



CITY OF CAMBRIDGE
COMMUNITY DEVELOPMENT DEPARTMENT

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To: Planning Board
From: CDD Staff
Date: November 28, 2018
Re: **PB-315, MXD Infill Development Concept Plan Amendment**

Overview

Boston Properties has proposed an amendment to the Infill Development Concept Plan (IDCP) for the Mixed-Use Development: Kendall Center (MXD) zoning district, first approved in early 2017. Planning Board and Cambridge Redevelopment Authority (CRA) Board members reviewed and commented on the proposal on October 2, 2018 and received memoranda from Community Development Department (CDD) and Traffic, Parking and Transportation Department (TP&T) staff along with CRA staff and consultants.

As a reminder, the approved IDCP permitted two commercial buildings (at 145 Broadway, currently under construction, and 250 Binney Street) and two residential buildings (at the south and north ends of the existing "Blue Garage" between Broadway and Binney Street). The special permit contains a set of conditions intended to manage and mitigate the development on an ongoing basis.

The primary intent of this proposed amendment is to change the site of the second commercial building from 250 Binney Street to 325 Main Street. As a Major Amendment, this follows the same special permit procedure and is subject to the same approval criteria as the original IDCP. The approval criteria (provided previously to the Board) are summarized in an appendix. For additional background information, refer to the CDD memo dated September 26, 2018.

Update

Since the previous hearing, representatives of the Applicant's team have met with staff. Also, the CRA's Design Review Committee (which includes two Planning Board members and CDD representatives) has met to further discuss the design of the proposed 325 Main Street building. The Applicant has provided additional materials responding to the comments made at the previous hearing.

Although many of the new materials relate to the massing of the proposed 325 Main Street building site, the additional materials focus on the IDCP amendment. If the IDCP amendment is approved, that site would still be subject to detailed design review and approval by the Planning Board and CRA before construction.

This memo summarizes the issues raised in the Boards' previous discussion and provides a brief review of the additional materials.

Key Issues Raised at Initial Hearing

In addition to the specific comments made in the CDD and TP&T memos, members of the Planning Board and CRA Board raised the following points at the hearing on October 2, 2018:

- Effects of additional shading on the rooftop garden is a major concern as it will create shadow during most of the year. Recommendations to mitigate the impacts included making improvements to the roof garden, creating open space elsewhere to compensate (such as the top of the “Blue Garage”), and creating gaps in buildings where the garden could extend to Main Street.
- The proposed public connection from the rooftop garden to the Kendall Plaza is positive, but needs more attention to make it welcoming to the public. It provides some compensation for the impacts on the garden itself.
- The scale and massing of the proposed 325 Main Street building as well as its relationship to the adjacent 355 Main Street building need to be addressed. A desire was expressed for a slimmer massing approach and greater separation between buildings.
- Some members questioned whether a mixed-use would be more appropriate on this site.
- Incorporating improvements to the MBTA headhouse would add to the area.
- A well-defined passage from Broadway to Main Street is important.
- The Applicant should take a future-forward look at the effects of ride sharing on traffic and trip generation.
- The retail plan should involve coordination with other owners of retail property in the area to meet the needs of the growing residential population.
- Consider public benefits of the proposal more holistically, including public amenities like heating/cooling spaces or nursing pods, or scholarship/internship opportunities for community members.
- Energy performance of the proposed 325 Main Street building is a concern.

Comments on Supplemental IDCP Materials

The additional materials provided by the Applicant include the following:

- A “Response to Comments” document, focusing on clarifications, revisions, or other statements related to the proposed IDCP amendment.
- A set of animated shadow analysis showing anticipated shadows throughout the day at key times of year.
- A memorandum and study related to the feasibility of providing open space on the Blue Garage.

The content of the “Response to Comments” focuses primarily on the evolution of the massing concept for the 325 Main Street development site, along with additional information on the improvements to open space, public connections, and ground floor retail that are envisioned on that site. Additional study

of the anticipated shadow and wind impacts on that site is also provided. Apart from the 325 Main Street site, some information is provided about the future design review of the Phase 2 residential site on Broadway and the adjacent open space, in addition to the report on the feasibility of creating open space on the existing garage. Information is also provided on the Innovation Space that will be created at 255 Main Street as a requirement of the plan.

