Figure 1K.15: Shadow on Winter Solstice - Existing 3pm

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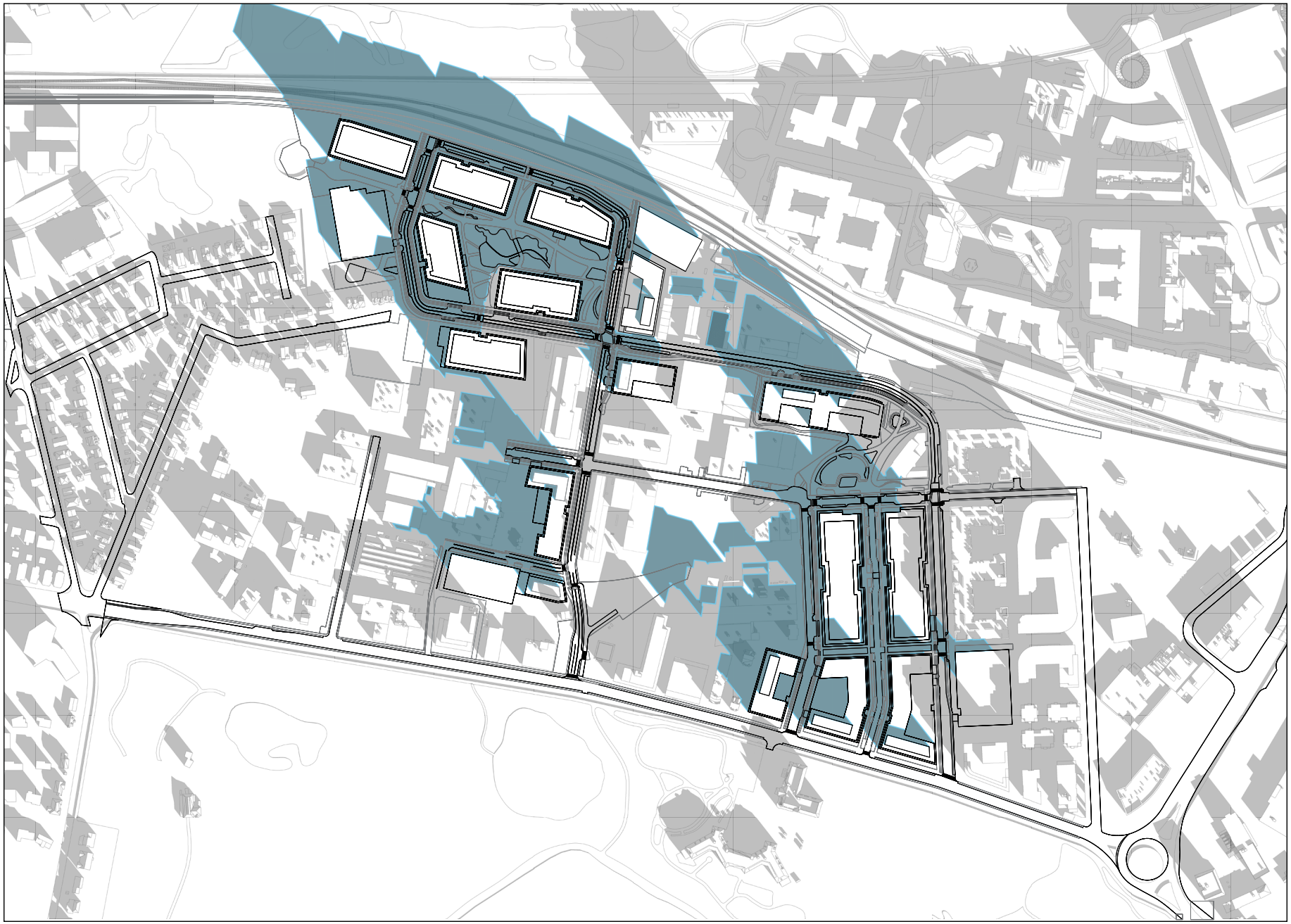

Figure 1K.16: Shadow on Winter Solstice - Proposed 9am

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Figure 1K.17: Shadow on Winter Solstice - Proposed 12pm

