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# CITY OF CAMBRIDGE

Community Development Department

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To: Planning Board

From: CDD Staff

Date: March 17, 2021

Re: Special Permit PB #375, 600 & 624 Main Street  
(Parcels – 41 Albany Street & 620 Main Street)

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Submission Type: Special Permit Application

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Applicant: The Ragon Institute

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Zoning District(s): Industry B (IB) and East Cambridge TDR District

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Proposal Summary: Construction of a 185,810 square-foot six-story building for technical office and laboratory for research and development use with two levels of below grade parking for 120 vehicles, 41 long-term and 12 short-term bicycle parking spaces, and 4 loading bays.

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Special Permits Requested: Project Review Special Permit (Section 19.20) including modification to Building and Site Plan Requirements (Section 19.50), Special Permit for reduction of required off-street parking (Section 6.35.1), Special Permit to exceed curb cut width (6.43.5(b)), and Special Permit for basement gross floor area exemption (Section 2.000). *A summary of the applicable special permit findings is listed on the following page. Applicable sections of the zoning are provided in an appendix.*

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Other City Permits Needed: Certificate of Appropriateness from Cambridge Historic Commission (CHC), PTDM Plan Approved on 2/22/2021

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Planning Board Action: Grant or deny requested special permits.

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Memo Contents: Review of area planning and zoning, comments on proposal addressing planning, zoning, and urban design.

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Other Staff Reports: Traffic, Parking and Transportation Dept. (TP+T), Department of Public Works (DPW), in separate documents.

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Requested Special Permits	Required Planning Board Findings <i>(summarized – detailed zoning text in appendix)</i>
Project Review Special Permit (Section 19.20)	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The project is consistent with the urban design objectives of the City as set forth in Section 19.30 (see following page).</li> </ul>
Special Permit to reduce required parking (Section 6.35.1)	Lesser amount of parking will not cause excessive congestion, endanger public safety, substantially reduce parking availability for other uses or otherwise adversely impact the neighborhood; or will provide positive environmental or other benefits to the users of the lot and the neighborhood, including assisting in provision of affordable housing units.
Special Permit to exceed allowed curb cut width (Section 6.43.5)	Increased curb cut width will facilitate traffic and safety.
Modification to Building and Site Plan Requirements (Section 19.50)	The project is consistent with the urban design objectives of the City as set forth in Section 19.30.
Special Permit for basement gross floor area exemption (Section 2.000)	The uses occupying such exempted GFA support the character of the neighborhood or district in which the applicable lot is located.
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"> <li>(a) It appears that requirements of this Ordinance cannot or will not be met, or</li> <li>(b) traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character, or</li> <li>(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</li> <li>(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</li> <li>(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</li> <li>(f) the new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30.</li> </ul>

**19.30 Citywide Urban Design Objectives [SUMMARIZED]**

Objective	Indicators
New projects should be responsive to the existing or anticipated pattern of development.	<ul style="list-style-type: none"> <li>• Transition to lower-scale neighborhoods</li> <li>• Consistency with established streetscape</li> <li>• Compatibility with adjacent uses</li> <li>• Consideration of nearby historic buildings</li> </ul>
Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.	<ul style="list-style-type: none"> <li>• Inhabited ground floor spaces</li> <li>• Discouraged ground-floor parking</li> <li>• Windows on ground floor</li> <li>• Orienting entries to pedestrian pathways</li> <li>• Safe and convenient bicycle and pedestrian access</li> </ul>
The building and site design should mitigate adverse environmental impacts of a development upon its neighbors.	<ul style="list-style-type: none"> <li>• Location/impact of mechanical equipment</li> <li>• Location/impact of loading and trash handling</li> <li>• Stormwater management</li> <li>• Shadow impacts</li> <li>• Retaining walls, if provided</li> <li>• Building scale and wall treatment</li> <li>• Outdoor lighting</li> <li>• Tree protection (requires plan approved by City Arborist)</li> </ul>
Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.	<ul style="list-style-type: none"> <li>• Water-conserving plumbing, stormwater management</li> <li>• Capacity/condition of water and wastewater service</li> <li>• Efficient design (LEED standards)</li> </ul>
New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.	<ul style="list-style-type: none"> <li>• Institutional use focused on existing campuses</li> <li>• Mixed-use development (including retail) encouraged where allowed</li> <li>• Preservation of historic structures and environment</li> <li>• Provision of space for start-up companies, manufacturing activities</li> </ul>
Expansion of the inventory of housing in the city is encouraged.	<ul style="list-style-type: none"> <li>• Housing as a component of large, multi-building development</li> <li>• Affordable units exceeding zoning requirements, targeting units for middle-income families</li> </ul>
Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.	<ul style="list-style-type: none"> <li>• Publicly beneficial open space provided in large-parcel commercial development</li> <li>• Enhance/expand existing open space, complement existing pedestrian/bicycle networks</li> <li>• Provide wider range of activities</li> </ul>

