CITY OF CAMBRIDGE
Community Development Department

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To: Planning Board

From: CDD Staff

Date: February 19, 2020

Re: Special Permit **PB #359, 75 -109 Smith Place**

This memo contains an overview of the proposed project at 75-109 Smith Place, the special permits being requested, and related comments. Comments from the Traffic, Parking and Transportation Department (TP&T) and Department of Public Works (DPW) are provided in separate memos.

Summary of Proposal

The current site consists of three parcels on Smith Place, containing two existing buildings, a storage shed, and 100 surface parking spaces. The Applicant proposes to clear the existing site and construct a new 3-story building for technical office (*i.e.*, commercial laboratory) use, one level of underground structured parking for 115 cars, a surface parking lot for 36 vehicles, 50 long-term bicycle parking spaces, 10 short-term bicycle parking spaces, and 2 loading bays. The new building will have 142,153 square feet of GFA.

Requested Special Permit

The southmost parcel is located in the Office 1 (O-1) zoning district as well as Alewife Overlay District 3 (AOD-3). The other two parcels are located in the Industry B-2 (IB-2) zoning district as well as Alewife Overlay District 1 (AOD-1). The proposed project is seeking a Project Review Special Permit per Section 19.20 and Special Permits within the AOD for increased FAR per Section 20.95.1, increased building height per Section 20.95.2, and waiver of yard requirements per Section 20.95.34.

Given the project's size, it is also subject to the Green Building Requirements in Section 22.20 and the Incentive Zoning Requirements in Section 11.202 (which require contributions to the Cambridge Affordable Housing Trust). The project is subject to the requirements of the Parking and Transportation Demand Management (PTDM) Ordinance as the current PTDM Plan for the site has to be modified. A PTDM Plan is pending and, when submitted by the Applicant, will require review and approval by the City's PTDM Officer. City permits cannot be issued until the project has an approved amended PTDM Plan.

The site is located within the 500 year floodplain and abuts properties within the 100 year floodplain as per FEMA flood maps; no Flood Plain Special Permit is required.

The applicable special permit findings are summarized on the following pages and applicable sections of the zoning are provided in an appendix.

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Requested Special Permits	**Summarized Findings** *(detailed zoning text in appendix)*
Project Review Special Permit (Section 19.20)	• The project will have no substantial adverse impact on city traffic within the study area, upon review of the traffic impact indicators analyzed in the Transportation Impact Study and mitigation efforts proposed. • The project is consistent with the urban design objectives of the City as set forth in Section 19.30.
Increase FAR, increase building height, and waiver of yard requirements in Alewife Overlay Districts (Sections 20.95.1, 20.95.2, 20.95.34)	The project promotes the general interests of the larger commercial and residential neighborhood noted in Section 20.92 and is consistent with the goals, objectives and guidelines established in the Concord-Alewife Plan. For waiver of yard requirements: • The objectives of the Concord-Alewife Plan continue to be met. • The stormwater management objectives for the area continue to be met both on the site and as the site may be a part of a larger system for managing stormwater runoff. • The reduction or waiver of yard requirements provides for more efficient development of land; encourages or facilitates a more logical pattern of buildings, streets, parks and open space; or enhances the urban, pedestrian character of the area as envisioned in the Concord-Alewife Plan.
General special permit criteria (Section 10.43)	Special permits will normally be granted if the zoning requirements are met, unless it is found to not be in the public interest due to one of the criteria enumerated in Section 10.43.

Concord-Alewife Plan Goals for Quadrangle (intended to provide general guidance)
• Create appropriate transitions between the Highlands and nonresidential uses in the Quadrangle by introducing a green buffer and allowing lower densities and heights near the Highlands. • Create a public space that serves a stormwater function as well as being an open space resource. • Increase the amount of permeable surface in the Quadrangle as the area redevelops. • Encourage future development to respond to stormwater goals for the area. • Create a hierarchy of boulevards, avenues, streets, and pathways. • Design new public spaces and places that support a range of community-focused activities. • Improve traffic circulation within the Quadrangle by enhancing existing roads and adding new ones—without creating a direct vehicular connection to the Highlands. • Improve the streetscape within the Quadrangle to enhance the pedestrian and bicycle environment. Strengthen pedestrian/bicycle access to Alewife Station to improve connections to transit and to the Minuteman Path and Linear Park.
Concord-Alewife Design Guidelines – Areawide & Quadrangle (intended to provide general guidance)

- Break up large blocks into smaller blocks, of sizes similar to those in surrounding Cambridge neighborhoods.
- Vary the design of individual buildings to create an architecturally diverse district.
- Street level facades should include active uses such as frequent residential entrances with setbacks for stoops and porches; neighborhood-serving retail including shops, restaurants, cafés; services for public or commercial offices; and community spaces.
- Encourage awnings/canopies to provide shelter and enliven ground-floor façades.
- Utilize low impact development principles in building and site design.
- Use site design that preserves future rights-of-way identified in the Circulation Concept Plan.
- Improve existing streets to meet City standards, including streetscape improvements.
- Strengthen bicycle and pedestrian links to adjacent areas. Provide links that strengthen physical and visual connections to open space resources.
- Screen service areas from major streets.
- Parking below-grade is preferred. If above-grade parking is provided, it should be designed so that it is not visible from nearby residential neighborhoods, public streets and pathways. Line structured parking with active uses (shops, cafés, lobbies) along important public ways.
- Design and locate lighting and signage in support of the district's pedestrian-friendly quality.
- Use site design to minimize shadows on other buildings or on public streets, open spaces, parks, and plazas.
- Use streetscape and other improvements to define Wilson Road as part of a major east-west connection through the Quadrangle.
- Create an open-space system characterized by parks and green spaces of varying scales and uses.
- Use pooled resources to create a new central public open space in the Quadrangle that incorporates stormwater management.
- Locate active uses around the future open space to create a safe and active environment throughout the day and evening.
- Provide pedestrian links to strengthen physical connections to the shopping center.
- Create building height/façade setbacks between 85' and 105'.
- Provide pedestrian links to strengthen connections to Fresh Pond Reservation, consistent with the Fresh Pond Master Plan.
- Strengthen the streetscape and other improvements to define Concord Avenue.
- Locate new development to allow for a future above-grade crossing between the Triangle and the Quadrangle.

Area Planning and Zoning

The base zoning districts for the site are IB-2 and O-1, and each base zoning district is modified by the Alewife Overlay District (AOD) zoning, which augments the base district zoning regulations in a way that allows greater density and more flexible dimensional requirements by special permit while imposing additional requirements and standards to respond to the unique issues identified in the Alewife area. The IB-2 district is modified by the "Quadrangle Northwest" overlay district (shown on the Zoning Map as "AOD-1") and the O-1 district is modified by the "Quadrangle Southwest" overlay district (shown on the Zoning Map as "AOD-3").