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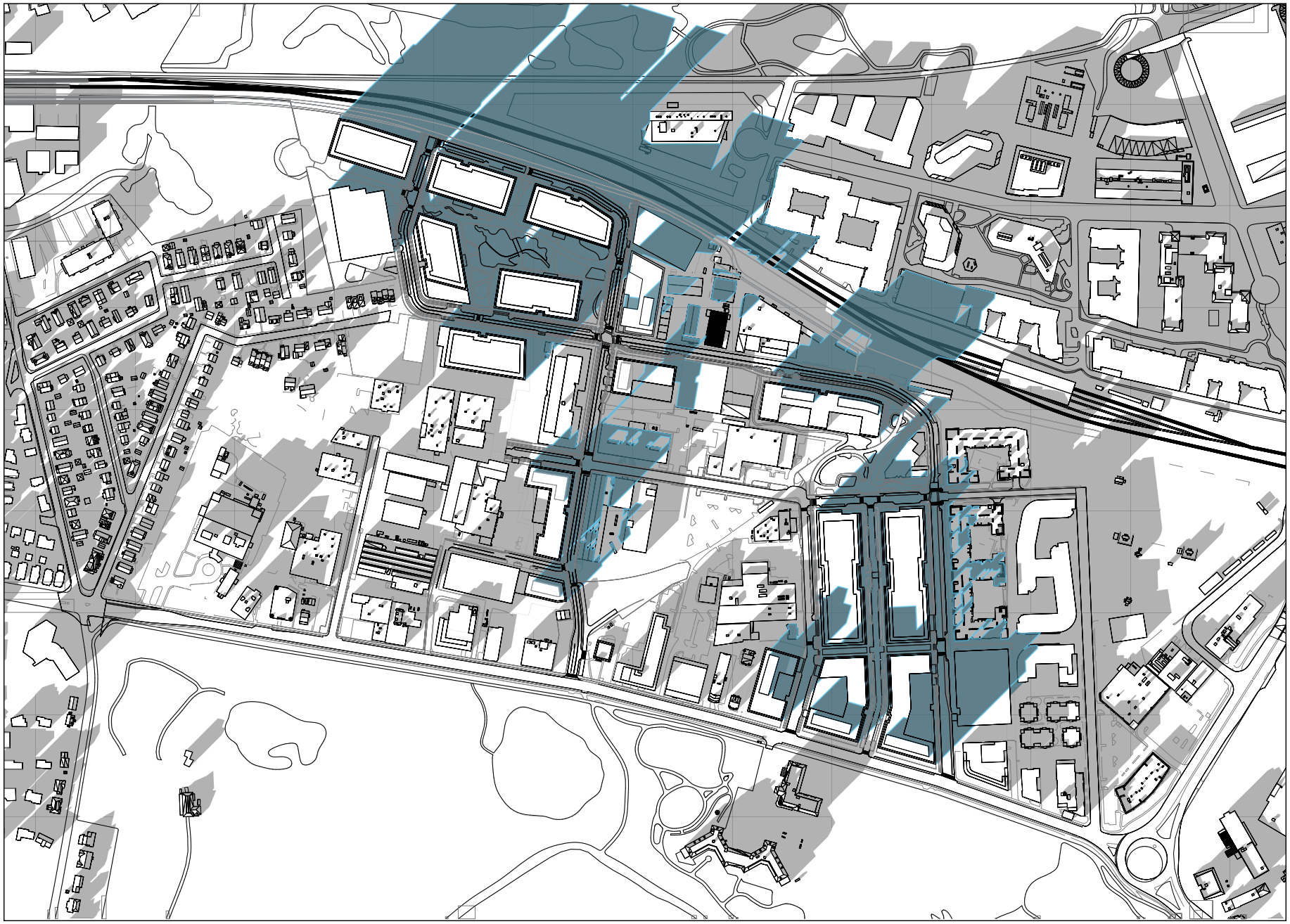

Figure 1K.18: Shadow on Winter Solstice - Proposed 3pm

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1.16 Architectural Character Plan

The following describes design intentions with regard to the character of public realm open spaces and buildings, outlining programmatic, compositional and detail strategies with which to develop the overall character of the Project. The objective is to develop design that is innovative, sustainable and tangibly part of Cambridge. It is understood that a great deal of design diversity is possible within these guidelines and that individual open spaces and buildings will be further reviewed as they are developed.

1.16.1 Design of Buildings

Building Form

The primary planning goal of the Project is to contribute to the creation of an engaging, beautiful, and sustainable environment that fosters a strong sense of community through its relationship to streets, sidewalks, and other public spaces. Building forms are envisioned to respond to and mediate between the diverse scales present in the urban context, including the scale of the pedestrian, adjacent buildings, streets and squares, as well as distant views from neighboring parks and major thoroughfares.

- **Pedestrian frontage:** This street level zone will engage and animate the pedestrian experience through neighborhood uses, offering comfort, shelter, and visual enrichment. The ground floor will accommodate retail and community programming, while incorporating elements that foster a visually rewarding and intimate streetscape.
- **Street walls:** Street walls above the pedestrian zone help frame the spatial volume of adjacent streets, parks, and squares. These elements should align with the build-to lines, particularly at block corners, except where not feasible, as described in **Volume I, Section 3.3**. Street wall heights are encouraged to relate proportionally to the width of the streets and open spaces they define. Taller street walls may be appropriate where buildings address larger publicly beneficial open spaces, as they reflect the specific functional use of the overall building and contribute to the urban scale of streets and public realms.
- **Tower:** Defining the building's form in response to type and programmatic needs, the tower contributes to the overall skyline and participates at the scale of the city. Massing in this zone will be broken down to reduce visual bulk, and floor plates are generally smaller than those of the street wall below. The tower should be articulated to avoid a monolithic appearance, emphasizing

slender, vertically oriented proportions. Tower orientation should prioritize façades that address primary streets or adjacent open spaces.

- **Building Top:** The building top operates at the scale of the City, where its massing and façade design may be differentiated from the street wall below to create a varied and expressive skyline profile. This articulation helps define the street as a volumetric space while contributing to the building's overall identity. Building top elements should integrate with the façade below, continuing its materiality or pattern to ensure a cohesive architectural expression.

Building Use Typologies

All buildings will feature active, highly transparent ground floors, with special attention given to frontages along major streets and publicly accessible open spaces. The architecture of each building will respond to its specific use through design elements such as floor-to-floor heights, structural bay spacing, window patterns, and material choices. While their forms and functions may differ, all buildings should contribute to a pedestrian-friendly, visually engaging public realm.

Residential Buildings

As illustrated in **Figure 1L.1b**, the architectural expression of residential buildings should convey the private and intimate nature of individual homes. This can be achieved through a lower window-to-wall ratio and varied fenestration patterns that respond thoughtfully to unit layouts, solar orientation, and pedestrian scale. Balconies, either recessed or projecting, are encouraged to provide articulation, create rhythm, and reinforce the language of residential typology. While residential floor plates are typically narrower than their commercial building floor plates, this slenderness should be celebrated through vertical articulation and massing strategies that maintain architectural consistency while introducing subtle variations in bay widths, materials, and detailing. Operable windows façade elements such as balcony railings, shading devices, and articulated mullions can foster connection to the public realm, support natural ventilation, and enhance overall livability. Step-backs at upper floors and irregular massing at block interiors may also be used to reduce visual bulk, create semi-private open spaces, and accommodate private terraces or communal green roofs.

Commercial Buildings

Proposed commercial buildings will differ from residential ones through larger floor plates, greater floor-to-floor heights, expressed structural bays (20–30 feet), and more uniform fenestration. Massing will be modulated with facade shifts and upper level step-backs to reduce scale and respond to adjacent building heights. Street walls will feature subtle relief, detailed articulation, and considered window patterns.

