



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

Date:	August 7, 2023
Subject:	Initial Report of Affordable Housing Overlay (AHO) Design Consultation
Project Location:	1627 Massachusetts Avenue
Date of Planning Board Meeting:	July 18, 2023

Overview

The Planning Board (the “Board”) met on Tuesday, July 18, 2023 to review and comment on the design for 1627 Massachusetts Avenue, a residential building being developed by Homeowners Rehab, Inc. (HRI) under the Affordable Housing Overlay ([Section 11.207](#) of the Zoning Ordinance). The Board reviewed a plan set submitted by HRI dated June 2, 2023. They also reviewed memos from the Community Development Department (CDD) and the Department of Public Works (DPW), which are attached.

Proposal Description

The proposal includes the renovation of an existing building and a rear addition to accommodate up to 29 permanently affordable apartments, consisting of approximately 10 one-bedrooms, 12 two-bedrooms, and 7 three-bedroom units. The redevelopment includes no off-street parking spaces, 30 long-term bicycle parking spaces, and 4 short-term bicycle parking spaces. In addition to new residential units, the proposal will include additional ground floor space for resident amenities. An existing, three-story mansion known as the “Saunders House” will be renovated to accommodate four of the 29 apartments.

Board Comments

Board members were generally supportive of the inclusion of new affordable housing units at this location and the adaptive reuse of the historic Saunders House. However, Board members felt strongly that the proposed design needs additional refinements as the design progresses to improve the living experience for future residents and to better integrate the new building with the historic Saunders House and the built context of the adjacent Mellon Street neighborhood.

The Board recommends the applicant consider:

- **Building Design**

- Making refinements to the building's massing, including exploring strategies to organize and further develop the façade of the new addition along Mellen Street.
- Increasing the articulation of the building, including its bay projections, for the facades facing Mass. Ave. and Mellen Street.
- Adjusting the first-floor height along Mellen Street which appears too tall to be compatible with neighboring first floor heights along Mellen Street.
 - To accommodate this, the Planning Board suggests a half-stop for the elevator system so that the existing and proposed structures' first floors would not need to perfectly align.

- **Site Design**

- Relocating the transformer on the site, with a preference to place it underground.
- Considering opportunities to increase the usable open space on the site, with a special focus on opportunities for small recreational areas for children and families.
- Maintaining the front walkway to preserve direct access from Mass Ave.
- Preserving the front entryway of the Saunders House structure as an access point for the Project.

- **Sustainability**

- Further studying embodied carbon in proposed cementitious siding and opportunities for reducing the Project's embodied carbon.
- Exploring designating a portion of fifth story roof usable space for residents in the event that solar PV is not pursued.

In addition to these topic areas, the Board supported comments made in the staff memos for this proposal and asked that they be considered in refining the project's design.

Submitted for the Planning Board,



Representative to the Planning Board, authorized by Mary Flynn, Chair.



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: CDD Staff

Date: July 13, 2023

Re: Affordable Housing Overlay Design Consultation **AHO-6, 1627 Massachusetts Avenue**

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Overview

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

Applicant: Homeowners Rehab, Inc. (HRI)

Zoning District(s): Residence C-2A; Basement Housing Overlay District

Proposal Summary: Renovation of an existing structure and new addition to create twenty-nine (29) new rental units under the AHO.

