



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: CDD Staff

Date: October 14, 2020

Re: Special Permit PB #367, 325 Binney Street, (parcel address: 345 Binney Street)

IRAM FAROOQ
Assistant City Manager for
Community Development

SANDRA CLARKE
Deputy Director
Chief of Administration

KHALIL MOGASSABI
Deputy Director
Chief of Planning

Submission Type: Special Permit Application

Applicant: City of Cambridge

Zoning District(s): Industry A-1 (IA-1); Residence C-1; Eastern Cambridge Housing Overlay (ECHO) District; Grand Junction Pathway Overlay District

Proposal Summary: Construction of a new technical office building with a total of 370,462 square feet of gross floor area (GFA), 286 off-street parking spaces, 88 long-term and 24 short-term bicycle parking spaces, and 3 loading bays. A portion of the site will be Publicly Beneficial Open Space. The project is required to contribute land to the City for a section of the Grand Junction Multi-Use Path between Binney Street and Cambridge Street.

Special Permits Requested: Project Review Special Permit (Section 19.20) and Grand Junction Pathway Overlay District Special Permit (Section 20.1000). *A summary of the applicable special permit findings is listed on the following page. Applicable sections of the zoning are provided in an appendix.*

Other City Permits Needed: PTDM Plan Approved on 10/8/2020.

Planning Board Action: Grant or deny requested special permits.

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

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

Requested Special Permits	Summarized Findings <i>(detailed zoning text on following pages)</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 (see following page).
Grand Junction Pathway Overlay District Special Permit (Section 20.1000)	<ul style="list-style-type: none"> • Provision has been made for the conveyance to the City, or a designee thereof, by fee or easement, of interests in certain land as described [in Section 20.1000] for the development of the Grand Junction pathway between Binney Street and Cambridge Street. • The project provides open space, recreational opportunities, a corridor for non-auto traffic in the City, as well as high quality development, and promote the goals of public health, safety, welfare and economic development.
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.

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

Area Planning and Zoning

Site Context

325 Binney Street is located at the northwest intersection of Binney Street and Fulkerson Street, approximately 1/3 mile northwest of Kendall Square in East Cambridge. This particular area of East Cambridge is a transitional area between the more intensive commercial development in Kendall Square and the residential neighborhoods of East Cambridge and Wellington-Harrington to the north.

Over the past several years, Kendall Square has experienced rapid growth and has been the subject of extensive planning and zoning efforts, including the “K2” Planning Study and subsequent rezoning of areas along Main Street near the MIT campus, the MXD district (“Kendall Center”) and the Volpe Center site.

Existing development in this area includes mid-to-high rise commercial development to the east, west, and south, with a particular emphasis on office and laboratory uses. To the north, development is characterized by a mix of older, lower-scale commercial buildings transitioning to more compact residential neighborhoods, with the Kennedy-Longfellow school on the east side of Fulkerson Street. The Grand Junction railroad right-of-way, planned to become a regional multi-use path, runs north-south through this area. To the northwest, and across the rail line, is a mid-century townhouse development that contains the closest residential abutters to the site.

Site Zoning (see attached map for reference)

Base zoning on the site is split between Industry A-1 (IA-1) in the southern portion and Residence C-1 in the northern portion. Generally, the IA-1 district permits a wide range of uses including residential, institutional, office and laboratory, retail and light industrial uses at a moderate density with allowed heights of 45 feet and few requirements for setbacks or open space. This portion of the site is also subject to provisions of the Eastern Cambridge Housing Overlay (ECHO), created after the ECaPS process in 2001 (see below), which allows increased density and heights up to 65 feet for residential development. The Residence C-1 district permits moderate-scale, three-story residential and limited institutional uses with greater requirements for setbacks and open space.

In March 2020, the City Council adopted a Zoning Amendment establishing a new “Grand Junction Pathway Overlay District.” The intent of the rezoning was to facilitate the conveyance of a 14-foot-wide strip of property along the western edge of the Grand Junction railroad corridor in East Cambridge (“Grand Junction Land,” approx. 29,536 square feet) to the City in exchange for increases in allowed height and density for commercial use on the parcel at Binney and Fulkerson Streets (“Development Land,” approx. 191,506 square feet), as shown on the attached map. The new overlay district requires that any special permit issued under the new Section 20.100 be preceded by the granting of use rights, through fee or easement, to the City for the Grand Junction Land.