Ground floors will provide tall ceiling heights along street frontages to accommodate current or future retail or neighborhood uses. Where feasible, active ground floor uses and public passages will enhance pedestrian access. Mechanical systems and lighting will be integrated into the design. As shown in **Figure 1L.1a**, careful articulation is essential to relate large buildings to the scale of the City, neighborhood, and pedestrian experience.

Parking Structures

There are four parking structures proposed as part of the Project, which will be constructed in accordance with AOD-Q zoning requirements, except where relief is required, as detailed in **Volume I, Section 3.3**. Structured parking in Stories Above Grade will be screened from view from adjacent public streets.

Building Context

As indicated in **Figure 1L.2**, the context of the Alewife Quadrangle includes new developments, contemporary buildings of science and innovation, luxury high quality residential and existing industrial buildings. The new context buildings are defined by diversity, invention and high quality. Building design will consider the existing architecture of the Alewife Quadrangle and Triangle as presenting opportunities for integration of the Project's new buildings into the existing City fabric, while transforming the old industrial Alewife Quad area into a more pedestrian-oriented landscape. That fabric is not limited to only buildings, but rather also reflects large new open spaces and the existing Fresh Pond, Alewife Brook Reservation and Danehy Park. The surrounding fabric is far from uniform as context buildings feature a variety of materials, colors, and proportions in their sizes, massings and fenestrations. This serves as a precedent when developing compositional strategies for new construction. While imitation is highly discouraged, a strategy of reference and interpretation is encouraged, with individual design teams encouraged to study elements of the City's vocabulary for inspiration. Taken together, the Project build-out will be comprised of buildings set in the context of important surroundings, buildings, and open spaces.

Building Character and Composition

Architecture at the Quad will foster a vibrant and cohesive neighborhood through varied building designs that collectively shape engaging publicly accessible spaces. While buildings may differ in type and form, they will contribute to a unified character through thoughtful material use, detailing, and façade composition.

Façades may be enriched with architectural details such as accents, sills, trim, articulated planes, textured surfaces, varied colors and joint patterns, balcony railings, and sun shading devices. These elements will enhance both visual interest and pedestrian experience, particularly at the ground level, entrances, corners, setbacks, top floors, and rooflines.

Window design will support architectural expression with varied mullion patterns, integrated solid panels, detailed surrounds, and shading elements. Operable windows will be prioritized in residential and community buildings and used where feasible in commercial spaces. Horizontal strip windows will be avoided, except in industrial applications.

Together, these strategies will establish a district identity grounded in human scale, contextual sensitivity, and material richness.

The architectural character will support these objectives by:

- Providing diversity and variety within a community of buildings.
- Contributing to the definition and beauty of the public realm.
- Relating to human scale and addressing urban scale at the pedestrian, building, and district levels.
- Including detail and embellishments to refine and enrich façades.

Building Orientation

The overall building massing and orientation are shaped by the existing street grid and the City's envisioned street layout, with a focus on creating coherent, walkable urban blocks that frame streets, parks, pocket parks, and plazas. The massing strategy also supports an interconnected network of publicly accessible spaces that extends throughout the district and connects to surrounding parks and neighborhoods. Preliminary energy assessments of the Project anticipate the following performance against MA Stretch Energy Code 2023 (based on MA amendments to IECC 2021) and MA Municipal Opt-in Specialized Energy Code 2023. **Figure 1L.3** depicts ways in which a building's facade might respond to solar orientation. Individual buildings will

employ a suite of strategies to facilitate the achievement of requirements related to building envelope:

- All around high performance envelope;
- Alternative strategies related to solar heat gain by building orientation;
- Alternative window-to-wall ratios by solar orientation; and
- Design direction across eight buildings will contribute to the design narrative and sense of place.

Wall-to-Window Ratios

The ratio of window-to-wall on all buildings will be guided by both qualitative and quantitative criteria:

Preliminary energy assessments of the Project anticipate the following performance against MA Stretch Energy Code 2023 (based on MA amendments to IECC 2021) and MA Municipal Opt-in Specialized Energy Code 2023. All buildings will continue to comply with all current applicable building codes and the feasibility to exceed the Stretch Code will be determined by individual building designs with opportunities and technologies available at that time. Likewise, energy efficiency measures factored into the baseline and proposed building designs will be determined individually by building to comply with code requirements.

Exact ratios are difficult to predict because they will be a function of both glazing configuration and performance (layers of glass, number and effectiveness of coatings, thermal isolation of assembly parts), as well as insulation performance of all opaque wall areas. During the individual building design process, other envelope performance criteria such as infiltration rate, frame assembly design, and window-to-wall ratio will be studied for enhanced energy performance.

The all-electric meeting energy code option consists of a typical curtainwall envelope with double IGU vision glazing and 60% window-to-wall ratio, MA stretch energy code lighting power densities, decoupled ventilation with Konvekta energy recovery coil. The stretched goal option was tested for sensitivity to enhanced energy efficiency measures. This option includes a higher performing envelope system.

Building Materials

The palette of building materials will be of high quality and durable, creating a lasting sense of permanence and contributing to the long-term performance and identity of each structure. Material choices will be informed by sustainability considerations, including both operational energy use and embodied carbon, ensuring that visual durability is matched by environmental responsibility.

In general, the solid portions of street wall façades will be composed primarily of cementitious siding, masonry and/or high-quality precast concrete, providing tactile richness, thermal mass, and a visually grounded character. Lighter materials such as curtainwall, or metal panels may be introduced sparingly, serving as accents or moments of emphasis that contrast with the solidity of the primary wall surface. Predominantly glass façades are discouraged unless energy modeling clearly demonstrates performance equal to or better than conventional punched window façades. Spandrel glass will be avoided in favor of shadow box assemblies, which provide greater depth and material clarity.

Vision glass will be clear and highly transparent, with minimal reflectivity to support visual continuity between interior and exterior. At the ground floor, low iron, non-reflective glass is preferred to maximize transparency and street level engagement. Warm tones with lighter colors are encouraged throughout as they help reduce solar heat gain, mitigate the demands on mechanical systems, and minimize the contribution to the urban heat island effect. Panelized systems, where used, must be constructed of dimensionally stable, long lasting materials, reinforcing both the visual and physical integrity of the building fabric.