## **Area Planning and Zoning**

### ***Site Context***

The existing 67,759 square foot lot is located in the Osborn Triangle section of The Port neighborhood, between Central Square to the southwest and Kendall Square to the east. The site is triangular in shape and bordered on all three sides by public streets – Main Street to the north, Portland Street to the west and Albany Street to the east.

The site is part of a larger mixed-use area that contains several life science and institutional uses (Technology Square, Pfizer, and several MIT buildings) and residential developments to the northwest (Newtowne Court and Washington Elms). Some nearby commercial buildings contain smaller, scattered retail and consumer service uses on the ground floors.

The site is currently improved with a one-story building covering approximately 90% of the lot, which was previously used as an automobile dealership and repair shop. At the corner of Main Street and Portland Street is the two-story Olmsted-Flint building, circa 1872, which had been historically used as a canned soup production facility and, more recently, as a power transmission equipment supplier. The Cambridge Historical Commission found the building to be historically significant but not preferably preserved.

### ***Site Zoning***

The site is located within the Industry B (IB) district. The IB district permits a broad swath of industrial uses, as well as institutional uses and retail/consumer service uses. Residential uses are permitted by special permit. Buildings may be built up to 120' in height with a maximum floor area ratio (FAR) of 2.75 for nonresidential uses, and 4.0 for residential uses. There are no minimum open space or minimum yard setback requirements in the district. Most of the surrounding area is also in the IB district except for the area on the corner opposite the intersection of Portland and Main Streets, where Newtowne Court is located, which is zoned Residence C-1.

### ***Area Planning Studies***

Envision Cambridge (2019) denotes the site and broader area as a “Higher Education Institutional Area”. An important goal for these areas is for new development and redevelopment to find ways of breaking down social barriers between institutional boundaries and nearby neighborhoods. Other Envision goals related to the project include focusing development along major commercial corridors, filling in gaps in the street wall, improving and expanding the open space network, and providing opportunities for small retail and community spaces.

Both the Central Square Study (C2) and Kendall Square Study (K2) discuss goals for the Osborn Triangle in the context of development in the squares. The reports recommend, among other things:

- 1) Developing public places to build community, such as indoor public gathering spaces where possible.
- 2) Requiring active ground floors along important commercial corridors such as Mass Ave and Main Street.
- 3) Designing streets to become periodically pedestrian-only during temporary public events.

- 4) Creating small, eclectic and independently owned commercial spaces to support retail and cultural diversity alongside larger corporate and institutional entities in these areas.
- 5) Promoting pedestrian connectivity and activity both within the squares and along connecting routes to encourage a neighborhood feel.
- 6) Improving sustainability through innovative building technology and resilience planning.

## **Comments on Development Proposal**

### ***Overall***

The Applicant is seeking to demolish both existing buildings on the site and build an approximately 185,000 square foot Technical Office & Laboratory building which will be home to the Ragon Institute. The Ragon Institute is a Cambridge-based, philanthropy-funded nonprofit partnership between Massachusetts General Hospital (MGH), MIT and Harvard. The mission of the Ragon Institute is to research and develop vaccines and cures for infectious diseases. The Ragon Institute is currently located across Main Street in Technology Square.

The proposed building is a six-story, U-shaped building oriented towards Main Street. The building contains a sloping roof that reaches its peak at 120' at the Main Street/Albany corner of the site, and gradually decreases in height to 90' at the corner of Main Street and Portland Street. The building is pulled back from the Main Street edge to provide for a wide open space area in the front of the building. The building's main lobby entrance is located at the center of the Main Street façade, and is flanked on either side by a colloquium room and seminar rooms. The west entrance to the building along Portland Street contains access to the building's private childcare center use. Along Albany Street are the building's service areas, including a loading dock and entrance to an underground, 120-space parking garage.