Both base districts and AOD districts allow technical office use by right, among various other residential and commercial uses (with residential dwellings requiring a Planning Board special permit in IB-2). The AOD zoning also allows ground-floor retail uses by special permit with limitations. The height and

density limitations of the underlying zoning districts are summarized below. This zoning regime of a more restrictive by-right zoning, which can be more permissive by special permit, was one of the results of the Concord-Alewife Rezoning that was recommended in the 2006 Concord-Alewife Planning Study.

	IB-2 / AOD-1 District	**O-1 / AOD-3 District**
Maximum Floor Area Ratio (FAR)	0.75 as-of-right (base) 1.50 by special permit	0.75 as-of-right (base) 1.50 non-residential by special permit 2.00 residential by special permit
Maximum Height	35’ as-of-right (base) 55’ non-residential by special permit 65’ residential by special permit	35 feet as-of-right (base) 55’ non-residential by special permit 65’ residential by special permit

The existing conditions in this area are dominated by commercial and industrial land uses, with vast expanses of impervious surfaces in the form of parking lots and truck loading areas. A few parcels have transitioned from industrial use to offices, commercial research labs, or recreational uses. This area has access to public transit through regional bus service on Concord Avenue and the site is about a one-mile walk to the Alewife MBTA Station.

Concord-Alewife Plan

The planning goals that underlie the current zoning in the area were established in the Concord-Alewife Planning Study, completed in 2006. In deciding special permits pursuant to the Alewife Overlay District (AOD) zoning, the key consideration for the Board will be the degree to which the proposal conforms to the Concord-Alewife plan and design guidelines (summarized further above).

Envision Cambridge Alewife District Plan

This site is also within the area of the new Alewife District Plan , which was part of the “Envision Cambridge” comprehensive planning process. That process involved CDD staff, planning and urban design consultants Utile, and an “Alewife Working Group” of community stakeholders, as well as input from the larger community. The final Alewife District Plan report was published in October 2019, and is available at envision.cambridgema.gov.

The Alewife District Plan expresses the following community vision for the future: “Alewife is a sustainable, resilient, mixed-used district with convenient and safe connections within the neighborhood and to the rest of the city along with amenities that support interaction and social ties among its residents.” The following Areawide Goals support this vision:

- **Build a Cohesive Mixed-Use District.** Transform Alewife into a fully functioning urban neighborhood with a broad range of uses and a variety of public places that provide opportunities for social connection and interaction.

- **Integrate Alewife with the Rest of Cambridge.** Better integrate the district physically and socially with the surrounding neighborhoods and the rest of the city for a greater sense of community.
- **Promote Economic Opportunity.** Support commercial and light industrial development that provide high-wage, low barrier-to-entry jobs.
- **Create a District Resilient to the Impacts of Climate Change.** Ensure that new development and existing neighborhoods, community resources, and critical infrastructure are prepared for climate change and resilient to its impacts.
- **Enhance the Public Realm.** Create an active, resilient urban form that promotes activity on the street.
- **Encourage Sustainable Modes of Transportation.** Promote walking, biking, and transit use and reduce the growth in vehicle miles traveled.
- **Create a Continuous Open Space & Recreation Network.** Increase the quantity, quality, and diversity of open spaces across the Alewife district and create an interconnected recreation network.

The new Alewife District Plan also lists the following specific goals for the Quadrangle area:

- Preserve and enhance light industrial businesses, and community-focused businesses that require light industrial space, that provide good-paying, low-barrier-to-entry jobs.
- Create a significant new linear open space and smaller open spaces internal to blocks.
- Create a "Main Street" on Wilson Road with active ground-floor uses, including showrooms or retail space for light industrial uses.
- Create a connected network of streets and pathways.
- Encourage a variety of housing types including townhouse and live-work units.
- Maintain the stability and character of the Cambridge Highlands neighborhood.
- Encourage small-scale neighborhood supporting retail on Concord Avenue and Smith Place.

Most of the goals of the Alewife District Plan are shared with the Concord-Alewife planning study, and the more recent plan recommends more specific measures that will help achieve those goals. For example, as redevelopment has occurred in the area, it has been difficult to create active, pedestrian-friendly ground floors due to the need to elevate buildings to protect from future flood risks. The Alewife District Plan recommends urban design approaches to optimize both of these objectives, such as by partially elevating ground floors above future projected flood elevations (up to 4 feet above grade where necessary) and including elevated walkways at the edges of buildings to more seamlessly connect the private and public realms.

Another key issue identified in the Alewife District Plan, building on the Concord-Alewife Plan, is that future growth in Alewife, particularly commercial growth, will require significant shifts in mobility patterns given the existing traffic congestion, lack of street connectivity, and auto-oriented development patterns in the area. The plan recommends progressive mobility strategies to improve

street networks and pedestrian/bicycle connections, promote sustainable modes of transportation, and reduce dependency on automobile travel, including strict maximum limitations on off-street parking with no minimum requirements, enhanced parking and transportation demand management programs to meet specific goals for reducing single-occupancy vehicle (SOV) trips, new infrastructure to promote walking and bicycling (supported in part by a $5.00 per square foot contribution from new commercial development), and improved transit services.

The recommendations of the Alewife Plan also include urban design measures to promote a more pedestrian-oriented character, such as limiting unbroken building facades longer than 200 feet to promote a more consistent pattern of block sizes, encouraging widened sidewalks with tree plantings, providing new street connections in order to limit curb cuts and consolidate vehicular drives, and creating a consistent urban streetwall. These are discussed more in the urban design section below.

Climate Change Preparedness and Resiliency (CCPR) Plan

Also relevant to the planning for this area is the City's ongoing Climate Change Preparedness and Resiliency (CCPR) effort, which has been closely coordinated with the Alewife planning process. The CCPR plan is being developed as a practical guide for the City to implement specific strategies in response to climate change threats, including increased heat as well as flooding from precipitation, sea level rise and storm surge. The plan focuses on four different themes: A Prepared Community, Adapted Buildings, Resilient Infrastructure, and Resilient Ecosystems.

Given the unique characteristics of the Alewife area, an early-phase "Alewife Preparedness Plan" and "Alewife Preparedness Handbook" were developed. The recommendations of this plan have been integrated into the Alewife planning process with the goal of producing a comprehensive set of zoning recommendations. For example, with regard to flood elevation, the plan recommends that new buildings "build" or "protect" to the projected 2070 10-year flood elevation, and are designed to "recover" from the projected 2070 100-year flood elevation. The Alewife Preparedness Handbook can also be viewed online from the CDD web page.