1.16.2 Design of Landscaped Areas

Open Space

The public realm is composed of a variety of interconnected spaces, each with its own unique character and purpose. Plazas serve as vibrant gathering points at the heart of the community, hosting social interaction, cultural events, and everyday activities. Passages are intimate, pedestrian-friendly corridors that weave through the neighborhood, providing quiet shortcuts enhanced by landscaping and seating. Pocket parks offer small, inviting green spaces within urban blocks, creating cozy spots for rest, play, and informal gatherings close to residences or workplaces. Neighborhood parks provide larger open areas for recreation, active play, and community events, acting as essential hubs for relaxation and community connection. Streetscapes function as multi-purpose corridors that tie all these spaces together, thoughtfully designed with walkways, trees, and amenities to support movement and social life. Collectively, these diverse public spaces form a cohesive and welcoming environment that fosters community engagement, healthy lifestyles, and a strong sense of place.

Development Parcel

- Park spaces are diverse in character yet clearly part of a cohesive network. They are designed to be shared publicly beneficial areas, equally connected to streets and buildings within and beyond the Development Parcel.
- Urban squares and plazas serve as focal points within the open space network, providing public places to pause, gather, people-watch, and engage with the broader urban community.
- Pocket parks will be intimate in size, these parks feature smaller-scale landscaping tied to the surrounding architecture, offering recreational opportunities for the community.
- Passages are designed to function as both interstitial spaces that connect the open space network and static spaces that provide staging and overflow areas for nearby public activities.
- Streets are the primary connective tissue of the public realm. Streets should efficiently accommodate pedestrians, cyclists, and vehicles. They should also provide a safe, tree lined urban pathway perfect for strolling, shopping, dining, or resting.

Wind Mitigation

The Alewife Design Guidelines, along with accompanying documentation, describe an urban street wall composed of a series of step-backs between the podium, tower, and mechanical penthouses. These articulated setbacks are intended not only to establish a cohesive architectural character and improve access to daylight at street level, but also to play a significant role in mitigating adverse wind conditions along the public realm. Especially, building corners or areas where prevailing winds funnel through narrow spaces may still be susceptible to localized wind or gust conditions. In such cases, additional architectural responses may be required. These could include the introduction of structural canopies, strategic manipulation of massing, or landscape-based solutions, such as trees or vertical screens, to further deflect and disperse wind at the pedestrian level. All buildings will be subject to wind analysis through the Design Review process. Wind studies submitted at that stage will identify any potential wind-related impacts on publicly beneficial open spaces and adjacent structures. Where necessary, specific mitigation strategies will be proposed and integrated into the final design to ensure comfortable, safe, and inviting streets and open spaces throughout the Quad.

1.16.3 Design of Public Realm (Streets and Pathways)

The proposed design of the public realm prioritizes creating seamless interconnectivity between open spaces, fostering a sense of community and accessibility throughout the Development Parcel. Thoughtfully planned pedestrian pathways, green corridors, and gathering areas link parks, plazas, and streetscapes, encouraging movement and social interaction. Visual and physical connections are enhanced through consistent landscaping, cohesive wayfinding, and integrated seating or public art, making transitions between spaces intuitive and inviting. This interconnected network not only maximizes usability and inclusivity for all users but also supports ecological functions by allowing for continuous green infrastructure. Ultimately, the unified public realm enhances the Project's identity and contributes to a vibrant, resilient urban environment, and it will consist of plazas, passages, pocket parks, neighborhood parks, and streetscapes.

Streetscape

Streetscapes play a vital role in the open space network, serving as the threads that weave together and unify the neighborhood's public realm. Beyond enabling movement, these spaces are designed to offer welcoming areas for relaxation and social interaction. To accommodate multiple uses, streets will be thoughtfully divided into dedicated zones such as pedestrian walkways, furnishing areas, tree-lined pathways, cycle tracks, buffers, and, when needed, parallel parking. This organized approach ensures that streets contribute to both connectivity and the overall comfort, safety, and vibrancy of the community.

Form and Character of Streetwalls

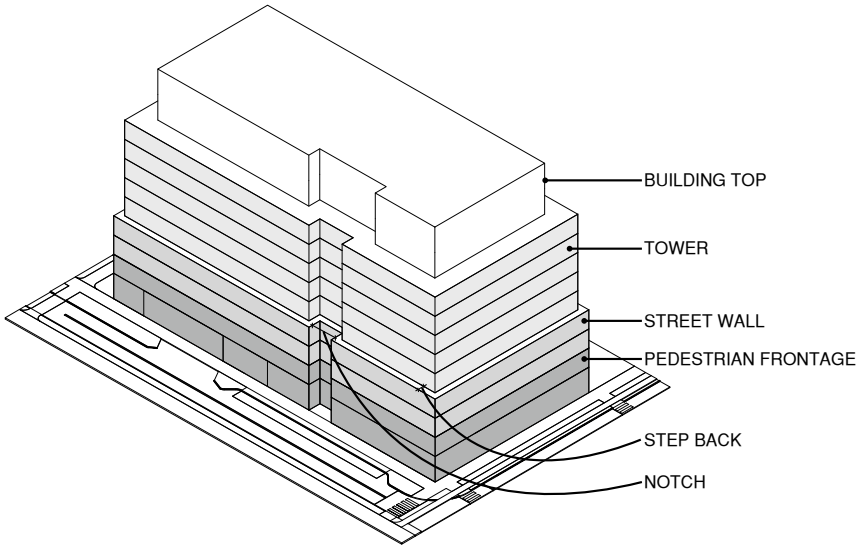
The planning initiative for the Project has been thoughtfully shaped to create stronger connections with the City's existing urban fabric, while enhancing the Quad's overall character, vitality, and resilience. This is achieved in part by breaking down large, formerly industrial blocks into a finer, more walkable grid. Street walls are an essential part of this effort, as they help define coherent, pedestrian-friendly blocks and contribute to a sense of place. The Project will play an active role in establishing consistent and welcoming street walls throughout the Quad.

