



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: CDD Staff

Date: May 4, 2022

Re: Special Permit **PB-387, 36-64 Whittemore Avenue ("Alewife Park")**

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Overview

Submission Type:	Special Permit Application
Applicant:	IQHQ-Alewife LLC
Zoning District(s):	Special District 2, Special District 3, Parkway Overlay District, Flood Plain Overlay District
Proposal Summary:	Renovate 2 existing buildings, demolish 5 existing buildings, construct 3 new buildings, and construct a 350-vehicle above grade parking garage, totaling around 735,500 square feet Gross Floor Area for office, laboratory, and retail use
Special Permits Requested:	Project Review (19.20); Flood Plain Overlay District Special Permit (20.73)
Other City Permits Needed:	Conservation Commission approval
Planning Board Action:	Grant or deny requested special permits.
Memo Contents:	CDD Zoning Report & Urban Design Report
Other Staff Reports:	Parking and Transportation Dept. (TP+T) in separate document.

Requested Special Permits	Required Planning Board Findings <i>(Summary - see appendix for zoning text excerpts)</i>
Project Review Special Permit (Section 19.20)	<ul style="list-style-type: none"> • 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.
Construction in Flood Plain Overlay District (Section 20.73)	<ul style="list-style-type: none"> • No encroachment of the floodway or displacement of water retention capacity is allowed unless fully offset. • Flood water systems shall not cause nuisance, hazard or detriment to site or abutters. • Development is consistent with zoning, area plans and guidelines, and applicable laws including Wetlands Protection Act. <p>Review by the City Engineer and Conservation Commission are required.</p>
General Special Permit Criteria (Section 10.43)	<p>Special permits will be normally granted if the zoning requirements are met, unless it is found not to be in the public interest due to one of the criteria enumerated in Section 10.43:</p> <ul style="list-style-type: none"> (a) It appears that requirements of this Ordinance cannot or will not be met, or (b) traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character, or (c) the continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would be adversely affected by the nature of the proposed use, or (d) nuisance or hazard would be created to the detriment of the health, safety and/or welfare of the occupant of the proposed use or the citizens of the City, or (e) for other reasons, the proposed use would impair the integrity of the district or adjoining district, or otherwise derogate from the intent and purpose of this Ordinance, and (f) the new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30.



CITY OF CAMBRIDGE

Community Development Department

Date: May 4, 2022

Zoning Report: **PB-387, 36-64 Whittemore Avenue ("Alewife Park")**

Revised Proposal

Overview

On March 1, 2022, the Planning Board ("the Board") held a public hearing on an application by IQHQ ("the Applicant") to redevelop the property at 36-64 Whittemore Avenue by renovating two existing buildings, demolishing five existing buildings, constructing three new buildings, and constructing an above-grade parking garage. The total development will amount to approximately 735,500 square feet of Gross Floor Area (GFA), including an above-grade parking facility, and will be used predominantly for office and laboratory uses, with some retail use. The proposed development generally conforms to the SD-3 zoning, and is not seeking any use, dimensional, or parking relief. It requires a Project Review Special Permit because it proposes at least 50,000 square feet of new GFA, and a special permit for development in the Flood Plain Overlay District.

At the public hearing, the Board provided various comments and suggestions for refinement, and continued the hearing to a future date. Since that time, the Applicant's team has met with staff from the Community Development Department (CDD), the Department of Public Works (DPW), and the Traffic, Parking and Transportation Department (TP+T). The intent of these meetings was to further discuss the set of issues raised by staff and the Board at the March 1, 2022 hearing. The Applicant has since provided a revised application ("the Application") that includes updated plans and a summary of the effort they have made to address the points raised by the Board and staff.

Key Revisions

The Application does not significantly change the uses or dimensions of the initial proposal. Instead, it addresses Board and staff comments through a series of smaller tweaks to improve the project. The Applicant addresses these changes in the Supplemental Narrative and the response matrix included as part of Other Materials. Revisions to the building and site design are discussed further in the Urban Design Report from CDD staff.