A Climate Resilience Zoning Task Force (CRZTF), with representation from different community stakeholders, has also been meeting over the past year to discuss and recommend zoning changes that can be developed in the short term and advanced at a citywide level. Along with flood resilience recommendations, this group has been discussing possible building and site development standards to mitigate urban heat island effects, which are an issue in the Alewife Quadrangle. One possible approach that has been discussed recently is a "Cool Factor" scoring methodology to assess the combined cooling effect of various site design strategies such as tree preservation, new tree plantings, other planted areas such as shrubs and turf, green roofs, structural shade canopies, and materials with high solar reflectivity. More information about ongoing CRZTF work can also be found on the CDD web page.

Infrastructure

The Concord-Alewife Plan and the more recent Alewife District Plan both identify desired infrastructure improvements to serve public goals. One major piece of infrastructure is a planned bicycle and pedestrian crossing of the railroad line from Fawcett Street in the Quadrangle to Cambridgepark Drive in

the Triangle, which has been incorporated into the review of sites that abut the railroad. Fawcett Street and Wilson Road are planned to extend to Spinelli Place; Fawcett Street, Wilson Road and Smith Place are proposed to be upgraded with grade separated bicycle lanes with additional elevated walkways and safe crosswalks at intersections and mid-block crossings with special attention towards streets carrying large trucks. Both plans also identify public open space as a goal, both to serve community-gathering functions and to assist in stormwater management. The AOD zoning provides mechanisms by which development rights and requirements can be shifted, pooled and transferred flexibly across sites to enable these public improvements, and the Alewife District Plan has recommended retaining and strengthening these types of incentives. The Alewife District Plan also recommends contributions at a rate of $5.00 per square foot of new commercial development to provide some of the support necessary to enable this public infrastructure.

Proposed Project

In general, the proposal conforms to current zoning requirements, if the requested special permits for FAR, height, and yard requirements under the AOD zoning are granted. The project exceeds the open space requirements of the AOD zoning, meeting a ratio of 29% of the lot where 15% is required, and also exceeds the permeable area requirement of 25%.

The project has completed a Transportation Impact Study (TIS) and proposes public access improvements, transportation demand management (TDM) programs, and other measures to discourage additional automobile trips and encourage a more walkable, bike-friendly, and transit-oriented neighborhood. These topics are discussed in more detail in the TP&T memo. The proposal will require an amendment to the site's PTDM Plan, which will include programmatic measures to achieve specific reductions in single-occupancy vehicle mode shares. Under the City's PTDM Ordinance, the project cannot be granted any City permits until the final PTDM plan is approved.

The project is exceeding the minimum Article 6.000 requirements for off-street parking and bicycle parking. The minimum required parking for the new building is 136 total spaces (about 0.95 space per 1,000 square feet of floor area) and a total of 151 spaces are proposed (about 1.05 spaces per 1,000 square feet). The project is designed with most of the parking below-grade, which is generally encouraged citywide, but there is also a substantial surface parking lot that occupies much of the open area at the rear of the site.

Alewife District Plan Zoning Recommendations

The Applicant has been very proactive in meeting with staff from CDD, TP&T, and DPW to discuss this proposal in the context of the Alewife District Plan goals, and has made many changes to the project design in response to staff's comments. A particular focus of this review has been ensuring that the building is situated on the lot in a way that aligns with the future street network plans and flood resilience objectives.

It should be acknowledged that some objectives of the Alewife District Plan are difficult to achieve under current zoning limitations. In reviewing this and other projects, it has been the aim of staff to achieve the goals of the Alewife District Plan to the greatest extent possible given the current

limitations. For instance, the plan recommends raising the maximum height for non-residential uses to 85 feet to support the viability of high-bay industrial and retail space at the ground floor; this outcome is difficult to achieve within the current height limit of 55 feet. The construction of elevated walkways connecting the sidewalk to uses at the ground floors of buildings is also constrained by the current zoning requirement that front yards must be green area open space; however, the building can be designed to allow for this type of feature to be added in the future. Finally, it is difficult to achieve the recommended maximum off-street parking ratios because they are less than the minimum requirements under current zoning, and could only be reduced further if the Applicant seeks a special permit; however, the parking could be reduced to the minimum ratio permitted. Otherwise, the Alewife District Plan recommendations can mostly be met within current zoning limitations.

The following summarizes some key points of the Alewife District Plan zoning recommendations and brief commentary on how they relate to this proposal, while the full set of zoning recommendations are presented on pages 156-163 of the Alewife District Plan report (find attached).

- **Flood Protection:** Design buildings to protect from projected 2070 10-year (10% annual probability) flood event, and to recover from projected 2070 100-year (1% annual probability) flood event.

  This standard is met by locating the ground floor (with office use) above the 10-year 2070 elevation. The engineering details for how flood risk will be managed for the below-grade garage space will be subject to DPW review. All recovery and mitigation strategies will also be subject to DPW review, in addition to other measures designed to meet current standards for stormwater management and utility service.

- **Heat Island Mitigation:** Design buildings to use green or white roofs, and employ landscaping and tree planting to mitigate urban heat island effect.

  The proposal includes a substantial increase in landscaped areas with tree planting. The plan exceeds both the 15% minimum open space requirement in current zoning and the 20% minimum recommended in the Alewife District Plan. It is unclear whether green or white roofs are planned for the proposed building. Although the concept of a "Cool Factor" system is still in development, it may be interesting to investigate the combined heat island mitigation effects of the proposed site design.

- **Transportation and Parking:** Remove minimum parking requirements, and limit parking to a maximum ratio of 0.8 space per 1,000 square feet for lab uses and 1.1 spaces per 1,000 square feet for office uses, while requiring enhanced Transportation Demand Management (TDM) programs to reduce drive-alone mode shares. Locate parking below first occupiable floor or covered by a landscaped deck and hidden from view from streets and open spaces.

  Because the current zoning requires a minimum ratio of 0.95 space per 1,000 square feet, achieving the targeted maximum of 0.8 space per 1,000 square feet would require reducing the current minimum ratio. However, as noted above, the proposed parking ratio is slightly higher than the minimum requirement under current zoning, so further reduction is possible. Such a reduction might allow proposed surface parking spaces to be reduced and provide more open space, also providing benefits for usability and heat island mitigation. The location of most of the parking below the building's first floor is consistent with the Alewife District Plan recommendation.

A TDM program will be developed as part of the PTDM requirements in consultation with the City's PTDM Officer. Such programs will be considered by TP&T when commenting on the transportation impact and mitigation provisions that must be considered by the Planning Board per Article 19.000.

- **Building Massing:** Restrict facade lengths to 200 feet; for buildings where street frontages are more than 200 feet, a courtyard should be incorporated.

  The proposed building frontage along Smith Place, which is the only public street frontage of the project, is more than 200 feet. The building façade is broken up in the middle with a segment that is more than 40 feet wide, but relatively shallow in depth. Building massing and design are discussed further in the urban design section below.

- **Setbacks:** Establish "build-to" lines for building frontages according to the street types defined in the Alewife District Plan. Rear setbacks should be used to increase site permeability and reserve space for future green infrastructure.

