

Alewife Overlay District: Quadrangle

Zoning Petition Overview



July 19, 2023

Today's Agenda

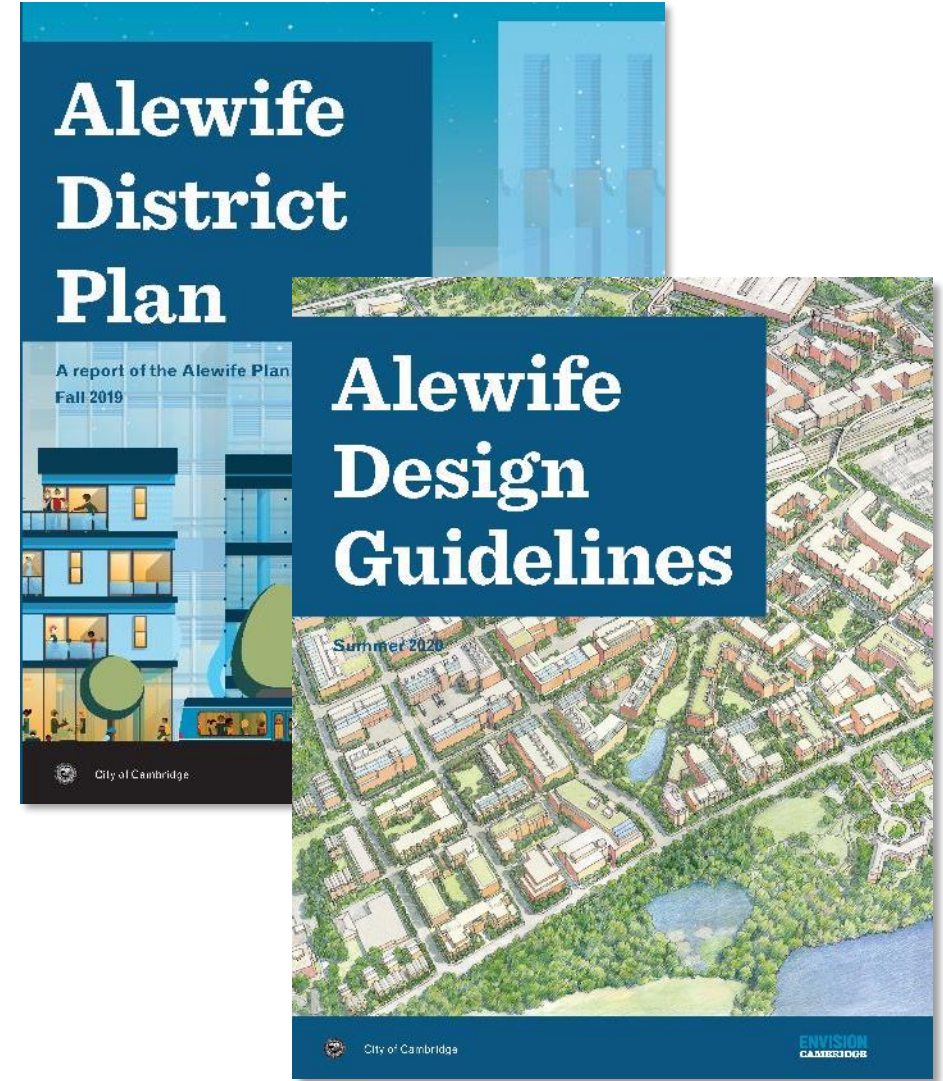
- Refresher on Planning Background/Working Group Process
- Detailed Discussion of Proposed Zoning
- Questions + Discussion

Planning Background + Working Group Process




Background

- Alewife District Plan completed in 2019
- Developer-led zoning petition failed on Council vote (2019-2021)
- Moratorium on office and lab until revised zoning is adopted or by Dec. 2023
- Alewife Zoning Working Group established to draft zoning for the district




Charge of Working Group

- Recommend new zoning for adoption based on the community’s planning and urban design priorities.
- Incorporate lessons learned from zoning and development review processes over the past few years since the completion of the Alewife District Plan.



ALEWIFE ZONING WORKING GROUP
INITIAL DRAFT ZONING PRINCIPLES + FRAMEWORK



Working Draft – Last Updated August 31, 2022

- I. **Use**
 - a. Not as wedded to inclusion of Light Industrial uses at the ground floor – stronger priority is having a greater variety/diversity of uses
 - b. Support concept of “Active Use” on ground floors, which could encompass:
 - a. Arts and culture uses
 - b. Certain residential amenities
 - c. Light industrial or maker space
 - d. Retail & Consumer service uses
 - e. Daycare uses
 - f. Uses like what’s there now – gymnastics, climbing
 - g. Civic uses, schools
 - h. Priorities: Interesting facades, activity at the ground floor, feeling of safety for people walking
 - c. Want to see greater proportion of housing to office/lab uses in the District
 - a. Incentivize housing?
 - b. Importance of affordable housing at various levels of affordability
 - i. Want to see family-sized units (3+ BR)
 - c. Employment will also help support retail and other services w/daytime population
 - d. Is there a better way to ensure a mix of uses throughout the district, not just one or the other?
- II. **Height**
 - a. Generally agree with a transition to less height in the west and a gradual step-up to more intense heights to the east and along the railroad tracks
 - b. Support increasing residential heights to what is permitted in the Triangle
 - c. If incentivizing residential, need heights of 120+ feet because of building code requirements (high-rise steel becomes economically viable at 10-12 stories) – note though that building codes always changing, new methods e.g., mass timber
 - d. Concerns expressed:
 - Light/shadows
 - Trapping heat – need for vegetation
 - Scaling down close to the Highlands neighborhood (per current zoning)
 - Don’t think 80’ buildings contribute to a sense of neighborhood
- III. **FAR**
 - a. Support density that accommodates the higher heights above desired ground-story uses (CDD to help determine)
 - b. Important for both residential and commercial to incentivize a greater variety of ground-story uses

Alewife Overlay District Zoning Working Group

Residents

- Doug Brown, West Cambridge
- John Chun, Cambridge Highlands
- Lizzie Feigenbaum, Cambridge Highlands
- Jennifer Gilbert, North Cambridge
- Eric Grunebaum, North Cambridge
- Suhas Kodali, North Cambridge
- Mike Nakagawa, North Cambridge
- Ann Stewart, Cambridge Highlands
- Ann Tennis, Cambridge Highlands

Business Representatives/Property Owners

- Jane Carbone, Homeowners Rehabilitation Inc.
- Chris Chandor, The Davis Companies
- Igor Ivanovic, Iggy's Bakery
- Kelvin Moses, Healthpeak
- Joseph Poirier, Longleaf Lumber
- Joe Sultan, West Cambridge Science Park

Institutional/Non-Profit Representatives

- Diana Marsh, Fayerweather School

Overall Schedule

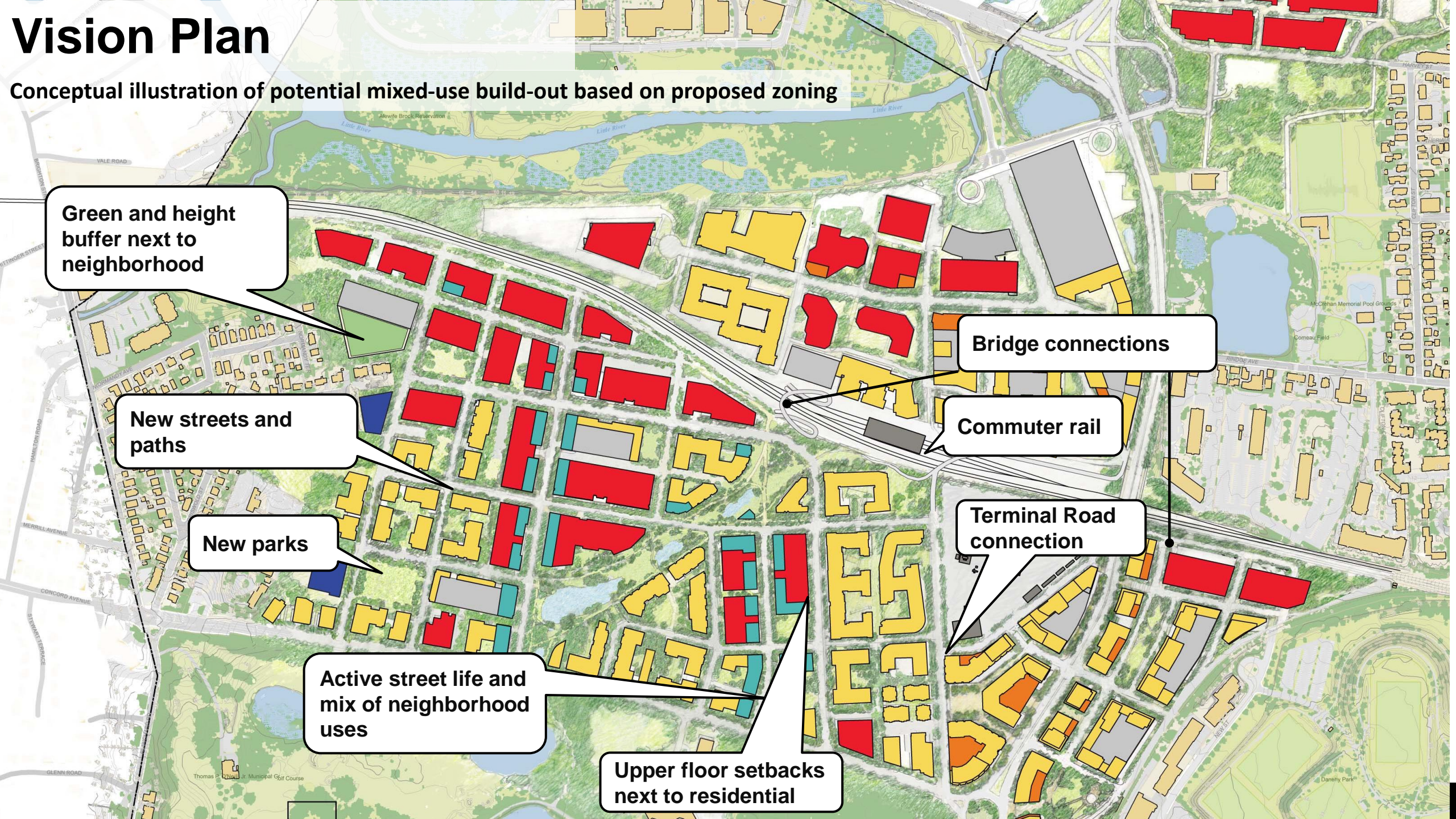


Planning Objectives

- Create a mixed-use district to balance economic growth with housing development
- Significantly increase housing supply, including affordable housing
- Tie commercial density and heights to production of housing, neighborhood uses, open space, and infrastructure
- Promote a variety of ground floor uses, including but not limited to light industrial
- Prioritize earlier delivery of priority infrastructure
- Increase open space requirements
- Allow tallest commercial heights near track
- Scale down to existing neighborhood

