

Coastal Flood Resilience Zoning Overlay District Summary:

One of the primary objectives of the 2016 Climate Ready Boston climate resiliency plan is to promote adapted buildings that will function to limit damage and displacement related to the impacts of a changing climate. To this end Climate Ready Boston called upon the BPDA to establish resilient design guidelines for buildings and update zoning to ensure development projects are better prepared for future climate risks, with a focus on coastal storms and sea level rise.

The BPDA Coastal Flood Resilience Design Guidelines were adopted by the BPDA Board last year and since that time BPDA Climate Change and Environmental Planning, and Zoning staff have been working with a legal consultant to develop a Coastal Flood Resilience Overlay District as part of the zoning code (Article 25A). Within the Zoning Overlay there are new definitions and standards for building dimensions and uses to facilitate flood resilient design for new projects and building retrofits. The Design Guidelines are also to be administered with the new Overlay.

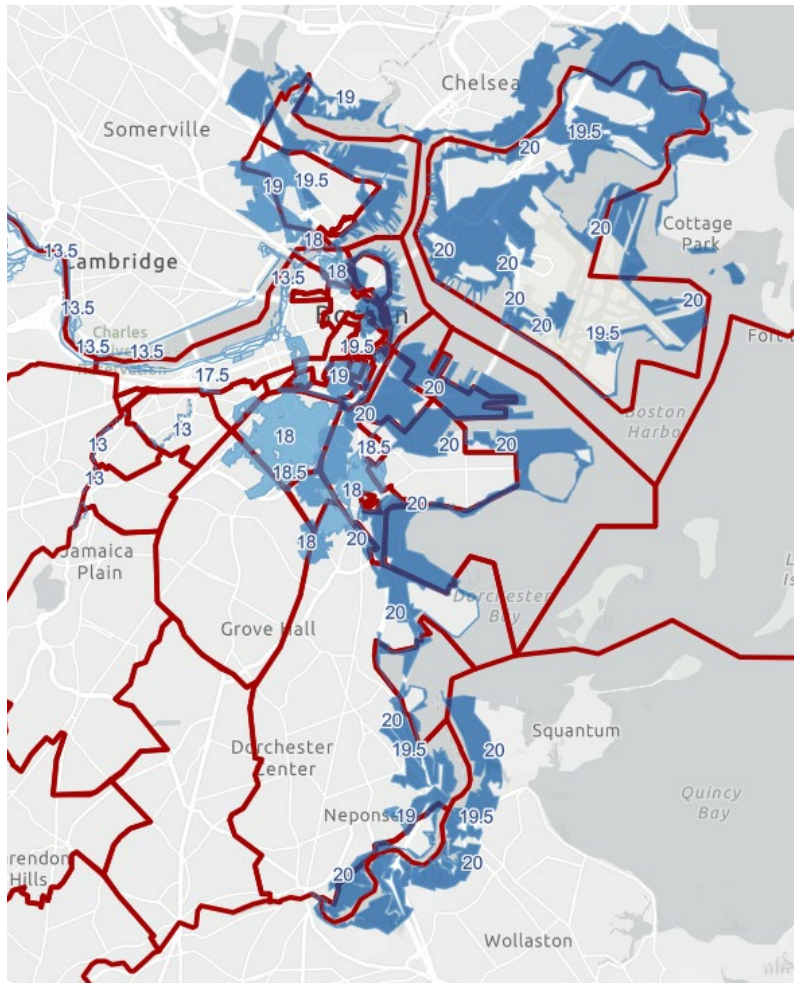
The proposed Overlay includes the following:

1. Objectives of the Zoning Overlay

- promoting resilient planning and design;
- providing consistent standards for the review of projects;
- maximizing the benefits of long-lived investments in coastal resilience;
- promoting the co-benefits of sustainable designs that address multiple climate impacts;
- advancing adaptation strategies that are future-looking and draw on best practices for long-term resilience; and
- encouraging design that responds to the unique conditions of Boston's building types, advancing resilience for individual buildings, district-scale resilience plans, and enhancing the public realm.

2. Extent of Overlay

The overlay will apply to areas of the City that could be inundated during a major coastal storm event, known as a 1% chance flood event, with 40-inches of sea level rise. Based upon climate modeling, we expect 40-inches of sea level rise sometime between 2070 and 2100, which is within the usable life of most buildings currently undergoing BPDA review. The 40-inch inundation area is already integrated into the BPDA Zoning Viewer – see below.



3. Applicability

All projects subject to Large and Small Project review under Article 80 (Development Review and Approval) of the zoning code will have to undergo Resilience Review, where proponents will have to address how their projects respond to the Coastal Flood Resilience Design Guidelines. This review will be administered by BPDA Urban Design staff.

4. Building Dimension and Use Standards

In general, these standards facilitate use of the Guidelines and are intended to prevent flood damage to buildings by elevating building occupiable space, flood proofing areas beneath flood elevations and promoting health and safety by preventing sensitive uses, such as living space below the flood elevation. Specific provisions include:

- Building Height: Projects undergoing Resilience Review will have their height measured from two feet above the the Sea Level Rise Base Flood Elevation (SLR-BFE), rather than at grade, which is what current zoning requires.

- Building Setbacks: Projects will have allowances to extend into side yard, rear yard, and front yard setbacks for structures needed for vertical circulation, such as stairs or ramps to get from surrounding grade to a higher first floor elevation. There are also allowances for side yard and rear yard encroachments for new structures to house mechanical systems to ensure they are not located in basements or beneath the Sea Level Rise Design Flood Elevation (SLR-DFE), which consists of the SLR-BFE plus one to two feet based on type of use.
- Lot Coverage & Required Open Space: The structures needed for vertical circulation and mechanical systems referenced above will be excluded from measurement of lot coverage and open space.
- Gross Square Floor Area: Will exclude structures needed for vertical circulation and areas devoted to flood protection measures.
- Limitations on Use Below the Sea Level Rise Design Flood Elevation: For health and safety purposes, uses beneath the SLR DFE are limited to access or vertical circulation structures; flood prevention measures, storage, and parking accessory to non-residential uses.