  The Envision Alewife standards attempt to establish a consistent condition for the streetscape as a whole, considering the building façade, landscaping, sidewalks, and roadway as part of an entire composition. While the proposed setback from the existing street line exceeds the 15-foot minimum required by special permit in the AOD zoning, they have been calibrated to align with the "build-to" lines that follow the future planned street cross-sections envisioned by the Alewife District Plan. A more substantial rear setback is provided, which is consistent with the Alewife District Plan, although the setback is used primarily for surface parking. The building and site design are discussed further in the urban design section below.

Urban Design

The Concord-Alewife Design Guidelines flow from a vision of a creating a "people-oriented sense of place", and the Alewife District Plan expands on this vision. Its more detailed objectives include fostering a pedestrian-friendly environment, creating an interconnected street network, increasing the district's resilience to storm surge and precipitation flooding, and mitigating the Urban Heat Island Effect. Specific recommendations include elevating first floors above the anticipated 2070 flood level; creating raised, continuous, publicly accessible walkways along Smith Place, Wilson Road, and Fawcett Street; and providing light industrial space or other activating uses in the ground floors of commercial buildings, with appropriate floor-to-ceiling heights.

As the Alewife Quadrangle's first major development since the completion of the Alewife District Plan, the project at 75-109 Smith Place will play a significant role in the district's transformation. The basic siting and massing of the proposed project follow the recommendations of the Alewife District Plan in the following ways:

1. The building is sited to allow for the development of the adjoining streets as recommended in the Alewife District Plan.
2. The amount of green and permeable site area is greatly increased.

3. The majority of vehicular parking is in an underground garage, and surface parking is located in the rear of the site.
4. The loading dock and the vehicular entrance to the parking garage are located on the rear side of the building.
5. The building's first floor is elevated to the anticipated 2070 100-year flood level.
6. The building presents a streetwall façade to Smith Place.
7. The first floor is highly glazed, and has an 18' floor to floor height.
8. The floor to floor height of the building's first floor is sufficient to accommodate street activating uses as the area evolves in the future.
9. The penthouse is set back from the building facades.

As the project's design develops, its site plan and architectural design should continue to advance the goals of the Alewife Overlay District and the Alewife District Plan, further contributing to the creation of an interconnected network of pedestrian and bicycle friendly streets framed by architecture and landscape, increasing the richness of the Quadrangle's landscape, and mitigating the effects of Climate Change.

Site Plan:

The Quadrangle's existing street system is discontinuous. It lacks bicycle lanes and street trees, and in places, curbs and sidewalks. The Alewife District Plan recommends changes to Smith Place, Wilson Road, and Fawcett Street to help create an interconnected network of complete streets. In response, the proposed building and parking lot have been located so that they do not preclude the street sections and alignments proposed by the Alewife District Plan for the adjoining streets. The site plan could further advance the goals of the Alewife District Plan with any of the following interventions:

1. Reconstructing the west side of Smith Place between Wilson and Fawcett with the relocated curb, bicycle lane, street trees, and sidewalk as recommended by the Alewife District Plan, and making improvements as needed to the roadway.
2. Planting trees in the building's south setback in anticipation of the future westward extension of Wilson Road.
3. Committing to cooperate with the owners of the adjoining property to the north to construct the initial portion of Fawcett Street's westward extension. The boundary between the two properties is approximately on the centerline of Fawcett Street and the adjoining property owner has also presented plans that involve driveway access from Smith Place. Unless the first segment of the new street is created and shared between the two properties (or conveyed to the City), the two properties will each have their own separate driveways only a few feet apart from each other on either side of the property line in a location that is planned for a future street connection. If the shared extension of Fawcett cannot be achieved at present, tree locations, underground utilities, pavement, and other features should be placed where they can facilitate Fawcett's westward extension in the future.

4. Consider ways to achieve the intent of the recommended elevated walkways along the building's street frontages, acknowledging that under current zoning a green area front yard is required. Limited usable porches, elevated entryways, or similar design features might conform to current zoning while providing a greater sense of activity along the street front. In any case, the future construction of elevated walkways should not be precluded.
5. Providing a phasing plan to show how the current project will lead to the desired final condition on Smith, Wilson, and Fawcett, if the construction of the street sections and alignments recommended in the Alewife District Plan are not immediately feasible.
6. Increasing the amount of landscape plantings, including street trees at a 20-foot to 30-foot spacing as recommended in the Alewife District Plan.
7. Reducing the amount of surface parking, both to improve the appearance of the site and to increase the amount of permeable surface.
8. Screening the surface parking and utilities by plantings or site walls.
9. Locating electrical equipment and utilities within the volume of the building if possible and protected from future (2070) 1%-probability flood levels.
10. Using permeable pavement where possible.
11. Including a Bluebikes station.

Architectural Design:

As the building's design is developed, it should further advance the goals of the Alewife District Plan in the following ways:

1. Providing multiple exterior entry doors on the building's east, north, and south facades to allow for potential future first floor retail and more activity along the street.
2. Designing spaces that could accommodate light manufacturing or retail functions on the first floors on Smith, Wilson, and/or Fawcett, accessible from elevated entryways.
3. Providing canopies above the first-floor facades, or at least provisions for future canopies, to protect pedestrians on future elevated walkways and to shade the building's extensive first floor glazing.
4. Considering sun screening for the building's heavily glazed upper floors.
5. Creating a more substantial courtyard on Smith Place to accentuate the division of the façade into two parts. (The Smith Place façade is approximately 360 feet long, well over the 200-foot maximum length recommended by the Alewife District Plan.)
6. Committing not to locate tenant rooftop equipment outside of the penthouse screening.
7. Using a white, green, or blue roof to reduce Urban Heat Island Effect.
8. Providing more articulation in the penthouse façade.

Sustainability

The proposed development is subject to the Green Building Requirements in Section 22.20 of the Zoning Ordinance. The recent amendment to this section requires a minimum design standard using the LEED rating system at a "Gold" level. An enhanced commissioning process is also required where a Green Commissioning Authority, as defined in the ordinance, must document and verify that a building and its systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet specified levels of environmentally sustainable performance. The amended zoning also requires a "Net Zero Narrative" explaining the measures being taken to reduce overall greenhouse gas emissions by improving energy efficiency and promoting renewable energy sources.

According to the Green Building submission, this project is currently proposed to achieve a LEED Gold standard under LEED BD+C: Core and Shell, with 62 "Yes" credit points, and an additional 5 points designated as "likely". The project is currently pursuing LEED's Integrative Design Process credit, which promotes high-performance, cost-effective project outcomes through the early analysis of and synergies across disciplines and building systems, assembling and involving the Project Team early in the design and development process, and engaging in design charrettes and trades training sessions. Staff supports this approach to the design and construction of green buildings, believing it to increase the opportunities for truly exceptional and higher performing green buildings. Currently, the project is on track to meet the enhanced commissioning requirement by pursuing LEED's Enhanced Commissioning Credit.