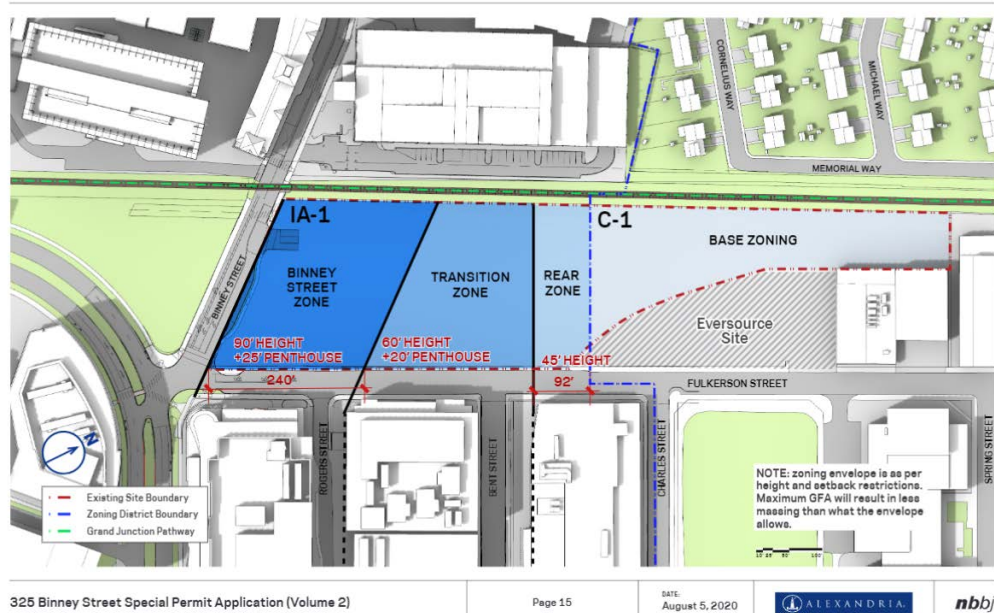
In the Grand Junction Land, uses and development are limited to public open space and ancillary civic uses. Provided that the Grand Junction Land is conveyed to the City, the allowed floor area ratio (FAR) in the Development Land is 2.5 in the IA-1 portion and 1.25 in the Residence C-1 portion for all uses permitted in the IA-1 District. However, while the portion of the Development Land in the Residence C-1 district may be included in the calculation of FAR on the lot, that area must be reserved as publicly

beneficial open space, with some allowance for loading and underground utilities serving the development site.

The Grand Junction Overlay District allows maximum building heights as shown on the map below:

- Binney Street Zone = 90 feet
- Transition Zone = 60 feet
- Base Zoning (IA-1 “Rear Zone”) = 45 feet
- Base Zoning (Residence C-1) = 35 feet

Zoning Analysis — Height Zones



325 Binney Street Special Permit Application (Volume 2)

Page 15

DATE: August 5, 2020



There are no minimum setback requirements on the Development Land except that above-grade buildings must be placed at least 25 feet from the eastern edge of the railroad parcel. Parking, loading, and bicycle parking must conform to normal zoning requirements, except that automobile parking for office/lab uses is limited to a maximum ratio of 0.8 space per 1,000 square feet of GFA.

The Grand Junction Pathway Overlay also makes reference to a Letter of Commitment, which was offered by Alexandria Real Estate Equities and accepted by the City Council when the zoning was adopted. This letter describes contributions to be made by the property owner including the conveyance of the Grand Junction Land in “No Significant Risk” environmental condition, a contribution of up to \$11,250,000 for design and construction of the public pathway, and a commitment to purchase and convey to the City the parcel at 135 Fulkerson Street at a cost of up to \$12,292,000 subject to agreement with the parcel’s current owner, Eversource (or to provide the same amount to the City in funds if the parcel is not acquired).

Area Planning Studies

ECaPS (2001)

Conducted in the early 2000's, the Eastern Cambridge Planning Study (ECaPS) established a series of goals for development in the Kendall Square area and surrounding neighborhoods which would lay the groundwork for Kendall's evolution from a primarily industrial district into a more vibrant mixed-use neighborhood. Some relevant goals of ECaPS include:

- Encouraging the creation of an open space network which connects Kendall Square to its surrounding neighborhoods;
- Improving pedestrian and bicycle connections with the East Cambridge and Wellington-Harrington neighborhood to the west; and
- Activating ground floors and reinvigorating the public realm as a walkable, pedestrian-friendly environment.

