



City of Cambridge

Executive Department

YI-AN HUANG
City Manager

CMA 2025 #72
IN CITY COUNCIL
March 31, 2025

To the Honorable, the City Council:

Please find attached communication from Melissa Peters, Acting Assistant City Manager for Community Development and Megan Bayer, City Solicitor, regarding floodplain zoning amendments.

Yi-An Huang
City Manager





To: Yi-An Huang, City Manager
From: Melissa Peters, Acting Assistant City Manager for Community Development
Megan Bayer, City Solicitor
Date: March 27, 2025
Subject: Floodplain Zoning Amendments

Development in the floodplain is regulated at the federal, state, and local levels of government by the Federal Emergency Management Agency (FEMA), the Massachusetts Wetlands Protection Act, and the City of Cambridge Zoning Ordinance. FEMA publishes maps that identify zones in the floodplain and mandates flood insurance for buildings located in the most critical zones. FEMA recently updated the maps for Middlesex County and requires that the City update its ordinances referring to the maps so as to remain compliant with the National Flood Insurance Program (NFIP). Additionally, the State drafted model ordinances that standardize language regulating development and require a permit for most activity in the flood plain.

Section 20.70 of the Zoning Ordinance currently regulates development in the floodplain. Section 20.70, which dates to 1982, requires a Planning Board Special Permit for most development or changes to a site in FEMA flood hazard zones A and AE. Development is subject to review by the City Engineer, the Conservation Commission, and the Planning Board to ensure changes to a site will not impair the ability of the zone to carry and discharge flood waters.

The floodplain regulations are different from the Flood Resilience Standards in Section 22.80 of the Zoning Ordinance, adopted in 2023. Rather than FEMA maps, this section is grounded in the City's long-term flood elevations for 2070, which cover broader areas of Cambridge and are updated over time by DPW. Development subject to the proposed amended Section 20.70 must meet performance standards for flood protection that are reviewed by the City Engineer.

The Wetlands Protection Act, passed in 1972, supplements requirements in zoning and building codes to manage flooding, prevent pollution and storm damage, and protect public and private water supplies, groundwater supply, fisheries, land containing shellfish, and wildlife habitat. The Cambridge Conservation Commission reviews and permits projects seeking to alter a wetland resource area and can attach conditions to its approval. Currently, activity in the floodplain requires separate public hearings and approvals by the Conservation Commission and the Planning Board, although the Planning Board typically defers to the Conservation Commission on matters under the Commission's jurisdiction.

Melissa Peters | Acting Assistant City Manager for Community Development
Sandra Clarke | Chief of Administration & Operations

The proposed zoning text amendment will replace Section 20.70 of the Zoning Ordinance with the Massachusetts model ordinance structure and will reference the updated FEMA maps. The new text will replace the Planning Board Special Permit with an administrative review that will maintain the current criteria for approval while removing the duplicative hearing process for many cases. A Planning Board Special Permit may still be required if it is otherwise triggered, such as for Project Review (Section 19.20), Planned Unit Development (PUD), or development in the Alewife Overlay Districts.

These changes will update the Zoning Ordinance to be compliant with the NFIP and to be consistent with state law while removing one step in a complex approval process. The proposed zoning text does not affect the Flood Resilience Standards in Section 22.80 - these will continue to require new development to comply with standards that protect against future flood risk citywide.

The flood plain can be viewed on FEMA's website via an interactive map that shows the six panels that apply to Middlesex County at the following link: <https://msc.fema.gov/portal/search>.

We recommend that the attached zoning text be adopted as a City Council Zoning Petition and referred to the Planning Board and Ordinance Committee for hearing and report.

Melissa Peters | Acting Assistant City Manager for Community Development
Sandra Clarke | Chief of Administration & Operations

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Petition: To amend Articles 5.000 and 20.000 of the Cambridge Zoning Ordinance as follows with the intent of:

- (1) **replacing the Floodplain Overlay and Planning Board Special Permit with the Massachusetts model ordinance structure for permitting development in the flood plain through administrative review;**
- (2) **updating references to the most recent FEMA maps to maintain compliance with the National Flood Insurance Program;**
- (3) **revising other parts of the Zoning Ordinance for internal consistency.**

Amendments to Article 5.000.