The project is currently targeting an 11% improvement (6 points) in energy cost savings over the baseline building performance standard. The project is also subject to the Massachusetts Stretch Energy Code, which requires projects over 100,000 square feet to demonstrate energy use per square foot at least 10% below the ASHRAE 2013 standard, on either a site or source EUI basis. The energy model submitted to the Inspectional Services Department (ISD, which reviews energy code compliance) indicates that the project will achieve a 17% energy use reduction compared to the ASHRAE 2013 standard. It is not yet clear what the project Site EUI will be. The energy model submitted to the City says 124 kBtu/sf/yr but the Statement of Energy Design Intent from Energy Star says 73 kBtu/sf/yr.

Staff strongly recommends the study and assessment of available technical and financial incentive packages that can assist in achieving higher levels of building performance to better satisfy the City's goals of promoting environmentally sustainable and energy-efficient design and development practices. Since this is a "Core and Shell" project, there are questions surrounding the actual use of the project once it is occupied. There is no indication in the documents that LEED's Tenant Design and Construction Guidelines credit will be pursued as part of this project.

The City now requires a "Net Zero Narrative" as a requirement of the Green Building Review Process in keeping with its commitment to achieve citywide net-zero emissions by 2050 (Net Zero Action Plan, 2015). This narrative should include how the Project will reduce energy use and/or maximize savings and efficiency through its current design and operation, followed by a technical pathway that indicates specific changes that could be made to achieve future net zero emissions, with special consideration given to major energy-influencing factors (e.g. building envelope, HVAC, DHW, lighting, on- and off-site renewables). Although this requirement was adopted after the application process for this development

was underway, the Applicant should work with staff to provide this information for review and discussion.

Continuing Review

The following is a summary of issues that staff recommends should be further studied by the Applicant, either in preparing revised materials if the Planning Board continues the hearing to a future date, or as conditions for ongoing design review by staff if the Board decides to grant the special permit:

Continuing Sustainable Design Review:

- Indicate which credits that are being considered for the additional 5 points in LEED rating.
- Provide a brief summary of key recommendations that had an impact on the building's current design as part of the integrative design process.
- Clarify the discrepancy between the energy model and the statement of energy design intent from Energy Star.
- Provide information on steps that will be taken to share with tenants the project's sustainable design features, goals, and objectives, as well as sustainable every-day practices.
- Submit the Net Zero Narrative information required by the recent amendments to Section 22.20.

Continuing Site Plan Review:

- Detailed coordination with CDD and DPW regarding improvements to Smith Place, and the extensions of Wilson Road and Fawcett Street, including alignments, utilities, bicycle lanes, sidewalks, street trees, and other plantings.
- Review of phasing plans for improvements to Smith, Wilson, and Fawcett that will not be undertaken as part of the current project.
- Provisions to allow for the future addition of elevated walkways if they are not constructed as part of the current project.
- Design and location of on-site bicycle and pedestrian paths.
- Location and size of the shared bicycle (Bluebikes) station and short-term bicycle parking areas.
- Coordination of planting standards and species selection for trees and other plantings with the DPW and the recommendations of the Urban Forest Master Plan.
- Review of the locations of street trees.
- Review of stormwater mitigation systems.
- Review of location and screening of site mechanical/electrical equipment.
- Review of screening of surface parking.
- Review of lighting.
  Elevation of electrical equipment above the 2070 100-year flood level.
- Description of the "structural water quality units" and coordination of their design with CDD and DPW.

Continuing Building Design Review:

- Review of all exterior buildings materials and colors, including joints in the panel system, details at corners, glass specifications, spandrel glass or solid panels in the curtain wall system, window mullions, etc.
- Construction of a mockup for planning board review, showing all exterior colors and materials, prior to ordering materials.
- Review of the proposed roof system.
- Further development of the building's facades, including the provision of a courtyard on the Smith Place Façade.
- Review of provisions, if any, to exclude floodwater from the underground parking garage.
- Potential of accommodating future light manufacturing and/or retail on the first floor.

Zoning Recommendations

The Alewife Planning Study recommends continuing a two-tiered zoning approach in this area, in which as-of-right zoning is consistent with existing patterns of development, and a special permit process allows redevelopment consistent with this plan's recommendations. In general, as-of-right zoning treats existing allowed uses and densities as conforming. The special permit process allows increased density and height in exchange for meeting requirements set forth in this plan, including new streets and other key infrastructure, open space improvements, enhanced urban design, and transportation mitigation.

Areawide Recommendations

The following zoning recommendations would apply areawide for development proposals seeking density and height above base zoning.

Built form

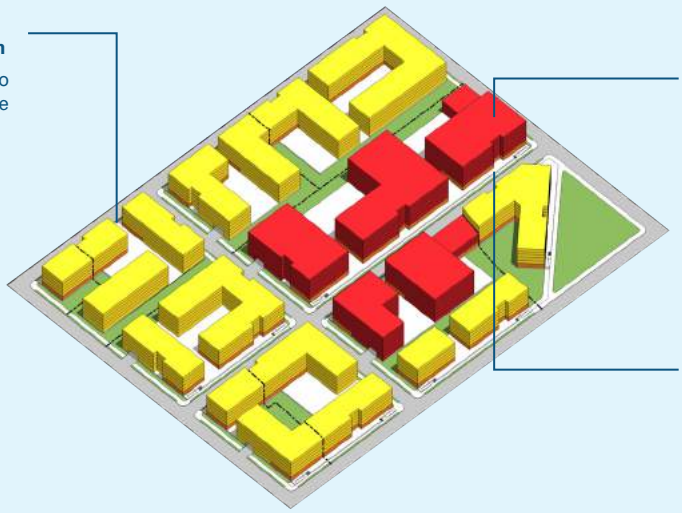
In order to encourage a more desirable, urban pattern of development, the plan recommends the following built form standards:

- Maintain prevailing density limits in current zoning with bonuses for providing new roads, a pedestrian/bicycle bridge connecting the Quadrangle to the Triangle, and a linear open space, as identified in the plan.
- Adjust heights to accomplish the following: Promote desired residential and commercial building typologies.
  - → Allow greater use of density bonuses for public space and infrastructure
  - → Allow more flexibility to employ Transfer of Development Rights (TDR) and density bonuses
  - → Promote more private and public open space.
  - → Account for higher ground floor elevations for flood protection.
  - → Retain lower heights near existing residential neighborhoods.

Setback Requirements

Maximum Facade Length

Facade lengths restricted to 200 feet; for buildings where street frontages are more than 200 feet, a courtyard should be incorporated.



Side Setback

0 feet within the first 65 feet of the front lot line (required). 15 feet beyond 65 feet to the rear lot line (minimum).

Front Setback

Establish "build-to" lines for building frontages according to the street types defined on pages 130-131.

