



CITY OF CAMBRIDGE
COMMUNITY DEVELOPMENT DEPARTMENT

IRAM FAROOQ
Assistant City Manager for
Community Development

SANDRA CLARKE
Deputy Director
Chief of Administration

To: Planning Board
From: CDD Staff
Date: November 23, 2016
Re: **PB #303, MIT "SoMa" PUD Building 4 and Open Space Design Review**

The Special Permit for the "SoMa" Planned Unit Development (PUD) was granted by the Planning Board on May 17, 2016. The first building in that PUD, "Building 4" (the graduate student dormitory) has been submitted for review along with the proposed open space on the SoMa development parcel. The special permit requires that the open space be reviewed and approved at the same time as the first building in that PUD.

The Planning Board's review of the building and landscape design is guided by the conditions of the special permit, which references the design standards specified in the *Kendall Square PUD-5 Design Guidelines, 2016* (Appendix C of Final Development Plan), the *Sustainability Strategies* described in Appendix D of the Final Development Plan, and the *Kendall Square Design Guidelines, 2013*. An accompanying appendix consolidates these guidance documents into one file.

This memo summarizes the key areas of focus associated with each element of the review.

Review Process

Since May, staff has had several meetings with the MIT team and the project architect to review various details of the project. These meetings have included the Cambridge Historical Commission, as required by the special permit, since the design of this site involves the rehabilitation of two historic buildings.

The special permit also requires that certain technical aspects of the design, such as parking, bicycle parking, and loading design, be reviewed by city departments at a conceptual level to ensure that they are expected to meet applicable standards for access and safety. The Permittee is also required to review, at a conceptual level, proposed improvements to public property with city departments – primarily, Traffic, Parking & Transportation (TP&T) and the Department of Public Works (DPW) – to ensure that any design that is approved by the Planning Board will also meet the applicable standards of those departments. To date, no comment has been received from TP&T or DPW, but it is expected that they will have future comment on the proposed designs.

It should also be noted that the design of the below-grade parking, bicycle parking and loading facility does not require Planning Board review and approval, but will require approval at the staff level prior to issuance of a building permit.

Building 4

Objectives

In addition to the *Kendall Square Design Guidelines*, which the Board is familiar with, design objectives and strategies specific to the site were developed as part of the PUD process. The built form objectives most relevant to the review of Building 4 are:

Ground level design and uses

- Establish a seamlessly integrated pattern of robust retail and active uses that contribute to an active and pleasant ground floor environment from Ames Street to the Sloan School on the south side of Main Street.
- Enhance the area around the MBTA station where Main Street and Carleton Street connect as a crossroads of Kendall Square – the nexus where business, academic, community and visitors connect.
- To the greatest extent possible, activate the edges of secondary streets and the interior open spaces to provide activity and interest for pedestrians.

Siting, Scale and Massing

- Employ creative siting and massing approaches that maximize physical and visual porosity on Main Street, both at grade and volumetrically.
- Create a strong pedestrian scaled street wall throughout the PUD area and particularly on Main Street to align with the existing historic fabric, and achieve the level of public realm activity desired in the heart of Kendall Square.
- Enhance the pedestrian experience along the secondary streets.

Architectural Character

- Create a family of buildings that work harmoniously together while allowing for individual character and definition to be developed and celebrated.
- Integrate and celebrate the existing ensemble of historical buildings on Main Street to preserve and honor this important industrial heritage while simultaneously preparing for the groundbreaking work of the future — the work that defines MIT’s mission and that of its many innovative partners in this district and beyond.
- Create an architectural approach that will distinctly represent Kendall Square, employing innovative, contemporary architecture and the latest cost-effective green building design technologies
- Enable each building to maintain a distinct character due to its unique context, use and relationship to the public realm. This could include integration with the historic buildings or the specific uses programmed for the building, such as the MIT Museum or academic housing or a significant ground floor retail or active use.

Comments

Overall, the massing and scale of the building remains generally consistent with the PUD approval. Staff is comfortable with the way the building design has advanced and how various design details have been resolved, and looks forward to seeing this dynamic project being completed.

Considerable attention has been given to the design of the podium, which staff feel provides enough variation and scaling elements to create interest and to maximize transparency and activity. The ground floor has also been designed to have the appearance of greater height in certain locations, which staff feel is very successful and advances the goals of the design guidelines. There are perhaps some further opportunities to celebrate, or enhance the character of, the residential entrance on the south elevation, as well as activating the parking garage entrance. Similarly, the opportunity to provide more interest or variation along the long stretch of the Hayward Street ground floor, which is dedicated to mechanicals and services, should also be considered.

With regard to the tower, staff is very supportive of how the materiality and detailing of the metal panels has evolved, and welcomes the introduction of warmer materials. The color gradation helps reduce perceptions of visual bulk, and is a much appreciated playful and creative addition to the project. It will be important to ensure that the darker bronze finish at the lower levels of the building is not foreboding.

