

URBAN DESIGN BRIEF

4611 KING STREET EAST

City Of Kitchener
Zoning Bylaw Amendment

June, 2024



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Prepared for:
LJM Developments
1860 Appleby Line #28,
Burlington, ON
L7L 0B7

Prepared by:
GSP Group Inc.
72 Victoria Street South, Suite 201
Kitchener, ON
N2G 4Y9

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1. BACKGROUND

1.1 Proposal

GSP Group Inc. has been retained by LJM Developments (the “Applicant”) for the property at 4611 King Street East (the “Site”) in Kitchener. The Site is currently vacant. The proposed development will consist of the construction of a 2-tower, mixed-use development, including commercial, office, and residential uses with a podium connecting the two towers.

1.2 Purpose and Outline

A Zoning By-law Amendment (“ZBA”) and Official Plan Amendment (“OPA”) are required to facilitate the proposed development on the Site. An Urban Design Brief was identified as a required component of a complete application package as per the pre-submission consultation record dated September 8, 2023. The Kitchener Official Plan defines an Urban Design Brief as an “urban design document that may be required of an owner/applicant to demonstrate how a development application implements the City’s Urban Design Manual,” which “does not require Council approval.”

Based on the matters for consideration and evaluation identified in the pre-submission consultation record, this Urban Design Brief contains:

- A description of the existing physical conditions on the Subject Property (Section 2);
- A description and characterization of the surrounding area and neighbourhood context (Section 3);
- Outlines the general Official Plan design policies and Urban Design Manual that

are relevant to the Site and the proposed development’s design (Section 3),

- Provides an overview of the proposed site and building design (Section 4),
- Assesses how the proposed development’s design responds specifically above policy and guideline basis (Section 5), and
- Makes conclusions regarding the findings of the Urban Design Report (Section 6).

1.3 Supporting Studies and Materials

This Urban Design Report has considered the following plans and reports supporting the proposed application as well as relevant City policy and guidelines documents:

- Site Plan prepared by Kirkor Architects and Planners;
- Renderings prepared by Kirkor Architects and Planners;
- Shadow Study prepared by Kirkor Architects and Planners;
- Tree Protection Plan and Landscape Plan prepared by Adesso Design Inc; and
- Pedestrian Wind Assessment prepared by Rowan Williams Davies & Irwin Inc. (RWDI).

2. EXISTING SITE CONDITIONS

2.1 Location and Description

The Site is located on the south side of King Street E and is bounded by an arterial commercial plaza at 4585 King Street E to the west, open space to the east, and low-rise residential fronting Limerick Drive to the south. The Site is municipally addressed as 4611 King Street E. The Site is approximately 7,359.83 square metres (0.736 hectares) in area and has approximately 72.3 metres of frontage along King Street E.

2.2 Existing Site Conditions

In its current state, the Site is currently vacant. Trees and other vegetation are present on-site, which will be discussed further in subsequent sections of this report. A chain link fence creates a buffer between the Site from the open space lands to the east. A row of trees and other vegetation create a buffer between the Site from the arterial commercial plaza to the west at 4585 King Street E. There is no fence at the rear between the Site and the low-rise residential that fronts Limerick Drive.



Fig.1: Site Area

2.3 Existing Vegetation and Topography

The Site's topography loosely resembles a valley-like landform, with a 1.5-metre grade change being present at the front of the Site along King Street E sloping down toward the interior of the Site. Similarly, a 3-metre grade change is present at the rear of the Site sloping toward the interior of the Site. Ground cover primarily consists of grassed lawn areas with sporadic tree cover throughout the Site.

Based on the Tree Management Plan prepared by Adesso Design Inc., a total of 91 trees were identified on the Site, out of which 78 trees will be removed for construction and 13 trees will be retained without injury.



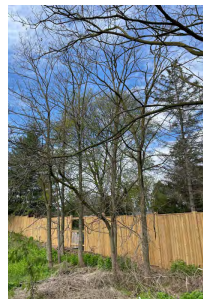
es #7-12



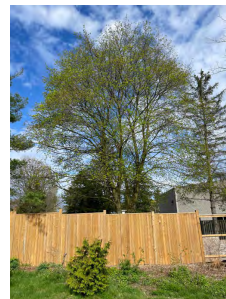
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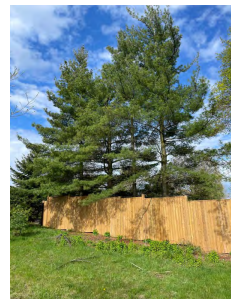
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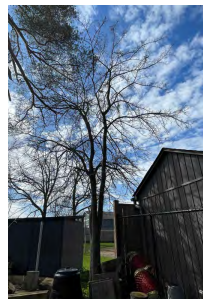
es #35-41



Tree #42



Trees #43-46



e #49



Tree #50



Trees #56-57



es #60-63



Tree #66



Trees #82-84

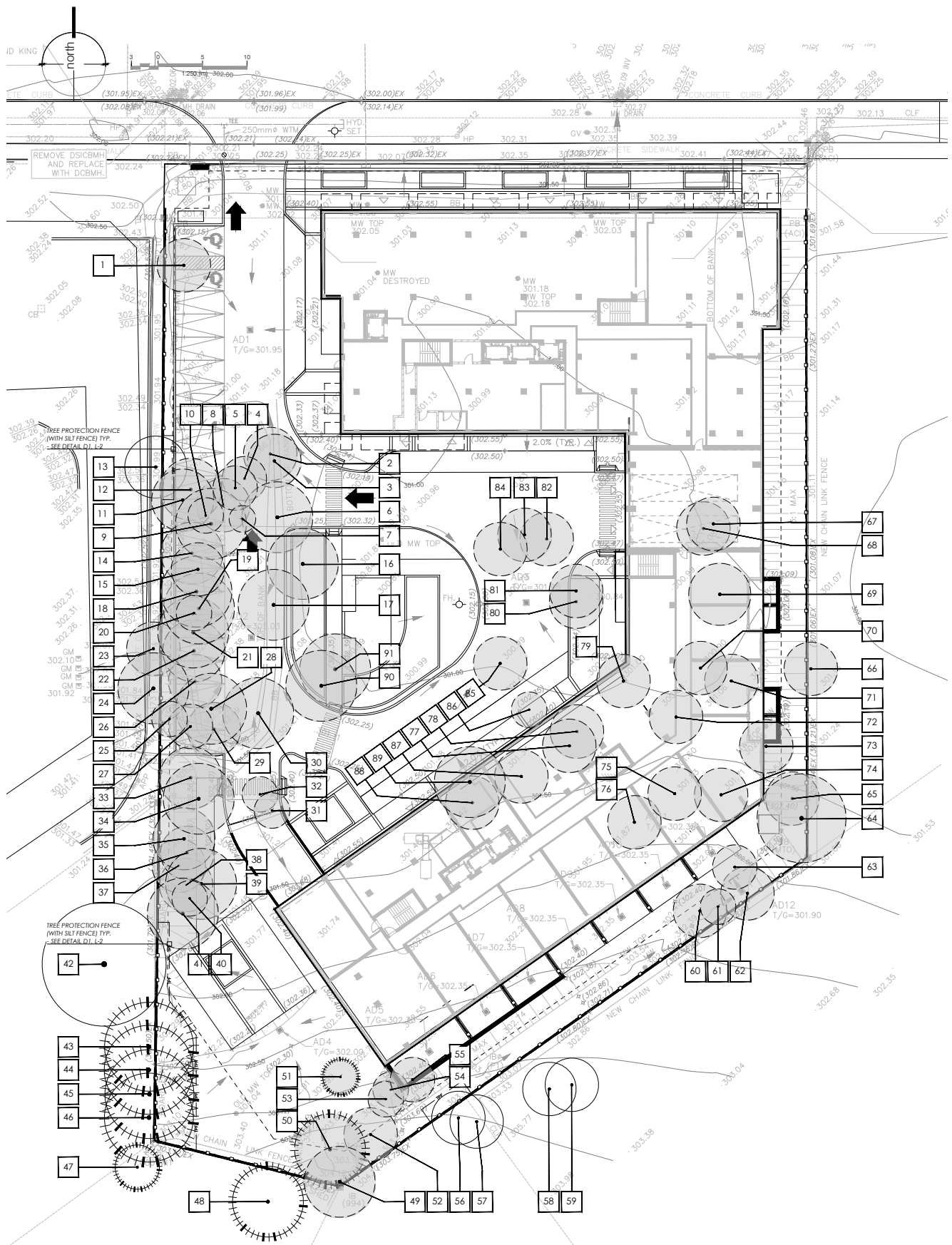


Fig.2: Tree Protection Plan prepared by Adesso Design Inc.