The proposed development helps to accomplish several area planning goals, such as expanding the area's open space network, concentrating and orienting development along major commercial corridors, and working to address citywide sustainability and flood resilience in new buildings.

### Uses

The entire 185,000 square foot building is proposed to be dedicated to private technical office and laboratory uses. A major planning goal for this area is to break down barriers – physical or otherwise – between institutions and existing neighborhoods. The proposal has the potential to be inviting by providing a generous amount of open space along its frontage, provided that the space is designed and programmed in a way that is inviting to the broader public.

### Ground Floor Activity

Main Street is an important connecting commercial corridor between Central Square and Kendall Square, and area planning emphasizes the importance of active ground floors along Main Street. In this proposal, most of the public activity is focused on the open space. Within the building itself, the Main Street frontage is devoted mostly to programmed space for the Ragon Institute. No ground-story retail or other small-scale, independent non-residential uses are proposed. The applicant is proposing to locate colloquium rooms and seminar rooms along the Main Street side, which may provide visibility

into the Ragon Institute's functions, but it is somewhat unclear how these uses will promote activity at the public realm. The proposal includes a child care center that is located at the ground story but away from Main Street, and an accessory café that is located on the 2<sup>nd</sup> floor. It is possible that greater activation could be achieved on Main Street if more active space with entrances and exits were located at the ground story.

Albany and Portland Streets, although not as prominent as Main Street, function as a connection between Main Street and Mass Ave and so the pedestrian experience along these routes is important. The Applicant proposes an approximately 8-foot high steel barrier between the public realm and an outdoor play area for the childcare center along Portland Street, which detracts from a pedestrian-friendly experience. Similarly, along Albany Street, the concentration of vehicle-related service areas (loading dock and underground parking entrance) is an impediment to a pedestrian-friendly environment if not appropriately mitigated.

### Open Space

The provision of a significant amount of public open space along Main Street is a benefit to the area and makes a strong physical and visual connection to other open spaces in the area, such as the forecourt at Technology Square. The applicant notes that the open space along Main Street will be divided between publicly-accessible open space and private open space, but it is not apparently clear from the submission how that division will be demarcated and enforced, or what is the purpose of having distinct private areas and how the private and public areas relate to one another. It is important for the proposed open space, in its design and programming, to support the planning goal of using public spaces to build a sense of community.

### **Zoning Standards**

The IB district is the most permissive industrial district in the City in terms of building density and height, and does not specify requirements for setbacks or open space.

Section 19.50 of the Zoning Ordinance, *Building & Site Plan Requirements*, provides more prescriptive development standards for development greater than 25,000 square feet of gross floor area in certain districts, including IB. The Planning Board may waive the specific requirements of 19.50 for projects seeking a Project Review Special Permit if the Board finds the proposal to be in general conformance with the Citywide Urban Design Objectives set forth in Section 19.30.

### Uses

The proposed use is a Technical Office for Research and Development under Section 4.34(f) of the Table of Use Regulations, which is a permitted use in the Industry B district.

### GFA & FAR

The allowable FAR in the Industry B district is 2.75 for nonresidential uses, and 4.0 for residential uses. For a 67,579 square foot lot, the allowable nonresidential GFA is 185,842 square feet, and the Applicant proposes to construct 185,810 square feet above grade, plus an additional 35,000 square feet of basement area for which the Applicant seeks an exemption through the issuance of a Planning Board Special Permit. This exemption may be granted by the Planning Board upon finding that it "supports the

character of the neighborhood or district,” in which case the total proposed GFA will be within the allowable 185,842 permitted in the district.

#### Building Height

Buildings in the IB district may not exceed 120’ in height. The applicant proposes a building that is 120’ at the highest point of the roof. Section 19.50 provides some additional limitations when development is proposed where a taller-height district abuts a lower-height district, such as where Industry B (120’) abuts the Residence C-1 district (35’). Ordinarily, 19.50 allows the cornice line of a taller building to be 20 feet above the limit in the lower-height district, and requires additional height to be set back behind a bulk control plane beginning at the district line and increasing at a 45 degree angle. The building at 610 Main Street, to the west of this site, illustrates how this provision is applied.