Vision Plan

Conceptual illustration of potential mixed-use build-out based on proposed zoning



Green and height buffer next to neighborhood

New streets and paths

New parks

Active street life and mix of neighborhood uses

Upper floor setbacks next to residential

Bridge connections

Commuter rail

Terminal Road connection



Alwite Brook Reservoir

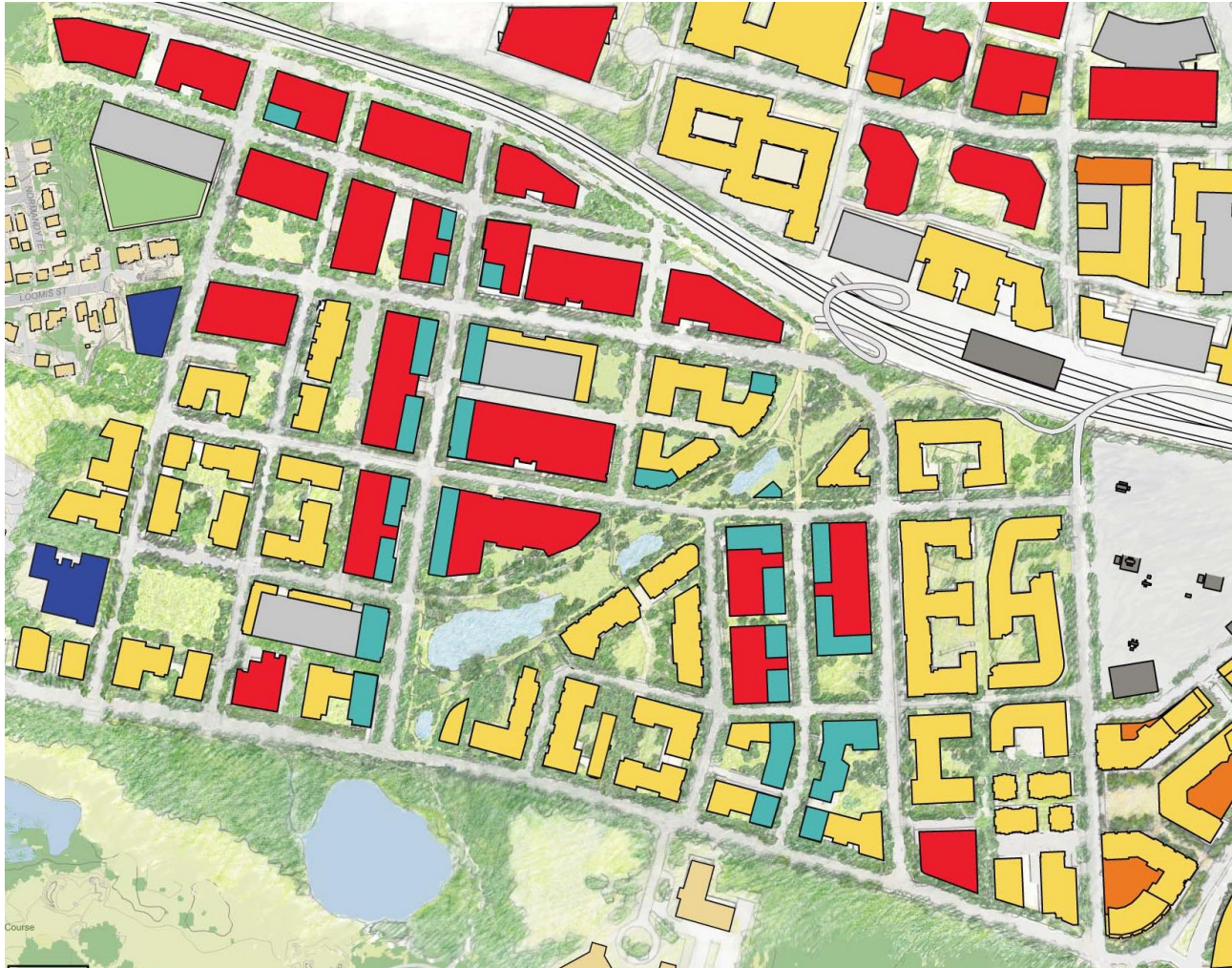
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78

Alewife Quad Vision Benefits



2040 Buildout in Quad only

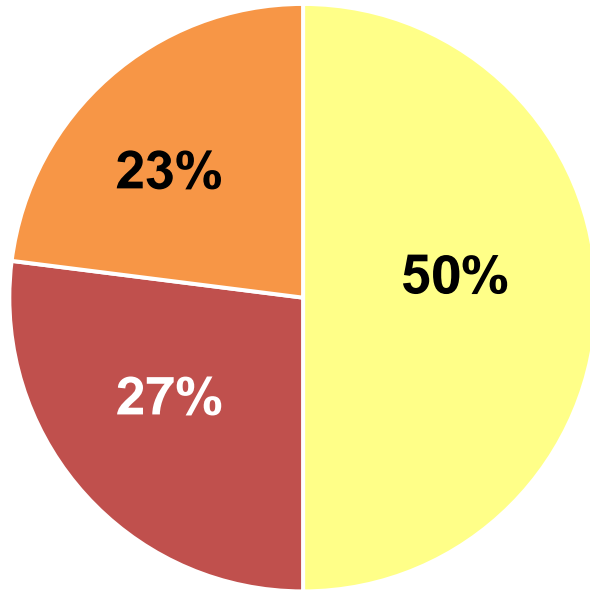
- New Housing Units	~3,000 units
- New Affordable Housing Units (Inclusionary)	~600 units
- New Residents	~6,000 residents
- Net New Jobs	~4,700 jobs

Proposed Land Use

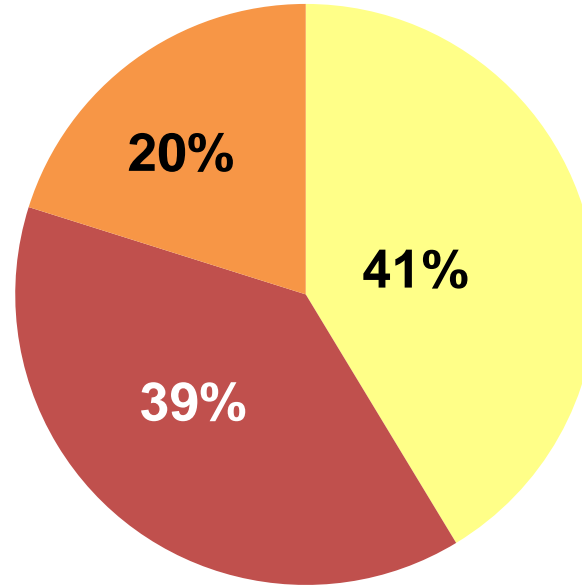
- Residential
- Commercial
- Retail
- Neighborhood Uses
- Parking
- Civic

How does the proposed Quad zoning compare?

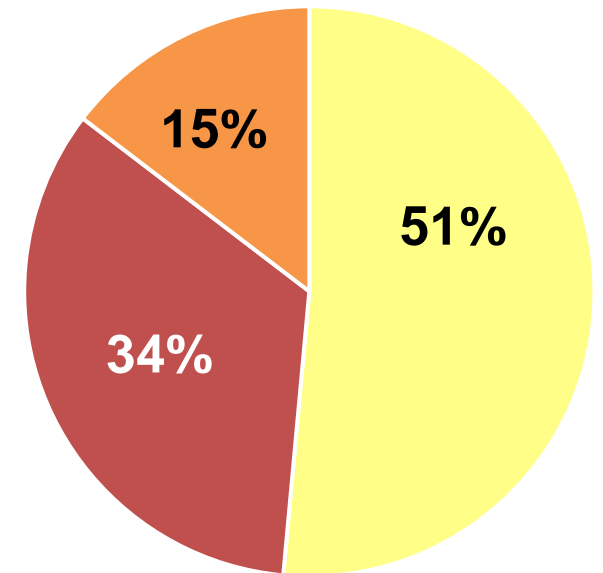
Existing Quad Use Mix



Current Zoning
2040 Quad Use Mix



Proposed Zoning
2040 Quad Use Mix



- Residential
- Commercial
- Light Industrial, Retail, N'hood Use

How does the proposed Quad zoning compare?

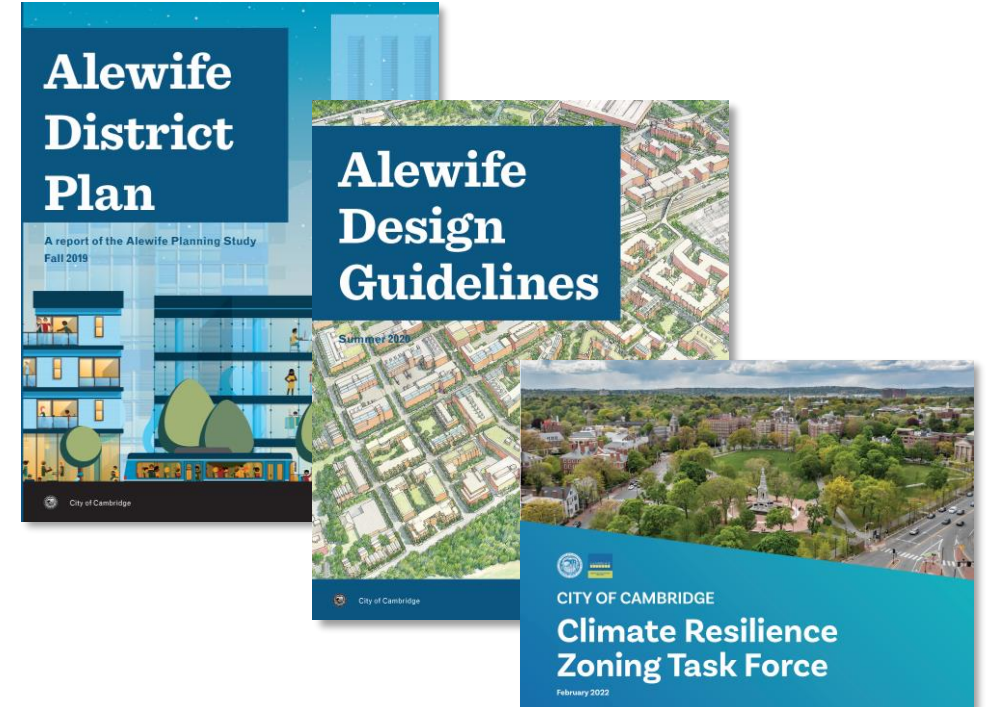
Quad	Existing Development	Current Zoning 2040 Buildout	Proposed Zoning 2040 Buildout
Residential	1.6 million	2.1 million	3.6 million
Office/R&D	860,000	2.0 million	2.4 million
Retail, N'hood Use, Light Industrial	740,000	1.0 million	1.1 million
Total	3.2 million	5.1 million	7.1 million