K2 Study (2013)

The 2013 report known as "K2" (part of the "Kendall Square Central Square" or "K2C2" Planning Study) provided recommendations for addressing and effectively managing demand for commercial growth in the core section of Kendall Square. The report focused on four main goals:

1. Nurture Kendall's Innovation Culture
2. Create Great Places
3. Promote Environmental Sustainability
4. Mix Living, Working, Learning & Playing

The current project site is not within the K2 study area, but the K2 report emphasized creating connections to the surrounding areas. The K2 study recommendations are intended to support transit-oriented, compact, mixed-use development; streets that work for all users and modes, regardless of age or ability; and connected, accessible public spaces for residents.

Transport Kendall (2017)

Converting the Grand Junction railroad corridor into a "rail-with-trail" has long been a community-supported planning effort in Cambridge. Once complete, this multi-use path will extend as far south as Boston University Bridge, and as far north as the Somerville City Line, at which point it will make connections with larger regional trails in the area. The Kendall Square Mobility Task Force issued a report in 2017 called Transport Kendall, which features the Grand Junction path as one of its central recommendations, noting that one in three Cambridge residents lives within a half-mile of the planned pathway.

Comments on Development Proposal

Zoning Standards

Overall

The proposal generally conforms to the standards set forth in the Grand Junction Pathway Overlay District created in March 2020 and follows from the development concepts shown during that recent

rezoning process. The proposal involves the redevelopment of the existing site into a commercial office/lab development consisting of 370,462 square feet of GFA contained in a single building. The proposed building is entirely within the IA-1 portion of the site and the north side, zoned Residence C-1, is proposed to be a significant publicly beneficial open space, providing a buffer from the residential areas to the northwest and also containing underground geothermal wells that will improve the energy performance of the project. By committing to convey the Grand Junction Land to the City, this special permit application takes an important step toward the implementation of the Grand Junction Multi-Use Path.

Uses

The proposed commercial office/lab use is permitted in the IA-1 district.

GFA & FAR

The maximum GFA on the “Development Land,” per the Grand Junction Pathway Overlay District, is determined by multiplying the land area in the IA-1 district (130,671 square feet) by the allowed FAR of 2.5, resulting in 326,677 square feet of GFA, then multiplying the land area within the Residence C-1 district (60,835 square feet) by the allowed FAR of 1.25, resulting in 76,043 square feet, and combining the two for a maximum GFA of 402,721 square feet. The total GFA proposed is 370,462, which complies with the zoning limitations.

Building Height

The proposed new building will be contained within the “Binney Street Zone” and the “Transition Zone” portions of the overlay district. Building height for the proposal reaches the maximum permitted 90’ (6 stories) at the corner of Binney Street and Fulkerson Street, plus a 25’ mechanical penthouse. To the north, the building steps down to 60’ (four stories), plus a 20’ mechanical penthouse.

Yard Setbacks

The proposed project is on a corner lot and thus has two “front yards” and two “side yards.” The proposed building has an undulating façade, with setbacks on Binney Street ranging from 9.5’ to 74’, on Fulkerson St ranging from 2’ to 40’, on the western side from 25’ to 31’ (where 25’ is required by zoning), and on the northern side from 53’ to 628’.

Off-Street Parking

At a ratio of 0.8 spaces/1,000 square feet of gross floor area, a 370,462 square foot building would be allowed a maximum of 297 total off-street parking spaces. The proposed project includes the development of 286 total parking spaces, which falls within the maximum ratio set forth in the zoning district.

Bicycle Parking

For technical office/lab developments, the minimum long-term bicycle parking rate is 0.22 spaces per 1,000 square feet of gross floor area, or 82 spaces for a 370,462 square foot development. Short-term bicycle parking shall be provided at a rate of 0.06 spaces per 1,000 square feet of gross floor area, or 23 short-term spaces. The project proposes 88 long-term bicycle parking spaces, and 24 short-term bicycle parking spaces, which is compliant with the standards set forth in Article 6.100.

Open Space

The project proposes utilizing this option by developing the building completely within the IA-1 underlying site area and leaving the Residence C-1 site area as open space. This option results in a proposed project with a total percentage of open space to lot area of 43.5%.

