An aerial architectural rendering of a city neighborhood, likely Cambridge, Massachusetts. The image shows a dense cluster of multi-story buildings with varied rooflines and colors (orange, red, white). A winding river or canal flows through the center of the development, surrounded by lush green trees and landscaped areas. In the foreground, a large body of water is visible, bordered by a thick line of green trees. The overall style is a detailed, colorful sketch or digital rendering.

Alewife Design Guidelines

Fall 2020
(Updated Spring 2023)



City of Cambridge

ENVISION
CAMBRIDGE

Alewife Design Guidelines

Prepared for the City of Cambridge Community Development Department, 2020.
(Updated 2023)

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An aerial architectural sketch of a city district. The drawing shows a grid of streets with various building footprints, some with flat roofs and others with more complex shapes. Green spaces with clusters of trees are interspersed throughout the urban layout. A prominent feature is a blue pond or small lake located in the lower-left quadrant, surrounded by greenery and a path. The style is a loose, hand-drawn sketch with visible pencil or pen lines and soft color washes. The overall impression is one of a planned, walkable neighborhood with integrated natural elements.

1 Introduction

The Alewife District Design Guidelines were created as part of the City of Cambridge's Alewife Planning Study to develop a vision for the Alewife District.

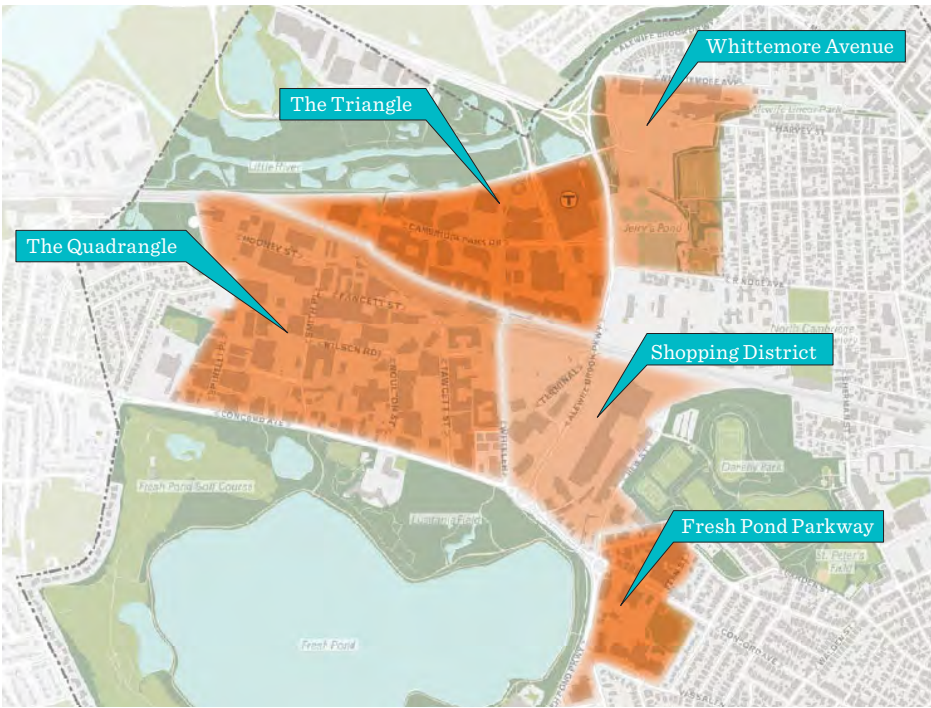
They are meant to supplement the Alewife District Plan (2019) and the Alewife Overlay District - Quadrangle ("AOD-Q") Zoning, providing more specificity regarding the City's goals for Alewife's public realm, built form, site development, sustainability, and resiliency.

These guidelines are intended to inform property owners, business owners, developers, architects, and the general public about the desired character and form of the district, and to be used by the Planning Board in their review of development projects.

In conjunction with the Alewife District Plan and the Alewife Overlay District - Quadrangle (AOD-Q) Zoning, these guidelines will serve as an instructive reference in the review processes undertaken by City departments, boards, and commissions. The Alewife District Plan includes a broader treatment of development goals, public realm goals, and other issues that relate to new private development. Thus, the Alewife District Plan should be consulted to understand more fully the planning and urban design context for these guidelines.



The Alewife District is located in western Cambridge, adjoining the Alewife Brook Reservation, Danehy Park, Fresh Pond Reservation and the Cambridge Highlands neighborhood.



Alewife is comprised of several subdistricts. Recent zoning focuses on the Quadrangle.

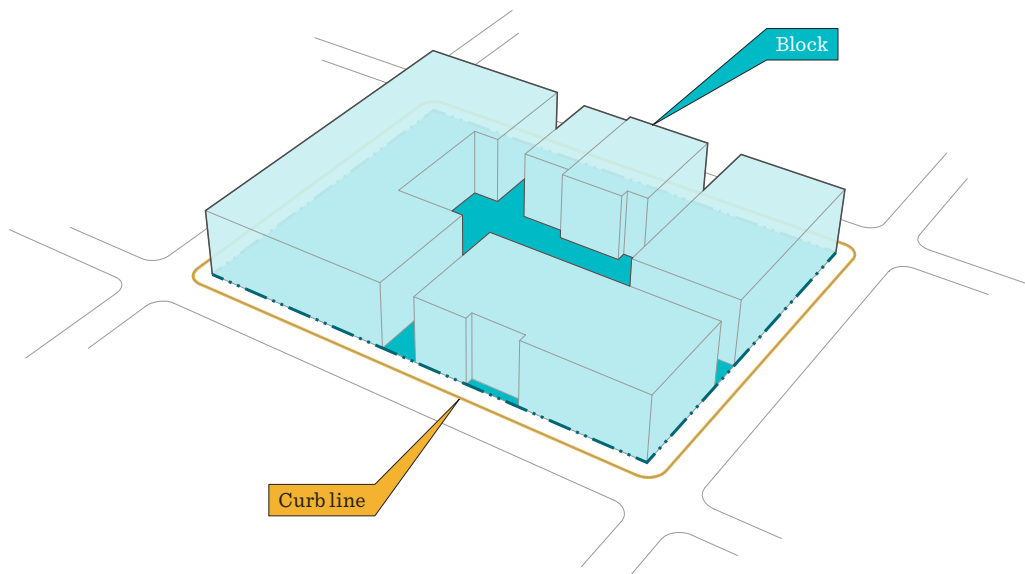
An aerial architectural rendering of a campus. The top half shows a cluster of orange-colored buildings with flat roofs, interspersed with green trees and walkways. A road or path runs through the middle. The bottom half shows a large, dense green forested area adjacent to a blue body of water, with a few buildings nestled at the edge. The overall style is a detailed, colorful sketch or rendering.

2 Terminology

This section provides terms used for key elements of the built environment. It is the intention of this section to serve as a reference for readers, as many of these elements will be found throughout the document.

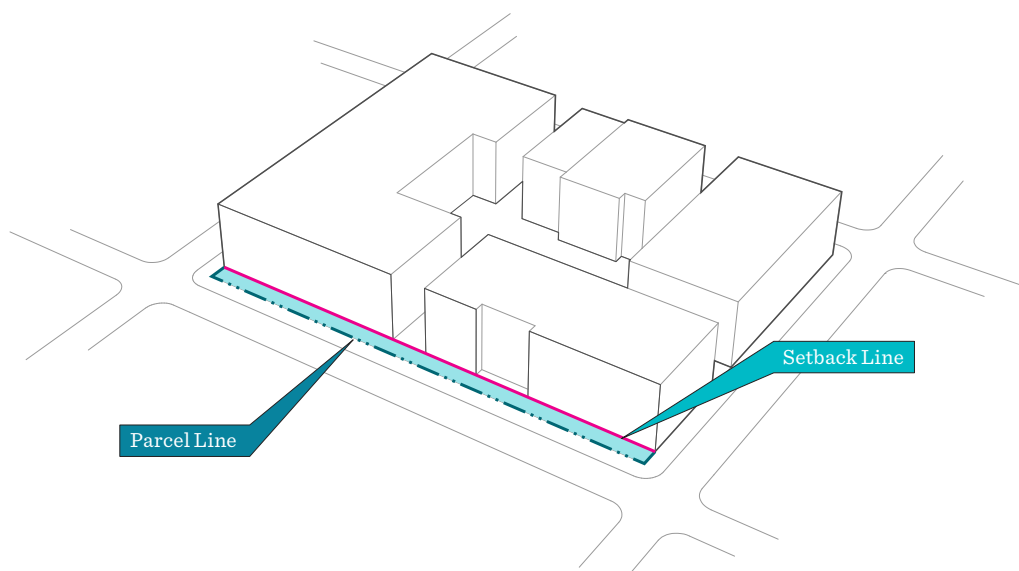
Block

A group of adjacent buildings, bounded by public streets or other open spaces.



Setback Line

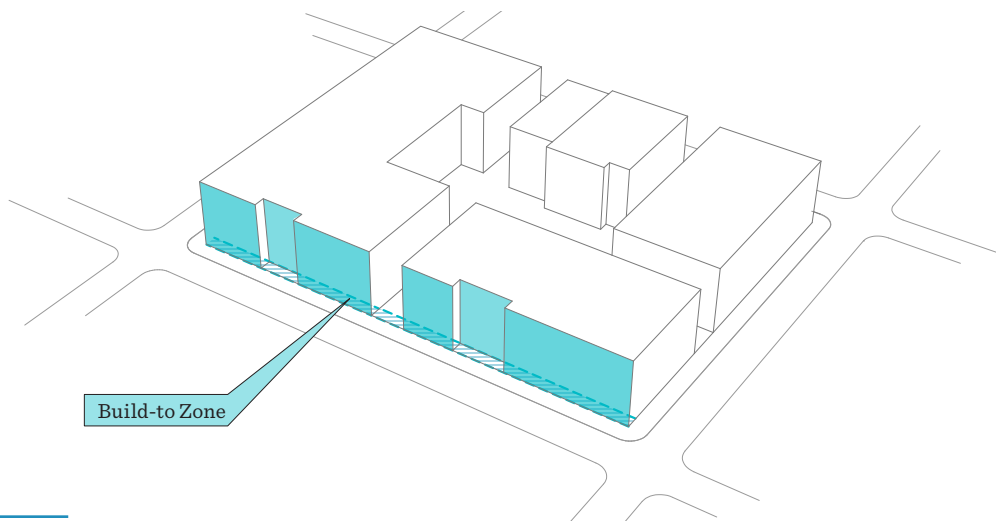
A setback line runs parallel to a parcel's property boundary and establishes the minimum allowed distance between the public right of way and the building facade.



Build-to Zone

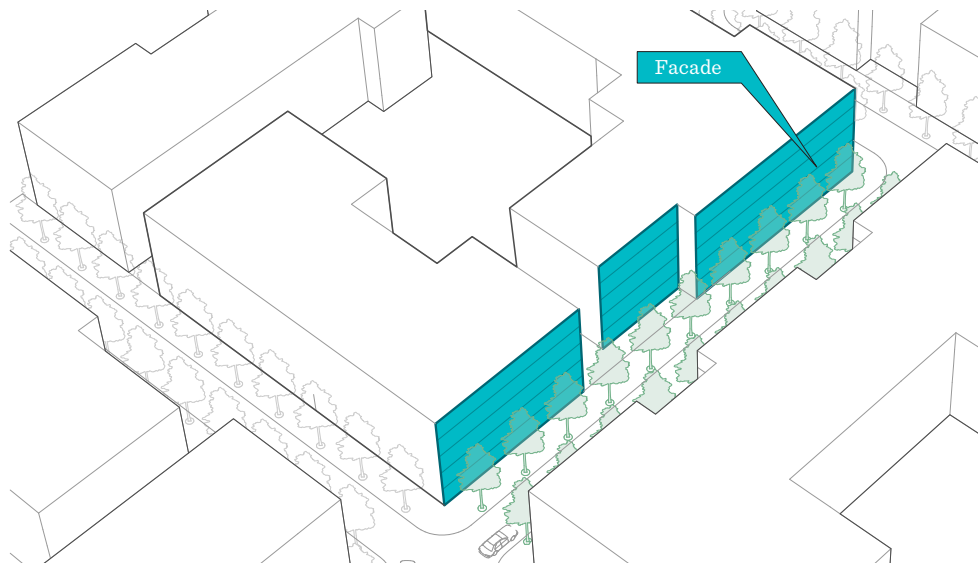
The Build-to Zone provides flexibility in establishing where the principal front facade of a building can be located. It is defined as an area five feet (5') in depth measured by a line perpendicular from the street centerline toward the interior of the lot.

In the case of the Alewife Quad, the Build-to Zone shall serve as the minimum front setback in place of the front yard requirements. A minimum of 70% of the building's principal front facade shall be located within the Build-to Zone.



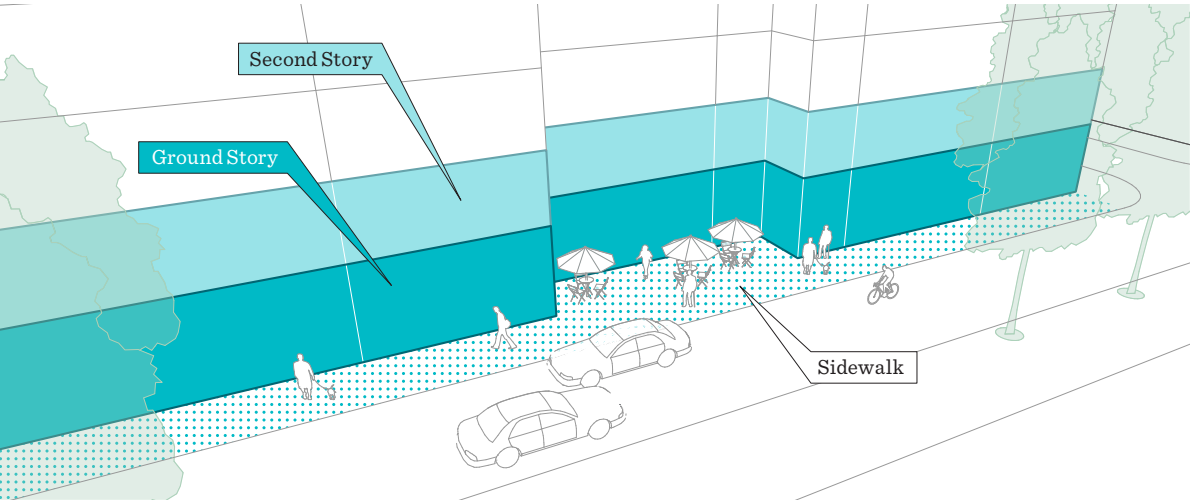
Facade

The face of a building towards a street or other open space. The design of the primary, or “front”, facade of the building is particularly important, as it frames the public realm and contributes to its character.



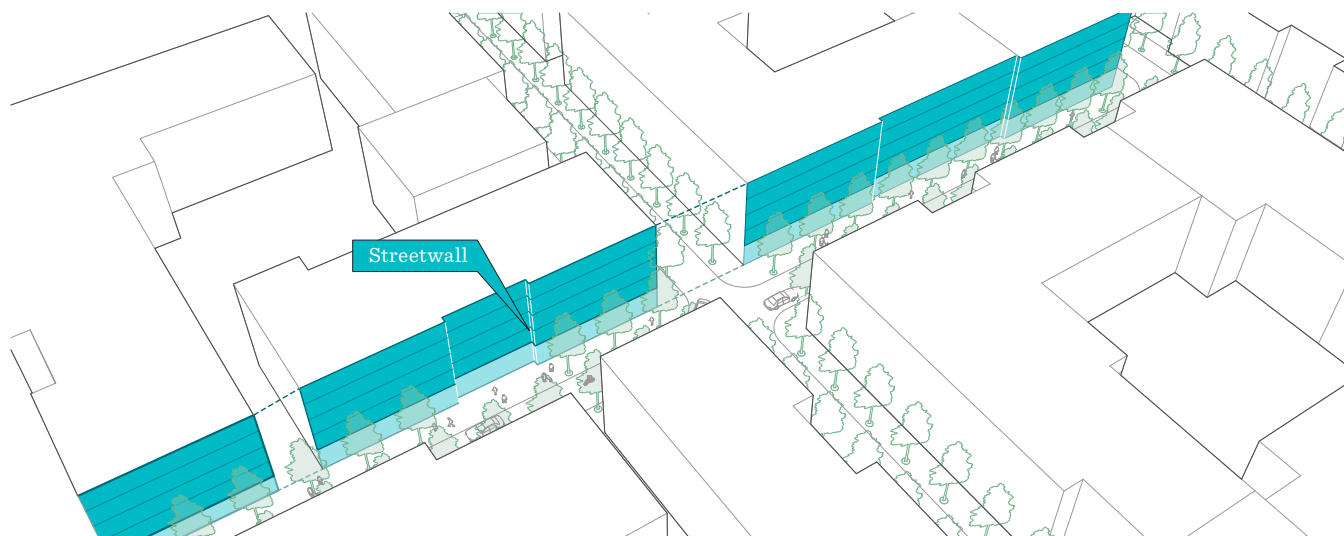
Pedestrian Zone (of Facade)

A portion of the facade that consists of the building's Ground Story, and on occasion its second story, fronting upon an active public right-of-way. On major public streets, pedestrian frontage zones generally include Ground Story uses that are oriented to engage the public space of the sidewalk.



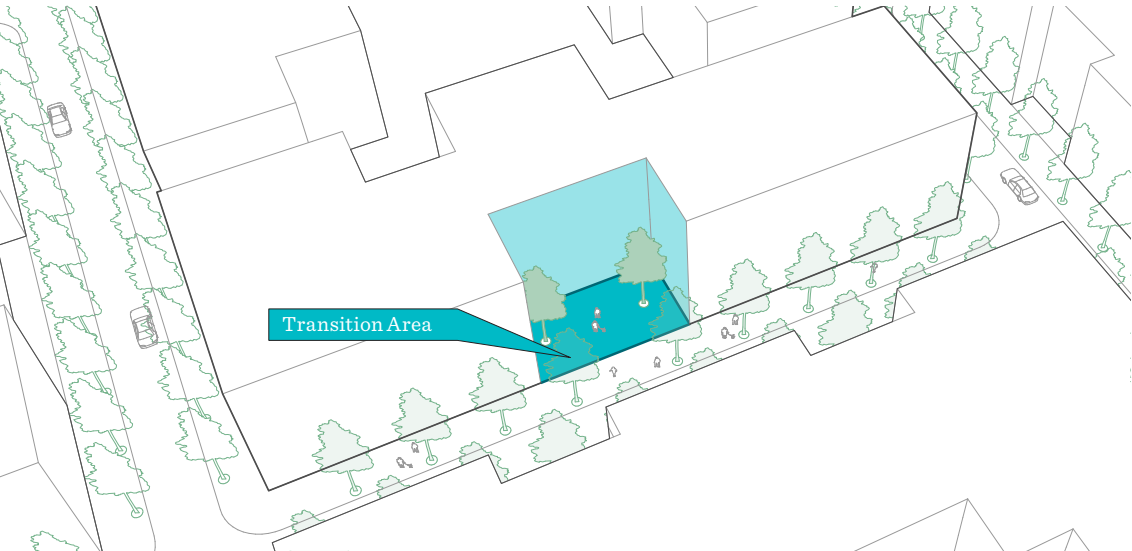
Streetwall

The street wall is defined as the building facade above the level of the pedestrian zone, aligned along a street or public open space. It is generally located on the inner edge of the sidewalk on primary streets. The streetwall's civic responsibility is to define and visually enrich the public realm; it should have a scale and degree of detail appropriate to the size and character of the street or other public space it addresses.



