

URBAN DESIGN BRIEF

Official Plan and Zoning By-law Amendment

517 PLAINS ROAD EAST
CITY OF BURLINGTON

MARCH 2026
WESTON FILE #8782-1

WESTON CONSULTING

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1.0 INTRODUCTION

Weston Consulting has prepared this Urban Design Brief (UDB) to support an application for an Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBA). The application proposes an 11-storey mixed-use apartment development at 517 Plains Road East (the “Subject Property” or “site”), located in the City of Burlington.

This UDB outlines how the proposed development aligns with relevant municipal policies, urban design objectives, and best practices. The proposal was presented to the Burlington Urban Design Advisory Panel (BUD Panel) on August 21, 2025, where it was reviewed and comments were provided.

The design considers the surrounding context and provides an appropriate transition to the low-rise neighbourhood to the north, while enhancing the streetscape through a more urbanized edge along Plains Road East.

The Brief also addresses key design considerations, including strategies to minimize overlooking, provide privacy to adjacent low-rise properties, and ensure sufficient access to sunlight and views. These measures help mitigate the massing impacts of the new development on neighbouring lands.

In accordance with the City of Burlington’s Terms of Reference for Urban Design Briefs, this document provides an analysis of the proposed development’s compliance with the Burlington Official Plan (2020) and relevant urban design guidelines.

The following documents have been referenced to demonstrate how the design meets local planning and architectural standards:

- Plains Road East Corridor Urban Design Guidelines (2006)
- Design Guidelines for Mixed-Use & Residential Mid-Rise Buildings (2019)
- Sustainable Building & Development Guidelines (2021)

The Brief outlines the evolution of the proposal and demonstrates how the refined design supports intensification objectives while ensuring an appropriate transition to surrounding residential areas.



Figure 1: View from southeast prepared by Lima Architects Inc.

2.0 CONTEXT

2.1 SUBJECT PROPERTY

The Subject Property is located on the north side of Plains Road East and south of Mary Street in the City of Burlington. The site has a rectangular configuration with a total area of 3,076.67 square metres.

The property has a depth of approximately 83.30 metres (south) and 69.55 metres (north), with 36.20 metres of frontage along Plains Road East and 28.47 metres of frontage along Mary Street.

Currently, vehicular access to the site is provided from Plains Road East and Mary Street. The Subject Property is presently occupied by Knight's Inn Motel.

According to Schedule A – City System of the Burlington Official Plan (July 2024 Consolidation), Plains Road East is identified as a Major Road. Schedule C – Land Use – Urban Area of the Burlington Official Plan designates the Subject Property as Urban Corridor.

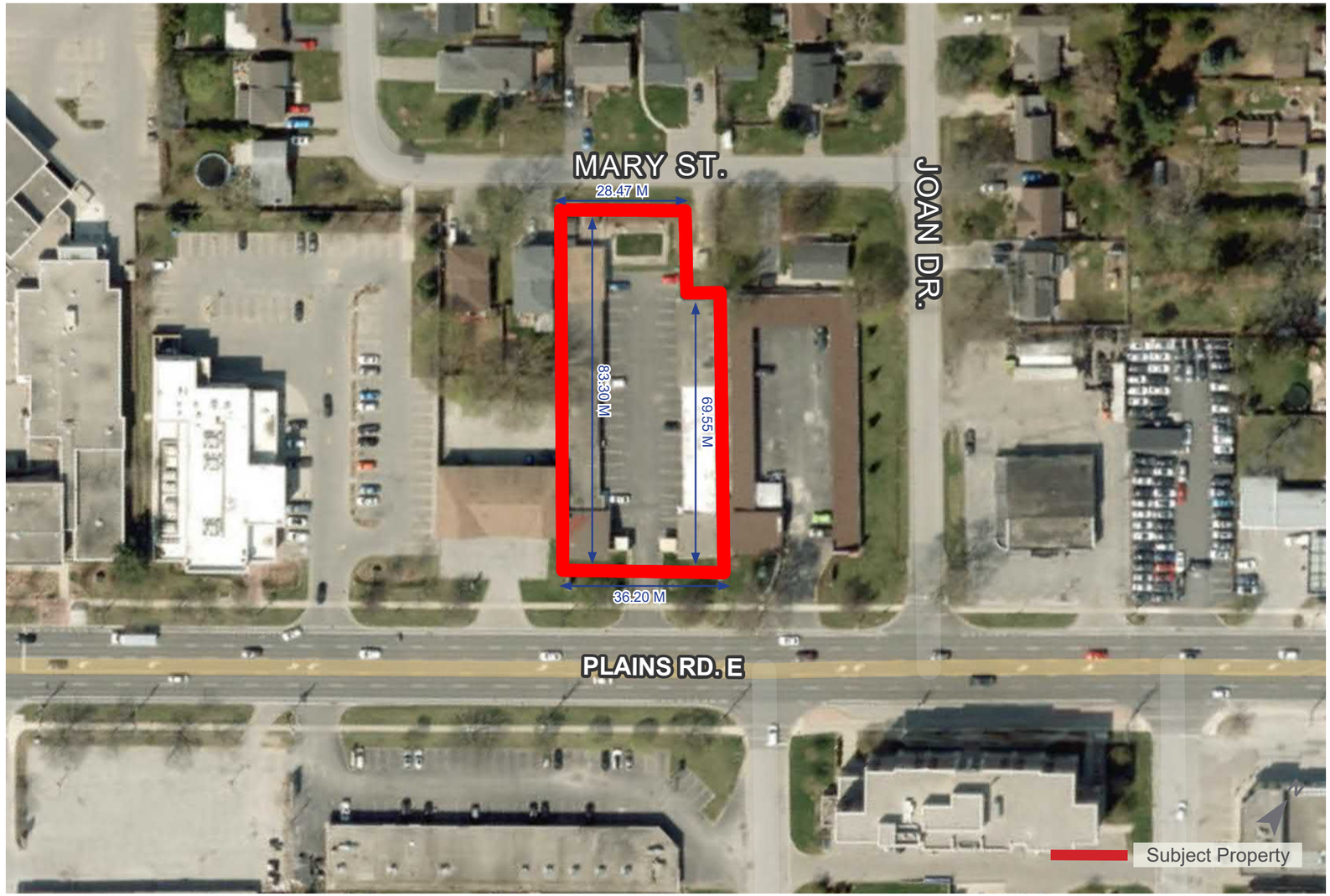


Figure 2: Aerial Photo prepared by Weston Consulting

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2.2 SURROUNDING CONTEXT

The surrounding land uses around the Subject Property are predominantly low-rise residential, forming part of the established neighbourhood fabric of the Aldershot community. Plains Road East is characterized by a mix of residential, commercial, and institutional uses, reflecting the evolving nature of the corridor.

Several parks and open spaces are located within proximity of the Subject Property. Maplehurst Park, located approximately 66 metres north of the site, provides treed areas for shade and a children's play area, with access from Maplehurst Avenue to the east and Joan Drive to the west. Grove Park, located to the north along Gallagher Road, contains trails and mature tree coverage. Teal Greenway Park, a linear park, is located on the south side of Plains Road East. The Burlington Golf and Country Club is also located south of Plains Road East, approximately 500 metres from the Subject Property.

The broader surrounding context can be described as follows:

North: Immediately north of the site, across Mary Street, are established low-density residential neighbourhoods containing single-detached dwellings that form part of the interior residential area of Aldershot. Farther north, a regional rail corridor used by CN, CP, and Metrolinx runs east-west across the broader area.

South: Plains Road East forms the southern boundary of the site. Directly across the corridor is Aldershot Village (540 Plains Road East), a six-storey seniors' residence operated by Halton Community Housing Corporation, which integrates the Aldershot Branch of the Burlington Public Library at grade, representing a community-serving mixed-use development along the corridor.

East: To the east, the corridor contains low-density commercial uses, including one-storey retail and service buildings with surface parking, reflecting the established service-commercial character along this portion of Plains Road East.

West: To the west, the corridor also contains low-density commercial uses, including one-storey retail and service buildings with surface parking. Maplehurst Public School (481 Plains Road East) is located nearby, providing an institutional presence within the surrounding neighbourhood.

