



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: CDD Staff

Date: March 6, 2024

Re: Affordable Housing Overlay Design Consultation **AHO-3, 21 Walden Square Road**

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Overview

Submission Type: Affordable Housing Overlay (AHO) Advisory Design Review

Applicant: Winn Development Company LP

Zoning District(s): Residence C-2

Proposal Summary: Construct 2 buildings to add 95 affordable rental units with 74 long-term and 10 short-term bicycle parking spaces with a gross floor area of 140,550 square feet under the AHO.

Planning Board Review and comment on conformance with AHO

Action: Development Standards, City Development Guidelines for the proposal area, Design Guidelines for AHO, and Citywide Urban Design Objectives.

Memo Contents: CDD Zoning Report & Urban Design Report

Other Staff Reports: None

AHO Design Guidelines

Site Design Objectives	
Response to Context	<ul style="list-style-type: none"> • Design site layouts to harmonize with the neighborhood context.
Open Space & Landscape Design	<ul style="list-style-type: none"> • Design open space to enhance the lives of residents and the broader community by offering aesthetic and environmental benefits. • Offer useful amenities to residents, provide opportunities to minimize the impact of new development on neighbors' privacy and quality of life, and contribute to the beauty of the city.
Circulation	<ul style="list-style-type: none"> • Promote non-motorized mobility by prioritizing pedestrian-friendly and bike-accessible site design.
Parking	<ul style="list-style-type: none"> • Minimize the impact of parking and driveway.
Utilities	<ul style="list-style-type: none"> • Minimize the visual, acoustical, and environmental impacts of essential utilities and services.
Outdoor Lighting	<ul style="list-style-type: none"> • Provide lighting for safety and functionality while minimizing energy use, light pollution, and other negative impacts.
Public Art	<ul style="list-style-type: none"> • Enrich the visual environment and strengthen the sense of place by incorporating art.
Building Design Objectives	
Massing	<ul style="list-style-type: none"> • Configure massing for compatibility with the prevailing or desired pattern of neighboring buildings and open spaces. In established neighborhoods, relate to the existing pattern of streets and other open spaces, and prioritize compatibility with existing buildings. In evolving areas, configure new developments to help realize the City's vision for urban form.
Facades	<ul style="list-style-type: none"> • Design facades to enhance and enliven the public realm. In established areas, emphasize compatibility and reinforce sense of place. In evolving residential and commercial districts, contribute to the transformation of urban form by setting precedents for design excellence. • Where appropriate, incorporate ground level retail spaces and common areas to foster a lively enliven the urban environment. • Provide daylight to interior spaces, avoid excessive energy use, and protect the privacy of residents of neighboring buildings. • Design facades to relate to the residential scales and patterns of Cambridge's diverse and historic neighborhoods. • Design street facades to offer a sense of civic presence and human scale, and visual interest as appropriate to their role in defining public space.
Architectural Details, Materials, Color, and Finishes	<ul style="list-style-type: none"> • Use materials that are warm, inviting, and compatible with surrounding existing buildings and the neighborhood context. Develop building facades of high-quality, durable materials and with colors, finishes, and textures appropriate to building contexts.

Building Interiors	<ul style="list-style-type: none">Affordable housing, like all housing, should serve the needs of its residents while contributing to the residential character and sense of neighborhood within the area at large.
Sustainable Design Objective	
Site and Building Design	<ul style="list-style-type: none">Achieve resilience measures to the maximum extent possible, including energy efficiency and measures to promote the health and wellness of residents.

The complete set of Design Guidelines for Affordable Housing (28 July 2020) can be found at:

https://www.cambridgema.gov/-/media/Files/CDD/Housing/Overlay/zngamend_aho_designguidelines_20200728v2.pdf

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

Zoning & Development Staff Report

Site & Zoning Context

Site Context

The site is located in Neighborhood Nine, roughly halfway between the Alewife area to the west and Porter Square to the east. This area of Cambridge is mixed in development character and uses, containing many larger multi-family residential buildings of 4-9 stories surrounded by neighborhoods of smaller 2-to-3-story residences, some school buildings and public open spaces (including Cambridge Friends School, Cambridge Montessori School, and Danehy Park), and a couple of commercial buildings that are remnants of the industrial patterns of development that characterized much of the area's past. The site is just to the south of the Fitchburg Rail corridor, which has largely transitioned (with some exceptions) in recent decades from commercial to multifamily residential use.