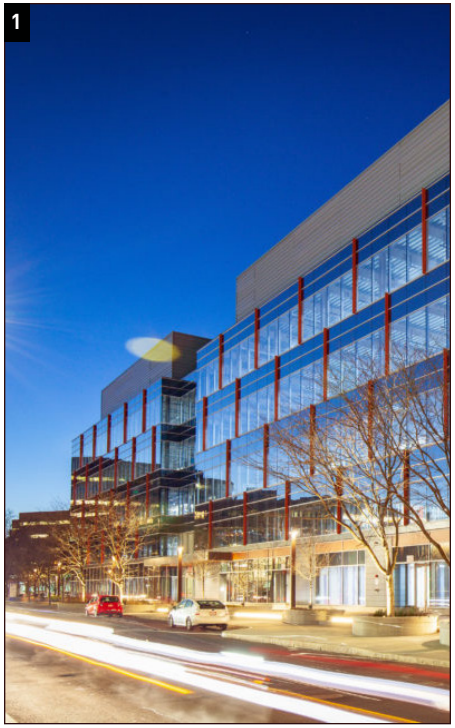
Along New Main Street, the street walls define a vibrant and human-scaled frontage, intimate, transparent, and engaging at the pedestrian level. These carefully framed edges invite activity and movement, reinforcing the identity of the street as a central public open space. On Mooney Park, a regular rhythm of commercial buildings creates a strong, consistent edge that frames the expansive open space, helping to define and animate this key publicly accessible area. At the intersection of Fawcett Street and Concord Avenue, the alignment of new commercial and residential buildings continues the existing street wall, reinforcing the urban character of the street. Moulton Street, contributes to the Quad's fabric by establishing a street wall that extends up to the Development Parcel boundary. In contrast, the street walls along Fawcett Street at Buildings R1 and R2 are more varied in character, shaped in part by the presence of the existing building at 135 Fawcett Street, which separates the two parcels. Additionally, Buildings R1 and R2 are set back from the build-to lines to accommodate elevated porches, which serve as passive flood protection. Smith Place also has a less regular edge, influenced by the presence of the future Rail Spur Park and the complexities of land ownership. These irregularities, while distinct, still contribute to the overall richness and diversity of the Alewife Quadrangle built form.

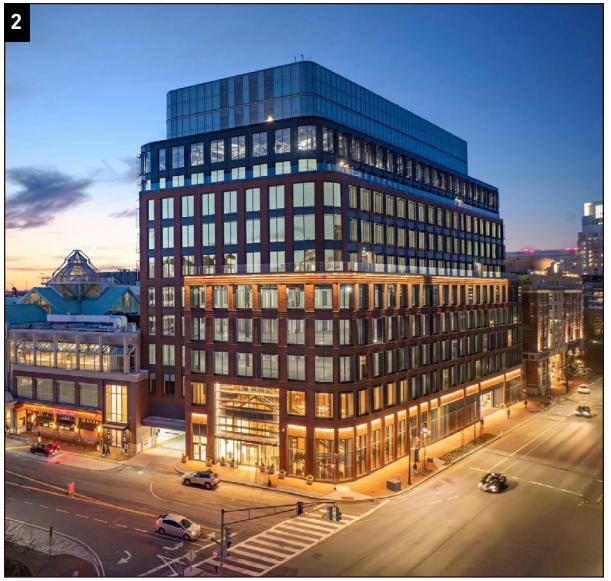
The Alewife Design Guidelines describe an urban street wall with vertical components and series of step-backs between the podium and the tower and between the tower and the mechanical penthouse. Beyond establishing a common architectural thread and increasing light to the public realm, these step-backs will contribute significantly to the mitigation of undesirable wind at the street level. Arcades or colonnades can provide alternate walkways around windy buildings. These changes to the built form are considered large scale modifications that would influence wind conditions in a large area around a Development Parcel. Design details, such as deep canopies close to ground level, wind screens, tall trees with dense landscaping, can help reduce wind speeds. There may still be conditions where wind or gust conditions at the street level will require additional architectural responses, which can take the form of structural canopies or manipulation of massing, particularly at building corners. The need for implementation of these solutions will be evident in the required wind studies at Design Review submission for each building, and specific solutions will be proposed at that time.

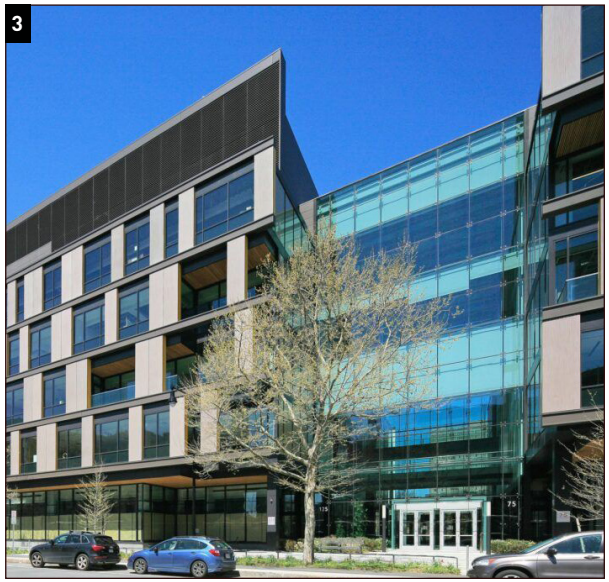
1.16.4 Design Guidelines and Article 19 Design Review

All of the building and landscape designs will be subject to Article 19 Design Review. The Applicant has developed building design guidelines that will provide direction for building architects and landscape architects for each building and major open space as to the specific considerations and conditions to which they should respond as they design. The design guidelines will also provide the architects with common language to use with the City and other stakeholders about the goals for each building or major open space. A Block Plan and Build-to Line Plan are included as **Figures 1L.4 and 1L.5**, respectively. Block Guidelines for the buildings are shown in **Figures 1L.6a–1L.25b**, and a more extensive document incorporating other important planning aspects of the Project from the approved Final Development Plan will be included in the Applicant's design guidelines.