Special Permits

This development proposal requires a Project Review Special Permit per Article 19.000 of this Zoning Ordinance and Grand Junction Pathway Overlay District Special Permit per Article 19.000 of this Zoning Ordinance. No other special permits or additional zoning relief is required.

The Grand Junction Overlay District Special Permit authorizes the additional density and height described above, if the Board finds that the proposal conforms to the intent of the district to provide the conveyance of the Grand Junction Land.

The Project Review Special Permit is based on the Board's review of transportation impacts and mitigation (discussed in the accompanying TP+T memo) and conformance with the City's urban design objectives (summarized above and discussed further below, and in the accompanying DPW memo as it relates to City infrastructure).

Other Zoning Requirements

Based on the scale of the proposal, it is also subject to the following zoning provisions:

- Green Building Requirements, which in this case requires meeting a "Gold" design standard using the LEED rating system. The proposal includes a complete report indicating that it will meet the required standard, as discussed further below.
- Incentive Zoning provisions, which require a contribution to the Cambridge Affordable Housing Trust on a per-square-foot basis for non-residential developments of this scale. The required contribution is calculated when a building permit is issued and must be made prior to issuance of a certificate of occupancy. Based on current contribution rates, the total contribution will be over \$7 million.

Urban Design Comments

The proposed project is located at a key site at the junction of different neighborhoods, circulation routes, and open spaces. It will contribute to the transformation of Cambridge as a center of innovation, and to the character and quality of its streets and other open spaces. As described by the Eastern Cambridge Planning Study, the site is in a transitional area between the commercial development centered on Kendall Square and the residential area to the north.

The building's overall massing and facades are good responses to the context: the tallest volume faces Binney Street Park and relates to the large scale of commercial development along Binney Street and Galileo Galilei Way; at the north, the building steps down for compatibility with nearby residential neighborhoods. Staff suggests that some adjustments could be considered to further strengthen the building's fit with its contexts.

Built Form - Massing

On Little Binney Street, the building has a deep setback from the curb, ranging from approximately 30' to approximately 80'. A setback is not required by zoning, but in this case the depth helps accommodate the proposed separated bicycle path and includes planting and benches for pedestrians. Development with a strong urban streetwall is promoted in the *Envision Cambridge* comprehensive plan, which recommends that “new development should not shun the street, but rather embrace it in a way that is appropriate to the surrounding context.” The Eastern Cambridge Design Guidelines also recommend that setbacks for ornamental landscape be avoided. The concern with such a deep front setback is that it could potentially draw life and activity away from Binney Street and from the planned public park that will be developed on the opposite side of the street. The overall width of pavement and planted areas, especially at the southeast corner of the site, seems to separate the building from Little Binney Street and Binney Street Park, and to disassociate its façade from that of the Biogen Building on the east side of the intersection of Fulkerson and Binney Streets.

Staff has suggested considering moves that would bring the building's south façade closer to the curb and extend it parallel to Binney Street, thereby reducing the size of the plaza at the southeast corner of the site. The resulting broader façade would more strongly frame Binney Street Park as an important civic space, reduce the amount of pavement at the southeast corner of the site, and strengthen the connection between Kendall Square and the Wellington Harrington neighborhood by creating a more continuous street wall linking Binney and Little Binney Streets.

The building's slight setback from the Fulkerson Street property line seems appropriate, providing width for street trees and adequate sidewalk width for pedestrians. The side entry courtyard roughly at the center of the façade divides it into two portions, each less than 200' long, as recommended by the design guidelines. While an alternative location of the courtyard opposite either Bent Street or Rogers Street would directly link the building's side entry with the district's street pattern, in its proposed location the courtyard aligns with the glazed central portion of the façade of the Biogen Building across Fulkerson, creating a more subtle yet still positive relationship between the new building and its context.

Façade Design and Details

The building's façades will contribute to the scale and visual identity of the adjoining streets and the surrounding neighborhoods. They contain a great level of detail, including textured materials and varied shadow lines, relatively low window to wall ratio, details at window openings, treatment of spandrel panels, use of color, use of contrast between “background” repetitive walls and more unique areas of emphasis, and transparency at the ground level.