Transition Area

A transitional space between the public sidewalk and a building facade. Depending on circumstance, it may consist of plantings, paved areas along the building facade, or courtyards open to the street.



An aerial sketch of a city district, likely Alewife, showing a mix of building types, green spaces, and a river. The sketch is rendered in a loose, artistic style with visible pencil or charcoal lines. The buildings are depicted in various colors like orange, red, and grey, while the trees and green spaces are in shades of green. A river flows through the upper right portion of the image. A dark blue rectangular box is overlaid on the left side, containing the section header and a paragraph of text.

3 Key Principles

These guidelines are intended to help shape development in Alewife. Building upon the goals of the Alewife District Plan, the guidelines aim to create consistently high-quality architecture, landscape, and urban design, and to ensure that the district's buildings and open spaces work together to contribute to the character, vitality, resilience, and livability of the district. They reflect the key principles in this chapter.

Key Principles

Sense of Place

Create meaningful and memorable streets, parks, and squares, scaled to the pedestrian experience and walkable urban blocks.

Elements of Design

Demonstrate excellence in architectural design and the design of the public realm.

Pedestrian Friendly Streets

Create pedestrian streets that are rich with visual interest and activity.

Parks and Squares

Foster well-connected, programmatically diverse, and environmentally beneficial parks and squares.

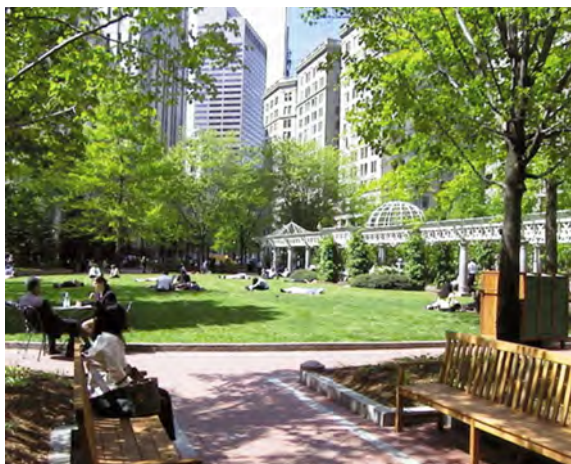
Sustainability and Resilience

Integrate sustainability and resilience into the design of buildings, parcels, and public open spaces.

Large Development Sites

Integrate large development sites into the surrounding community.

3.1 Sense of Place



Create meaningful and memorable streets, parks, and squares, suited to the pedestrian experience and structured by walkable urban blocks, by:

1. Framing the public realm with architectural streetwalls that create room-like public spaces.
2. Reinforcing and complementing the spaces of the public realm with landscape design.
3. Designing buildings that relate to the pedestrian scale.
4. Enlivening streets and squares with a mix of active building uses.
5. Promoting walkable blocks and streets.

3.2 Elements of Design



Demonstrate excellence in architectural design and the design of the public realm by:

1. Creating an interconnected system of streets, parks, and squares.
2. Shading open spaces and corridors between buildings.
3. Designing commercial, retail, and residential buildings in a way that creates clear and comfortable public spaces. Reserve iconic and exceptional design features for building types of civic importance.
4. Delineating facades into horizontal zones of base, middle, and top to break down the building's scale.
5. Incorporating vertical articulations and changes of material or color to reduce the visual bulk of large buildings.
6. Varying facade treatment and carefully considering materials, textures, and details.

3.3 Pedestrian Friendly Streets



Create active pedestrian streets that are rich with visual interest and beauty by:

1. Activating building ground floors and providing frequent entrances where reasonably possible.
2. Providing substantial transparency into retail or other active ground floor uses.
3. Incorporating canopies and awnings on ground story facades facing primary streets.
4. Shading streets and sidewalks with continuous street trees.
5. Designing and programming sidewalks, and providing street furniture, lighting, street trees, and other landscape elements that foster activity appropriate for the street type.

3.4 Parks and Squares



Foster well-connected, programmatically diverse, and environmentally beneficial parks and squares by:

1. Providing open spaces of varied character, scale, and amenities to serve a wide range of uses.
2. Prioritizing a safe and comfortable environment for residents and visitors.
3. Including focal points that foster community.
4. Planting and nurturing canopy trees.
5. Integrating art into the public realm.
6. Enhancing environmental comfort with features that provide shade and cooling, such as shade structures, canopies and trees.

3.5 Sustainability and Resilience



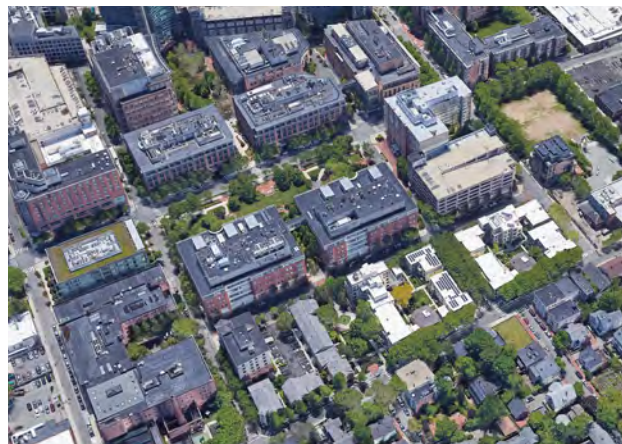
The Finch Cambridge, a 100% permanently affordable housing development, meets the highest energy-efficiency and sustainability standards, including Passive House standards.



Integrate sustainability and resilience into the design of buildings, parcels, and public open spaces by:

1. Protecting buildings and occupants from flooding.
2. Mitigating the urban heat island effect.
3. Supporting ecological diversity and resilience by providing a variety of species of vegetation, and, where appropriate, providing understory vegetation and ground cover in addition to canopy trees.
4. Creating energy efficient buildings and reducing greenhouse gas emissions.
5. Controlling stormwater.
6. Incorporating on-site and district clean power generation.

3.6 Large Development Sites



Integrate large development sites into the surrounding community by:

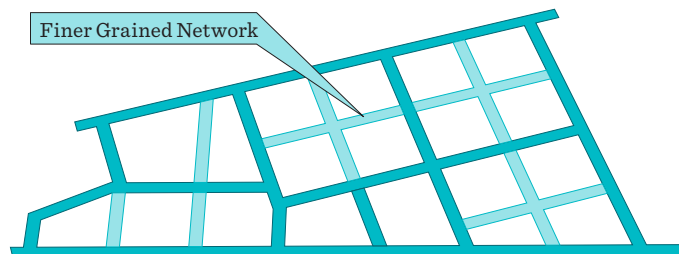
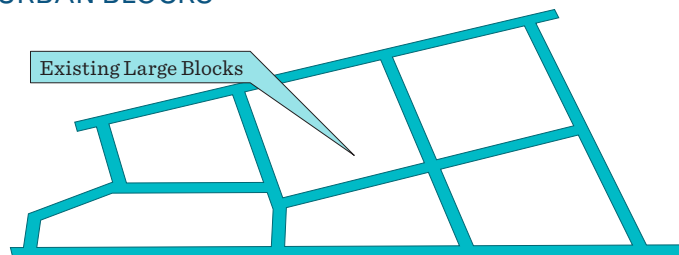
1. Carefully considering the massing and siting of new buildings and developments.
2. Creating new public streets and thoughtfully designed, strategically located public spaces within large parcels.
3. Managing block size and scale within large parcels to blend in with the fabric of adjacent streets, blocks, and neighborhoods.
4. Consolidating parking, loading areas, service roads, and fire lanes.
5. Planting shade trees within and around service areas and other paved areas to provide additional tree canopy and screening from public view.

An aerial perspective sketch of a city block. The drawing shows several buildings with flat and gabled roofs, interspersed with green trees and shrubs. A winding road or path cuts through the block. The style is a loose, artistic sketch with visible pencil or charcoal lines and some color washes in shades of green, brown, and blue. The top portion of the image is partially covered by a dark blue banner containing the title and a paragraph of text.

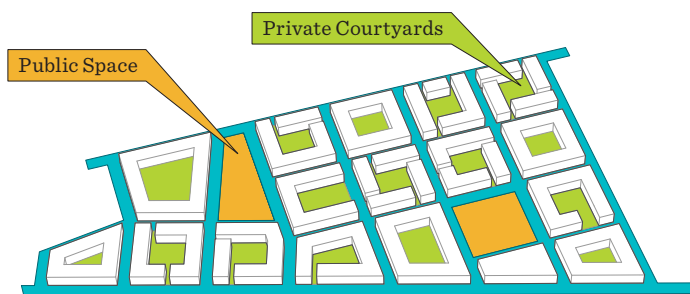
4 Site and Building Organization

Alewife's landscape and buildings should create an enduring place that is enjoyable to be in; is comfortable and beautiful; fosters community, offers connections to nature and to surrounding neighborhoods; and provides opportunities for work, recreation, and daily life. New development projects should minimize energy use and the production of greenhouse gases, mitigate the urban heat island effect, and follow best practices for stormwater management.

URBAN BLOCKS



Break up large blocks by creating new streets and pedestrian and bicycle paths.



Buildings should define block perimeters while incorporating courtyards and paths to give the district semi-private spaces, fine-grained porosity, and permeability.

4.1 Urban Blocks and the Public Realm

Building massing and siting should be designed to create coherent and walkable urban blocks, and to frame Alewife's streets, squares, parks, and paths. These streets and other public open spaces should constitute an interconnected network that extends through the district and links it to the surrounding parks and neighborhoods.

Guidelines

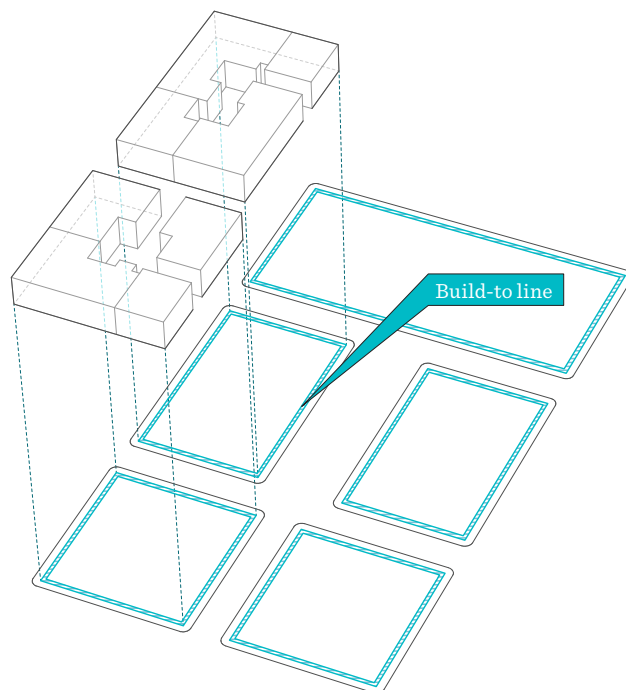
1. Develop blocks with coherent perimeters—streetwalls composed of facades and elevations—along the streets, parks, and squares they border.
2. Arrange building massing and the geometry of floor plates to create urban blocks in accord with the build-to zones established by zoning for Alewife's various street types.
3. Create detailed master plans for large properties to delineate streets and other open spaces, guide building massing, and establish building setback and build-to lines.
4. Create a finer grained network of streets and paths to break up the existing large blocks and increase the connectivity of the Alewife District as a whole and of large developments within it.
5. Where possible, divide the bulk of large projects into separate buildings to avoid a monolithic appearance and to create visual and physical connections between the public street and the more private courtyards and other open spaces within the sites.
6. Buildings whose massing along the street is longer than 200 feet should be broken into shorter facade segments by forecourts, notches, or changes in plane.
7. Buildings should minimize shadows on existing and proposed open spaces.

4.2 Frame the Public Realm

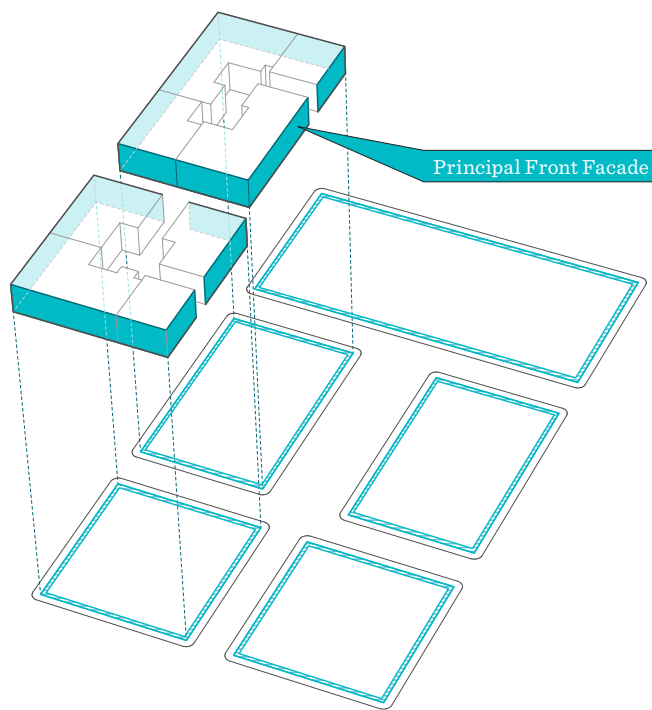
The alignment and continuity of building streetwalls should frame three dimensionally coherent streets, parks, and squares.

Guidelines

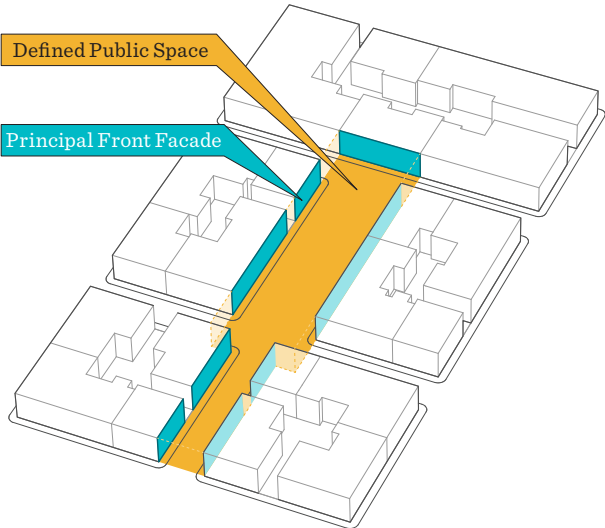
1. Buildings should front onto the street. Their facades should be located on building setback lines or within build-to zones established by zoning.
2. Locate and design buildings to create legible volumetric public spaces: streets, parks, and squares.
3. Streetwall facades of large buildings should generally incorporate relatively planar or repetitive areas, designed to frame adjoining public spaces.
4. Streetwall facades should generally emphasize a single primary plane, aligned in the build-to zone established in the zoning for the street.
5. Building streetwalls addressing public streets or open spaces should be a minimum of three stories above grade or the level of elevated walkways.
6. Streetwalls should be generally continuous so as to spatially define streets and other public spaces. They should be enriched by variation in facade design and materials.
7. Top floors of taller buildings should be stepped back or differentiated from the plane of the facade. Where buildings face large open spaces such as Fresh Pond Reservation, or arterial streets such as Alewife Brook Parkway, step-backs may occur at a higher level.
8. Where tall buildings adjoin or face significant existing residential buildings, their facades should step back by a minimum of 10' at approximately the level of the existing building.
9. At second floors and above, projecting elements such as balconies and bay windows should be provided where possible to add variety and interest to facades.



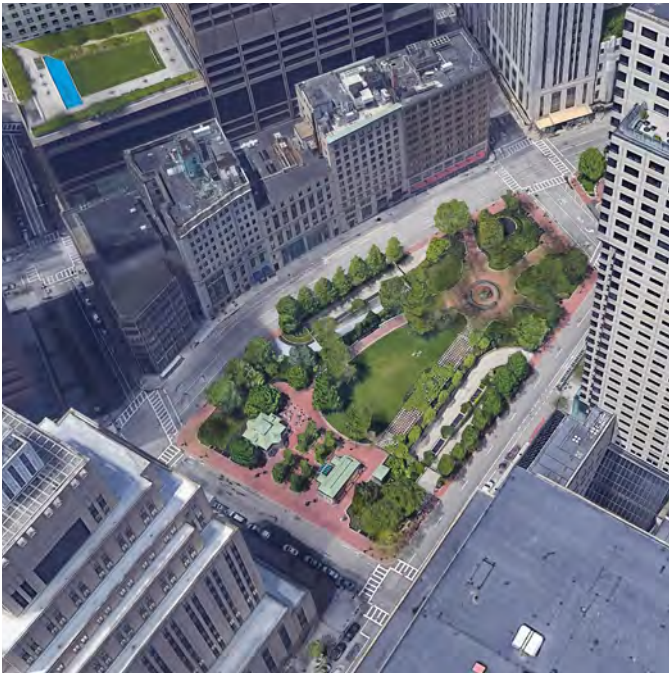
Establish build-to zones to define public space by regulating building footprints.



Define and celebrate important streets and other public open spaces by addressing them with principal front facades aligned according to build-to zones.



Locate building massing and principal front facades to create legible volumetric public spaces.



Design civic open spaces as public rooms at the scale of the city.



Continuous streetwalls define streets and public spaces. Varied facades visually enrich the streetwall.

4.3 Articulate the Public Realm

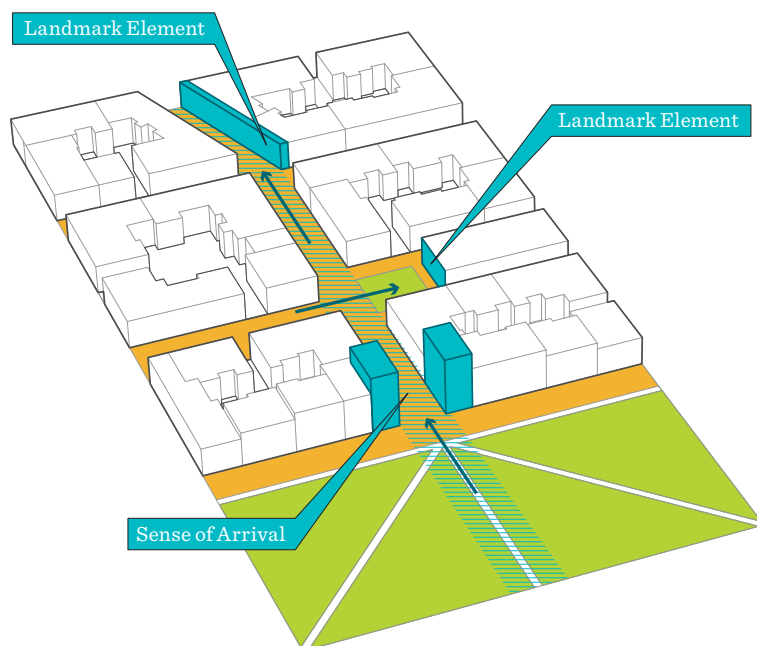
Building facades and massing should respond to the varied conditions of site and context. In contrast to areas of relatively planar or repetitive form that frame the public spaces they address, more unique building elements should provide variety and mark significant connections, junctions, and thresholds of the public realm.

