

**The City of Cambridge
Department of Public Works**

The City of Cambridge City Engineer of the Department of Public Works (“the City Engineer”) hereby adopts these Land Use Regulations pursuant to Cambridge Municipal Code Chapter 22.80 Flood Resilience Standards

RESILIENCY FLOOD ELEVATIONS REGULATIONS

**Article I
General Provisions and Definitions**

Section 1 – Reference to Regulations.

These regulations shall be referred to as Resiliency Flood Elevation Regulations.

Section 2 – Authority.

Under the authority granted by the Home Rule Amendment of the Massachusetts Constitution, and pursuant to Cambridge Zoning Ordinance, Section 22.80 the City of Cambridge City Engineer has established the following Regulations governing the establishment of Long-Term Flood Elevations (“LTFEs”).

Section 3 – Applicability and Purpose.

This Regulation shall apply to developments pursuant to those set forth in the Cambridge Zoning Ordinance: as referenced below:

- (i) Development subject Section 22.20 Green Building Requirements (Section 22.82)
- (ii) Any new building or new addition to a building that meets the following criteria (Section 5.16).
 - a The new building or addition involving the construction of a new foundation.
 - b In the case of an addition to an existing building, the footprint area of the building, measured in plan view, increased by at least 50%.
- (iii) Any development in Stories Below Grades seeking exemption under Section 5.25.2.

The purpose of this Regulation is to promote building designs that are resistant to the impacts of flood events that are likely to become more frequent and intense due to the effects of climate change. Regulations are in support of Cambridge Zoning Ordinance Section 22.80.

All federal, state and local permit requirements related to building structure resiliency must be met by the owner prior to facility use.

Section 4 – Severability.

The provisions of these Regulations are severable. If any provision of these Regulations or any specific application to any person or circumstance, is held invalid, such invalidity shall not affect other provisions or applications which can be given effect in the absence of the invalid provision or application.

Section 5 – Required Applications and Permits.

- (a) Applications and permits required by these Regulations are in addition to applications and permits that may be required by other federal, state (including MWRA) and local laws or Regulations. The

following applications and permits are required by these Regulations and issued by the Cambridge Department of Public Works (DPW) and or Inspectional Services as they apply:

- (i) Building Permit

Section 6 – Definitions

All terms used in these Resiliency Flood Elevations Regulations shall be as defined in the Cambridge Zoning Ordinance unless otherwise defined herein:

Relevant Definitions TBD

Article II **Long Term Flood Elevations**

Section 1 – LTFE Determination

(a) LTFE's have been established, in Cambridge City Base, based on the best available information on existing ground elevations and projected flooding in Cambridge:

- i. LTFE's have been established based on precipitation flooding from piped infrastructure using the City's flood model, and on sea level rise/storm surge flooding using the Massachusetts Coast Flood Risk Model (MC-FRM). The MC-FRM is being used as part of the Resilient Massachusetts Action Team (RMAT) "Climate Resilience Design Standards and Guidelines" project being led by the Massachusetts Executive Office of Energy and Environmental Affairs (EEA).
- ii. Existing "ground elevation" data are reported in feet above the Cambridge City Base (ft-CCB) datum and are based on the 2014 LiDAR data collection performed over Boston and Cambridge by EagleView Technologies, Inc. (formerly Pictometry). The ground elevation data was collected at a nominal post spacing of 2.3 feet over Boston and Cambridge and has a vertical accuracy of + 0.5 feet.

Section 2- LTFE Establishment

(a) LTFE's shall be defined as follows:

- i. The 1%-Probability Long-Term Flood Elevation standard, or "1%-LTFE standard," shall refer to the projected elevation of floodwater that has a one percent annual chance of occurrence due to either sea level rise and storm surge or due to precipitation, whichever is higher.
- ii. The 10%-Probability Long-Term Flood Elevation standard, or "10%-LTFE standard," shall refer to the projected elevation of floodwater that has a ten percent annual chance of occurrence due to either sea level rise and storm surge or due to precipitation, whichever is higher.

Section 3 – LTFE Presentation

(a) Tabular: LTFE's are presented in tabular format in a file to be held, electronically and in hard copy with the Department of Public Works. Tabular format shall be available on the City Website and in

person by request to the City Engineer.

i. Tabular file available here: (Provide link)

ii. Hard copy titled: (Provide Title)

(b) **Electronic Mapping:** LTFE's presented in map format, electronically, in the Cambridge Floodviewer 2022. FloodViewer 2022 is accessible at:

i. <https://www.cambridgema.gov/Services/floodmap>

Section 3 – LTFE Promulgation and Updates

(a) As better information becomes available, the City Engineer shall have the right to reconsider and reestablish the LTFE's. New or revised LTFE's shall be made available to the public no less than 90 days prior to Promulgation.

(b) Map Promulgation History:

Map Version	Date Posted	Date Promulgated	Status
FloodViewer 2022 V3.0	March 21, 2022	September 1, 2023	Current
FloodViewer 2019	November 2019	N/A	Superseded

Article III implementation

Section 1 – Implementation

Per section 22.86 (b) of the Cambridge Municipal Code the Department of Public Works will develop standards and procedures for developments document compliance with the provisions of the Zoning Section 22.80

Adopted:

Effective Date: September 1, 2023

James Wilcox, PE
City Engineer