The below table shows key dimensional features of the Application compared to the relevant base and overlay zoning, and the initial development proposal:

	Dimensional Standards (SD-3/Parkway Overlay)	Proposed Development	Revised Development
Building Height	55', 70' near the MBTA headhouse (SD-3) 85', with setbacks above 55' (Parkway)	48-52' (varies by building)	48-52' (varies by building)
Floor Area Ratio (FAR)	0.45 allocated to each lot, may be pooled/transferred across lots	0.94 in Development Area	0.94 in Development Area
Gross Floor Area (GFA)	782,500 SF: entire district 764,751 SF: land controlled by Applicant	735,500 SF square feet	735,500 SF square feet
Setbacks (Yards)	<ul style="list-style-type: none"> • 25' abutting Alewife Brook Parkway • 25' on Whittemore Avenue • 50' abutting Rindge Avenue, any Open Space District, and any public park or recreation area • Side yard of (H+L)/7 and rear yard of (H+L)/5 for nonresidential uses within 100' of open space or residential uses 	<ul style="list-style-type: none"> • Front (Whittemore): 25' • Side (Alewife Brook Parkway): Not specified • Side (eastern edge): Not specified • Rear (southern edge): Not specified 	<ul style="list-style-type: none"> • Front (Whittemore): 25'6" • Side (Alewife Brook Parkway): 26'5," 102'3" • Side (eastern edge): 242'6," 93'6," 92'6," 62'4" • Rear (southern edge): 116'10"
Open Space	20% min. - Any combination of Private open space, Publicly Beneficial Open Space, or Green Area Open Space; may be pooled across lots	51% of lot area <ul style="list-style-type: none"> • 42% of lot area is permeable open space (352,000 square feet) • 6% of lot area is permeable pavers (50,000 square feet) 	50% of lot area <ul style="list-style-type: none"> • 45% of lot area is permeable open space (385,500 square feet) • 5% of lot area is permeable pavers (42,000 square feet)
Quantity of Off-Street Parking	No minimum 1,000 spaces maximum	653 spaces (350 in a new above-grade structure, 303 in surface lots)	609 spaces (358 in a new above-grade structure, 251 in surface lots)
Bicycle Parking (spaces per 1,000 SF)	Technical office: 0.22 long-term, 0.06 short-term Retail: 0.10-0.20 long-term, 0.60-1.00 short-term (depending on type of retail)	140 long-term spaces 44 short-term spaces	140 long-term spaces 44 short-term spaces

Setbacks

The Application includes a revised dimensional form that notes the setbacks between buildings and the lot line. Building 2 will remain as an existing nonconforming structure within the 25' Whittemore Ave setback per Section 17.33.4.4. The large, existing surface parking lot at the northeastern corner of the

development site will also remain as a non-conforming condition within the 25' setback from Whittemore Ave and the side yard setback to the east.

Open Space

The amount and type of open space listed on the dimensional form has been revised to reflect the updated site conditions. The permeable paver square footage, previously included in the “other open space” category, is now combined with the permeable open space category to provide a single total.

Sustainability

The Application includes a Cool Factor Score Sheet that calculates how building and site strategies contribute to reducing the urban heat island effect. While the Cool Factor is not currently a requirement, it has been used by the Board to assess the cooling impact of various development proposals. The Score Sheet shows a total score of 2.87, with the following breakdown:

- Portion of lot area utilizing green strategies: 57%
- Portion of score from green strategies: 100%
- Portion of score from trees: 80%
- Portion of score contributing to public realm cooling: 28%.

The large number of strategies located within twenty feet of Whittemore Avenue contribute to the high Cool Score, due to the public right of way multiplier. When the Climate Resilience Zoning Task Force was developing the Cool Factor, staff suggested that roads interior to a site that have adequate pedestrian and bicycle facilities that are usable by the public should also receive the same multiplier. If the applicant revised the Score Sheet to apply the multiplier to the interior service road, the Cool Score would be even higher.

Harvey Street Access

Section 17.36.3 prohibits any “building, structure, parking facility or access road” from having access to Harvey Street, “except as may be necessary for emergency vehicles.” The Application maintains an emergency vehicle access to Harvey Street but has replaced gates with bollards. Bollards are also being proposed instead of gates for the entrance to the service road from Whittemore Avenue.

Outstanding Considerations

Parking Ratio and Parking Lot Reuse

The amount of off-street parking has been reduced from 653 spaces to 609 spaces, which results in a parking ratio of 1.0 spaces per 1,000 square feet. The Alewife District Plan recommends setting a maximum parking ratio of 0.8 per 1,000 square feet for research and development uses. To bring the development closer into alignment with the Alewife District Plan, the Application proposes to reduce the amount of parking spaces over time by converting a maximum of three of the four surface lots north of Whittemore Avenue to other uses.

The parking lot reuse proposal would require the Applicant to initiate a series of studies to determine the feasibility of using each of the three lots for “housing or community use.” It should be noted that the

zoning for these sites is Residence B, which only permits limited residential and institutional uses. Affordable housing could be built to more permissive dimensional standards using the Affordable Housing Overlay. The Planning Board cannot grant approval for uses that are not permitted in the base district, so any other uses could require variances or special permits from the Board of Zoning Appeal, or the City Council would need to amend the zoning.