Guidelines

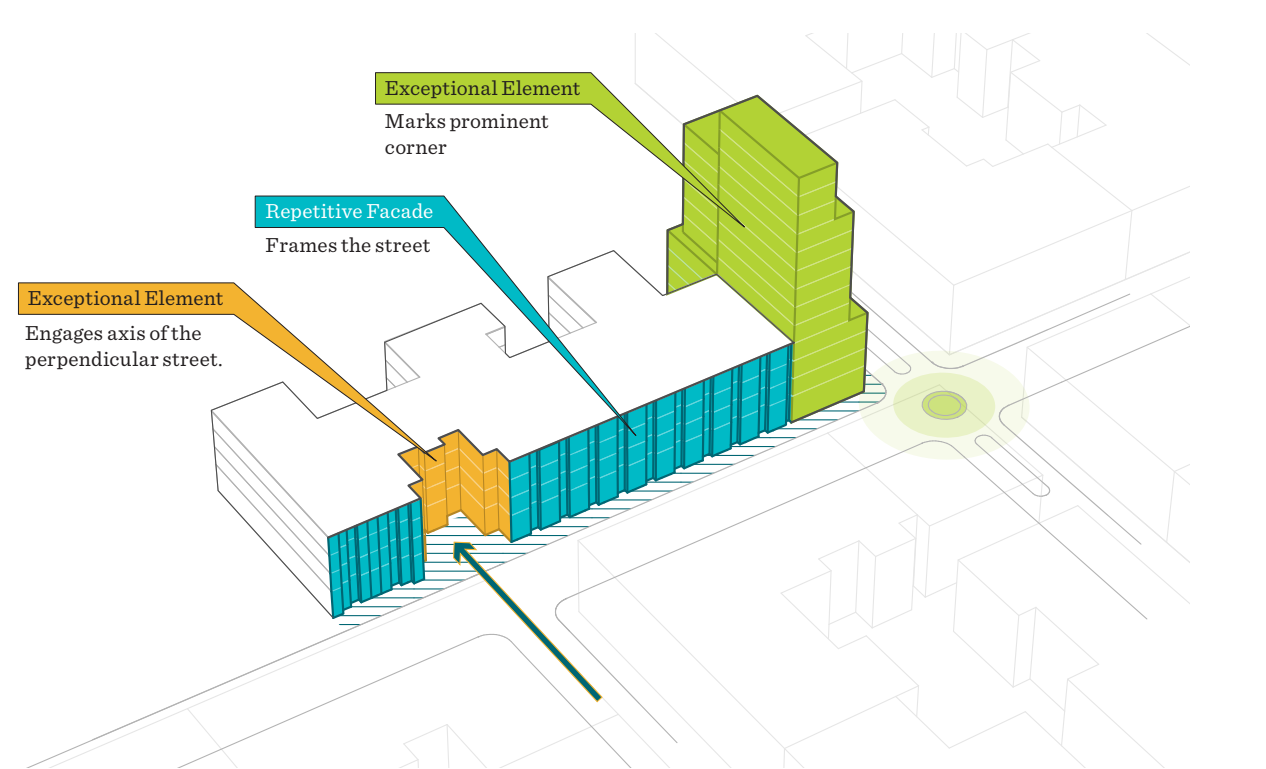
1. Buildings should frame streets, parks, squares, and significant intersections. Buildings should define and enliven public space. Their designs should have consistency and variety, including repetitive architectural elements and unique motifs.
2. Incorporate exceptional elements in building facades and massing to reinforce views, axes, significant corners, building entrances, courtyards, and other critical points in the district's public realm.
3. Set back portions of buildings from the back of sidewalks, depending on the street and building type, to allow for building entrances, recessed storefronts, cafe zones, residential forecourts, and courtyards.
4. In general, provide streetwall facades located in the build-to zone at the corners of the block.
5. Locate tall buildings to
 - a. provide landmarks from distant views,
 - b. relate to larger open spaces in and around the district, and
 - c. reinforce a sense of entry to Cambridge.



Emphasize the civic importance of primary public spaces by differentiating between principal front facade and side facades by means such as contrasting materials, colors, scales, the amount and type of detail and articulation, and compositional formality vs. informality.



Locate exceptional or landmark elements to reinforce the spatial structure of the public realm. Create a sense of entry and arrival into parks and squares.



Massing and facades should define and enliven public space by combining consistency and variety, positioning background elements and unique motifs in response to the urban context.



Differentiated color and modulated massing reduces the building's sense of bulk, while celebrating the street corner.



Emphasized corner helps frame the primary street by reinforcing the importance of the facade that addresses it.

4.4 Sustainable and Resilient Site Design

Sites should be resilient to the effects of climate change, including frequent flooding due to precipitation and sea level rise/storm surge, and increasing heat. Sites should mitigate stormwater runoff and minimize the urban heat island effect.*

Guidelines

1. Maximize permeable area and vegetated area as specified by the Alewife District Plan.
2. Consult with Department of Public Works and Community Development Department during the process for specific guidance on resilience planning and sustainable site design.
3. Minimize impermeable pavement and maximize permeable surfaces.
4. Incorporate light-colored pavement and high-reflectivity surface materials where effective.
5. Detain stormwater on site to slow the rate of runoff.
6. Integrate green infrastructure to capture and detain stormwater, such as bioswales, rain gardens, or dry ponds, into landscape plans.
7. Incorporate underground storage tanks to slow the release of stormwater.
8. Where possible, raise street levels to reduce potential for flooding. Consult the Flood Viewer (www.cambridgema.gov/services/floodmap) and the Department of Public Works to ascertain the design elevation.
9. Provide vegetative and structural shading for sidewalks and other public spaces, with particular attention to pedestrian, bicycle, and vehicular corridors.
10. Select plant materials that will be resilient to the anticipated hotter and more variable climate, and to saltwater intrusion, where applicable.

4.5 Entries and Access

Site access and building entries should be designed and located to create an enjoyable, high quality pedestrian realm.

Guidelines

Pedestrian Entrances

Locate pedestrian entrances to engage and activate streets and other public spaces.

1. Frequent entrances to buildings and storefronts should be provided along public ways.
2. Block corners should incorporate storefront entrances.
3. Lobbies for office, laboratory, industrial, and residential buildings should generally be located away from block corners.
4. Pedestrian entrances should be sited in locations easily accessible from transit stops.

Vehicular Entrances and Drop-offs

Design and locate vehicular entrances, driveways, and vehicle drop-offs to minimize their visual and operational impact on the public realm.

1. Driveways and parking entrances should be located on side streets or alleys wherever possible.
2. Driveway widths should be minimized.
3. Driveways should be perpendicular to the street.
4. Curb cuts should be minimized in number and width, and shared wherever possible.
5. Privately owned drives should be designed as streets, incorporating sidewalks, planting zones and bike lanes depending on their use and location.
6. Where fire lanes are required between buildings, they should be shared between adjoining lots and designed as streets depending on their connectivity within the street system.

7. Drop-off lanes/areas should be located in the street; they should not be separate driveways.
8. Circular drives, turnarounds and off-street drop-off areas should not be permitted, and if possible, eliminated.
9. In areas anticipated to be prone to flooding, provide passive flood barriers at at-grade entrances.

Loading, Service Areas, and Surface Parking

Design and locate loading and servicing areas and parking entrances to minimize intrusion into the public realm.

1. Service and loading areas should not be visible from public streets or open spaces. They should be limited to rear of buildings, secondary ways, alleys or internal courtyards.
2. Where possible, consolidate off-street loading areas and service roads serving multiple buildings and multiple parcels.
3. Avoid excessively large loading or service entrances and minimize their presence on public streets.
4. Any loading bays facing public streets should be provided with doors designed to complement the facade design, and deep enough to accommodate the full length of delivery trucks.
5. Locate surface parking in block interiors, not visible from major public streets.
6. Security fences, gates at service yards, and similar features should be avoided in areas visible to the public.
7. Chain link fencing, barbed wire, concertina wire or similar products should not be allowed.
8. Locate exterior gas tanks unobtrusively, preferably in locations not visible from primary public streets.
9. Coordinate with city staff on the locations of gas delivery trucks that are required to conduct operations in open air.

4.6 Utilities and Mechanical/Electrical/Data Equipment

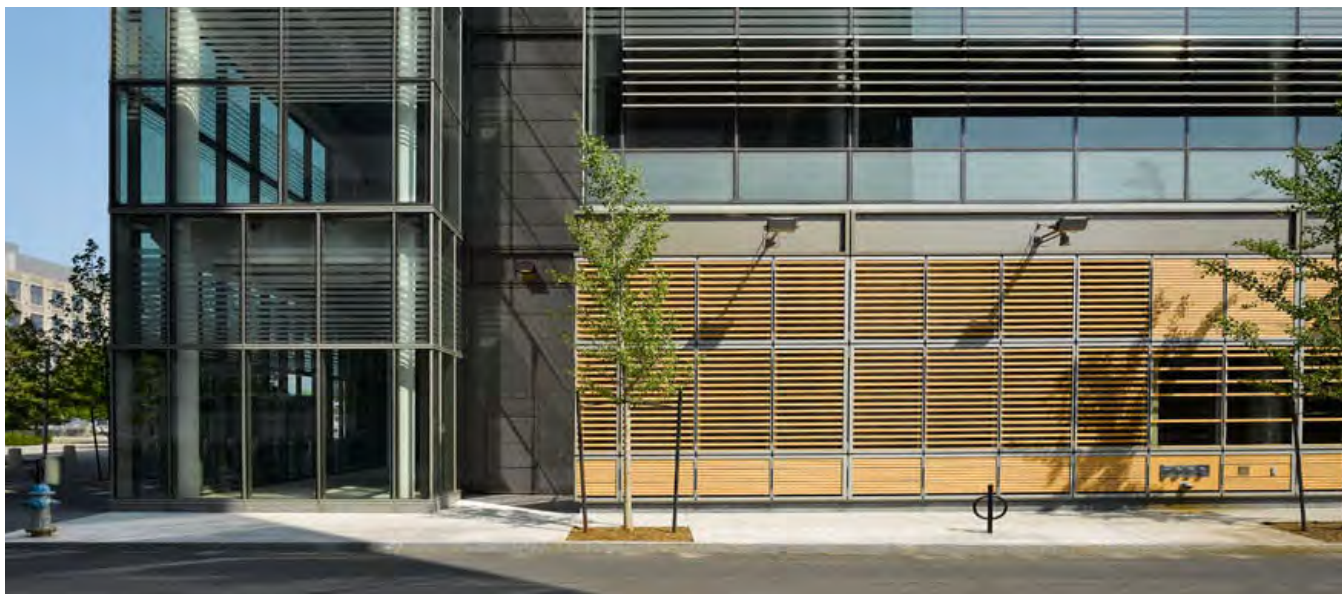
Utilities should be designed and located to minimize their impacts on the pedestrian environment and to be resilient to the effects of climate change.

Guidelines

Mechanical and electrical equipment and gas meters should not be audible or visible from public streets or open spaces.

1. Preference should be given to housing mechanical and electrical equipment within buildings, rather than as site elements.
2. Any site-located electrical equipment should be located on the interior of blocks or screened from view from the public right-of-way, and not located between the building and any public way, or forward of the principal facade.
3. Where site-located mechanical or electrical equipment cannot be avoided, it should be concealed by plantings or attractive enclosures.
4. Mechanical and utility rooms should not be located along major streets. They should be located on minor streets or in block interiors where possible.
5. Mechanical or electrical equipment within buildings that must be located on public ways and needs direct access from the street should be provided with architectural facade treatments that complement the overall facade design.
6. Design and locate building and site utilities to minimize risk and disruption from flooding. Considerations include waterproofing, backflow preventers, and shutoffs, and accessibility of water, gas, electric power, and sanitary sewer systems during flood events.

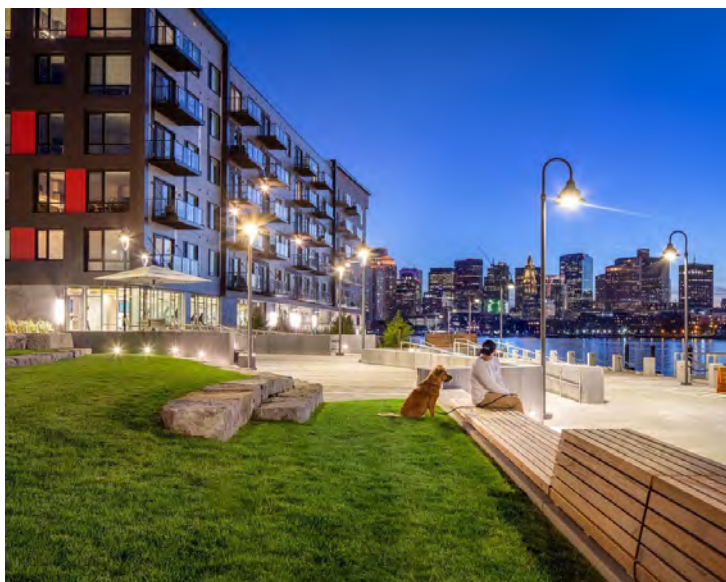
7. Locate electrical equipment, including transformers, switchgear, generators, and critical communications/data equipment above anticipated flood levels.
8. Locate emergency power equipment and fuels above anticipated flood levels or provide waterproof barriers as indicated.
9. Ensure that fire detection and suppression equipment and communications/data equipment will remain operational during flood events.
10. New electrical and data lines should be underground.
11. To protect tree plantings from conflicts with utilities, locate utilities for new streets (and reconstructed streets wherever possible) under vehicular roadways, rather than under sidewalks,.
12. Incorporate on-site power generation and energy storage and/or utilize district energy systems where feasible.
13. Consider eliminating on-site fuel combustion.
14. Continue to eliminate combined sewers throughout the district.



Locate electrical equipment (e.g. transformers, switch gear) inside buildings with attractive treatment of louvers or blank walls.



Elevated walkways can provide access during flood events.



Climate-resilient development anticipates flooding events and sea level rise in the future.

4.7 Emergency Services and Access During Flood Events

In areas currently or projected to be at risk of flooding, implement systems and programs to facilitate building management and operation during flood events, maintain functionality of critical systems, protect the safety of building occupants and emergency personnel, and expedite quick recovery.

Guidelines

1. Provide “shelter-in-place” facilities and equipment within buildings, including emergency medical and other emergency response supplies, backup electric supply for critical loads, passive thermal comfort (i.e. efficient building or room envelope), and backup communications capacity.
2. Be part of neighborhood resilience networks to enable mutual assistance.
3. Create neighborhood resilience hubs and/or cooling centers. Design free standing community facilities and community facilities in larger buildings to remain functional during flood events and power outages.
4. Develop an action plan for flooding and other emergencies. Address notification, evacuation, meeting places, elevator operation, etc.
5. Provide access points and routes for fire and other emergency personnel, and for evacuation purposes. Exterior stairs to second floors should be considered to facilitate emergency access during flood events.
6. In flood prone areas, provide accessible electrical shutoffs to safeguard emergency personnel.
7. Ensure that fire detection and suppression systems will remain operational during flood events or loss of power.
8. Engage a consultant to advise on best practices for emergency services and access.

An aerial sketch of a city block, likely in Cambridge, showing a mix of building types, streets, and green spaces. The sketch is done in a loose, artistic style with visible pencil or charcoal lines and soft color washes. The buildings are rendered in various colors like red, orange, yellow, and grey, with some having flat roofs and others with more complex structures. Streets are shown as grey lines, and green spaces are filled with green washes and some darker green outlines for trees. The overall impression is of a vibrant, walkable urban environment.

5 Built Form

Alewife's buildings should contribute to the creation of an engaging, beautiful, and sustainable environment. They should foster a sense of community through their relationship to streets, sidewalks and other public spaces.

Guidance on the desired form of Alewife's buildings can be found in the following chapter. It addresses the scales of the urban environment—the pedestrian zone, streetwall and building top among others — and additional design features, including building materials, architectural character, resilient design, and building types.



By combining motifs and details that resonate with each other at a variety of scales, building massing and facade composition mediates between the scale of the pedestrian, the building, the street or square, and the skyline.

5.1 Building Elements

Alewife's buildings should respond to and mediate between the wide range of scales of the urban environment: the scale of the pedestrian, of the adjacent buildings, of the street or square, and of distant views from neighboring parks and major thoroughfares.

As part of this response, building massing and principal front facades should be organized into horizontal zones. The specific characteristics of these zones, their relative sizes and importance, and the amount of differentiation between them, will vary depending on building type and context.

Pedestrian Zone

The building's ground floor, and on occasion its second floor, offer amenities, comfort, shelter, and visual enrichment, and accommodate retail and community programmatic uses.

Streetwall

The facade of the building's next three to six floors above the pedestrian zone frames the spatial volume of the adjoining streets, parks, or squares.

Upper Floors and Towers

The floors of tall buildings above the streetwall zone define spaces at a larger scale, and add visual interest to distant views.

Building Top

The top contributes to the building's articulation. Depending on building type, the top may range from a cornice or simple parapet, to a stepped back top floor, to an assemblage of penthouses.

Roofs and Terraces

Roofs and terraces can provide publicly beneficial open spaces; be an amenity for building occupants; help mitigate the urban heat island effect and stormwater runoff; and serve as locations for photovoltaic arrays.

Bridges and Connectors

Occasionally, the floor plates of separate buildings may be linked together by bridges or sizable connecting elements. They should be designed to minimize any detrimental impacts on the public realm.

5.1.1 The Pedestrian Zone

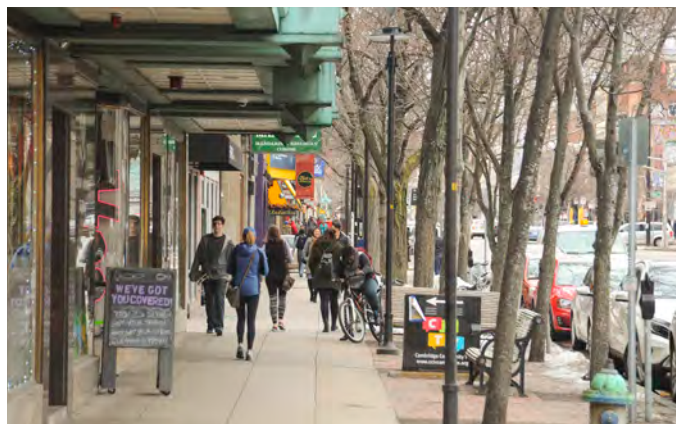
The pedestrian zone provides shelter, accessibility, and visual interest at the pedestrian scale and accommodates active uses that enliven streets and squares. On commercial streets and on streets with ground floor retail, the pedestrian zone's facade should be distinct in character from the street wall floors above. On residential streets, particularly in buildings with ground story residential units, less differentiation between the pedestrian zone's facade and the streetwall above is appropriate.