Amend Section 5.24 and subsequent subsections to read as follows:

5.24.1 Every part of a required yard shall be open to the sky and unobstructed, except that the following features may be located within a required yard:

- (a) Awnings, arbors, fences, flagpoles, recreational, and laundry drying equipment and similar objects;
- (b) Objects or structures intended exclusively for bicycle parking meeting the requirements of Article 6.000, which may be uncovered, partially covered or fully enclosed, provided that such objects or structures are not used for motor vehicle parking, general storage or any other use, and further provided that any such structure exceeding six feet (6') in height conforms to the requirements for an accessory building in Section 4.21;
- (c) Beehives, apiaries, henhouses, and hen runs conforming to the Standards for Urban Agriculture in Article 23.000 of this Zoning Ordinance;
- (d) Objects or equipment located in a required yard that are necessary for or appurtenant to a Public Bicycle-Sharing Station;
- (e) Open or lattice-enclosed fire escapes for emergency use only;
- (f) Projecting eaves, chimneys, bay windows, balconies, open fire escapes and like projections which do not project more than three and one-half (3½') feet and which are part of a building not more than thirty-five (35') feet in height;
- (g) Shade Canopies as defined in this Zoning Ordinance, provided that any Shade Canopy exceeding seven feet (7') in height shall be set back at least five feet (5') from a side or rear lot line in a residential district; and
- (h) Exterior steps, ramps, elevated walkways, porches, window wells, flood barriers, and other elevated features that provide protection or resilience from flooding on the lot, provided such features do not project more than twelve (12') feet beyond the line of the foundation wall of a building, are open to the air and are either unroofed or covered only by a Shade Canopy, and are not elevated higher than four (4') feet above Grade or the 1%-Probability Long Term Flood Elevation as determined by the Flood Resilience Standards in Section 22.80 of this Zoning Ordinance, whichever is higher.
- (i) Any required flood water retention systems or related facilities for lots subject to Floodplain Overlay District regulations in Section 20.70 of this Zoning Ordinance.

5.25.3.42 Where an above ground parking facility in a structure is proposed to be constructed (a) in the 100-year flood plain, identified as the Zone A flood hazard area (See Section 20.70), or as determined by credible evidence and calculations from a registered professional engineer or (b) on a contaminated site that is listed by the Massachusetts Department of Environmental Protection under the Massachusetts Contingency Plan (310 CMR 40.00) with a Release Tracking Number and has been tier classified, the Planning Board may grant a special permit to waive the limitations of this Section 5.25.3 so that the parking facility is not subject to the requirements in this Ordinance as to Floor Area Ratio provided only the minimum number of parking spaces required for the uses on the site are provided. In granting such a special permit, the Planning Board shall find the following:

- (1) Where in a flood hazard area, the construction of a parking facility underground is (a) not technically feasible due to the requirements of the Massachusetts Wetlands Protection Act (M.G.L. ch. 131, s.40), (b) would require construction that would violate requirements or limitations of the Massachusetts Wetlands Protection Act, (c) would, in the view of the Cambridge Conservation Commission, seriously compromise the wetlands protection objectives of the Massachusetts Wetlands Protection Act, and (d) would result in costs of construction that are significantly greater than would otherwise be typical for the location were it not in a flood hazard area; or
- (2) Where the site is contaminated, the construction of a parking facility underground (a) would, in the opinion of a Licensed Site Professional, pose significant risks to public health or the environment through disturbance of hazardous materials and could not be reasonably mitigated in accordance with state and federal regulations, (b) require construction that is prohibited by state or federal regulations related to hazardous wastes, and (c) would result in costs of construction that would render the project financially unfeasible; and
- (3) The above ground facility is designed so as to reduce its actual or perceived bulk through, among other possible techniques, limiting the number of parking spaces it contains, placement of portions of the facility below grade where feasible, or its location relative to actively occupied portions of the construction. Construction above grade is discouraged that would increase the amount of impervious area on the lot.

Amendments to Article 20.000.

Amend Section 20.70 and subsequent subsections to read as follows:

20.71 Purpose. The purpose of the Floodplain Overlay District is to: (1) Ensure public safety through reducing the threats to life and personal injury, (2) eliminate new hazards to emergency response officials, (3) prevent the occurrence of public emergencies resulting from water quality, contamination, and pollution due to flooding, (4) avoid the loss of utility services which if damaged by flooding would disrupt or shut down the utility network and impact regions of the community beyond the site of flooding, (5) eliminate costs associated with the response and cleanup of flooding conditions, and (6) reduce damage to public and private property resulting from flooding waters.