Planning Board Action: Review and comment on conformance with AHO

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

11.207.5 – 11.207.7 AHO Development Standards

Development Standard	Requirements for AHO Project in (Zoning District)
Building Height & Stories Above Grade	<ul style="list-style-type: none"> • Generally follows underlying District Dimensional Standard (e.g., where 40' is permitted, AHO Development can build 4 Stories Above Grade or 45 feet). • Five additional feet are permitted in some districts when the Ground Story contains a non-residential active use. • Stepdowns in height are required when the AHO Development abuts a residential use.
Density	<ul style="list-style-type: none"> • If the underlying District Dimensional Standard establish a maximum FAR of 1.00, the AHO Development may not exceed an FAR of 2.00. Otherwise, there is no maximum FAR for an AHO Project. • There is no minimum lot area per dwelling unit for an AHO Development.
Yard Setbacks	<ul style="list-style-type: none"> • Generally, 15' Front Yard, 7.5' Side Yard, and 20' Rear Yard. • Yards may be reduced if the underlying District Dimensional Standard is less. • Front yards may be reduced to the average of the four (4) nearest pre-existing principal buildings on the same side of the street.
Open Space	<ul style="list-style-type: none"> • Generally AHO Developments must have 30% open space to lot area or meet the underlying District Dimensional Standard, whichever is less. • Required open space is reduced to 15% when a historic building is being preserved as part of the AHO Development.
Existing Buildings	<ul style="list-style-type: none"> • The required dimensional characteristics of the existing building and site shall be those existing at the time of conversion to an AHO Development. • Certain modifications may be permitted as-of-right to an existing building for an AHO Development.
Parking and Bicycle Parking	<ul style="list-style-type: none"> • There is no minimum off-street parking for an AHO Development. • For AHO Developments of twenty (20) or more units and less than 0.4 spaces per dwelling unit are provided, specific Transportation Demand Management (TDM) measures are required. • Bicycle parking is required per Article 6.100, but additional flexibility is provided for the location, quantity and type (long-term and short-term) of bicycle parking required.
Transportation Demand Management	<ul style="list-style-type: none"> • Where applicable, required TDM measures include complimentary annual Bluebikes memberships or 50% discounted MBTA passes for six months, and providing transit information to each household within the AHO Development.

Development Standard	Requirements for AHO Project in (Zoning District)
Site Design and Arrangement	<ul style="list-style-type: none"> • Front yards may be landscaped or hardscaped but cannot be used for off-street parking. • Pedestrian entrances shall be visible from the street. • Buildings with front facades in excess of 250’ in length shall provide forecourts to break up massing.
Building Facades	<ul style="list-style-type: none"> • Building facades facing public streets shall have a minimum percentage of glazing. • Building facades shall incorporate projections/recesses at regular intervals to promote visual interest. • Facades of ground stories shall have expanses of no more than 25’ with no windows or pedestrian entryways.
Ground Stories and Below Grade	<ul style="list-style-type: none"> • Ground stories with non-residential uses must have a height of at least 15’ and a depth of 35’. • Ground stories must contain a non-residential use when located in a Business base zoning district, or where a retail/consumer service establishment has existed on the site in the last two (2) years.
Mechanical Equipment, Refuse Storage and Loading Areas	<ul style="list-style-type: none"> • Mechanical equipment shall be generally screened from view. Rooftop mechanical equipment must be set back from the roof line equal to its height.
Environmental Design Standards	<ul style="list-style-type: none"> • Green Building Requirements as set forth in Article 22 shall generally apply to AHO Developments. • AHO Developments are exempt from the Green Roofs Ordinance.

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]

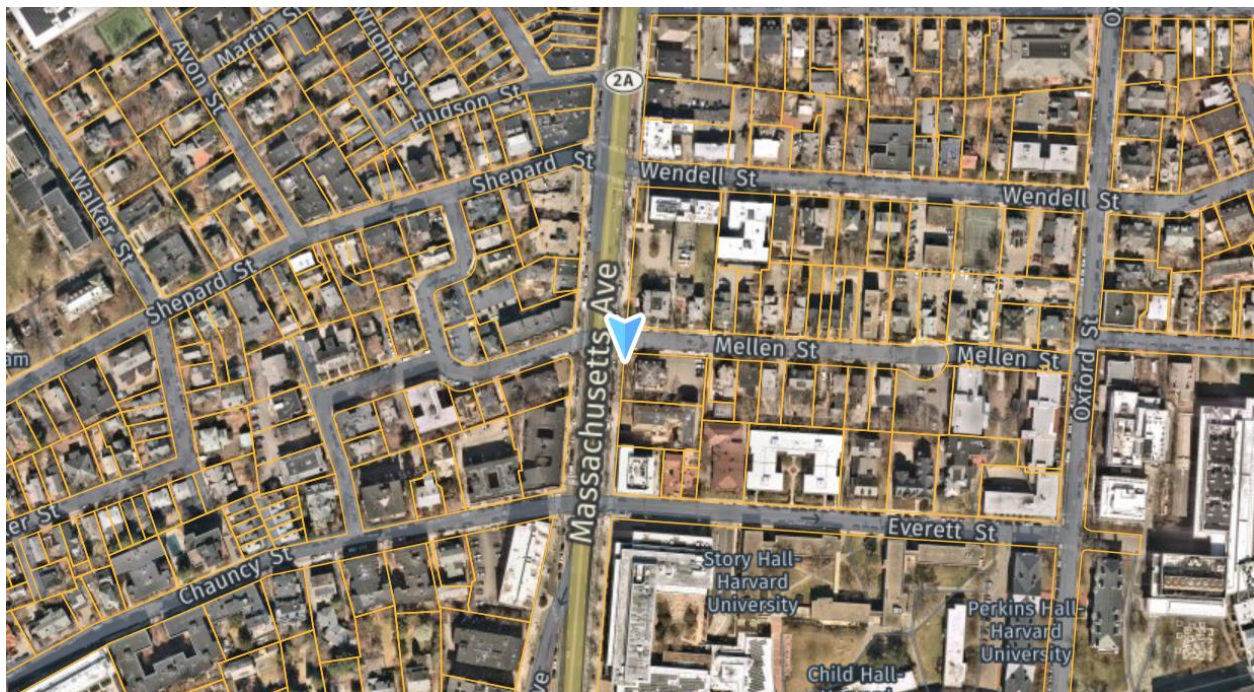
Objective	Indicators
New projects should be responsive to the existing or anticipated pattern of development.	<ul style="list-style-type: none"> • Transition to lower-scale neighborhoods • Consistency with established streetscape • Compatibility with adjacent uses • Consideration of nearby historic buildings
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