- Active Uses
- Commercial
- Residential

- Establish "build-to" lines for building frontages according to the street types defined in this plan. *Read more about "Quadrangle Street Types" on pages 130-131.*
- No required sideyard setback within the first 65 feet of the front lot line (recommendation does not apply to industrial buildings).
- Rear setbacks should be used to increase site permeability and reserve space for future green infrastructure.
- Increase open space requirement to at least 20% of the site
- Restrict facade lengths to 200 feet; for buildings where street frontages are more than 200 feet, a courtyard should be incorporated (does not apply to industrial buildings).
- Elevate first floors to the projected 2070 10-yr SLR/SS elevation. Accomplish this by: raising streets; providing elevated walkways; or using raised green yards with low retaining walls. Berms are discouraged.
- Encourage ground-floor retail or other active uses at key locations identified in this plan.
- Locate parking below first occupiable floor or covered by a landscaped deck and hidden from view from streets and open spaces.

Mobility

The following transportation standards aim to decrease automobile reliance and promote walking, bicycling, transit:

- Eliminate minimum parking requirements, except for residential development.
- Set low maximum parking ratios by use to prevent overbuilding of parking, reduce vehicle trip generation, and encourage multi-modal transportation.
- Require enhanced transportation demand management measures. *Read more about TDM recommendations on pages 127.*
- Allow pooled/shared parking and encourage in special permit criteria.
- Require all future commercial development to pay $5 per square foot into a transportation improvement fund for the district.
- Locate driveway access and off-street parking on streets without elevated walkways or active ground floor use, where feasible.

Parking Requirements

Establish maximum parking requirements, as a way to limit the amount of permitted parking and reduce unnecessary parking inventory instituted by parking minimums.

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 minimum .25 per dwelling unit

Flood Resilience and Urban Heat Island Reduction

The following resilience standards aim to mitigate impacts from future flood and heat-related climate change impacts:

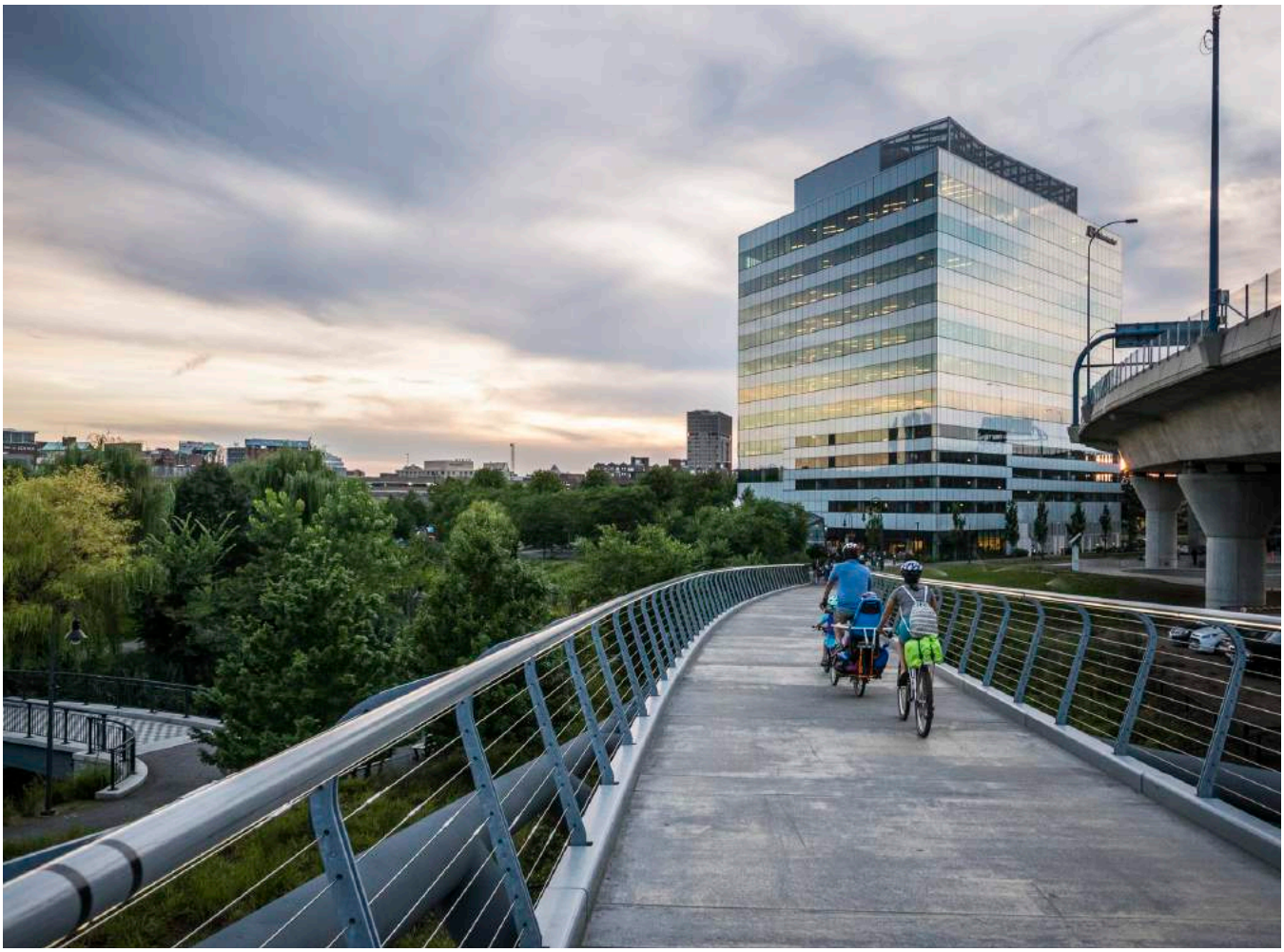
- Protect from anticipated 2070 10-yr (10% annual chance) SLR/SS elevation (i.e., first occupiable floors at this level)
  - → First occupiable floors should be at or above this level
  - → Elevate first floor no greater than 4 feet and provide additional flood protection as necessary to protect from the 2070 10-yr SLR/SS elevation.
- Recover from anticipated 2070 100-yr (1% annual chance) SLR/SS elevation
  - → Locate occupiable residential use above this level
  - → Elevate critical mechanical systems and building equipment above this level
  - → Use water-safe or easily replaceable materials below this level

- Require green or white roofs on areas not occupied by solar panels. Mechanical equipment must have a white roof or canopy and light-colored materials must be used for occupiable space.
- Plant shade trees at intervals of 20 to 30 feet, either on the public sidewalk or within raised green front yards.
- Incorporate other measures as recommended through Climate Change Preparedness and Resilience (CCPR) plan and Climate Resilience Zoning Task Force (CRZTF).
- Establish minimum permeable area per total lot area at 25%.