No changes to the plan's dimensional form were included, so it is presumed that the arrangement of uses, gross floor area, and height within the plan would remain unchanged from the initial amendment proposal.

Changes to 325 Main Street Development

Substantial changes were made to the design approach to this building since the previous meeting. The size and shape of the floorplate has been reduced, while the number of stories has increased, remaining within the 250-foot height limit by reducing the floor-to-floor heights within the building. The building, while still consisting of stacked volumes, has more of a vertical feel. Straightening the façade as it addresses the plaza is a significant improvement, which prioritizes the public space of the plaza rather than overwhelming it, and creates more separation from the Marriott. In addition, the deletion of the large horizontal slots, and the reduction in length of the façade facing Main Street above the streetwall from 260-feet to 185-feet is a significant move and provides greater consistency with the K2 Design Guidelines.

If the revised conceptual design is approved as part of the amended IDCP, the building would still be subject to design review and approval of the full plans prior to construction. Additional comments related to the evolution of the building design and issues that might be addressed in further design review are provided below in a separate section of this memo.

Blue Garage Study

In response to the Board's comments and the conditions of the Board's original IDCP special permit in 2017, the Applicant has provided a study of the technical feasibility of using the rooftop of the existing parking garage (known as the "Blue Garage") situated between the two approved residential sites on Broadway and Binney Street for a public open space or recreation use. The conclusion of that study is that given the structure and condition of the garage, it would require significant structural reinforcement and the loss of parking spaces to accommodate such as use. Nonetheless, there is proposed to be a total of about 14,000 square feet of amenity decks for residents of the buildings, because the end sections of the garages are expected to be demolished and rebuilt along with the approved residential buildings. The study also suggests that open space would be better provided on-grade and summarizes the planned open space improvements surrounding that parcel.

The current special permit also requires a study of improvements to the service drives surrounding the Blue Garage to be completed as part of Phase 2 or 3 (whichever is earlier). This study has not yet been provided but should be incorporated into the design review of Phase 2 development. The quality of those drives was viewed as an important part of the public realm around that site overall.

Innovation Space

The Response to Comments provides some additional description of the Innovation Space to be located at 255 Main Street to satisfy the requirements of the zoning, focusing on the requirement for “below market” space. The Innovation Space will include an “Opportunity Space” that provides co-working, shared classroom, and event space to non-profit educational providers. A plan is provided to show how such space will fit within a typical floor plan of the building, but it is somewhat unclear if such a space will be provided on each floor and how much space in total is being provided in the building for this resource. The programmatic and operational aspects of this space should be reviewed by CRA and CDD staff on an annual basis.

Open Space

The Response to Comments proposes new improvements to the public rooftop garden space. These improvements seem to focus on a few main objectives: orienting the space to create a sense of entry where the proposed new stairway would connect; adapting the type of plantings and mix of planted and non-planted materials to the expected environmental conditions of the site (based on the shadow studies that were conducted); and introducing programming that would activate the space in the daytime and evening. One of the more significant programmatic changes is to extend the hours of operation to close at 11:00pm from June to September (currently the park closes at dawn), which would be enabled by the addition of lighting.

Changes to the conceptual design include a large portion of synthetic lawn and paving proposed at the southeast corner of the garden. However, this area is depicted in renderings of the stair as having some significant canopy trees, which should be included as a way to visually connect the garden to the plaza. As with the 325 Main Street building design, as part of the IDCP the Board could approve the proposed design concept with the final design subject to continuing Board review and approval.

No additional improvements are proposed to the Kendall Plaza space. The additional materials depict refinements to the design approach of the “public terrace” that would connect from the plaza to the rooftop garden, which are discussed further below. Again, this concept could be approved along with the IDCP amendment but could be subject to future design review and approval.

In its previous memo, CDD requested open space plans and sections showing the full height of adjoining buildings, both existing and proposed, that frame the rooftop garden and plaza, but those were not included in the additional materials.

