



**boston planning &  
development agency**

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PLAN: East Boston

# **Workshop Toolkit: Mixed-use Nodes & Corridors**

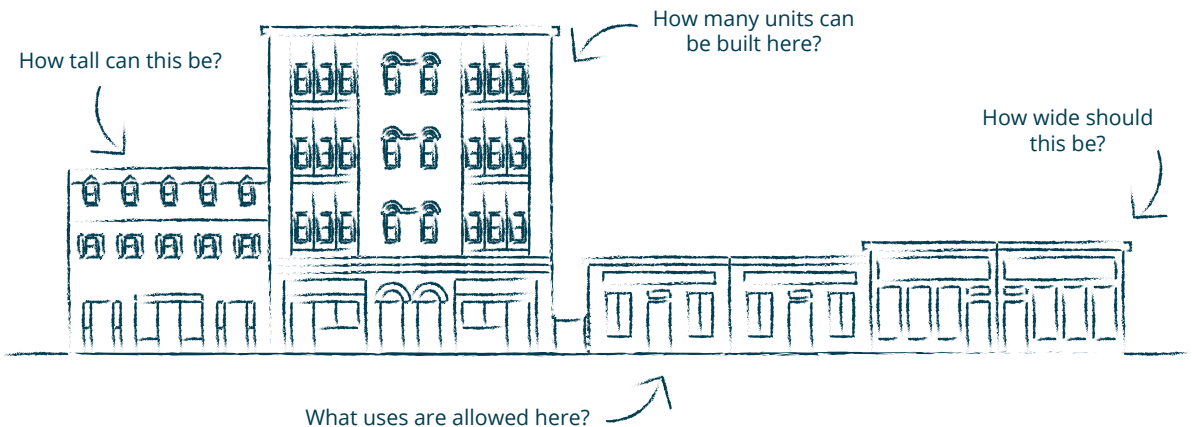


## Introduction

# Mixed-use Nodes & Corridors

Mixed-use nodes and corridors refer to areas in the neighborhood that are suited for active ground-floor uses and the amount of density required to support them.

The built environment of East Boston’s mixed-use nodes and corridors includes buildings, regulated by Article 53 of the Boston Zoning Code, and streets, informed by Boston Complete Streets guidelines.



In this document we'll explore—

Shaping individual buildings through zoning

Shaping streets through Complete Streets guidelines



Much of East Boston was built before either zoning or Complete Streets policy were adopted, which means there are many examples of buildings that do not comply with Article 53, and streets that do not comply with Boston Complete Streets guidelines.

## Introduction

# Mixed-use Nodes & Corridors



### Maverick Square

Maverick Station, served by the MBTA Blue Line, was first opened in 1904 as streetcar portal to the East Boston Tunnel. Substantial renovations to the station were completed in 2009. In addition to MBTA Blue Line service, the station is a terminal for five MBTA Bus Local routes. Maverick Square is part of the East Boston Main Streets district and is adjacent to the terminus of the East Boston Greenway.



### Central Square

Central Square begins at the intersection of Bennington Street and Meridian Street, and is within close proximity of the entrance to the Summer Tunnel. Central Square was identified as a priority project in the 2008 East Boston Transportation Action Plan. Central Square Park was redesigned to reclaim valuable public space; renovations were completed in 2018. Central Square is part of the East Boston Main Streets district.



### Day Square

Day Square is an active business district that includes the area surrounding the intersection of Bennington Street and Chelsea Street. The area is proximate to several community assets including the East Boston Greenway, the East Boston Public Library, and Wood Island Station, served by the MBTA Blue Line and the 112, 120, and 121 bus lines.



### Orient Heights Square

Orient Heights Square is an active business district at the intersection of Saratoga Street and Bennington Street. The area is proximate to several community assets including Constitution Beach and Orient Heights Station, served by the MBTA Blue Line and the 120, 712, and 713 bus lines.



### **Maverick Street**

Maverick Street intersects with Meridian Street and Chelsea Street at the center of Maverick Square. Maverick Street and Sumner Street operate as a one-way pair, connecting Porzio Park and the East Boston Greenway. The street shares adjacency with Logan Airport as well as both Jeffries Point and Gove Street neighborhoods.



### **Meridian Street**

Meridian Street connects East Boston to Chelsea via the Andrew McArdle Bridge and hosts several important local and regional bus routes including the 114, 116, 117, 120, and 121. Within East Boston, Meridian Street is the spine of the East Boston Main Streets districts, connecting Maverick Square and Central Square.



### **Bennington Street**

Bennington Street runs the entire length of East Boston from Central Square, through Day Square and Orient Heights Square. The street runs parallel to the MBTA Blue Line from Wood Island Station to Wonderland Station, passing inland along Constitution Beach, Belle Isle Marsh Reservation, and Revere Beach. Uses along Bennington Street change dramatically as it passes through neighborhood residential areas and active retail districts.



### **Bremen Street**

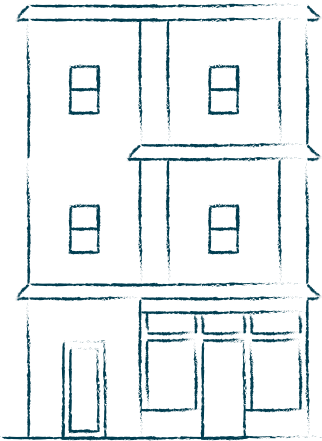
Bremen Street connects Maverick Square to Day Square along the East Boston Greenway. Uses along Bremen Street vary from parcel to parcel. There are stretches of neighborhood residential areas with light industrial uses mixed in including several auto-body shops, a reminder of the Greenway's former life as an elevated highway.

## Zoning

# What is zoning?

Zoning is a legal mechanism that regulates what property owners can and cannot do with their property. Zoning keeps compatible things together—like types of uses or sizes and forms of buildings.

What you see—



Zoning abstracts features of buildings and groups them by shared characteristics. There are three main parts to zoning:

### Geography

Zoning controls how growth and development occur by identifying different areas, or zoning subdistricts, with different use and/or dimensional standards.