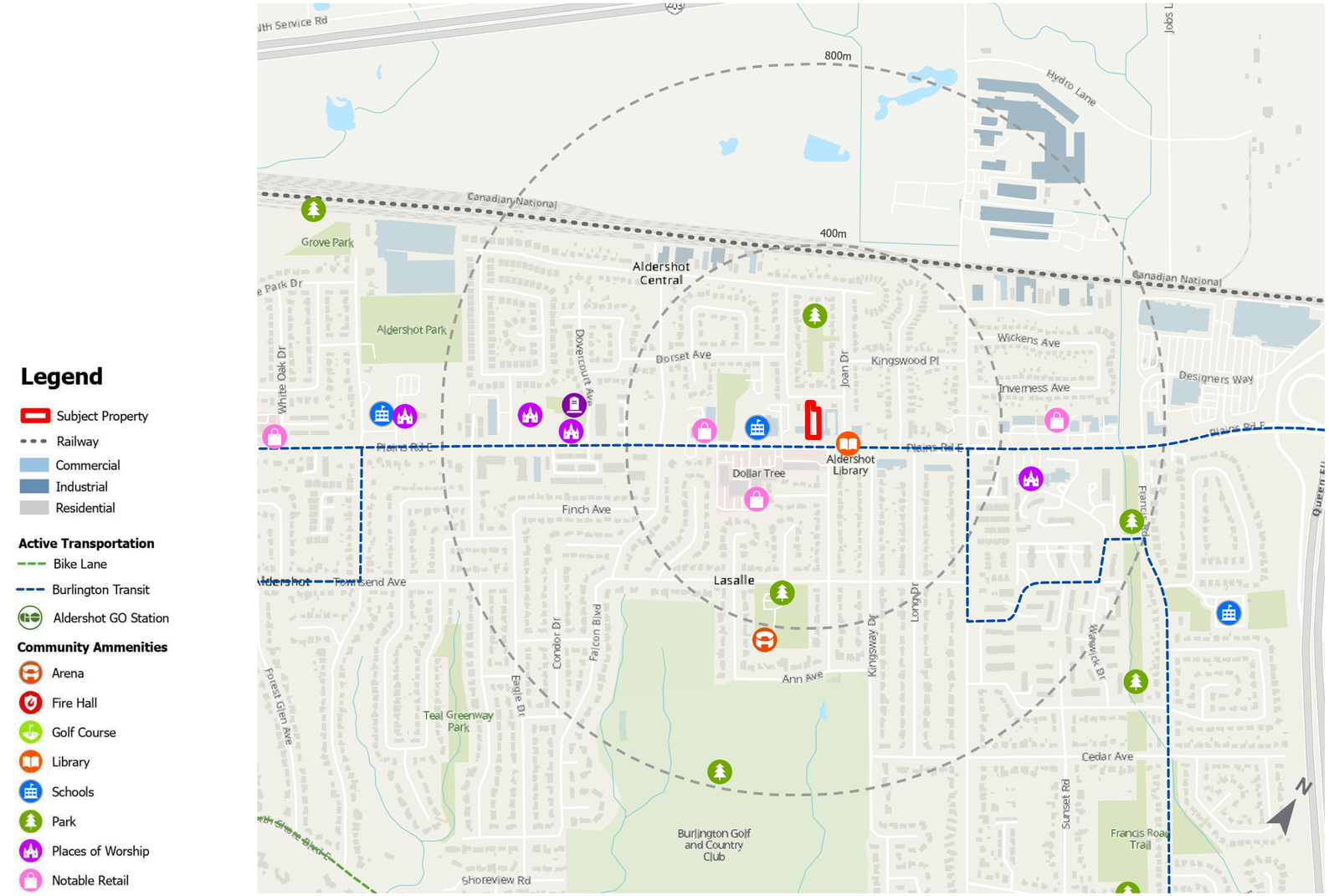


Figure 3: Context Map prepared by Weston Consulting

2.3 SITE AND SURROUNDING AREA PHOTOS

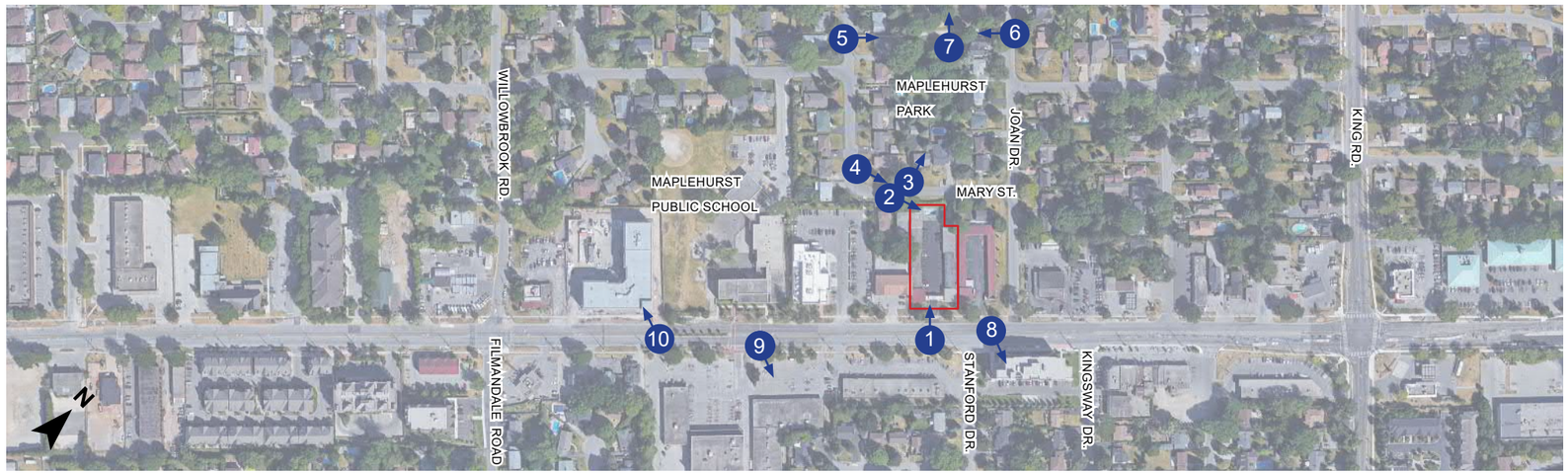
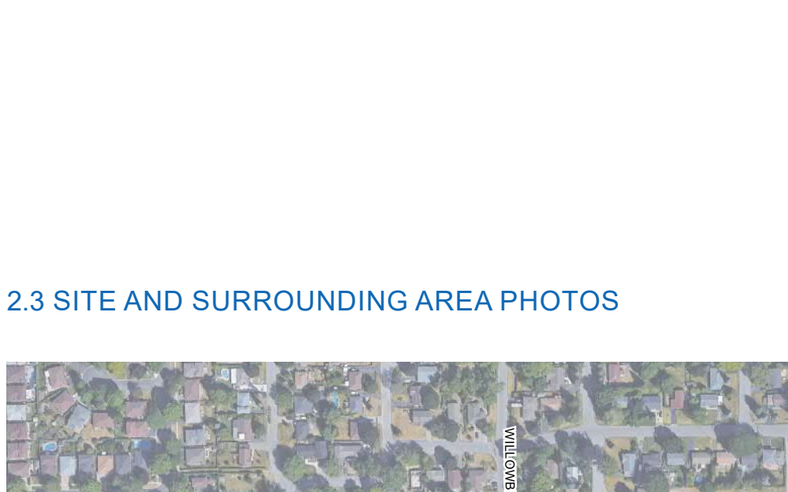
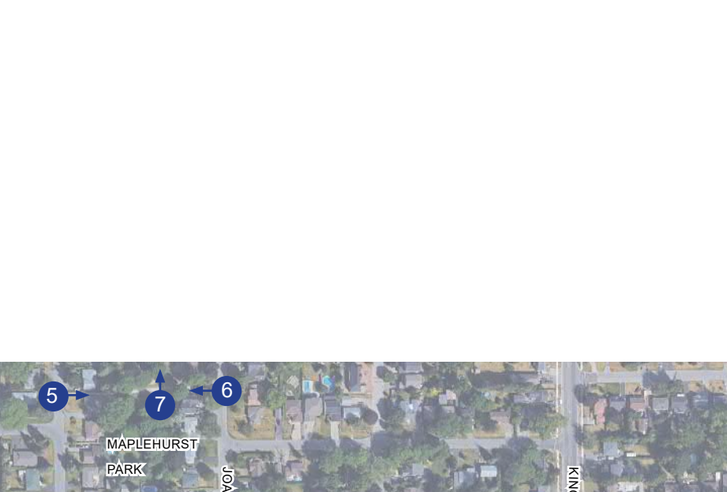


Figure 5: Key Map of Site Photos

Existing Site Photos - Photos Taken June 2025



View of 517 Plains Road East



Rear view of site along Mary Street



Existing residences facing Mary Street north of Subject Property



View from northwest on Mary Street

Figure 4: Existing Site Photos and Surrounding Street Views

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Walkway to Maplehurst Park from Maplehurst Avenue



Children's play area in Maplehurst Park



8-storey mixed-use building under construction (Northshore Condos) - 490 Plains Road East



Entrance to Maplehurst Park from Joan Drive



Residential Apartment (Aldershot Village Residence) - 540 Plains Road East



Existing mixed-use building - 457 Plains Road East

3.0 PROJECT DESCRIPTION AND RESPONSE TO DESIGN REVIEW PANEL

3.1 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development consists of an 11-storey mixed-use residential building with a total Gross Floor Area (GFA) of 13,573.98 m² and a Floor Space Index (FSI) of 4.41. The building footprint is 1,373.11 m², representing approximately 12% lot coverage. The development includes 179 residential units, consisting of a mix of one- and two-bedroom layouts.

The ground floor accommodates an entry vestibule, main hallway, commercial units, building services, and residential units, contributing to an active and animated streetscape along Plains Road East. The inclusion of ground-floor commercial space supports the mixed-use character envisioned for the Plains Road East corridor while enhancing pedestrian activity along the street frontage.

The siting of the building incorporates setbacks on all sides to appropriately position the building mass, support a high-quality public realm, and reduce privacy and overlook impacts on adjacent low-rise neighbourhoods.

Along Plains Road East, the ground and second floors are set back 3.78 metres, providing space for landscaping and reinforcing the pedestrian-oriented character of the corridor. Floors 3 to 8 are further set back 6.72 metres, while floors 9 to 11 are set back 9.72 metres, creating a stepped building form that reduces the visual impact of the upper storeys along the street.

At the rear of the site along Mary Street, a substantial 37.65 metre setback provides significant separation from the adjacent low-rise residential neighbourhood, minimizing potential overlook and shadowing impacts. A 6.0 metre wide landscaped buffer, including new trees and vegetation, establishes a soft transitional edge and enhances compatibility with the surrounding neighbourhood.

Along the interior side yard, setbacks ranging from 2.9 to 4.5 metres allow for landscaped buffers and a pedestrian walkway, ensuring appropriate separation from adjacent properties. The east interior side yard setback of 4.5 metres accommodates a 3.0 metre wide landscape strip and pedestrian walkway, enhancing the internal streetscape for the commercial units while providing a pedestrian connection between Plains Road East and Mary Street.



Figure 6: Render by Lima Architects Inc.

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3.2 CONTEXT AND PUBLIC REALM

The proposal responds to the long-term vision for the Plains Road East Urban Corridor by introducing a mixed-use residential building that reinforces the evolving urban character of the street while maintaining a transition to the established low-rise neighbourhood north of Mary Street. The building is oriented along Plains Road East with stepped massing and articulated setbacks that reduce the perceived scale along the street and create a defined urban edge. Ground floor commercial uses, landscaped setbacks, and direct pedestrian connections to the public sidewalk contribute to an active and pedestrian-oriented streetscape consistent with the corridor's planned intensification.

During the review by the Burlington Urban Design Advisory Panel (August 21, 2025), comments were provided regarding the scale and configuration of the proposed building, including the floorplate depth, side yard setbacks, and opportunities to further study the emerging redevelopment context. The Panel also recommended additional modelling to illustrate how the building relates to surrounding and potential future development along the corridor. These comments have been considered in the preparation of this Brief, and the proposal continues to demonstrate how the building massing, stepbacks, and landscaped setbacks help mitigate impacts on adjacent properties while maintaining a strong street presence along Plains Road East.