Overall Zoning Approach + Structure



Overall Approach & Zoning Intent

- Adopt recommendations from Envision Alewife, such as:
 - Open space
 - Dimensional standards
 - Flood/heat resilience requirements
 - Max parking ratios & TDM
 - Buffer from Highlands Neighborhood
 - Funding for transit and infrastructure
- Take it further by:
 - Increasing allowable heights/density for housing
 - Expand permitted uses and incentivize neighborhood uses + light industrial
 - Address large-scale development through PUD review process
 - Expand development bonuses to achieve critical public benefits



Zoning Principles

1

Increase housing



2

Promote neighborhood uses



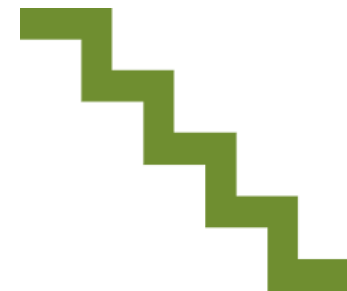
3

Prioritize early delivery of infrastructure



4

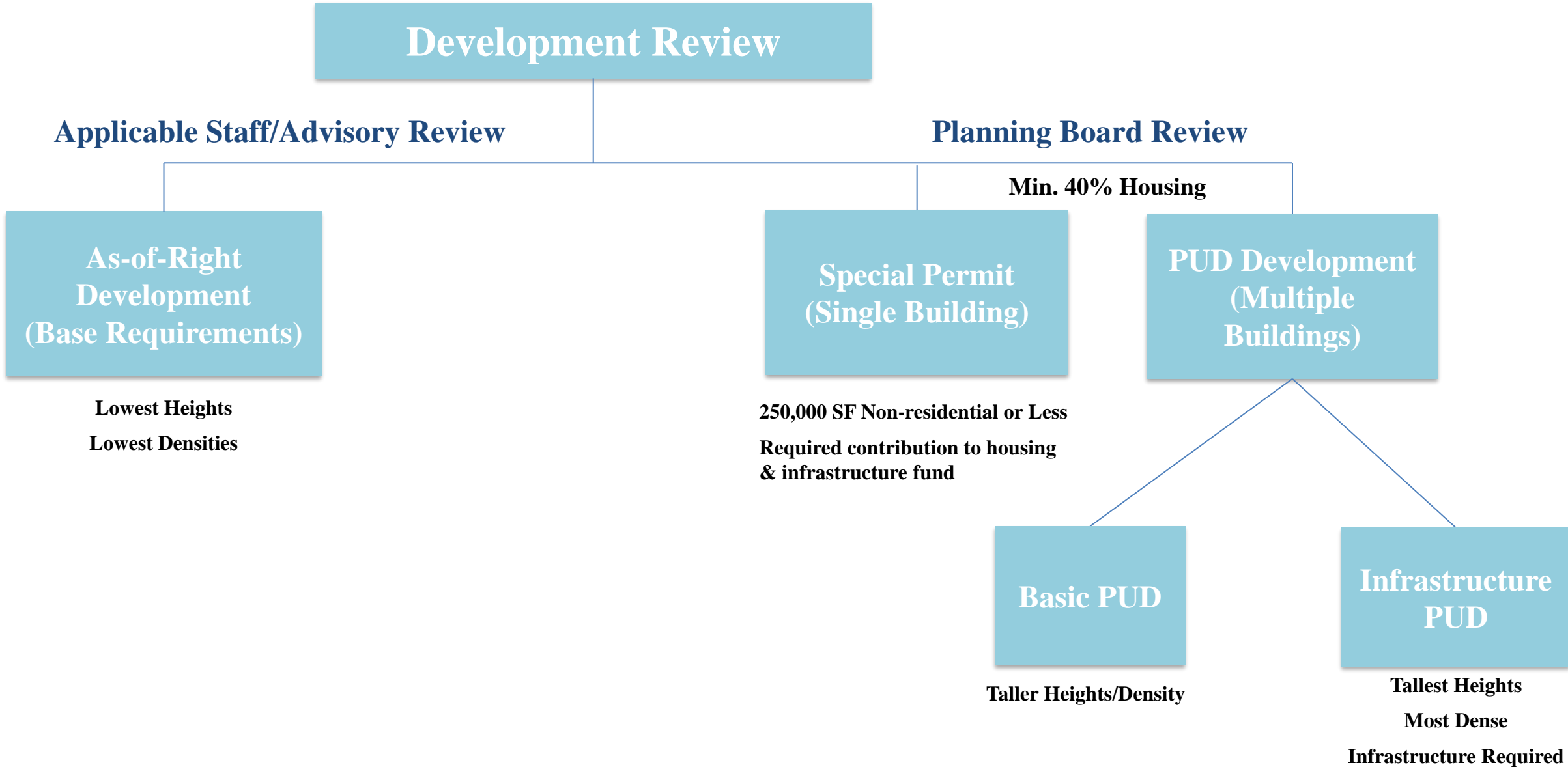
Scale down to existing neighborhoods



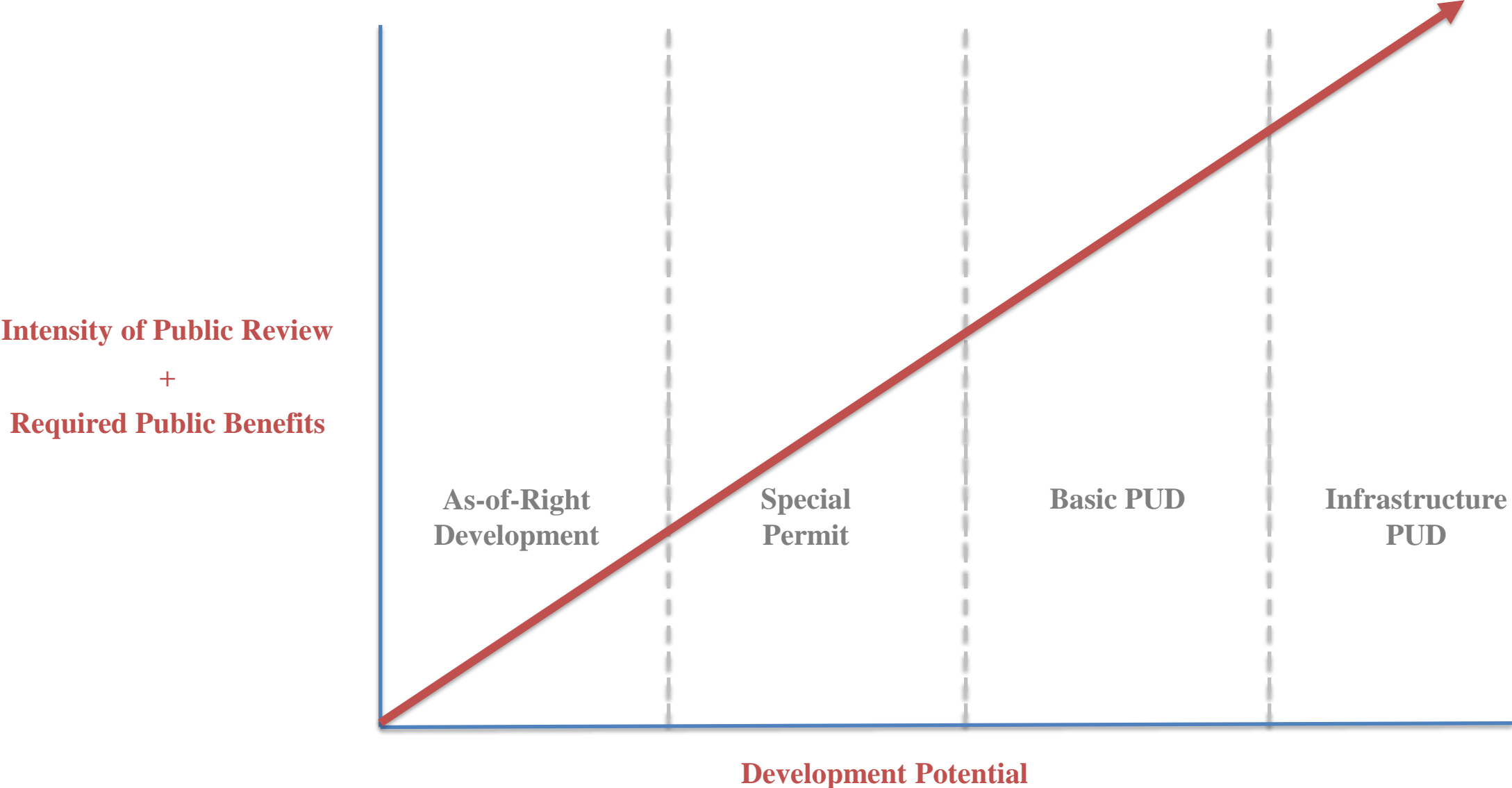
How does AOD-Q Fit Into Existing Zoning?

- Insert a new Overlay District (20.1100) called “Alewife Overlay District – Quadrangle”
 - Remove references in current Alewife Overlay District 1-6 so that only Alewife Overlay District 5 and 6 remain
- Amend other areas of the Zoning Ordinance which previously referenced Alewife Overlay Districts 1-6:
 - Transfer of Development Rights Provisions
 - Floodplain Overlay District

Overall Zoning Structure



Overall Zoning Structure



Review Process

- Base requirements (< 50,000 square feet)
 - Usually requires an advisory review or staff level review
 - 50,000+ square feet requires special permit review
 - 25,000+ square feet requires building and site plan review
- Special Permit requirements (50,000 square feet+)
 - Limited increases in height or density on a single site
 - Typically larger, single building development (250,000 square feet or less)
 - Planning Board must find conformance with area plans and guidelines, and that development provides public benefits that outweigh adverse effects.
- PUD requirements (250,000 square feet of non-residential+)
 - Greater increases in height and density, phased development and timing
 - Additional public benefits required
 - Follows the existing PUD review process in zoning
 - Basic & Infrastructure: Infrastructure PUD required to provide either Bike/Ped Bridge or Commuter Rail Stop and gets bonus for development parcel

Use Standards



Uses

- Follows base zoning, with the following additional permitted uses:
 - Multifamily, townhouse, and elderly congregate housing (4.31.d through g)
 - ALL Retail and Consumer Service establishments (4.35)
 - Temporary outdoor retail/consumer service uses (4.36.j)
 - Educational Uses, like daycare centers, schools, etc. (4.33.b)
 - Light Industrial/Maker space (4.37)
 - Civic & Institutional uses – such as libraries, community/gathering spaces, healthcare uses, and municipal facilities (4.33.d through h)



Uses Permitted by Special Permit

- Principal Use Parking
 - Must follow specific design requirements
- Other uses permitted in Business B, upon written determination by the Planning Board
 - Upon finding that such use is consistent with the goals and objectives of the AOD-Q district and conforms to the AOD-Q Special Permit criteria.



