



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: CDD Staff

Date: January 26, 2023

Re: **PB-364, Lechmere Canal Park Improvements Design Review**

IRAM FAROOQ
Assistant City Manager for
Community Development

SANDRA CLARKE
Deputy Director
Chief of Administration

KHALIL MOGASSABI
Deputy Director
Chief of Planning

Planning Board Action

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 Eastern Cambridge Planning Study dated October 2001, the guidance provided in the Eastern Cambridge Design Guidelines dated October 15, 2001, the East Cambridge Riverfront Plan dated May 1978, the East Cambridge Development Review Process and Guidelines dated June 1985, and the Cambridge Riverfront Plan dated Spring 2011. A summary of these guidance documents is included at the end of this memo.

This memo summarizes the key areas of focus for the components of the project under current review. This project has also been reviewed by the Conservation Commission.

Review Process

The developer and architect team has met on multiple occasions with staff to review various details of the proposed improvements to Lechmere Canal Park, including after the application documents were submitted. The proposed design reflects suggestions made in these discussions.

PUD Urban Design Objectives and Guidelines

The objectives and guidelines most relevant to the review of Canal Park are:

- The 1978 East Cambridge Riverfront Plan, which recommends to "Transform the Lechmere Canal into the focal point for an animated and unique public space surrounded by retail activity and residential use".
- The 1985 East Cambridge Development Review Process and Guidelines reiterates and builds on the 1978 Plan. It promotes an active urban setting around the Lechmere Canal both during and after customary business hours. It advocates for attractive and inviting connections to and from adjacent neighborhoods. Further, every possible physical amenity that is easily accessible to and inviting for East Cambridge residents should be provided.
- The 2011 Cambridge Riverfront Plan: Reconnecting People to the Water, recommends to "expand the formal and informal use of the riverfront, and thereby realize the full potential for liveliness offered by this defining physical feature of our community and region". It emphasizes the role of Lechmere Canal Park in linking pedestrians, bicyclists, and boaters directly to the Charles River and also to the CambridgeSide Galleria arcade, which in turn connects to Charles Park.
- The DCR's Master Plan for the Charles River, which recommends increased access for people to the river, more activity, and advancing a connection from Lechmere Canal along the south side of the Museum of Science.
- The 2020 Cambridge Bicycle Plan, which includes the paths around Lechmere Canal as key off-road connections.

344 Broadway
Cambridge, MA 02139
Voice: 617 349-4600
Fax: 617 349-4669
TTY: 617 349-4621
www.cambridgema.gov

In addition to the guidelines referenced above, design objectives and strategies specific to the site were developed as part of the PUD process.

- Canal Park must be accessible and welcoming to all people, including all ages and abilities, and serve all modes of nonvehicular movement.
- Its design should retain the robust/industrial/riverfront character of Carol Johnson's original design.

Urban Design Comments

Introduction

The original design of the CambridgeSide Galleria is a remarkable achievement, creating a high-density urban retail facility that is connected to and contributes to the surrounding public places. Lechmere Canal Park is the centerpiece of the project's public realm: beautiful, varied, and connective. Carol Johnson's original landscape design was sensitively conceived and realized: the Park provides a major public space that gathers the surrounding buildings together to create a coherent and interconnected district, it provides a wide range of types of spaces and accommodates a wide range of uses and users, and it establishes spatial and circulation connections at a civic scale between residential East Cambridge, the First Street retail corridor, the Galleria Mall itself, and the Charles River. While the Park's plantings have developed wonderfully over the last several decades, some of its materials and surfaces have deteriorated. In addition, new design requirements have been established, including codes regarding safety and accessibility.

The objective of the project is to improve Canal Park while respecting the overall aesthetic and vision of Carol Johnson's original 1983 design. The proposed changes are fairly subtle. They address code provisions established subsequent to the original design, accessibility, pedestrian and bicycle connectivity, bicycle parking, landscape plantings, play facilities, drainage, improvements to lighting, the restoration of existing art, and the incorporation of new art. Surfaces, fixtures, equipment, and materials will be replaced, repaired, and refurbished as needed; the general language of the design remains the same.