20.72 Establishment and Scope.

20.72.1 Designation of Floodplain Overlay District. The Floodplain Overlay District is herein established as an overlay district. The Floodplain Overlay District includes all special flood hazard areas within Cambridge designated as Zone A, AE, AH, AO, A99, V, or VE on the Middlesex Flood Insurance Rate Map (FIRM) dated June 8, 2023, issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program (NFIP). The exact boundaries of the Floodplain Overlay District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Middlesex Flood Insurance Study (FIS) report dated June 8, 2023. The FIRM and FIS report are incorporated herein by reference and are on file with the City Clerk,

Inspectional Services Department (ISD), Department of Public Works (DPW), Community Development Department (CDD), and Conservation Commission.

20.72.2 Designation of Floodplain Administrator. The City of Cambridge hereby designates the position of City Engineer, or their designee, to be the official Floodplain Administrator for the City of Cambridge. The Floodplain Administrator, if not the City Engineer then in consultation with the City Engineer, may develop standards and procedures appropriate to and consistent with the provisions of this Section 20.70, et seq. and any permits, rules and/or regulations that may be promulgated pursuant to this Section 20.70, et seq.

20.72.3 Implementation of Floodplain Overlay District. This Floodplain Overlay District shall become effective on July 8, 2025. Until July 8, 2025, Cambridge Zoning Ordinance 20.70, et seq., as amended on September 11, 2023 remains in full force and effect.

20.73 Definitions. For the purpose of this Section certain words and terms are hereby defined and applicable to this Section only. To the extent certain words and terms defined below are elsewhere defined in the City of Cambridge's Zoning Ordinance, the definitions in this Section supersede those definitions for the purpose of this Section. The definitions set forth in the State Building Code are also applicable, where appropriate, with respect to words and terms not defined herein. Words used in the present tense include the future; the singular number includes the plural, and the plural the singular; the word "lot" includes "plot", the word "building" includes "structure"; the word "occupied" includes "designed, arranged," or "intended to be occupied". Where the verb "use" is employed it shall be construed as if followed by the words "or is intended, arranged, designed, built, altered, converted, rented, or leased to be used", the word "shall" is mandatory and "may" is permissive or discretionary.

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Flood Boundary and Floodway Map means an official map of a community issued by 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.)

Flood Hazard Boundary Map (FHBM) is 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.

Floodway means 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.

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.

Highest Adjacent Grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

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; or

- (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; or
- (c) Individually listed on the Massachusetts State Register of Historic Places ; 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 Massachusetts program as determined by the Secretary of the Interior, or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

New Construction means 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.

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.

Regulatory Floodway - See Floodway.

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.

Start of Construction means the date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of 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. 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.

Structure means, 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.

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.

Variance means any state or City of Cambridge grant of relief from the terms of a flood plain management regulation.

Violation means the failure of a structure or other development to be fully compliant with the City of Cambridge's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3 is presumed to be in violation until such time as that documentation is provided.

20.74 Procedures and Requirements.

20.74.1 The City of Cambridge requires a permit from the Floodplain Administrator for all proposed development in the Floodplain Overlay District, including new construction or changes to existing buildings, placement of manufactured homes, placement of agricultural facilities, fences, sheds, storage facilities or drilling, mining, paving and any other development that might increase flooding or adversely impact flood risks to other properties.

20.74.2 The City of Cambridge's permit review process includes the requirement that the proponent obtain 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 demonstrate that all necessary permits have been acquired.

20.74.3 Any proposed development shall comply in all respects with the provision of the underlying zoning district, provisions of the State Building Code, Wetlands Protection Act, and any other applicable laws.

20.75 Floodway Data.

20.75.1 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.

20.75.2 In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the City of Cambridge's FIRM 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 City of Cambridge during the occurrence of the base flood discharge.

20.75.3 In A Zones, in the absence of FEMA BFE data and floodway data, the Floodplain Administrator 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 and as the basis for elevating residential structures to or above base flood level, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways.

20.75.4 Requirement to Submit New Technical Data. If the City of Cambridge acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the City of Cambridge will, within 6 months, notify FEMA of these changes by submitting the technical or scientific data that supports the change(s.) Notification shall be submitted to: NFIP State Coordinator Massachusetts Department of Conservation and Recreation and NFIP Program Specialist Federal Emergency Management Agency, Region I.

20.76 General Provisions.

20.76.1 All proposed development in the Floodplain Overlay District shall be reviewed to assure 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.

20.76.2 For any proposed development, the proponent must provide technical data to determine base flood elevations for each developable parcel shown on the design plans.

20.76.3 Within Zones AO and AH on the FIRM, adequate drainage paths must be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

20.76.4 *Recreational Vehicles.* 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.