Neighborhood Uses

- Create “Neighborhood Uses” and Incentivize Them
 - Retail & consumer service establishments
 - Community gathering spaces
 - Libraries
 - Daycare centers
 - Arts & Cultural spaces
 - Light industry/maker spaces
 - Dentist/Doctors offices
 - Healthcare facilities
 - Temporary outdoor retail
 - Co-working spaces
 - Other uses, subject to Planning Board Review & Approval



Neighborhood Uses Cont.

- Can be exempt from Gross Floor Area, subject to Planning Board Special Permit
- GFA Bonus – equal to floor area dedicated to Neighborhood Use
- For PUD – Require minimum 3% of total non-residential GFA be devoted to Neighborhood Uses
- Must be located at ground story and have direct access from an abutting public sidewalk
 - Planning Board may modify standards, subject to Special Permit



Light Industrial Uses

- Can be exempt from Gross Floor Area, subject to Planning Board Special Permit
- GFA Bonus – equal to 2x the applicable floor area dedicated to Light Industrial uses, by Special Permit
- Special Permit must specify range of uses; modifications require amendment

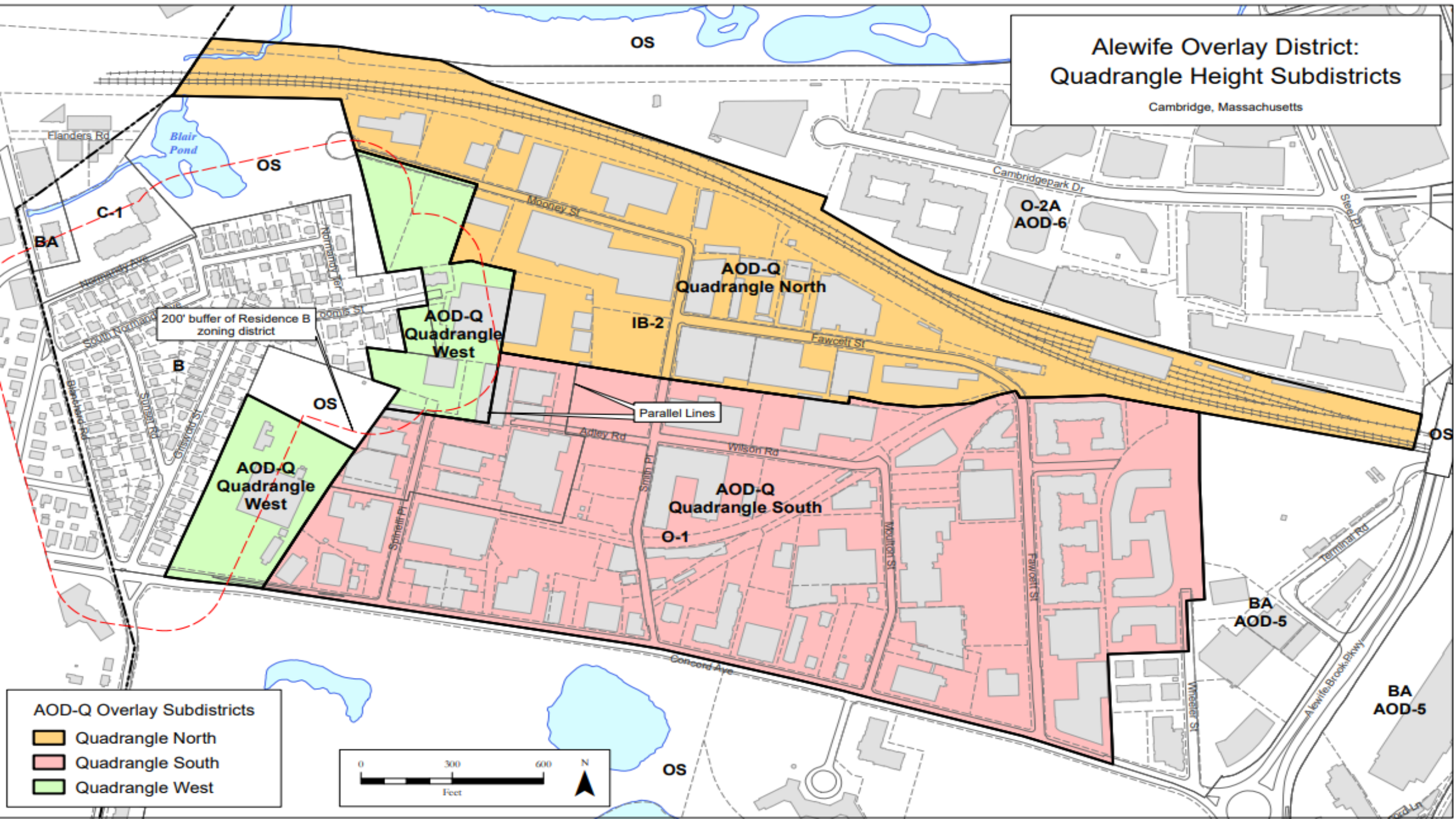


Dimensional Standards



Alewife Overlay District: Quadrangle Height Subdistricts

Cambridge, Massachusetts

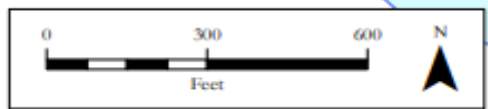


200' buffer of Residence B zoning district

Parallel Lines

AOD-Q Overlay Subdistricts

- Quadrangle North
- Quadrangle South
- Quadrangle West



Height Regime by Subdistrict: Non-residential Heights

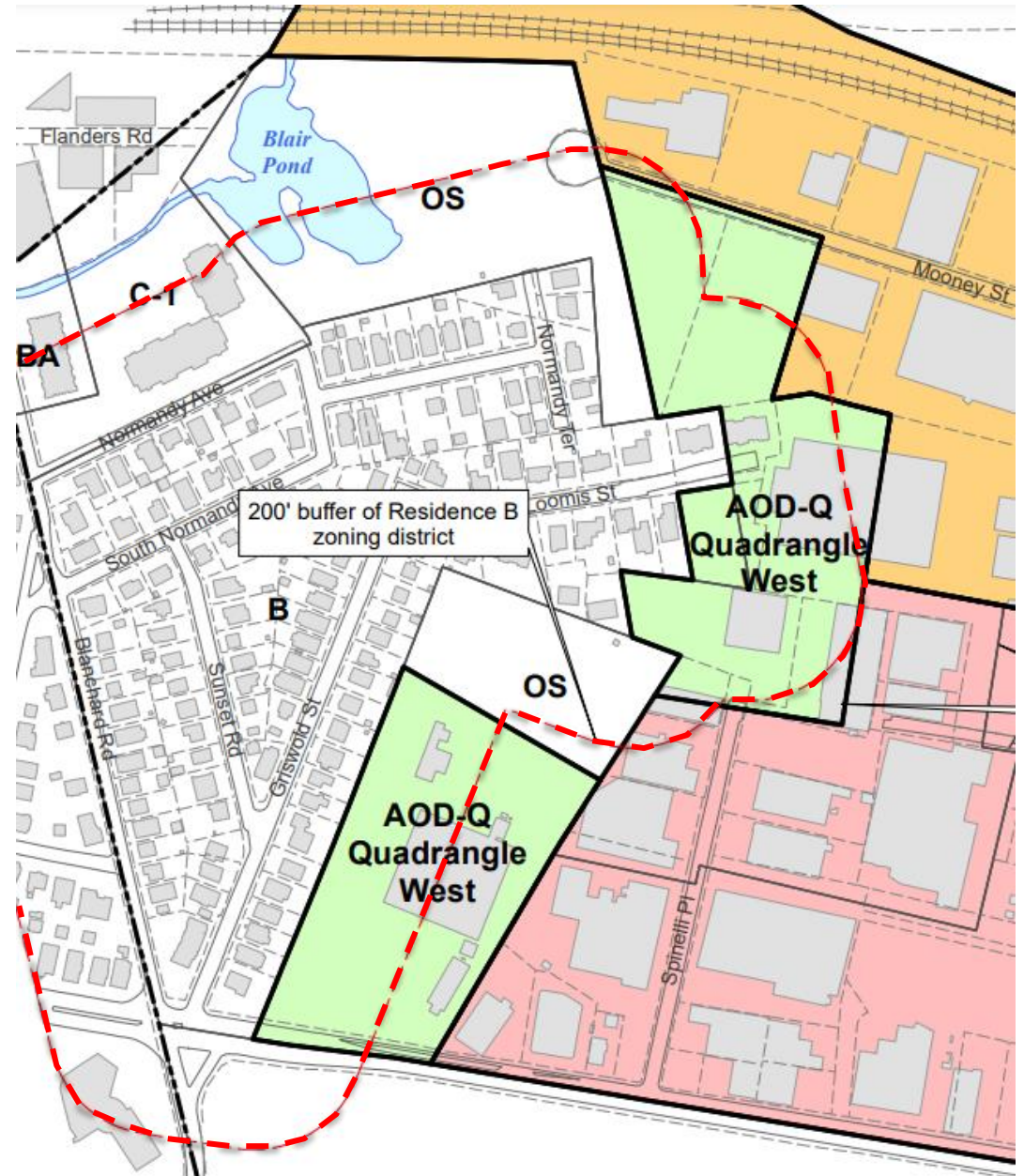
Height Subdistrict	Base	Special Permit	Basic PUD	Infrastructure PUD
AOD-Q North	2 stories (35')	4 Stories (65')	5 Stories (80')	8 Stories (125')
AOD-Q South				6 Stories (95')
AOD-Q West				3 Stories (50')

Height Regime by Subdistrict: Residential Heights

Height Subdistrict	Base	Special Permit	Basic PUD	Infrastructure PUD
AOD-Q North	3 Stories (35')			
AOD-Q South			12 Stories (145')	
AOD-Q West				6 Stories (75')

Height – Neighborhood Transition

- Within 100' of a residential zoning district, maximum height limited to 35'
- Within 200' of a residential zoning district, maximum height limited to 45'



Additional Height for Large Land Conveyance

- Limited to PUD Special Permit
- Can increase height by 1 story in AOD-Q North or AOD-Q South district if at least one (1) acre of land is conveyed to the City
- Proposed building sites specified as part of Development Proposal



Max Floor Area Ratio – Overview of Approach

	Current Zoning		Proposed Zoning		
	Base Requirements	Special Permit Requirements	Base Requirements	Special Permit Requirements (Single Use)	PUD Requirements
NR	0.75-1.25	1.25-1.75	0.75	1.00	Basic PUD: 1.25 Infrastructure PUD: 1.50
R	0.75-1.25	1.50-2.00	0.75-1.25	4.00 (5.20 w/ inclusionary bonus) Min. 40% housing	4.00 (5.20 w/ inclusionary bonus) Min. 40% housing

- Base requirements: Keep both residential and non-residential at current base zoning levels
- Special permit & PUD: Tiered commercial FAR based on whether housing and/or infrastructure included. Increase residential to 4.0 (5.20 with inclusionary bonus)
- “Infrastructure” PUD includes Major Infrastructure – ped/bike rail crossing, commuter rail
- Additional bonus for land conveyed for public use (streets, open space, &c.)