Another issue to be considered is that the plan for connecting the plaza to the rooftop garden includes a “terrace” above the MBTA headhouse. While this would be a positive addition to the open space plan and the Applicant seems optimistic that it can be achieved, there should be a comparable plan for what might happen if this approach is found to be infeasible.

Public Pedestrian Connections and Amenities

In addition to the aforementioned stair/elevator connection from the Kendall Plaza to the rooftop garden, additional narrative is provided regarding ground-level pedestrian connections from Main Street

to Broadway (north/south) and from Kendall Plaza to Pioneer Way (east/west). Staff had suggested providing a composite plan for circulation with supporting text describing the various components of and proposed improvements to the public spaces throughout the block – plaza, Marriott, rooftop garden, and through-block pedestrian connections – and illustrating the massing of surrounding buildings. While there was a circulation diagram in the initial proposal and there are plans for some of the individual components, such a composite plan has not been provided thus far.

The connection from Kendall Plaza to Pioneer Way is currently served by a public easement through the existing 325 Broadway building (now the MIT COOP Food Court). The proposal for the 325 Main Street site suggests that such a connection could be maintained through an expanded “market retail” concept with multiple vendors operating at the ground floor of the building. The Response to Comments also notes the possibility of multiple entrances to this ground floor space on Main Street.

This is potentially an exciting concept, but since the retail plan must be flexible and allow for change, it would be helpful to establish some minimum degree of certainty regarding what areas will be available for public access. If the retail plan is successful, it will also be important to ensure that the passage is welcoming to the general public and does not feel like a customer-only space. Guaranteeing at least some direct east-west pedestrian connection through the retail, rather than one that meanders, would be helpful in this regard. The commitment to multiple entrances on Main Street should also be stronger, since this is critical to meeting the “K2” Study objective of pedestrian activation along major streets. Also, as previously mentioned by staff, the District Design Guidelines should establish parameters to guide the future design of the pedestrian connections. To truly function as integral parts of the public realm, the connections must be legible, welcoming, generous in scale, and not overwhelmed by the existing or proposed buildings.

In the new materials, the Applicant expresses a willingness to explore an additional public north/south connection between Kendall Plaza and Broadway through the eastern edge of the “Green Garage,” but suggests that this might be more effectively planned to align with future development plans for the Volpe parcel. That is a fair point, but it is difficult to provide assurance that the issue would be adequately addressed at that time because the owner of the Volpe site would not control this connection. An additional condition in the special permit to pursue this option would be helpful but may be difficult to apply at such a time.

The level of public engagement and amenity between the building and surrounding public spaces is an issue that requires more detailed discussion. Aside from the overall retail concept, there is little discussion of public programming options or other non-retail amenities to activate the through-block pedestrian connections. The supplemental materials do show a public restroom on the second level of the connection between the Kendall Plaza and rooftop garden, which is especially important if there is an increase in activity on the roof garden. Other amenities that were mentioned at previous meetings, such as nursing pods or heating/cooling spaces where community members could seek temporary refuge during extreme weather (which are part of the City’s resiliency planning efforts), are not discussed thus far. It would be worthwhile to consider how components of the retail and public passageways in the first and/or second floors could provide additional non-retail public amenity.

Retail Plan

The Response to Comments clarifies the different types of retail uses that the development is considering for the 325 Main Street retail spaces, especially in activating the area with much needed nighttime and destination uses. While the exact mix of retailers and uses has not yet been determined, it is recommended that the Applicant continue to work with the CRA, CDD, and other nearby property owners to make sure that these uses are complementary to the other retail through the Square. The special permit currently requires consultation with CDD's Economic Development Division prior to initiation of marketing and tenanting efforts for any retail space to share information about outreach strategies, leasing provisions, and programs serving local businesses.

Resilience

The Response to Comments clarifies that the development will be designed to the City's 2070 10-year flood resilience standards, and additional resilience measures will be studied to address the potential for more extreme events. It also commits to working with the MBTA to improve resilience for the station. As with all projects, these matters will be reviewed by the Department of Public Works in greater detail as part of the construction process. As noted above, given that this project is at a prominent central location, it would be worthwhile to consider some of the neighborhood resilience measures that have been identified in the city's Climate Change Preparedness and Resilience planning, such as cooling centers.