### Use

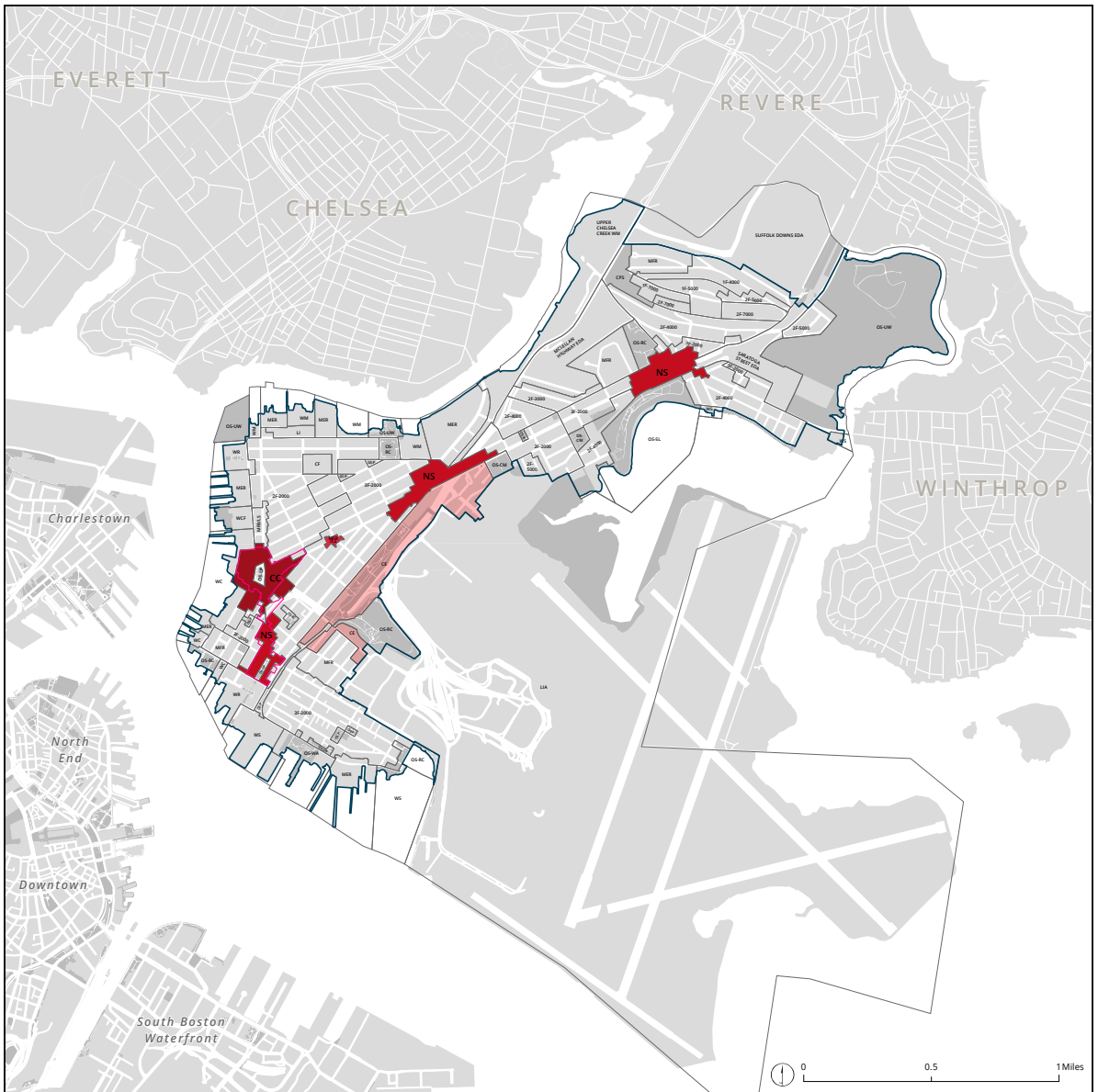
Zoning regulates what type of activities, or uses, are allowed in each subdistrict. Some common uses defined by zoning include residential, commercial/retail, civic, and industrial. Zoning in East Boston's neighborhood business subdistricts differentiates between ground floor and upper floor uses.

### Dimensional Standards

Zoning guides the size and shape of buildings. It doesn't say what a building should look like, but it does set up rules about how big a building can be and where it should be located within a given parcel.

What the zoning looks like—

SUBDISTRICT	HEIGHT	FAR	SETBACK
NS	35'	1.0	20' rear



East Boston's zoning code, known as Article 53, was last updated in 1993. In this section we'll explore how East Boston's zoning encodes specific features of buildings in mixed-use nodes and corridors today, and how it might do so in the future. Neighborhood Business and Corridor Enhancement zoning subdistricts make up about 10% of the land area within the study boundary.

### Map of Zoning Subdistricts in Article 53

Source: Article 53 of the Boston Zoning Code

- Neighborhood Shopping
- Community Commercial
- Local Shopping
- Corridor Enhancement
- Neighborhood Main Street District
- Zoning Subdistrict Boundary

## Zoning

# Land Use

Historically, the primary purpose of zoning was to segregate uses that were thought to be incompatible. Neighborhood Business zoning subdistricts in East Boston prioritize active ground floor uses.



### Ground Floor Uses

The category Neighborhood Business includes both Neighborhood Shopping and Community Commercial subdistricts. Article 53 Table B encodes allowed uses in these subdistricts by Basement & First Story and Second Story & Above. For example, in Neighborhood Shopping subdistricts, Restaurant is an Allowed use in the Basement & First Story, but a Conditional use on the Second Story & Above. In Community Commercial subdistricts, Restaurant is an Allowed use on all floors.

Use	NS	CC	CE
General Retail	A	A	F
Bakery	A	A	F
Liquor Store	C	C	F
Warehousing	F	F	F
Parking Garage	F	F	F

### Article 53 - Table B

#### Neighborhood Business and Corridor Enhancement Subdistrict Use Regulations

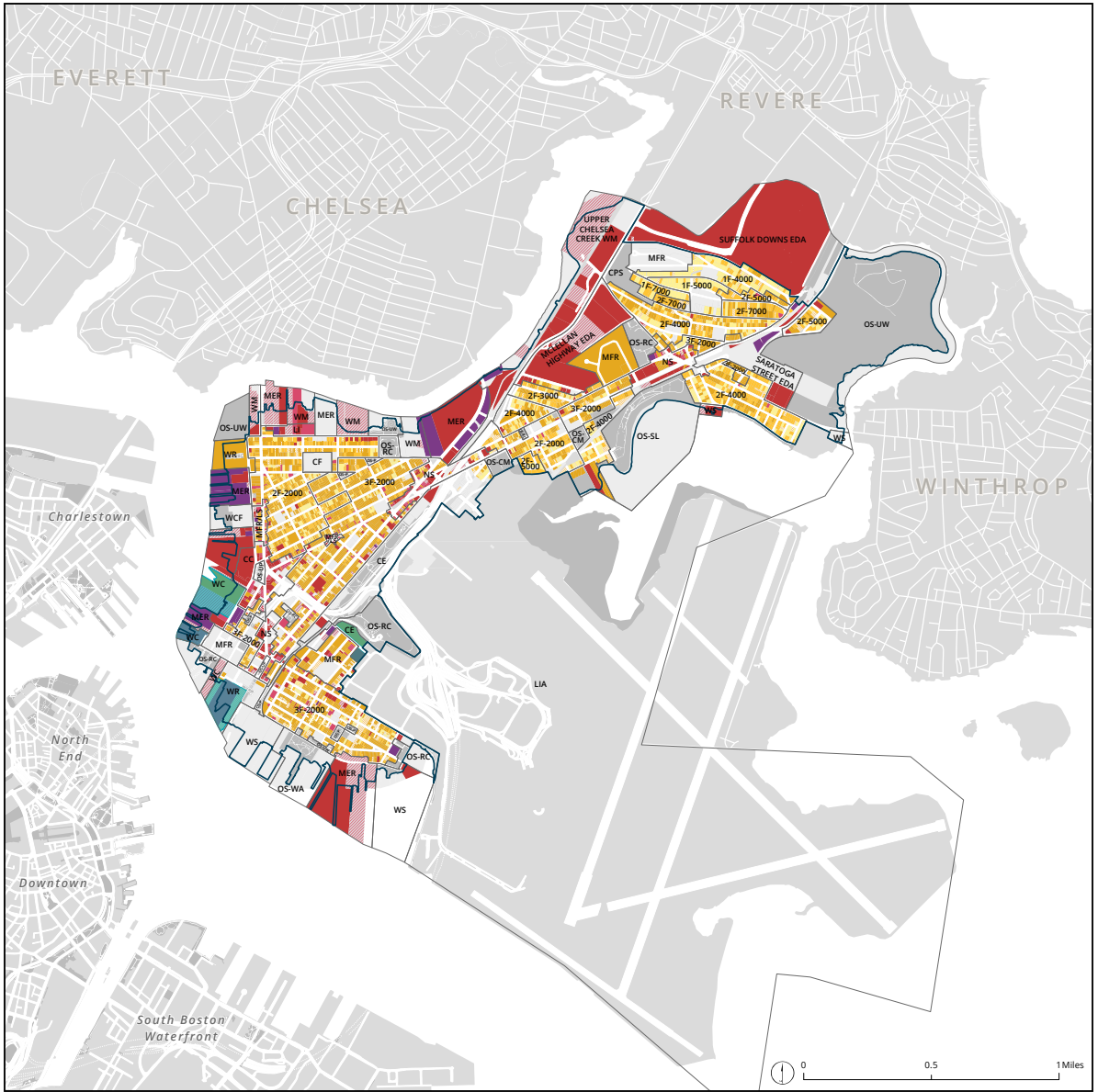
Uses are encoded as "Allowed" (A), "Conditional" (C), or "Forbidden" (F). Table B of Article 53 of the Boston Zoning Code lists 26 distinct use categories. For definitions of each use category and certain specific uses, see Article 2A of the Boston Zoning Code.