Two different façade types are proposed. The southern portions of the building are predominately warm white, relating to the white and light grey commercial buildings clustered around Binney Street Park. In recognition of the different character of the residential neighborhoods to the north of the site, the northern façades use a brown cladding material and have smaller punched windows. The brown coloration is carried through to the window surrounds on the southern façades, and to the main entrance on Binney Street and the collaborative workspaces above it, bringing a hint of the northern façades through the building to address Binney Street Park.

On the south façade, the “collaborative workspaces” – projecting volumes above the lobby entrance – are very assertive as seen from Binney Street Park and looking west along Binney Street. As noted above, consideration could be given to a façade geometry and articulation that frames Binney Street Park more strongly and simply. The highly glazed south facing collaboration spaces are protected from excessive solar gain by horizontal louvers. Their shading effect and visual appearance should be carefully studied as the design develops. Care should be taken in the selection and treatment of glass and the design of shading devices to minimize the danger of bird collisions.

The south façade's highly glazed ground floor and its continuous canopy will contribute to a pedestrian friendly streetscape. The parking entrance is integrated into the design of the façade to minimize its visual impact on the streetscape. The long-term bicycle parking room has recently been moved from the building's west side to Binney Street. Staff needs to review the new location in consideration of both user convenience and façade design. Its façade should be inviting, but avoid presenting excessive visual clutter to the streetscape.

Similarly, the east façade's ground floor, facing Fulkerson Street, is also highly glazed and has a continuous projecting canopy, contributing to the sense of pedestrian scale. The use of the brown colored façade material on the courtyard, contrasting with the off-white on the remainder of the façade, gives the courtyard an appropriate emphasis and a more intimate feel.

The ground floor on the west side of the building will be visible from the Grand Junction railroad line and the Grand Junction Multiuse Trail. In a recent meeting with the Applicant, opportunities for public art in this location and potential collaboration with city staff were discussed.

Staff appreciates the treatment of the mechanical penthouse facades. Some are integral and coplanar with the typical office/lab floors below, others are stepped back but are given a complementary design. The degree of transparency in the penthouse's vertical louvers should be carefully studied.

The façade materials should be further developed, with more specificity on the color, attachment systems, amount of three-dimensional relief, and finishes. The use of “ultra-high-performance concrete” vs. “custom finished metal” for the cladding panels should be clarified.

Staff appreciates the project's plan to minimize light trespass from the building interior to nearby residences by the use of sensors and timers.

Consideration could be given to increasing the amount of green roof area, and/or to increasing the area allocated for future solar panels (as discussed further below).

Mechanical Equipment and Services

To minimize visual and acoustical impacts on the surrounding neighborhoods, mechanical and electrical equipment is located within the building volume or in screened penthouse enclosures. The only exception is the primary exhaust vents, which will extend above the top of the penthouse to provide the direct access to free flow of air required for their function. The base building's mechanical systems and their acoustical treatment have been selected and designed to operate within the requirements of the Cambridge Noise Ordinance, with a margin for potential future tenant equipment.

The service yard, while interior to the site and partially shielded by site walls, plantings, and a berm, will still be visible from Fulkerson Street. Consideration could be given to reducing its size by pulling the loading bays more deeply into the building if possible, and to providing additional plantings to screen it from view.

Critical building equipment, including electrical, water, fire pump, and data are located above the anticipated 2070 100 year flood level.

Open Space, Public Realm, and Pedestrian and Bicycle Connections

The applicant is collaborating with city staff on the redesign of Little Binney Street, which will include the relocation of both the north and south curbs to allow the construction of separated bicycle lanes on both sides of the street and the creation of a pick up/drop off lane in front of the building.

The proposed curbside street trees on Fulkerson and Little Binney Streets will provide shade (In accord with the recommendations of the Urban Forest Master Plan) and will also help spatially define the streets and sidewalks as components of the public realm. Staff suggests that more trees be provided at a closer spacing along both streets, unless prevented by conflicts with underground utilities. Note that the City's preference is to plant street trees in wells flush with the sidewalk, not in raised planters.

As noted above, consideration could be given to recessing the loading docks more deeply into the building's plan, so as to reduce the area of the exterior paved truck maneuvering area, and to providing additional planting to better screen it from Fulkerson Street. The service drive's curb cut should be minimized in width to the extent possible.