The Application also proposes starting these reuse studies with Lots A and D, followed by Lot C. Lot C is almost twice as large as Lots A and D combined and stretches across an entire block. Given the size of the lot and its frontage on three streets, it could accommodate a larger range of alternative uses than Lots A and D. As a parking lot, it also disrupts the streetscape more than the smaller footprints of Lots A and D. The Board may want to consider asking if Lot C could be prioritized for earlier reuse than Lots A and D if that would create a better outcome.

The trigger for the initiation of these studies is a certain number of years following the “occupancy of 95% of GFA.” This is a vague term that would be challenging to interpret. It would be more straightforward to tie the parking reuse proposal to the Certificate of Occupancy for Building 5.

Bicycle Parking

The Application includes revised plans to show the location of and access to the bicycle parking in further detail. The plans are not fully dimensioned, so it is still unclear if the proposed short- and long-term bicycle parking meet the zoning requirements. The plans also show 36 short-term bicycle parking spaces, when the Dimensional Form notes that 44 will be provided. All of this would need to be reviewed in detail and certified prior to the issuance of a building permit.

It is also unclear if the Applicant proposes to locate short-term bicycle parking on City sidewalks, which is not allowed. If short-term bicycle parking cannot be accommodated on-site, then the Applicant would need to make a contribution to the City to fund public bicycle parking facilities.

The revised plans also show a 33-dock Bluebikes station located within a small plaza east of the promenade and north of the Linear Park. The plans are not fully dimensioned, so it is unclear if the proposed station location provides enough clearance. This would also need to be reviewed in detail and certified prior to issuance of a building permit.

Linear Park Connection

Section 17.36.4 of the Zoning Ordinance requires the construction of a pedestrian and bicycle connection between Linear Park and Whittemore Avenue in the vicinity of Madison Avenue. This connection must be designed to a standard comparable to the improvements in the Linear Park and the Minuteman Bikeway. The revised application shows a new north-south path connecting Whittemore Avenue to the Linear Park with a width of 14’.

Unlike Linear Park and the Minuteman Bikeway, the proposed path is not a fully separated, multi-use path. New multiuse paths are ideally designed to be approximately 14’ wide plus a minimum 3’ safety buffer on each side that would be clear of trees and vertical structures, for a total cross-sectional width of 20’. In certain areas, paths could be reduced to a minimum of 12’ and/or buffers could be reduced to

a minimum of 2'. Staff are happy to work with the Applicant to design an appropriate Linear Park connection to Whittemore Avenue that satisfies the zoning requirement.

Linear Park Design

The City has recently started a year-long [planning study](#) to redesign and reconstruct Linear Park. The Applicant and staff agree that it would be more equitable to discuss the final alignment of the Park through the Applicant's property from Russell Field to the MBTA head house as part of this public process. The conditions of the special permit could acknowledge that the design of Linear Park as shown in the Application is a conceptual rendering and that the final design will be worked out by the Applicant, in coordination with City staff, to reflect the recommendations of the planning study. The Applicant would be required to construct the agreed-upon path alignment and design.

Surface Parking Landscaping

The Application maintains five existing surface parking lots in their current, non-conforming condition. The Application proposes bringing the four parking lots north of Whittemore Avenue (called Lots A, B, C, and D) closer into alignment with the design standards in Article 6 by adding trees and planting areas. While these changes are generally supported by staff, further review by the Inspectional Services Department (ISD) may be necessary to determine if relief will be needed to alter the existing parking lots in ways that do not bring them into full conformance with the requirements of Article 6.000 of the Zoning Ordinance.

Uses

The Application presents a revised approach to the location of retail and accessory uses on the site. Previous plans show retail in the southeast corner of Building 4 with "building amenities" located on the northeast corner of the same building. According to the current plans, the entire second floor of Building 2 is now dedicated to "building amenities." In conversations with staff, the Applicant has also suggested considering moving the retail space to the ground story central southern area of Building 2. This is addressed further in the Urban Design report.

Retail uses are allowed as-of-right in this zoning district. Building amenities are typically considered accessory uses if they are customary and incidental to the principal uses – in this case, offices and laboratories. Examples might include cafeterias, meeting spaces, and fitness centers that are intended for employees and not open to the general public. The exact "building amenities" are not specified in this case and may need to be reviewed by the Inspectional Services Department at the building permit or certificate of occupancy stage to determine if they meet the zoning standards for accessory uses. If the Planning Board wanted to allow flexibility for the location of retail uses, both initially and in the future, the special permit could authorize Retail and Consumer Establishments in the ground stories of any buildings, compliant with the base zoning requirements. The Planning Board could also specify where retail uses must be located or how much area should be devoted to retail, at a minimum.