NS - Neighborhood Shopping

CC - Community Commercial

CE - Corridor Enhancement



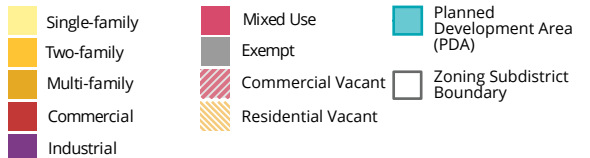


**Existing Non-conformity - Land Use**

There are many examples of existing uses that are forbidden by zoning but are desirable to the neighborhoods they are located in.

**Map of Existing Land Use by Parcel**

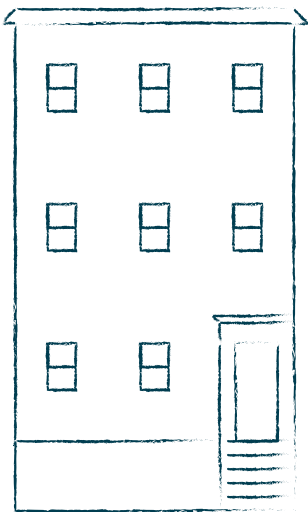
Source: Zoning, Assessing FY'18 (as of Jan.1 2017)



## Zoning

# Height

Building height is one of several dimensional regulations encoded by zoning. Height is recorded in feet, and is currently measured from the average grade of a parcel to the top of the highest occupiable floor.



**DESIGN FLOOD  
ELEVATION**  
**AVERAGE GRADE**

### Flood Resilience Zoning Overlay District

The BPDA is studying how to include future flood projections in zoning by amending the definition of height. Once adopted, height would be measured from the Finished Floor Elevation (FFE) of the ground floor, which would allow buildings to raise their ground floor without losing available height.

### Roof access

Mechanical space, roof decks, and access to roof decks are not included in measuring the height of a building because they are not technically occupiable space. Access to roof decks can be an important architectural feature of a building and in some cases may contribute to the impression of height.

### Article 53 - Table G and J

#### Neighborhood Business and Corridor Enhancement Subdistricts Dimensional Regulations

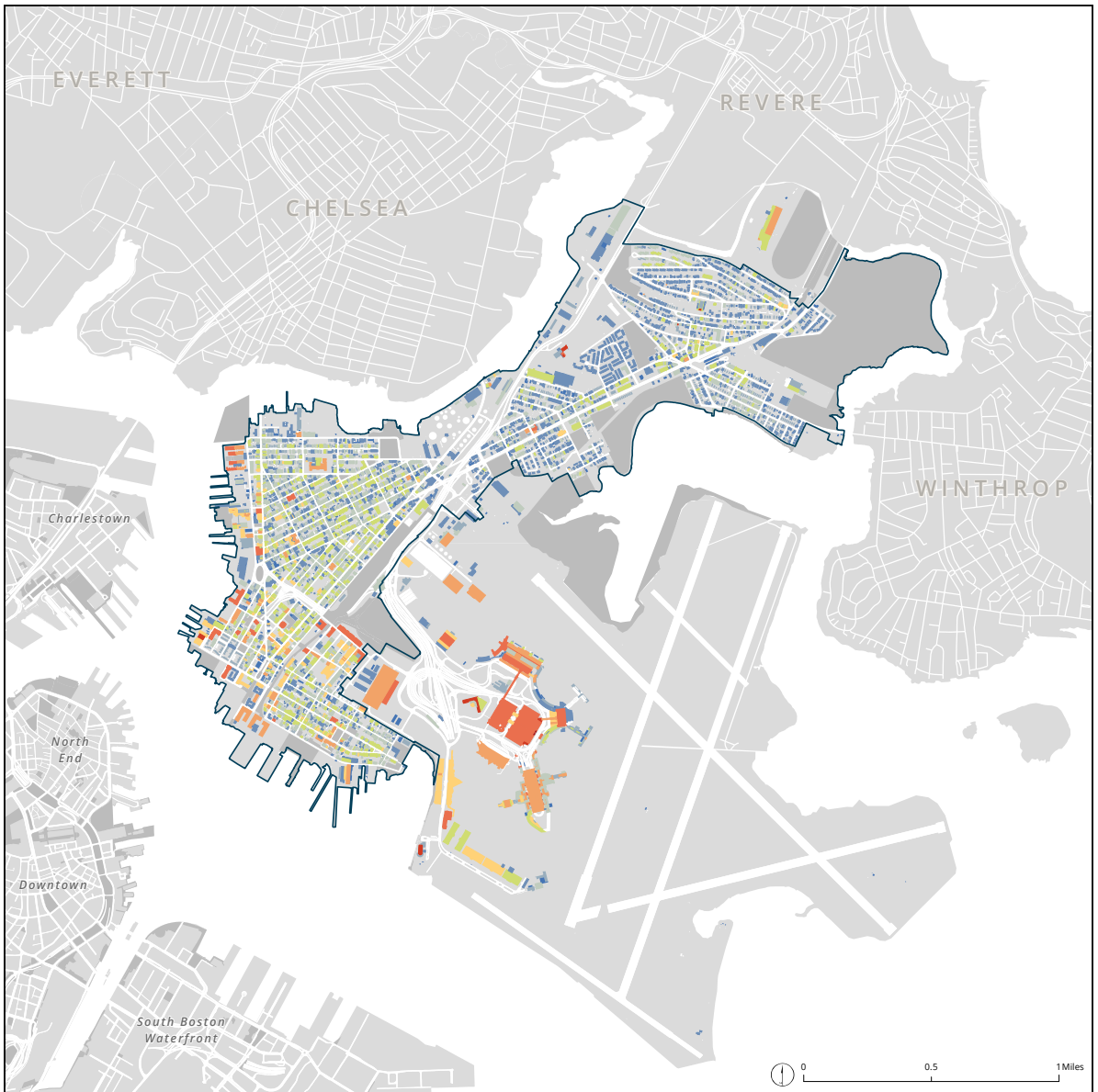
Neighborhood Business and Corridor Enhancement zoning subdistricts in East Boston limit height to 35 feet uniformly.