The approximately 7.3-acre site currently contains seven buildings ranging from 3-9 stories in height and consisting of approximately 183,000 square feet in Gross Floor Area (GFA) and 240 dwelling units. It is an irregularly shaped lot that has limited frontages on Sherman Street to the west and Raymond Street/Richdale Avenue to the east, which are connected by an internal driveway called "Walden Square Road" that provides circulation through the site. There is also a system of pedestrian and bicycle pathways through the site, connecting to the pedestrian/bicycle underpass to Yerxa Road and North Cambridge.

The current development pattern on the site is typical of 1970s-era residential development, consisting of multifamily buildings that are set back from the public realm. Yards are devoted largely to surface parking at the edges of the site, with internal landscaped courtyards.

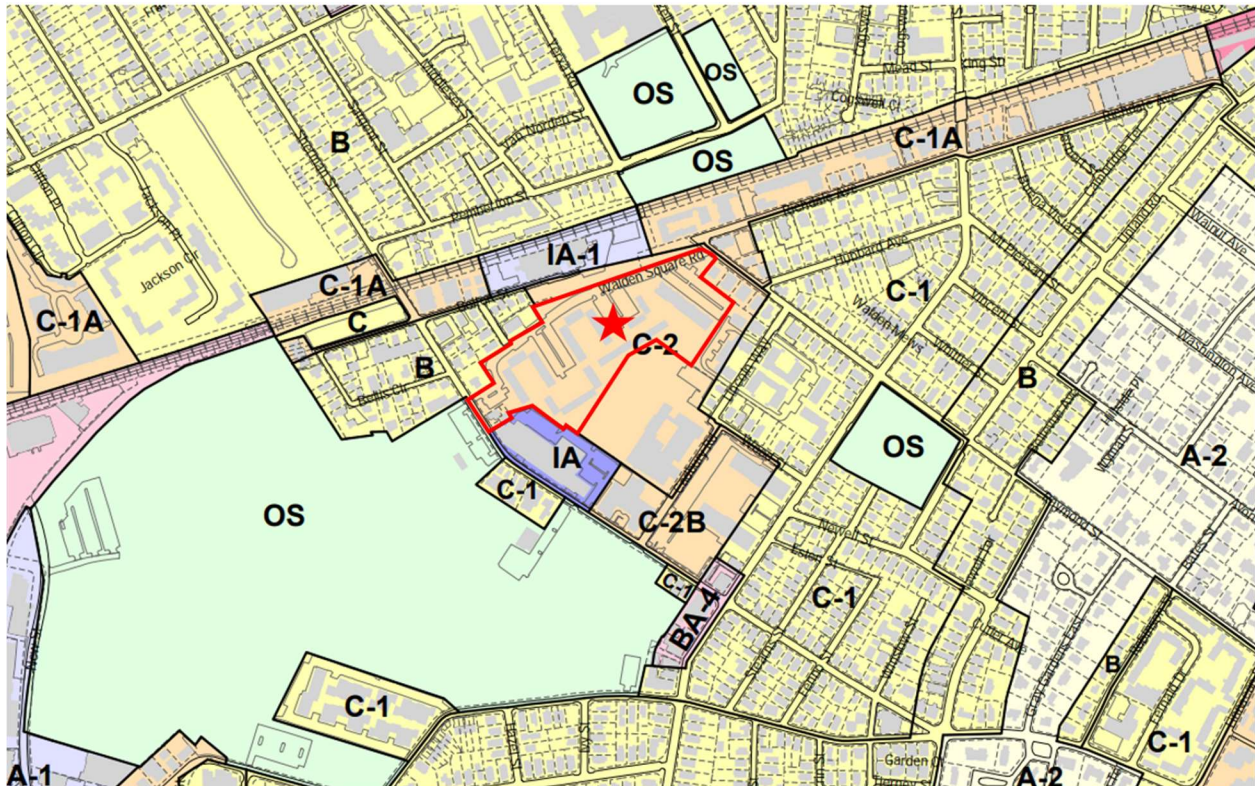


Aerial Plan (Source: Nearmap, 2024)

Site Zoning

The site and some adjoining properties are zoned Residence C-2. There are isolated pockets zoned Industry A and Industry A-1 to the west and northwest of the site. Surrounding residential areas are zoned Residence C-1A, C-1, C-2B, and B.