Connectivity

- Canal Park's paths are vital parts of the connective path system in East Cambridge. They provide a pedestrian and bicycle route from the CambridgeSide Galleria and the residential East Cambridge neighborhood to the riverfront without crossing Land Boulevard's traffic. The project should enhance the quality and functionality of these connections.

Paving Materials:

- The Canal Park project provides the opportunity to correct existing issues in the lower path around the canal to create a complete circulation system that will serve people of all abilities and walks of life as they use the Park's important connections to Cambridge's public parks and waterfront. Doing so will help fulfill the visions articulated in numerous City plans for the area.
- As a public park, the paths need to be fully accessible to all users year-round. Both the lower path around the edge of the canal itself, and the upper path at the top of the slope will need to be maintained during the winter, i.e., cleared of snow and ice in a timely manner.
- The brick paving of the upper path will be repaired as needed.
- The surface of the lower path must be firm, stable, and not slippery. Staff from all relevant City departments have discussed the materials together and with the project proponent and conveyed our directive that bituminous concrete, regular concrete, and exposed aggregate concrete would be acceptable; coloration can be considered but it is not required. Any type of stone dust, including stone dust treated with "StaLok" or similar products, is not acceptable.
- The design of Canal Park was approved by the Conservation Commission on Monday 1/23 with a vote to issue an Order of Conditions. Plans approved by the Conservation Commission were consistent with what has been presented to the Planning Board. Any changes to the plan as a result of the Planning Board Design review will be brought to the attention of the Conservation Agent to make a determination if the changes warrant any action by the Commission. Generally, minor design

modifications to an approved plan that do not change the impacts to the areas under the jurisdiction of the Conservation Commission are handled by the Conservation Agent as administrative and do not require any action by the Commission.

- As the surface materials of some areas of the park have been the topic of much discussion, the DPW thought it would be worth noting that the design approved by the Commission meets all of the City Standards and is based on an assumption that all path areas are impervious and will convey stormwater runoff over the surface and be collected, treated and infiltrated or discharged. This design, as it is conservative, can support both permeable and impermeable surfaces being proposed for the lower paths of the park, thus most surfacing options that are ADA Compliant, stable, and support snow removal could be accommodated by the approved design without any modifications and thus not have to go back to the Conservation Commission. The Commission and the Conservation Agent did express some interest in the material that was selected for the lower pathways and would strongly advocate for a material that not only meets accessible standards but would also minimize potential future impacts to the adjacent waterbody. Permeability of a material can be a benefit as it allows for water to filter vertically into the ground, but often has long term operation and maintenance issues. Some of the stabilized stone projects, as were at one time presented for a material for these paths, have been unsuccessful in other locations and were found to become disengaged and granular and also prone to losing their permeability, raising a concern for sediment transfer into the proposed drainage system and into the water body.

Accessibility:

- The proposed design improves the steps and ramps between the upper and lower-level paths, widening the ramps and providing easier turning movements at their corners.
- To serve all members of the public, the lower path's paving material must be firm, smooth, stable, and non-slippery.

Trees and Plantings:

- After more than three decades of growth, the Park's trees and low plantings are well-developed and beautiful, providing shade, visual interest, and complementing the scale of the adjoining buildings.
- The proposed design preserves almost all of the existing trees. Several are identified for monitoring. One tree is proposed to be removed and will be replaced.
- Staff appreciates the preservation of the lush low planting on the slope between the upper and lower walks. More decorative seasonal plantings are focused on the areas near the steps and ramps between the upper and lower paths.
- In preliminary versions of the application, the trees on the elevated terrace on the north side of the straight portion of the canal were proposed to be replaced. Staff supports the current proposal to retain them and to improve their health by increasing the permeability of the ground surface around them and other treatments.
- Additional possibilities for tree planting should be considered, such in the broad paved area south of the Two Canal Park building (west of the proposed Bluebike station) and on the east side of the One Canal Park Building.
- Opportunities to improve trees' growing conditions should be investigated, including the provision of larger unpaved areas around them.