Shadow and Wind Impacts

The materials provide a more detailed presentation of the shadow studies conducted for the original submission, including animations to show the progression of shadow throughout the day at key times, and showing some changes to reflect the revised massing approach to the building. The Applicant's wind consultant commented that the revised massing was not deemed to have a significant impact on the earlier wind analysis, which shows generally comfortable wind conditions on the rooftop garden but worse conditions on some portions of the sidewalks of Main Street and Broadway. Staff remain concerned about the decline in wind conditions north of Broadway, which includes five "uncomfortable" locations.

In addition, a more refined analysis of user comfort was provided for the rooftop garden. In concept, this analysis combines shadow and wind projections with typical climate conditions over the course of a year to determine the combination of these effects on the temperature of the space and thus the overall comfort of individuals using the space, factoring in assumptions about the range of conditions in which users are more likely to be comfortable.

This analysis is interesting and one that has not been provided for past projects, which makes it somewhat difficult to assess. As presented, the analysis seems to suggest that the garden will generally become less comfortable during colder times of the year – from about mid-September to about mid-May, including winter months when the garden is not actively used under current conditions – but will be more comfortable during summer months, when the shade from the building will provide greater relief from heat. As noted above, the proposed landscape improvements and programming are intended

to capitalize on this shift in conditions by adapting the greenery to more shade-tolerant plantings, locating more non-planted surface in areas likely to be shaded most of the time, and adding programming (including evening activity) from June to September.

Phasing of Residential Development

The Response to Comments commits to submitting the design materials for the residential component of Phase 2 in the first quarter of 2019, following design review of the 325 Main Street site, if approved.

Design Guidelines

A small addition is proposed to the design guidelines, relating to the Kendall Square Plaza. Staff had earlier suggested providing a broader emphasis throughout the document on the following topics:

- Existing and proposed connections between the plaza and other spaces, and the ways the massing of new and existing buildings around the plaza will contribute to the plaza as a civically important place.
- The look and feel of pedestrian connections, and how these spaces will be perceived as public amenities and not simply part of the building lobby.
- Prioritizing the definition, activation, and interconnection of public spaces by way of built form and building programming, landscape design and programming, and the design of circulation systems.

325 Main Street Building and Site Design Evolution

The design of the 325 Main Street proposal has evolved through the CRA Design Review Committee process that was initiated since the last joint meeting of the Boards in October. If the new approach is approved at the master plan level, it would be subject to continuing review and approval of the final plans in accordance with the special permit conditions.

Building Placement, Massing, and Façade Design

As noted earlier, the simplified massing has greatly improved the building's relationship with the street, plaza, rooftop garden and more broadly its fit within the evolving Kendall Square context and long-distance views.

One of the questions that remain to be answered is related to the building placement and the build-to-line on Main Street. It is not clear whether the current proposed line of the building footprint in relationship to the sidewalk space would provide an adequate and urbane open space considering the growth of Kendall Square context, i.e., the expected increase in foot traffic and number of building occupants.

As the design process continues, further study of the connection or "gasket" between the 325 and 355 Main Street buildings should be undertaken. The potential for it to be clearly separated as a vertical slot between the two buildings should be considered. As currently proposed, there appears to be some

overlap between the massing elements of both buildings, which reduces the ability of the gasket to act as a clearly differentiated zone and to celebrate entry into the pedestrian connection.

Further study of the step-back distances between the stacked volumes should also be considered. While the parallelogram massing has created more harmony within the streetscape, the K2 Design Guidelines tend to encourage a tapered built form as buildings rise in height. The proposed massing does not quite achieve this with what appears to be minimal setback between the base and middle zones, and then the top zone overhanging the base.

While the horizontal articulation of the façades shown in some of the renderings does create a pleasing relationship with the 355 Main St building, the K2 Design Guidelines call for more of a vertical grain. This is in an effort to create slender vertical proportions that help mitigate the sense of bulk and horizontality of buildings when perceived from the pedestrian realm.