Residence C-2 is a higher density residential zoning district, permitting new development up to 85' in height and at a Floor Area Ratio (FAR) of 1.75. In addition to townhouses and multifamily dwellings, the Residence C-2 district permits institutional uses and some healthcare facilities by-right.



Zoning Context Map (Source: Cambridge CityViewer, 2024)

Comments on Proposal

Project Description

The AHO Project proposes to construct two additional buildings in the existing Walden Square campus, consisting of a total of 95 affordable units. Building A is an approximately 91,000 square-foot, 7-story building with 60 affordable dwelling units and Building B is a 6-story building with approximately 49,000 square feet and 35 affordable units. Building A faces Raymond Street and straddles the existing internal Walden Square Road while Building B is set behind an existing 9-story building.

The project will include 10 additional off-street parking spaces for a total of 200, 74 new long-term bike parking spaces, and a new 19-dock Bluebikes station. The development will reduce the overall open

space on the site from 36% (113,000 square feet) to 31% (100,000 square feet) and will include the renovation of 3 existing play areas and the planting of over 150 new trees.

Consistency with AHO Development Standards

The following commentary provides a high-level overview of how the AHO standards compare to this development proposal:

- Use
 - Per the AHO regulations, the proposal for a multifamily dwelling is allowed as-of-right.
- Dimensional Standards
 - Height: The maximum height permitted on the site is thirteen (13) stories or 150' from grade. Building A of the AHO Project consists of seven stories and 80' in height and Building B consists of six stories and 69' in height.
 - FAR: The AHO does not set a maximum FAR in the Residence C-2 District. The AHO Project would result in a 0.97 FAR across the site.
 - Setbacks: There are no applicable front or side yard setbacks under the AHO. The site has frontage on both Sherman and Raymond Streets, and therefore contains two front yards, which makes all other yards side yards (with no rear yards). No setbacks apply to the AHO Project.
- Design Standards
 - Transparency: At least 20% of the building's facades facing a public street must be clear glass windows. The proposed Building A consists of 31% transparency facing Raymond Street, according to the Narrative Volume. The corresponding elevation drawing in the Graphic Volume does not have the specific transparency percentage labeled. Building B is not visible from a public street.
 - Non-residential uses: Ground-story non-residential uses are not required by the AHO in this Zoning District. The AHO project does not include any non-residential uses.
 - Site Design and Arrangement: Parking shall not be located between the front lot line and the principal wall plane of the building nearest to the front lot line. The AHO Project includes preexisting parallel parking spaces along Walden Square Road between Building A and Raymond Street, which could be maintained as an existing nonconforming condition. The plans included in the Graphic Volume indicate the current condition will be maintained but some of the 3D renderings show an altered design for those parking spaces that would not be allowed under the AHO zoning.
 - Façade Projections/Recesses: Building facades must include projecting and/or recessed elements of at least two feet on an average interval of 40 linear feet or less along a Public

Street, and 80 feet elsewhere. Such projecting or recessed elements do not apply to the lowest or highest Story Above Grade. The AHO Project illustrates such recesses and projections at appropriate depths at the appropriate intervals.

- Mechanical Equipment & Refuse Screening: Mechanical equipment and refuse areas shall generally be screened from view using a screen that is at least 75% opaque and uniformly distributed across the screening surface. There is a proposed screened-in substation and transformer area adjacent to Building A shown in the plans but the material details are not provided.
- Parking and Short-Term Drop Off Loading Areas
 - Off-street Parking & Transportation Demand Management (TDM): The AHO Project will provide off-street parking at a ratio higher than 0.4. Therefore, TDM measures are not required.
 - Bicycle Parking Layout: Individual bike racks must be a minimum of 3 feet away from each other. The AHO Project shows 16 short-term bike racks that appear to be roughly 2.5 feet away from each other. The AHO project is required to include a total of 10 short-term bicycle parking spaces. There are 10 spaces that appear to conform to the dimensional requirements in addition to the 16 that do not.
- Environmental Design Standards
 - This proposal is subject to the City’s Green Building Requirements as set forth in Section 22.20 of the Zoning Ordinance. The AHO Project is being designed to meet Passive House standards.
 - The City’s Green Roofs Requirement is not applicable to an AHO project.
 - The AHO Project is subject to the City’s Climate Resilience standards. Portions of the site are below the City’s 2070 projected 1% probability Long Term Flood Elevation (LTFE), particularly around the proposed Building B. The AHO Project is designed so that all entrances to occupiable spaces, residential units, and mechanical equipment are elevated above the 1% LTFE, and the AHO Project will meet Green Factor standards as designed.