3. NEIGHBOURHOOD CONTEXT AND CHARACTER ANALYSIS

3.1 Surrounding Context and Analysis

The Site is located within the Pioneer Tower West neighbourhood; defined as the area between Highway 8 and the Grand River between the cities of Kitchener and Cambridge. The neighbourhood primarily consists of residential subdivisions and big-box-style commercial plazas, including the Sportsworld Crossing and Costco-anchored plaza along Gateway Park Drive. The majority of the commercial plazas have connections to King Street or Sportsworld Drive, which are the two primary arterial connections in the neighbourhood.

Residential properties within the neighbourhood consist of older, prestigious lots as well as the large-scale “Deer Ridge” subdivision consisting of contemporary homes built from the 1990s to the present day. These houses are primarily constructed with neutral-toned brick and siding with dark shingled roofs. The majority of these houses contain two or more garages with covered porches and range in height from 1 to 3 storeys.

There are applications for higher-rise buildings similar to the proposed development. Notably, at 4220 King Street East & 25 Sportsworld Crossing Road, an 18-, 14-, and 14-storey mixed-use development has been approved, with Phase 1 Tower B under construction as of April 2024. This will include three towers and 526 residential units. Another application at 4396 King Street E proposes an 8-storey residential building with a 30-storey and 18-storey tower atop a 5-storey podium, providing 616 units. An increase in height and density that the Proposed Development

would bring to the neighbourhood is expected given the scale of the similar applications in the neighbourhood.

The neighbourhood’s fabric is characterized by a loose, organic grid with wide, multi-laned streets and parking lots, prioritizing movement into the commercial plazas that anchor the neighbourhood. Its residential areas are characterized by wide streets in a suburban grid pattern, with many cul-de-sacs throughout. Its residential neighbourhoods are primarily anchored by two streets, Pioneer Tower Road, and Deer Ridge Drive, which prioritizes movement onto King Street E.

The neighbourhood is serviced by parks and social amenity spaces. The Site is in close proximity to RiverEdge Golf Course, a public 9-hole golf course located within walking distance of the Site. Similarly, the Deer Ridge Golf Club is located within the Deer Ridge neighbourhood and is a private 18-hole golf course. The Pioneer Sportsmen Club is located within the Deer Ridge neighbourhood as well, which includes archery, seasonal camping, and a firearm shooting range. Many parks are located within the Deer Ridge neighbourhood, including but not limited to Settlers Grove Park, Pioneer Grove Parkette, Deer Ridge Park, Joseph Schoerg Park, Kuntz Park, and the Pioneer Tower Natural Area, which connects to the Walter Bean Trail Network.

The neighbourhood is serviced by five elementary/secondary schools, which are St. Anne Catholic Elementary School (Kitchener), St. Mary’s High School (Kitchener), Grand View Public School (Cambridge), William G Davis Public School (Cambridge), and Preston High School (Cambridge).

3.2 Transportation Context

King Street E is identified as an existing transit corridor within the Region of Waterloo Official Plan (“Regional Official Plan”). Currently, two transit stops are in close proximity to the Site on Gateway Park Drive and Tu-Lane Street. The 206 iXpress stop on Gateway Park Drive connects to Sportsworld Station, which services routes 203, 206, 67, and 72, and the 302 ION bus rapid transit route, which provides connection to the existing ION network in Kitchener and Waterloo. The 203 iXpress stop on Tu-Lane Street provides connection to Conestoga College Doon, which is serviced by routes 201, 203, 10, 16, 36, 57, 61, 76, and 110.

In December 2023, the Region of Waterloo endorsed a new location for the south ION terminal, located in Cambridge on Ainslie Street, and outlined the preferred route and station locations for Stage 2 of ION construction. Stage 2 of the ION will begin at Fairway Station, located at Fairview Park Mall, travelling along King Street, with a station in Sportsworld on King Street adjacent to the Sportsworld Crossing Plaza. Thus, the Site is in close proximity to the proposed Stage 2 of the ION and will be well-serviced by transit options, including traditional and rapid transit options.

3.3 Immediate Context

NORTH:

Immediately to the north of the Site is King Street E. Adjacent to the north of King Street E is an auto repair and servicing building, and a gas station and car wash. The auto repair and servicing building is one-storey and contains two servicing bays, an office, as well as an extensive parking lot. The gas station is one-storey and contains four gas pumps with an overhead shelter, as well as a one-storey carwash structure with an expansive parking lot. To the northeast, one-storey restaurants and big box commercial uses with expansive

parking lots are found along Gateway Park Drive. Further north of these commercial uses is Highway 8. The immediate north context contains a significant amount of vacant commercial land.

EAST:

Immediately to the east of the Site is open space as well as a maintenance yard. Further beyond the open space is the Highway 401 Westbound entrance, with the Highway 401 directly adjacent to the east of the ramp.

SOUTH:

Directly adjacent to the south of the Site are 1- to 2-storey residential dwellings. These uses are characterized by larger lots, many of which with accessory garages. Directly to the south of the Site are two one-and-a-half-storey residential dwellings, both with expansive rear yards and accessory garages. These residential uses front Limerick Drive, with natural features and the Grand River further south of these uses.

WEST:

Adjacent to the west of the Site is a one-storey arterial commercial strip mall containing three retail units. Further to the west of this use is the intersection of Limerick Drive and King Street E. Beyond this intersection is another arterial commercial strip mall containing three retail units, as well as a single-storey motel with a two-storey detached residential dwelling unit with an attached two-car garage. Behind these commercial, to the southwest of the Site are low-rise residential units, predominantly 1- to 2-storeys, characterized by larger lots, many of which with accessory garages.

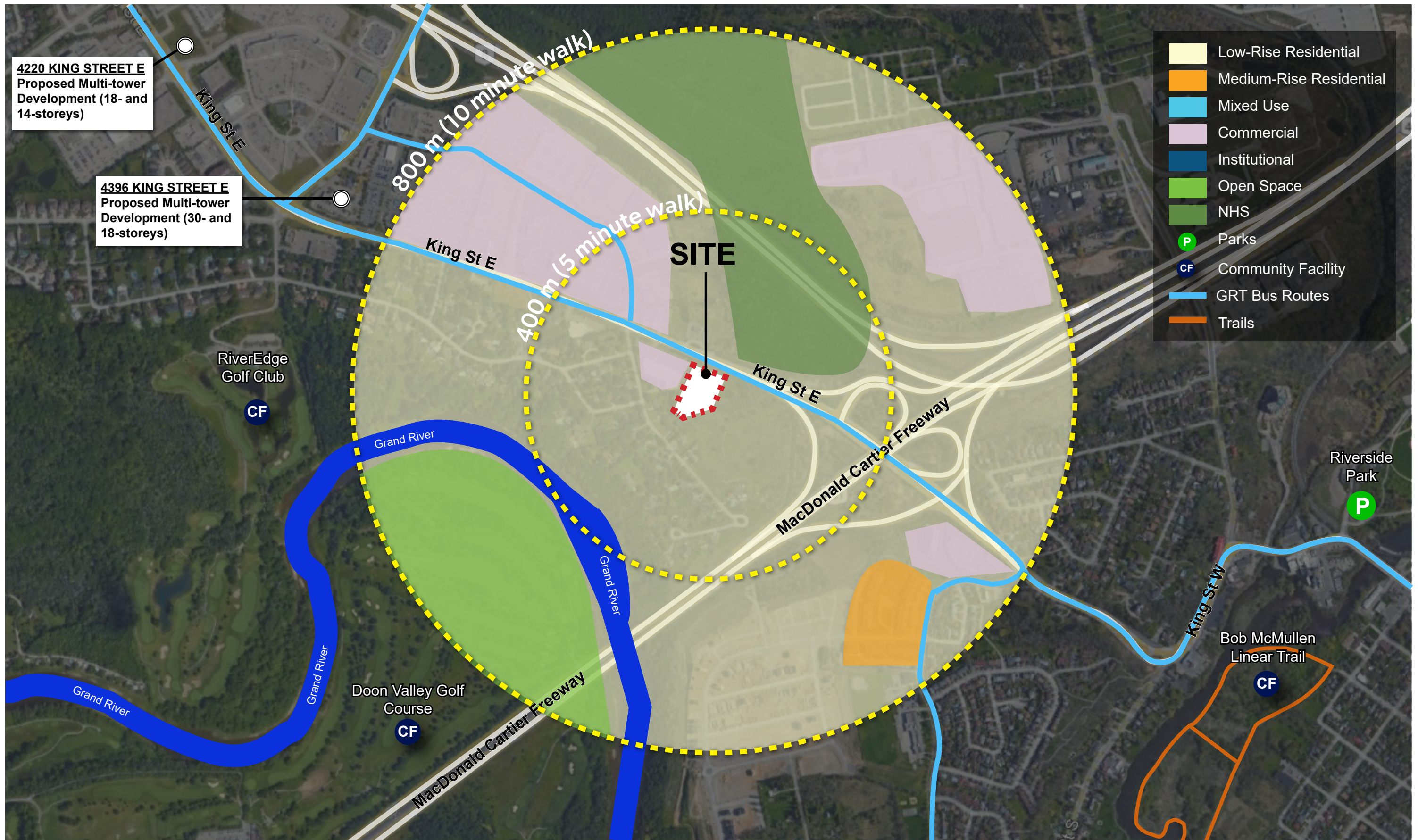


Fig.3: Surrounding Site Context





4. DESIGN POLICY AND GUIDELINE REFERENCES

4.1 Official Plan

The Site is located in the Urban Area of the City of Kitchener and designated Built Up Area in the Regional Official Plan. In addition, the Site is designated Commercial in the Official Plan and zoned Arterial Commercial - COM3 Zone in the City of Kitchener Zoning By-law. The COM3 Zone does not permit residential uses, therefore a Zoning By-law Amendment is required to facilitate the proposed development.