Density Bonuses

- PUD Infrastructure Bonus
 - Delivery of bike/ped railroad crossing
 - Construction of an MBTA commuter rail station

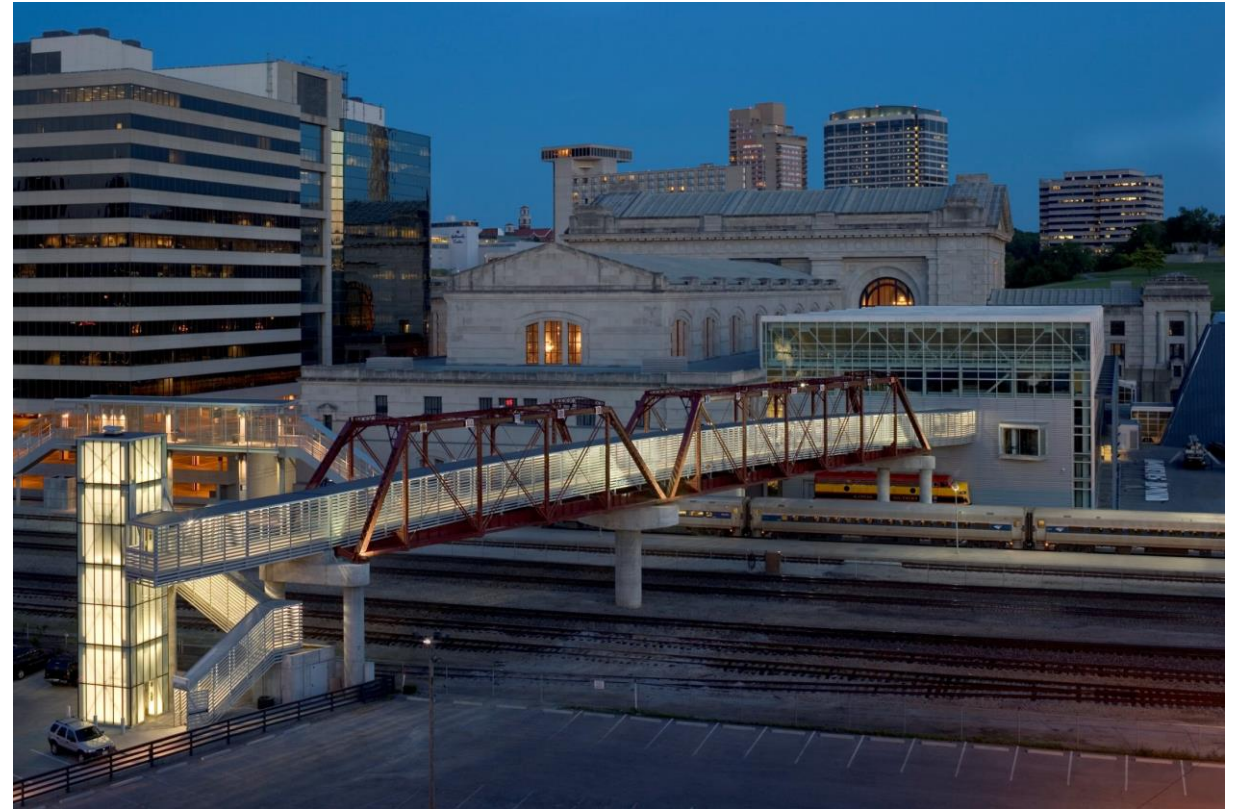
+ 0.25 FAR to
Development Parcel

- Conveyance of Land for Public Use
 - Available to all special permits
 - Public open space
 - Completion of roadway/path segment
 - Municipal facility
 - District stormwater or district energy facility
 - Other public use subject to PB review and approval

1.5x applicable FAR
applied to size of
land conveyed

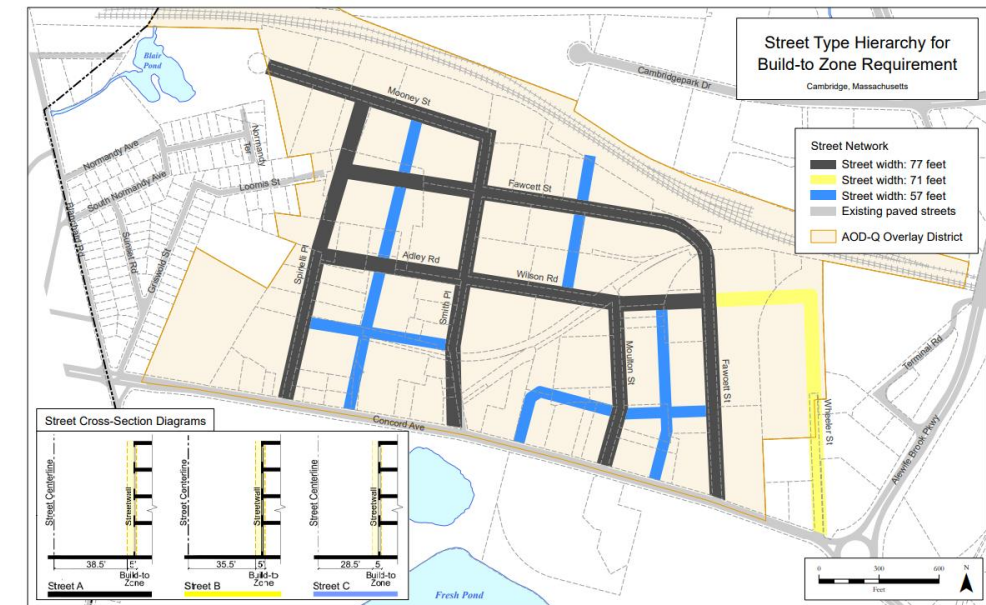
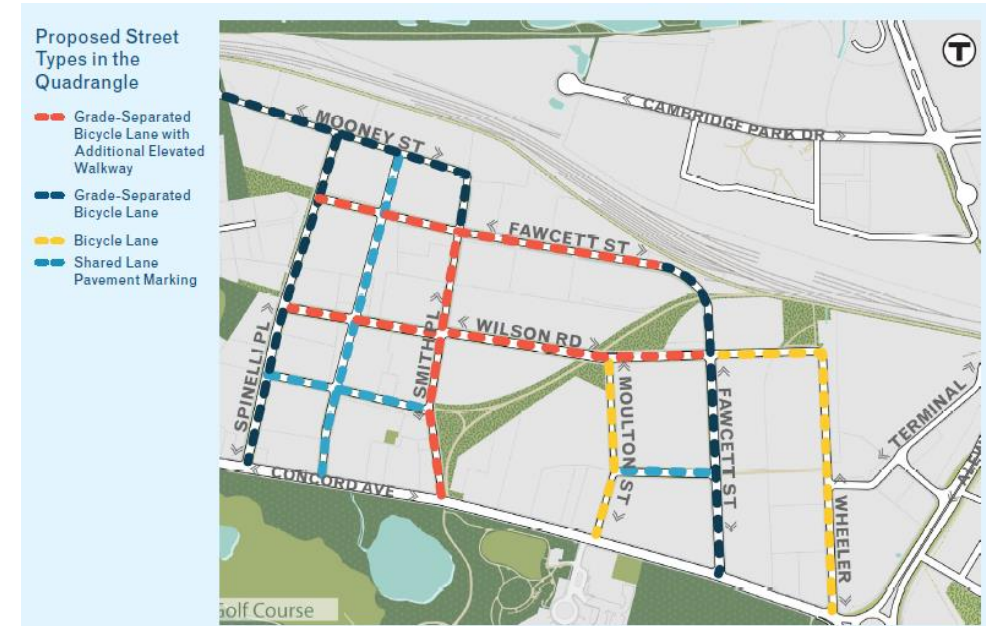
“Major Infrastructure Component”

- Must provide either:
 - Publicly-accessible bicycle/pedestrian bridge connecting AOD-Q and Triangle
 - An MBTA Commuter Rail station and required associated improvements (access, landing areas, lighting, landscaping, etc.) serving the Alewife District
- Timing
 - Construction commences at 50% of non-residential GFA build-out; must be “substantially complete” by 75%
 - “substantially complete” = construction completed and turned over for final inspection to City/MBTA

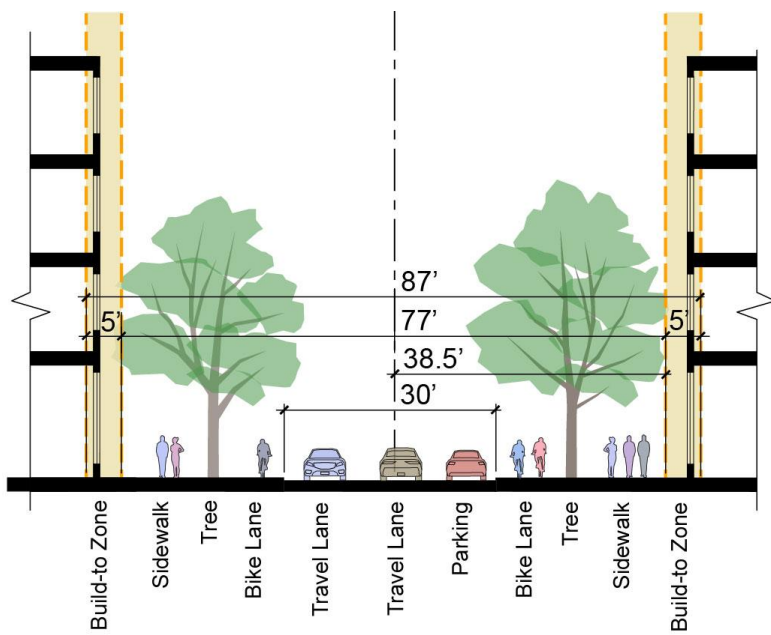
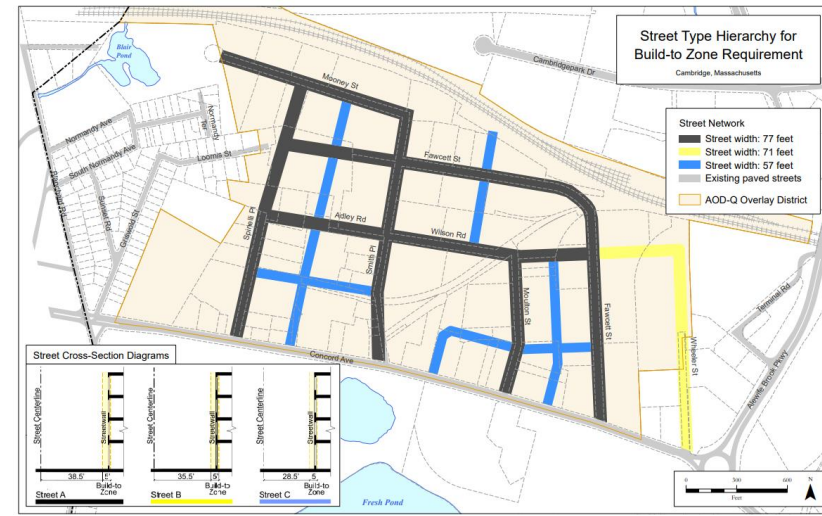