Common Features

- **Streetwalls creating like public spaces by framing dimensional volumes (2,4)**
- **Building facade lenghts longer than 200ft broken into shorter facade segments (1,3)**
- **Stepbacks to help mediate the scale and perserve sky views (2,4)**

1.35 CAMBRIDGE PARK DR / CAMBRIDGE, MA

2. 20 CAMBRIDGE SIDE / CAMBRIDGE, MA

3. 75-125 BINNEY ST / CAMBRIDGE, MA

4.350 WATER STREET / CAMBRIDGE, MA

Figure 1L.1a: Architecture Character - Commercial

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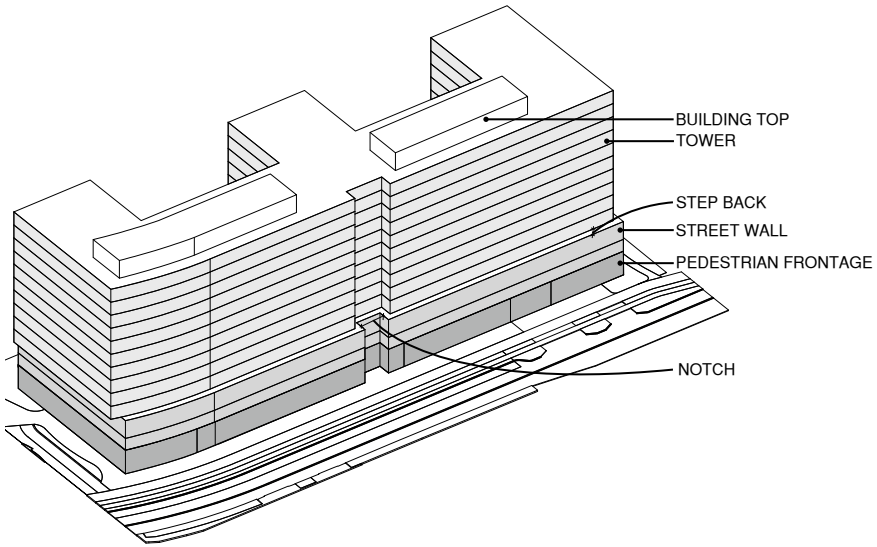

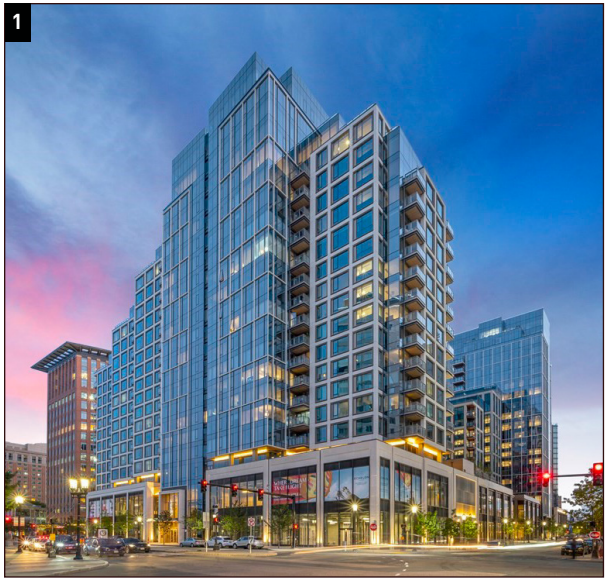

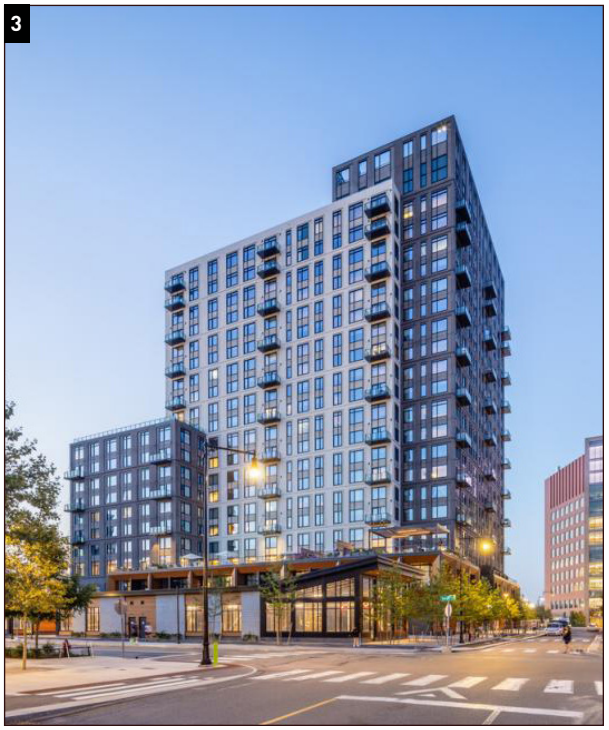

Common Features

- **Streetwalls creating like public spaces by framing dimensional volumes (1,2,3,4)**
- **Building facade lenghts longer than 200ft broken into shorter facade segments (2,3)**
- **Stepbacks to help mediate the scale and perserve sky views (2,4)**
- **Locations for detaildesign focus are the pedestrian zone, building entrances, corners, stetbacks, top floors and silhouettes (1,2,3,4)**