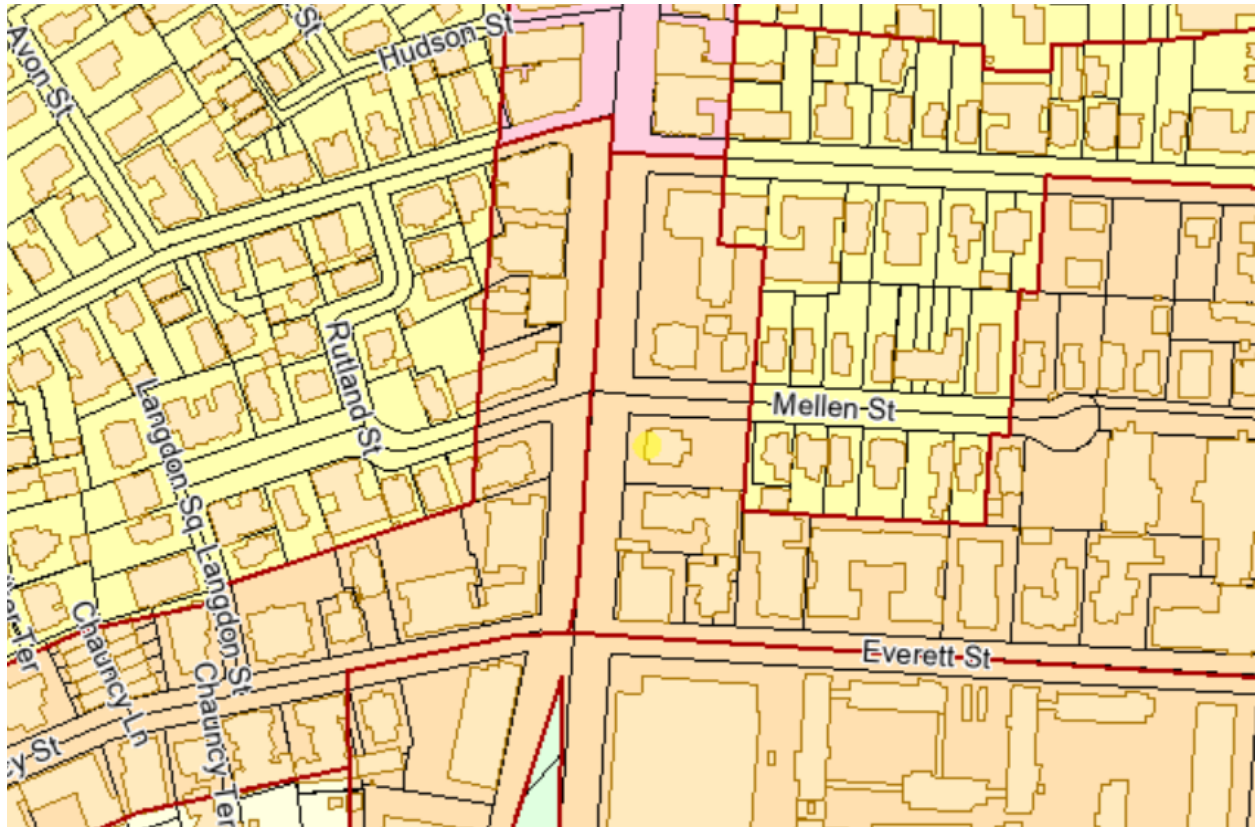
The site is located at the southern portion of the intersection of Mass Ave and Mellen Street in the Baldwin neighborhood, just north of Cambridge Common and Harvard Square. This portion of Mass Ave consists of a variety of development uses and scales, ranging from smaller, 1-story multi-tenant commercial buildings to higher density residential developments of six and seven stories. Many buildings are built to the lot line on Mass Ave, while others have smaller front yards or forecourts. The site is currently improved with an existing 3-story Second Empire Style structure known as the “Saunders House”, which currently contains institutional uses, as well as a surface parking area in the rear of the property.