The development also responds to the surrounding urban fabric through its architectural expression and public realm improvements. The building incorporates a defined podium condition, recessed upper levels, and a combination of brick and glazed materials that reflect the residential and commercial character of the broader Aldershot area. Landscaping along Plains Road East and the interior side yards strengthens the green edge of the corridor, while the substantial setback and landscaped buffer along Mary Street help maintain compatibility with the existing neighbourhood context.

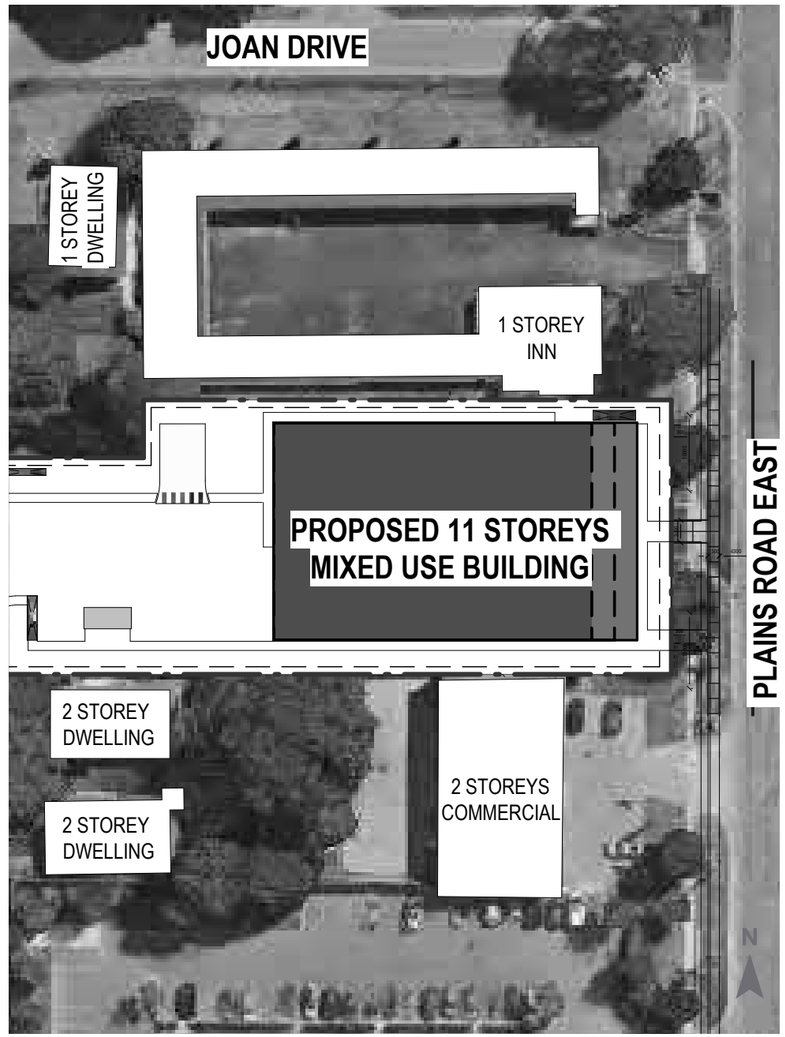


Figure 7: Site Context Plan prepared by Lima Architects Inc.

3.3 BUILT FORM AND SITE DESIGN

The proposed site layout and building massing have been designed to reinforce the evolving urban character of the Plains Road East corridor while maintaining appropriate separation from the adjacent residential neighbourhood along Mary Street. The building is oriented along Plains Road East, with stepped setbacks along the street frontage that reduce the perceived scale of the upper storeys and establish a pedestrian-scaled street wall. Vehicular access is provided from Mary Street, which allows the Plains Road East frontage to remain focused on pedestrian activity and commercial animation. Ground-floor commercial units and a clearly defined residential entrance contribute to an active public realm and support the mixed-use vision for the corridor.

During review by the Burlington Urban Design Advisory Panel, comments were provided regarding the scale and configuration of the building massing, including the depth of the floor plate, side yard setbacks, and the need for additional stepbacks to reduce the perceived mass of the building. The Panel also noted opportunities to further study how the proposed built form may relate to potential redevelopment of adjacent properties along the corridor. The proposal incorporates stepped massing along the Plains Road East frontage and a substantial landscaped setback along Mary Street to moderate the building's presence and provide transition to the low-rise neighbourhood.

The Panel also identified considerations related to site circulation, commercial unit configuration, and the treatment of the building's side elevations. These elements have been reviewed in the preparation of this Brief and will continue to be evaluated as the project advances through the planning process. Particular attention will be given to the detailed design of the ground floor interface, the functionality of commercial spaces, and the articulation of the side elevations to ensure that the building presents a high-quality architectural expression along all visible façades.

3.4 OPEN SPACE AND SUSTAINABILITY

The proposed development incorporates landscape areas and amenity opportunities that support both environmental and social sustainability objectives within the evolving Plains Road East corridor. The site layout provides landscaped setbacks along all property lines, including a substantial rear setback along Mary Street, where a 6.0-metre landscaped buffer with new tree planting establishes a soft transition to the adjacent low-rise residential neighbourhood. These landscaped areas contribute to urban tree canopy objectives, provide opportunities for soil volumes to support tree growth, and assist in moderating urban heat island effects.

During the review by the Burlington Urban Design Advisory Panel, comments were provided regarding opportunities to expand at-grade amenity areas, increase landscaping, and further strengthen the environmental performance of the site. The proposal incorporates landscape strips, pedestrian walkways, and buffer planting along the side and rear property lines that contribute to a greener site condition and provide separation from adjacent uses. The substantial setback along Mary Street also allows for additional landscaping and screening, reinforcing the residential character of the street.

The Panel also identified the importance of providing meaningful amenity space and minimizing surface parking along the Mary Street frontage to support neighbourhood character and long-term sustainability objectives. The proposal locates the majority of parking underground and limits the extent of surface parking, while landscape treatments and tree planting help reinforce a greener edge condition along the site boundaries. Further refinement of landscaping, amenity programming, and sustainability features will be considered as the development advances through subsequent stages of the planning and design process.

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4.0 URBAN DESIGN POLICIES AND GUIDELINES DISCUSSION

4.1 CITY OF BURLINGTON OFFICIAL PLAN (APPROVED 2020)

The City of Burlington's new Official Plan ('BOP') was approved with modifications on November 30, 2020 and came into effect on December 22, 2020. The BOP sets out long-term policies and guidelines for directing future growth and development within the City. It sets out a clear vision for a broad range of areas including sustainable growth, complete communities, environment and sustainability, economic activity, infrastructure, design excellence, land uses and public participation.

Overall, the intention of the BOP is to support the transition of Burlington from a suburban to an urban community by accommodating more density though intensification and developing complete and sustainable communities.

Section 7.1.1 Objectives

c) To ensure that the design of the built environment contributes to a sense of belonging by enhancing the physical character of established neighbourhoods.
d) To design places that support public transit and active transportation through the design of attractive and well-developed pedestrian and cycling environments.
e) To create safe, vibrant, socially active places that people are drawn to.
f) To achieve a high quality of design within the public realm.
h) To ensure compatibility and quality in the built environment while allowing for diverse design expression.
j) To ensure that buildings and open spaces are accessible to people of all ages and abilities.

Section 7.2: The Public Realm

Section 7.2 includes urban design policies pertaining to the quality of the public realm. Key urban design objectives outlined in this section include the following:

a) The design of the public realm shall address considerations such as, but not limited to, the following:

> *(i) improving the quality of public spaces as community destinations and public gathering places through the design of public realm facilities, such as public squares, parkettes or promenades;*
> *(ii) providing appropriate and consistent treatments for streetscape elements such as sidewalks, pedestrian crossings, lighting, street furniture, signage, street trees and landscaping;*
> *(iii) improving the quality and convenience of active transportation;*
> *(iv) creating an attractive and comfortable environment for pedestrian movement while preserving and complementing existing natural features;*
> *(v) implementing design measures in accordance with The Accessibility for Ontarians with Disabilities Act and other applicable Provincial Legislation*
> *(vi) designing public realm facilities to perform their diverse roles, balancing the spatial needs of people of all ages and abilities, through the application of the principles of Universal Design;*
> *(vii) improving multi-modal transportation and public space needs in the design of streets and roads;*
> *(viii) improving the quality of streets, sidewalks and walkways, and cycling facilities to provide more direct active transportation access to transit facilities;*
> *(ix) enhancing the aesthetic and functional quality of intersections, as marking major entrances into areas and neighbourhoods, where appropriate;*
> *(x) creating, maintaining and enhancing public views and vistas of significant natural and built features;*
> *(xiv) recognizing and promoting pedestrian scale, public safety and the perception of safety and access for all users, through the incorporation of Crime Prevention through Environmental Design (CPTED) principles; and*
> *(xv) designing safe, reliable and cost-effective infrastructure and minimizing their visual impact.*



Figure 8: Burlington Official Plan - Schedule C Land Use

Discussion

The proposed development contributes to the public realm along Plains Road East through an improved streetscape, a defined street edge, and active ground-floor uses. The design enhances the streetscape with new street tree plantings and landscaped boulevards that reinforce the pedestrian-oriented character of the corridor. Pedestrian walkways and bicycle parking facilities further support active transportation and connectivity with the surrounding area.

The building massing incorporates stepbacks and terraced elements to reduce the perceived scale of the building along Plains Road East. A two-storey streetwall establishes a human-scaled interface with the public realm and aligns with the evolving mid-rise character of the corridor. The building is positioned toward the southern portion of the site, providing substantial separation from Mary Street and minimizing potential shadow, privacy, and overlook impacts on the existing low-rise residential neighbourhood to the north.

Pedestrian circulation provides direct connections between the building entrance and the public sidewalk along Plains Road East, facilitating access to nearby transit stops and encouraging transit use by future residents. Walkways, entrances, and amenity areas will be designed in accordance with the Accessibility for Ontarians with Disabilities Act (AODA) and applicable municipal standards to ensure universal accessibility.

The proposed design also incorporates Crime Prevention Through Environmental Design (CPTED) principles through a visible glazed main entrance, active ground-floor uses, and regular window openings and balconies that provide natural surveillance and reinforce “eyes on the street.”