The Zoning By-law Amendment proposes to change the designation of the Site from Commercial Campus (COM3 Zone) to Mixed Use (MIX-3) Zone. The Mixed Use policies are intended with flexibility to permit a broad range of uses at different scales and intensities. The Mixed Use policies (15.D.4) specifically indicate that “development and redevelopment of properties will be encouraged to achieve a high standard of urban design, be compatible with surrounding areas, be transit-supportive and cycling and pedestrian-friendly”.

The proposed redevelopment supports the policy direction by providing further uses and density to the Site, that are compatible with the surrounding area and supports alternative modes of transportation.

4.2 General Urban Design Policies

Section 11 of the Official Plan contains general urban design policies that are used to evaluate movement patterns, the relationship between built form and open spaces,

integration of natural and cultural resources and development impacts. They include:

- *General urban design policies that speak to the city’s skyline, CPTED principles, fire prevention, barrier-free accessibility, and shade.*
- *Site Design policies speak to the building’s street relationship landscaping to improve the streetscape; developments to improve aesthetic quality and be safe, comfortable, functional and provide circulation for all transportation modes; and site servicing and utilities to be screened from view from the public realm.*
- *Building Design, Massing and Scale design policies speak to human-scale proportions to support a comfortable and attractive public realm, including attractive building forms, facades, and roof designs; complementary design of new buildings; and architectural innovation and expression.*

Section 17.E.10.5 identifies that urban design briefs together with other design-related are meant to be used to

- a) demonstrate that a proposed development or redevelopment is compatible;*
- b) address the relationship to and the privacy of adjacent residential development; and,*
- c) ensure compatibility with the existing built form and the physical character of the established area and/or neighbourhood.*

4.3 Urban Design Manual

PART A – Design Guidelines

Part A contains design guidelines on various land uses, built types, geographic areas, and urban structure elements. The following topics of design guidelines are relevant to the Site and the proposed building.

a) City-Wide (CW)

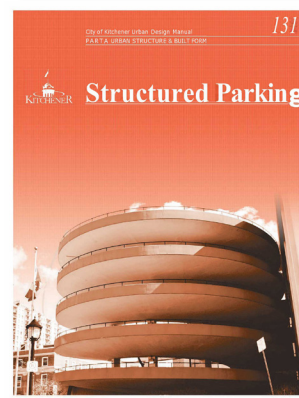
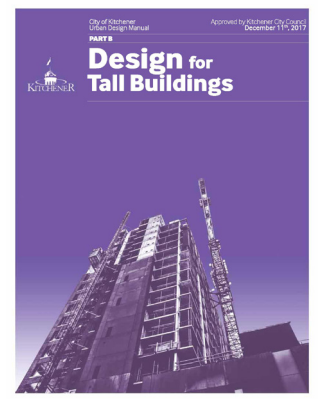
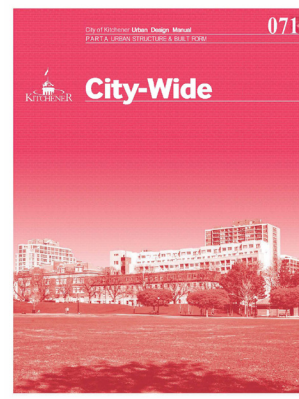
The City-Wide design guidelines apply to Kitchener as a whole. The main objective of these guidelines is to ensure Kitchener is designed as an inclusive, safe, accessible, comfortable and appealing place to live, work and play. Guidelines are divided into Community Design and Site Design. The Community Design guidelines are primarily used by the City in designing the form and structure of communities through the application of design best practices in a range of topics. The Site Design guidelines address built form, open space and site functionality.

b) Tall Buildings (TB)

The Tall Buildings guidelines guide the design of tall buildings in the city, which are defined as those greater than 8 storeys in height. These guidelines are meant to be read in conjunction with the policies of the Official Plan and guidelines of the Urban Design Manual and are meant to be applied on a case-by-case basis.

c) Structured Parking (SP)

The Structured Parking guidelines apply to the development of above-grade parking structures within Kitchener. The Proposed Development includes six levels of podium parking. The Guidelines are to ensure promote compatibility with the surrounding built form and address materials, articulation, massing and public realm design.