The application of the bulk control plane to the current site is complicated, since it abuts the Residence C-1 district only at a corner point and not along a linear boundary. The proposed building responds in principle by placing the lower portion of the building closer to the Residence C-1 district and scaling up as it moves further away. The proposed building is also set back further from the property line than adjacent buildings to reduce height and bulk near the residential district. Because a small portion of the building might exceed the bulk control limitations in 19.50 (depending on how they are interpreted by the Inspectional Services Department for this site), the application seeks a finding from the Planning Board that the objectives in Section 19.30 are met to allow the massing as proposed.

#### Yard Setbacks and Open Space

There are no required setbacks and no minimum open space requirements in the IB district. The site contains three separate frontages and three front yards. The applicant is proposing a varying setback along Main Street ranging from approximately 5 feet to 21 feet. Along Portland Street, the applicant is proposing a 12-foot setback. Along Albany Street, the applicant proposes a varying setback ranging from 4 feet to 7 feet.

The minimum open space required by Section 19.50 would be 15% of the lot, and could include any types including private, green area, and publicly beneficial open space. The Applicant is proposing the inclusion of approximately 35,000 square feet of open space, consisting of 48% of total lot area, and of which approximately 28,000 is proposed to be publicly accessible open space, 4,018 square feet is proposed as private open space, and 6,509 square feet is labeled as permeable open space. Section 19.50 does not contain numerical setback requirements but requires that the area between the building and the street is devoted to landscaped area or paved pedestrian area, with the exception of limited driveway and loading access.

#### Off-Street Parking

Technical office buildings require a minimum of one off-street parking space per 1,340 square feet of gross floor area. For a 185,810 square foot development, the off-street parking requirement is 139 spaces. The applicant is proposing 120 total parking spaces and is seeking a special permit from the Planning Board to reduce the required parking to what is proposed.

The Traffic, Parking & Transportation Department (TP+T) has reviewed the Application and, in a memo dated March 9, 2021, supports the proposed reduction in parking because the information provided in

the Transportation Impact Study (TIS) supports the rationale for a reduced number of parking spaces for the project.

#### Loading

Technical office buildings require two loading bays for buildings over 100,000 gross square feet but less than 200,000 square feet. The applicant is proposing four total loading bays.

The Applicant seeks a special permit to allow a curb cut in excess of the maximum width standard of 30 feet. The Applicant is proposing a 35-foot wide curb cut, which they believe will facilitate safety by reducing the time and angle required for loading vehicles to enter the loading dock from Albany Street. More comments on vehicle access/egress operations are contained in the TP+T memo.

#### Bicycle Parking

Long-term bicycle parking for the proposed use must be provided at a rate of 0.22 spaces per 1,000 square feet, or 41 total spaces. For short-term bicycle parking spaces, the proposed use must provide 0.06 spaces per 1,000 square feet of gross floor area, or 12 total spaces.

The applicant is proposing 41 long-term bicycle parking spaces and 12 short-term bicycle parking spaces, which meets the minimum requirements.

### **URBAN DESIGN COMMENTS**

The proposed building will be an important addition to the facilities that serve Cambridge's scientific community and will strengthen the Ragon Institute's role as a center of health science research. By replacing the site's existing underutilized one and two story buildings with a new structure more compatible in height and use with the surrounding area, and by its improvements to the site and the adjoining streets, the project will help connect Kendall Square, Central Square, Newtowne Court, MIT's academic area along Vassar Street, and potential future development by MIT on Albany Street. The proposed scheme will provide street trees on the adjoining streets, create a grade-separated bicycle lane on Main Street, extend the width of public sidewalks into the outer perimeter of the site, add a crosswalk across Main near Albany street, increase the amount of green open space on the site, preserve the existing trees at the east end of the site, and provide a childcare center.

The applicant met with staff several times as the design was being developed, and responded to comments, particularly regarding pedestrian desire lines, the landscape design of the open space facing Main Street, and the creation of the separated bicycle lane on Main Street mandated by Cambridge's Cycling Safety Ordinance.

Main Street is an important pedestrian, vehicular, and bicycle corridor, extending from lively and diverse Central Square to Kendall Square with its research and academic focus. At present, the south side of the street is divided into two distinct parts by this unused site with its lack of street trees and other sidewalk amenities along the site's frontage. The proposed project presents the opportunity to heal this discontinuity and to connect the surrounding residential, research, and academic neighborhoods.

- West of the site, the south side of Main Street is framed by streetwall buildings, many with active ground floors and lively, relatively narrow, sidewalks. Diagonally opposite the Ragon site, Main Street's north side is bordered by the Newtowne Court and Washington Elms residential



areas, the long-term homes of a significant population, including historically disadvantaged groups. Their low scale buildings are set back from the street by a landscape buffer and parking lots.