Guidelines

1. Where possible, buildings should engage and animate the public realm with neighborhood uses, such as retail, restaurants, arts and culture, entertainment and recreation, childcare and healthcare, libraries and education, professional office, and co-working spaces.
2. The pedestrian zone should incorporate elements that create a visually rewarding and intimate pedestrian environment. Depending on the character of the street and the ground floor functions, these may include:
 - a. Angled display windows, frequent entrances, and recessed entrances,
 - b. Awnings and canopies over the sidewalk,
 - c. A high window-to-wall ratio,
 - d. Variations in mullion patterns, and incorporation of operable windows.
 - e. Varied materials or colors,
 - f. Higher-quality materials and detailing, with particular attention given to enhancing building entries and openings, and
 - g. Residential entrances and stoops.



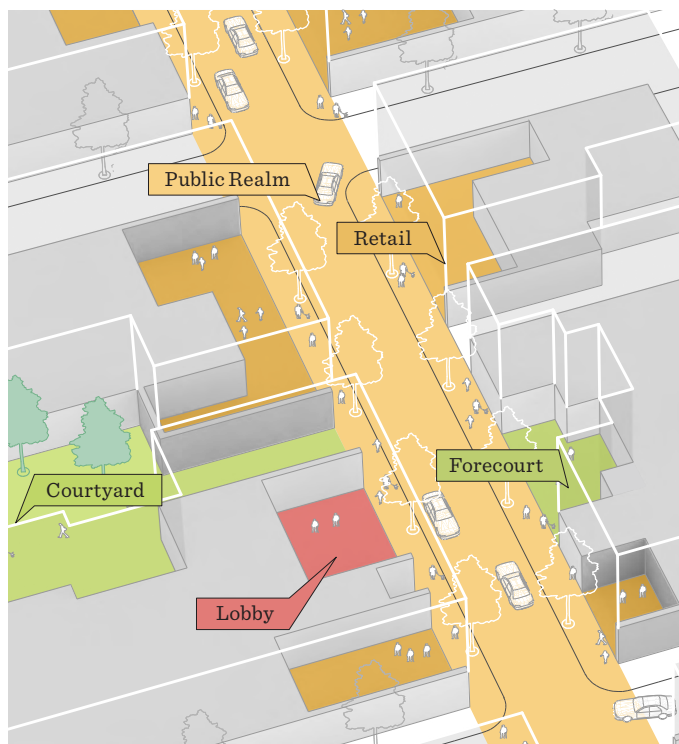
A distinct pedestrian zone emphasizes the horizontal continuity of the pedestrian realm.



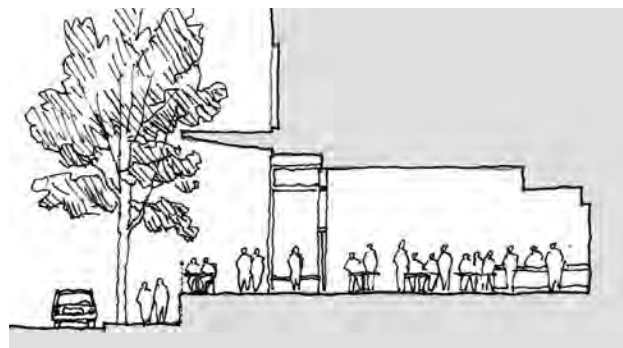
Canopies, awnings, and recessed retail entrances can shelter pedestrians and activate the street.



Facade materials, details, and proportions enrich the pedestrian realm.



Passages, lobbies, and courtyards create permeable ground stories. Semi-public/semi-private interior retail and community spaces further expand the pedestrian realm.



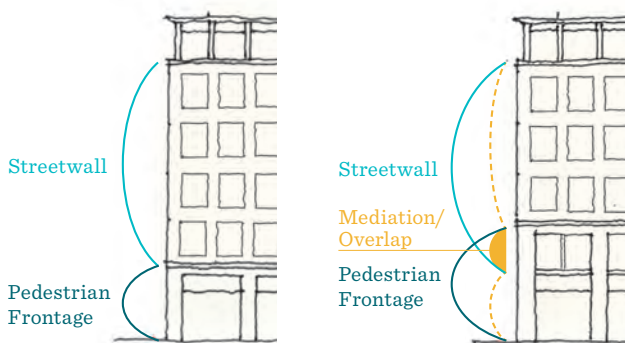
Transparent ground story facades extend the public space of the sidewalk or elevated walkway into the semi-public/semi-private interior.

3. The design of facades at the ground story for non-residential uses should reduce the distinction between exterior and interior space, revealing activity within the building:

- a. On buildings with commercial or neighborhood uses on the ground story, facades should have 60 to 75% transparent glazing.
- b. Ground story facades of retail, restaurant, and office space, as well as light-industrial and neighborhood uses should maximize transparency, particularly between 2 feet to 12 feet above the adjoining sidewalk.
- c. Avoid frosted glazing and translucent films at ground story facades.
- d. Pedestrian frontages should align with the plane of the streetwall. Slightly recessed shopfronts and entrances are an exception. Deeply recessed ground stories along the street front should be avoided.

- e. Consider incorporating large operable doors or windows in sidewalk-side restaurant dining.
- f. Storage rooms, toilets, restaurant kitchens, and other back-of-house facilities should be located away from the pedestrian zone on primary streets and other public open spaces to maximize facade transparency.
- g. Kitchen exhaust for food service uses should not negatively impact the ground level pedestrian experience. It should be relegated to side streets or back-of-building and be elevated above pedestrian height, or exhausted at the roof level.
- h. Blank walls on primary streets exceeding 20' in length should be avoided.
- i. Ground stories should have a minimum floor-to-floor dimension of 18'.
- j. Ground story levels should be flush with or easily accessible from the adjoining sidewalk or elevated walkway.

4. Where the facade expression of the pedestrian zone includes the building's second floor, the second floor facade should either be visually integrated with the ground story facade and differentiated from the street wall zone above, or serve as a mediating element linking the ground story and the streetwall zone.



The pedestrian zone of the facade may be distinct from the streetwall zone above it, or it may be linked to the streetwall zone by designing the second floor facade as a shared mediating zone.

5. On residential buildings with ground floor residential units, less difference is necessary between the facades of the pedestrian zone and the streetwall floors above. Some distinction, however, in material, character of openings, detailing of solid wall, should be provided, to contribute to the pedestrian-friendly scale of the street.
6. Residential buildings with ground story units should have frequent entrances with stoops, landscape plantings, steps, and accessible routes as appropriate to provide access and maintain a sense of privacy.
7. Where buildings have front yards that are elevated in response to elevated ground stories, low walls, combined with steps and ramps, should achieve the requisite grade change to ground story level. Sloped berms are discouraged.

8. Where retail or community uses are not provided, ground story spaces on Smith Place, Wilson Road, Fawcett Street, Concord Ave, Cambridgepark Drive, Fresh Pond Parkway, Alewife Brook Parkway, and the Shopping District should be designed to accommodate future active uses.
 - a. Ground story facades should be readily convertible to retail storefronts.
 - b. Venting and exhaust needs of future food service uses should be readily accommodated and directed away from primary streets and the pedestrian level.
 - c. Interior power and HVAC systems should be zoned or easily convertible to enable convenient division and sublease of interior spaces to retail tenants. They should be located above future flood elevations.

Ground floor flood adaptation strategies

Cambridge's Climate Resiliency Zoning establishes that all habitable residential spaces must be elevated above the projected 1% Long-Term Flood Elevation (LTFE) for their site, and that non-residential occupiable spaces must either be elevated above the 10% LTFE for their site, or that they be provided with barriers sufficient to protect them with that level of flooding. Small entrances, vestibules, and lobbies are allowed to be not protected if they are constructed to recover from flooding. (See Article 22 of the Cambridge Zoning Ordinance.)

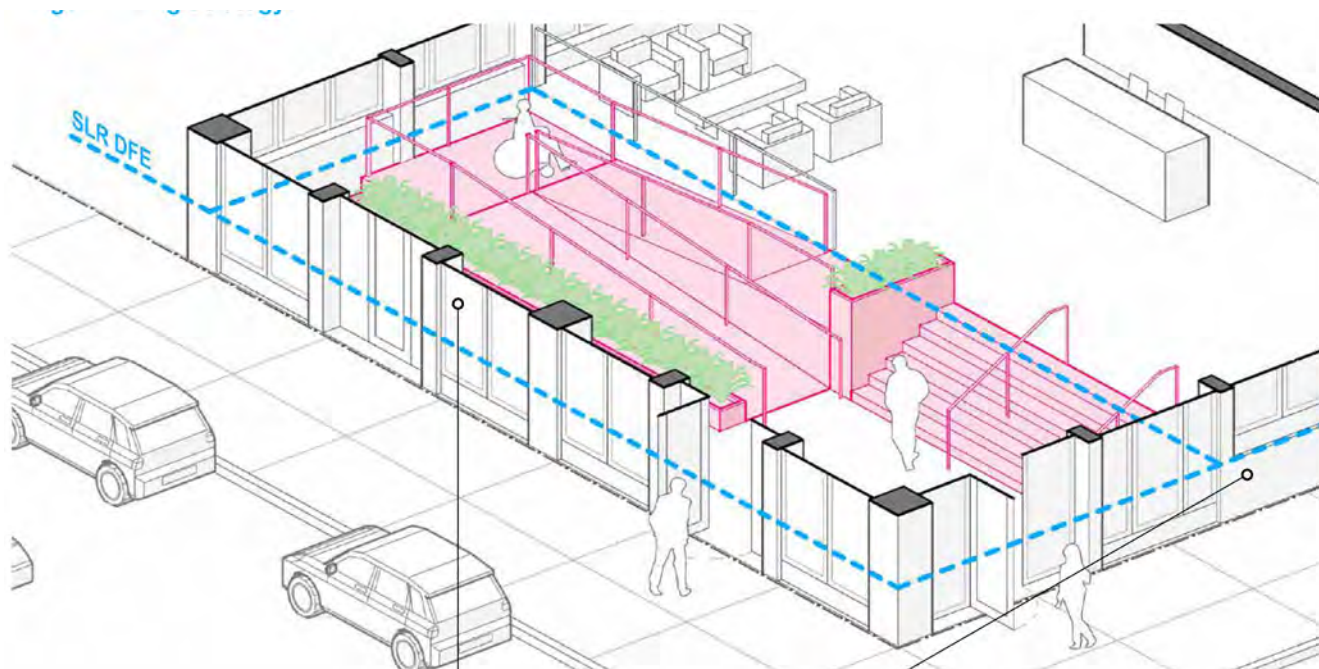
Various strategies can provide ready public access to lobbies, retail and other active or neighborhood uses, and other programmatic spaces on ground stories, despite their elevation above existing or future grade. They include, but are not limited to:

- Lobbies and other spaces located at sidewalk level and provided with interior stairs and ramps up to elevated ground story levels.
- Exterior steps and ramps, located in a forecourt, leading from sidewalk level to lobbies and other spaces at the elevated ground story level.
- Elevated walkways along the building's frontage that are flush with the building's elevated ground story level, and are provided with steps and ramps up from the sidewalk level;
- Streets and sidewalks that are raised from their current level to above the LTFE, thereby providing direct access to elevated ground story spaces.

The most appropriate means of elevating to the ground floor will vary between projects and may be different from one part of a building to another. This depends on the characteristics of the site, building design and uses, and the designers' creativity.

1. Sidewalk Level Entry with Internal Circulation

- This strategy provides the strongest visual connection between the public realm and the building interior.
- Steps and ramps inside lobbies should provide access up to ground story level and to general building circulation.
- Street level lobbies and other spaces should be constructed of flood tolerant materials and/or protected from flooding by exterior walls that are floodproofed up to the appropriate LTFE level, or protected by passive flood barriers.



Street level building lobby with steps and ramps up to first floor elevated above flood level.

2. Elevated Forecourt

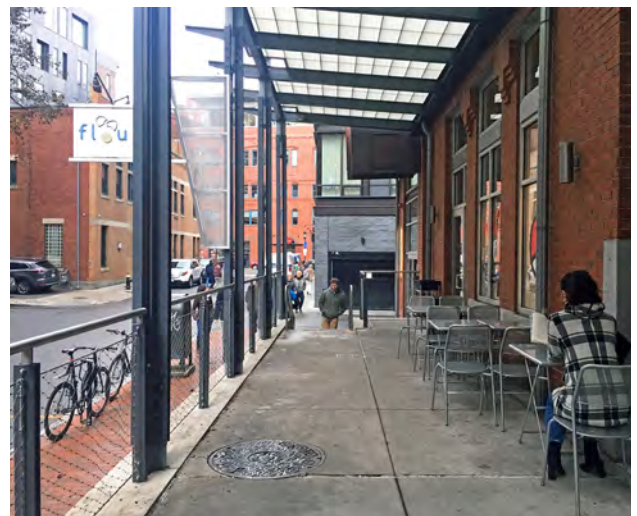
- a. Exterior ramps and steps should provide access from sidewalk level up to a forecourt at the same level as the building's elevated ground story.
- b. Ramps and steps should be designed as integral parts of the project's architectural and landscape design: e.g.: as elements of a forecourt or other feature that is open to the street.
- c. The ramps and steps should generally be located behind the primary plane of the building's streetwall.



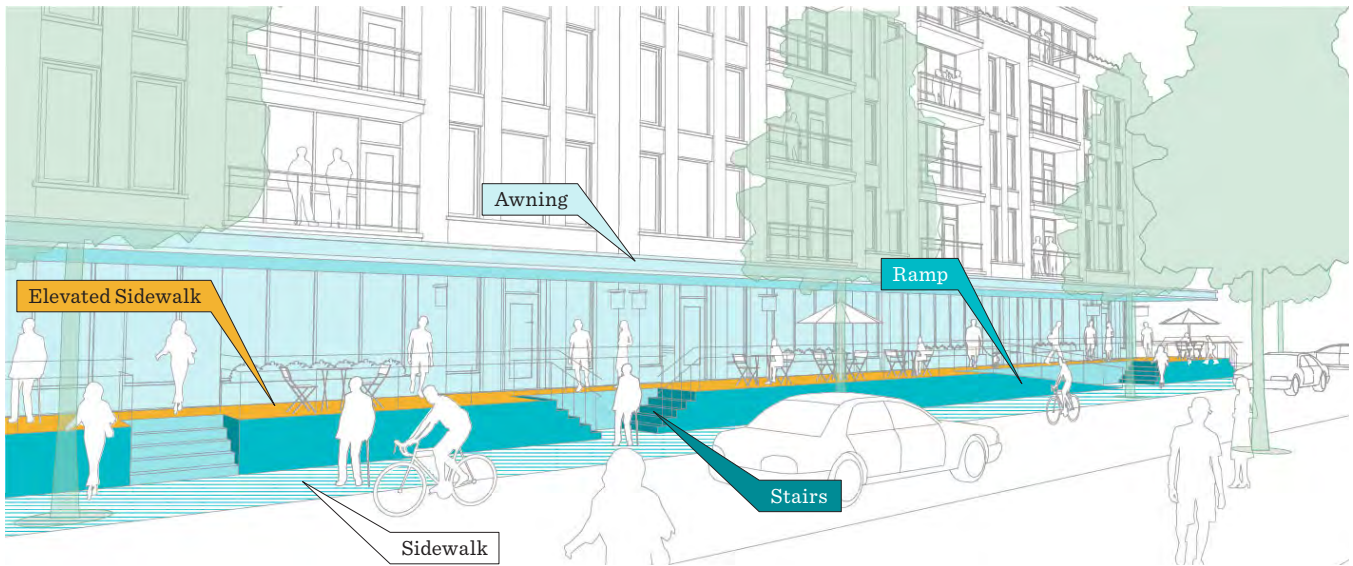
Elevated forecourt, with steps and ramps up from sidewalk level, giving access to the building's elevated lobby. .

3. Elevated Walkways

- a. This strategy enables shared access to multiple entrances, advantageous when a building's ground story accommodates several separate publicly accessible uses.
- b. Where ground stories are elevated to 4 feet or less above the street level sidewalk, exterior elevated walkways, flush with ground story level may be used to provide public access to the building. Steps and ramps from the street level will be necessary to access the ground story entrances and walkway.
- c. The walkways should be 12 feet wide, including steps and ramps. They should be sheltered by a projecting canopy for their full 12-foot width, with a minimum vertical clearance of 12 feet.
- d. Elevated walkways should have a minimum clear width of 5 feet, excluding access ramps and steps.
- e. Where possible, elevated walkways should be continuous between adjacent buildings and parcels along streets.
- f. Particular attention should be given to the design of railings and low walls supporting elevated walkways to ensure that these are attractive elements of the public realm.



Elevated walkways, at the levels of building ground story that are raised above flood level, can provide shared access to multiple neighborhood uses and building lobbies, and serve as locations for outdoor seating.



Stairs and steps should be located at frequent intervals to connect elevated walkways to the sidewalk. Canopies shelter pedestrians from inclement weather.

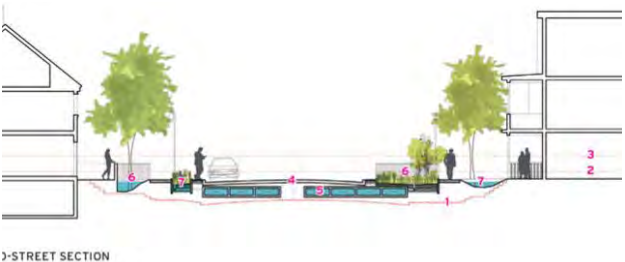
- g. Elevated walkways will generally be on private property, but should be open and freely accessible to the public.
- h. Elevated walkways should be readily accessible from the street level sidewalk. Steps and the starting points of ramps to elevated walkways should occur at a maximum spacing of 100 feet along the ground level sidewalk.
- i. Steps and/or ramps should be provided where elevated walkways terminate, and at block corners.
- j. Provide a transition area where new curbs and grade level sidewalks do not align with existing ones that will remain.

4. Elevated Streets

- a. Where possible, consideration should be given to elevating the street and sidewalk to the appropriate LTFE level. This strategy will require detailed coordination with the city, utility companies, and regulatory agencies.
- b. Appropriate measures should be taken to maintain stormwater capacity and avoid displacing floodwaters onto neighboring private and public properties.



Elevated walkways extend interior retail space into the public realm while providing access to elevated first floors.