Electric Vehicles

The Application notes that the project will provide 20 electric vehicle (EV) parking and charging stations in the surface parking lots that will be usable upon initial building occupancy. It also notes that an

additional 89 EV-ready parking spaces will be available in the parking garage. The City Council has recommended that development projects install Electric Vehicle Supply Equipment (EVSE) in 25% of spaces, or one dual-head Level 2 charger for every two vehicles served. The remaining 75% of spaces should be EV-ready (wiring installed to, in the future, support installation of an additional dual-head Level 2 charger for every 2 vehicles served). In addition, the project should ensure sufficient capacity in the electrical panel and transformer to support future installation of chargers serving all spaces. While this is not yet a requirement, staff have asked applicants of various large development projects to meet this guidance.

Phasing

The Application states that work will begin with the renovations to Buildings 1 and 2. The Applicant plans to execute Buildings 3, 4, 5 and the garage within the next three years. It is unclear when the central plaza will be constructed, when landscape improvements will be made to the surface parking lots north of Whittemore Avenue, and when street trees will be planted along Whittemore Avenue. Staff recommends that the special permit include conditions that require completion of these key landscape elements prior to the Certificate of Occupancy for certain buildings.

Covenant

The SD-3 zoning specifies that proposals that concentrate development in one part of the district while reducing additional development potential in other parts of the district require written consent from the owner whose development rights would be reduced as a result. The Application proposes to create restrictive covenants within 18 months of the issuance of an Order of Condition by the Conservation Commission for the four-acre habitat and Jerry's Pond area. The covenants would prohibit the construction of buildings in the four-acre natural habitat area situated within the Project Site and the Jerry's Pond Commitment Area, with the exception of minor improvements to amenities included in the approved site plan. The Application proposes that the City, or a third party reasonably acceptable to the Applicant, would be the beneficiary of the covenants.

Special Permit Conditions

If the Board decides to grant the special permit, the following list summarizes the general categories of conditions recommended for this development based on the requested special permits:

1. Approved Development. Authorized development would need to conform with the submitted application materials. An Approved Dimensional Form would be attached as an Appendix. A restrictive covenant or other mechanism would be required to ensure that development rights on the non-developed parts of the site would be limited to comply with SD-3 zoning. Staff will consult with the Law Department on the final wording of a condition, and the Law Department will review any legal mechanism proposed by the Permittee.
2. Permitted Uses. The special permit would authorize the uses proposed in the application, which would include Office and Laboratory uses listed in Section 4.34 and Retail or Consumer Service Establishments listed in Sections 4.35 and 4.36, as permitted in the zoning district. In the future, uses that are allowed by zoning but not authorized by the special permit would require Planning

Board approval, and uses that are limited by the Zoning Ordinance (e.g., requiring a separate special permit from the Planning Board or BZA) would need to seek the necessary relief.

3. Parking. The number of approved parking spaces would be as indicated in the revised Application Documents. Future reductions in parking, consistent with zoning requirements, would not require approval from the Planning Board, but future increases would require an amendment to the Special Permit. Continued parking on the surface lots would be conditioned on providing plans for future reuse at the development milestones described in the revised Application Documents and in accordance with the recommendation in the TP+T memo.
4. Design Review. CDD staff would review and approve design details at the construction documents phase, prior to issuance of a building permit, to certify that the plans conform to the Planning Board’s approval. Board members may cite specific areas of focus for detailed review, based on the Urban Design Report and Board discussion.
5. Timing. To ensure that open space improvements are aligned with the development program, staff suggests the following sequence: the landscape improvements shall be made to the surface parking lots north of Whittemore Avenue before the Certificate of Occupancy is issued for Building 2; trees shall be planted along Whittemore Avenue before the Certificate of Occupancy is issued for Building 3; the central plaza and promenade shall be constructed prior to the Certificate of Occupancy for Building 5. CDD staff may approve an alternate timeline for some improvements due to practical constraints – for example, final plantings may be completed at a seasonally appropriate time, so long as the earthwork is substantially complete.
6. Infrastructure. Work being done on City property would be subject to review and approval by appropriate City departments, including DPW, TP+T and CDD.
7. Transportation Mitigation Program. Transportation mitigation measures, as recommended in the TP+T memo, would be included as conditions. Because this project is not subject to the Parking and Transportation Demand Management (PTDM) Ordinance, these conditions would include Transportation Demand Management (TDM) measures.
8. Sustainability. Development will be subject to the Green Building Requirements in Section 22.20, which will be reviewed again by CDD staff at the building permit and certificate of occupancy stages. CDD would also review for compliance with Green Roof Requirements in Section 22.35.
9. Housing. Development will be subject to Incentive Zoning requirements, which will be certified by the CDD Housing staff at the building permit and certificate of occupancy stages.
10. Public Benefits. The voluntary commitments offered by the developer and agreed to by the Planning Board would be incorporated into the conditions, subject to certification by the appropriate City staff. Staff would recommend that further consultation with appropriate departments be conducted when implementing these commitments, particularly with respect to the design of publicly accessible open spaces and the provision of public services. Staff would

also recommend consultation with CDD staff if food trucks are employed, to consider participating in the City’s Food Truck Program.