Yard Setbacks

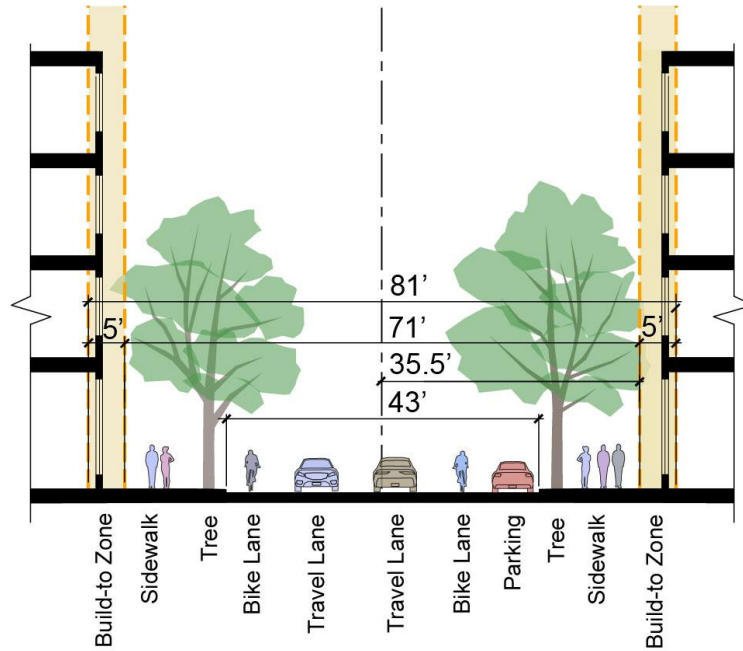
- As-of-right development will follow base requirements
- Special permits will follow Envision Alewife standards
 - Front yard = build-to zone (5') – 70% min occupancy requirement
 - Side yard = no side yard within first 65' of front of lot; 15' thereafter
 - Rear yard = no minimum rear yard
- 25' front yard setback for parcels fronting Concord Ave
- Planning Board may waive/modify yard standards by special permit



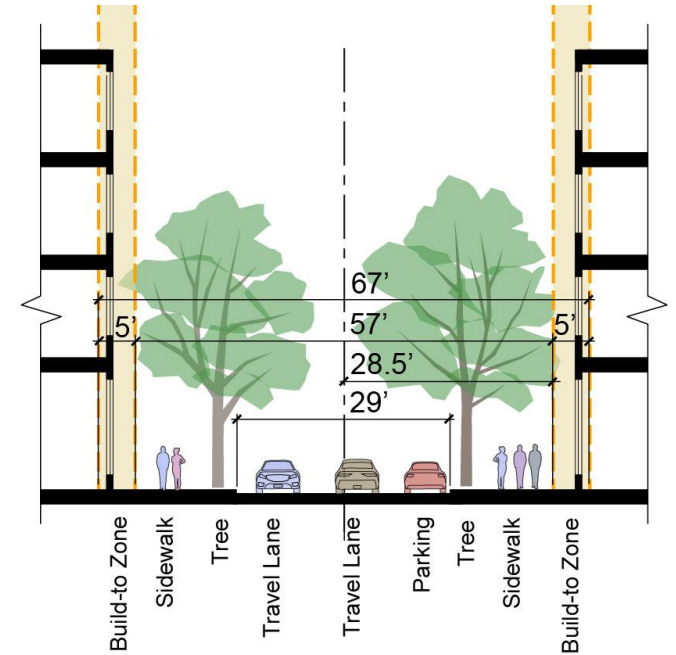
Example Street Cross Sections



Street Type A - Primary Street



Street Type B - Secondary Street



Street Type C - Tertiary Street

Open Space & Permeable Area

- 20% total open space requirement
- 25% permeable area requirement
- Special Permits: Must provide 25% of required open space as Public Open Space or Publicly Beneficial Open Space
- Combined/Pooled Open Space by Planning Board Special Permit



Parking and Loading Recommendations

- No Minimum Parking; Maximum parking ratios per Envision Alewife recommendations
- Off-street loading requirements per Article 6 standards
- Structured parking in Stories Above Grade must be screened from view of adjacent public streets
- Pooled parking by special permit

Maximum Number of Parking Spaces	
Retail	maximum 1.5 per 1,000 SF
Office	maximum 1.1 per 1,000 SF
R&D	maximum 0.8 per 1,000 SF
Industrial	maximum 0.5 per 1,000 SF
Residential	maximum 0.75 per dwelling unit

Building Design & Other Standards

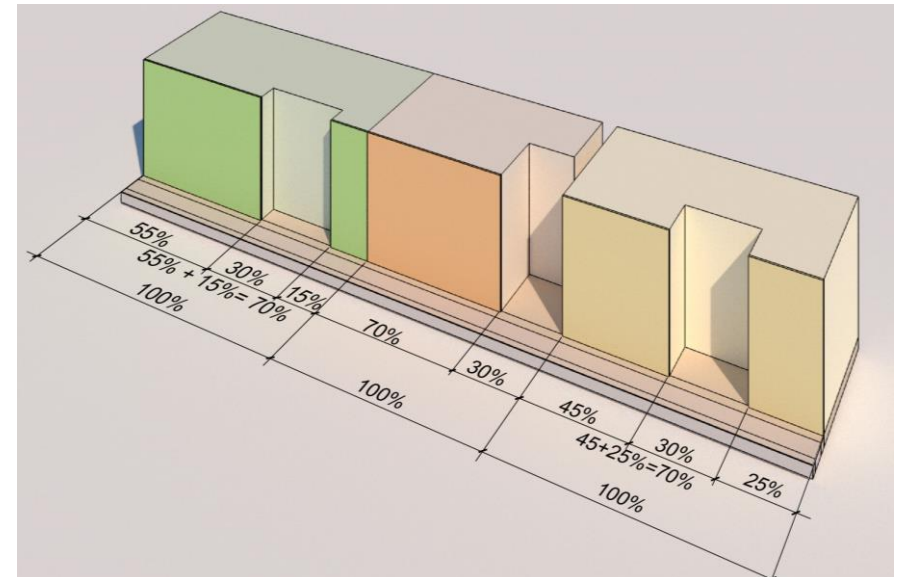


Building Design Requirements

- Maximum Façade Length
 - Limited to 200' in length
 - Requires a massing recess of at least 20' in width by 10' depth
- Minimum Ground Story Height of 18'
- Each principal use must have direct entrance to sidewalk or open space
- Street tree planting at maximum regular intervals of thirty feet (30').



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



70% of building front façade must be within the build-to-line.

Infrastructure Fund Contribution

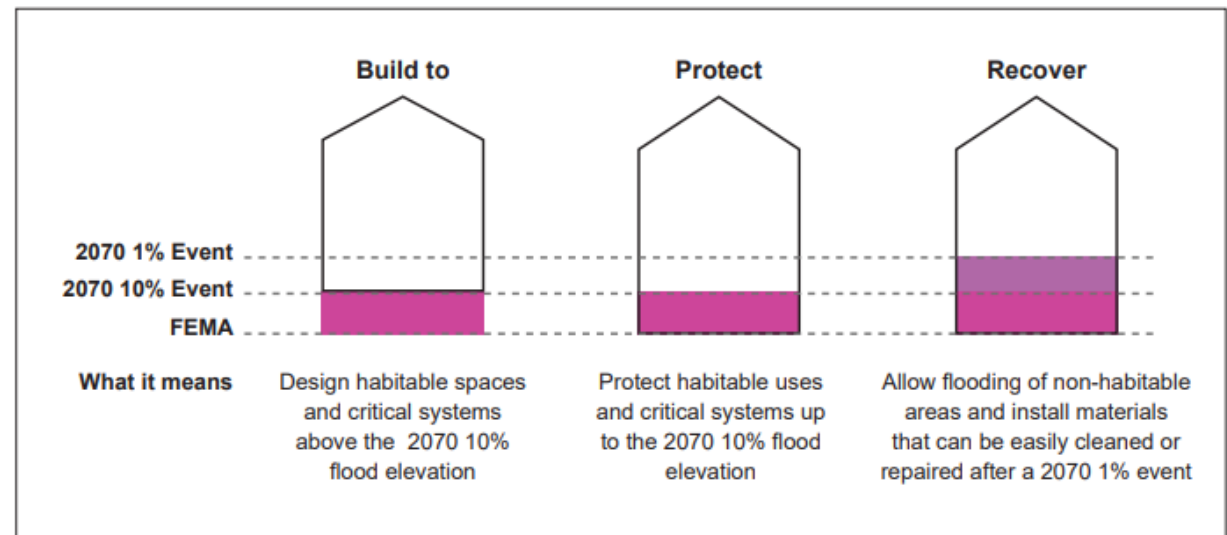
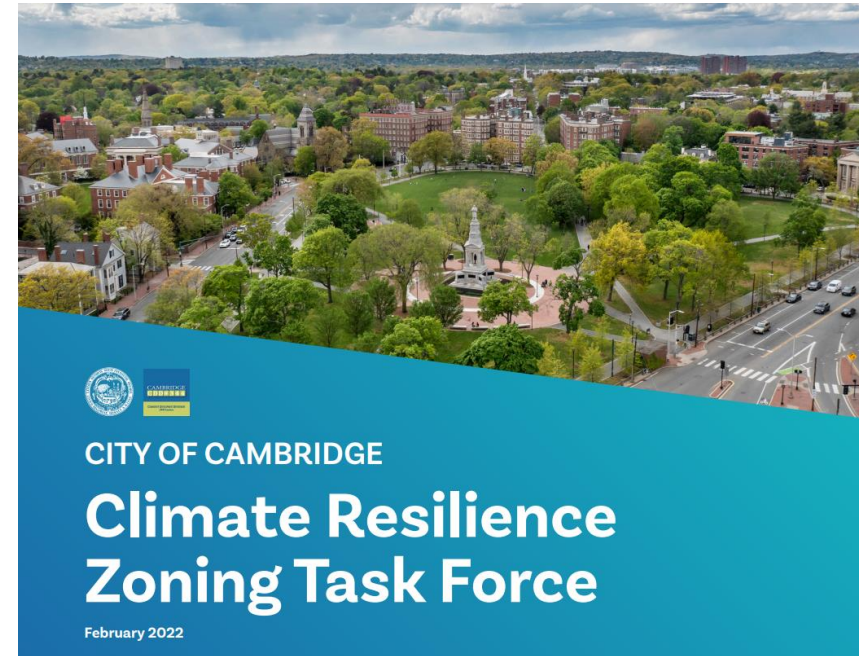
- \$20/sf of non-residential GFA in excess of base FAR/GFA limitations
- Infrastructure PUD not required to contribute (already contributing a Major Infrastructure component)