Further Considerations

The following zoning considerations will need to be reviewed in more detail to confirm zoning compliance before the building permit stage:

- Detail of proposed substation and transformer screen adjacent to Building A to ensure screening meets the requirements of Section 11.207.7.5.b.
- Detail of transparency percentages of Building A in Graphic Volume.
- Update of renderings and other graphics to confirm the parking between the Raymond Street front lot line and the proposed Building A will remain as-is.
- Detail of bicycle parking layout to ensure compliance with the design standards of Section 6.105.1.f.

Urban Design Staff Report

Urban Design Comments

Introduction and Context

The Walden Square affordable housing complex currently has 240 units on the 7.3 acres site. A group of three-floor buildings and a nine-floor tower (Building 21) create loose courtyards, which are interlaced by tree-lined east/west and north/south pedestrian paths. The site's mature trees are its most beautiful asset, gracing the complex's courtyards and paths and providing shade. An east/west vehicular drive with parallel parking (Walden Square Road) runs along the northern edge of the site from Raymond Street on the east to Sherman Street on the west and gives access to the complex's four parking lots. The Yerxa pedestrian and bicycle underpass under the Fitchburg rail line north of the site connects Walden Square to the Peabody School and Rindge Avenue.

The built fabric around the site is varied, primarily consisting of single and multifamily residential buildings two to four floors in height east of the site, arranged in typical Cambridge residential blocks, street-facing commercial buildings west of the site on Sherman Street, and office/laboratory buildings just north of the site on Bolton Street. The Lincoln Way affordable housing complex and the Cambridge Friends School, with its large playfields, are immediately to the south of Walden Square. Danehy Park and Raymond Park are nearby.

The proposed scheme adds two new affordable housing buildings to Walden Square. Building A, located on the northern edge of the site will be seven stories. Walden Square Road will continue under it as a vehicular drive with covered perpendicular parking. Building B, located on the west side of Building 21 and oriented parallel to it, will be six stories, and also provides at-grade covered parking. Together, the new buildings will add 95 units to Walden Square, bringing the total to 335 units, a welcome increase to Cambridge's housing stock.

The proposed scheme creates a new pedestrian/bike path along the northern edge of the site, providing a better east/west route for people walking or biking than using Walden Square Road as it proceeds under Building A, and potentially connecting across the adjoining property north of the site to Bolton Street.

The vehicular parking count has slightly increased from 190 spaces to 200. Seventy-four (74) long-term bicycle parking spaces are proposed. The existing complex has none. Forty-two (42) short-term bicycle parking spaces are provided, maintaining the existing count. A new 19-dock Bluebikes station is provided at the north side of the existing east parking lot, near Raymond Street. The Bluebikes station will provide existing and future residents with an important new option for affordable transportation; it will be important for those wishing to bicycle, as Walden Square provides limited storage for personal bicycles.

The proposed scheme removes numerous large mature trees, including a row along the northern edge of the site. It provides a compensating number of caliper inches of new trees.

The design challenge of the project is to add the new buildings to Walden Square complex in a way that is compatible with the existing buildings, fits in with the nearby neighborhoods, improves the complex's open spaces, and enhances the quality of life for both the existing and the new residents.

Consistency with AHO Guidelines for Building Design

The proposed design generally adheres to the tenets and principles outlined in the AHO guidelines:

- Treating the new construction as two separate buildings creates a better relationship to the scale of Walden Square's existing buildings than a single large one would.
- The proposed buildings are Intermediate in height between Walden Square's three-floor and nine-floor existing buildings, helping to mediate between them.
- Massing and façade articulations mediate between the scale of individual units and the buildings as a whole.
- The facades distinguish between the building's first floors, middles, and tops.

Recommendations for Building Design

As the project is developed, the following could be considered to further improve the fit of the new buildings with the existing buildings and open spaces, and to enhance the ground level pedestrian experience.