1. ECHELON / BOSTON, MA

2. TWENTY |20 / CAMBRIDGE, MA

3. PARK 151 / CAMBRIDGE, MA

4.WATERMARK / BOSTON, MA

Figure 1L.1b: Architecture Character - Residential

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1. THE QUAD / CAMBRIDGE, MA

2. ATMARK / CAMBRIDGE, MA

3. THE LAURENT / CAMBRIDGE, MA

4. THE DAVIS COMPANY / CAMBRIDGE, MA

5. THE BROOK / CAMBRIDGE, MA

Figure 1L.2: Architecture Character - Context

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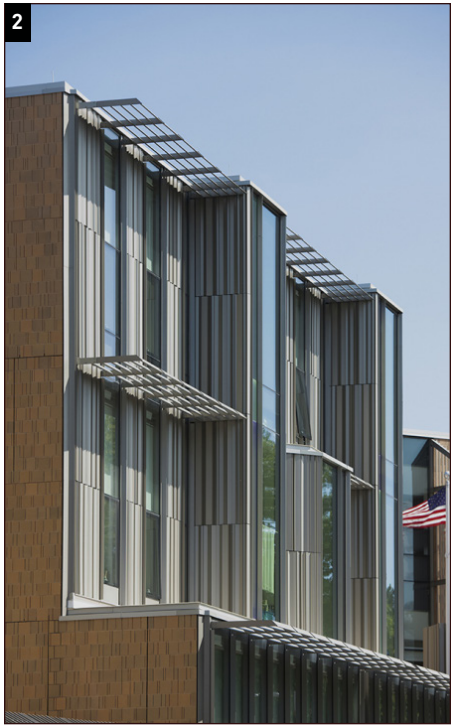