NS - Neighborhood Shopping

CC - Community Commercial

CE - Corridor Enhancement

	NS	CC	CE
Height	35'	35'	35'

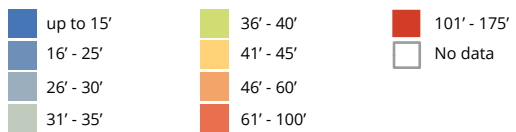


**Existing Non-conformity - Building Height**

Of existing buildings in East Boston, many are taller than the height allowed by zoning. Building heights in many of the mixed-use nodes and corridors are similar to the surrounding neighborhood residential areas, despite increased proximity to services like public transit, and greater amenities like ground floor retail.

**Map of Existing Building Height**

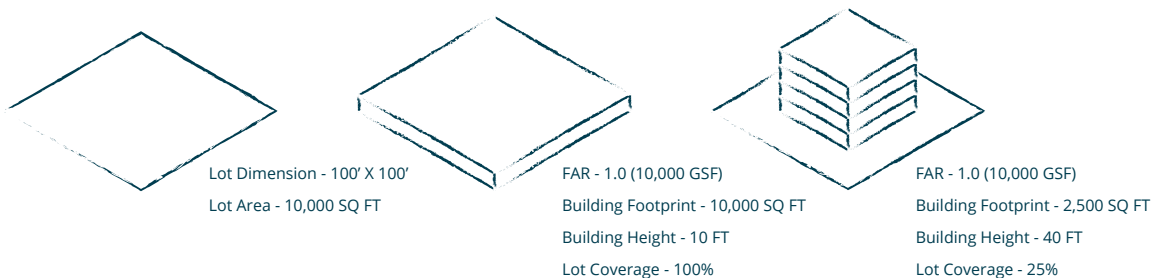
Source: 2010 LIDAR data, PNF documents for buildings erected after 2010  
 Building heights are approximate



## Zoning

# Density

One of the main ways zoning limits the size of buildings is by regulating allowed Floor Area Ratio (FAR). FAR is the total square footage of all the floors of a building, divided by the total square footage of the parcel.



### Calculating FAR

FAR operates as a multiplier. If a parcel is zoned as 1.0 FAR, multiply the site area by 1.0 to determine how much development would be allowed on the site. For instance, a 1,000-square-foot parcel with an FAR limit of 1.0 would yield 1,000 square feet in total. The diagram above demonstrates how the same amount of development could be deployed many ways.

### Article 53 - Table G and J

#### Neighborhood Business and Corridor Enhancement Subdistricts Dimensional Regulations

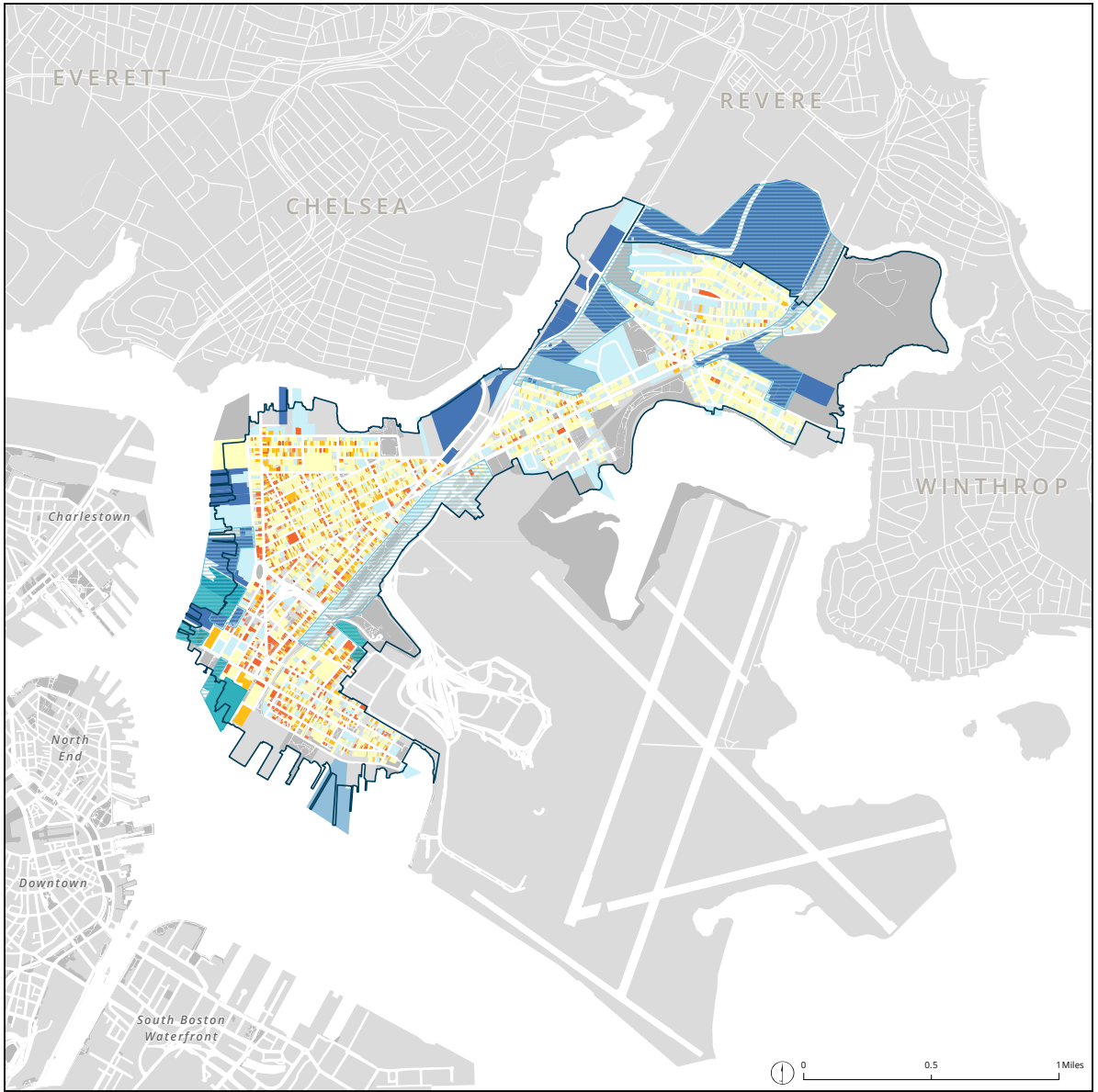
In addition to FAR, Corridor Enhancement subdistricts limit the density of allowed residential uses by requiring a minimum 50 square feet of lot area per dwelling unit. Neighborhood Business subdistricts do not have a minimum lot area per dwelling unit requirement.

NS - Neighborhood Shopping

CC - Community Commercial

CE - Corridor Enhancement

	NS	CC	CE
FAR	1.0	1.0	1.0

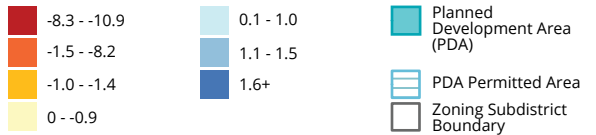


**Existing Non-conformity - Building Height**

60% of the parcels in East Boston have buildings with a larger FAR than zoning allows, many of which predate the adoption of the current zoning code.