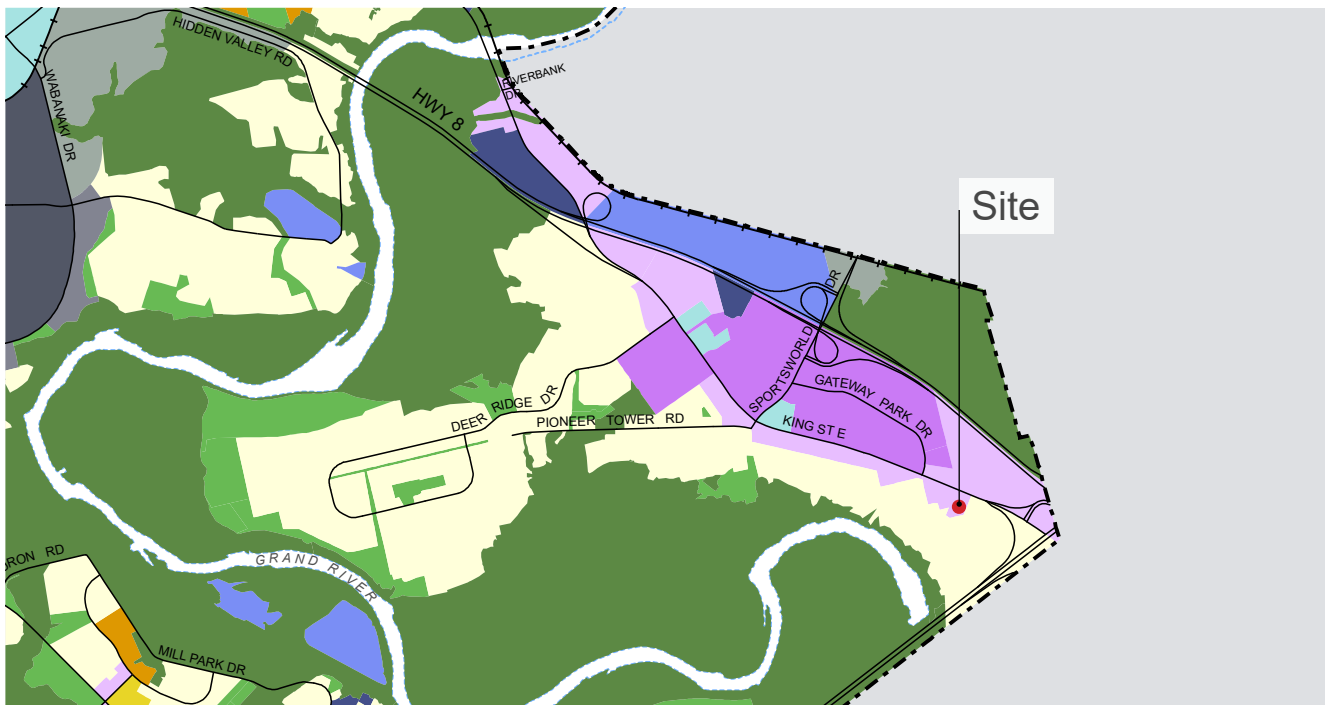


Fig.4: City of Kitchener Official Plan - Map 3 Land Use

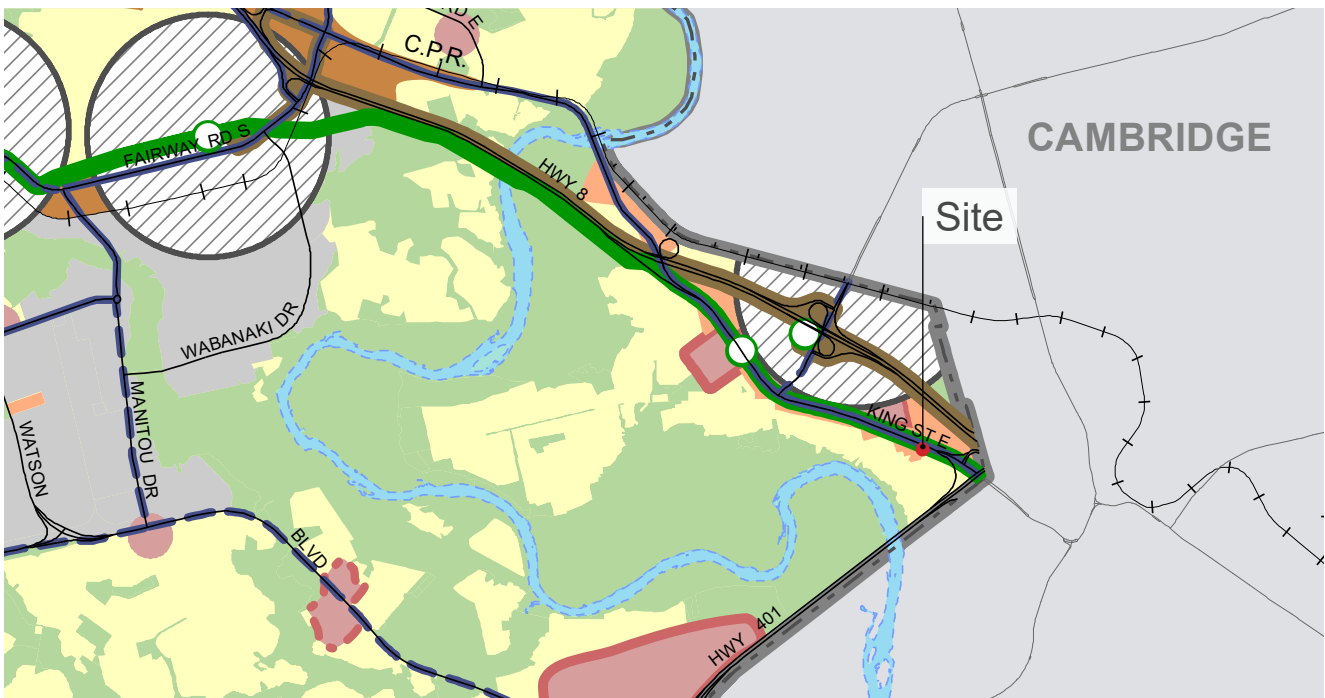


Fig.5: City of Kitchener Official Plan - Map 2 Urban Structure

Legend

	Refer to Secondary Plan For Detail		Heavy Industrial Employment
	Urban Growth Centre (Downtown) Refer to Map 4		General Industrial Employment
	Area Under Deferral		Business Park Employment
	Low Rise Residential		Institutional
	Medium Rise Residential		Prime Agriculture
	High Rise Residential		Rural
	Mixed Use		Natural Heritage Conservation
	Commercial Campus		Open Space
	Commercial		Major Infrastructure and Utilities

Legend

	Urban Growth Centre (Downtown)
	Major Transit Station Area
	City Node
	Community Node
	Neighbourhood Node
	Urban Corridor
	Arterial Corridor

Other Areas

	Community Areas
	Industrial Employment Areas
	Green Areas

Transit

	Existing Transit Corridor
	Planned Transit Corridor
	Light Rail Transit Corridor
	Adapted Bus Rapid Transit Corridor
	Rapid Transit Station

5. PROPOSED DEVELOPMENT

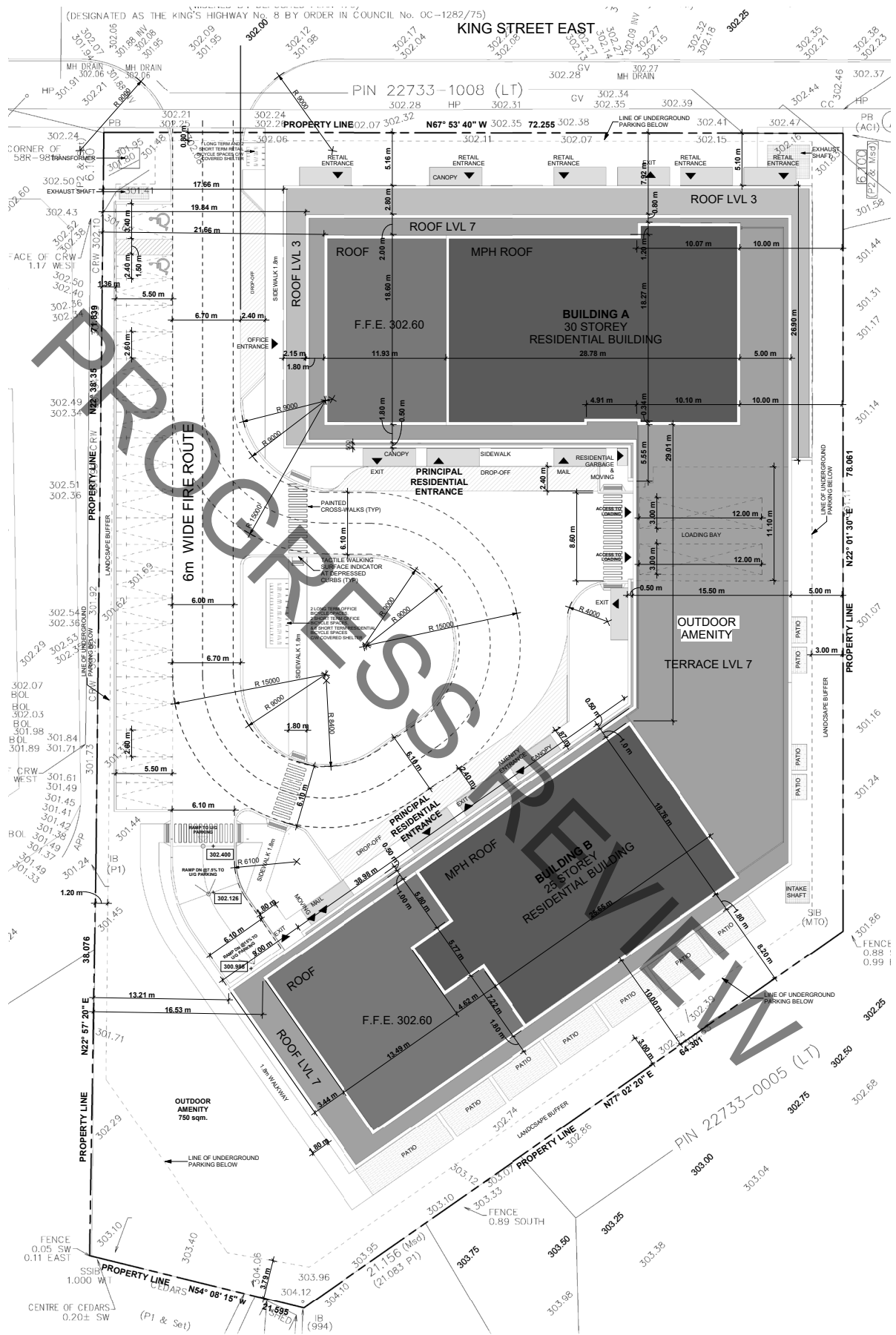
5.0 Development Overview

The proposed development introduces a mixed-use development featuring two residential towers, Towers A and B, situated atop of a 6-storey podium connecting the two towers. Tower A stands at 30 storeys in height, while Tower B rises to 25 storeys.

Residential units will be primarily within Tower A and Tower B, whereas the commercial and office uses will primarily be within the podium, levels 1 and 2, respectively, facing King Street E. A range and mix of unit typologies are provided, spanning from one-bedroom, one-bedroom plus den, two-bedroom, and three-bedroom, for a total unit count of 748. The proposed development allocates 617 square metres of retail space and 1,123 square metres of office space.

Surface-level parking provisions include 22 spaces, comprising 19 for retail use and 3 for visitors. Additionally, three levels of below-grade parking, spanning a total area of 1,924 square metres, contains 501 underground spaces. These include 49 designated for office use, 29 for visitors, and 423 for residential purposes. Furthermore, the development caters to bicycle parking needs, providing a total of 167 spaces, with 161 dedicated to residents and 6 for visitors.