Pedestrian Permeability and Connections

The stair connection to the rooftop garden has evolved and now faces Main Street, which helps make it more visible and accessible to the public. The width of the stair at Main Street and its many turns still require careful consideration. The stair should be generous and direct enough to feel welcoming to all, a public amenity in itself and not just a connection. Furthermore, the ground level landing of the stair at the southeast corner of the building needs to be given a generous space to clear the path of the foot traffic at the sidewalk.

The location of the rooftop elevator access being tucked into the building itself remains a concern for staff because it should have good visual and physical access from the plaza and Main Street. This is compounded by the design of the ground floor where it tends to spill out towards the plaza on the east side of the building, obscuring access to the elevator and potentially obscuring any future north/south connection between Kendall Plaza and Broadway. The ground floor design also creates a narrow alleyway between the headhouse and building, which remains a safety and comfort concern for staff. Access to the MBTA headhouse coming from both the north and south is currently unclear, and it is important for such access to be convenient for all users.

Additional issues that may be considered in the design review process for this site (as discussed earlier in this memo) include the design and character of pedestrian connections and wind impact mitigation measures, particularly along Broadway.

Requested Special Permits	Summarized Findings <i>(detailed zoning text on following pages)</i>
Approval of a PUD Final Development Plan (Section 12.35.3)	<p>The Development Plan:</p> <ul style="list-style-type: none"> • Conforms with general PUD development controls and district development controls [in this case, requirements of Article 14.000]. • Conforms with adopted policy plans or development guidelines for that portion of the city. [Per Section 14.32.2.2: “In making its findings, the Board shall consider the objectives set forth in the Kendall Square Final Report of the K2C2 Planning Study (“K2 Plan”) and the Kendall Square Design Guidelines.” Those documents can be found at: https://www.cambridgema.gov/CDD/Projects/Planning/K2C2.] • Provides benefits to the city which outweigh its adverse effects, considering: <ul style="list-style-type: none"> ○ quality of site design ○ traffic flow and safety ○ adequacy of utilities and other public works ○ impact on existing public facilities ○ potential fiscal impact
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.
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>

MXD Infill Development Concept Plan

- 14.32.2** The Cambridge Redevelopment Authority (CRA) shall cause in Infill Development Concept Plan (Concept Plan) to be prepared providing for the distribution of additional GFA for new development within the District above and beyond three million, three hundred and thirty three thousand (3,333,000) square feet (“Infill GFA”) and meeting the requirements of Section 14.32.2.1. The Concept Plan shall be approved by CRA and by a special permit granted by the Planning Board in order to authorize the development of infill GFA. The purpose of the Concept Plan is to provide a context and a conceptual governance structure for existing and potential future development that allows development to proceed in a flexible manner without requiring additional special permit for each building. The Concept Plan is expect to evolve over time, and with each subsequent development proposal updated to the Concept Plan shall be submitted. Amendments to the special permit may be granted as set forth below, but revisions to a Concept Plan shall not necessarily require amending the special permit so long as the revisions remain in conformance with the conditions of the special permit.
- 14.32.2.2** Findings and Approval. The Planning Board shall grant a special permit approving an Concept Plan upon finding that the new development identified within the plan meets the criteria for approval of a Planned Unit Development set forth in Section 12.35.3(3) of the Zoning Ordinance and the criteria for approval of a Project Review Special Permit set forth in Section 19.25 of the Zoning Ordinance. In making its finding, the Board shall consider the objectives set forth in the Kendall Square Final Report of the K2C2 Planning Study (“K2 Plan”) and the *Kendall Square Design Guidelines*. The approval of a Concept Plan shall serve to meet any applicable project review requirements of Article 19.000, and no additional Project Review Special Permit shall be required for new development that is identified within an approved Concept Plan.
- 14.32.2.5** Amendments. Major or Minor Amendments to the Concept Plan may be approved as set forth in Section 12.37of the Zoning Ordinance after review and approval by the CRA, with Major Amendments requiring the granting of a special permit by the Planning Board and Minor Amendments requiring a written determination by the Planning Board. The conditions of the special permit may specify what types of modifications would constitute Major or Minor Amendments.