20.76.5 *Watercourse Alterations or Relocations in Riverine Areas.* In a riverine situation, the Floodplain Administrator shall notify the following of any alteration or relocation of a watercourse: (1) adjacent communities, especially upstream and downstream, (2) NFIP State Coordinator Massachusetts Department of Conservation and Recreation, (3) NFIP Program Specialist Federal Emergency Management Agency, Region I.

20.77 *Variances.* Floodplain management variance criteria are outlined in Title 44 Code of Federal Regulations (CFR) 60.6.

20.77.1 *Variances to Building Code Floodplain Standards.*

20.77.1.1 Variances from the provisions and requirements of the State Building Code shall be filed by an applicant in accordance with the required variance procedures of the Massachusetts Building Code Appeals Board (BCAB).

20.77.1.2 Following a decision of the BCAB, an applicant shall provide the ISD Commissioner with a written and/or audible copy of the portion of the BCAB hearing related to the variance, and the ISD Commissioner will maintain this record in ISD's files.

20.77.1.3 For any property granted a variance from the State Building Code, the City of Cambridge shall issue a letter, in writing over the signature of a city official, to that property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property. The letter shall state that (i) 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 (ii) such construction below the base flood level increases risks to life and property.

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

20.77.2 *Variances to Local Zoning Ordinances Related to Community Compliance With the NFIP.* A variance from this floodplain section granted pursuant to Section 10.30 of this Zoning Ordinance must meet the requirements set out by State law, and may only be granted if: (1) good and sufficient cause and exceptional non-financial hardship exist, (2) the variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public, and (3) the variance is the minimum action necessary to afford relief.

20.78 *Enforcement.*

20.78.1 *Notice of Violation.*

20.78.1.1 The ISD Commissioner shall serve a written notice of Violation of Order to any owner or person responsible for the violation of any requirement under the provisions of this Ordinance, and such notice or order shall direct the immediate discontinuance of the unlawful action, use or condition and the abatement of the violation.

20.78.1.2 Any violator and/or owner who has been served with a notice shall stop work immediately, except that in ceasing any work or other activity they shall not leave any structure or lot in such a condition as to be a hazard or menace to the public safety, health, and general welfare.

20.78.1.3 In situations that require remedial action to prevent adverse impacts within the floodplain district, the City of Cambridge may order the owner or operator of the premises to remedy the violation.

20.78.1.4 Any person who violates the provisions of this Ordinance may be ordered to restore property to its original condition and take other actions deemed necessary to remedy such violations.

20.78.2 Penalties. Fines and penalties for violations of the Floodplain Overlay District Ordinance shall be levied in accordance with the provisions of Article 9.00 of the City of Cambridge Zoning Ordinance.

20.79 Abrogation; Disclaimer of Liability; Severability.

20.79.1 Abrogation. The floodplain management regulations found in this Floodplain Overlay District section shall take precedence over any less restrictive conflicting local laws, ordinances, or codes.

20.79.2 Disclaimer of Liability. The degree of flood protection required by this Section is considered reasonable but does not imply total flood protection.

20.79.3 Severability. If any section, provision, or portion of this Section is deemed to be unconstitutional or invalid by a court, the remainder of the Section shall be effective.

Petition: To amend Articles 5.000 and 20.000 of the Cambridge Zoning Ordinance as follows with the intent of:

- (1) **replacing the Floodplain Overlay and Planning Board Special Permit with the Massachusetts model ordinance structure for permitting development in the flood plain through administrative review;**
- (2) **updating references to the most recent FEMA maps to maintain compliance with the National Flood Insurance Program;**
- (3) **revising other parts of the Zoning Ordinance for internal consistency.**

Amendments to Article 5.000.

Amend Section 5.24 and subsequent subsections to read as follows:

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- (a) Awnings, arbors, fences, flagpoles, recreational, and laundry drying equipment and similar objects;
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- (f) Projecting eaves, chimneys, bay windows, balconies, open fire escapes and like projections which do not project more than three and one-half (3½') feet and which are part of a building not more than thirty-five (35') feet in height;
- (g) Shade Canopies as defined in this Zoning Ordinance, provided that any Shade Canopy exceeding seven feet (7') in height shall be set back at least five feet (5') from a side or rear lot line in a residential district; and
- (h) Exterior steps, ramps, elevated walkways, porches, window wells, flood barriers, and other elevated features that provide protection or resilience from flooding on the lot, provided such features do not project more than twelve (12') feet beyond the line of the foundation wall of a building, are open to the air and are either unroofed or covered only by a Shade Canopy, and are not elevated higher than four (4') feet above Grade or the 1%-Probability Long Term Flood Elevation as determined by the Flood Resilience Standards in Section 22.80 of this Zoning Ordinance, whichever is higher.
- (i) Any required flood water retention systems or related facilities for lots subject to Floodplain Overlay District regulations in Section 20.70 of this Zoning Ordinance.