With a decrease in massing from Building A at the front of the Site along King Street E toward Building B at the south of the Site, Building B is respectful to the adjacent low-rise residential dwellings fronting Limerick Drive.



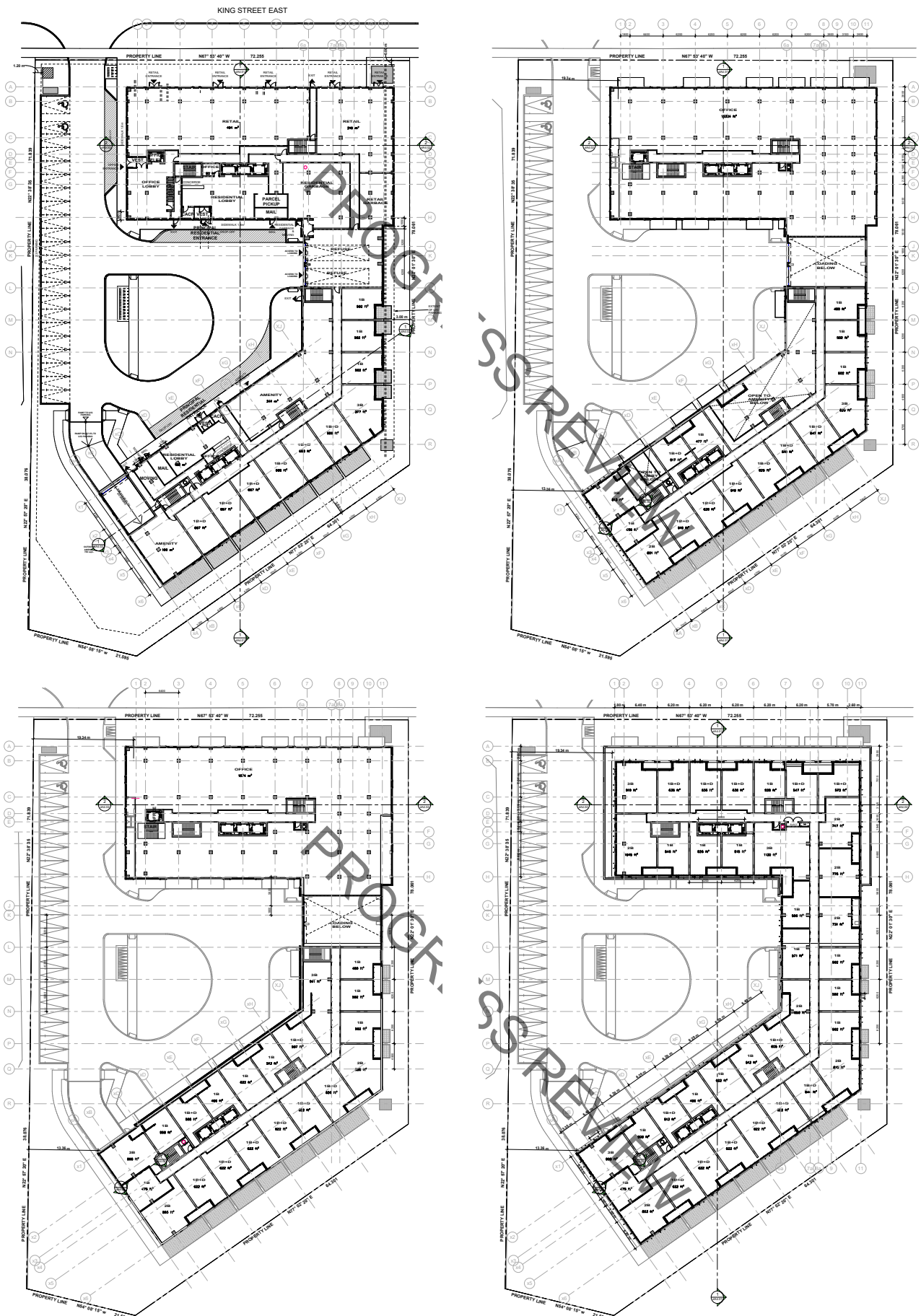


Fig.7: Floor Plans prepared by Kirkor Architects and Planners

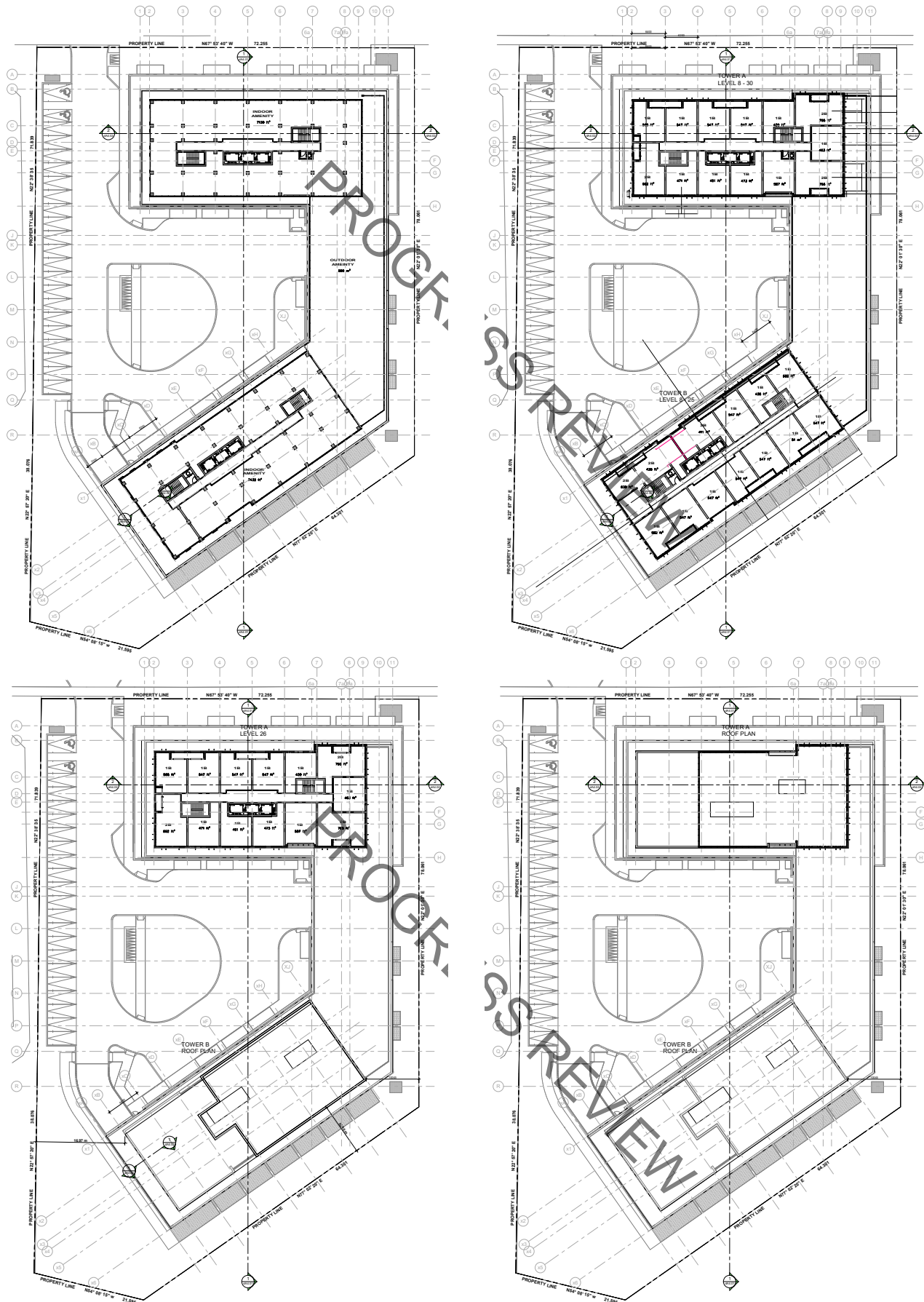


Fig.8: Floor Plans prepared by Kirkor Architects and Planners

5.1 Building Base Design

Inclusive Design – CW

Compatibility – CW | TB

Built Form – CW | TB

Streets & Open Space – TB

The base features a U-shaped configuration connecting Towers A and B, opening towards the interior of the site to accommodate a driveway courtyard from King Street E. This mid-rise building base reaches up to six storeys and is divided into two components: the lower podium and the upper podium.

