety on March 26, 1982.)