5.25.3.42 Where an above ground parking facility in a structure is proposed to be constructed (a) in the 100-year flood plain, identified as the Zone A flood hazard area (See Section ~~11.70~~20.70), or as determined by credible evidence and calculations from a registered professional engineer or (b) on a contaminated site that is listed by the Massachusetts Department of Environmental Protection under the Massachusetts Contingency Plan (310 CMR 40.00) with a Release Tracking Number and has been tier classified, the Planning Board may grant a special permit to waive the limitations of this Section 5.25.3 so that the parking facility is not subject to the requirements in this Ordinance as to Floor Area Ratio provided only the minimum number of parking spaces required for the uses on the site are provided. In granting such a special permit, the Planning Board shall find the following:

- (1) Where in a flood hazard area, the construction of a parking facility underground is (a) not technically feasible due to the requirements of the Massachusetts Wetlands Protection Act (M.G.L. ch. 131, s.40), (b) would require construction that would violate requirements or limitations of the Massachusetts Wetlands Protection Act, (c) would, in the view of the Cambridge Conservation Commission, seriously compromise the wetlands protection objectives of the Massachusetts Wetlands Protection Act), and (d) would result in costs of construction that are significantly greater than would otherwise be typical for the location were it not in a flood hazard area; or
- (2) Where the site is contaminated, the construction of a parking facility underground (a) would, in the opinion of a Licensed Site Professional, pose significant risks to public health or the environment through disturbance of hazardous materials and could not be reasonably mitigated in accordance with state and federal regulations, (b) require construction that is prohibited by state or federal regulations related to hazardous wastes, and (c) would result in costs of construction that would render the project financially unfeasible; and
- (3) The above ground facility is designed so as to reduce its actual or perceived bulk through, among other possible techniques, limiting the number of parking spaces it contains, placement of portions of the facility below grade where feasible, or its location relative to actively occupied portions of the construction. Construction above grade is discouraged that would increase the amount of impervious area on the lot.

Amendments to Article 20.000.

Amend Section 20.70 and subsequent subsections to read as follows:

20.71 Purpose. ~~It is the purpose of this Section 20.70 to protect the health, safety, and general welfare, to protect human life and property from the hazards of periodic flooding, to preserve the natural flood control characteristics, and the flood storage capacity of the flood plain, to preserve and maintain the ground water recharge areas within the flood plain, and to provide a mechanism for a comprehensive review of development in the Flood Plain Overlay District and the design and location of flood water retention systems and their relationship to other surrounding development.~~ The purpose of the Floodplain Overlay District is to: (1) Ensure public safety through reducing the threats to life and personal injury, (2) eliminate new hazards to emergency response officials, (3) prevent the occurrence of public emergencies resulting from water quality, contamination, and pollution due to flooding, (4) avoid the loss of utility services which if damaged by flooding would disrupt or shut down the utility network and impact regions of the community beyond the site of flooding, (5) eliminate costs associated with the response and cleanup of flooding conditions, and (6) reduce damage to public and private property resulting from flooding waters.

20.72 Establishment and Scope. ~~There is hereby established a Flood Plain Overlay District which shall be governed by the regulations specified in this Section 20.70. The Flood Plain Overlay District includes all special flood hazard areas designated as Zone A and AE on the Middlesex County Flood Insurance Rate Maps (FIRMs) issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The map panels of the Middlesex County FIRMs that are wholly or partially within the City of Cambridge are panel~~

numbers 25017C0418E, 25017C0419E, 25017C0438E, 25017C0557E, 25017C0576E, 25017C0577E dated June 4, 2010. The exact boundaries of the District are defined by the special flood hazard area, which is the area subject to flooding by the 1% annual chance flood, also known as the "100-year flood" or "base flood, (Special Flood Hazard area) shown on the FIRMs and further defined by the Middlesex County Flood Insurance Study (FIS) report dated June 4, 2010. The FIRM and FIS reports are incorporated herein by reference and are on file with the City Clerk, Inspectional Services Department, Department of Public Works, Community Development Department and Conservation Commission.