PUD Special Permit Criteria

12.35.3 Approval of the Development Proposal shall be granted only upon determination by the Planning Board that the Development Proposal:

- (1) conforms with the General Development Controls set forth in Section 12.50, and the development controls set forth for the specific PUD district in which the project is located;
- (2) conforms with adopted policy plans or development guidelines for the portion of the city in which the PUD district is located;
- (3) provides benefits to the city which outweigh its adverse effects; in making this determination the Planning Board shall consider the following:
 - (a) quality of site design, including integration of a variety of land uses, building types, and densities; preservation of natural features; compatibility with adjacent land uses; provision and type of open space; provision of other amenities designed to benefit the general public;
 - (b) traffic flow and safety;
 - (c) adequacy of utilities and other public works;
 - (d) impact on existing public facilities within the city; and
 - (e) potential fiscal impact.

12.37 *Amendments to Final Development Plan.* After approval of the Final Development Plan by the Planning Board, the developer may seek amendments to the Final Development Plan, only if he encounters difficulties in constructing the PUD which could not have reasonably been foreseen, such as with terrain or soil conditions or other complications.

12.37.1 Amendments to the Final Development Plan shall be considered major or minor. Minor amendments, as specified in Section 12.37.2 shall be authorized by written approval of the Planning Board. Major amendments, as specified in Section 12.37.3, shall be considered as an original application for a Special Permit to construct a PUD and shall be subject to procedures specified in Section 12.34 through 12.36. The Planning Board shall decide whether proposed changes are major or minor.

12.37.2 Minor amendments are changes which do not alter the concept of the PUD in terms of density, floor area ratio, land usage, height, provision of open space, or the physical relationship of elements of the development. Minor amendments shall include, but not be limited to, small changes in the location of buildings, open space, or parking; or realignment of minor streets.

12.37.3 Major amendments represent substantial deviations from the PUD concept approved by the Planning Board. Major amendments shall include, but not be limited to, large changes in floor space, mix of uses, density, lot coverage, height, setbacks, lot sizes, open space; changes in the location of buildings, open space, or parking; or changes in the circulation system.

Project Review Special Permit – Traffic Impact Findings

19.25.1 Traffic Impact Findings. Where a Traffic Study is required as set forth in Section 19.24 (3) above the Planning Board shall grant the special permit only if it finds that the project will have no substantial adverse impact on city traffic within the study area as analyzed in the Traffic Study. Substantial adverse impact on city traffic shall be measured by reference to the traffic impact indicators set forth in Section 19.25.11 below.

In areas where the Planning Board determines that area-specific traffic guidelines have been established in the Ordinance, the Board recognizes written agreements between project proponents and the City dealing with transportation mitigation strategies.

19.25.11 Traffic Impact Indicators. In determining whether a proposal has substantial adverse impacts on city traffic the Planning Board shall apply the following indicators. When one or more of the indicators is exceeded, it will be indicative of potentially substantial adverse impact on city traffic. In making its findings, however, the Planning Board shall consider the mitigation efforts proposed, their anticipated effectiveness, and other supplemental information that identifies circumstances or actions that will result in a reduction in adverse traffic impacts. Such efforts and actions may include, but are not limited to, transportation demand management plans; roadway, bicycle and pedestrian facilities improvements; measures to reduce traffic on residential streets; and measures undertaken to improve safety for pedestrians and vehicles, particularly at intersections identified in the Traffic Study as having a history of high crash rates.

The indicators are: (1) Project vehicle trip generation weekdays and weekends for a twenty-four hour period and A. M. and P.M. peak vehicle trips generated; (2) Change in level of service at identified signalized intersections; (3) Increased volume of trips on residential streets; (4) Increase of length of vehicle queues at identified signalized intersections; and (5) Lack of sufficient pedestrian and bicycle facilities. The precise numerical values that will be deemed to indicate potentially substantial adverse impact for each of these indicators shall be adopted from time to time by the Planning Board in consultation with the TPTD, published and made available to all applicants.

Project Review Special Permit – Urban Design Findings

19.25.2 Urban Design Findings. The Planning Board shall grant the special permit only if it finds that the project is consistent with the urban design objectives of the city as set forth in Section 19.30. In making that determination the Board may be guided by or make reference to urban design guidelines or planning reports that may have been developed for specific areas of the city and shall apply the standards herein contained in a reasonable manner to nonprofit religious and educational organizations in light of the special circumstances applicable to nonprofit religious and educational activities.