Sustainability Recommendations

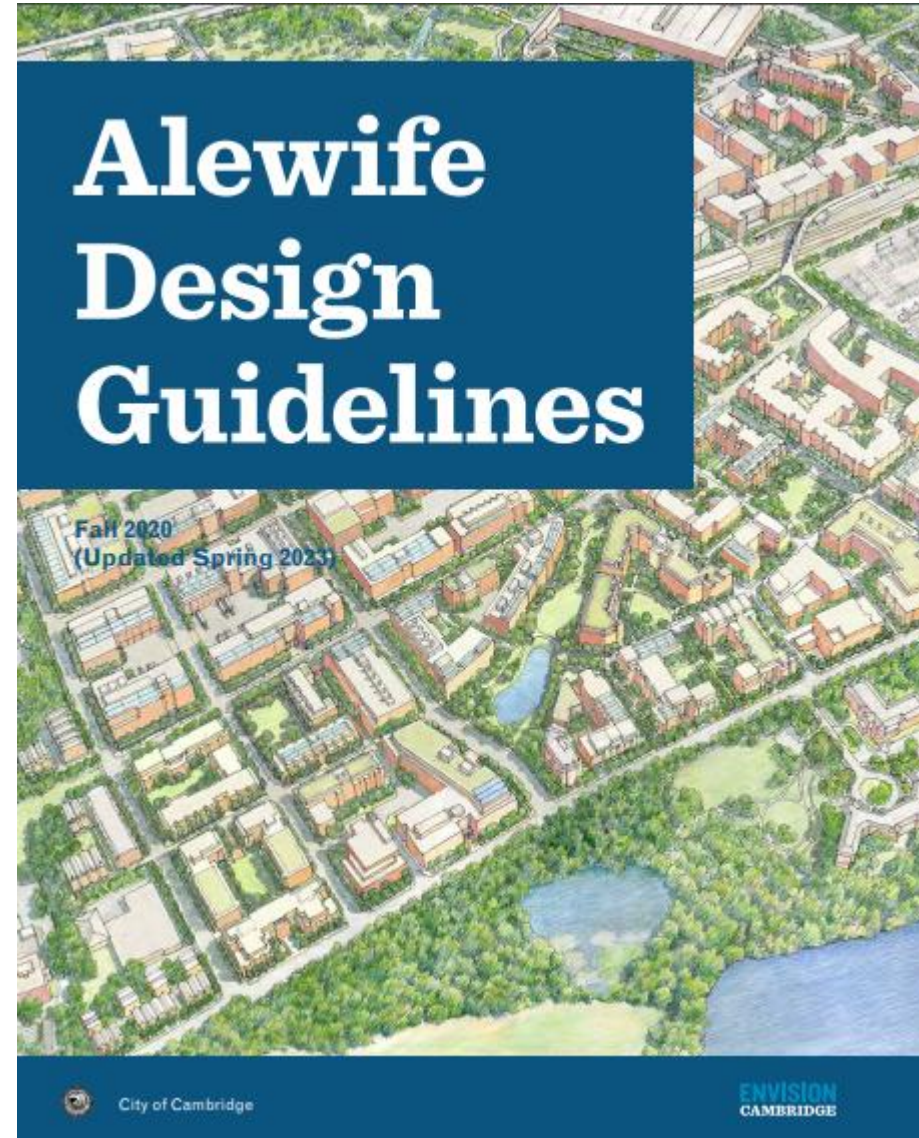
- ALL new development:
 - DPW guidelines for stormwater management must be met
 - Street tree planting per Envision Alewife recommendations
 - Flood Resilience and Green Factor requirements must be met

- Buildings over 25,000 square feet:
 - LEED Gold, Passive House, or Enterprise Green Communities
 - Green Roofs required
 - Applicable Green Building Requirements must be met



Alewife Design Guidelines

- Development seeking a special permit must be consistent with design guidelines
- Covers several topic areas:
 - Site and Building Organization
 - Block patterns, building siting, sustainable site design, entries and access, building service functions, and emergency services
 - Built Form
 - Massing, Materials, Architectural Character, Resilient Design, Building Typology
 - Open Space
 - Environmental comfort, urban forest, streets and paths, parks, squares and plazas, private open spaces, and public art
 - Alewife Subdistrict Standards



Urban Design Guidelines: Key Principles

Sense of Place

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

Elements of Design

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

Pedestrian Friendly Streets

- Create active pedestrian streets that are rich with visual interest and beauty.

Parks and Squares

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

Sustainability and Resilience

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

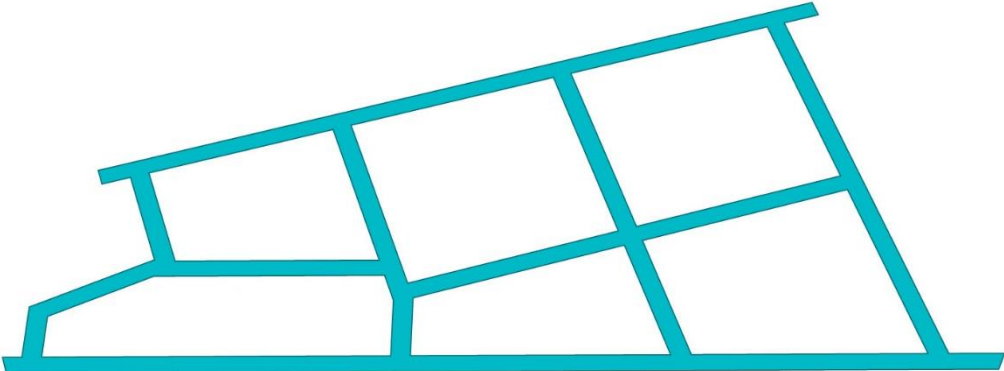
Large Development Sites

- Integrate large development sites into the surrounding community context.

Create human scale blocks and landscaped open spaces

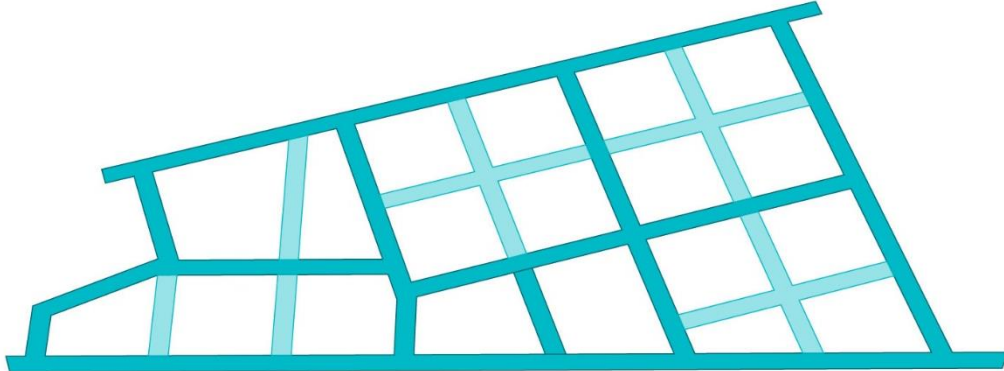
Existing Pattern:

Very large blocks.
Disconnected street network.
Poorly defined public space.



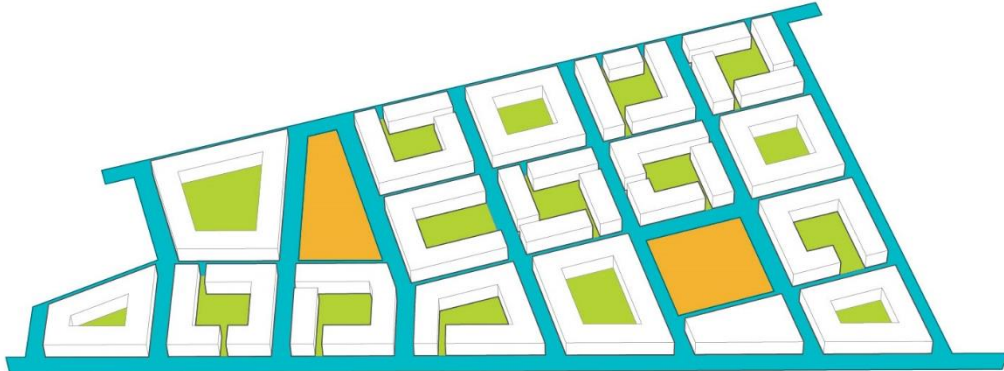
Recommended:

Connective network of open spaces, streets, and paths.