Public Improvements

Consistency with the Alewife District Plan would be a key criterion for granting of special permits. The following incentives to achieve public improvements, including new streets and open space, include:

- Retain density bonus for land conveyed to city for public use.
- Right-of-way easements reserved and/or transferred for new roads, a pedestrian/bicycle bridge connecting the Quadrangle to the Triangle, and linear open space as identified in the plan.



The North Bank Bridge, a pedestrian/bicycle bridge, connects Cambridge to Boston.

Elevated Walkways

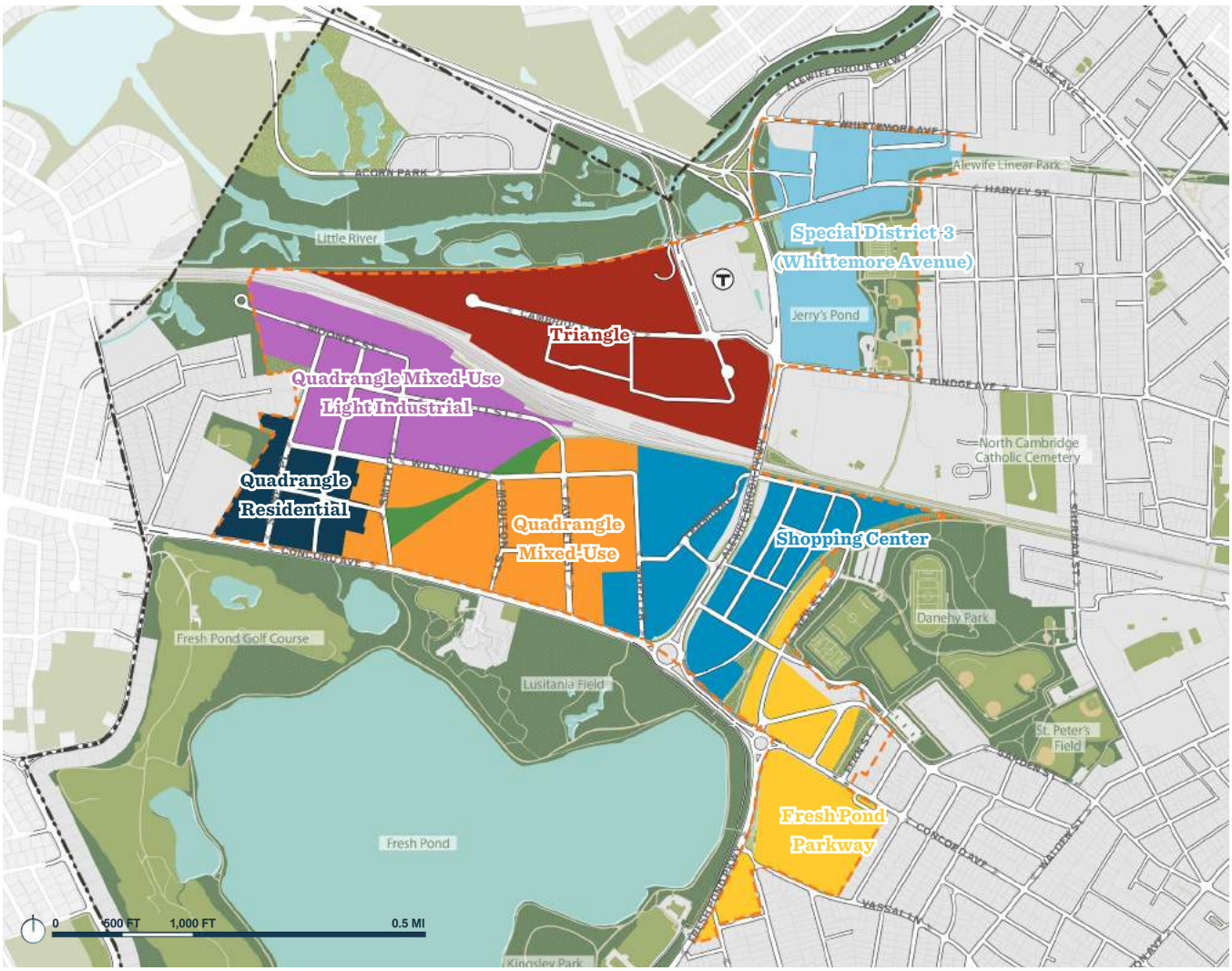
One of the primary reasons for zoning reform in Alewife is the necessity to balance flood resilience standards with street activation and district walkability. This plan proposes the use of an elevated walkway to mitigate the negative impacts on the streetscape associated with elevating occubiable floors. Conditions for a publicly-accessible elevated walkway are as follows:

- Locate at level of building's first occupiable floor.
- Elevated walkways should be 12 feet wide.
- Access should be provided where elevated walkways meet parcel boundaries, plus additional stairs and accessible ramps required at a maximum of every 200 feet. Stairs and ramps are to be within the 12-foot width.
- Maintain a 5-foot minimum pedestrian passage zone.
- Where an elevated walkway exists on an adjacent site, align walking surfaces or provide smooth transition.
- Provide a 12-foot wide architectural canopy over elevated walkways with at least 12 feet clear headroom.
- No enclosed space may occupy the elevated walkway.
- Non-conditioned uses and parking are allowed below the elevated walkway.

An artistic rendering shows the grade-separated bicycle land with elevated walkways within the Quadrangle.

Alewife Zoning Districts

The plan proposes seven zoning districts to align with the study's subdistricts. The Quadrangle subdistrict is broken down into three zoning districts: Mixed-Use Light Industrial, Residential, and Mixed-Use. The following section identifies specific zoning recommendation to achieve the goals identified in this plan for each subdistrict.



Subdistrict Development Objectives

Subdistrict	Development Objectives
Quadrangle Residential Zone	Transition over time to mid-rise multifamily/townhouse residential development Taller multifamily developments along Concord Avenue Promote neighborhood supporting retail along Concord Avenue and Wilson Road. Public connections to Rafferty Park
Quadrangle Mixed-Use Light Industrial Zone	Light industrial at ground floors of commercial buildings with appropriate floor-to-ceiling heights (see Economy Recommendations on page 148) Light industrial "showroom" or retail component along Wilson Road and Smith Place Buffer Cambridge Highlands with lower density residential and vegetated buffer Elevate first floors and create a raised, continuous, publicly-accessible walkway with active ground floor space along Smith Place and Wilson Road
Quadrangle Mixed-Use Zone	Mix of commercial and residential development at current allowed density Elevate first floors and create a raised, continuous, publicly-accessible walkway with active ground floor space along Smith Place and Wilson Road Encourage commercial uses along Smith Place as a buffer between residential uses and truck traffic leading to the Mixed-Use Light Industrial Zone.
Triangle Zone	Mix of commercial and residential development at current allowed density Promote neighborhood supporting retail or active space along Cambridgepark Drive and Alewife Brook Parkway Allow building height up to 125 feet to take advantage of the proximity to the Alewife MBTA Station
Shopping Center Zone	Phased, mixed-use redevelopment at current allowed density, approximately 50-60% residential, 20-30% office, 10-20% retail Create an "Alewife Square" as a focal civic space for the entire district, with pedestrian/bicycle connections Create internal street grid and expand open space along Watertown Path Retain 45,000+ SF grocery store
Whittemore Avenue (Special District 3) Zone	Phased, mixed-use redevelopment at current allowed density, approximately 65% residential, 35% commercial Restore open space around Jerry's Pond for public use and stormwater retention through private (non-city) investment Internal street grid and pedestrian/bicycle connections Additional height and density in exchange for restoration of open space around Jerry's Pond
Fresh Pond Parkway Zone	Residential development, with ground-floor neighborhood supporting retail or active space along Fresh Pond Parkway and Concord Avenue Curb cuts are discouraged along Fresh Pond Parkway and Concord Avenue Allow modest additional height in exchange for public open space connections