The lower podium is set back 5.10 metres from King Street E and provides access to five retail units. It features a taller double-height ground floor with 2.95 metres for the ground floor and 2.05 metres for the mezzanine, allowing flexibility for various commercial activities and sufficient space for loading functions. Above the lower podium, the upper podium is stepped back 2.80 metres from the front portion and 2 metres from the east and west sides. The shortest side of the building base fronts King Street E and is approximately 51 metres long, adhering to the maximum length of 70 metres suggested by the Tall Building Guidelines. Additionally, the consistent upper base stepbacks on the third and seventh storeys with floor-to-ceiling fully glazed walls, the transparent ground floor plane with individual commercial entrances, the varied articulation and detailing throughout the base, and the considerable setback of Tower A from the base all ensure well-designed and pedestrian-friendly massing along King Street E.

5.2 Ground Floor Design

The principal residential entrances for Tower A and Tower B are situated within the driveway courtyard, which features a continuous on-site pathway wrapping around the building base. This pathway connects the commercial units along the King Street E frontage and the

site's interior, providing direct access from the public sidewalk. Additionally, the driveway courtyard serves as a drop-off cul-de-sac, accommodating two loading areas within the base at a double height.

The ground floor of the building base facing King Street E comprises commercial units and office spaces on Level 2. Conversely, the building base facing the Site's interior consists of indoor amenity rooms and service areas facing the driveway courtyards, with at-grade residential units lining towards the rear of the building, facing the lot line and featuring individual outdoor patios. A 750 square metres outdoor amenity space is situated at the southwest corner of the Site, with a 3-metre landscape buffer provided along the east and south property lines.

5.3 Building Tower Design

Design for Outdoor Comfort – CW Compatibility – CW | TB

Built Form – CW | TB

Environment – TB

The towers of the proposed development are composed with compact slab floorplates sitting atop the mid-rise building base, set at 30 and 25 storeys in height respectively. Floors 7 to 30 for Building A and floors 7 to 25 for Building B form the “towers” component of the development. The towers are the most substantial and impactful component to the development, and have been designed as well-articulated, slender landmarks, that will visually distinguish the King Street corridor. Their construction will result in an addition and enhancement to the City’s skyline. The design and massing of the towers recognize and reflect this important role and have been designed to minimize impacts on adjacent uses. The towers have also been designed and articulated to maximize sky views and access to sunlight through compact slab floorplates and tower stepbacks in all sides.

The proposed design iteratively explored a series of different tower placements, heights, and floorplates to address the different objectives preferred by the Tall Building Guidelines. The proposed tower design addresses the intent of the Tall Building Guidelines as follows:

Placement

Tower A sits directly above the front portion of the shared building base, with setbacks of 1.5 meters from the upper podium, 1.8 meters from the west, and 5 meters from the east. At the rear of the Site, parallel to the southeast lot line, Tower B is positioned with setbacks of 1.80 meters from the internal courtyard, 2.97 meters from the west side, and 1.80 meters from the south side. The towers are strategically offset to maximize access to sunlight, increase tower separation and minimize overlaps.

Size and Proportion

Tower A and Tower B are classified as “Compact Slab” form with tower floorplate measuring approximately 744 to 788 square metres and a length-to-width ratio ranging between 2.18 to 2.45.

Relative Height

The towers have variation in heights as desired and minimizes any negative impacts to adjacent properties. Tower B (shorter tower) is 84% of the height of Tower A in keeping with the intent of the guidelines for variation.

Separation

Physical Separation between Tower A and Tower B determined by building’s height and tower length are 19.11 metres for Tower A and 17.48 metres for Tower B with a combined total of 36.59 metres. The proposed building has provided between 29.6 metres and 50.8 metres tower separation between Tower A and Tower B, in keeping with the separation calculation.

The deficiency between Tower A and the eastern property line, and between Tower B and the southern property line, is mitigated by the fact that the abutting property is an open space and a maintenance yard.

Overlook

The placement of the towers minimizes overlap, and the oblique nature of the viewing angle further reduces any potential impacts.

Facing Condition	Distance per Guidelines (m)	Proposed Distance (m)
Tower A to Tower B	36.59	Ranging between 29.6 to 50.8
Tower A to centre line of King Street	19.11	19.11
Tower A to east property line	19.11	10.0
Tower A to west property line	19.11	21.66
Tower B to rear (south) property line	17.48	10.0
Tower B to west property line	17.48	16.67 to 25.89

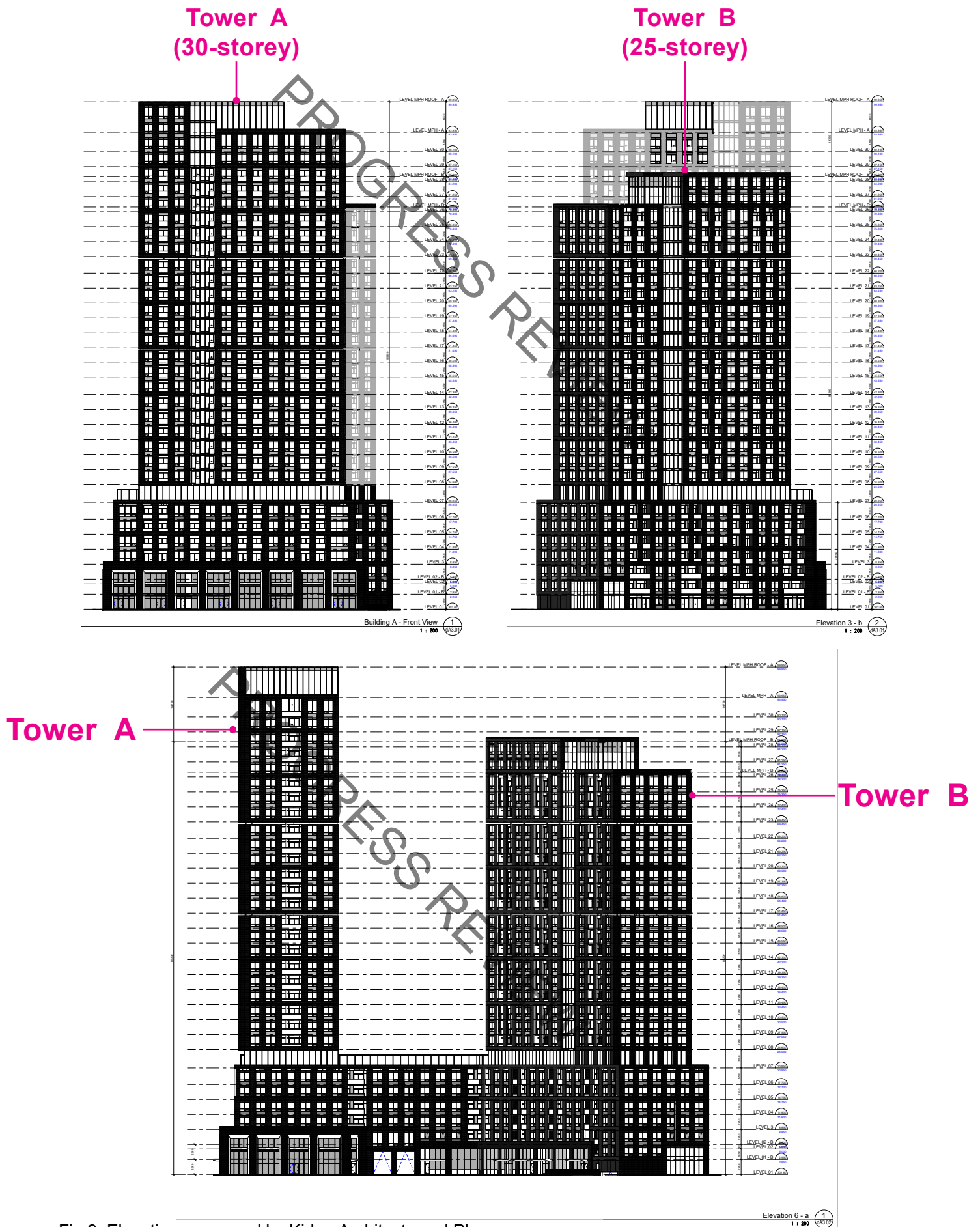


Fig.9: Elevations prepared by Kirkor Architects and Planners

5.4 Building Tops

The top of the proposed towers helps define the towers themselves and will contribute to a unique and interesting skyline for Kitchener. Specifically, a variety of elements, including material variations, lighting, and other architectural elements have been adopted to reinforce a strong presence at the top of the building. Structural elements, such as the mechanical penthouse and elevator shafts will not be visible from ground level.