Massing and facades

1. Consideration should be given to a more deliberate use of different types of façade and massing articulation on the different sides of Buildings A and B. Clearer differentiation of the building's massings and facades in response to the forms and characters of the adjoining spaces would enhance the integrity of those spaces as meaningful places. For example:
 - The south façade of Building A could more assertively engage the width of the parking courtyard to its south, and the heights of the existing three floor buildings.
 - Building B could more create a greater distinction between on the one hand its east side facing Building 21 and the tree lined path parallel to it, and on the other hand its west side facing the Friends School playfield. One strategy would be to treat one façade as more continuous and more decisively divide the other into separate vertical tower-like elements.
2. Consideration could be given to using colors more similar to the colors of the existing buildings.
3. A lighter color would be preferable for the upper portions of the buildings.
4. Alternatives should be considered to the proposed cementitious panel system to ensure a high-quality appearance.
5. Consider providing more visual support to the rooftop photovoltaic panels, or installing them in a lower-height sawtooth arrangement to reduce their prominence.
6. Consider providing more detail at the windows – heads, jambs, spandrel panels, etc. – to increase their presence in the facades.
7. Consider utilizing decorative façade elements (including the randomly located vertical red stripes) more deliberately to enhance the organizational pattern of windows or to emphasize particular facades or portions of facades.

Ground Floor

1. On Building A, consideration should be given to locating the lobby and entrance passage farther east, to directly face the open space between Building B and Building 21, rather than the blank end of the nearby existing three floor building.
2. On Building A, consideration should be given to creating a stronger sense of separation between the parking lot to its south and the space under the building by providing a more substantial first floor façade in the plane of the wall above, and by reducing the width of the opening to the under-building garage.
3. More development of the first floor facades, in terms of materials, fenestration, three-dimensional relief, or public art, would enhance the pedestrian experience.
4. Ensure that the garage lighting on the first floors of both buildings has a warm color temperature and avoids glare.

Consistency with AHO Guidelines for Site Design

The proposed design generally follows the tenets and principles outlined in the AHO guidelines:

- The new buildings help define open spaces of different scales and characters.
- The addition of long-term bicycle parking will promote residents' mobility.
- Play areas will serve residents' needs.
- New parking - under the proposed buildings - is screened by walls and by metal panels and mesh screens.

Recommendations for Site Design

Experience and Connectivity for People Walking and Bicycling

1. Consider providing more canopy trees throughout the site instead of the small ornamental trees that are proposed in many locations. Deciduous trees of large growth habit would create more shade; they would better define the site's paths, courtyards, and parking areas; and their overhead canopies would help define a ground level pedestrian scaled zone that would both complement the existing three-floor buildings and mediate the heights of the taller buildings. Potential areas include the east end of Building A, the corners and center of the parking lot south of Building A, the east/west path extending west from Building B, and the center strip and eastern edge of the existing parking lot east of Building 21.
2. Provide more clarity on why existing trees are proposed to be removed in the western portion of the site, and if they are being removed because of poor health whether they could be replaced.
3. Position new trees near multiuse paths at least 3' away from the path of travel of people bicycling.
4. The existing Walden Square Road is proposed to continue as a two-way vehicular route under Building A, past the building lobby and various building service rooms, and to provide access to perpendicular parking spaces under the building.
 - The design team should clarify whether it will be open to public vehicles and if so, how that will be made clear.

5. The layout and materials of the proposed path system should be further studied to ensure safe access and movement for pedestrians and bicyclers, and graceful accommodation of their desire lines.
6. East/west movement in the area around Building A and under it - both through the site and to destinations such as Building A's lobby and bicycle storage room - is of particular concern. Staff would be happy to work with the design team as the locations, layouts, and designs of the paths in this area as they are further developed.
7. Consideration should be given to adjusting the path system and plantings in the north/south area between Building B, Building 21, and Building A to create a more coherent and legible space. Possibilities include:
 - Relocating the new bike shelter north of Building B and adjusting the western of the two north/south paths between Building B and Building 21 to create a smoother and more direct north/south route toward Building A.
 - Providing additional canopy trees in this space instead of small ornamental trees, extended farther north and south along the western north/south path, including in the play area.
 - Relocating the Building A lobby (as suggested above) to further enhance this space as a significant public place.
8. The new pedestrian and bicycle path along the north side of Building A connects to the Yerxa Underpass and to the sidewalk along the north side of Walden Square's east parking lot.
 - This connection may include construction on city-owned land. Changes to public rights-of-way and easements need to be coordinated with and approved by the city.
 - The project proposes an extension of this path north to Bolton Street. As it runs through the neighboring property, the potential for its creation will depend on future discussions. Staff recommends that if or when it is created, its configuration be further studied and it be widened to match the new path on the north side of Building A.
9. If possible, consider formalizing the existing dirt path leading south from Walden Square (near the location of Building B) to the neighboring Lincoln Way complex.
10. Provide raised crossing tables or speed cushions in vehicular drives, rather than abrupt speed bumps.
11. The proposed paving materials for crosswalks should be clarified. Crosswalks should be marked with high visibility crosswalk markings regardless of whether they are raised. City staff would be happy to review these and other details of paths and paving as the design is developed.
12. Provide a more substantial structure for the trash enclosure in the middle of the parking lot south of Building A and provide trees around it as shown on the perspectives.
13. Consider providing low planting along the north side of the parking lot south of Building A and the building.
14. While the number of proposed long-term bicycle parking spaces meets the requirement for the two new buildings, there are currently *no* long-term spaces for the existing buildings. Weather-protected and secure long-term bicycle parking is important to serve Walden Square's residents' needs for mobility options, but the proposed long-term spaces provide only one third the number appropriate for the entire complex. Consideration should be given to providing additional spaces.