Bicycles and Bluebike station:

- The proposed bicycle parking, including the spaces for cargo-size bicycles near the playground are beneficial, along with the new Bluebikes station.
- Staff confirms that the location of the Bluebikes station, by the Two Canal Park Building at the northern edge of the park, is fully consistent with the approved site placement noted in the Decision for SP-364, Section 2.b.ix, dated 2.17.2021 and that it will work well in terms of access for users, operators, and technical specifications.

- Runnels for bicycles are proposed at steps for the aid of people walking their bicycles.
- As noted above, the Park's paths must be usable year-round: the lower path must be paved with a plowable material.

Play Area:

- Extensive improvements are proposed to the Play area.
- The existing climbing structure is retained, and numerous new types of equipment are added, focusing on movement-based play.
- The landscaping is improved with additional trees and low plantings, and different types of ground surface materials.
- The perimeter fence should be revised for more security: it should be provided with a gate at the entrance, and the fence's members should be spaced to prevent small children from straying out of the play area.
- Staff suggests that additional benches be considered outside the play area, to provide additional seating options for adults accompanying children using the play area.

Performance:

- In preliminary versions of the application, the "Great Lawn" on the north side of the circular basin was proposed to be regraded to create a more level surface, a seat wall was added along its southern edge, and a wood deck was added at its eastern end, with the intent of accommodating outdoor performance events.
- In the current design, the regrading is more subtle, the existing curb along the curved path is retained, and there is no platform. Staff suggests that some accommodation be provided for performance events, at least the provision of electrical and data hookups.
- To improve access to the Great Lawn from the north, consideration should be given to removing the railing along the Lawn's northern edge, eliminating the raised curb at its border, and lowering the grade so that it is flush with the pavement.

Lighting:

- The proposed lighting is more subtle and consistent than the existing. The high floodlights are proposed to be removed.

Art:

- The applicant proposes that the Gazebo be restored and refreshed, that consideration be given to the restoration of the "Never Green Tree", that an art opportunity under the Land Boulevard Bridge be capitalized upon, and that the fountain lighting be improved.
- Consideration should be given to more extensive art installations than indicated in the application.
- The applicant should work with the CDD staff and the Cambridge Arts Council as concepts for art are developed.

Relevant Design Objectives and Guidelines

While the [East Cambridge Riverfront Plan](#) (1978), the [East Cambridge Development Review Process and Guidelines](#) (1985), and the [Eastern Cambridge Design Guidelines](#) (2001) were produced over a more than two-decade period, their intentions are similar, stressing connectivity and the quality of the pedestrian environment. The [Cambridge Bicycle Plan](#) (2020, an update of the 2015 Network Vision Plan) details Cambridge's vision for a connective network of bicycle paths. Their relevant portions are summarized in the appendix.

Continuing Review:

The following is a summary of issues that staff recommends should be further studied by the Applicant, either in preparing revised materials if the Planning Board continues the hearing to a future date, or as conditions for ongoing design review by staff if the Board decides to grant the special permit:

1. Paving materials for the lower path
2. Details of railings at steps, ramps, and grade changes
3. Improvements to ameliorate impediments to accessibility
4. Play equipment
5. Provisions for outdoor performances and events
6. Lighting
7. Detailed locations of new plantings and planting standards
8. Opportunities to improve the health of the existing trees
9. Coordination as needed for the installation of the Bluebikes station
10. Program and locations for public art