**Map of Existing FAR in relation to Allowable FAR**

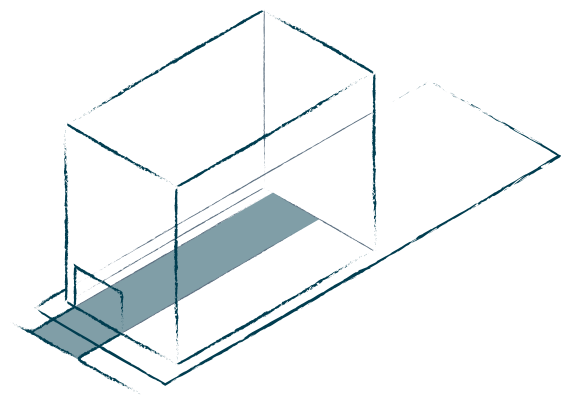
Source: Zoning, Assessing FY'18 (as of Jan.1 2017)



## Zoning

# On-site parking

Zoning says how many parking spaces are required per use in different districts. For residential uses, zoning typically requires at least one to two parking spaces per unit, depending on building size.



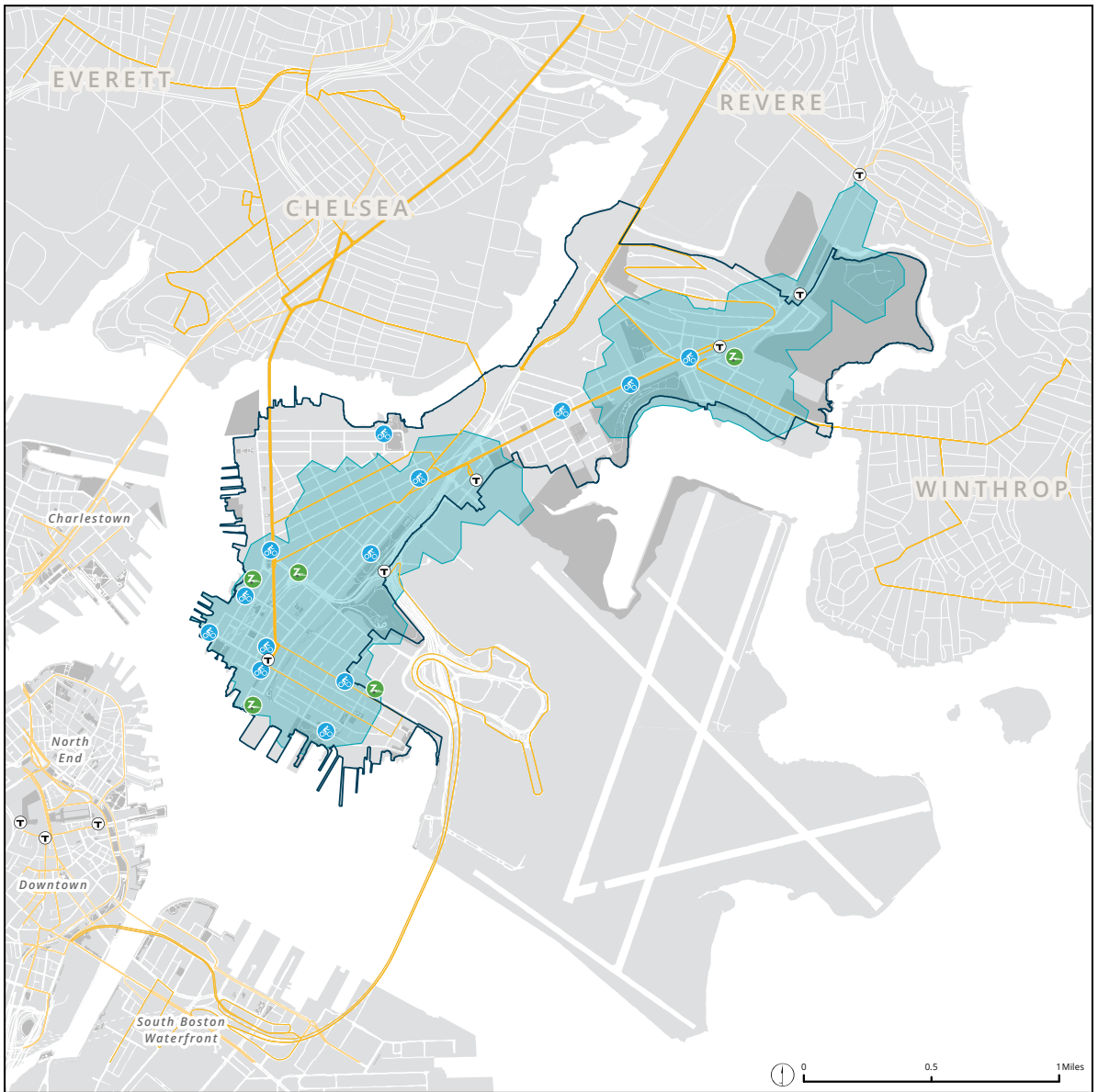
### Parking diagram

On-site parking requires square footage for the storage and maneuvering of vehicles, which could otherwise be allocated to active ground floor uses. Parking also requires a curb cut to provide access to the street, which introduces a vehicular conflict point with pedestrians and eliminates opportunities for public realm enhancements and on-street parking.

Use	Parking Requirement
Retail	2.0 spaces per 1,000 sq. ft.
Office	1.0 spaces per 1,000 sq. ft.
Restaurant	0.3 spaces per seat

### Article 53 - Table N

Zoning requires a minimum number of parking spaces for all proposed projects. It does not cap or limit the total number of parking spaces that can be provided. However, the Boston Transportation Department (BTD) recommends maximum parking ratios for large developments (at least 50,000 gross square feet). The Mayor's Housing Innovation Lab also designates maximum parking ratios for developments participating in the Compact Living Pilot.



### Minimum Parking Requirements

Minimum parking requirements in zoning do not vary based on proximity to nearby travel options. Maximum parking guidelines set by BTD and the Compact Living Pilot are reduced near MBTA subway stations. More than one-third of households in East Boston don't have access to a car.

### Map of 10-Minute Walk to Blue Line MBTA Station

- Within a 10-minute walk of a Blue Line station
- Key Bus Route
- Local bus route
- 🚲 Bluebikes station
- Z Zipcar

# What are Complete Streets?

Complete Streets is a design approach that considers walking, biking, and transit as options that are equally as important as driving. Streets can be categorized by types, which are based on context, adjacent land use, and the needs of all transportation modes.



Street types move beyond traditional transportation planning by broadly responding to the built environment and the needs of a safe and accessible multimodal network.

### Context

Most street types are divided into Downtown or Neighborhood contexts, responding to differences in public space needs and connectivity to the local and regional transportation network. East Boston streets are mostly neighborhood street types.