Section 7.3 Urban Design and Built Form

The subject property is located in the *Secondary Growth Area* as per Schedule B1 of the BOP. The relevant policies pertaining to urban design within *Secondary Growth Areas* are provided below:

7.3.2(1) Primary and Secondary Growth Areas

a. In Primary and Secondary Growth Areas, as shown on Schedule B-1: Growth Framework, of this Plan, pedestrian-oriented environment and ensure compatibility with adjacent land uses, particularly Established Neighbourhood Areas.

The design of development in Primary and Secondary Growth Areas shall address the policies of Subsection 7.3.2 a) of this Plan, where applicable, and additional considerations such as, but not limited to, the following:
a. Locating buildings generally parallel to the public street to define the street edge and along the edges of parks, urban squares and other open space features, and in close proximity to the street and transit services;

b. Providing appropriate transitions to adjacent land uses, particularly residential uses;
c. Massing new buildings to frame adjacent streets in a way that respects the existing and planned street width but also provides for a pedestrian-scale environment;
d. Locating building primary public entrances for uses located at grade towards a public right-of-way and visible and accessible from the public sidewalk;
e. Including direct pedestrian access, including barrier free access from grade level, to the primary public entrances located on the building façade;
f. Or integrating roof top mechanical equipment within the overall composition of the building;
g. Creating an attractive and connected interface between the private and the public realms;
h. Creating a continuous streetscape with emphasis on maintaining the continuity of grade-related activity areas, both inside and outside of buildings; and
i. Providing appropriate outdoor amenity areas and open spaces and promoting the incorporation of private open spaces to the open space network of the immediate community.

Development in Primary and Secondary Growth Areas should locate and organize parking, access and service areas to minimize their impact on surrounding properties and the public realm. The design of vehicle parking, access and service areas shall address considerations such as, but not limited to, the following:

a. Locating off-street parking in the side and/or rear yards, in underground or structured parking where appropriate, away from the street edge and adjacent residential uses;
b. Integrating parking areas located at or above grade within the built form of the building and away from the street frontage, where appropriate;
c. Limiting the number and location of vehicular access points to minimize disruption to traffic flows; and to minimize the impact on local streets, pedestrian travel along sidewalks or cyclists’ travel along bikeways;
d. Screening and buffering of off-street parking areas from public view through the use of setbacks and landscaping;
e. Locating loading areas and service areas to avoid conflict between pedestrian and vehicular traffic, and away from adjacent residential uses and adjoining streets;
f. Incorporating landscaped islands and pedestrian walkways; and
g. Incorporating fencing and/or screening of service facilities, such as loading bays or outdoor storage areas, in a manner which enhances screening from adjacent land uses and the public right-of-way and improves the aesthetic quality of the development.

Discussion

The main face of the proposed building is oriented parallel to Plains Road East to define the street edge and reinforce the corridor’s urban character while facilitating connections to nearby transit stops.

The building massing transitions to the low-rise residential neighbourhood to the north through a substantial rear yard setback and compliance with angular plane requirements. Upper storeys are stepped back from the lower portion of the building to reduce the perceived height and create a pedestrian-scaled environment along the street. Facade articulation and varied materiality further break down the building mass and contribute to a cohesive architectural expression.

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Widened walkways along the building frontage guide pedestrians toward the residential lobby entrances and ground-floor commercial units. Wayfinding signage will support clear identification of entrances and improve overall site legibility.

The streetscape design, including landscaping, active ground-floor uses, and the relationship between the building edge and the public sidewalk, creates a strong and attractive interface between the private and public realms. The design establishes an enhanced street edge along Plains Road East while remaining sensitive to the neighbouring residential context to the north.

The proposal supports the City's parking strategies by locating the majority of parking underground. Vehicular access is provided from Mary Street to minimize conflicts with pedestrians and cyclists along Plains Road East.

The loading area is located within the building at the rear of the site and is set back approximately 37 metres from Mary Street, minimizing its visibility and impact on the public realm.

Rooftop mechanical equipment will be integrated and screened within the overall architectural composition of the building.

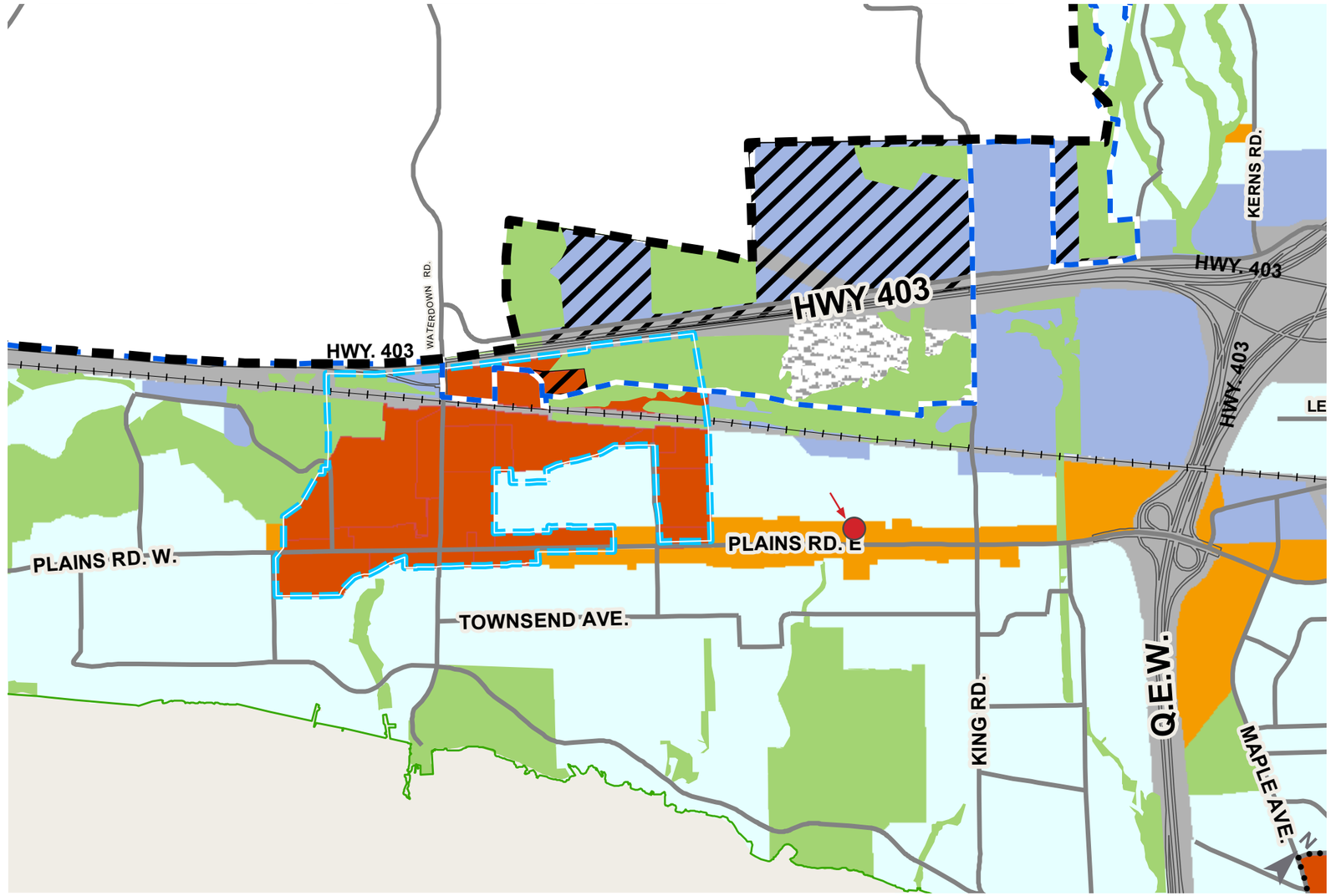


Figure 9: Burlington Official Plan Schedule B-1 Growth Framework

4.2 DESIGN GUIDELINES FOR MIXED-USE AND RESIDENTIAL MID-RISE BUILDINGS (MARCH 2019)

According to the Design Guidelines for Mixed-Use and Residential Mid-Rise Buildings (MUR Guidelines), mid-rise buildings are defined as “five (5) to eleven (11) storeys in height” and are intended to provide a transition between higher intensity corridors and lower scale residential neighbourhoods.

The MUR Guidelines identify two principal components of mid-rise development: the lower building (podium) and the upper building. The following outlines how the proposed development responds to the design objectives for each component.

Lower Building

The proposed building is oriented parallel and close to Plains Road East to frame and reinforce the street edge. The main façade faces Plains Road East and establishes a strong public presence. The principal entrance is clearly distinguishable, highly visible, and directly accessible from the public sidewalk. Landscaping elements further emphasize the entrance and enhance the arrival experience.

The ground floor frontage is animated through commercial units and full-height glazing, providing visual transparency and creating an active interface between the interior uses and the public realm. Back-of-house functions are internalized and screened within the building envelope to minimize their visibility from the street.

The lower building consists of a two-storey podium set back 4.5 metres from the street line. This setback establishes a defined street wall while maintaining a comfortable pedestrian scale and integrating with the surrounding context. The ground floor has a floor-to-floor height of approximately 5.6 metres and incorporates generous glazing to enhance visual interest, passive surveillance, and the pedestrian experience.

The façade design incorporates articulation and material variation to break down the perceived building mass and define the podium condition. Balconies are integrated into the overall architectural composition and are set back from the street frontage to maintain a consistent building edge along Plains Road East.

Upper Building

The upper building incorporates two massing breaks along the Plains Road East frontage. Floors 3 to 8 are stepped back 3.0 metres from the lower podium, while floors 9 to 11 are set back an additional 3.0 metres. These stepbacks reduce the perceived scale of the building from the street and reinforce the podium-and-tower expression typical of mid-rise development.

The architectural expression of the upper levels is distinguished from the podium through increased solid wall surfaces, façade accentuation, and glass balcony elements. While differentiated, the upper building remains visually connected to the podium through a consistent colour palette and complementary design elements. Continuous glass balconies provide visual lightness and contrast with the more solid wall planes.

The building mass is contained within a 45-degree angular plane measured from the rear property line along Mary Street, ensuring appropriate transition to the low-rise residential neighbourhood to the north. Figure 11 illustrates compliance with this angular plane requirement.

Rooftop mechanical equipment will be screened within an architectural enclosure integrated into the overall building design. The mechanical penthouse will also be set back from the roof edges and contained within the established angular plane.