(Source: Nearmap, 2023)

Site Zoning

The site is zoned Residence C-2A and is across the street from a Residence C-2 zone. The adjacent properties to the east along Mellen Street are zoned Residence C-1. Residence C-2A is a moderate-intensity residential zoning district which permits all types of residential uses, as well as some institutional uses and neighborhood-scale retail and consumer service uses. Development in the C-2A district is permitted to build up to sixty feet (60') in height, and to a density of 2.50 FAR, with a 10% minimum open space requirement.



(Source: Cambridge Cityviewer, 2023)

Comments on Proposal

Project Description

Homeowners Rehab, Inc. (“HRI” or the “Applicant”) is proposing to renovate the existing house into four (4) apartments, and construct a new addition on the rear of the property that would accommodate twenty-five (25) additional rental units. No vehicular off-street parking spaces are proposed for the site, but it will include thirty (30) long-term bicycle parking spaces, and four (4) short-term bicycle parking spaces.

The total Gross Floor Area (GFA) of the development is 35,263 square feet; 5,420 of which is accommodated in the existing structure and 29,843 square feet in the proposed addition. The existing building is forty-one feet (41’) tall, and the proposed addition will be sixty-nine feet eight inches (69’8”), stepping down to fifty-nine feet four inches (59’4”) within thirty-five feet (35’) of the Residence C-1 district boundary to the east. The Application notes that all of the apartments are planned to be affordable to families earning up to 60% of the Area Median Income (AMI), and 65% of the apartments will be two-bedroom or larger. The proposal also includes 700 square feet of amenity space on the ground floor.

Consistency with AHO Development Standards

The AHO development standards applicable to this project are summarized in the table in the introductory section of the memo. 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
 - The AHO has dimensional standards that apply to existing buildings as well as additions and new construction. The proposed addition will have a sixth story for a portion of the building's footprint, which is below the AHO maximum allowable height of seven (7) stories, 80' in this district. Submitted plans show that the highest point of the lowest floor in the addition is exactly 4 feet above grade, making it a story below grade.
 - There is no maximum FAR for AHO projects in this District, and the proposal has a FAR of 2.1. The AHO does not limit the number of affordable dwelling units that can be built.
 - The AHO allows for a reduced front yard setback of 10 feet in the case of a project on a corner lot. The existing structure has a front yard setback of 26.9' and 16.4'. The façade of the new addition will maintain a compliant 10-foot front yard setback along Mellen Street.
 - The AHO allows for a 7.5-foot side yard setback. The western side of the site is defined as the side yard and maintains a compliant 7.6' setback from the neighboring lot line.
 - The proposed private open space will cover 36% of the lot area, which exceeds the minimum requirement of 15% in the AHO. All of the proposed open space is permeable open space at grade.

- Design Standards
 - The AHO establishes a number of design standards for facades facing public streets, such as minimum glazing requirements, façade recess/projection requirements, and landscaping requirements. These standards do not apply to existing buildings, so for this proposal, they are required only for the building addition along Mellen Street. By providing a fenestration that is twenty percent (20%) of the façade area facing a public street or open space (35% proposed at ground story), the developer satisfies the AHO standards that require a minimum twenty percent (20%) of these façade portions to consist of clear glass windows. The AHO requires projecting and/or recessing architectural elements of at least two feet for every forty (40) feet of a façade facing a public street. More information should be provided to determine compliance with this provision.
 - The AHO design standards also require rooftop mechanical equipment to be set back from roof edges and screened from ground-level view on public streets and abutting residential lots. The proposed building design includes a roof plan which illustrates that the elevator overrun and building condensers on the proposed addition will be located at least ten feet

from the roof line and clad with a material that matches the façade design. The existing building will have no rooftop mechanical equipment, and is proposed to be modified to add a new skylight.