5.5 Access and Circulation

Inclusive Design – CW

Site Function – CW

Street Design – CW | TB

Streets & Open Space – TB

There is only one site access point to King Street East, located on the west side of the site to avoid conflicts with motorists accessing the Highway 401 westbound ramp. This design aligns with the goal of limiting access points on arterial streets. The proposed site access leads to the main parking garage entrance situated at the southwest corner of Tower B and the drop-off courtyard in the space between the two towers. They provide a continuous driveway circulation route through the Site providing easy and direct access for emergency vehicles along this internal fire route and service vehicles. The driveway is 6 metres wide and is designed with barrier curbs.

Three drop-off locations are designated: one on the west side and one on the south side of the podium of Tower A, and one on the northwest side of the podium of Tower B. These drop-off locations are recessed into the pedestrian sidewalk to prevent any conflict with pedestrian walking areas and will be surfaced appropriately to facilitate barrier-free access to the building from the on-site pathway.

Ground floor commercial unit entrances facing the King Street E edge are accessed directly from the public sidewalk. The commercial spaces at the base of Tower A feature overhead canopies, providing pedestrians with comfortable and convenient travel along the paved walkways lined with commercial entrances. The 1.8-metre-wide pathway along the east side of the internal driveway and wrapping around the shared building base ensures continuous pedestrian movement, connecting the main residential entrances for Tower A and Tower B, as well as the entrance to indoor amenity spaces and other service areas. Where these pathways cross the driveway, they will be clearly delineated with marked crossings.

For cyclists, access to the development is provided via the driveway and walkways. Short-term visitor bicycle parking (Class B) is planned around the base of Tower A near the site access from King Street E and at the median of the courtyard driveway. Long-term bicycle storage rooms (Class A) for residents are situated in Levels P1 and P2, conveniently located near elevators for ease of access.

Detailed design of Site Plan Approval will address ensuring safe and comfortable movements to and through the Subject Site. Walkways will be designed for universal accessibility and distinguished crossings through surface definition will be explored. Emergency signage and infrastructure will be addressed in detailed design. Lighting elements will address appropriate lighting levels for safety in higher pedestrian areas.



Fig.10: Circulation Diagram

5.6 Parking

Inclusive Design – CW Site Function – CW

In total, 523 parking spaces are provided. Of these, 423 parking spaces are located within the three levels of the below-grade parking garage, dedicated to residents, with an additional 49 parking spaces allocated for office users. On the surface, 22 parking spaces are provided, with 19 spaces dedicated to retail and 3 spaces reserved for visitors, including 2 barrier-free spaces located adjacent to the west side of the podium of Tower A.

In total, 334 bicycle parking spaces are provided at grade and within the building as well. At-grade, 13 parking spaces for office/retail and 13 residential parking spaces are provided. Long-term bicycle storage rooms for residential and office/retail users are proposed within the three levels of below grade parking garage and consists of a total of 154 bicycle parking spaces each for residents and office/retail users.

5.7 Service and Loading Areas

Site Function – CW Environment – TB

Loading and service functions are internalized in the development, away from King Street E. Two loading spaces for residents are proposed within the shared building base accessed through driveway courtyard. A common garage/recycling storage room in the P1 Parking Level, conveniently located near elevators and a common garbage/recycling collection area is situated internally in the Tower A base, adjacent to the loading areas. Mechanical equipment and utility rooms are incorporated into the parking garage levels and rooftop spaces.

The arrangement of loading and service functions on the Site maximizes the separation of car parking areas and routes from truck and loading functions and routes to the extent possible. All truck turning and maneuvering for loading and service functions is accommodated on the property and do not impact municipal streets.

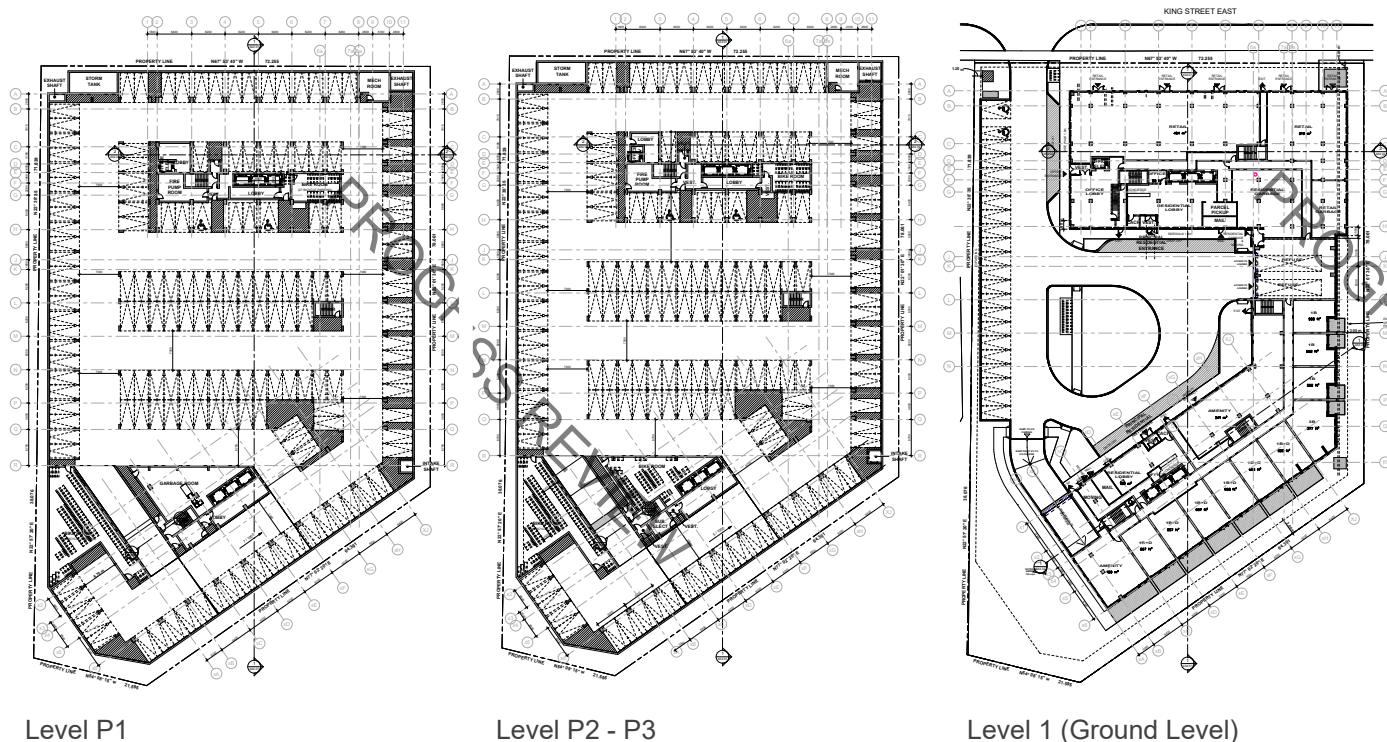


Fig.11: Floor Plans showing the below-grade and surface parking areas

5.8 Building Articulation

Design for Outdoor Comfort – CW Compatibility – CW | TB Built Form – CW | TB

The proposed design uses a contemporary aesthetic blended with traditional, contextual inspirations when it comes to articulation and materiality. Transparent glass, red and grey bricks, and dark metal panels are the core cladding materials used in a balance fashion along the podium base and up the towers. The building articulation and materiality is used together to establish a balanced solid-to-glass proportions that creates a contemporary aesthetic. This aesthetic is achieved in a varied method throughout the different components of the buildings and between towers, per below.

Ground Floor

The design emphasizes the pedestrian interaction with the double height ground floor (5 metres tall includes mezzanine space) containing commercial and office floor space along King Street E to provide a clear presence for retail and other active uses. Transparent glass extends the height

of the ground floor elevation interposed with lines of metal accents to demarcate divisions (horizontal and vertical), together with lower canopies over the commercial entrances.

Building Base

The articulation and materiality of the building base are distinguished between its lower and upper portions and among the different tower bases. This approach enhances the pedestrian scale of the building base, complemented by the upper base stepbacks.

For the lower base, from the ground floor through two stories, the design features a projecting volume extending over the pedestrian realm along the bases of Towers A and B. This section is clad in gray brick with a grid of window openings. In contrast, the upper base steps back from the lower base, transitioning to red brick cladding with a rhythmic arrangement of window openings and inset balconies.

On level 7, where indoor amenity rooms are proposed for Towers A and B, continuous curtain walls are planned on all sides to enhance the visual connection between the indoor spaces and the outdoor rooftop



Fig.12: Rendering of the proposed development from the driveway courtyard

terrace located between the two towers. This design element also creates a visual distinction between the shared base and the towers.