- | | |
|----------------------------|--|
| 1 EXISTING GRADE | 5 UNDERGROUND STORMWATER STORAGE AND UTILITIES |
| 2 100-YEAR-FLOOD ELEVATION | 6 RAIN GARDEN |
| 3 500-YEAR-FLOOD ELEVATION | 7 BIOSWALE |
| 4 REBUILT ROAD | |

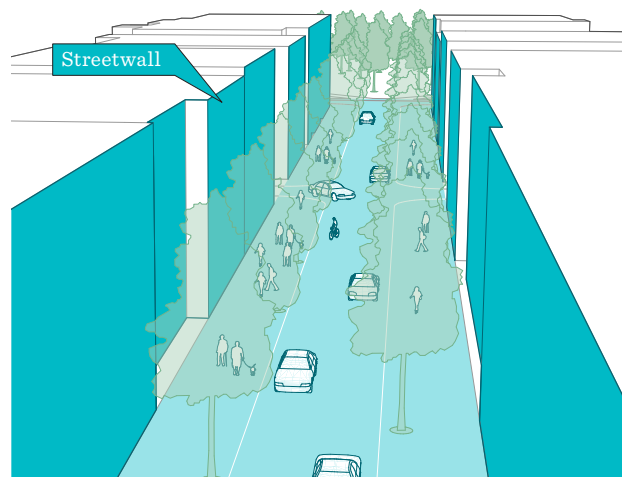
Elevated street with underground stormwater detention.

5.1.2 The Streetwall

Streetwalls should create room-like public spaces by framing their three-dimensional volumes.

Guidelines

1. A minimum of 70% of the streetwall facade should be within the build-to zone.
2. In general, it is particularly important for the definition of public space that streetwalls be aligned on the build-to line at block corners.
3. Streetwall heights should be in harmony with the widths of the streets and squares they address; they should typically be a minimum of 4 to 6 floors tall. Taller streetwalls may be appropriate where buildings address large open spaces.
4. Streetwalls should be organized by a pattern of expressed structural bays, window openings, and/or surface articulation.
5. Changes of material, scale, or the design and amount of articulation and relief should be used to emphasize the distinction between adjoining streets that differ in size and character.
6. Incorporate focal elements to respond to significant visual axes, to emphasize significant corners, to express changes in interior program, or to articulate primary building entrances.
7. The incorporation of a cornice and/or the elaboration and differentiation of the streetwall's top floor should be considered as a means to frame the spatial volume of the street by emphasizing its upper boundary.
8. Visible vents (kitchen, bathroom, laundry, etc.) should not be located on streetwalls addressing primary streets or other public open spaces.



Harmony in height, scale, materials and colors gives coherence to the street or square.

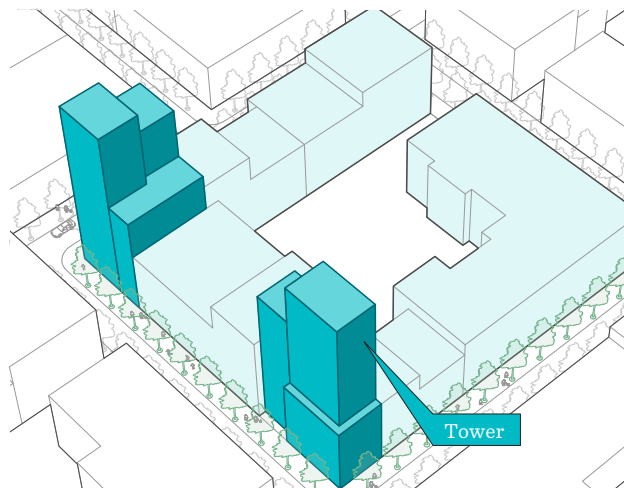
5.1.3 Towers and Upper Floors

Depending on the building type and programmatic needs, the upper portions of tall buildings may take the form of towers with smaller floor plates, or bulkier buildings with floor plates similar in size to those of the streetwall floors below them.

Their massing and facades should be designed to lead the eye upward and, where their heights and locations permit, serve as landmarks seen from the surrounding areas.

Guidelines

1. The towers and upper volumes of buildings more than 85 feet tall should be designed to mitigate a sense of height and bulk, especially those that are both broad and tall.
2. The massing and facades of the upper portions of tall buildings should generally have smaller floor plates than the streetwall floors below, should be stepped back from them.
3. They should be differentiated from them from the streetwall floors by differences in the scale of massing elements, materials, fenestration patterns, proportions, color, or other means.
4. Where possible, tall buildings should be oriented so that their narrower facades face the primary street or open space.
5. Especially where buildings are both tall and broad, consideration should be given to mitigating their sense of bulk by breaking up the visual continuity of their upper floors and/or by giving them a different facade treatment than the streetwall floors.
6. Towers should be articulated to avoid a monolithic appearance, and should emphasize slender, vertically oriented proportions.
7. Upper floors should avoid “slab” volumes that make the building appear bulky.



The massing of large towers should be broken up to reduce their visual bulk.



Many strategies can be used to differentiate streetwall floors from towers and upper floors, connect them, and establish harmonious relationships with the surrounding environment.

5.1.4 The Building Top

Depending on design intent and programmatic use, the massing and facade design of top floors may be differentiated from those of the streetwall floors below, creating a varied profile at the skyline and helping to frame the street as volumetric space.



Top floors and penthouses may be differentiated to accommodate mechanical equipment or to create an expressive building top.

Guidelines

1. Mechanical penthouses and other roof structures should be designed to blend with the facade below, or part of the facade's pattern.
2. Building tops that are unique in material and design from the facades below should be stepped back a minimum of 10' from the plane of the building facade.
3. Rooftop mechanical equipment should be screened with a reflective, ventilated screen with a Solar Reflectance Index (SRI) of at least 45 to mitigate the urban heat island effect.
4. Mechanical penthouses should have a minimum height and area, while allowing for future tenant equipment.
5. Exhaust related flues that extend above screening may exceed this height limit but should be located to minimize impacts to the public realm.

5.1.5 Roofs and Terraces

In addition to their potential as amenities for workers and residents, roofs and terraces will play a significant role in managing stormwater, minimizing the urban heat island effect, and accommodating photovoltaic arrays.

Guidelines

1. A variety of options should be considered individually and in combination for sustainability and energy efficiency, including intensive and extensive green roofs, high albedo roofs (with a minimum of 75% of their area with a Solar Reflectance Index (SRI) of at least 78 for flat roofs and 29 for steep roofs), blue (water retaining) roofs, and photovoltaic arrays.
2. Roofs should be solar ready. Mechanical equipment and penthouses should be compactly arranged and positioned to maximize the contiguous unshaded area available for photovoltaic arrays.
3. Consider the potential of building and parking garage roofs and of terraces at building setbacks as amenities for the benefit of residents, workers, and the wider public.



Green roofs, like this one, hide parking garages from sight, help absorb stormwater, minimize the urban heat island effect, and provide open space for residents and workers.

5.1.6 Connectors and Bridges

To avoid removing pedestrian presence from public streets, connectors between buildings are discouraged. Upper floor connections should be considered only in circumstances where tenants need large floor plates that might otherwise result in excessive apparent building mass. Such connectors should be designed to provide architectural interest, maintain permeability, and continue to allow light and views of the sky.

Guidelines

1. Connectors between multiple tenants/uses in different buildings are discouraged.
2. Connectors over public ways are discouraged.
3. All connectors should be set back at least 35 feet from public streets and other public spaces.
4. All connectors should be highly transparent.
5. Within blocks, provide ground level public passage at selected locations.
6. Over promenades or pedestrian walkways,
 - a. Provide at least two stories of clearance above ground
 - b. Connectors should be no more than 20 feet wide and 2/3 of the building height.
7. Where multiple connectors are provided:
 - a. They should be spaced apart by double their greatest width.
 - b. They should be placed so as to create architectural interest and to allow a reasonable amount of light to reach the ground.

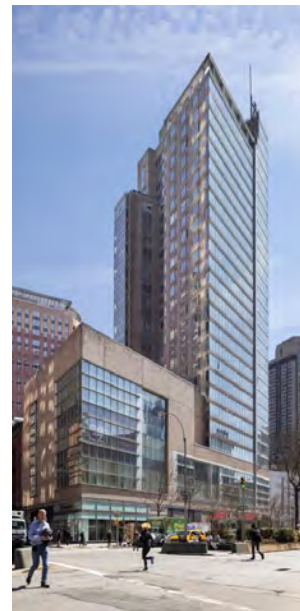


5.2 Building Massing

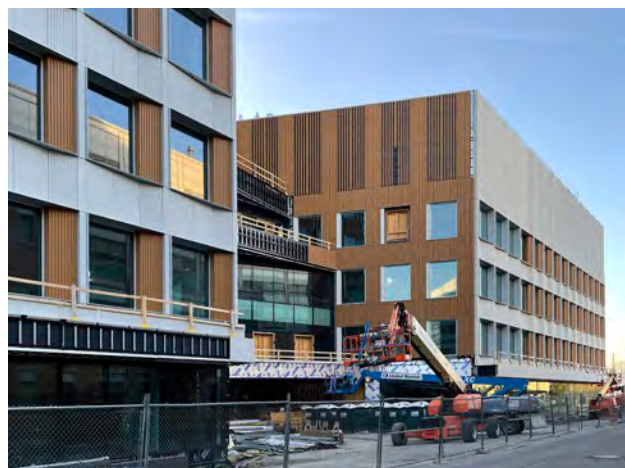
Alewife's buildings should contribute to the definition of the open spaces. Building massing should give spatial definition to Alewife's streets, parks, and squares, and be compatible with nearby existing buildings. Building form should minimize the amount of shading and loss of sky view in open spaces.

Guidelines

1. A minimum of 70% of the building's principal front facade shall be located within the Build-to Zone.
2. Forecourts, open to the street, are encouraged to provide transitional open space, and to accommodate steps and ramps up to elevated first floor levels
3. Pedestrian frontages should be located in the build-to zone, with exceptions for recessed retail or other entrances and shopfronts.
4. Building facade lengths longer than 200 feet should be broken into shorter facade segments by forecourts, notches, or changes in plane.
5. Large buildings should incorporate upper story stepbacks to help mediate their scale, preserve sky views, minimize undesirable wind conditions, and create sensitive transitions to significant existing buildings.
 - a. 50% to 80% of upper floors above 85' should be set back 8-10 feet from the plane of the streetwall.
6. The extension of a portion of the facade plane from the upper stories to the ground may enhance the sense of place by creating a strong vertical emphasis.
7. Building tops that are differentiated in material and design from the facade below should be setback by a minimum of 5 feet.



The articulation of tall and broad buildings into distinct massing elements, and the use of facades that emphasize verticality, help reduce their visual bulk.



Forecourts, open to the street, can create welcome interruptions in the streetwalls of long buildings.



High-quality, durable facade materials contribute to a rich visual environment.

5.3 Building Materials

Buildings should be constructed of high-quality durable materials. Materials should create a sense of permanence.

Guidelines

1. Sustainability considerations such as operational energy use and embodied carbon and energy should be a factor in material choices.
2. In general, the solid portions of streetwall facades should be primarily masonry and high-quality precast concrete.
3. Large areas of curtain wall, metal panels, or fiber cement siding should be used judiciously as elements of emphasis in contrast to solid wall surface and more substantial materials.
4. Predominately glass facades should be avoided unless it can be demonstrated through modeling that their energy performance will equal or exceed that of punched window facades.
5. Spandrel glass should be avoided. Shadow boxes are preferred.
6. Vision glass should be clear, with high transparency and low reflectivity. Low iron glass without reflective coatings is preferred for ground floors.
7. Warm colors are encouraged.
8. Light colors are encouraged to minimize heat absorption and the consequent heat load on building systems, and to minimize the urban heat island effect.
9. Panelized systems should be constructed of durable and dimensionally stable materials. Their fasteners should generally be concealed. Joint details should be precise and consistent. Large undivided panels are discouraged.
10. The use of Exterior Insulation Finishing Systems (EIFS), or “synthetic stucco”, should be avoided.

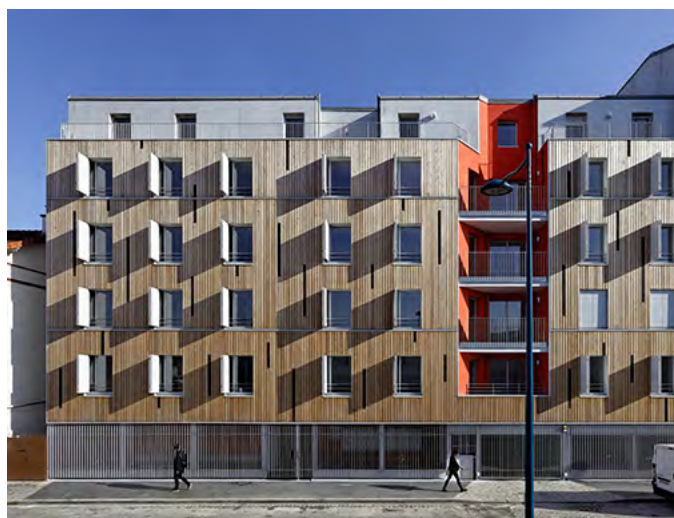
5.4 Architectural Character

Alewife's buildings should create an engaging environment through design variety with facades that work together to create cohesive public space. Their designs should add visual interest to the district and add to the unique character of an area with multiple building types.

Guidelines

Scale and Detail

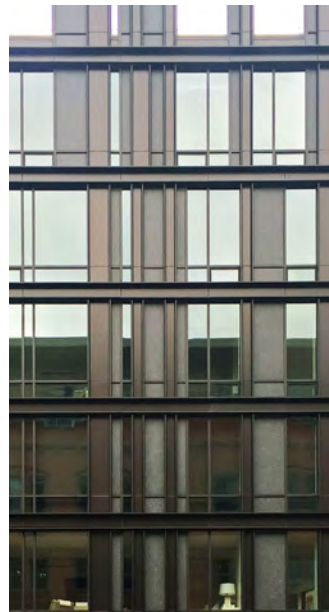
1. Details and embellishments should be used to refine and enrich facades. Examples include:
 - a. Masonry string-courses, lintels, sills, and trim,
 - b. Changes in plane to produce shadow lines,
 - c. Variations in texture, color; and joint patterns,
 - d. Balcony railings, and
 - e. Sun screening devices.
2. Key locations for detailed design focus are the pedestrian zone, building entrances, corners, setbacks, top floors, and silhouettes.



Facade detail, proportion, materials, color, and three dimensional relief contribute to a rich visual environment.

Fenestration

1. Windows should be detailed and articulated to enhance the building's appearance.
2. Variations in mullion widths and pattern; the incorporation of solid panels within openings; the articulation of wall surface at the periphery of openings; and the incorporation of shading elements should be considered.
3. Operable windows should be used in residential and community buildings, and where possible in commercial buildings.
4. Horizontal strip windows should be avoided except in industrial buildings.



Patterns of fenestration and modulation of wall surface provide variety.

5.5 Resilient Design

Continue to refer to the City's most current guidance for resilient design standards. These include protecting buildings from flooding, designing buildings to minimize the impact of extreme heat events, and maximizing the use of passive strategies for thermal comfort.

Guidelines

1. Elevate habitable residential spaces above the projected 1% Long-Term Flood Elevation (LTFE) for their site.
2. Elevate non-residential occupiable spaces above the 10% LTFE for their site or provide them with barriers sufficient to protect them with that level of flooding. Unprotected small entrances, vestibules, and lobbies are allowed if they are constructed of water-safe or easily replaceable materials so as to recover from flooding.
3. Passive barriers for floodproofing are recommended at all entrances below the 2070 1% flood elevation.
4. Elevate critical building mechanical, electrical, and communications systems above anticipated flood levels.
5. Design building envelopes for low heat transmission, low solar heat gain, and natural ventilation.
6. Use energy efficient HVAC systems and consider using all electric HVAC and cooking systems.
7. Consider employing thermal mass strategies to minimize the impact of high exterior temperatures on building occupants and to reduce cooling energy loads.
8. On buildings with ground floor retail or community space, provide awnings or canopies to shade sidewalks and ground stories.
9. Incorporate shading elements for fenestration.
10. Use high-reflectivity materials on roof surfaces and light-colored paving to reduce heat impact on buildings and public sidewalks and plazas.
11. Install green roofs (intensive, extensive or bio-solar) where feasible.

5.6 Building Types

In the future, Alewife will have a broad range of building types: residential, office, research, light industrial, retail, civic, and institutional. While they will vary in form and use, they should all help to create a pedestrian friendly and visually rich public realm, be resilient to the urban heat island effect and flooding, and have a minimal carbon footprint.

5.6.1 Commercial Buildings (Office/Laboratory/Research)

Guidelines

1. Include changes in facade plane, and other modulations of massing, to reduce their scale.
2. Design large buildings to respond sensitively to the heights of significant neighboring buildings.
3. Incorporate ground story retail and neighborhood uses where feasible.
4. Design ground story spaces to allow future conversion to retail or neighborhood uses.
5. Provide tall ground story heights throughout street facing portions of buildings, suitable for retail, regardless of whether or not retail is currently feasible in these locations
6. A commercial building's lobby should occupy no more than 25 feet of street frontage.
7. Provide publicly accessible passages through long buildings to maximize permeability for people walking in the district.
8. Structural bays should be expressed and have a dimensional range of 20 feet to 30 feet.
9. Top floors of tall buildings should generally be stepped back from the streetwall.
10. Streetwalls should incorporate detail, subtle relief, and carefully considered patterns of fenestration.
11. Organize mechanical equipment and screening relative to building massing and facades; treat them as integral parts of the building design
12. Interior lighting for buildings with late-night uses should minimize light pollution, especially near residential buildings or natural areas.



Commercial lobbies should be transparent and extend the public realm into the building.



Mechanical equipment and screening should be integral parts of office building design.



Incorporating retail, office, or showroom spaces on the ground floor of industrial buildings makes them more accessible and pedestrian-oriented.