- Parking and Short-Term Drop Off Loading Areas
 - No off-street parking is required or provided. The AHO requires that any developments over twenty (20) units providing less than 0.4 off-street parking spaces per dwelling unit implement prescribed TDM measures. This development is therefore required to provide a TDM plan including measures to offer either a free annual BlueBikes membership or a 50% discounted MBTA pass for six months and to provide transit information on site and at the start of occupancy. The developer has committed to providing the required TDM measures and will additionally provide 100% discounted MBTA combined subway and bus passes for three months for up to two individuals per household.
 - If no off-street parking is provided for an AHO project of at least 20 units, the Cambridge Traffic, Parking, and Transportation Department shall certify to the Superintendent of Buildings that the Project has access to either on-street or off-street facilities that can reasonably accommodate passenger pick-up and drop-off by motor vehicles and short-term loading by moving vans or small delivery trucks. Such certification would be made at the building permit stage. TP+T staff have reviewed this project with the developer and believe these activities can reasonably be accommodated on-street. The developer has requested a temporary loading zone on Mellen Street to facilitate pick-up and drop-off for the proposed building.
 - The AHO generally requires bicycle parking for new construction but allows for some flexibility in the required quantity (e.g., allowing a Bluebikes station to count towards long-term bike parking requirements) and location (AHO developments may place bicycle parking anywhere on the lot or an adjacent lot under common control). The proposal for 30 long-term spaces and 4 short-term spaces meets the minimum requirements for the 29 new units to be constructed in the Project. The bicycle parking that is provided still needs to meet the location, access, and layout standards of Section 6.100.
- 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 proposal is meeting this requirement by targeting Enterprise Green Communities certification, which is encouraged in the City’s climate planning goals. A Green Building Report has been submitted to the City. Prior to obtaining a building permit for the project, the City must verify that the necessary documentation has been submitted to certify compliance with the standards in Section 22.20.
 - The City’s Green Roofs Requirement is not applicable to an AHO project, but the proposal does include a plan for solar panels on the roof, as well as a commitment to sourcing low embodied-carbon materials for the building. The building will additionally use all-electric energy systems.

Recommendations (if any)

The following is a summary of recommendations that may be considered for revised submission:

- Additional details on the proposed rooftop mechanical screening, including measurements of setback line and perspective views from adjacent public streets to confirm mechanical equipment is fully hidden from view.
- Diagram of proposed transparency percentages for façade facing Mellen Street (new addition).
- Diagram of proposed projecting/recessing architectural elements on the façade facing Mellen Street (new addition) to determine compliance with Section 11.207.7.3.b of the AHO.

Urban Design Staff Report

Urban Design Comments

Introduction and Context

This Affordable Housing Overlay project at the intersection of Massachusetts Avenue and Mellen Street consists of the restoration of the historic Second Empire style Saunders House, its renovation into four residential units, and the construction of a new twenty-five unit building on the site of Saunders House's existing parking lot in the eastern portion of the site.

The Saunders House faces Massachusetts Avenue across a broad and deep front lawn. At two floors plus a mansard roof, it is small relative to the large residential buildings common on this part of Mass Ave, an elegant point of punctuation in contrast to their large streetwall-defining volumes. Its deep cornice, curved mansard roof, idiosyncratic dormers, and richly detailed porch contribute visual interest and a sense of domesticity to the street. Staff appreciates the project's restoration of the Saunders House and recommends that the applicant continue to work with the Cambridge Historical Commission as the project develops.

The new building is located behind the Saunders House, a boxy volume twice the height of the Saunders House and the typical residential buildings on Mellen Street, and with a much larger floor plate. Its tall and broad north façade faces Mellen street, which is lined by mostly two and three floor residential buildings.

The siting and bulk of the new building present the design challenge of using massing and façade design to create sympathetic relationships to the contrasting scales and characters of the Mellen Street and Massachusetts Avenue, and to the Saunders House itself.