Figure 10: Building Structure with Upper and Lower Building Components

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4.3 PLAINS ROAD CORRIDOR URBAN DESIGN GUIDELINES (JUNE 2006)

Among the seven districts identified in the Plains Road Corridor Urban Design Guidelines (PRCUD), the subject property is located within the Maplehurst District. This district extends between Filmendale Road and King Road and is characterized by “a mix of institutional, commercial and retail uses that abut the corridor.” The Guidelines emphasize design strategies that reinforce a consistent commercial frontage, incorporate street trees for shade, and improve pedestrian circulation along the corridor.

The proposed development supports the Maplehurst District design guidelines by:

- Reinforcing a consistent street edge by locating the building close to the corridor and incorporating commercial units at grade to enhance and animate the public realm.
- Improving pedestrian circulation through direct sidewalk connections to Plains Road East and Mary Street, as well as a through-site pedestrian connection between these two streets. Ground-floor retail uses will contribute to street animation and pedestrian activity.
- Enhancing the streetscape through the introduction of new street trees, landscaped boulevards, and planting areas that create a green transition between the public realm and private development.

Site Planning and Built Form Guidelines – Medium and High Density Residential

The proposed building is positioned close to Plains Road East with a setback of 3.78 metres, establishing a clear visual relationship with the street while allowing for streetscape landscaping. The main entrance is oriented toward Plains Road East and is directly connected to the public sidewalk through pedestrian walkways surfaced with unit pavers.

The building massing incorporates stepbacks to reduce perceived scale along the corridor. The lower portion of the building, consisting of the ground and second floors. Floors 3 to 8 are stepped back an additional 3 metres, while the upper portion of the building, consisting of floors 9 to 11, is set back a further 3 metres.

These stepbacks reinforce the podium condition and moderate the visual impact of the upper storeys.

General Streetscape Recommendations

The proposed design supports increased pedestrian activity along the Plains Road corridor by creating pedestrian-friendly walkways and strengthening connections to the public sidewalk system. Decorative unit pavers and landscape treatments enhance the pedestrian environment and improve the quality of the streetscape.

The main building entrance fronts onto Plains Road East with a direct connection to the corridor. Ground-floor commercial units also face Plains Road East, contributing to an active and animated street frontage.

Landscaped planting areas are incorporated near the main entrance and along the street edge, helping to soften the building frontage and reinforce the corridor’s green character. High-quality architectural materials and detailing will further contribute to the evolving character of the Plains Road East corridor.

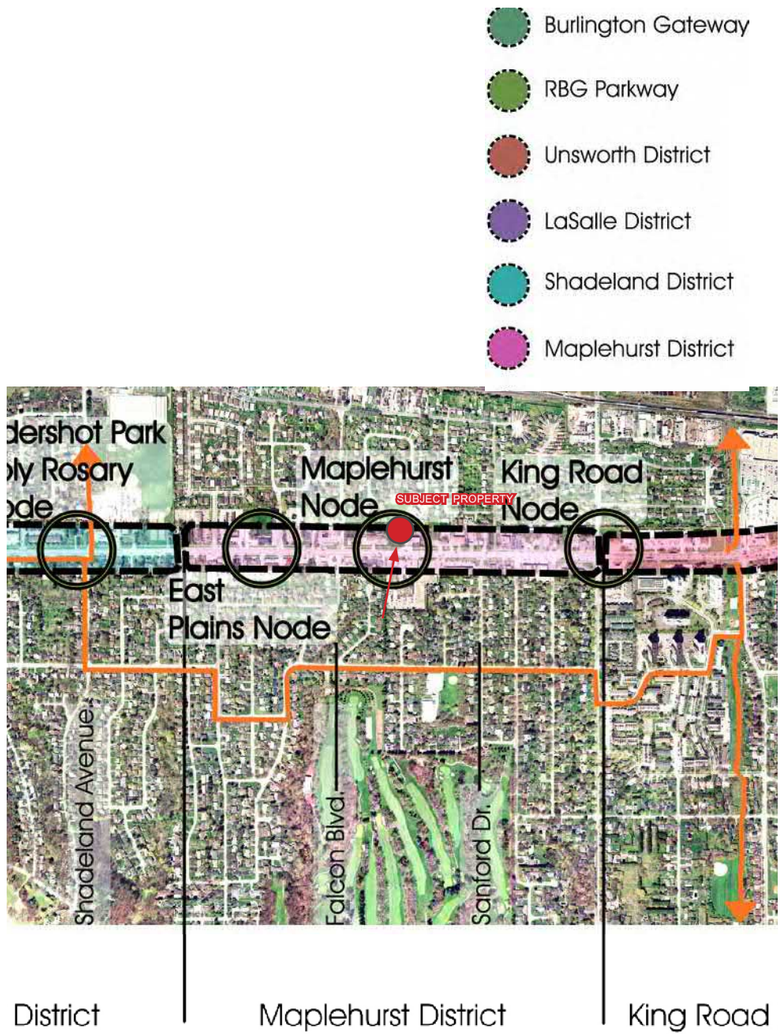


Figure 11: Plain Road Corridor Conceptual Framework and Districts - Corridor Urban Design Guidelines

4.4 SUSTAINABLE BUILDING AND DEVELOPMENT GUIDELINES (DECEMBER 2021)

The Sustainable Building and Development Guidelines (SBDG) were released by the City of Burlington in December 2021 to encourage sustainable design approaches in new development. The Guidelines provide developers and design teams with key considerations to support "building excellence" and align development proposals with the City's environmental objectives and the Burlington Strategic Plan 2015–2040.

While the SBDG are primarily implemented through the Site Plan Application process, the Guidelines are also reviewed as part of Official Plan and Zoning By-law Amendment applications to ensure that sustainability measures can be incorporated at subsequent stages of the planning and design process.

As part of the OPA and ZBA submission, the proposed development responds to the following Required Guidelines identified in the SBDG:

2.1 Site Connections: Provide pedestrian and cycling connections between on-site buildings and the surrounding public realm, including sidewalks, transit stops, and adjacent sites.

2.3 Bicycle Parking: Provide bicycle parking spaces in accordance with the Zoning By-law and Official Plan policies.

4.1 Stormwater Quality: Achieve Level One (enhanced) stormwater treatment for all stormwater runoff.

5.1 Urban Heat Island: Provide vegetated landscape areas within hard surface areas in accordance with Zoning By-law requirements.

6.1 Waste Management Plan: Provide a waste management strategy in accordance with Regional requirements.

The proposed development supports the objectives of the SBDG through the following measures:

Site Connectivity and Walkability

Pedestrian walkways provide connections between Plains Road East and Mary Street, improving site permeability and strengthening links to the surrounding neighbourhood and public sidewalk network. These connections support walkability and provide convenient access to nearby transit stops and community amenities.

Active Transportation

The development incorporates bicycle parking facilities to support cycling as a sustainable transportation option. Bicycle racks located near the main entrance provide convenient short-term parking for residents and visitors.

Landscape and Urban Heat Island Mitigation

Landscaped areas are incorporated along the site perimeter and street frontage, including new street trees along Plains Road East. These landscape treatments contribute to the expansion of the urban tree canopy, provide opportunities for stormwater infiltration, and assist in mitigating urban heat island effects.

Stormwater Management

A Stormwater Quality and Management Strategy will be prepared and implemented through subsequent stages of the development review process to ensure that stormwater runoff is appropriately managed and treated in accordance with municipal standards.

The proposed development incorporates site planning, landscape design, and mobility strategies that contribute to the City's sustainability objectives. Additional sustainability measures and technical details will be further refined through the Site Plan Application stage.

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5.0 DESIGN DEVELOPMENT AND ANALYSIS

5.1 SITE DESIGN

The proposed development organizes the building and site elements to reinforce the street edge along Plains Road East while maintaining a sensitive transition to the surrounding residential neighbourhood. The building footprint occupies approximately 1,373.11 m², representing about 12% lot coverage, allowing significant portions of the site to remain available for landscaping, pedestrian circulation, and amenity areas.

The ground floor is designed to animate the Plains Road East frontage, with commercial units and the main residential entrance directly connected to the public sidewalk. This arrangement supports the mixed-use character envisioned for the corridor and strengthens the relationship between the building and the public realm.

The site layout incorporates setbacks on all sides to appropriately position the building mass and support a high-quality streetscape. Along Plains Road East, the ground and second floors are set back 3.78 metres, allowing space for landscaping and pedestrian movement. Upper-storey stepbacks further reduce the perceived scale of the building, with floors 3 to 8 set back to 6.72 metres and floors 9 to 11 set back to 9.72 metres, creating a terraced building form along the corridor.

At the rear of the site along Mary Street, a substantial 37.65 metre setback provides significant separation from the existing low-rise residential neighbourhood. This setback accommodates a 6.0 metre wide landscaped buffer with tree planting and vegetation, creating a transitional green edge and reducing potential overlook and shadow impacts.

Interior side yard setbacks ranging from 2.9 to 4.5 metres provide landscaped buffers and pedestrian walkways that improve circulation and permeability through the site. In particular, the east side yard setback of 4.5 metres accommodates a 3.0 metre wide landscape strip and pedestrian walkway, establishing a pedestrian connection between Plains Road East and Mary Street and enhancing the internal streetscape adjacent to the ground-floor commercial units.