### Land use

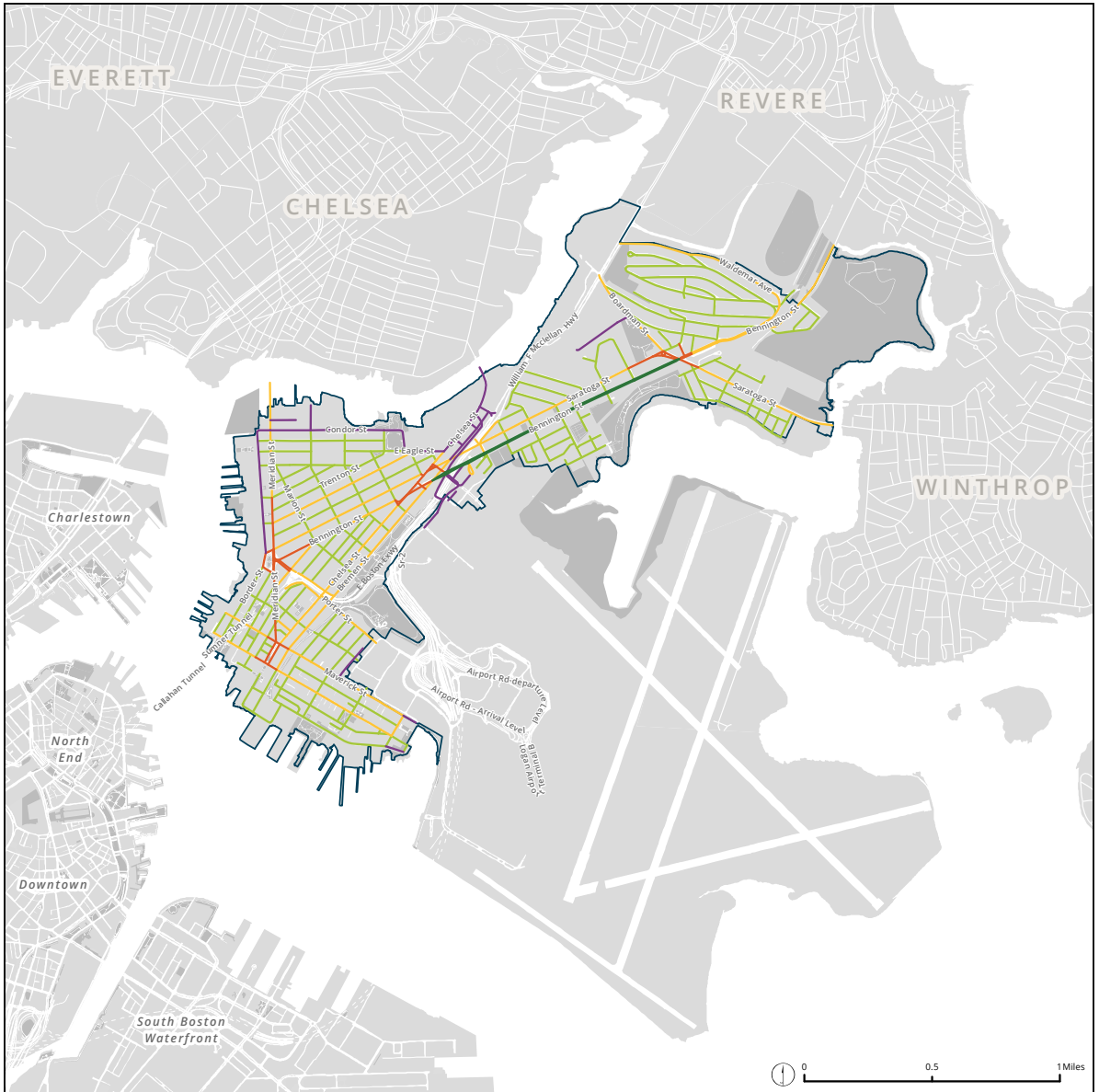
Street types can be fluid—a single corridor may change street types several times as the surrounding land uses change, for example passing through commercial or industrial use within a neighborhood. This, in turn, influences foot traffic, diversity of travel modes, public realm, and curbside use.

### Special street types

Some street types are defined by unique design elements. For example, where street space is shared at low speeds by all modes and there are no curbs (Shared Street), where major streets connect to or run next to open space (Parkway), or where a grand scale extends to wide sidewalks and mature tree cover (Boulevard).

Bennington Street is a good example of how a single corridor may change street types several times as it moves through a neighborhood. The top image is of Bennington Street in Orient Heights, and the bottom image is of Bennington Street in Central Square.





**Street Types in East Boston**

East Boston currently accommodates five street types. Along mixed-use nodes and corridors, street types are primarily Neighborhood Main, Neighborhood Connector, or Boulevard.

**Map of Complete Street Categorization**

- Neighborhood Residential
- Neighborhood Connector
- Neighborhood Main
- Boulevard
- Industrial

Source: Boston Complete Streets Guidelines, BPDA GIS analysis

# Neighborhood Main Streets

Neighborhood Main streets are the nucleus of neighborhood economies, forming neighborhood squares and connecting people to businesses and services. They should support public gathering and community events, and prioritize walking, biking, transit, and short-term parking and loading.



Creating more walk- and bike-friendly Neighborhood Main streets—the most popular project identified during Go Boston 2030 public surveying—can include more walk time at traffic signals, shorter crossing distances, crossings with responsive beacons (as shown here at Meridian Street), more bike parking, and physical separation from motor vehicles for people biking, among other strategies.

### Dual roles

Neighborhood Main streets are local destinations. Outside of a commercial core, they often become Neighborhood Connector streets, which form the backbone of Boston's street and transit networks.

### Vision Zero

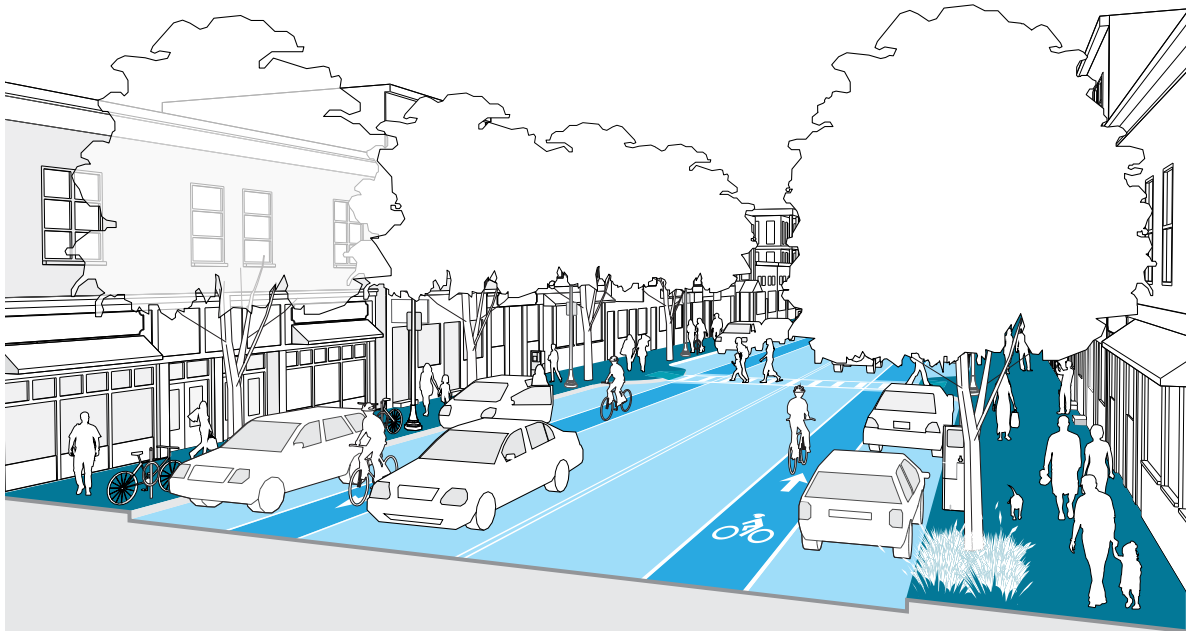
The concentration of activity and diversity of travel modes on Neighborhood Main streets can result in more frequent and severe crashes. Vision Zero Boston, a City of Boston policy, is committed to eliminating traffic fatalities and severe injuries by reducing speeds, designing safer streets, and providing dedicated space for all travel modes.