11. Linear Park Design. The Planning Board would approve the proposed alignment of Linear Park as shown in concept. However, the detailed design of the alignment would be further refined in coordination with City staff in accordance with a study of the redesign and reconstruction of Linear Park to be conducted by the City.
12. Construction Management Program. Per Section 18.20, staff would recommend a Construction Management Program be provided and approved by TP+T, DPW, and other applicable City departments before issuance of a building permit. This program would also include a community outreach program designating a point of contact to provide information to the public during the construction process and notification panels posted on the site with project information.
13. Conservation Commission Approval. The special permit will be conditioned on continuing compliance with the Order of Conditions issued by the Conservation Commission in December 2021, or as it may be amended if necessary to reflect any revisions approved by the special permit.
14. Trees. Development will be subject to the Tree Protection Ordinance, which will be certified by the City Arborist at the building permit and certificate of occupancy stages.



CITY OF CAMBRIDGE

Community Development Department

Date: May 4, 2022

Urban Design Report: **PB-387, 36-64 Whittemore Avenue (“Alewife Park”)**

Overview

The project consists of a compact group of renovated and new three-floor laboratory/office buildings along the south side of Whittemore Avenue, organized around a central east/west Promenade that connects to the Linear Park’s multiuse path. South of the building group, two undeveloped areas are established as public benefits: a 4-acre natural habitat area north of the MBTA headhouse and Russell Field, and the area around Jerry’s Pond, where extensive improvements will enable public access and improve pedestrian and bicycle movement. The 4-acre area will be revised to accommodate stormwater, much of it will become a meadow, but numerous new trees will be planted.

Design Guidelines

As noted in the previous memo, the Alewife Design Guidelines (2020) are intended to encourage the creation of a welcoming, usable, and beautiful public realm consisting of streets, parks, squares, and courtyards that are interconnected with each other and with the surrounding districts. They encourage building massing and façade design that frames and enriches public spaces and relates to nearby buildings, first floor uses that enliven adjoining streets, and landscape design that reinforces public spaces and offers beauty and environmental benefits.

Planning Board Comments

Planning Board comments from the March 1, 2022 hearing included:

- Further develop the building facades: provide greater façade articulation, greater integration of façade motifs with building massing, reduce the west facing glass and provide more sunshading for it, develop the penthouse facades, “soften” the “Bump Outs”.
- Improve the facades of the Parking Garage, including screening.
- Consider opportunities to provide affordable housing, both within the project’s FAR and on the lots north of Whittemore Avenue.
- Use higher quality and more consistent materials for landscape fences, railings, stairs, etc.
- Provide landscape improvements to the Whittemore parking lots.
- Reduce the amount of parking provided.
- Further improvements to pedestrian circulation, creating a clearer relationship between the routing and widths of proposed paths and desire lines, including at the east entrance to the Promenade, the connection between Whittemore Avenue and the Linear Park’s path, and the Linear Park’s path route through the site.
- Provide a more distinct place at the Central Plaza and more vegetation along the Promenade.
- Try to keep more of the existing trees.

- Control site lighting and building lighting to minimize light pollution.
- Address the comments in the CDD and TP&T memos.

The Revised Design

The revised architectural and site design addresses many of the Planning Board’s comments in the hearing on March 1, 2022, and those conveyed in the Urban Design memo (dated February 23, 2022) Changes include:

Site:

The connectivity of the circulation systems has been improved, and the design of landscape features has been developed.

- A multiuse pedestrian/bicycle path connects the Linear Park’s path to Whittemore Avenue.
- The connection between the east end of the Promenade and the Linear Park’s path has been strengthened and clarified.
- The western entry to the Promenade is emphasized by a pair of shelters.
- The Central Plaza is modified and now incorporates the “Performance Space” previously located in the western portion of the Promenade.
- The perimeters of the parking lots on Whittemore are landscaped with low plantings and canopy trees, and the number of surface parking spaces reduced.
- The details of steps, railings, fences, etc. have been revised.
- Bollards are proposed for two of the several gates across the site’s drives, rather than transverse arms.