The mechanicals penthouse is now mostly incorporated into the architecture of the building, with a screened section pushed back from Main Street becoming the tallest rooftop element. This appears to have mitigated some of the heaviness and bulk of the original design concept, although representation of the mechanicals structure is not consistent in all the drawings and should be clarified.

Wind impacts still appear to be an issue at the southeast corner of the building, with uncomfortable conditions remaining. Wind mitigation also relies on strategic plantings, rather than modifications to the built form, which should be a priority.

Continuing review of the project will need to focus on exterior materials, colors and details, and a mockup of all wall assemblies (including the ground floor) should be provided on site.

Historical Review

Staff at the Cambridge Historical Commission is satisfied with the proposed approach to preserving and adapting the two historic buildings, subject to further review of the following:

- Approval of construction details and windows.
- Field review and approval of masonry restoration.

Additional Information Requested

- Labeled ground floor plan (page 5).
- Clarification of the design of the mechanicals penthouse, which appears different in section and elevation.
- Perspectives views of the entire building from afar, including from east and west on Main Street.
- Detail on design of the underside of the south-facing cantilever.

Landscape Design

The open space design has evolved since the Planning Board reviewed the initial design concepts as part of the PUD approval. The overall landscape incorporates a series of open spaces, which were identified as the “Gateway”, “Activity Area (south of Building 4)” and “Promenade” in the *Kendall Square PUD-5 Design Guidelines, 2016*. The relevant site planning and open space design objectives are to:

- Transform existing parking lots and streets into new publicly accessible and porous open space that will extend the network of open spaces currently existing within and adjacent to the PUD-5 District.
- Design the landscape to be a cohesive and pedestrian-oriented open space, the connective tissue of the Kendall Square Development, connecting the MIT east and main campuses, and connecting the campus, the community and the Charles River.
- Create a series of places designed to become gateways and gathering spaces for the MIT and Cambridge communities, and anchors for various locations within the PUD area. Each space should have a unique sense of place designed to complement the surrounding architecture, but also to provide a unifying element between individual buildings across the PUD development parcels.

The design submission is comprehensive and addresses many of the requirements of the design guidelines including wayfinding, lighting, materials, furniture and planting details. The landscape design has taken on a more rectilinear layout, which appears to have strengthened the “infinite corridor” concept and mostly addressed staff concerns about pedestrian and cyclist circulation. While this change has created a more generous east-west pedestrian and cyclist corridor, it has resulted in the loss of the curvilinear, amoeba spaces that were originally proposed, which did provide some visual softening to the very rectilinear architecture adjacent to the corridor. In addition, perhaps providing more open useable lawn areas with slightly less emphasis on hardscape might create a space that is more like a destination to linger, rather than just a pedestrian connection.

There still appear to be some pinch points between trees in the central area of the pedestrian corridor, which staff feel may create pedestrian/ bicycle conflicts. In addition, the plaza space around the MBTA headhouse has not further developed, and staff question if the trees, which are needed to mitigate wind impacts, will create potential pedestrian obstructions. Also, the bio swales are confined to the at-grade parking lot, which is expected to be developed in the future, so further thought should be given to introducing such vegetated landscape features into other areas of the design.

It is important to note that in response to the Board’s comments, one of the purposes of the Gateway and Activity Area was to “reflect and invite the public to experience the groundbreaking activities of MIT (“MIT-ness”)”. The guidelines suggest ways to achieve this could include temporary and/or permanent art and technology installations reflective of MIT’s depth of knowledge in both. It is unclear how these ideas have been adequately translated into the proposed landscape design. Some activating features are discussed in the narrative, such as the possibility of projecting movies onto the bicycle parking access headhouse; however, such ideas are not fully explained or represented in illustrations.

Additional Information Requested

- Details of the garage headhouse providing bicycle parking access.
- Details of the proposed screening, or design approaches to mitigate the presence of the parking ramp along the Hayward Street sidewalk.

Sustainability

MIT and staff worked collaboratively during the PUD process to prepare the Sustainability Appendix that was incorporated into the special permit decision. The appendix articulates the strategies and objectives for this particular project and establishes guidelines to be incorporated into ongoing design review. A special permit condition also requires that future buildings in the PUD should meet future sustainability requirements at the time a building is designed.

Staff has reviewed the sustainability narrative provided in the materials and has requested that the following information be provided:

- A final steam feasibility study.
- Information documenting a future ‘pathway to net zero’ for the building.
- Documentation showing the Stretch Code energy performance as the minimum achievement for the building’s energy performance. The submitted materials state that a performance that is 10-20% better than ASHRAE-2010 energy performance will be achieved, which reflects the guideline; however, the energy Stretch Code has since been updated and now requires more than 10%.
- A Greenhouse Gas emissions profile for the building.
- An Energy Use Intensity model.