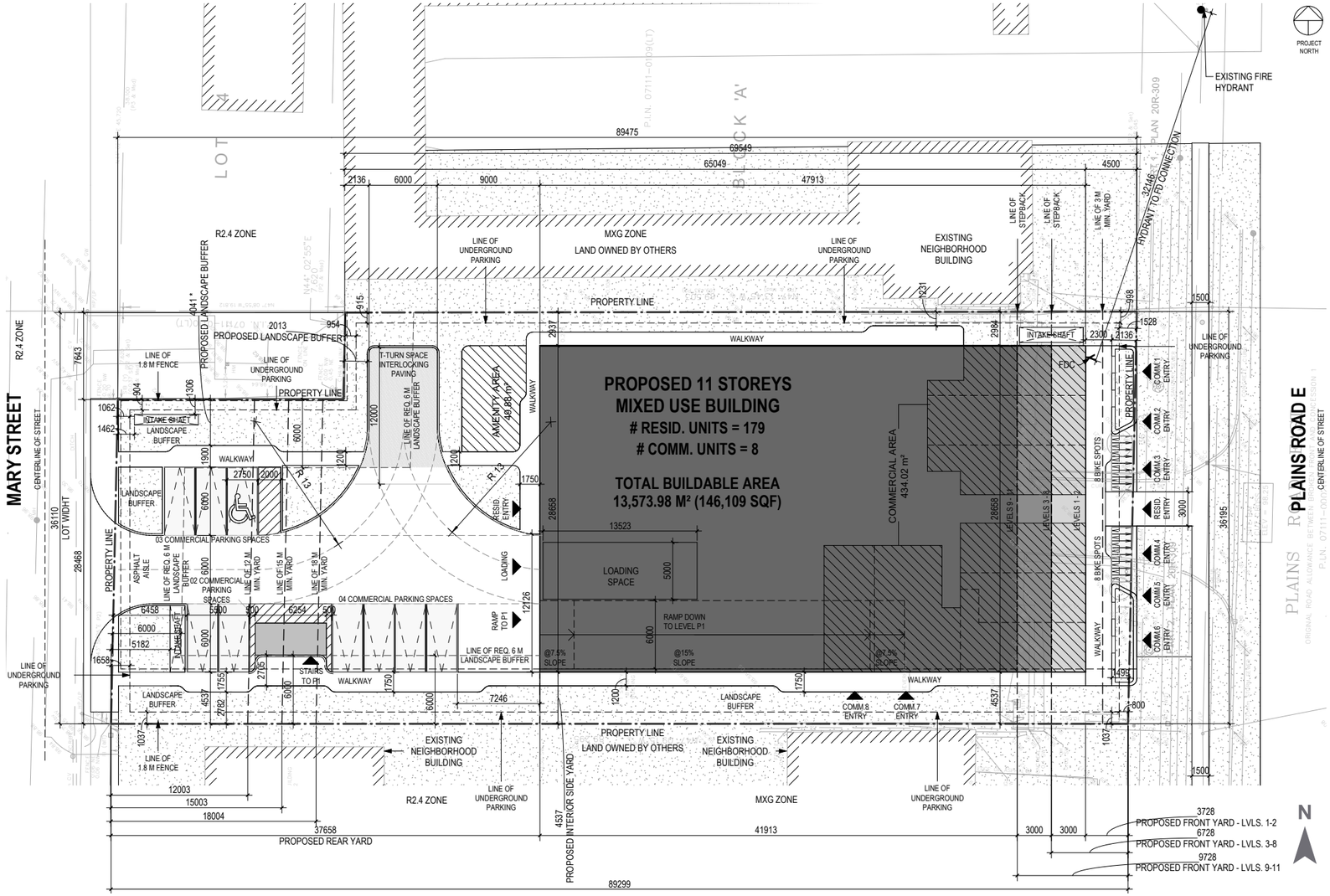


Figure 12: Site Plan - Prepared by Lima Architects Inc.

5.2 CONNECTIVITY

Vehicular Circulation and Access

Vehicular access to the site is provided from Mary Street, with circulation limited to the western portion of the site to minimize conflicts with pedestrians and maintain a pedestrian-oriented streetscape along Plains Road East.

A 6.0-metre-wide driveway from Mary Street provides access to the underground parking ramp and the loading area. The loading space is located approximately 37.0 metres from the property line along Mary Street, ensuring adequate separation from the intersection and reducing potential operational conflicts.

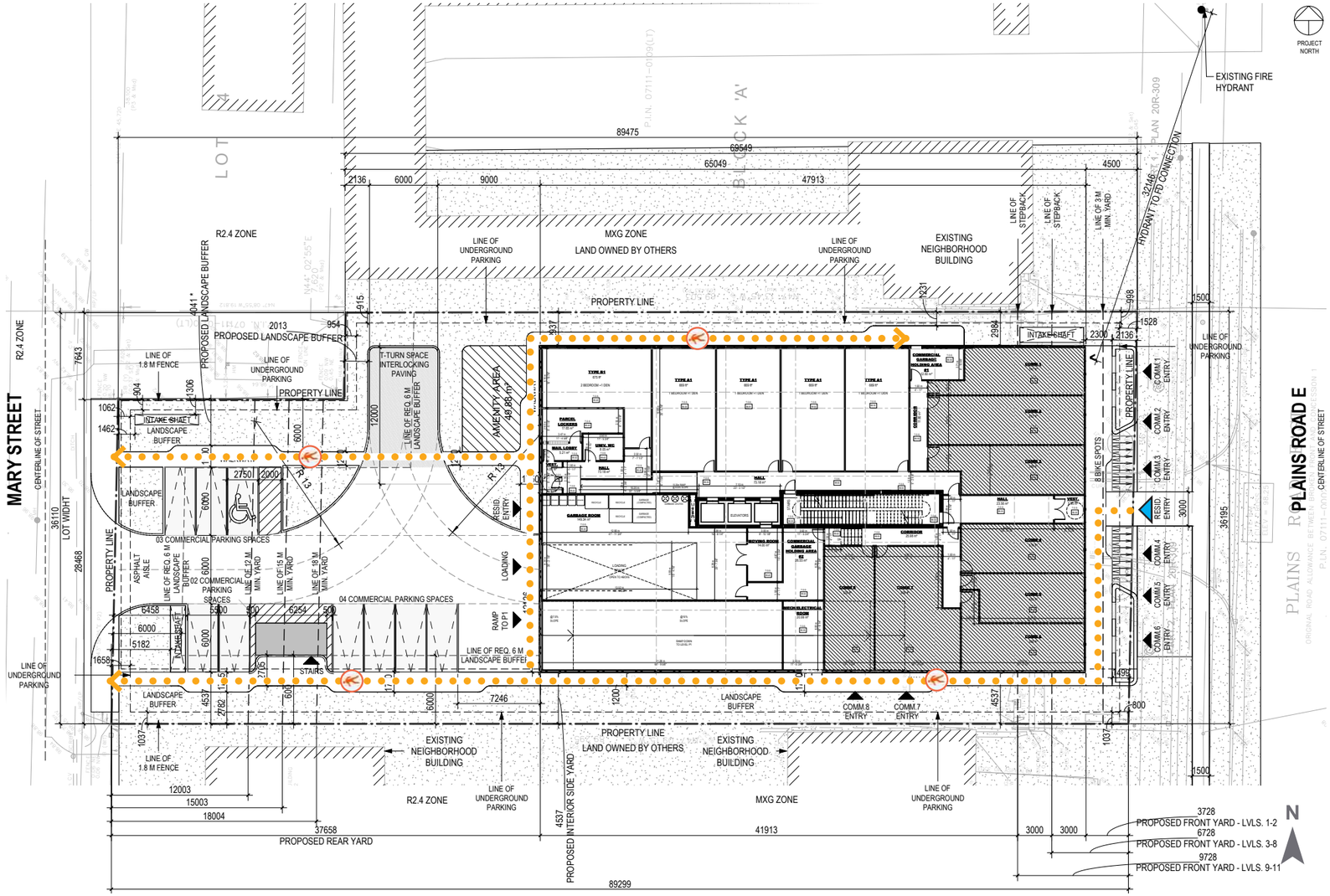
The driveway also incorporates a hammer-head turning area to accommodate delivery vehicles and emergency services, allowing vehicles to safely manoeuvre and exit the site in a forward motion. The driveway surface is proposed to be finished with unit pavers, contributing to a cohesive landscape design and visually reinforcing a pedestrian-priority environment.

Pedestrian Circulation and Access

Safe and accessible pedestrian circulation is provided through a network of paved walkways connecting the development to the public sidewalks along Plains Road East and Mary Street.

The primary pedestrian entrance is located along Plains Road East, providing direct access to the building's main lobby. Walkways extend around the building perimeter, connecting ground floor commercial units on the east and south, residential units on the north, and other building services at the rear.

A pedestrian walkway along the west side of the building provides a mid-block connection between Mary Street and Plains Road East, improving pedestrian permeability and strengthening connections between the commercial corridor and the residential neighbourhood to the north.



PEDESTRIAN CIRCULATION

BUILDING ENTRANCE

Figure 13: Pedestrian circulation based on site plan prepared by Lima Architects Inc.

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5.3 BUILT FORM AND ARCHITECTURAL EXPRESSION

Built Form

The proposed development consists of an 11-storey rectangular building with a compact footprint. The massing strategy is designed to provide a gradual transition in scale, allowing the building to integrate appropriately with the surrounding urban context while maintaining a comfortable pedestrian experience along Plains Road East.

The ground and second floors establish a podium that addresses the street at a human scale, reinforcing the pedestrian-oriented character of Plains Road East. The ground floor includes commercial uses with increased glazing and clear storefront articulation, promoting active street frontage and visual animation.

Floors 3 through 8 form the middle portion of the building and align with the podium below through consistent architectural expression and material continuity, ensuring a cohesive built form.

Floors 9 through 11 are further stepped back from the lower massing, reducing the building's visual presence when viewed from the public realm and helping to maintain an appropriate streetwall condition.

Additional façade articulation at grade, including increased glazing and clear commercial signage, enhances the building's interface with the street. The second-floor façade also helps create a visual transition between the active ground floor and the residential levels above, contributing to a balanced architectural composition.

The tiered massing strategy along Plains Road East ensures that the building maintains a pedestrian-scaled street presence, supporting a comfortable and engaging public realm.

A 37.0-metre setback from Mary Street is proposed to ensure appropriate separation from the adjacent low-rise residential neighbourhood. This setback enables the building to comply with an angular plane measured from the north property boundary along Mary Street, helping to minimize shadow impacts, reduce visual overlook, and maintain privacy for neighbouring properties.



Figure 14: View from southeast prepared by Lima Architects Inc.

5.4 ANGULAR PLANE ANALYSIS STUDY

The proposed 11-storey building, reaching a total height of 35.6 metres, has been carefully designed to comply with the applicable angular plane requirements. As illustrated in Figure 11, the angular plane is measured from the north property line adjacent to Mary Street. The entire building mass, including the north-facing balconies and mechanical penthouse, is fully contained within this angular plane envelope.

The building massing is strategically positioned toward the southern portion of the site along Plains Road East, with a 37.0-metre setback from Mary Street. This substantial setback helps mitigate potential impacts on the adjacent low-rise residential neighbourhood, including shadowing, overlook, and privacy concerns.