Consistency with AHO Guidelines for Building Design

The Affordable Housing Overlay Design Guidelines emphasize that the massing and facades of new buildings should be compatible with the prevailing pattern of neighboring buildings and open spaces.

They recommend incorporating setbacks to relate to lower neighboring buildings, dividing large developments into separate buildings, articulating the facades of large buildings with vertical recesses or projections, and considering both symmetrical and asymmetrical arrangements to best relate to neighboring buildings. They encourage that long facades be broken up by means such as recesses, projections, and bay windows; that the dimensions of structural bays be expressed; and that building bases, middles, and tops be differentiated, with the massing and detail of building tops and rooflines receiving special attention.

Their recommendations for façade design encourage compatibility with the architecture of the immediate context: the use of details, materials, and elements that add visual interest; window to wall ratios that relate to prevalent patterns; the enrichment of glazed areas with mullion patterns and features such as trim and sunshading devices; the creation of welcoming spaces at building entrances by the provision of shelter and shade, benches, and landscaping; and the provision of views into common

spaces, such as lobbies and amenity rooms. For projects on corner lots, the recommend responding to the different characters of the adjoining streets.

Where new buildings are proposed on sites with existing historic structures, they recommend that these buildings be preserved and restored, and that a degree of distinction and separation be provided between the existing and new constructions.

Recommendations for Building Design

Massing and Facades

While the proposed design relates to many of these guidelines, more could be done to increase its contributions to the public realm.

The proposed new building is a roughly cubical block. Its six-floor western half faces Massachusetts Avenue and overlooks the Saunders House. Its eastern half steps down to five floors in deference to the existing three floor house on the neighboring parcel and the residential neighborhood to the east. The building's prominent northwest corner is emphasized by a tower-like bay window that addresses the Saunders House's side lawn and marks the corner of the new building as seen from Mass Ave. The 73' wide and mostly flat Mellen street façade will have a major impact on the character and scale of the street.

The project's Massachusetts Avenue context includes several nearby buildings similar in size to the new building. Their bulk is articulated by changes in plane and the use of vertical elements – recesses and bay windows – to break up their overall mass. Their facades use changes in materials, window proportions and spacing, and trim to emphasize the distinction between their primary facades and side facades. Detail and materials provide visual interest and a sense of scale.

- While the proposed building's massing and facades reference these types of strategies, staff would like to encourage further exploration of possibilities to mitigate its cubical bulk and to make stronger contributions to the distinct characters of the adjoining streets.

The new building's most significant façade faces Mellen Street, which is otherwise framed by a variety of mostly two and three floor existing residential buildings enriched with the detail typical of late 19th c and early 20th c construction. The proposed building's top floor step-down at the east helps relate it to the scale of its neighbors, and the corner bay window articulates its northwest corner. Further adjustments, however, to the building's facades and massing could enhance the new building's contributions to Mellen Street.

- Consideration should be given to dividing the Mellen Street façade into two zones: the western zone the width of the recessed Mellen Street entrance and linking it to the building's sixth-floor volume, the eastern zone relating more closely in scale to the neighboring house.
- As part of this, consideration should be given to articulating the western portion of the Mellen Street façade with additional bay windows, whose verticality would reinforce the division of the façade into two distinct zones, contrast to the Saunders House's strong horizontal cornice, and relate to the Saunders House's bay windows and also the numerous vertical elements of the nearby houses on Mellen Street.
- For a more sympathetic relationship to the neighboring house to the east on Mellen Street, consideration could be given to further stepping down the building's eastern portion, or to recessing the eastern portion of the fifth-floor volume back from the typical plane of the façade.

Staff appreciates the broad first floor recess that leads to the building lobby and accommodates an outdoor terrace (see more about this area in discussion of the site plan below), and the expression of the amenity room and meeting room in the design of the first-floor façade.

The new building has a bulky appearance relative to the Saunders House.

- Consideration could be given to setting the new building's sixth floor, including its elevator, back from its west side, and/or breaking up the continuity of the sixth-floor façade by changes in plane, and to eliminating the sixth-floor portion of the corner bay window/tower.
- Consideration could be given to deemphasizing its upper cornice and giving the lower cornice more projection.

The window-to-wall ratio of the Mellen Street façade is fairly low at 20%, giving the façade a somewhat anonymous appearance.

- Consideration should be given to giving the windows a larger role in organizing the façade. Means could include providing larger windows, grouping them together for more visual impact, to incorporating details and trim that would increase their visual impact relative to the wall surface.