19.30 Citywide Urban Design Objectives

The following urban design objectives are intended to provide guidance to property owners and the general public as to the city's policies with regard to the form and character desirable for new development in the city. It is understood that application of these principles can vary with the context of specific building proposals in ways that, nevertheless, fully respect the policies' intent. It is intended that proponents of projects, and city staff, the Planning Board and the general public, where public review or approval is required, should be open to creative variations from the detailed provisions presented in this Section as long as the core values expressed are being served. A project need not meet all the objectives of this Section 19.30 where this Section serves as the basis for issuance of a special permit. Rather the permit granting authority shall find that on balance the objectives of the city are being served. Nor shall a project subject to special permit review be required to conform to the Required Building and Site Plan Requirements set forth in Section 19.50.

Further indicators of conformance with these policy objectives shall be found in planning documents and plans developed for specific areas of the city or the city as a whole, to the extent that they are not inconsistent with the objectives set forth in this Section 19.30. These documents include the *Harvard Square Development Guidelines*, the *Central Square Action Plan*, the *Central Square Development Guidelines*, the *North Massachusetts Avenue Urban Design Guidelines Handbook*, the *University Park at MIT Urban Design Guidelines*, the *North Point Policy Plan and Design Guidelines*, the *Cambridge Institutional Growth Management Plan*, the *East Cambridge Riverfront Plan*, the *Eastern Cambridge Plan*, the *Eastern Cambridge Design Guidelines*, the *Alewife Revitalization*, *Alewife Urban Design Study Phase II* and its Draft update of 1991, and *Toward a Sustainable Future: Cambridge Growth Policy Document*.

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

Kendall Square (K2) Study & Design Guidelines, 2013 - Summary

K2 Study Vision

A dynamic public realm connecting diverse choices for living, working, learning, and playing to inspire continued success of Cambridge’s sustainable, globally-significant innovation community.

K2 Study Goals

Nurture Kendall’s Innovation Culture	<ul style="list-style-type: none"> • Expand opportunities for Kendall Square knowledge economy to continue to grow. • Foster a strong connection between the MIT campus and the rest of Kendall Square. Enable MIT to develop in a manner consistent with its academic and research mission, so that it continues to be a magnet attracting innovative businesses to the area. • Support a vibrant environment for creative interaction.
Create Great Places	<ul style="list-style-type: none"> • Support open space and recreation needs of a growing neighborhood. • Create lively, walkable streets. • Expand opportunities for Kendall’s diverse community to interact. • Development and public place improvements must happen in tandem.
Promote Environmental Sustainability	<ul style="list-style-type: none"> • Expand convenient, affordable transportation and access choices. • Enhance streets as public places. • Create a healthier natural environment. • Reduce resource consumption, waste and emissions. • Leverage the environmental and economic benefits of compact development.
Mix Living, Working, Learning, And Playing	<ul style="list-style-type: none"> • Leverage community and innovation benefits of mixed-use environment. • Focus intensity around transit. • Minimize development pressures on traditional neighborhoods. • Continue to support city and state economic development.

K2 Design Guidelines

The K2 Design Guidelines aim to:

- Create a positive mixed-use district where tall buildings with large floorplates can be good neighbors to public spaces, smaller existing buildings, and adjacent residential neighborhoods.
- Sensitively manage the impacts of building bulk and height, and animate major streets and public spaces through encouraging active ground floors.
- Enhance the quality of public street and park spaces.