Appendix: Relevant Design Guidelines

East Cambridge Riverfront Plan, 1978

1. Principles
 - a. Reclaim the Lechmere Canal as a significant visual element in the urban environment.
 - b. Create a functionally diverse and active urban focus with the Canal reclamation and surrounding development.
 - c. Create a strong and inviting pedestrian environment around the Canal.
 - d. Encourage development along the western edge [of Lechmere Canal and Square] that provides a compatible and sensitive physical interface with District 4 – especially the [East Cambridge] residential community.
2. Form
 - a. Enlarge and strengthen the Canal, redefining its edges and reducing the vertical distance between water level and abutting land.
 - b. Arrange new development so that it respects the First-Sixth Street grid.
 - c. Orient new development to interrelate activities in the Canal area and Bulfinch Courthouse area.
3. Linkages
 - a. Design open space corridors that provide connections between the Lechmere Canal area and riverfront and the residential community.
 - b. Create a visual and access corridor between the canal and the old county courthouse buildings.
 - c. Create a major pedestrian corridor through the commercial area parallel to First Street connecting the canal to the new Rogers Street open space axis.
 - d. Construct a walkway on the river side of the Museum of Science connecting the Lechmere Canal open space with open space on the Boston side of the Charles.
4. Design Details
 - a. Construct an aerated fountain at the head of the Canal to create an exciting visual focus and to cleanse canal-port water.
 - b. Encourage development around the canal that is colorful in details and rich in open space amenities.

East Cambridge Development Review Process and Guidelines, 1985

1. Pedestrian Walkability and Bike Connections
 - a. All developments must include an integrated pedestrian circulation system with particularly strong connections between Lechmere Canal and Front Park at the Riverfront.
2. Art
 - a. Individual works of art and their settings must work together in a harmonious, subtle way.

Eastern Cambridge Design Guidelines, 2001

1. Public Realm - Open Space
 - a. The provision of open space of diverse sizes and uses is encouraged to enhance the public environment.
 - b. The provision of interconnected series of open spaces is encouraged to provide connections to neighborhoods and to encourage pedestrian movement.
 - c. Where major new parks are required by zoning, provide programmed, multi-use open space for both recreational and cultural activities.
2. Public Realm - Streets and Sidewalks (recommendations pertinent to Canal Park)

- a. Use streetscape elements such as trees, benches, signage and lighting to support active pedestrian uses and to reinforce the character and identity.
 - b. In the design of new streets, pathways, and parks, provide pedestrian scale lighting to enhance pedestrian safety.
 - c. Refer to the Cambridge Pedestrian Plan and the Cambridge Bicycle Plan for additional guidance on creating a safe and pleasant environment for pedestrians and bicyclists.
3. Public Realm - Connections
 - a. Provide safe pedestrian and bicycle connections to future regional pathways.
 - b. Provide strong pedestrian, bicycle and visual connections to the Charles River and public parks through view corridors, signage, and/or art installations.

Cambridge Riverfront Plan: Reconnecting People to the Water, 2011

1. Goals
 - a. Improve access to the riverfront for all users by improving existing connections from the city and by creating new ones where needed.
 - b. Improve the public realm – e.g: tree planting and streetscape improvements along key corridors.
 - c. Improve connections – strengthen pedestrian access to the riverfront along existing streets and through large sites as (re)development occurs. Expand public access to the water by providing places where canoes and kayaks can launch and land.
2. Recommendations
 - a. Improve the flow of bicycles to and along the river throughout its length in Cambridge. (Especially with regard to connections from the Bedford to Boston Harbor route, to the Dr. Paul Dudley White path along the river, and to bicycles coming from Cambridge City streets.)
 - b. Analyze the feasibility of additional boat access: areas to put in and take out canoes and kayaks as well as the possibility of a water taxi connecting points of interest on either side of the river banks.
3. Segment Specific Recommendations
 - a. Keep a focus on the needed pedestrian connection along the river face of the Museum of Science – seek a process and funding to implement the design of more than a decade ago.

The 2020 Cambridge Bicycle Plan

1. Bicycle Network Vision
 - a. The paths along the edges of the canal are identified on the “Bicycle Network Vision” plan as key “off-street paths” connecting First Street to the Dr. Paul Dudley White path along the riverfront.