5.6.2 Industrial Buildings

Guidelines

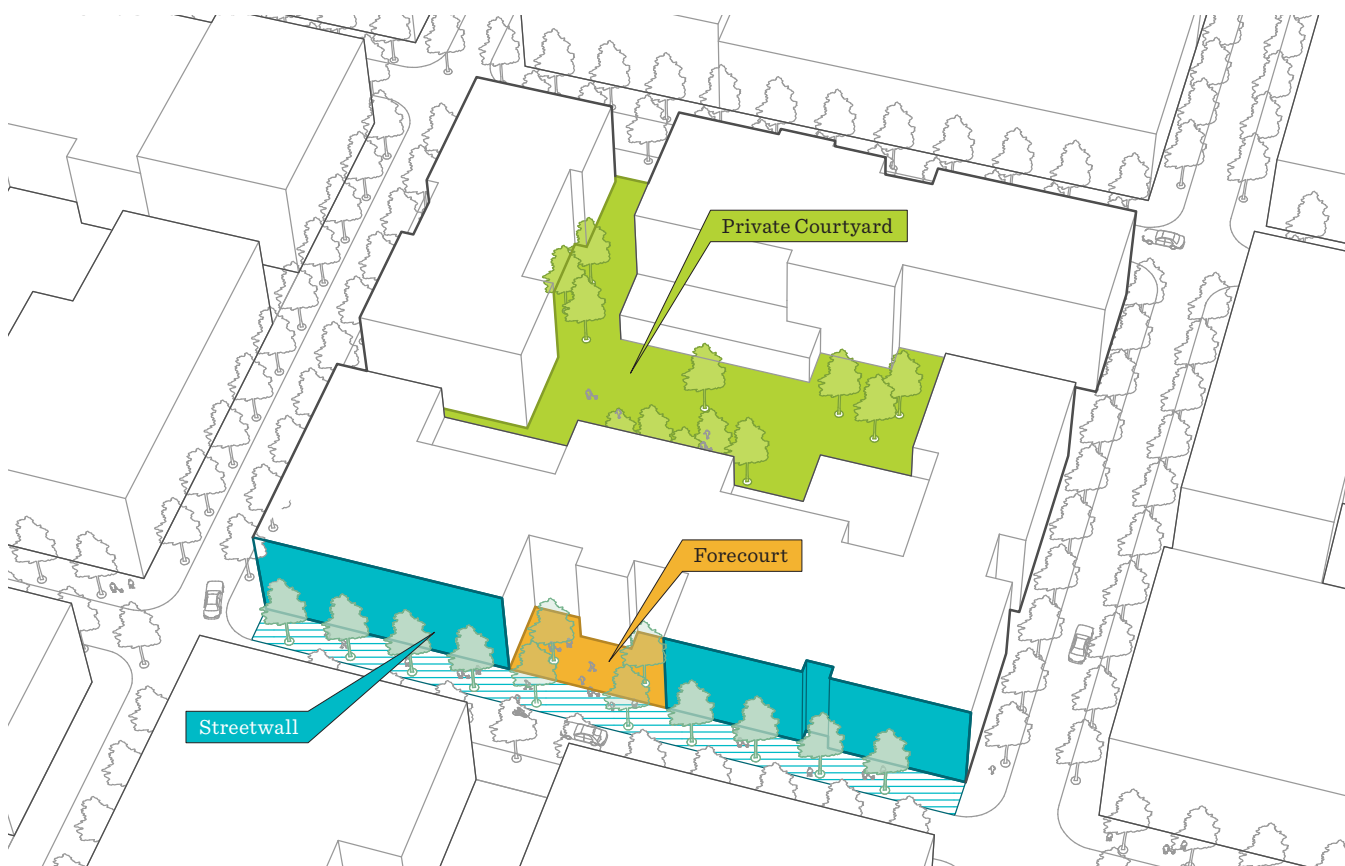
1. Incorporate ground story neighborhood uses, entrances at frequent intervals, and transparent storefronts. See section 4.1.1 of these guidelines for more detail.
2. Where retail is not feasible, locate front office, reception areas, showrooms, or employee amenities such as dining facilities on street frontages.
3. For large industrial buildings with multiple tenants, provide numerous entries at sidewalk level to help activate the pedestrian environment.
4. Invest in the architecture of street-facing and publicly visible facades, while ensuring that these remain integrated with the design of the rest of the building.
5. Structural bays should be expressed.



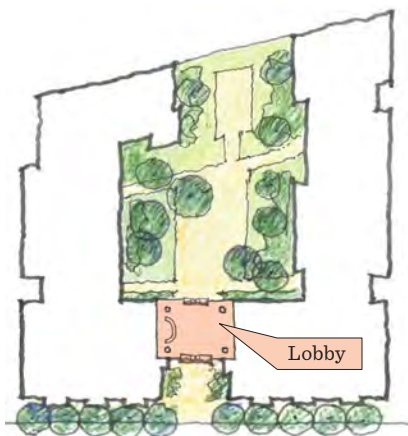
5.6.3 Residential Buildings

Guidelines

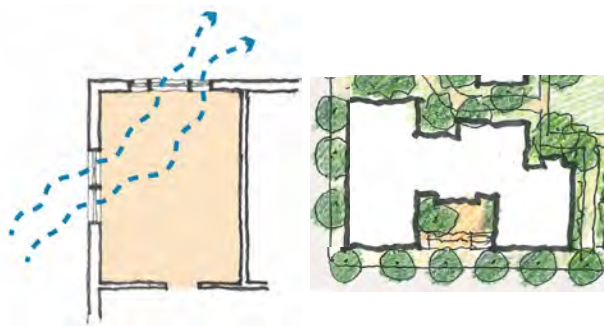
1. Streetwalls should provide architectural consistency that frames streets as visually coherent public spaces, yet also be sufficiently varied to provide visual interest.
2. More irregular massing should be considered on block interiors to create smaller scaled or more intimate private courtyards.
3. The level of detail, expression of structural bay widths, and massing of streetwalls should relate to the scale of the street and the scale of individual units.
4. Incorporate courtyards, open to the street, to provide semi-public transitional open space, and to facilitate ascent to the elevated residential ground floor level.
5. Incorporate recesses, courtyards, and units with multiple corners to bring light deeper into floor plates and allow cross ventilation.
6. Top floors of street facades should generally be stepped back to reduce the building's visual bulk, and their massing and facade expression should generally be articulated to reflect the scale of dwelling units.
7. Where possible, terraces should be provided at building setbacks as private or communal amenities or as locations for green roofs.



Streetwalls define the boundaries of public streets. Residential forecourts enrich them with variety and semi-public green space. Courtyards within blocks offer private space for residents.



Forecourts and lobbies leading to courtyards give urban blocks a sense of porosity.



Incorporate recesses, courtyards, and units with multiple corners to bring light deeper into floor plates and allow cross ventilation.



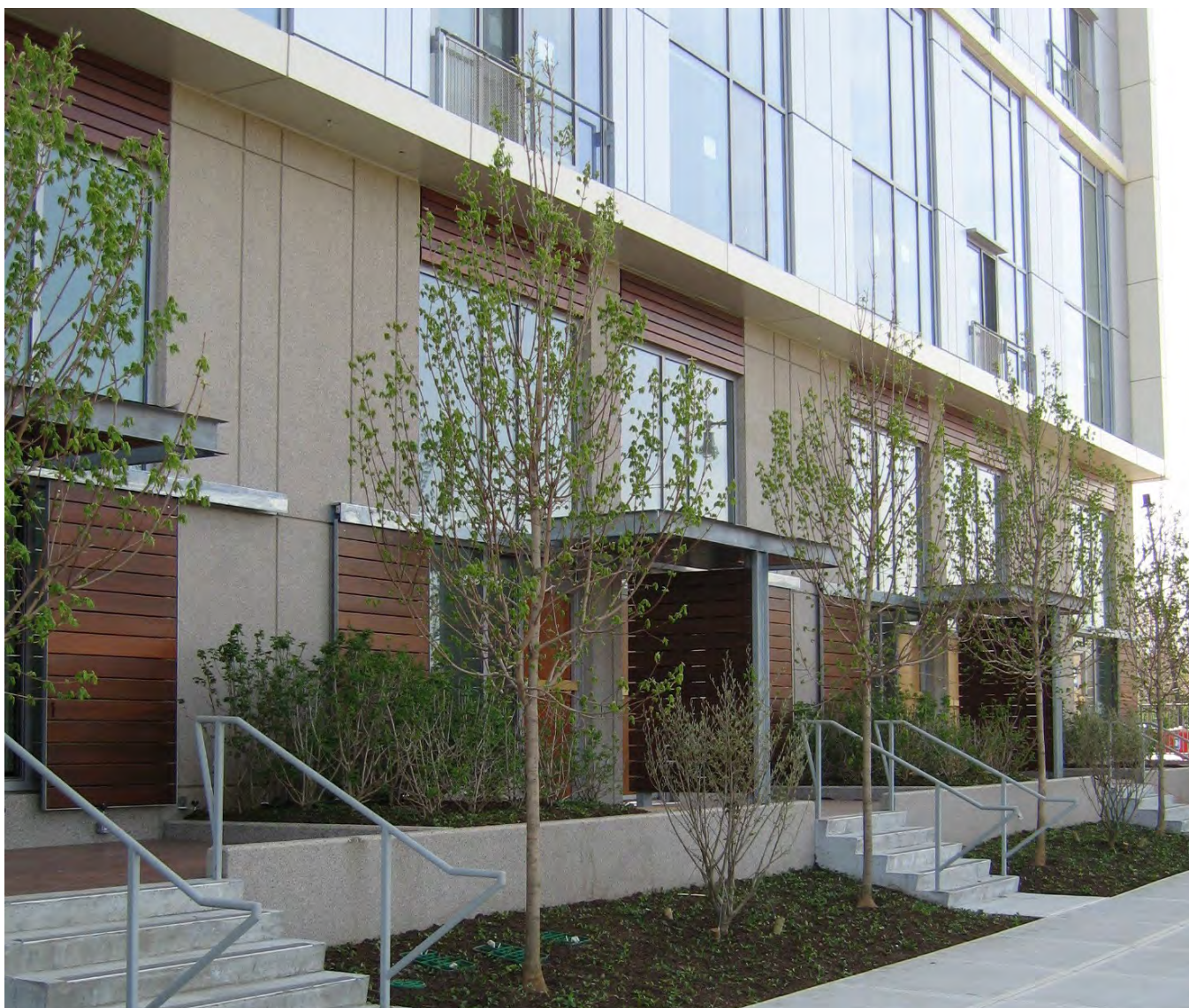
Residential streetwall facades should express residential scale.

8. Locate residential lobbies directly on public streets, or on courtyards that open onto those streets.
9. Facades of large residential buildings should provide visual interest and mediate between the scale of individual units and the civic scale of the streetwall. Potential design strategies and elements include:
 - a. The articulation of facades into vertical zones by changes in plane, material, color, fenestration pattern, etc.
 - b. Bay windows.
 - c. Vertically proportioned recesses.
 - d. Double height entries and lobby spaces.
 - e. Sheltered and human-scaled balconies, including “Juliet balconies”.
10. In addition, streetwall facades should be enriched by fine-grained detail. Examples include:
 - a. Balcony railings,
 - b. Shading devices,
 - c. Bond patterns in masonry and joint patterns in other wall materials,
 - d. Mullion patterns in fenestration.



Balconies and sun shading devices can add visual interest.

11. In portions of street level facades that do not include residential units or retail space (e.g. common rooms and lobbies), incorporate 40 to 60 percent transparent glazing.
12. Incorporate individual entries to ground story units or double height loft-style units along street frontages to strengthen the street's residential feel and scale.
13. Where ground story units are elevated above grade, and facades are set back from the sidewalk, consider creating an elevated walkway in the building setback zone. This would be accessed by ramps and steps from the public sidewalk to provide access to multiple ground story residential entrances.



At residential buildings with front setbacks, landscape should create thresholds of privacy while still allowing visual connection.



Residential forecourts offer transition areas between the public sidewalk and the private building interior, and facilitate access to raised ground stories.



Interior courtyards provide private open space, promote social connections, and enhance views from residential units. Their vegetation and the treatment of their ground plane help mitigate the urban heat island effect and absorb stormwater.

5.6.4 Civic and Institutional Buildings

Guidelines

1. To emphasize their community presence, a more unique form and appearance may be appropriate for civic and institutional buildings than for other buildings in the district.
2. The design of civic and institutional buildings should express the unique character of their uses and programs and contribute to the coherence and spatial definition of the streets, parks, or squares they address.



The civic role of institutional buildings may be symbolized by their iconic facades. In this example, a double glazed facade with adjustable shading mechanisms combines energy efficiency with visual openness.

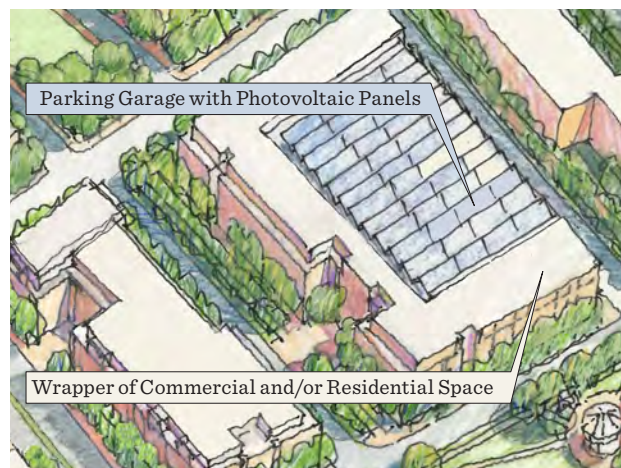


Expressive forms are one means to symbolize civic or institutional importance.

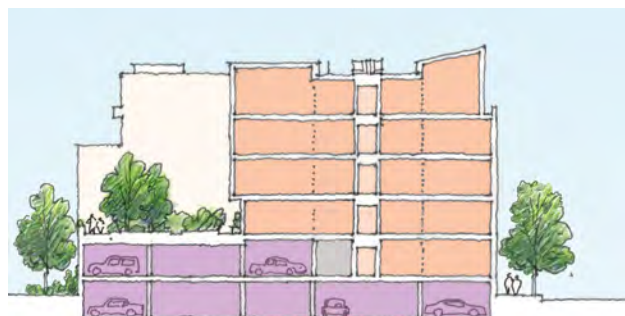
5.6.5 Parking Garages

Guidelines

1. Above-grade parking garages on primary streets should be hidden from view.
2. Wherever possible, garages should be wrapped by residential, commercial or other uses if facing a public street or public open space.
3. Parking garages should include ground floor retail uses where feasible.
4. Where garage facades are visible and not wrapped by occupiable uses, they should be architecturally screened. The facades should be of comparable design and material quality as adjacent buildings, and may include combinations of solid walls, louvers, vegetation, and perforated metal, among others.
5. Pedestrian stairs and lobbies should be highly glazed and visible to the public.
6. Vehicular entrances should be unobtrusive and integrated into the design of ground floor facades.
7. Sloped garage ramps should not be visible from public streets and open spaces.
8. Ventilation openings on streets or other public open spaces should be screened by louvers or other means.
9. Garage lighting should minimize light trespass and glare.
10. Consider green roofs and usable terraces on top of parking garages.
11. The top levels of tall parking garages may serve as locations for photovoltaic arrays.
12. Parking garages should be designed to accommodate alternative land uses in the future.
13. Recharging facilities for electric vehicles should be provided.
14. Locate garages below grade where possible.
15. Garage roofs that are 4 feet or less above the sidewalk, should be landscaped to provide publicly beneficial open space.
16. Below-grade garages should be provided with passive barriers at entrances and ventilation openings to protect from flooding or wet flood-proofed to allow water to pass through during a flood event.



The sides of parking garages that face public spaces should be wrapped by commercial or residential uses. On less significant sides and on the interiors of blocks, they should be screened.



The tops of parking garages that are lower than nearby or adjoining buildings should be treated as landscaped terraces.



Entrances to parking garages should be unobtrusive and be integrated into the design of ground floor facades.

An aerial sketch of a city district. The drawing shows a network of streets and buildings. Buildings are depicted with simple outlines and some color shading in shades of orange, red, and purple. Large areas of green represent trees and parks. A prominent green space is visible in the upper right, and another is in the lower left. The overall style is a loose, artistic sketch using colored pencils or markers.

6 Open Space

Alewife's streets, squares, and parks will constitute the district's public realm. They should be beautiful, safe, memorable, and engaging places for public use and enjoyment: in effect they should be public rooms at the scale of the city, defined and enriched by their landscape design, and by the architecture and uses of the buildings that frame them.

As an interconnected system, Alewife's open spaces will organize its built fabric, connect its subdistricts, and connect Alewife to the surrounding neighborhoods.



Flexible clear open spaces, generous plantings, and sky views serve our needs for a connection to nature and outdoor life.



Create “Cool Corridors” on primary streets through tree canopy and structural shading.



Stormwater mitigation features should be integral parts of landscape design. The Alewife Constructed Wetland is an example.

6.1 Site Design, Resilience, and Sustainability

As Alewife develops, its existing streets, parks, and squares should be improved, and new streets, with their own characters, sizes, programs, and uses, should be constructed. Their landscape design and open space amenities should create an engaging, programmatically rich, and continuous pedestrian environment.

The district’s open spaces should coherently framed by surrounding building facades. They should create usable and enjoyable places, and interconnect to create an integrated system of public paths, streets, and larger spaces.

Open spaces will contribute to creating an environmentally sustainable district as elements of a performative landscape that absorbs excess stormwater, improves water and air quality, and provides shade and cooling to reduce the urban heat island effect.

Guidelines

1. Utilize green infrastructure to reduce flooding impacts from smaller rainfall events and to mitigate the urban heat island effect.
2. Adhere to the city’s “25:2” stormwater management policy, under which all redevelopment must store the difference in stormwater volume between the pre-development 2-year, 24-hour storm event runoff and the post-development 25-year, 24-hour storm event runoff.
3. Concentrate the majority of green open space in parks, courtyards, and interiors of blocks, rather than in narrow front yard setback zones.
4. Open spaces should provide access to sunlight, sky views, and protection from wind.
5. Open spaces should contain a range of amenities, such as:
 - a. Seating and other types of street furniture,
 - b. Canopy trees,
 - c. Water features,
 - d. Areas for multiple uses, exercise, play, events, and locations for food trucks, and
 - e. Small retail pavilions.

6. Works of public art should be integrated into their environment; designed and located as part of an overall vision for the public space.
7. Wayfinding signage should be provided in large open spaces to facilitate direct and accessible connections.
8. Public bathrooms should be incorporated in high pedestrian traffic areas, based on an evaluation of need as the district develops.



Provide public bathrooms where needed.



Public spaces with robust tree canopies provide an attractive, shaded environment throughout the year.

6.2 Environmental Comfort

Alewife's open spaces should provide safe and pleasant environments, with shade, shelter, and a connection to nature, and should help mitigate negative environmental impacts.

Guidelines

Cool Spaces

1. Landscape design — public and private — should provide shade and cooling through the planting and concentration of canopy trees.
2. Emphasis should be placed on creating “cool corridors” by shading the primary bus, bicycle, and pedestrian routes.

Lighting

1. Site lighting and exterior architectural lighting should create a safe environment, but light levels should be no higher than necessary.
2. Light trespass and glare should be prevented, and lights should not be directed upward.
3. Architectural lighting above the second floor level should be avoided.
4. Lighting fixtures should be shielded and luminaires should be of a warm color temperature.
5. Lighting fixtures should be approved by the International Dark Sky Association.
6. Low level lighting should be considered at steps and ramps to elevated walkways.
7. Light trespass from commercial building interiors should be minimized by building core and shell design, and through tenant agreements.

Noise

1. Mechanical noise should not impact the quality of life in public spaces like parks or private spaces, such as residences. Design, select, locate, and acoustically screen equipment to protect neighbors from noise.

Shadow, Glare and Wind

1. It's important to consider how a building will cast shadows, reflect sunlight, and impact wind flow on the surrounding public space and nearby buildings. If negative effects are identified, take steps to minimize them.

6.3 Urban Forest

As Alewife develops, its open spaces—both publicly and privately owned—should contribute to growing Cambridge’s urban forest. Benefits will include improved public health and wellbeing created through a connection with nature, enlarged and enhanced natural habitat, reduced heat island impact, and reduced stormwater runoff.

Guidelines

1. Consideration should be given to the preservation of existing trees, including relocation, if necessary.
2. Plant new trees to improve shading, reduce heat island impacts, and enhance areawide stormwater management.
3. Create a more balanced ecosystem and support natural habitat by providing a diverse tree canopy and understory plantings throughout the district’s open spaces.
4. Plant shade trees along streets and within and around service areas, parking lots, and other paved areas.
5. Provide productive soil conditions for new street trees, including consistent soil materials, appropriate aeration and drainage, and high nutrient levels.
6. Utilize the tree species, planting standards, and maintenance regimens recommended by the Department of Public Works and the Cambridge Urban Forest Master Plan for streets and other open spaces.