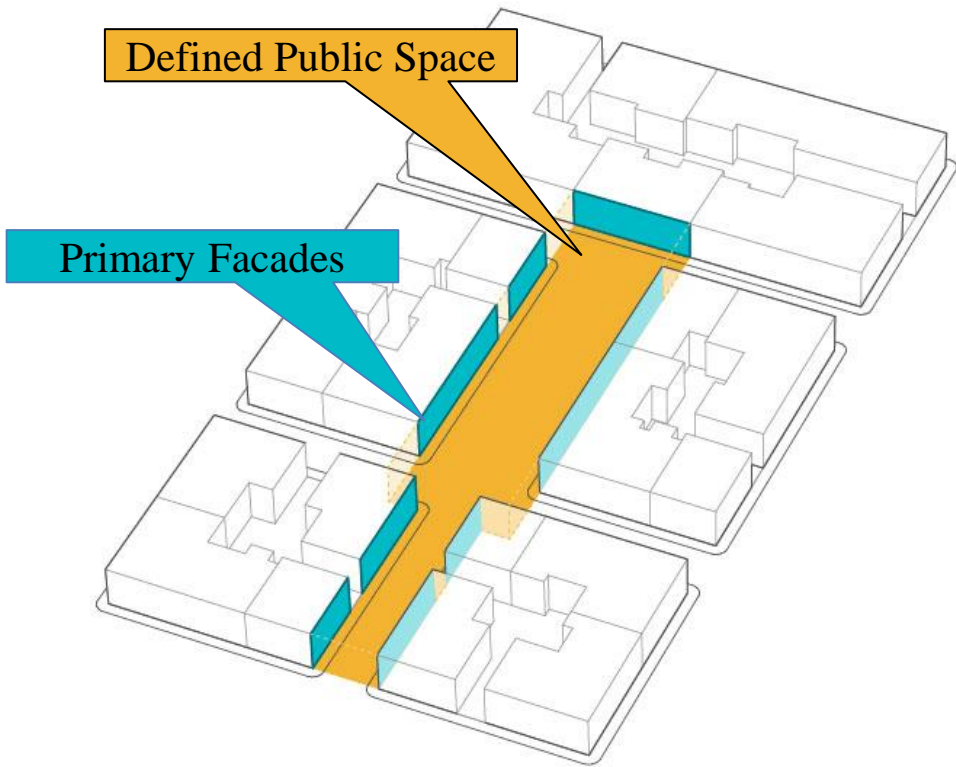


Recommended:

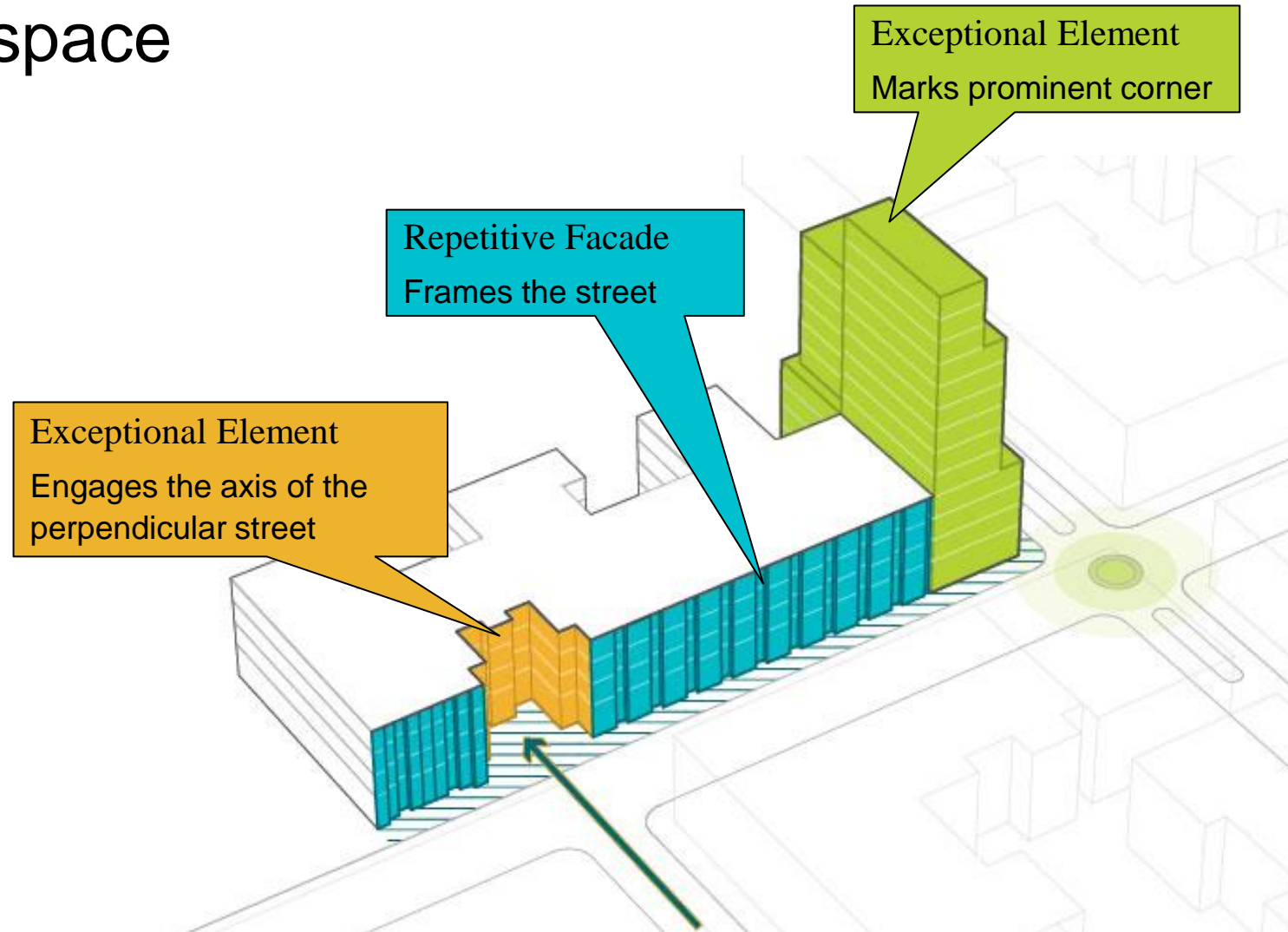
Fine grained pattern of landscaped parks, courtyards, and paths.



Frame and articulate public space

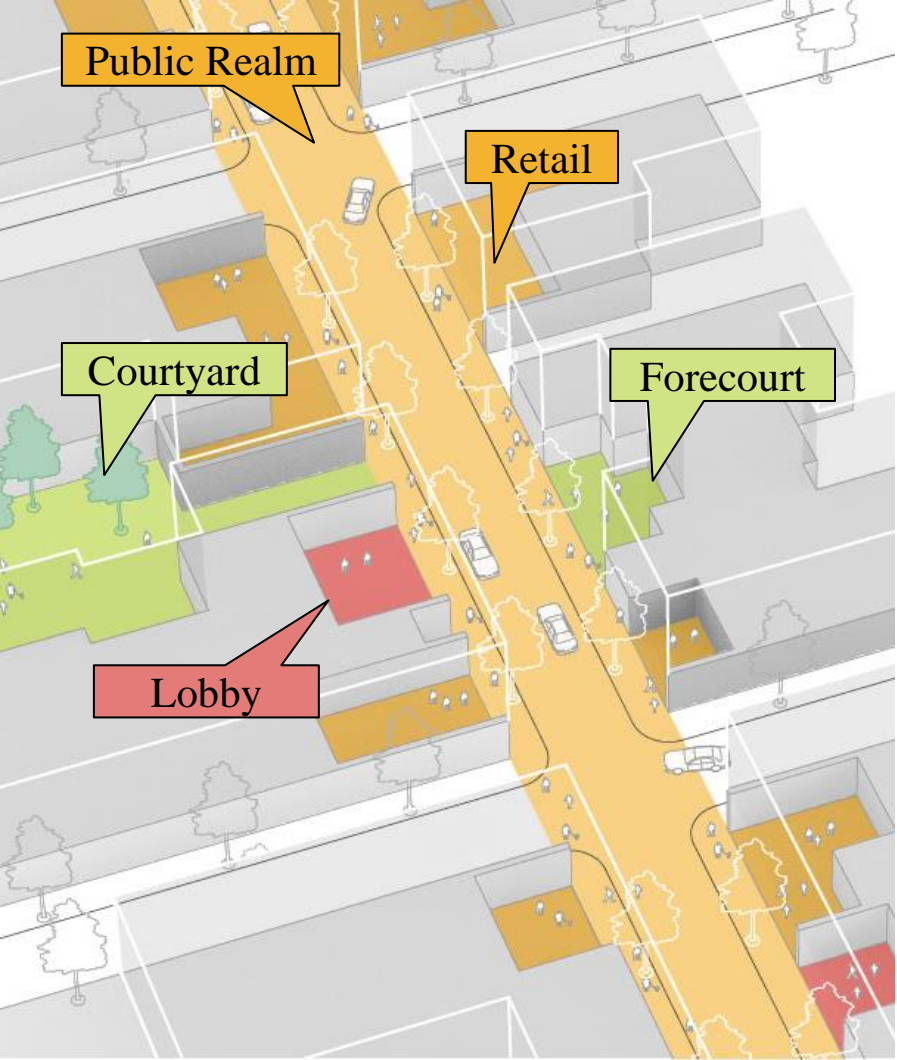


Create continuous streetwalls to define streets and other public spaces.



Break down building massing and differentiate facades to respond to and enhance streets and squares.

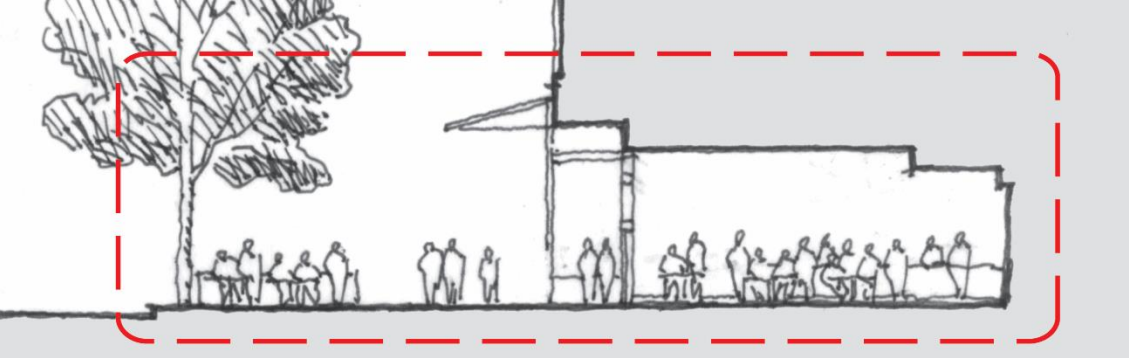
Activate and enrich the pedestrian realm



Emphasize the horizontal continuity of the pedestrian realm.



Provide canopies, awnings, recessed entrances and shopfronts, and open restaurant windows.



Transparent facades visually connect the public space of the street to the interior retail space.

An aerial architectural rendering of a campus. The scene is filled with multi-story buildings in shades of orange, red, and white. Green trees are scattered throughout, particularly around a central pond and along walkways. The drawing style uses fine lines and soft shading to create a sense of depth and texture. A semi-transparent white box is overlaid on the left side of the image, containing the text 'Questions + Discussion'.

Questions + Discussion