To further support compatibility with the surrounding context, the proposed development incorporates an articulated façade with a neutral material palette and high-quality finishes. The balance between solid wall elements and glazing helps to break down the perceived mass of the building and reduce its visual prominence.

The building's setback, massing strategy, and architectural articulation contribute to a development that transitions sensitively to the surrounding neighbourhood and integrates appropriately within the existing urban fabric.

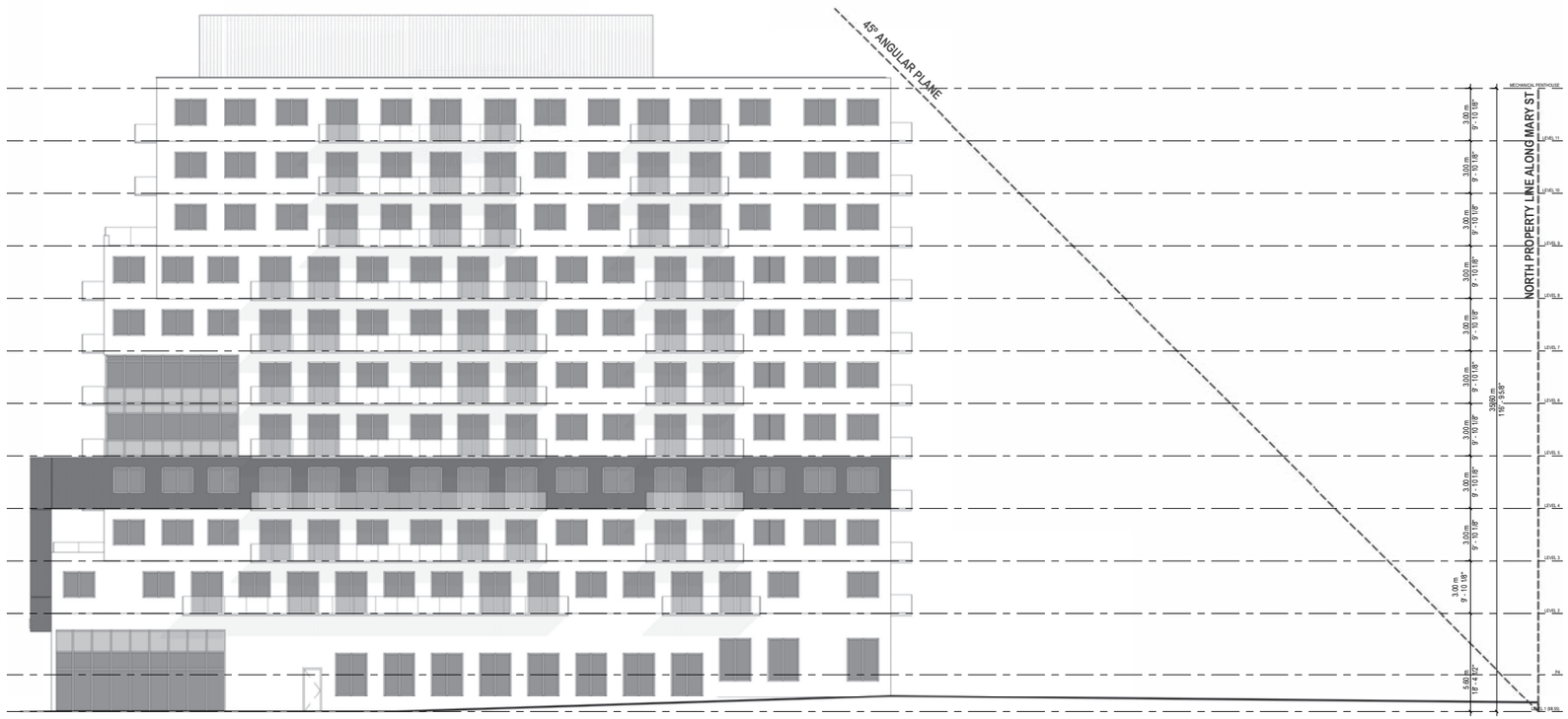


Figure 15: North elevation illustrating angular plane application prepared by Lima Architects Inc.

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5.5 LANDSCAPING AND BUILDING RELATIONSHIP TO STREET

A Landscape Plan prepared by Weston Consulting illustrates the proposed landscape strategy for the site. The design incorporates a combination of hard and soft landscaping elements at grade, complementing the building's architectural expression while creating attractive and functional outdoor spaces for residents and visitors. The landscape approach enhances the public realm, supports the City's urban tree canopy objectives, and contributes to a vibrant streetscape along Plains Road East.

Along Plains Road East, the streetscape will be defined by street trees and a sodded boulevard, establishing a green, pedestrian-friendly edge. The building entrance will be accentuated with perennial plantings, creating a welcoming focal point along the street frontage. Integrated seating within planter edges will provide opportunities for rest and social interaction, enhancing the pedestrian experience and supporting activity associated with the ground-floor commercial uses.

Perimeter landscaping includes a mix of canopy trees and understory plantings to buffer adjacent properties while maintaining a green edge and supporting urban biodiversity. Along Mary Street, the landscape treatment provides a soft transition to the low-rise residential neighbourhood to the north, reinforcing neighbourhood character through thoughtful streetscape design.

Trees and shrubs are also proposed to screen surface parking areas, minimizing visual impacts and enhancing the overall greening of the site.

In addition, an outdoor amenity space has been incorporated to support passive recreational uses for residents. This space contributes to the overall livability of the development while strengthening the relationship between the building, landscape, and surrounding context.

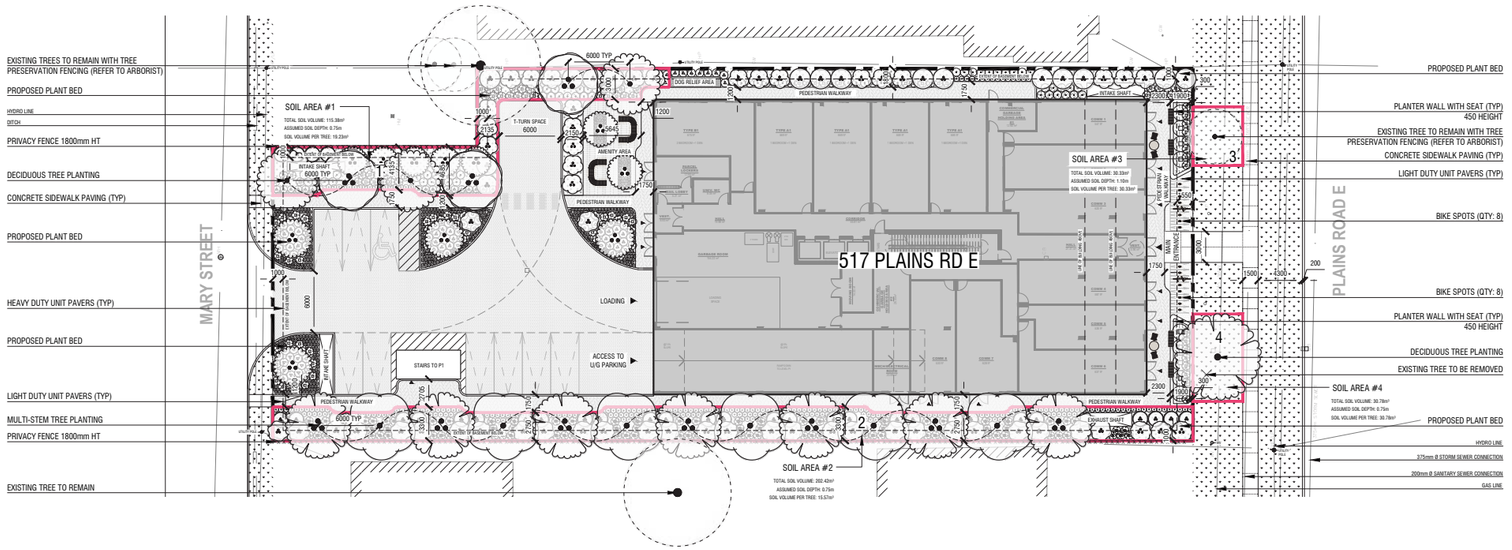


Figure 16: Conceptual landscape plan prepared by Weston Consulting

5.6 SHADOW STUDY

A Shadow Study prepared by Lima Architects evaluates the potential shadow impacts of the proposed development at 517 Plains Road East, Burlington on surrounding properties and the public realm. The analysis assesses the project's compliance with the City of Burlington's shadow impact criteria, including the required sun access factors for neighbouring private outdoor amenity areas and public spaces.

The shadow study examines conditions during the months of March, June, September, and December, using the standard test times outlined in the City's Terms of Reference. The diagrams identify net new shadows generated by the proposed building, with colour coding differentiating between shadows cast on ground surfaces and rooftop areas.

The evaluation confirms that the proposed development meets or exceeds the City's minimum sun access requirements, particularly for the March 21st equinox, which is commonly used to assess shadow impacts on sensitive uses.

Private Outdoor Amenity Areas - Residential Rear Yards

City guidelines require a minimum sun access factor of 0.22 between 9:00 am and 6:00 pm on March 21st for adjacent private outdoor amenity areas.

The shadow analysis indicates that the proposed building casts partial shadows on the rear yards of adjacent residential properties during portions of the day between 9:00 am and 6:00 pm. However, the overall sun access factor is approximately 0.85, which significantly exceeds the minimum requirement of 0.22, demonstrating that adequate sunlight access is maintained throughout the day.

Public Realm and Sidewalks

For public areas and sidewalks, the City requires a minimum sun access factor of 0.50 between 9:00 am and 6:00 pm on March 21st, meaning sidewalks must receive either full sunlight for at least 50% of the time or maintain 50% sun coverage throughout the day.