20.72.1 Designation of Floodplain Overlay District. The Floodplain Overlay District is herein established as an overlay district. The Floodplain Overlay District includes all special flood hazard areas within Cambridge designated as Zone A, AE, AH, AO, A99, V, or VE on the Middlesex Flood Insurance Rate Map (FIRM) dated June 8, 2023, issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program (NFIP). The exact boundaries of the Floodplain Overlay District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Middlesex Flood Insurance Study (FIS) report dated June 8, 2023. The FIRM and FIS report are incorporated herein by reference and are on file with the City Clerk, Inspectional Services Department (ISD), Department of Public Works (DPW), Community Development Department (CDD), and Conservation Commission.

20.72.2 Designation of Floodplain Administrator. The City of Cambridge hereby designates the position of City Engineer, or their designee, to be the official Floodplain Administrator for the City of Cambridge. The Floodplain Administrator, if not the City Engineer then in consultation with the City Engineer, may develop standards and procedures appropriate to and consistent with the provisions of this Section 20.70, et seq. and any permits, rules and/or regulations that may be promulgated pursuant to this Section 20.70, et seq.

20.72.3 Implementation of Floodplain Overlay District. This Floodplain Overlay District shall become effective on July 8, 2025. Until July 8, 2025, Cambridge Zoning Ordinance 20.70, et seq., as amended on September 11, 2023 remains in full force and effect.

20.73 Applicability. No structure or building shall be erected, constructed, expanded, substantially improved, or moved and no earth or other materials shall be dumped, filled, excavated, transferred or otherwise altered in the Flood Plain Overlay District unless a special permit is granted by the Planning Board. **Definitions.** For the purpose of this Section certain words and terms are hereby defined and applicable to this Section only. To the extent certain words and terms defined below are elsewhere defined in the City of Cambridge's Zoning Ordinance, the definitions in this Section supersede those definitions for the purpose of this Section. The definitions set forth in the State Building Code are also applicable, where appropriate, with respect to words and terms not defined herein. Words used in the present tense include the future; the singular number includes the plural, and the plural the singular; the word "lot" includes "plot", the word "building" includes "structure"; the word "occupied" includes "designed, arranged," or "intended to be occupied". Where the verb "use" is employed it shall be construed as if followed by the words "or is intended, arranged, designed, built, altered, converted, rented, or leased to be used", the word "shall" is mandatory and "may" is permissive or discretionary.

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Flood Boundary and Floodway Map means an official map of a community issued by 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.)

Flood Hazard Boundary Map (FHBM) is 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.

Floodway means 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.

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.

Highest Adjacent Grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

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; or
- (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; or
- (c) Individually listed on the Massachusetts State Register of Historic Places ; 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 Massachusetts program as determined by the Secretary of the Interior, or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

New Construction means 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.

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.

Regulatory Floodway - See Floodway.

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.

Start of Construction means the date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of 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. 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.~~

~~**Structure** means, 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.~~

~~**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.~~

~~**Variance** means any state or City of Cambridge grant of relief from the terms of a flood plain management regulation.~~

~~**Violation** means the failure of a structure or other development to be fully compliant with the City of Cambridge's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3 is presumed to be in violation until such time as that documentation is provided.~~

~~**20.73.1** A special permit shall not be required for any activity detailed in 20.73 above on individual lots containing one, two, or three family dwellings in existence as of July 5, 1982 or for the demolition of an existing structure. Nevertheless all other requirements of this Section 20.70 (and especially those criterion detailed in Subsection 20.75) shall be met as applicable.~~

~~**20.74 Procedures and Requirements.** Application for a special permit shall be made on a form prescribed by the Board. In addition to the information required for the submittal, the applicant shall also present the following:~~

- ~~1. A detailed landscape plan drawn to a scale of one inch equals twenty (20) feet showing the elevation and design of flood water retention systems as required by applicable law;~~
- ~~2. Base flood elevation data, where the base flood elevation is not provided on the FIRM;~~
- ~~3. Certification and supporting documentation by a Massachusetts registered professional engineer demonstrating that such encroachment of the floodway as specified above in Subsection 20.73 shall not result in any increase in flood levels during the occurrence of the 100-year flood;~~
- ~~4. Such other technical information as necessary to permit the Planning Board to make the findings required in Section 20.75 below;~~
- ~~5. Description of the status of the proposal, pursuant to the requirements of the Massachusetts Wetlands Protection Act, before the Cambridge Conservation Commission, including any Order of Conditions or Determination of Applicability issued; and~~
- ~~6. Four (4) copies of all application materials.~~