Architecture:

The building facades have been developed:

- The façade motifs along the buildings’ north and south sides are better integrated with their massings.
- Narrow vertical recesses have been added to the north and south facades of the buildings, articulating their lengths into shorter segments.
- On Buildings 2, 3, 4, and 5, the two floor projections into the Promenade (the “Bump-outs”) are more detailed, and are provided with different fenestration patterns, an expressed stair, trellises, green roofs, etc.
- The east and west end facades have been given additional vertical mullions and vertical areas of spandrel glass, dividing their widths into façade bays.
- Penthouse articulations, cladding panels, and louvers create a vertical pattern.
- Mullion profiles have been developed.
- Climbing vegetation has been added to the parking garage’s facades.

Urban Design Comments

The following combines new comments based on the new application materials (dated April 8, 2022) with Planning Board comments from the first hearing and comments from the previous memo that remain relevant.

The priority comments:

- Work with the city on the design and location of the extension of the Linear Park path through the site, including any wayfinding signage and any necessary public access easements or agreements. The paths through the site that connects with the Linear Park should be as direct, open, and welcoming as possible to conform with the Alewife Urban Design guidelines.
- Provide a stronger sense of center at the Central Plaza: layout, features, and programmatic uses.
- Provide curbside street trees on Whittemore Avenue and on the perimeter service loop drive, and additional trees and other plantings along the Promenade.
- Further develop the architecture: material, details, integration of façade and massing, first floor, entrances, and the “Bump Outs”.
- Further develop materials, layouts, and designs of paving, materials, plantings, and design of landscape features.
- Should housing or other construction be undertaken in the future on the Whittemore parking lots, consider prioritizing reuse of the larger lots first.

Site Design

Connectivity

Many of the comments on the previous submission had to do with creating a greater sense of connectivity through the site and between the site and its surroundings. The updated design has advanced these connections, but further improvements could be considered.

1. Develop the route and design of the pedestrian and cyclist connections through the site in conjunction with the city’s ongoing Linear Park design process, with the goals of reducing congestion and increasing safety and amenity and relating to desire lines. As noted in the previous memo, a range of possibilities could be considered for its exact route.
2. The multiuse path running north/south between the Linear Park’s path to Whittemore ideally should be 14 feet wide with 3-foot buffers on both sides. The minimum is 12 feet wide with 2-foot buffers.
3. To create a stronger connection between the Central Plaza and Whittemore, consider providing a gradual (ADA accessible) slope at the Whittemore and Harvey entrances instead of the proposed combinations of steps and ramps, and consider including catenary lights at the Whittemore entrance (as are proposed at the Harvey Entrance).
4. To create a stronger visual connection between the Central Plaza to the 4-acre natural area via the Harvey Entrance, consideration should be given to relocating the site-mounted electrical equipment indicated at the east end of the garage into the garage.
5. To enhance the Promenade as pedestrian space and its east/west connectivity, consideration should be given to providing more canopy trees along its sides, and to more consistently aligning them.
6. Provide a sidewalk on the north side of the perimeter service loop drive for its full length.
7. Provide larger radius corners where the existing north/south path in the southwestern portion of the development area meets the path along the north face of the MBTA headhouse.
8. Provide access to the long-term bicycle storage rooms in compliance with zoning; via ramps must be provided, as stairs are not permitted.

9. People accessing the bicycle parking from the multi-use paths will be using the pathways on bike and not walking so all the spaces will need to be considered multi-use for non-automobile travel.
10. Coordinate the design of the multi-use paths with the ongoing work that the City is engaged with in enhancing Linear Park. The incorporation of the proposed improved access from Linear Park to the MBTA head house is welcome.

Central Plaza

11. The adoption of a clearer unifying principle for the Central Plaza would give it a more memorable presence as the center of the building group and create a stronger sense of arrival. Various means could be considered, such as more consistent canopy trees along its perimeter; more consistent low plantings and benches with backs to give the space sheltered occupiable edges; a broader clear open area at its center, less obstructed by seating platforms, or an ordered grove of canopy trees; and a more prominent role of the Performance Space.

Retail location

12. Subsequent to the application documents, IQHQ proposed to locate the retail in the south side of Building 2, where it would face the Promenade, instead of at the southeast corner of Building 4. Valid arguments can be made for either location in terms of the activation of adjoining outdoor space and accessibility by the public. Given that the retail's primary market is likely to be the development's workers, the Building 2 location seems suitable.
13. Another possibility would be to instead locate the retail at the east end of Building 2, where it could address both the Central Plaza and the Whittemore entrance. The long-term bicycle storage room would be located to a less prominent but readily accessible location.

Promenade

14. To strengthen the Promenade as the project's public spine, consideration should be given to providing more consistently aligned canopy trees of substantial size, and to more consistently framing the edges of the space with low plantings, benches, and other landscape features.