Current Alewife Overlay Zoning (FARs/Heights allowed by AOD Special Permit)

Subdistrict	AOD-1 (Quad NW)	AOD-2 (Quad NE)	AOD-3 (Quad SW)	AOD-4 (Quad SE)	AOD-5 (Shopping)	AOD-6 (Triangle)
Base Zoning	IB-2	IB-2	O-1	O-1	BA	O-2A
Res. FAR	1.50	1.50	2.00	2.00	2.001	2.00
Non-res. FAR	1.50	1.50	1.50	1.50	1.25[1]	1.75
Res. Height	65'-80'[2 3]	85'-105'[2]	65'-80'[2 3]	85'-105'[2]	85'-105'[2]	105'-125'[2]
Non-res. Height	55'[3]	70'	55'[3]	70'	70'	85'

1 20%-50% residential required if GFA exceeds 100,000sf; first 225,000sf of non-residential must be retail.

2 Additional height only to accommodate FAR bonus for public improvements; additional limitations apply to taller floorplates.

3 Reduced to 35' within 100 linear feet of a residential or open space district; to 45' within 200 linear feet of a residential or open space district.

Note: All residential development eligible for 30% inclusionary housing density bonus.

Recommended Alewife Overlay Zoning (FARs/Heights allowed by AOD Special Permit except where noted)

Subdistrict	Quad-Residential	Quad-Light Industrial	Quad-Mixed Use	Shopping Center	Triangle
Base Zoning	O-1	IB-2	O-1	BA	O-2A
Res. FAR	2.0	1.50	2.00[1]	2.00[2]	2.00
Non-res. FAR	1.5[3]	1.50[4]	1.50[1]	1.25[2]	1.75
Res. Height[5]	65'	65'[6]	85'	85'	125'
Non-res. Height[5]	55'[6]	85'[6]	85'	85'	85'

1 Mixed-use development allowed at residential FAR, but non-residential component must conform to non-residential FAR limit.

2 Subject to master plan approval for mixed-use development, approx. 50-60% residential, 20-30% office, 10-20% retail (including grocery store).

3 Residential standards applicable to institutional uses, artist studios, and ground-floor retail.

4 FAR exemption for light industry uses at ground story.

5 Heights calculated from 2070 "protect" flood elevation

6 Reduced to 35' within 100 linear feet of a residential or open space district; to 45' within 200 linear feet of a residential or open space district.

Note: All residential development eligible for 30% inclusionary housing density bonus.

Whittemore Avenue District (Special District 3)

	Current Zoning	Recommended Zoning
Maximum FAR	0.45	0.45 + bonus for public open space improvements
Maximum GFA in District	782,500 SF	782,500 SF + bonus for public open space improvements
Minimum Lot Area Per Dwelling Unit	2,500 SF/unit	May be reduced with Planning Board master plan special permit approval
Maximum Height	55' generally Step-down to 35' near public open space Increase to 70' near Alewife Brook Parkway	70' with Planning Board master plan special permit approval including public open space improvements[1]

1 Heights calculated from 2070 "protect" flood elevation

Note: All residential development eligible for 30% inclusionary housing density bonus.

Fresh Pond Parkway (new overlay district)

	Current Zoning	Recommended Zoning
Base Districts	Res. B, Res. C-1, Res. C-1A, BA, IA-1	No change
Maximum FAR	Range: 0.75-1.75	2:1 GFA bonus by special permit for public open space connections and improvements
Maximum Height	Range: 35'-45'	Up to 10' additional height by special permit for public open space connections and improvements[1]

1 Heights calculated from 2070 "protect" flood elevation

Note: All residential development eligible for 30% inclusionary housing density bonus.

MEMO

To: Cambridge Planning Board
From: Cambridge Bicycle Committee
Date: February 13, 2020
Re: Special Permit PB-359, 75-109 Smith Place

We have reviewed the proponent's proposal and would like to submit the following comments for consideration by the Planning Board.

As this is a brand-new building establishing a different character in the Alewife Quadrangle, it is an opportunity to create a streetscape that supports people walking and bicycling.

Smith Place is an important spine for this area, and consistent with the Envision Cambridge Alewife expectations, we are looking forward to the creation of safe, separate bicycle facilities, at least along the street fronted by this proposed building. Any additional improvements along Smith Place would be welcomed.

We were pleased to see the additional amenities such as showers along with the bike parking. We wonder whether there would be wayfinding signage, e.g., to the best path to access bicycle parking. We are concerned about the proposed access route; 5' is an insufficient path width for a shared path with people bicycling in both directions, and likely used by people walking as well. We recommend a 10' path. We also want to make sure there is a commitment to clearing the path from ice/snow during the winter months. In the back, the proposed route for people is across a driveway apron with large trucks and we are concerned about the safety of this condition and wonder what options may be done to mitigate this.

Thank you for your consideration.

MEMO

To: Cambridge Planning Board
From: Cambridge Pedestrian Committee
Date: January 23, 2020
Re: Special Permit PB-359, 75-109 Smith Place

We have reviewed the proponent's proposal and would like to submit the following comments for consideration by the Planning Board.

This is a positive opportunity to create a more walking, people-oriented environment in the Alewife Quadrangle area.

To that end, we are concerned about the amount of parking currently proposed and worry this will continue to draw more vehicular traffic to this area. The new sidewalks along the frontage of the building are an excellent start to changing the environment; we would like to see sidewalks along the entire length of Smith Place. Currently there is not an accessible route for people traveling from Concord Avenue; while it is not a far walk from the bus stops there, it feels far because of the inaccessibility and pedestrian unfriendly nature of the street. It would benefit this new building tremendously if people were able to walk to it from the bus stops along Concord Avenue.

We are also very supportive of the future pedestrian bridge which would make for easy access to the Alewife T station and wonder whether this project might contribute to advancing that.