Provide a connected and diverse tree canopy.

6.4 Character and Uses

Open spaces should vary in character and accommodate a wide range of uses and events, depending on their size and the needs of the surrounding neighborhood.

Guidelines

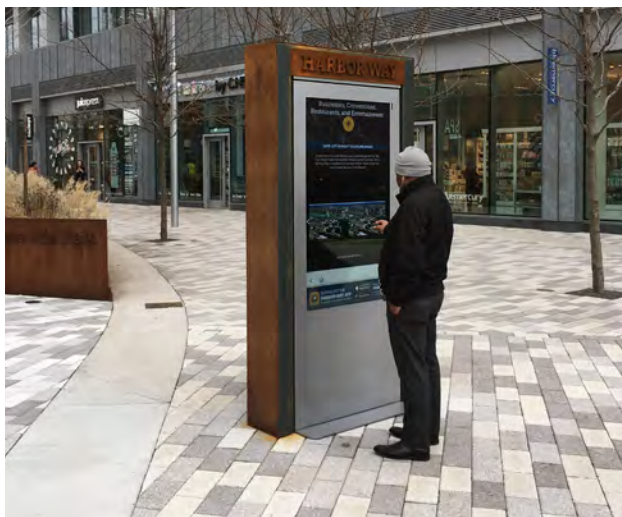
- 1. Provide a mix of clear flexible open areas with more sheltered intimate places.
- 2. Provide facilities for both active and passive uses.
- 3. Provide specialized play and recreational areas and equipment.
- 4. Activate open spaces with retail activity.



Provide broad open areas to accommodate impromptu uses and organized events.



Play equipment and public events activate open spaces and serve neighborhood needs.



Wayfinding throughout the district should be clear and accessible, and communicate necessary information.



The Universal Playground at Danehy Park fully incorporates Universal Design (UD) - the concept that all parts should be as usable as possible, without changes, by everyone. It takes sensory, cognitive, and emotional abilities into consideration to create a universally welcoming and usable space.

6.5 Universal Access and Design

In the design of buildings and outdoor spaces, place special emphasis on universal access and design. This means going beyond accommodations; recognizing the right that all people have to access and inhabit a space regardless of their cognitive and physical capacities, creating more equitable places.

Guidelines

1. Provide wayfinding signage throughout the site and create direct accessible connections.
2. Ensure that streetscape elements do not conflict with accessible parking.
3. Incorporate “visitability” measures in residential buildings.
4. Ensure that parks and plazas provide activities and facilities serving people of all ages.
5. Ensure that outdoor spaces provide comparable facilities for all people regardless of their ability to ascend steps or ramps.
6. Use technology to help compensate for limitations in sensory abilities.
7. Provide audible and tactile information beyond existing requirements at crosswalks and in building elevators.
8. Ensure that streetscape elements do not conflict with designated accessible parking.
9. Benches should generally have backs and arm rests to assist people that benefit from extra support and stability.
10. Benches should be placed frequently to assist people with mobility and stamina limitations.

6.6 Streets and Paths

New streets and paths should connect Alewife’s sub-districts and tie the district to nearby neighborhoods and parks. Alewife’s streets should be welcoming, safe, and enjoyable for bicyclists and pedestrians of all ages and abilities. Primary streets should be designed as “cool corridors,” shaded by canopy trees.

Guidelines

1. Streets should be designed as part of Alewife’s overall open space system, incorporating continuous street trees, and stormwater mitigation features where appropriate.
2. Street should facilitate a network of pedestrian and bicycle routes, connected to the surrounding areas of Cambridge.
3. To enhance the experience of the street as a space for people, there should be clear delineations between the vehicular street; the public sidewalk; the semi-public/semi-private character of front yards and entry courtyards; and the private building interiors. In order to achieve this, curbs, bicycle lanes, street trees, sidewalks, low walls or edge plantings, front yards, and elevated walkways should be aligned as a series of layers parallel to the street.



Mid-block walkways enhance pedestrian connectivity and offer opportunities for active uses.



Pedestrian streets and woonerfs create a more generous pedestrian environment by either eliminating or slowing vehicular traffic.



Parallel parked cars and curbside street trees define the sidewalk and separate pedestrians from traffic. Canopies provide shade and provide shelter from rain or snow. Ground floor facades and retail frontage aligned along the edge of the sidewalk activates the public realm.



Transparent storefronts create a spatial and visual connection between interior and exterior spaces.



Canopy trees shade the pedestrian realm and give spatial definition to the city's streets, paths, and other public spaces.

4. To facilitate direct physical and/or visual engagement between building interiors and the public realm on primary commercial streets, sidewalks should generally extend to building facades.
5. Street trees should define space and shelter pedestrians and bicyclists. Street trees should be:
 - a. Canopy trees, tall enough once mature to not obstruct ground level views.
 - b. Spaced 20' to 30' apart, and consistently aligned.
 - c. Located in the sidewalk, adjacent to the curb where possible, or between elevated cycle tracks and the pedestrian sidewalk.
6. Tree wells should be coordinated with zones of paving materials and their joint patterns.
7. Utilities should be located underground and under the vehicular street to avoid interference with tree canopies and root systems.



Multi-use paths enhance connectivity for pedestrians and bicyclists.

8. In addition to canopy trees, incorporate structural shading, such catenary shades spanning across streets and independent shade structures.
9. Minimize street widths and curb radii at intersections to slow vehicular traffic and make pedestrian crossings shorter.
10. On-street parking should be parallel.
11. Paving should generally be light-colored.
12. Consider incorporating brick surfaces in sidewalks, as long as it remains compliant with accessibility regulations and best practices.
13. Where front yard setbacks separate buildings from the public sidewalk, elements such as curbs, low walls, hedges or low plantings, or fences should define the front boundary of the yard.
14. On streets with front yard setbacks where building ground story levels are elevated significantly above sidewalk levels, low retaining walls, up to 30" tall, should be provided along the inner edge of the sidewalk to achieve the grade change.
15. Chain link fencing should not be visible from public streets.



Where front yards are above the level of the sidewalk, low retaining walls should be used. This enhances the distinction between the private front yard and the public sidewalk.



Sidewalks should accommodate pedestrian passage, street trees, street furniture, and where appropriate, seating for cafes and restaurants.



Parks should include open flexible areas that can accommodate multiple uses.



Movable outdoor furniture encourages quiet gathering and relaxation.



Parks should provide appropriate seating and benches should have backs.

6.7 Parks

Alewife is bordered by several large parks: Fresh Pond Reservation, Danehy Park, and the Alewife Brook Reservation. These provide a wide range of options for passive and active recreation. Within the district, the primary need is for smaller neighborhood parks, and for connectivity to the adjoining open spaces.

As the district develops, new parks may be created as publicly- and privately-owned public spaces. These parks should provide opportunities for a wide range of activities, including quiet enjoyment of nature, recreation, active play, outdoor dining or picnicking, temporary markets, organized public events, and informal gatherings.

Guidelines

1. Parks should be predominately green, with paths located to facilitate pedestrian and bicycle access, and paved areas integrated to accommodate temporary outdoor markets.
2. Park designs should integrate naturalized stormwater mitigation features, such as bioswales, retention ponds, and rain gardens.
3. Pavement should be light-colored and permeable wherever possible.
4. Parks should provide seating, including benches with backs. Locations should include park entrances and along paths.
5. Plant and trees species should be selected to provide beneficial habitat for pollinators and other species, Native species are preferred.
6. Plants and tree species should be appropriate to changing climate, including heat and drought tolerance.
7. Tree planting strategies should include a variety of species to account for known and potential infestations and disease.

8. Parks should include spaces of differing scales to accommodate a wide range of activities, individuals and groups, including:
 - a. Flexible open areas—generally lawns—suitable for a wide range of planned and impromptu activities.
 - b. Smaller scaled, more sheltered and intimate spaces that provide views of larger spaces and the activity in them.
9. To create a defined boundary for a park, layered landscape elements should be used to frame the open areas of the park. This layered border can separate the park from adjacent streets and provide smaller, sheltered spaces for sitting or walking. Some examples that can be used include allées of trees, bordering paths, hedges and other low plantings, low walls, fences, benches, and structures such as trellises or pergolas.
10. Parks should incorporate multiple entrances, designed to celebrate arrival in the park.
11. Play areas should be located near residential buildings where possible.



Layers of landscape elements that provide visual permeability, such as trees, trellises, loggias, low plantings, paths, benches, etc. frame open areas.



Fences enhance parks by demarcating their perimeters while offering visual connections from the bordering streets.



Kids enjoy protected play areas.



Celebrate park entrances to emphasize the sense of arrival.



Squares should be primarily paved to provide flexible open space suitable for a variety of uses.



The framing of public space by streetwall facades provides a sense of spatial enclosure.



Larger plazas or squares should include a clear ground plane that accommodates multiple uses.

6.8 Squares and Plazas

New squares and plazas should be created as integral elements of development projects. They should be beautiful and welcoming places that are a focus of community life. They should be predominately pedestrian, and enlivened by outdoor dining, temporary markets, playful landscape features, public art, outdoor events, and the ground floor activity of buildings that frame them.

Guidelines

1. Squares should be framed by building facades and bordered by streets on at least two sides, and wherever possible, active uses in the ground stories of the buildings around them.
2. Squares should be primarily paved to provide flexible open space for a variety of uses.
3. Pavement should be light-colored and permeable.
4. Depending on their locations and character, squares, plazas, and courtyards should incorporate trees and other plantings, benches, water features, public art, outdoor seating areas for restaurants and cafes, as well as the public, and areas for temporary retail—carts, trucks, stands, and tents.
5. Landscape design should complement the sense of spatial enclosure provided by the buildings that frame squares by incorporating bordering shade trees and other landscape elements.
6. Vehicular traffic along or through squares, where it occurs, should be slow.

6.9 Privately Owned Public Spaces

Privately Owned Public Spaces (POPS), including parks, squares, and courtyards, will be an important component of Alewife's system of open spaces. Regardless of the specific arrangements for maintenance, funding, security, operation, etc., they should be perceived as fully open to the public.

Guidelines

1. Entrances from public streets should be generous, direct, and unimpeded.
2. Any fences and gates should be open and integral to the design— incorporated into architecture or landscape that frames the space—rather than imposed.
3. Privately owned public spaces should, at least, be open from dawn to dusk.
4. If possible, they should be available for event programming.
5. Landscape design and the provision of amenities should be guided by the same considerations as in publicly owned open spaces.
6. Where possible, the design and location of privately owned public spaces should be done in coordination with adjoining owners, both public and private, so as to create larger contiguous open spaces where possible, and to distribute smaller ones throughout the district.



Privately owned public spaces, such as this plaza at the Kendall T Station, should be welcoming and integral to the district's public realm.



Privately owned public spaces can be valuable public amenities, such as the skating rink at Termeer Square.



Large developments should include semi-public forecourts to break up long building facades.



Courtyard activated by ground level and second floor retail.



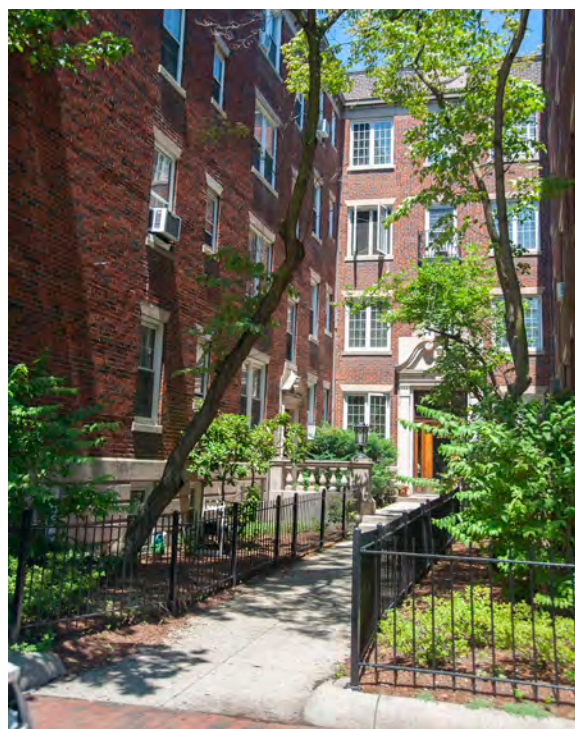
Entry court, visually open to the street, but separated from it by planting and a grade change—a transitional space that is intimate yet also part of the streetscape.

6.10 Entry Courtyards

As semi-public/semi-private spaces, entry courtyards enrich both the public realm and the private spaces within buildings. They should be used to break street facades of long buildings into shorter segments, give light to building interiors, and accommodate steps and ramps from sidewalk level to an elevated ground story.

Guidelines

1. Incorporate permeable paving where possible, preferably light-colored paving.
2. Consider providing retail or other activating uses in building ground stories around entry courtyards.
3. Incorporate fixed and/or movable seating as appropriate to the adjoining ground story uses.
4. Include trees and other plantings to provide shade and to enhance the privacy of adjoining residential interior spaces.



Even small entry courtyards can add beauty and richness to the pedestrian experience.

6.11 Private Open Spaces

Private open spaces, such as exterior yards and courtyards within blocks, should be designed to retain and absorb stormwater and minimize the urban heat island effect.

Guidelines

1. Minimize impermeable area and use light-colored paving where possible.
2. Incorporate stormwater mitigation features such as bioswales, rain gardens, and retention ponds where feasible.
3. Incorporate trees to augment Cambridge's urban forest.
4. Where courtyards occur at grade or on upper levels, create visual and physical connections to these spaces.
5. Avoid the use of chain link fence, barbed wire, or concertina wire in locations visible to the public.
6. Where building streetwall facades are set back from inside edge of the sidewalk, define the edge of the sidewalk. Means include slightly raised front yards, seat walls or low retaining walls, fences, or continuous lines of vegetation such as hedges along the sidewalk.



7. Where the grade of front yards is above that of the adjacent sidewalk, avoid sloped berms with toes that meet the sidewalk. Instead provide curbs, seatwalls, or low retaining walls at the edge of the sidewalk.
8. Curbs, seatwalls and low retaining walls at the edge of sidewalk should be landscaped to provide a green buffer between the sidewalk and building facade.



Plantings and seating areas enrich the quality of life for residents and workers.

6.12 Public Art

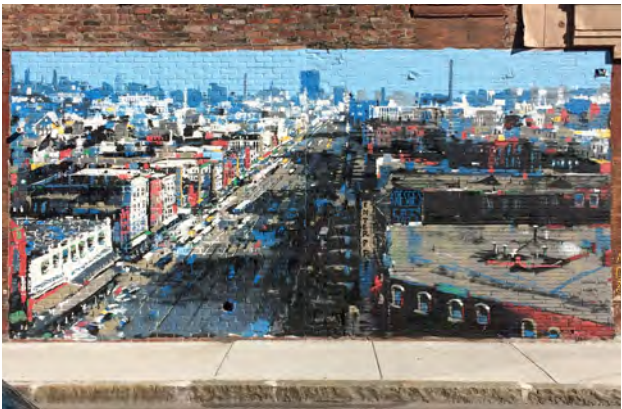
Enrich the visual environment and strengthen the sense of place by incorporating expressions of creativity.

Guidelines

1. Incorporate public art as an integral component of the development’s architectural and landscape design.
2. Where possible, integrate arts related uses such as galleries, arts displays, or artists studios on the ground level of affordable housing developments that are located on business and commercial streets.
3. Commemorate Cambridge’s history.



Opportunities for creation and play engage the public.



The works of local artists enrich public spaces and contribute to the Cambridge community's sense of identity.



Sculpture can give memorable character and focus to shared spaces.



Memorials enrich our sense of community: the Tom Magliozzi plaque at Brattle Square.



Climbable sculpture encourages children to think of public spaces as their own.

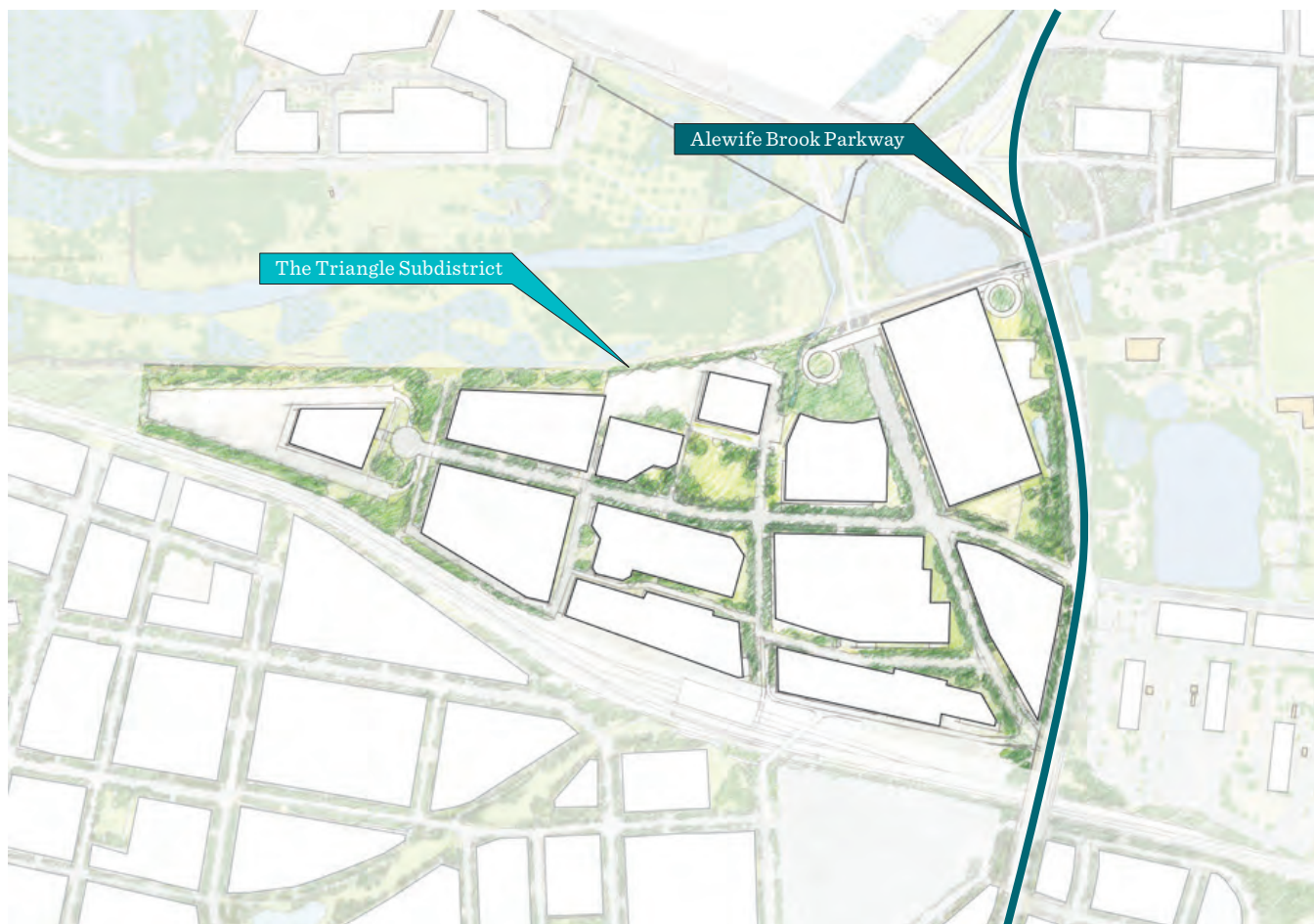


7 Alewife's Subdistricts

Alewife's subdistricts have diverse uses, characteristics, growth potential, connectivity, and environmental considerations. The following suggestions and guidelines address their unique qualities.