North of the service yard, the long narrow portion of the property between the tracks and the Eversource property will be the site of the project's geothermal wells. It is designated as Publicly Beneficial Open Space, and is divided into two parts: an accessible area with curvilinear paths adjoining the service yard and screened from it by a berm, planting, and a site wall; and a separate fenced area of meadow and trees from which pedestrians will be excluded. It is unclear how the former of these spaces is intended to be used, and by whom; furthermore, its curvilinear paths don't seem to relate to pedestrian desire lines. While the exclusion of the public from the northern portion of the area will enhance its value as habitat, the location and geometry of the fence dividing the northern and southern portions of the Publicly Beneficial Open Space seems arbitrary.

A better understanding of the publicly beneficial open spaces' intended users and the activities it will accommodate would inform review. Consideration could be given to collaborating with the neighborhood, including the Kennedy Longfellow School, as ideas are developed. It is difficult to fully anticipate the use of this space until the future ownership and use of the adjoining Eversource property is determined, which is not likely to occur until after the 325 Binney Street project is approved. Therefore, the publicly beneficial open space's design should be flexible enough to account for different possible outcomes on the Eversource parcel.

The trees and berm proposed along the western edge of the property will screen the loading area from the Grand Junction Multipurpose Trail, from the tracks themselves, and from the residential area west of the tracks.

Specific locations for the proposed plant species – particularly street trees, trees along the west border of the property, and plants of the urban meadow in the publicly beneficial open space – should be developed in consultation with city staff and with reference to the Urban Forest Master Plan.

Lighting should provide sufficiently high illumination to support safety and comfort for pedestrians, and use state of the art fixtures to minimize glare and avoid undue light trespass. As noted in the application, site lighting will primarily consist of city standard fixtures at the perimeter of the site, and the project will not have exterior architectural lighting or decorative site lighting. Other lighting, including at the service yard, should be selected, positioned, and shielded to minimize light trespass.

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 New Construction and Major Renovation, with 70 “Yes” credit points, and an additional 10 points designated as “possible.” The project is also pursuing LEED’s Enhanced Commissioning Credit, which is a requirement under the recently amended zoning. 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 also 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. With regard to indoor environmental quality, the applicant has indicated that the project will pursue LEED and Fitwell certifications and meet the prerequisites for WELL certification.

The proposal follows many of the general approaches recommended in the City’s Net Zero Action Plan. Envelope performance will be improved by compact building massing, a heavily insulated rainscreen wall system, and high performance triple glazed windows. A low window-to-wall ratio of 36.4% will promote maximization of daylight as well as occupant comfort while minimizing heat losses. An on-site closed-loop geothermal bore field with heat pump chillers, a high efficiency water-cooled chiller plant, and condensing hot water heaters with reduced hot water demand are proposed, reducing the use of fossil fuel energy on-site.

Beyond meeting the minimum Green Building Requirements, this project is expected to reduce energy consumption by more than 50% and cut on-site fossil fuel consumption by more than 80%. Additional improvements that could be sought as the project is further refined include the following:

- Additional points for Sustainable Site credits under Open Space.
- Additional points for Water Efficiency credits under Cooling Tower Water Use.
- Additional points for Energy and Atmosphere credits under Optimize Energy Performance and Renewable Energy Production.
- Additional points for Materials and Resources credits under Building Life-Cycle Impact Reduction as well as Construction and Demolition Waste Management.

- Additional points for Indoor Environmental Quality credits under Quality Views.
- Additional points for Regional Priority credits.
- Better thermal transmittance (u-value) for proposed window, wall, and roof systems.

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 285 kW photovoltaic panel array. Installation of such an array is not currently proposed, but staff recommends pursuing this as a possibility.

Staff will continue to work with the Applicant through continuing design review. 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