- East of the site, Main Street is bordered by large academic and research buildings whose setbacks vary somewhat, but which provide streetwalls and often include street facing active uses.
- On the opposite side of Main Street, three laboratory/research buildings frame a large rectangular green space at Technology Square. It is an important gathering place, heavily used by workers in the area as a place for outdoor lunches and organized and impromptu meetings, and provides a stress relieving connection to nature. Ground-story restaurants and retail bookend the open space. A very wide sidewalk extends west from the park to the intersection with Portland Street.
- The opposite side of Portland Street is occupied by a large office/laboratory building, with a small plaza and pedestrian passage into the interior of its block and ground-story retail along Main Street.
- The opposite side of Albany Street is currently occupied by a parking garage. MIT has long term plans to replace it with an academic building. A pedestrian and bicycle path extends across the railroad tracks to Vassar Street and MIT's academic buildings, including the soon-to-be-constructed Schwarzman College of Computing.
- East of the site is the Grand Junction railroad corridor, where a major linear park and multi-use path will be constructed (<https://www.cambridgema.gov/CDD/Projects/Transportation/GrandJunctionPathway>).

Staff have encouraged the applicant to find ways to make the building and its site feel more connected to the life of Central Square and Kendall Square - particularly with Main Street, Newtowne Court, and Technology Square's park - by giving the building a stronger, more direct relationship to Main Street, by making its landscape design feel more welcoming and more supportive of Main Street as civically significant open space, and by providing ground floor uses that are more open to the general public.

### ***Design Guidelines***

The Citywide Urban Design Objectives (Section 19.30 of the Zoning Ordinance), the Envision Cambridge Master Plan (2019), and the Central Square Design Guidelines (2013) are intended to strengthen the city's public realm as a network of legible spaces, activated on important corridors by ground floor uses in the adjoining buildings. They encourage the creation of pedestrian-friendly and connective streets and other open spaces, framed by buildings that have a direct and positive relationship to them and whose massing and facades relate to neighboring buildings. In addition, while the Kendall Square Design Guidelines (2013) are concerned with an area slightly to the east of the site, their recommendations regarding building massing, facades, and ground level activation are relevant. Collectively, these guidelines emphasize that buildings should:

- Be compatible with the building heights and setbacks of established streetscapes.
- Activate the pedestrian realm with actively inhabited ground floor spaces, and where possible with uses that are accessible to the public, such as retail stores, etc.

- Give continuity to the pedestrian experience with well-defined streetwall facades that frame sidewalks, plazas, and other public spaces, and by aligning new streetwalls with those of neighboring buildings.
- Locate building entrances at corners and at crosswalks.
- Minimize monolithic massing and break down the scale of large buildings.
- Provide vertical breaks to articulate facades that would otherwise be excessively long and uninterrupted.
- Include breaks in streetwalls if needed to help define entry.
- Avoid deep setbacks and avoid setbacks for ornamental plantings.

In accord with these recommendations, staff have discussed approaches to the architectural and site design that could help create a more collaborative and responsive relationship with the surrounding urban fabric and social context.

### ***Built Form: Massing, Form and Architectural Character***

The building's overall height strategy aligns with Cambridge's zoning and design recommendations to relate to nearby buildings. It is lowest at the intersection of Main and Portland Streets, where it addresses Newtowne Court and the lower portion of the 610 Main Street; it ascends to its highest point at the intersection of Main and Albany Streets, where it relates to MIT's Brain and Cognitive Sciences Building.

The overall approach to the building's massing, facades, and location on the site are detached in several ways from its physical and social contexts, emphasizing the open space along Main Street and making the building read as a stand-alone sculptural element within Cambridge's urban fabric. In part, this derives from the Ragon Institute's unique character and security requirements. Staff have suggested that the design could be tempered by a more responsive integration with its spatial, architectural, and social contexts to reinforce the continuity, amenity, and activation of the pedestrian environment. In particular, the project could do more to contribute to the urban streetwall recommended by the Kendall Square and Central Square Design Guidelines.