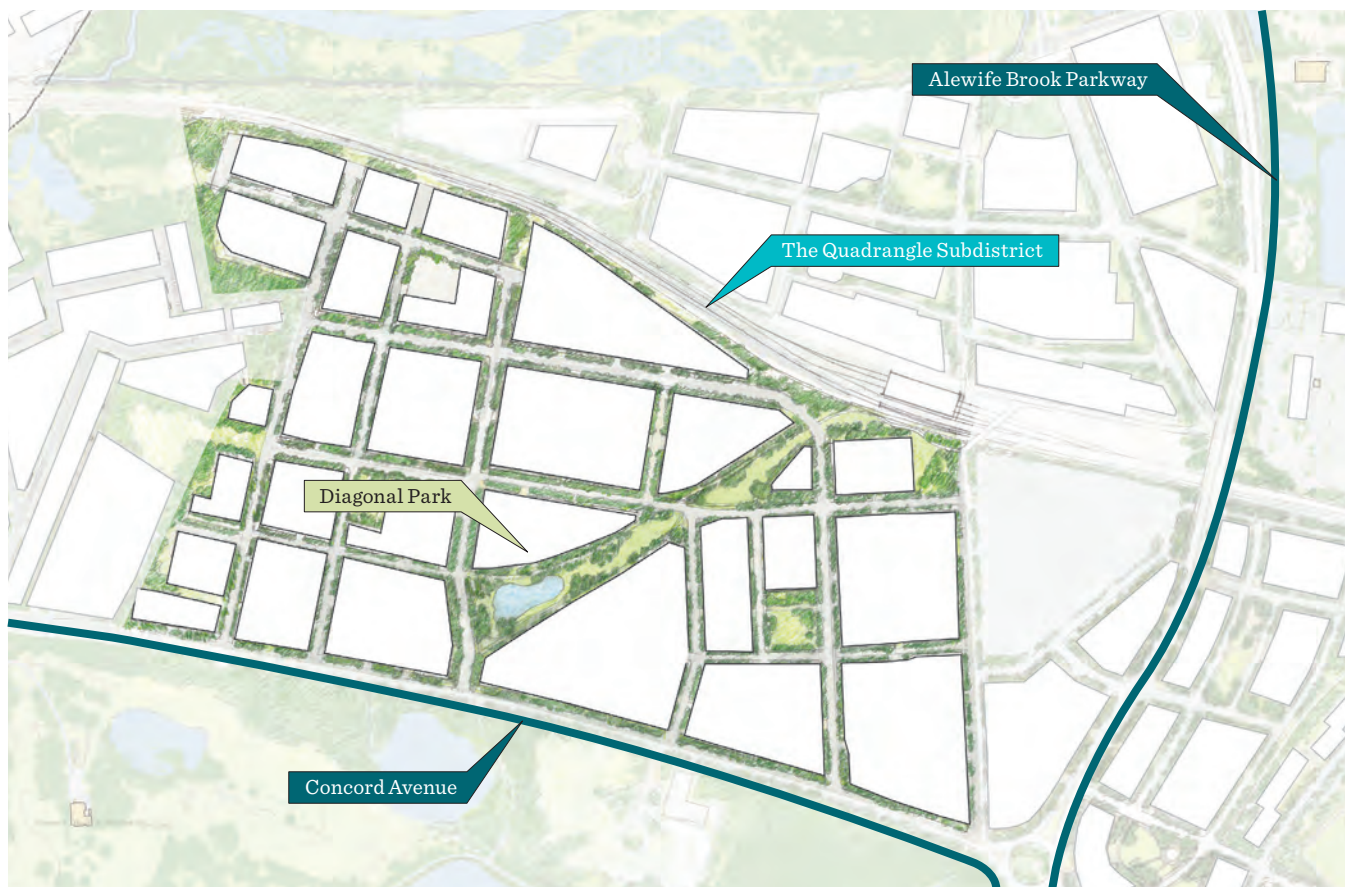
7.1 The Triangle

1. To create a walkable pedestrian environment, existing privately owned driveways should be transformed to look and feel like publicly owned streets. Their sidewalks, street furniture, bicycle lanes, street trees, and other plantings should provide shelter, beauty, and connectivity.
2. Consideration should be given to increasing public access to privately owned open spaces.
3. Provide Alewife Brook Parkway with generous sidewalks, curbside street trees, and streetwall facades with ground floor retail or other active uses. Ground floors of buildings along the Parkway should be provided with entrances at sidewalk level.
4. In the block adjoining the Parkway, consideration should be given to creating an elevated landscaped terrace above structured parking in the interior of the block, with open pedestrian access from the Alewife Brook Parkway's western sidewalk, and to including tall buildings in the block adjoining the Parkway, to create, in conjunction with the residential towers of the Rindge Avenue district, a western gateway to Cambridge.
5. A multi-use path should be created under the Alewife Brook Parkway bridge, connecting to the Rindge Avenue district.



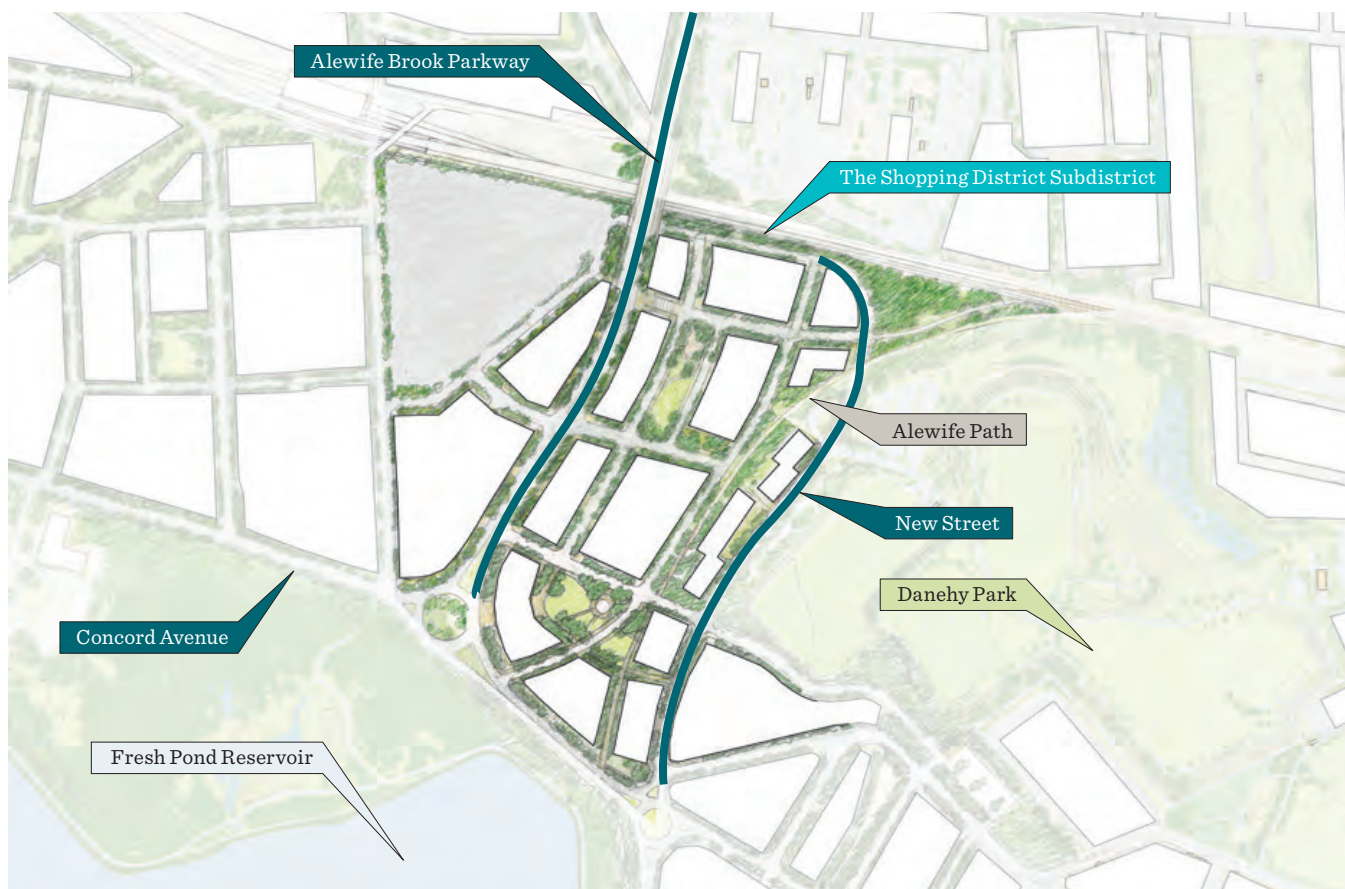
7.2 The Quadrangle

1. As the existing super-blocks and large parcels are developed, create additional streets and paths within them to increase the connectivity and permeability of the Quadrangle.
2. Existing or new privately-owned streets should be accessible and pedestrian friendly.
3. Owners of adjoining parcels should coordinate on the location and design of fire lanes and service drives, sharing them to maximize developable area and green space.
4. Transform Concord Avenue into an urban boulevard, lined by street trees, separated bicycle lanes, generous pedestrian sidewalks, landscaped setbacks, substantial building facades, and landscaped courtyards.
5. The proposed linear diagonal park should be framed with building facades. Its paths should connect to the paths from the courtyards of the adjoining blocks.
6. Multi-use paths should be constructed connecting the Quadrangle's streets and bicycle lanes to the pedestrian/multi-use path to be constructed along the south side of the railroad tracks.
7. Avoid the construction of dead-end streets wherever possible.
8. Consideration should be given to creating a green buffer along the tracks where width should be preserved for the proposed future Belmont Multi-use Trail.



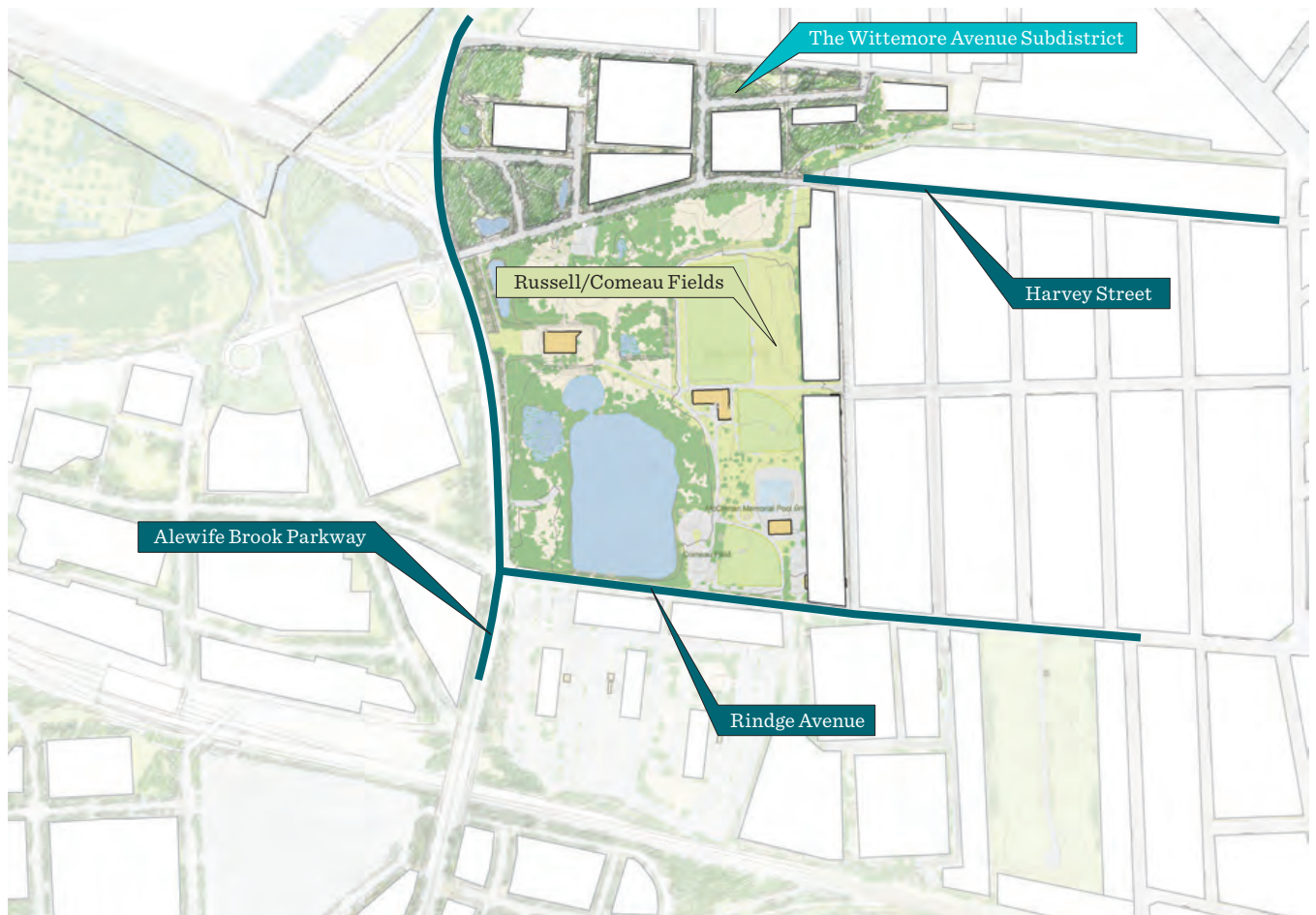
7.3 The Shopping District

1. Create a system of urban blocks, defining a network of streets, squares, and parks.
2. Parking garages facing parks, squares, and major streets should be lined with retail, commercial, or residential space.
3. Consider incorporating pedestrian streets and/or woonerfs.
4. Provide Alewife Brook Parkway with generous sidewalks, curbside street trees, and streetwall buildings with ground floor retail or other active uses that meet the grade of the sidewalk. Include accessible pedestrian routes down to grade from the bridge level.
5. Provide multi-use paths connecting to the proposed Watertown Line trail.



7.4 Whittemore Avenue

1. Pedestrian and bicycle connections should be provided to the extension of the Linear Path along the axis of Harvey Street.
2. Locate and configure buildings to create streetwalls along Fresh Pond Parkway, Whittemore Avenue, and the extension of the Linear Path.
3. Provide pedestrian-friendly sidewalks, lined by curbside street trees.
4. Locate surface parking, if any, on the interior of blocks, or below buildings or landscaped terraces.



7.5 Fresh Pond Parkway

1. Locate and configure buildings to create streetwalls along Fresh Pond Parkway, Lexington Avenue, and Lakeview Avenue.
2. Provide pedestrian-friendly sidewalks, lined by curbside street trees.
3. Locate surface parking, if any, on the interior of blocks, or below buildings or landscaped terraces.

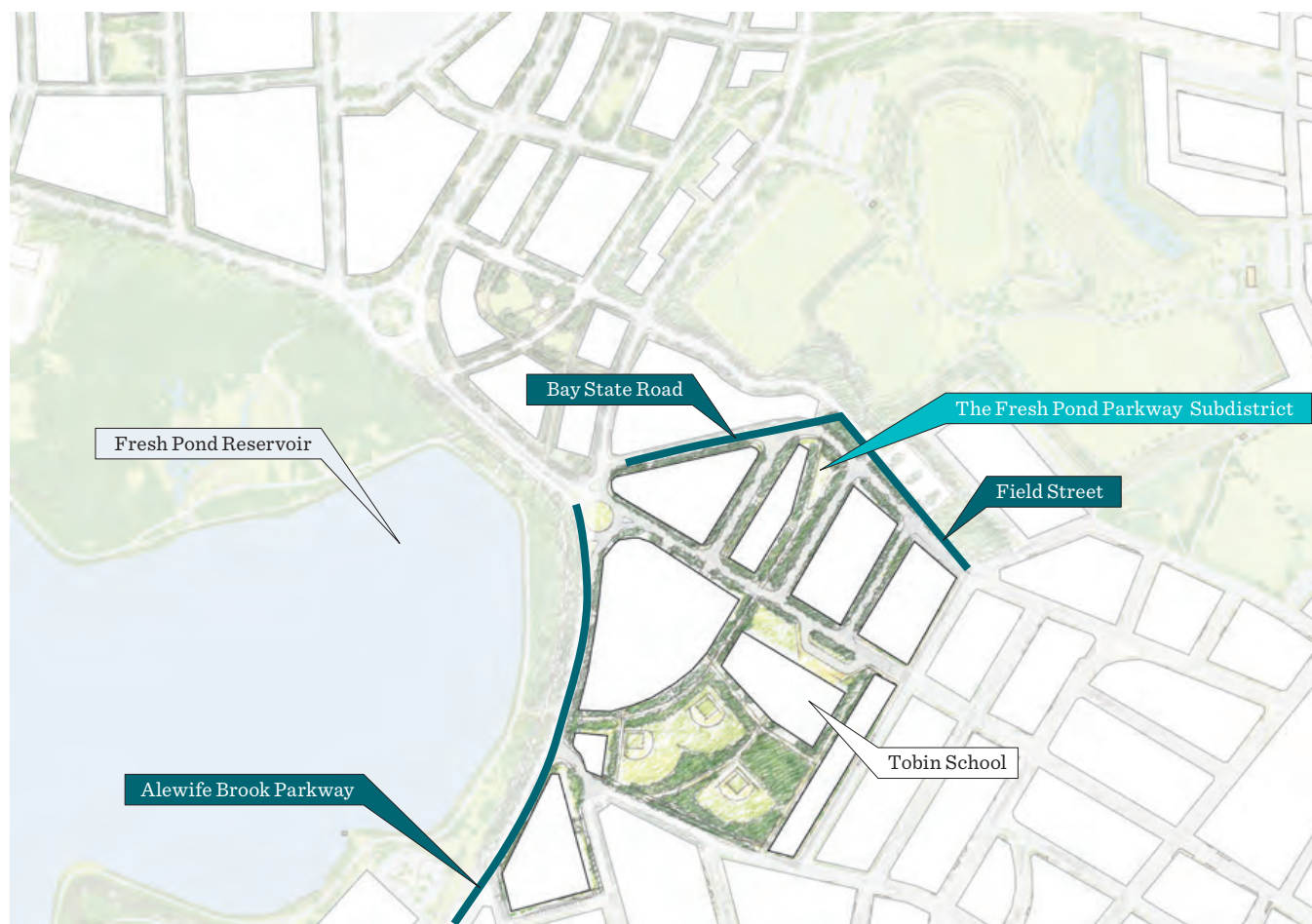


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