### Repurposing space

Neighborhood Main streets are public spaces with significant foot traffic. New plazas and enhanced public realm can be created by repurposing unneeded pavement at irregular intersections or wide streets (i.e., "road diet").

### Curbside competition

Neighborhood Main streets experience significant competition for curbside space: bus service, commercial loading, pick-up/drop-off services, and resident and visitor parking.



### **Neighborhood Main Streets**

In East Boston, Neighborhood Main street sidewalks are typically at least 10 feet wide, exceeding minimum guidelines. However, these spaces often lack trees, amenities, and places to gather and socialize.

Source: Boston Complete Street Design Guidelines

# Complete Streets Design Guidelines

## Public realm

Streets and sidewalks define the public realm. Although it serves a vital transportation function, the public realm is also public space. Boston is activating its public realm through traditional reconstruction projects as well as “tactical” experiments with low-cost materials and rapid implementation timelines.



Closing redundant streets



Squaring a corner



Diagonal street intersecting a grid



Filling in redundant lanes

These four examples illustrate how tactical plazas can be created by rethinking irregular intersections and blocks while preserving space for existing transportation use.

Source: Boston Tactical Public Realm Guidelines

Fifty-six percent of City-owned land is streets and sidewalks. Boston’s Tactical Public Realm Guidelines outline how to create and maintain public spaces within the public realm. Context and location are important considerations when creating these public spaces. The most well-suited locations about active ground floor uses, have foot traffic, and are served by multiple travel modes.

### Tactical Plazas

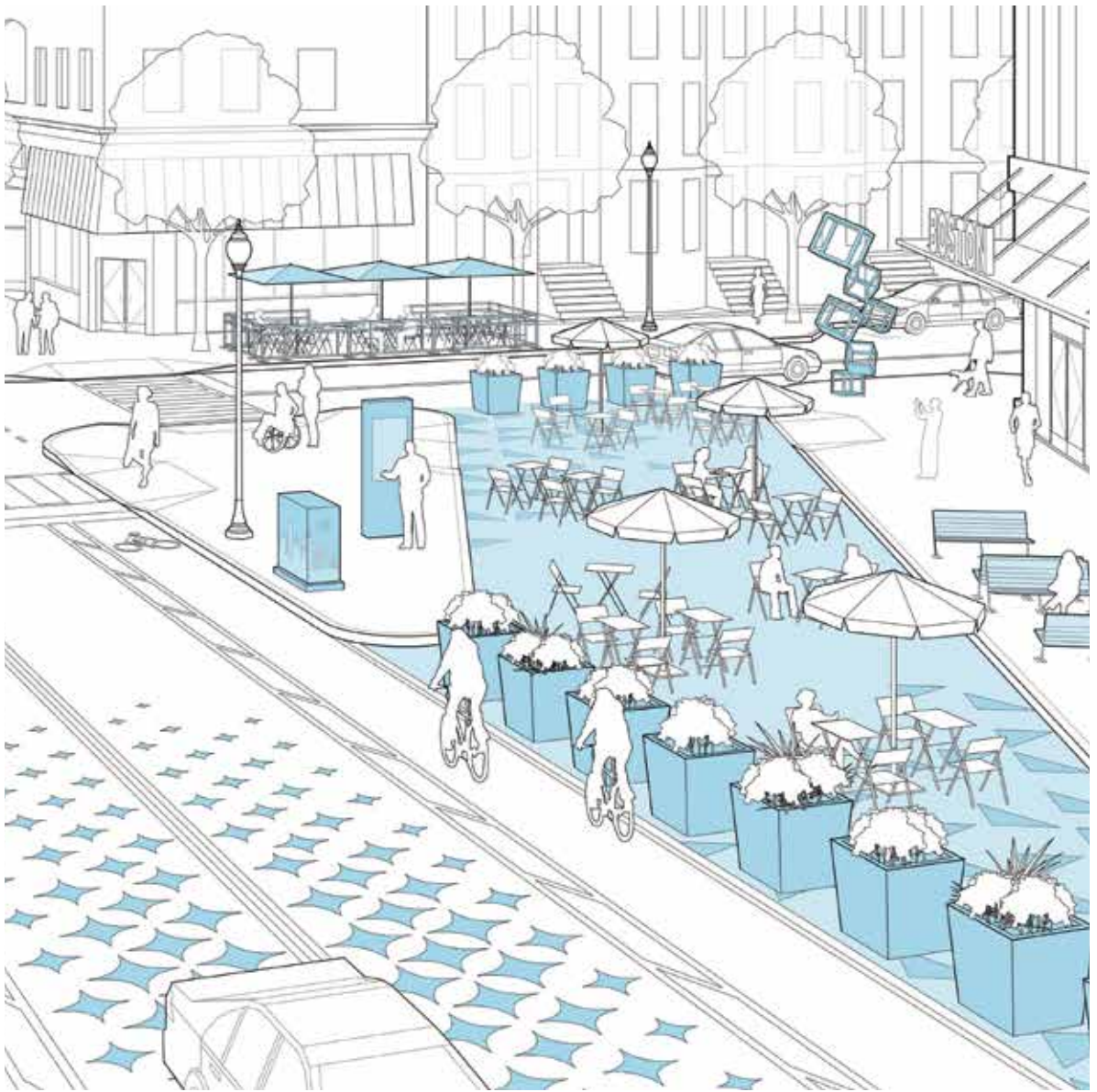
Tactical plazas are public open spaces that are created by repurposing underused pavement. Surface paint and perimeter planters clearly define the space. Seating, signage, and curb ramps are provided to welcome visitors and encourage people to linger.

### Parklets

A parklet repurposes one or two parking spaces into a public open space. They introduce new streetscape features such as seating, plantings, and art on a platform extending into the parking lane.

### Outdoor cafes

Outdoor cafes provide additional seating for abutting businesses and increase the vibrancy of the public realm. They are enclosed on all sides, typically privately funded and maintained, and must not obstruct the public way.



### **Tactical Plaza**

This illustration shows a tactical plaza created by closing a redundant street. In East Boston, irregular intersections often create extra pavement in mixed-use nodes and corridors. Such space is often devoted to and defined by surface parking lots.

# Curb use and regulation

Curbside space on Boston’s streets is a limited and valuable commodity. Generally, the curb is regulated by use (transit, loading, parking), parking user (resident, non-resident, handicap), and time (two-hour, all day, certain days). New policies increase access for walking, biking, and transit and improve the safety and reliability of all travel modes.



Mobility Hubs will help people travel in Boston and create new opportunities for public space. They may include bikeshare, carshare, pick-up/drop-off space, vehicle charging, parklets, and information kiosks. Mobility Hubs may be located by a bus stop or subway station to maximize connectivity.