- The ground floor, while transparent on Main Street and on much of Portland Street, consists of spaces concerned with the institution's internal functions, rather than the street activating uses recommended by the Central Square Design Guidelines. As suggested further above, consideration could be given to programming the street facing ground floor with more active uses or building functions, accessible directly from the sidewalk.
- The recessed ground floors on all sides of the building, but especially the very deeply recessed ones on the Main Street façade, tend to disassociate the building's interior functions from the sidewalk, and give the impression that the building's upper floors hover above the ground plane, which is a bold architectural expression but separates those floors from the public realm. The large second floor terrace above the entry courtyard seems to reiterate this sense that life within the building is separate from the surrounding city. The overhangs facing Main Street extend as much as 40 to 60 feet beyond the first floor facades, raising questions of how inviting these north facing spaces will be for users, and whether it will impact the viability of plantings.
- To allow the ground floor facade and the interior program to participate in the framing of the sidewalk as civic space and provide visual interest to pedestrians, consideration could be given

to bringing the first floor at the intersection of Main and Portland Streets out to approximately the plane of the upper floors, thereby creating greater continuity with the streetwall of 610 Main Street and the width of its sidewalk, reducing or eliminating the planted buffer between the sidewalk and the first floor façade, and reducing the extent of the overhanging second floor terrace.

- Any modifications needs to maintain the cross section of the travel portion of the frontage as conceptually agreed upon, with the separate bicycle lane, space for street trees, and a comfortable sidewalk and will be subject to continuing staff review.
- The end of the eastern wing's upper volume is pulled back from Main Street, and its sharply angled northern corner conflicts with the linear continuity of the street. Consideration could be given to bringing the façades of its upper floors closer to the street, and aligning them more with respect to the facades of the three buildings that frame the park on the opposite side of the street. Similarly to the suggestion at the western corner of the building, consideration could be given to bringing the first floor façade out to approximately the plane of the upper façade to eliminate or greatly reduce the deeply recessed outdoor space below the cantilevered upper floors. Finally, consideration could be given to rounding the northern corner of the east wing into a convex curve that would have a more harmonious, less confrontational, relationship to Main Street.

### ***Façade Design & Architectural Details***

An elegantly designed screen composed of slender vertical panels wraps the building's upper floors. While it incorporates variations and special elements in response to its context, its basic continuity unifies the building, making it read as an insular object in contrast to the surrounding context. Some greater differentiation in the building's three facades might create a stronger relationship with its neighbors across the streets.

On Albany and Portland Streets, more assertive vertical breaks in the façade's continuity, as suggested in the design guidelines, could reduce the uninterrupted lengths of facades. Especially on Albany Street, the introduction of courtyards or changes in the façade plane could be considered in response to the more public role the street will assume if new academic development occurs on the opposite side of the street, and in response to the important pedestrian and bicycle path leading across the railroad crossing from Vassar street and connecting to the core of the MIT campus.

A horizontal slot in the north façade of the east wing adds visual interest to the building when seen from the Main and Portland intersection. Additional opportunities could be found for the façade to respond to the building's context, including at the north façade of the east wing, where a visual target could help visually connect the building with the park at Technology Square.

### ***Open Space & Public Realm***

The project provides street trees along its three street frontages, and it will preserve the existing linden trees at the east end of the site. These will do much to humanize the streets by providing shelter and pedestrian scale, and by giving them visual continuity.

Staff thanks the applicant for the inclusion of a separated bicycle lane on the south side of Main Street within the project's scope; we are in general agreement about the conceptual design, dimensions and

clearances and recommend that these be subject to continuing review of the engineered plans. We also are supportive of the additional crosswalk near the Albany Street intersection.

The setback on Main Street is considerably larger than the 10' maximum recommended by the Central Square Design Guidelines. The deep setback, with the planted area between the first floor and the sidewalk and its deeply recessed first floor, serves the design objectives of increasing landscaped area and publicly accessible open space. However, as previously mentioned, it also has the effect of separating the building from the adjoining street and sidewalk. In concept, this may be a viable response to the context, creating something akin to a park, although as currently designed it has the effect of breaking the pattern established by the streetwall buildings west of the site and thereby weakening the coherence of the street as civic space.

The space's landscape design, with its trees, low plantings, vertical stone slabs, and water feature, provides a significant amount of vegetation but also buffers the building's interior spaces from the sidewalk and could discourage flexible use of the green space. As this is the north side of the building, these areas will be in shadow most of the day; the planting and programming of the space will need to account for limited sunlight.