The majority of the new building's facades are clad with horizontally grooved flush cementitious panels; the corner bay window/tower is clad with flat panels.

- Consideration could be given to utilizing lap siding for the detail and shadow it provides.
- Care should be taken when specifying and installing panelized systems to ensure a successful appearance.

It is not clear whether interior spaces will be ventilated by through-wall or rooftop vents.

- Rooftop venting would be preferable.
- If through wall vents are used, they should be carefully located as positive elements of the façade design.

The new building's roof will accommodate mechanical equipment.

- Its visibility from ground level should be evaluated and screening provided if indicated.

Long-term bicycle parking

Thirty long term bicycle parking spaces are provided in the basement of the Saunders house, accessed via the elevator and an exterior stair to the south side yard.

- Some of the long-term bicycle parking spaces in the building's basement appear to be compromised by columns. The clearances should be reviewed.

Consistency with AHO Guidelines for Site Design

The Affordable Housing Overlay Guidelines recommend that open spaces help foster community by offering gathering spaces and play spaces for residents, and that their plantings contribute to the beauty of the city's streets and sidewalks. They recommend framing the street and sidewalk by the provision of elements such as low walls, hedges, and low plantings, and shading buildings, open spaces, and paved surfaces with canopy trees. They recommend that, where possible, forecourts provide transitional

space, enriched by plantings and seating, between the street and building entrance. Trash, service, and utility equipment should be located to minimize its impact on the public realm.

Staff appreciates the preservation of The Saunders House's front lawn, along with the cast iron fence on Massachusetts Avenue, and the hedge and small tower-like stone structure on Mellen Street. The new building fills most of the site behind the Saunders House, leaving narrow setbacks facing the adjoining properties on the east and south. The new building's slightly larger setback on the north, along Mellen Street, continues the Saunders House's side lawn, and will be, in effect, the front yard of the new building. While it is small, it will help serve the residents' need for outdoor space.

Recommendations for Site Design

Entry Terrace

The most significant feature of the new building's site is its entry terrace, which faces Mellen Street and is partially recessed into the building's first floor. In its overall dimensions it relates to the front porch of the Saunders house. Its scale and character are enhanced by its beamed trellis-like soffit and reused stone pavers. In addition to loose furniture, a low seatwall parallels the ramped path from Mellen Street. A pair of bike racks, oriented at 45 degrees to the building, occupy the terrace's eastern end. Strip lighting is proposed at the lobby facade.

The terrace presents the project's greatest opportunity to enhance the social life of the building. It has the potential to be an enjoyable shared space for the residents and a welcome transitional space between Mellen Street and the building lobby, an outdoor living room-like space that encourages casual meeting and relaxation while providing a connection to the outdoors and a sense of shelter. To more fully develop its potential, staff recommends that consideration be given to:

- Providing additional built in benches, including at its eastern end, to create the sense of a cozy nook from which one can overlook the street and see residents as they enter and exit.
- Reducing the impact of the proposed bicycle racks on other uses of the terrace. The recessed area next to the connector between the existing and new buildings could be considered as an alternative location. It would be no farther from the lobby entrance doors and could be sheltered by a roof spanning its breadth.
- Providing a table to encourage the use of the terrace for casual dining or as an outdoor workspace.
- Providing electrical outlets.
- Providing subtle lighting from indirect sources instead of the proposed strip lighting.

Transformer

The building's transformer is proposed on the south side of the existing building. It is partially screened by a fence, which extends considerably closer to Mass Ave than the Saunders House's porch.

- If possible, the transformer and its fence should be located more deeply into the site, and the fence should more fully screen the transformer.
- The application notes the possibility of relocating the transformer to the building's basement, which would be preferable.

Plantings

A well-maintained hedge runs for about 35 feet along the Mellen Street sidewalk at the side of the Saunders House's front yard. Many of the front yards of the existing buildings along Mellen Street present similar hedges to the sidewalk.

- To strengthen the relationship between the new building and its context, and to enhance the entry terrace, consideration should be given to extending the hedge for the full length of the project's Mellen street frontage, with an entrance at the paved path to the building's terrace and lobby.

The existing curbside sidewalk trees on Mass Ave and Mellen Street vary in condition and age; there are gaps on both streets.