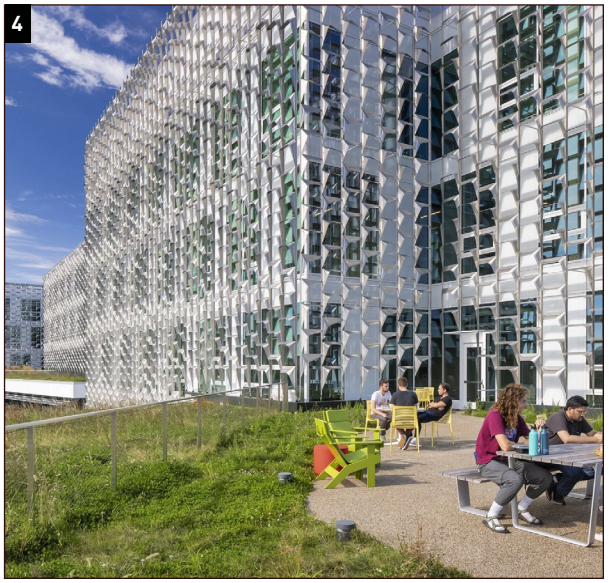

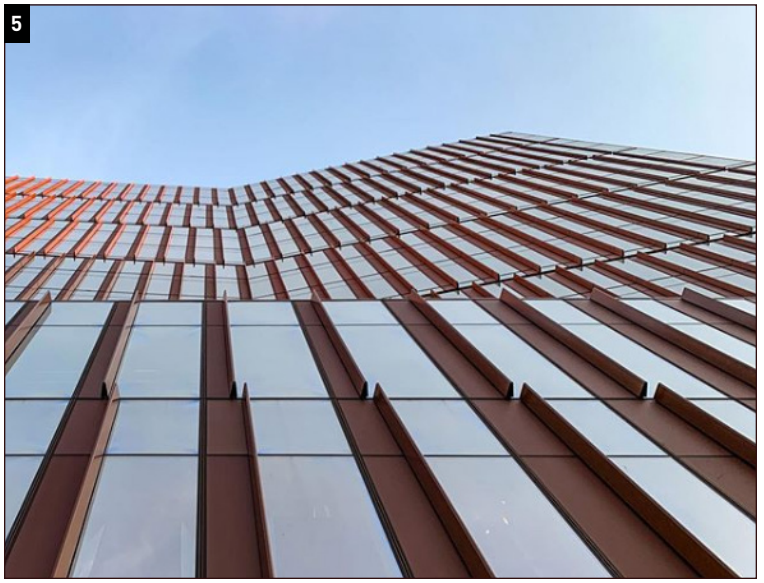

1. CAMBRIDGE PUBLIC LIBRARY / CAMBRIDGE, MA

2. DEARBORN STEM ACADEMY / BOSTON, MA

3. 75 AMHERST STREET / CAMBRIDGE, MA

4. HARVARD UNIVERSITY'S JOHN A. PAULSON SCIENCE AND APPLIED ENGINEERING AND APPLIED SCIENCE / ALLSTON, MA

5. MIT 314 MAIN STREET / CAMBRIDGE, MA

Figure 1L.3: Architecture Character - Solar Control Precedents

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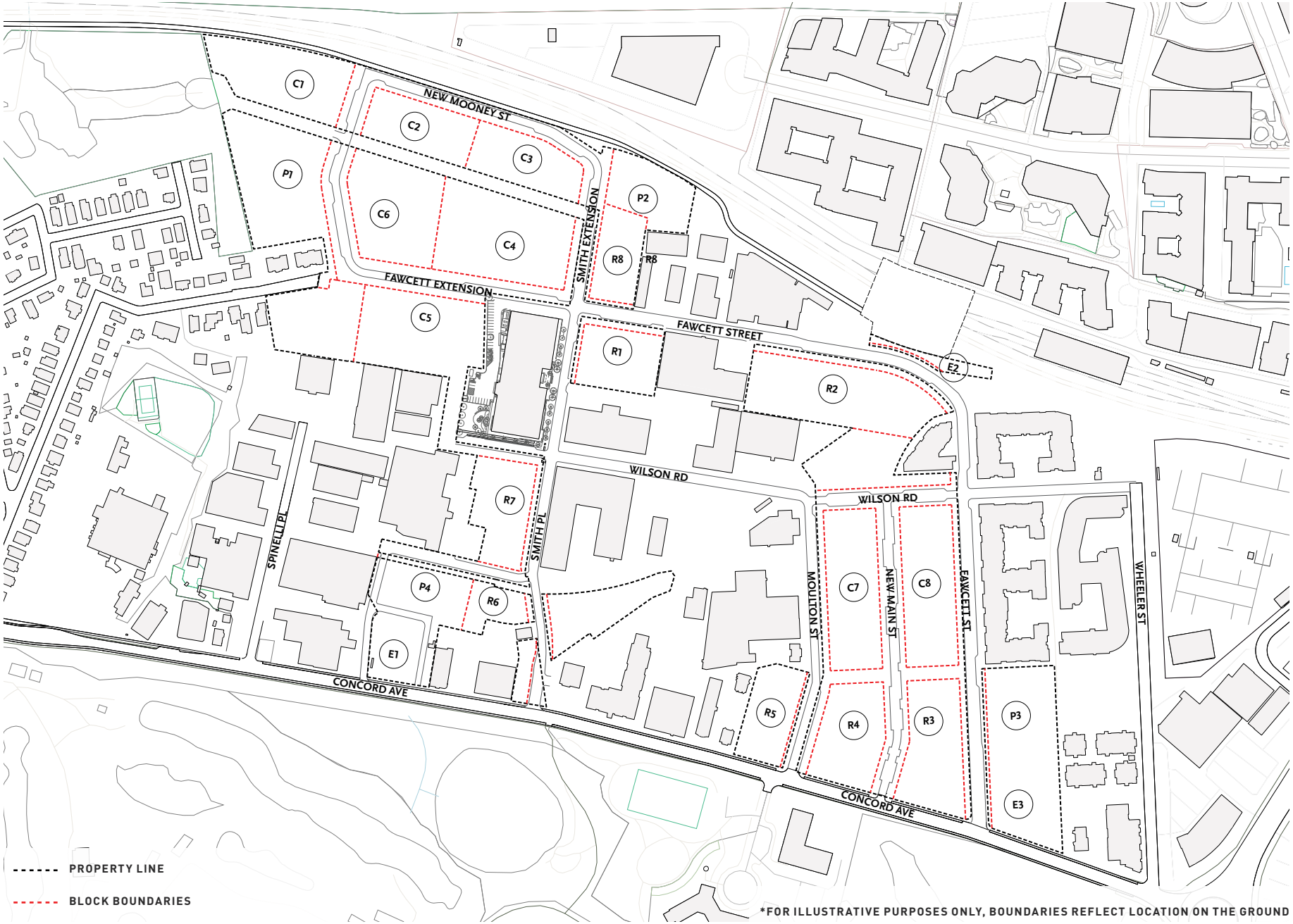

Figure 1L.4: Site Development Plan - Block Plan

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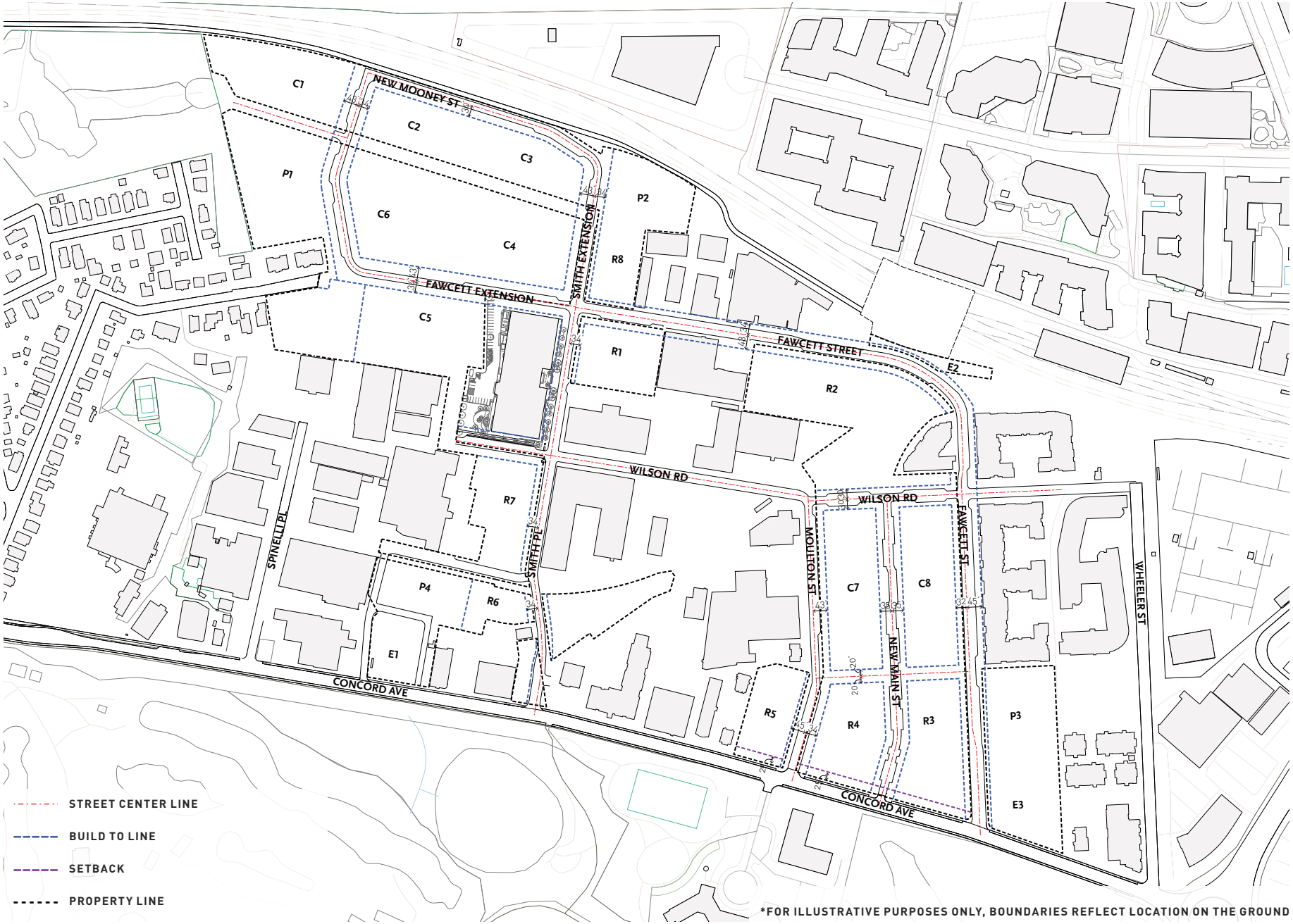

Figure 1L.5: Site Development Plan - Build to Line

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