Source: Boston Transportation Department

### **Exclusive bus lanes**

Exclusive bus lanes increase service reliability and reduce travel times along high ridership bus corridors. They may be employed during morning or peak periods or all day. They are often shared with people biking, increasing physical separation from general traffic.

### **Mobility Hubs**

Mobility Hubs will co-locate transportation services and public realm enhancements to help residents and visitors get around, meet up, and find their way. They will be piloted in East Boston in 2020.

### **Smart management**

Boston is testing “Smart Curbside” strategies to more efficiently manage curbside demand with technology. Performance parking tests in 2017 showed that changes in the price of metered parking increased available spaces, decreased double parking, and decreased illegal parking. Dedicated pick-up and drop-off zones are being piloted for passenger vehicles and ride-hailing vehicles in high-demand areas.



### Curbside Regulation

Curbside regulation varies in mixed-use nodes and corridors. For example, the commercial core of Day Square is primarily two-hour parking for everyone. Adjacent residential blocks also allow two-hour parking, but residential parking permit holders are exempted.

Parking	Loading	Other
<span style="color: blue;">■</span> Handicap	<span style="color: green;">■</span> MBTA bus stop	<span style="color: red;">■</span> No parking
<span style="color: purple;">■</span> Resident / 2 Hour	<span style="color: lightblue;">■</span> Pick-up/drop-off	<span style="color: grey;">■</span> Unrestricted
<span style="color: green;">■</span> 2 hour M-F 8-6	<span style="color: darkblue;">■</span> Commercial	
<span style="color: yellow;">■</span> Resident / 2 Hour M-F 8-6		

Source: BPDA Planning analysis

## Appendix

# Zoning Overview

## A brief history of Boston's zoning

Fifteen of the Boston's twenty-six neighborhoods were once separate towns (or neighborhoods of separate towns). As the years passed, these neighborhoods were slowly annexed by the City of Boston. To this day, many of these neighborhoods remain unique in their look and feel compared to the rest of the City. The most recent edition of the Boston Zoning Code, enacted in 1964, has evolved and adapted to accommodate the unique character of these places and it includes many separate maps and amendments. In the 1980s and 1990s, there was a comprehensive rezoning process that led to the rewriting of the zoning for many neighborhoods.

East Boston's zoning code, known as Article 53, was last updated in 1993.

## How Zoning Works

Different City agencies, departments, and boards and commissions play important, but separate, roles in zoning.

- The Boston Planning & Development Agency (BPDA) writes zoning.
- The Boston Zoning Commission (BZC) adopts zoning.
- The Inspectional Services Department (ISD) interprets and applies zoning.
- The Zoning Board of Appeal (ZBA) determines eligibility for exceptions from zoning.

When the public comes in contact with zoning issues, it does so most often through the BPDA or ISD.

A property owner must apply to ISD for a building permit or a change in use or occupancy permit. If the permit is denied because the proposed project violates the Zoning Code, the applicant may appeal the decision to the ZBA within ISD.

The BPDA makes recommendations concerning the case after its planning staff:

- Evaluates zoning applications
- Reviews the proposal

The BPDA makes its recommendations to the Board of Appeal on requests for variances and conditional uses and to the Zoning Commission in cases concerning Zoning Code amendments.

Members of the public and elected officials can also weigh in on requests for variances.

The BPDA makes no final rulings. Final decisions are made by the Board of Appeal and the Zoning Commission.



# Zoning Terms

**Accessory use** - a land use which is related to and on the same lot as the principal land use.

**Allowed use** - a land use which is permitted as a matter of right. Board of Appeal approval is not required.

**Appeal** - a request made to the Board of Appeal for relief from zoning code regulations.

**As-of-right-use** - those uses that are automatically allowed by the zoning code.

**Article 80** - Adopted in 1996 by the BPDA to provide clear guidelines for the development review process relating to large projects (adding/constructing more than 50,000 square feet), small projects (adding/constructing more than 20,000 square feet and/or 15+ net new residential units), Planned Development Areas (PDAs) (new overlay zoning districts for project areas larger than 1 acre), and Institutional Master Plans (IMPs) (projects relating to academic and medical campuses). The Article 80 process may include, but is not limited to, review of a project's impacts on transportation, public realm, the environment, and historic resources. BPDA Project Managers assist developers in navigating the Article 80 process. Public input is encouraged throughout a project's review timeline.

**Chapter 91, The Massachusetts Public Waterfront Act** - The Commonwealth's primary tool for protection and promotion of public use of its tidelands and other waterways. The oldest program of its kind in the nation, Chapter 91 regulates activities on both coastal and inland waterways, including construction, dredging and filling in tidelands, great ponds and certain rivers and streams.

**Conditional Use** - a land use permitted by the Zoning Code provided that it is found by the Board of Appeal to comply with certain conditions set out in the Code.

**Forbidden use** - A use that is not permitted in a particular district because of harmful impacts on other allowed uses (e.g., noise or pollution.)

**Height** - height is measured from the average grade of a parcel.

**Inclusionary Development Policy (IDP)** - Established in 2000 to promote the production of affordable housing in Boston. Under IDP, developers may include affordable units within their developments (on-site), create affordable housing in an off-site location, or make a cash contribution towards the creation or preservation of affordable housing.

**Inspectional Services Department (ISD)** - A City of Boston department which administers the Boston Zoning Code and the State Building Code and issues all building, use, and occupancy permits. If a project requires development review under Article 80, ISD will not issue a permit until the BPDA and the Zoning Commission (if necessary) have completed the required review and the BPDA has certified that the project described in the permit application is consistent with the project approved through development review.

**Lot, lot area** - the area of a parcel of land in single ownership and not divided by a street.

**Nonconforming use** - A use or activity that was lawful prior to the adoption or amendment of the Zoning Code, but which does not, because of such adoption or amendment, conform to the present requirements of the Zoning Code.

**Variance** - Permission to deviate from a specific requirement of the Zoning Code.

**Zoning Commission** - The Zoning Commission is responsible for adopting all new zoning and zoning amendments, for establishing PDAs and approving PDA Development Plans, and for approving Institutional Master Plans. The Zoning Commission is located within the City of Boston's administration, not the BPDA.





This workshop is part of a series focused on zoning and public realm in East Boston. These workshops explore the challenges and opportunities of different types of areas in the neighborhood including neighborhood residential, mixed-use nodes and corridors, and waterfront industrial and economic development areas. Discussions focus on how features of zoning and the public realm operate in these areas today, and how they could in the future.

### **Workshop 1 - Neighborhood Residential**

OCT 24, 2019 6:30 - 8:00 PM

East Boston YMCA, 54 Ashley Street

Small group discussions about the character of East Boston neighborhoods.

### **Workshop 2 - Mixed-use Nodes & Corridors**

NOV 06, 2019 6:30 - 8:00 PM

Excel Academy, 401 Bremen Street

Small group discussions about the character of East Boston's squares and main streets.

### **Workshop 3 - Waterfront Industrial & Economic Development Areas**

NOV 21, 2019 6:30 - 8:00 PM

East Boston High School, 86 White Street

Small group discussions about the character of East Boston's waterfront industrial and economic development areas.

### **Contact**

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### **Project Website**

[bit.ly/PlanEastBoston](http://bit.ly/PlanEastBoston)



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