~~**20.74.1** Upon receipt of the application and development plans, the Planning Board shall transmit copies of the plans to the Conservation Commission and the City Engineer. Within forty five (45) days of receipt of the plans, the Conservation Commission and the City Engineer shall review said plans and submit their respective reports and recommendations to the Planning Board. The Planning Board shall not render any decision on an application for a~~

~~special permit for development in the Flood Plain Overlay District until said reports have been received and considered or until the forty five (45) day period has expired without the receipt of such report, whichever is earlier. The City of Cambridge requires a permit from the Floodplain Administrator for all proposed development in the Floodplain Overlay District, including new construction or changes to existing buildings, placement of manufactured homes, placement of agricultural facilities, fences, sheds, storage facilities or drilling, mining, paving and any other development that might increase flooding or adversely impact flood risks to other properties.~~

20.74.2 ~~Special Notification Requirements. Where in the application it is proposed to alter or relocate a watercourse in a riverine situation, the Planning Board shall notify, in addition to those parties in interest required to be notified by Chapter 40A, all adjacent communities to the extent not required in Chapter 40A, the NFIP State Coordinator [Massachusetts Department of Conservation and Recreation, 251 Causeway Street, Suite, 600-700, Boston, Massachusetts 02114-2104 (or any successor office)] and the NFIP Program Specialist [Federal Emergency Management Agency, Region 1, 99 High Street, 6th floor, Boston, Massachusetts 02110 (or any successor office)].~~ The City of Cambridge's permit review process includes the requirement that the proponent obtain 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 demonstrate that all necessary permits have been acquired.

20.74.3 Any proposed development shall comply in all respects with the provision of the underlying zoning district, provisions of the State Building Code, Wetlands Protection Act, and any other applicable laws.

20.75 ~~Criteria.~~ The Planning Board shall grant a Special Permit for development in the Flood Plain Overlay District if the Board finds that such development has met all of the following criteria in addition to other criteria specified in Section 10.43:

- ~~1. No filling or other encroachment shall be allowed in Zone A areas or in the floodway which would impair the ability of these Special Flood Hazard Areas to carry and discharge flood waters, except where such activity is fully offset by stream improvements such as, but not limited to, flood water retention systems as allowed by applicable law.~~
- ~~2. Displacement of water retention capacity at one location shall be replaced in equal volume at another location on the same lot, on an abutting lot in the same ownership, on a noncontiguous lot in the same ownership, or in accordance with the following requirements.~~
- ~~3. All flood water retention systems shall be suitably designed and located so as not to cause any nuisance, hazard, or detriment to the occupants of the site or abutters. The Planning Board may require screening, or landscaping of flood water retention systems to create a safe, healthful, and pleasing environment.~~
- ~~4. The proposed use shall comply in all respects with the provision of the underlying zoning district, provisions of the State Building Code, Wetlands Protection Act, and any other applicable laws.~~
- ~~5. Applicants for development in the Alewife area shall be familiar with area specific and general city wide land use plans and policy objectives (e.g. Concord Alewife Plan, A Report of the Concord Alewife Planning Study, November 2005; Toward a Sustainable Future, Cambridge Growth Policy, 1993, Update, 2007; Section 19.30—Urban Design Objectives of this Zoning Ordinance) and shall demonstrate how their plan meets the spirit and intent of such documents in conjunction with the requirements of this Section 20.70—Flood Plain Overlay District and Sections 20.90 and 20.1100, as applicable.~~
- ~~6. The requirement of Section 20.74(3) has been met.~~

20.76 ~~Development Regulations for mobile homes.~~ The following development regulations apply to the placement of mobile homes within Special Flood Hazard Areas designated as Zone AE on the FIRM, in addition to other requirements of this Section 20.70. All mobile homes shall provide that:

MARKUP VERSION – Additions and creations underlined, deletions in strikethrough
Flood Plain Zoning Petition

- ~~1. Stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the mobile home will be at or above the base flood level; and~~
- ~~2. Adequate surface drainage and access for a hauler are provided.20.76.1The placement of mobile homes, except in an existing mobile home park or mobile home subdivision, are prohibited in the floodway.~~

~~**20.77** *Setback Exemptions.* Any required flood water retention systems or related facilities may be permitted to extend into required yard setbacks if deemed appropriate by the Planning Board.~~

~~**20.78** *Emergency Repairs.* The special permit required in this Section 20.70 shall not apply to emergency repairs or projects necessary for the protection of the health, safety or welfare of the general public which are to be performed or which are ordered to be performed by a city agency, or the commonwealth, or a political subdivision thereof. In no case shall any filling, dredging, excavating, or otherwise extend beyond the time necessary to abate the emergency.~~

~~**20.79** Any development activity requiring a special permit from the Planning Board under other provisions of this Zoning Ordinance shall incorporate the requirements of this Section 20.70 within the scope of that special permit and shall not require separate application to the Planning Board.~~

20.75 Floodway Data.

20.75.1 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.