The main concern is that by isolating the building and its users from the street, the setback and its landscape design could cause passers-by to feel excluded from them. The greenspace's design contrasts with the open and simply designed park at Technology Square across the street. Greater clarity on how it is intended to be used, and on how its design and programming will benefit the surrounding communities, including Newtowne Court and Washington Elms, would inform the discussion.

Adjustments could be considered to bring the site design in closer alignment with the City's goals for the area:

- Changes to planting and other features to allow more flexible use of the planted spaces and to the layout of landscaped areas create a stronger relationship between the building and the public sidewalk
- The provision of an entry courtyard on the building's south side to help engage pedestrian flow from the path across the tracks to Vassar Street.
- Reducing the planted zone between the building and the sidewalk by reducing the ground floor setback along Portland and Albany Streets and by increasing the width of the curbside tree planting zone, while maintaining or increasing the sidewalk width.
- At the southwest corner of the site, lower the fence around the childcare center playground to be less imposing and create a more positive pedestrian environment. Tall fences are alienating and unnecessary. The fence should be as low as possible (maximum 6') while maintaining safety for the children.

### ***Mechanical Equipment & Services – Penthouse and Rooftop Equipment***

The building's primary facades enclose the building's rooftop mechanical equipment, concealing them and integrating them into the building's overall form. The sloped roof expression also helps to hide much of the mechanical equipment from view. A green roof is proposed for much of the roof area. Both are positive responses to the site and context.

### ***Public Street Design and Transportation Elements***

Consistent with Cambridge’s Bicycle Plan and the City’s Cycling Safety Ordinance, separated bicycle lanes will be constructed on Main Street as part of the project. The project’s design incorporates improvements for people walking and bicycling to the south side of Main Street between Portland and Main, including street trees and a generous sidewalk, along with the separated bicycle lane as well as a new crosswalk.

The project has also agreed to fund a 23-dock Bluebikes station; final decision on the station placement will be determined by the City.

### ***Sustainability***

The proposed project is subject to the Green Building Requirements in Section 22.20 of the Cambridge Zoning Ordinance. According to the Green Building submission, the project is currently designed to achieve a LEED Gold standard under LEED v4 BD+C – New Construction and Major Renovation, with 66 “Yes” credit points, and an additional 6 points designated as “possible.” As required, the submission includes a Net Zero Narrative providing details of design considerations to reduce energy use with regard to building envelope, HVAC systems, hot water systems, and renewable energy.

The project is pursuing LEED’s Integrative Design Process credit, which promotes high-performance, cost-effective project outcomes through the early analysis, 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.

The project is integrating positive features in the proposed mechanical system, including high performance triple glazed windows, moderate window-to-wall ratio at 47%, efficiency heat recovery equipment, high efficiency chiller and boiler plants, low flow plumbing fixtures, and high efficiency lighting.

Beyond meeting the minimum Green Building Requirements, this project is expected to reduce energy consumption by 35% and reduce greenhouse gas emissions by 32% compared to baseline requirements for Stretch Code. Additional improvements could be sought by pursuing additional credit points in impactful LEED categories including Energy & Atmosphere and Material Resources, Water Efficiency and Indoor Environmental Quality.

The proposal’s Net Zero Narrative also includes a study of the solar energy potential of the site, indicating that the roof will be “solar-ready” and could accommodate a 341 kW photovoltaic panel array. Installation of the array is not currently proposed.

Staff will continue to work with the Applicant through continuing design review to explore sustainable development practices as the design advances. The project will be reviewed again at the building permit and certificate of occupancy stages to certify that it remains in compliance with the Green Building Requirements.

## **Continuing Review**

City staff met with the project team on multiple occasions to discuss the proposal and provide comments. Staff is appreciative of the team's efforts to shape this proposal and look forward to continued collaboration as the project moves forward.

The following is a summary of issues that may be addressed further at the public hearing, or may be incorporated into conditions for continuing design review by staff if the Board decides to grant the special permit:

- The street section on Main , Portland, and Albany Streets, including the separated bicycle lane, street trees, curb locations, crosswalk locations, curb cuts, details, and the size and position of drop off areas.
- Landscape design of the publicly accessible open space and setbacks along Main, Portland, and Albany Streets, including species and planting standards for trees and other vegetation, and of details of hardscape, benches, fences, etc.
- Review of exterior lighting
- Review of a visual mockup of the exterior envelope prior to the purchase of materials, including glazing.
- Review of ground level and upper level façade design.