Jerry's Pond

While the improvements to Jerry's Pond are not within the scope of this Special Permit, the application includes conceptual images of proposed features. A boardwalk is proposed along the east side of the pond, with radial boardwalks extending out to the surrounding paved paths between the MBTA headhouse and the Russell Field Play area.

15. To reduce impacts on the vegetated areas east of the pond, consideration should be given to reducing the number of radial paths or other potential design measures.

Bicycle Parking

A 33-dock blue bike station is provided at the east end of the Promenade, long-term bicycle parking rooms are provided for each building, and short-term spaces are provided throughout the site.

16. In the bicycle storage rooms, some clearances appear to be inadequate relative to the standards established by zoning. These will need to be modified and the project team can review the details with CDD staff.
17. Dimensions and clearances for the short-term spaces will need to be reviewed with staff in depth and modified to comply with zoning. Short-term bicycle parking for the project cannot be on the public sidewalk
18. The location for the Bluebikes station is good and the detailed dimensions and layout will need to be reviewed with staff, with modifications as needed.

Vehicular Access - Gates and Bollards

At the west end of Harvey Street and at the intersection of the perimeter service loop drive and Whittemore Avenue, bollards will control vehicular access, creating more permeable entrances for pedestrians and bicyclists than the previously indicated gates. A gate is proposed on the western part of the perimeter loop drive, and the existing gate at the western entrance to the site from the Route 2 access ramp is proposed to remain.

19. Gate types, operation, and specific locations should control vehicular traffic as appropriate for the site while preventing impacts on surrounding streets and on non-vehicular users; see also the Traffic and Transportation memo.

Plantings and Paving

20. Unless precluded by subsurface conditions, consideration should be given to providing curbside street trees on Whittemore, Harrison Ave, and Kimball Street, and on the perimeter service loop drive, and additional trees along the Promenade.
21. Consideration should be given to adding more trees within the parking lots in addition to at their perimeters.
22. Care should be taken to ensure that the curb-to-curb width of the perimeter service loop drive is no greater than necessary.
23. To reduce the garage's intrusion into the wooded area, consideration should be given to reducing the façade-to-façade width of the perimeter service loop drive.
24. Consideration should be given to adjusting the pavilions/shelters proposed at the west end of the Promenade so that they could serve more effectively as shelters for ride and shuttle bus pickup/drop-offs.
25. Consideration should be given to using high-SRI pavement.

Building Entrances

Wooden steps and ramps ascend to raised decks at the building entrances. The steps seem excessively steep and narrow, and rustic effect of the wood seems incongruous with the metal panels and high-performance concrete facade cladding systems.

26. Consideration should be given to widening the steps and making them less steep, to more strongly relating building entrances and sidewalks by the design of the steps, ramps, and entry terraces, and to using materials that feel more solid and permanent.

Railings, Steps, and Fences

27. Various types of guardrails and railings are shown: shiny and metallic with an accordion style mesh, black with mesh, and pipe rails. They generally appear to be fairly insubstantial. Consideration should be given to using more substantial and more consistent systems.
28. A variety of different types of fences, both existing and new, are proposed around the 4-acre natural area. Consideration should be given to providing more consistent fences.

Housing

29. A plan for the phased reuse of the surface parking lots along Whittemore is outlined in the application. As suggested in the Z&D memo, consideration should be given to prioritizing the reuse of the largest parking lot on Whittemore, “Lot 3” or “C” between Kimball and Harrison, rather than the smaller east and west lots on the Whittemore frontage.

MBTA Headhouse Plaza

As part of the project, the applicant proposes to refurbish the exterior of the MBTA headhouse and improve the paved plaza around it with new paving and trees.

30. Consideration could be given to designing the paved area between the headhouse and the Alewife Brook Parkway (Route 16) underpass for recreational uses, such as a skate park. Additional consideration should be given to art and planting.

Signage

31. Interpretive and wayfinding signage should be provided along the Linear Park’s path and at the natural areas.
32. All signage must comply with Zoning Article 7.000.

Architectural Design

As the application encompasses five laboratory/office buildings plus a garage, it is difficult to provide the level of commentary and suggestion that the individual buildings deserve. Some key comments follow:

Façades

The addition of vertical slots on the north and south sides of buildings 3, 4, and 5 and the adjustment of the façades to wrap into the side faces of the slots have reduced the sense that the façade motifs are merely applied/pasted on to the building mass.

33. The façades at the south sides of Buildings 4 and 5, the west end of building 4, and both ends of Building 5 retain the effect of pasted on motifs. Consideration should be given more strongly integrating façade expression and massing, including giving the solid portions of the end walls a stronger relationship to the solid portions of the north and south façades.