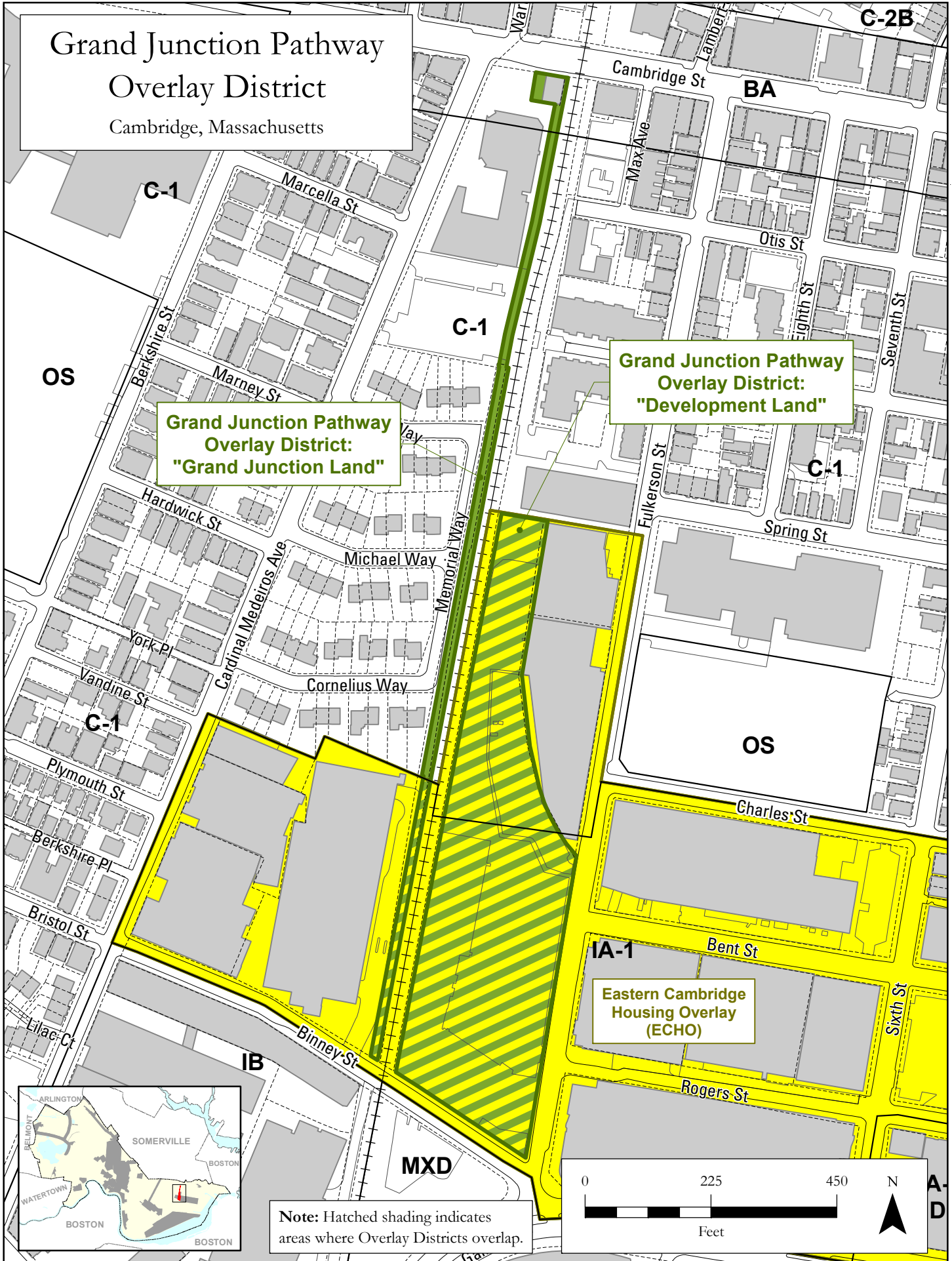
Continuing Review

CDD staff have met with the project team on multiple occasions to discuss the proposal and provide comments. Staff are appreciative of the project 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 detailed design of changes to street sections, curb locations, curb cuts, bicycle lanes, cross walks, etc.
- The location and design of short and long term bicycle parking and of the Bluebikes station.
- The design of the publicly beneficial open space at the north end of the site.
- Tree planting standards and species, in collaboration with city staff and with reference to the Urban Forest Master Plan.
- Review of all exterior building materials, colors, and details, including a materials mock-up on the site prior to any exterior materials being ordered.
- Exterior lighting, which should follow the recommendations of the Draft Outdoor Lighting Ordinance.
- Coordination with the ongoing design of the Grand Junction Multi-Use Path.
- Consultation with the Cambridge Arts Council regarding public art along the tracks.

**Grand Junction Pathway
Overlay District**
Cambridge, Massachusetts



**Grand Junction Pathway
Overlay District:
"Grand Junction Land"**

**Grand Junction Pathway
Overlay District:
"Development Land"**

**Eastern Cambridge
Housing Overlay
(ECHO)**

Note: Hatched shading indicates
areas where Overlay Districts overlap.