15. Staff recommends that bicycle storage areas include options for charging e-bikes and that management monitor the use of the spaces. If there is insufficient space for bicycle storage, additional storage may be needed in the future.
16. Verify that the long-term bicycle parking structures are sufficiently weatherproof and secure.
17. The management of long-term bicycle parking should be clarified, including how people will know where to park, and what will happen when the demand is greater than the supply.
18. The long-term bicycle parking shelters should be reviewed for clearances and the locations and arrangements of the bike racks.
19. Note that the City supports the 19-dock Bluebike station shown on the north side of the Walden Square Road near Raymond Street. It need not be labeled “potential”.
20. Greater clarity should be provided regarding the locations of the bus stops shown on-site and the buses they serve, including their routes and schedules.

Play

21. More information on the play areas should be provided, such as proposed features, equipment, and character.
22. Consider providing elements conducive to play, exercise, and recreation throughout the complex, rather than solely in the designated play areas.

Public Art

23. Information on public art should be provided, addressing process, intentions, and locations, etc.

Engineering

24. In a memorandum from the project’s Civil Consultant, the team provides discussion of the AHO project’s plans to meet the City’s Stormwater Management Standards. Staff requests that the team update the calculations based on the current DPW design standards and guidance. For example, the stormwater design appears to be based on design storm events that have been superseded by projected 2070 Design Storms.
25. The project narrative provides a discussion of how the project will meet the Flood Resiliency Standards outlined in Cambridge Zoning Section 22.80. Staff recommends that a formal application be made for review of the project’s proposal to meet the standards outlined here: [Climate Resilience Zoning - City of Cambridge, MA \(cambridgema.gov\)](https://www.cambridgema.gov/ClimateResilienceZoning)

Consistency with AHO Guidelines for Sustainable Design

The proposed design generally appears to follow the tenets and principles outlined in the AHO guidelines.

- Light colored roofs with photovoltaic arrays are provided.

Recommendations for Sustainable Design

- Additional information regarding mechanical systems, fenestration, envelope, etc. would facilitate review.
- Consideration should be given to using permeable pavement where possible.
- Review planting palette with city staff.

Consistency with Citywide Urban Design Objectives

The proposed design generally follows the Citywide Design Objectives.

- It increases Cambridge’s housing stock, provides green pedestrian friendly spaces, bicycle storage for residents, and avoids shadow impacts on Walden Square’s neighbors.
- The Citywide Urban Design Objectives recommend that new projects be responsive to existing or anticipated patterns of development. The urban pattern of the existing Walden Square development contrasts with that of the nearby neighborhoods however. Its buildings are larger in scale and less varied than those of the residential neighborhood to its east. They are arranged to create loose courtyards (some of which accommodate surface parking lots) rather than more normative residential urban blocks. Unlike the residential neighborhood to the east and the commercial buildings along Sherman Street, Walden Square’s buildings do not directly address city streets. As a large-scale development, it most closely resembles the Lincoln Way complex on the south side of the site and the Walden Park Apartments farther south. While the proposed project maintains this atypical urban character, the proposed new buildings are remote enough from the surrounding streets and neighborhoods that they do not appear to be detrimental to the nearby residential and commercial urban fabric.