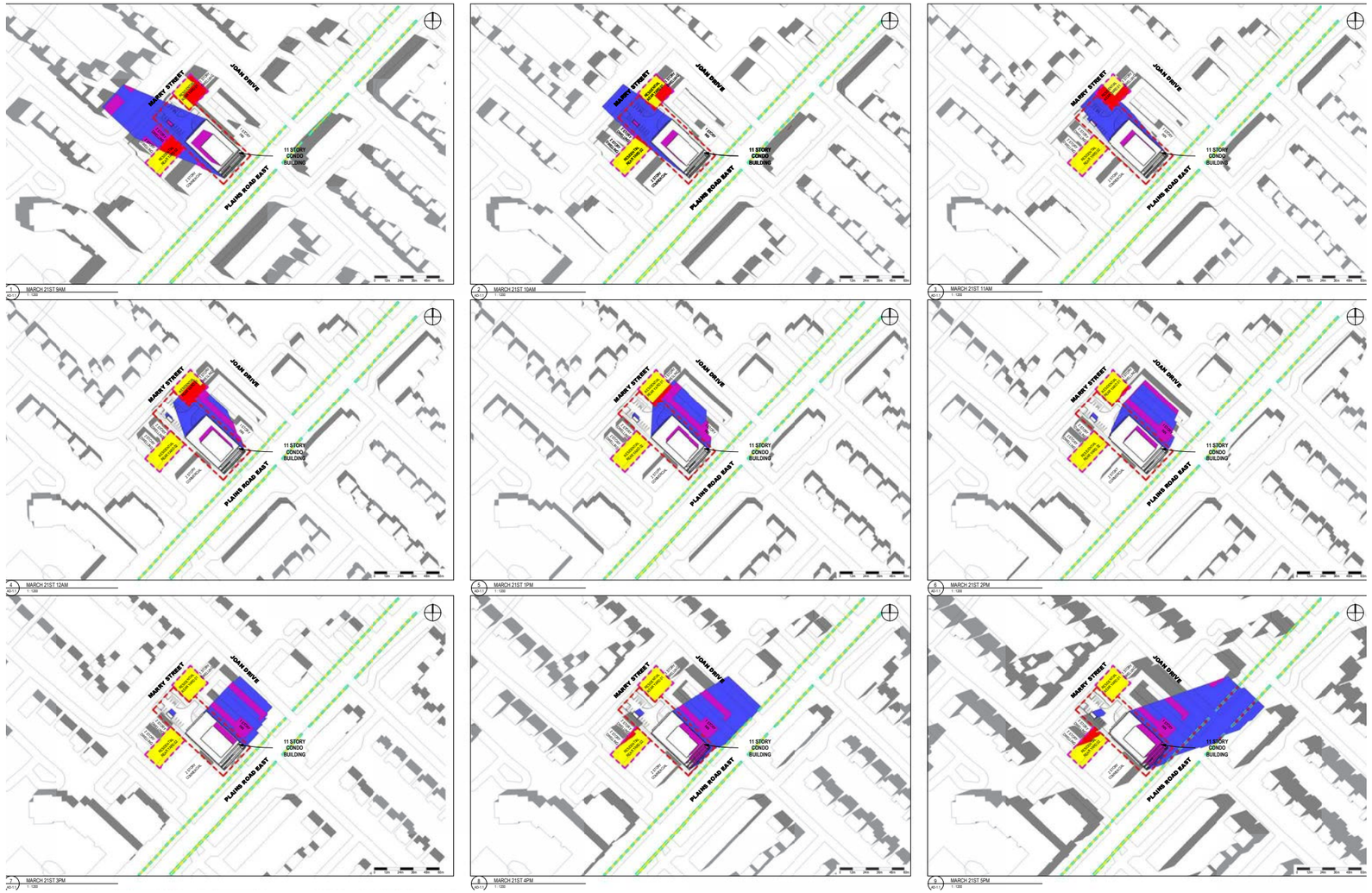


Figure 17: Shadow Study prepared by Lima Architects Inc.

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The shadow study indicates that shadows from the proposed building extend onto adjacent sidewalks between approximately 4:00 pm and 6:00 pm. Despite these limited impacts, the sidewalks along Gallagher Road and Plains Road East receive full sunlight for approximately 77% of the time, resulting in a combined sun access factor of 0.96, which exceeds the City's minimum requirement of 0.50.

Cumulative Shadow Assessment

The cumulative shadow assessment considers shadow interactions between the proposed development and existing surrounding buildings during key seasonal dates.

March 21: Shadows primarily affect buildings to the northwest in the early morning and buildings and sidewalks to the east during the evening.

June 21: Shadows affect buildings to the west in the early morning and buildings and sidewalks to the southeast in the evening.

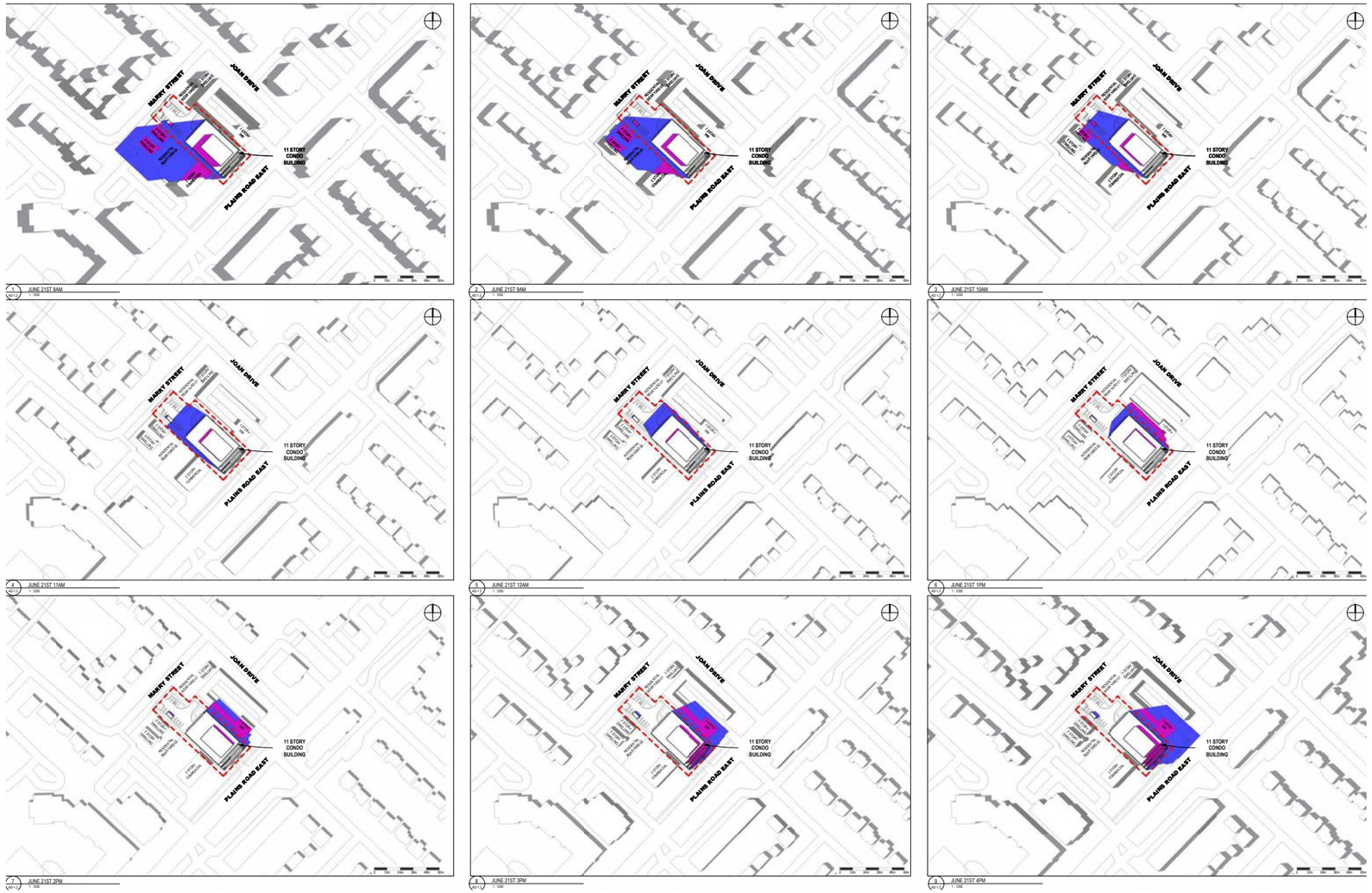
September 21: Shadow patterns are similar to the March equinox, affecting buildings to the northwest in the early morning and buildings and sidewalks to the east in the evening.

December 21: Winter shadows extend toward buildings to the northwest in the early morning and toward buildings and sidewalks to the northeast in the evening.

These shadow patterns are consistent with expected seasonal sun angles and remain within acceptable limits for urban development along an intensification corridor.

The shadow analysis confirms that the proposed development meets all applicable shadow impact criteria established by the City of Burlington. The building's massing strategy, setbacks, and step-backs help minimize shadow impacts on surrounding properties, private amenity areas, and the public realm.

No additional mitigation measures are required to achieve compliance with the City's shadow impact standards.



6.0 CONCLUSION

The proposed development aligns with the City of Burlington's vision for future growth by supporting appropriate intensification along the Plains Road East corridor while responding sensitively to the surrounding context. The compact 11-storey building is positioned toward the east side of the site along Plains Road East, creating an active and pedestrian-oriented street edge while maintaining a 37.0-metre setback from Mary Street to provide an appropriate transition to the adjacent low-rise residential neighbourhood.

The building's tiered massing and angular plane compliance ensure that the proposed form integrates well within the existing urban fabric while minimizing potential impacts on neighbouring properties. The shadow study prepared by Lima Architects confirms that the development meets the City of Burlington's sun access requirements, with limited shadow impacts on surrounding private amenity areas, sidewalks, and public spaces.

The site design prioritizes pedestrian connectivity, public realm improvements, and enhanced landscaping, contributing to a greener and more vibrant streetscape. Vehicular access is located along Mary Street to maintain a pedestrian-focused environment along Plains Road East, while ground-floor commercial uses further animate the corridor.

The proposal is consistent with the Mid-Rise Building Design Guidelines, Plains Road East Corridor Urban Design Guidelines, and Sustainable Building and Development Guidelines, and adresses feedback received through the Urban Design Advisory Panel review. The proposed development represents a context-sensitive and well-integrated approach to corridor intensification, supporting the City's long-term objectives for growth, livability, and design quality along Plains Road East.

VAUGHAN OFFICE | 201 Millway Avenue, Suite 19, Vaughan, Ontario, L4K 5K8 | T. 905.738.8080
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