- Unless precluded by subsurface conditions or sightlines, and in coordination with the DPW for species and planting standards, consideration should be given to providing additional curbside trees in the Mass Ave and Mellen Street sidewalks.

Consistency with AHO Guidelines for Sustainable Design

The Affordable Housing Overlay Design Guidelines recommend measures such as exterior window shading, passive ventilation, light colored roofs, and consideration of embodied energy.

Recommendations for Sustainable Design

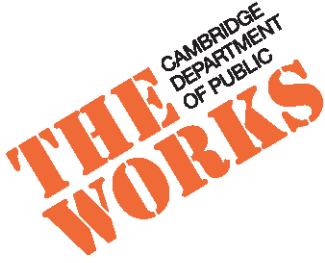
The project will be Passive House Certified. It will have low heating and cooling loads, which become a path to using net zero energy. With the installation of solar PV on the roof of the new building, its energy needs can be partially offset with renewable energy. Healthy materials will be prioritized, and the team is reviewing low embodied carbon materials. The preservation of the Saunders House is appreciated not only for its historical and aesthetic value, but also for its reuse of existing construction.

- Consideration could be given to further enhancing the project's sustainability by minimizing the embodied energy of construction materials, specifying a light-colored roof or a green roof, and incorporating rooftop solar panels as part of the initial construction.
- The provision of additional street trees would help reduce the area's urban heat island effect.

Consistency with Citywide Urban Design Objectives

The Citywide Urban Design Objectives state that new projects should be responsive to the existing pattern of development. Heights and setbacks that provide suitable transitions to lower scaled areas should be considered. Buildings should be designed and oriented on the lots to be consistent with the established streetscapes. Historical contexts and buildings should preferably be preserved. Mechanical equipment should be designed, located, and screened to minimize impacts on neighbors. They encourage the expansion of Cambridge's housing inventory.

The project's provision of affordable residential units and its preservation of the Saunders House fully accord with these objectives. The new building's size presents challenges; many of the recommendations above are meant to bring it closer to the objectives' intent.



City of Cambridge
Department of Public Works

Katherine Watkins, Commissioner

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Voice: 617 349 4800
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July 6, 2023

TO: Planning Board

FROM: James Wilcox, PE
City Engineer

RE: 1627 Mass Ave AHO Design Review

We are in receipt of the AHO Design Review Submission Documents for the project at 1627 Mass Ave, dated June 5, 2023.

The DPW supports the project and acknowledges that HRI and their consultant team have demonstrated a general understanding our Department's requirements for development projects and have indicated a willingness to work with the DPW to meet the requirements and to address our concerns. With the understanding that the project will be subject to a thorough and complete engineering review at the time of the Building Permit Application, we anticipate continuing to work with the Applicant. Items discussed with the Applicant related to our purview, are summarized below.

Stormwater Management:

The development will be required to obtain a Stormwater Control Permit prior to the issuance of a Building Permit which will include a detailed review of the proposed stormwater management system, plans for erosion and sedimentation control during construction and the plans for long term operation and maintenance of the system.

We have met with HRI's Consultant and reviewed design materials that acknowledge the standards of the Stormwater Control permit and provides discussion on how the Development plans to meet the requirements. Final review and approval of the design will occur with the Building Permit but the submitted document demonstrated that the project will meet all requirements.

Public Right of Way:

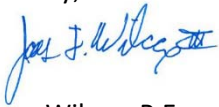
DPW will review and evaluate all proposed work and impacts in the public right of way, as the design is developed. Connections to both public and private utilities as well as all proposed disruption in the public right of way shall be reviewed as part of the Building Permit and construction permit processes. As noted in the Application, most utility work will occur in Mellen Street, which will minimize impacts to the Massachusetts Ave Right of way.

Other Considerations:

- At the proposed bedroom count the projects project increase to the sewer flow does not appear to trigger mitigation of Inflow and Infiltration per State Requirements.
- HRI acknowledges the City's upcoming plans to reconfigure the curb to curb lane configuration on Massachusetts Ave. The project is not proposing any modifications that should impact the proposal. Construction activities for both efforts may need to be coordinated.

We look forward to working with the HRI and other City Departments on this project. Please feel free to contact me with any questions or concerns related to the comments or information provided above.

Sincerely,

A handwritten signature in blue ink, appearing to read "James Wilcox".

James Wilcox, P.E.
City Engineer