20.75.2 In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the City of Cambridge's FIRM 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 City of Cambridge during the occurrence of the base flood discharge.

20.75.3 In A Zones, in the absence of FEMA BFE data and floodway data, the Floodplain Administrator 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 and as the basis for elevating residential structures to or above base flood level, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways.

20.75.4 *Requirement to Submit New Technical Data.* If the City of Cambridge acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the City of Cambridge will, within 6 months, notify FEMA of these changes by submitting the technical or scientific data that supports the change(s.) Notification shall be submitted to: NFIP State Coordinator Massachusetts Department of Conservation and Recreation and NFIP Program Specialist Federal Emergency Management Agency, Region I.

20.76 General Provisions.

20.76.1 All proposed development in the Floodplain Overlay District shall be reviewed to assure 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.

20.76.2 For any proposed development, the proponent must provide technical data to determine base flood elevations for each developable parcel shown on the design plans.

20.76.3 Within Zones AO and AH on the FIRM, adequate drainage paths must be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

20.76.4 Recreational Vehicles. 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.

20.76.5 Watercourse Alterations or Relocations in Riverine Areas. In a riverine situation, the Floodplain Administrator shall notify the following of any alteration or relocation of a watercourse: (1) adjacent communities, especially upstream and downstream, (2) NFIP State Coordinator Massachusetts Department of Conservation and Recreation, (3) NFIP Program Specialist Federal Emergency Management Agency, Region I.

20.77 Variances. Floodplain management variance criteria are outlined in Title 44 Code of Federal Regulations (CFR) 60.6.

20.77.1 Variances to Building Code Floodplain Standards.

20.77.1.1 Variances from the provisions and requirements of the State Building Code shall be filed by an applicant in accordance with the required variance procedures of the Massachusetts Building Code Appeals Board (BCAB).

20.77.1.2 Following a decision of the BCAB, an applicant shall provide the ISD Commissioner with a written and/or audible copy of the portion of the BCAB hearing related to the variance, and the ISD Commissioner will maintain this record in ISD's files.

20.77.1.3 For any property granted a variance from the State Building Code, the City of Cambridge shall issue a letter, in writing over the signature of a city official, to that property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property. The letter shall state that (i) 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 (ii) such construction below the base flood level increases risks to life and property.

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

20.77.2 Variances to Local Zoning Ordinances Related to Community Compliance With the NFIP. A variance from this floodplain section granted pursuant to Section 10.30 of this Zoning Ordinance must meet the requirements set out by State law, and may only be granted if: (1) good and sufficient cause and exceptional non-financial hardship exist, (2) the variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public, and (3) the variance is the minimum action necessary to afford relief.

20.78 Enforcement.

20.78.1 Notice of Violation.

20.78.1.1 The ISD Commissioner shall serve a written notice of Violation of Order to any owner or person responsible for the violation of any requirement under the provisions of this Ordinance, and such notice or order shall direct the immediate discontinuance of the unlawful action, use or condition and the abatement of the violation.

20.78.1.2 Any violator and/or owner who has been served with a notice shall stop work immediately, except that in ceasing any work or other activity they shall not leave any structure or lot in such a condition as to be a hazard or menace to the public safety, health, and general welfare.

20.78.1.3 In situations that require remedial action to prevent adverse impacts within the floodplain district, the City of Cambridge may order the owner or operator of the premises to remedy the violation.

20.78.1.4 Any person who violates the provisions of this Ordinance may be ordered to restore property to its original condition and take other actions deemed necessary to remedy such violations.

20.78.2 Penalties. Fines and penalties for violations of the Floodplain Overlay District Ordinance shall be levied in accordance with the provisions of Article 9.00 of the City of Cambridge Zoning Ordinance.

20.79 Abrogation; Disclaimer of Liability; Severability.

20.79.1 Abrogation. The floodplain management regulations found in this Floodplain Overlay District section shall take precedence over any less restrictive conflicting local laws, ordinances, or codes.

20.79.2 Disclaimer of Liability. The degree of flood protection required by this Section is considered reasonable but does not imply total flood protection.

20.79.3 Severability. If any section, provision, or portion of this Section is deemed to be unconstitutional or invalid by a court, the remainder of the Section shall be effective.

~~(Ord. No. 2023-5, 9-11-2023)~~