Façades have been given more detail and three-dimensional relief, including slight cornices at their tops, mullion profiles, additional mullions, and recesses and spandrel panels that visually link punched windows to create a two-floor expression.

34. Consideration could be given to extending the vertical recessed zones of punched windows for the full height of the brownish panel-clad areas, and to recessing these zones more deeply.
35. Consideration should be given to providing additional sun shading elements at the large areas of south facing curtainwall.

The introduction of a rhythmic mullion pattern at the end facades of the new buildings – suggesting façade bays - does much to visually enrich them and to relate to the scale of the pedestrian.

36. The shadow studies indicate morning and afternoon solar exposure in spring, summer, and fall. Consideration could be given to further addressing solar gain at the building ends by reducing window area or introducing shading devices.

Two-floor elements - the “Bump Outs” - project from the main masses of Buildings 2,3, 4, and 5 into the width of the Promenade. To give them more individuality, a more compatible relationship with the Promenade, and to emphasize the pedestrian scale, fenestration and mullion patterns have been adjusted, trellises have been added, and an expressed interior stair gives Building 2’s Bump Out a unique massing. Green roofs and terraces have been added.

37. Further articulation, detail, and differentiation should be considered, including the detail where they meet the main masses of the buildings, fenestration, railings at occupiable terraces, climbing vegetation, cornices, etc.
38. While the rectilinear nature of laboratory bench arrays is a consideration, note that only relatively minor adjustments to their rectilinear shapes could reduce their boxyness and thereby give them a greater sense of participation with the promenade’s landscape.

First Floor Facades

39. The drawings do not fully represent the design of the ground floor facades. To create a visually engaging pedestrian environment, further consideration should be given to materials, three-dimensional relief, more varied fenestration patterns and/or expression of structural bays, proportions, entrances, and details.
40. If the retail is to be relocated to the south side of Building 2, consideration should be given to revising its façade to create greater transparency between inside and outside, providing sunshading devices above the retail façade, etc.
41. The drawings indicate signage areas near the entry doors to each building. More information would be helpful.

Penthouses

42. At almost 27 feet tall, the penthouses on the new buildings appear to be very prominent. While their stepbacks ameliorate their bulk somewhat in perspective, consideration should be given to increasing the depth and number of vertical articulations to reduce their visual bulk, reducing their heights if possible, and/or increasing their stepbacks.

Glazing

43. The proposed ground floor vision glass has a Visible Light Transmittance (VLT) of 61%, and a Visible Light Reflectance (VLR) of 11%. Staff suggests that a higher VLT should be achieved.

44. The proposed vision glass on the second, third, and fourth floor facades has a Visible Light Transmittance (VLT) of 51%, and a Visible Light Reflectance (VLR) of VLR 14%. Staff suggests that a higher VLT should be achieved.

Lighting

Exterior lighting will be designed to minimize light trespass. Tenant fit-out criteria will include shades and occupancy sensors to control light trespass from building interiors. Light trespass from the Garage will be controlled by fixture selection and occupancy sensors.

Sustainability

The project incorporates numerous sustainable features and is targeting LEED Gold. The reuse of the two existing buildings will save energy and resources. First floors are elevated above 2070 100-year flood levels. The majority of the roof area is designated as green roofs and biosolar PV panels. After the regrading of the 4-acre natural area to accommodate stormwater, extensive replanting will enhance its value as habitat. At the east end of the Promenade. Concrete paving has been replaced by “Grass Paving” at the east end of the Promenade. At 30%, the window to wall ratio is fairly low.

45. Consideration could be given to using light colored pavement.
46. As the project develops, assessment of embodied carbon should continue.
47. Consideration should be given to providing additional canopy trees to shade parking lots, drives, and pedestrian paved areas.

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 discussion to a future date, or as conditions for ongoing design review by staff if the Board decides to grant design approval:

1. Review of a visual mockup and of all exterior building materials and colors, including joints in the panel systems, details at corners, curtainwall systems, window mullions, glass specifications, etc.
2. Facades and exterior details of the laboratory/office buildings and the parking garage.
3. Design of ground floor facades.
4. Review of landscape layout, materials, and details.
5. Signage areas on the building facades.
6. Architectural and site lighting, control of light trespass from building interiors.
7. Tree species and locations, including the provision of curbside street trees.
8. Location and design of the Linear Park’s connection between Harvey Street and the MBTA headhouse, based on input from the ongoing Linear Park Study.
9. The design of the plaza at the MBTA headhouse.
10. Layout of long-term bicycle storage rooms and routes to them.
11. The number, layout, and location of short-term bicycle parking spaces.
12. The design and locations of bollards and gates at the site’s entrances and driveways.