Guideline Summary

1. Introduction and Site Organization	
Major Public Streets	<ul style="list-style-type: none"> • Create a well-defined streetwall to help frame Kendall Square’s major public streets as public spaces. • Provide adequate space along sidewalks for outdoor activity associated with active ground level uses.
Park Edges	<ul style="list-style-type: none"> • Pay special attention to activating the ground floors of buildings abutting open space resources. • Scale and massing design should be carefully considered to minimize negative impacts to the nearby parks and plazas.
2. Environmental Quality	
Shadow, Wind, Vegetative Cover, Noise	<ul style="list-style-type: none"> • Carefully design new projects to avoid unnecessary environmental impacts. • Evaluate each design decision to find outcomes that balance the positive aspects of building near a transit hub with the changes in the environment that result from more density in relatively dense new structures located in close proximity to one another.
3. Walkability	
Connections/Block sizes	<ul style="list-style-type: none"> • Break up large blocks and increase permeability by creating pedestrian and bicycle connections through the site.
Loading and Servicing	<ul style="list-style-type: none"> • Locate and design loading and servicing areas to support the walkability of the area and minimize dead zones.
Street Activity	<ul style="list-style-type: none"> • Support pedestrian flow throughout the district and provide access to outdoor and indoor public spaces that allow people to gather. • Encourage public activity throughout the day and evening.
Universal Access	<ul style="list-style-type: none"> • Design of buildings and outdoor spaces should provide an emphasis on universal access.
4. Built Form	
Architectural Identity of Kendall Square	<ul style="list-style-type: none"> • Architectural composition should particularly emphasize a distinct identity for the building as well as for Kendall Square. • Design buildings to help create streetwalls, where appropriate, to help frame the sidewalks, plazas, and other public spaces in Kendall Square • Convey the act and spirit of innovation in Kendall Square through transparency that directly reveals activity and displays visual media.
Scale and Massing	<ul style="list-style-type: none"> • Encourage building forms and site planning that relate to the surrounding context. • Create sensitive transitions to neighboring uses, especially to existing residential buildings, historical structures, and public parks. • Design buildings to minimize monolithic massing and break down the scale of large buildings • Limit the impact of tall buildings both at street level within the district and from, nearby areas.

Major Public Streets	<ul style="list-style-type: none"> • Create a strong datum by setting back the building at upper floors to create a strong edge to the street and to limit the sense of height at street level.
Park Edges	<ul style="list-style-type: none"> • Development around parks and plazas should support an environment that is active, safe, and welcoming to a wide spectrum of users throughout the day, week and year.
Visual Interest	<ul style="list-style-type: none"> • Buildings should reflect a rhythm and variation appropriate to the urban context • Where appropriate, vary the architecture of individual buildings to create architecturally diverse districts
Tall Buildings	<ul style="list-style-type: none"> • Design buildings over 200 feet tall with particular attention to the architectural character of the top of the building, which will be visible from significant public spaces and from some distance.
Connectors	<ul style="list-style-type: none"> • Connectors over public ways are not encouraged in the heart of Kendall Square. • Consider upper-floor connections only in circumstances where tenants need large floorplates that might otherwise result in excessive apparent building mass. • Design connectors to provide architectural interest, maintain permeability, and continue to allow light and views of the sky. • Connectors may be more acceptable over minor streets internal to the quieter parts of the MIT campus, such as Carlton or Hayward.
Rooftops	<ul style="list-style-type: none"> • Design rooftops, including mechanical equipment and cellular installations, as integral to the rest of the architecture of the building.
5. Ground Floor	
Uses	<ul style="list-style-type: none"> • First floors of the buildings should be actively used. • Retail and services should serve local communities as well as people who work in the area. • Where retail is not provided, ground floor spaces should be designed to accommodate retail in the future
Setbacks	<ul style="list-style-type: none"> • Create space at the sidewalk level to allow for interaction between activities on the ground floor of the buildings and the public sidewalk. • Directly engage the public and create a well-defined streetwall to help frame Kendall Square’s streets and public spaces
Facades	<ul style="list-style-type: none"> • Reduce the distinction between exterior and interior space to extend the effective public realm indoors and reveal indoor activity on the street.
Entrances	<ul style="list-style-type: none"> • Locate major entrances on public streets, and on corners wherever possible. • Entrances should relate to crosswalks and pathways that lead to bus stops, transit and bike stations.

General Criteria for Issuance of a Special Permit

10.43 *Criteria.* Special permits will normally be granted where specific provisions of this Ordinance are met, except when particulars of the location or use, not generally true of the district or of the uses permitted in it, would cause granting of such permit to be to the detriment of the public interest because:

- (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.