Tower

The tower design extends the materiality and articulation of the building base. Part of the towers features red brick cladding, consistent with the base on one side, and lighter masonry cladding on the other side with transparent glass. Darker metal elements are arranged vertically on the towers, unifying the base and tower components within a cohesive architectural aesthetic. These distinctions in the tower design add variety to the vertical perspective of the overall development.

Tower Top

The rooftop finish of each of the tower mechanical penthouses is clad and articulated differently to provide a refined skyline profile for the overall development.

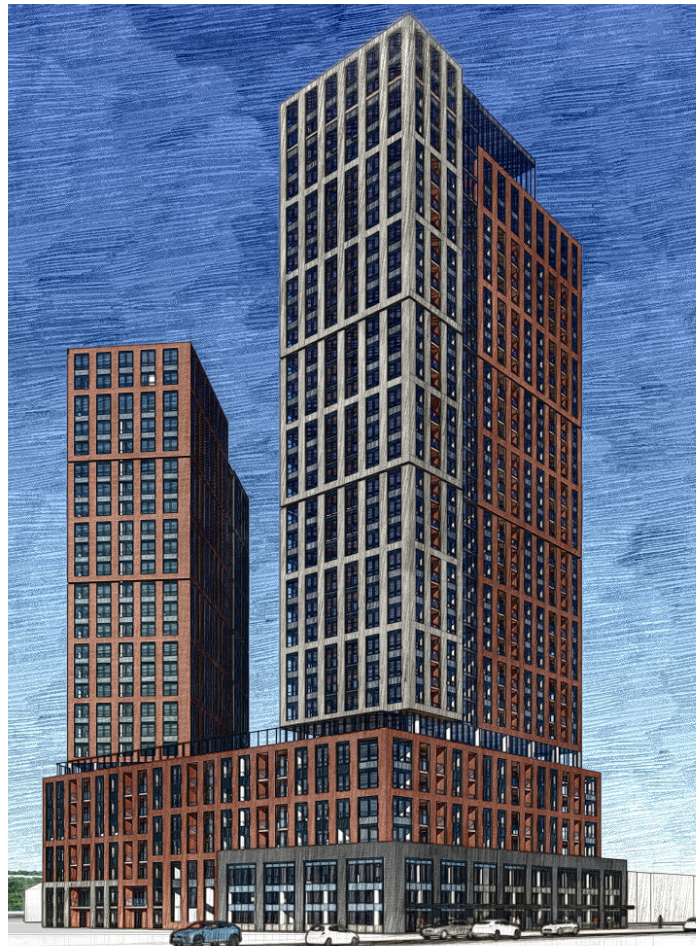


Fig.13: Renderings of the proposed development from King Street E looking west



Fig.14: Renderings of the proposed development from King Street E looking southeast

5.9 Street Landscape Design

Inclusive Design – CW Street Design – CW | TB Streets & Open Space – TB

The proposed building base positioning and arrangement supports a strong urban edge along the Site's King Street frontage. The proposed landscape design contemplates a continuous concrete paved design stretching the private property line. In this space, the design will consider seating opportunities and a regular row of the canopy trees along King Street E.

The proposed surface treatment blends into the private property with a similar hardscaped treatment, although differentiated in colour and pattern for accent. This treatment extends to the pedestrian circulation routes leading to the building entrances. The driveway surfaces will consider different-coloured decorative surface patterns to distinguish from the pedestrian routes. Smaller landscaped areas within the internal driveway courtyard providing opportunities for soft landscaping and integrated seating fixtures.

The ground floor of the Tower A base setback 5 metres from the property line provides opportunities for an assortment of sitting, patio and/or café areas associated with the ground floor commercial activities.

Detailed design will further explore and illustrate these public and public/private spaces. Lighting elements at the time of detailed Site Plan Approval design will address appropriate lighting levels for safety in these higher pedestrian activity areas. Opportunities for incorporating landscaping elements and surface treatment that promotes stormwater infiltration will be explored at detailed design.

PRECEDENT IMAGES



PRECAST UNIT PAVING BANDING



PRECAST UNIT PAVING DROP-OFF AREA



RETAIL STREETSCAPE WITH RAISED PLANTER CURB



TRELLIS COMPLEMENTARY TO BUILDING ARCHITECTURE



COLUMNAR TREES WITH UNDERPLANTING



BIKE SHELTER: OPEN OPTION



BIKE SHELTER: ENCLOSED OPTION



CONCRETE BENCH AND CUBE SEATING



CONCRETE CUBE SEATING



FOUNDATION PLANTING

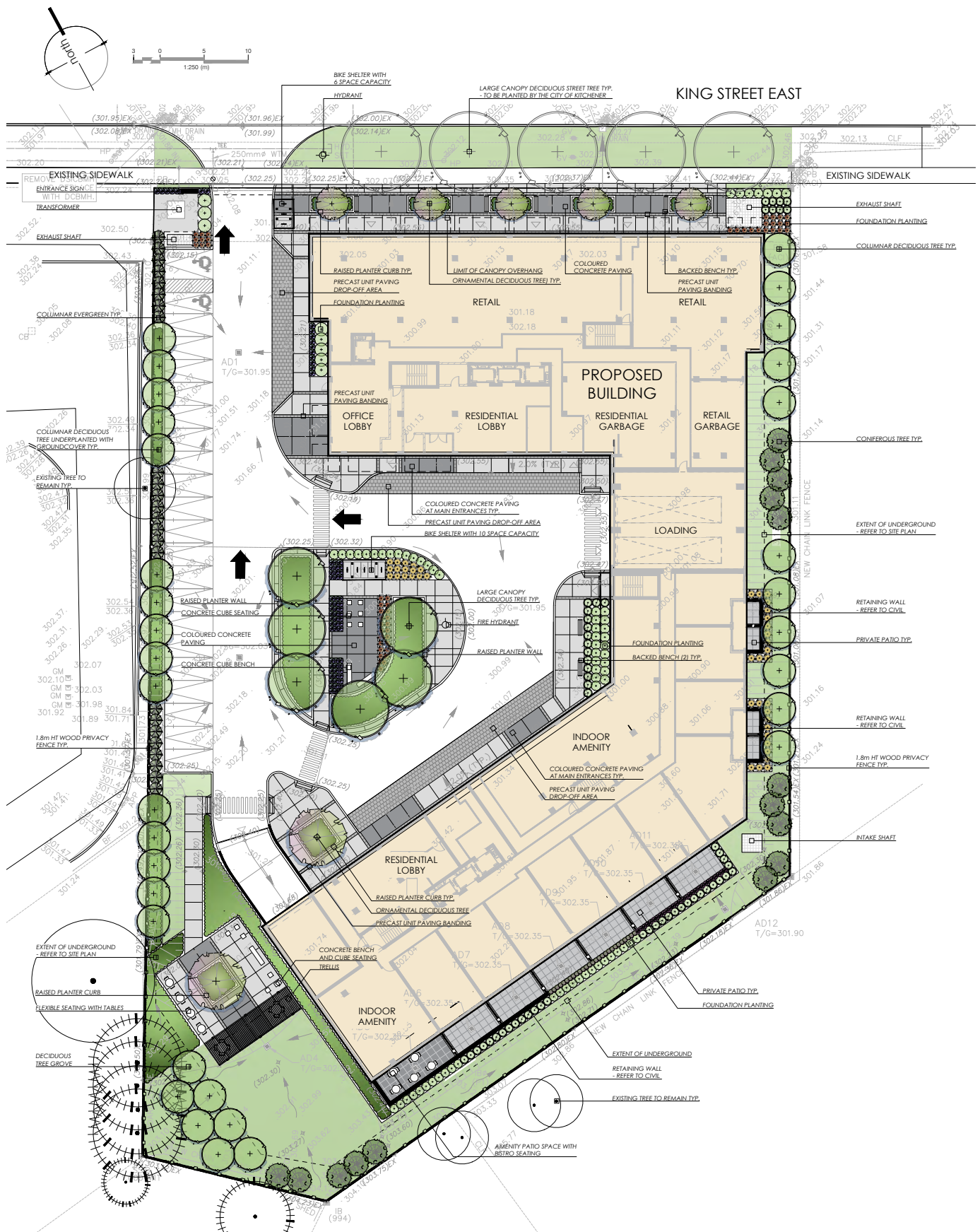


Fig.15: Landscape Plan prepared by Adesso Design Inc.

5.10 Amenity Areas

Shared Spaces – CW | TB

The proposed development plan includes a range of indoor and outdoor common amenity spaces for residents.

Building A and Building B feature indoor amenity rooms on Level 7, measuring 663 square meters and 690 square meters respectively. Additionally, Building B offers two indoor amenity rooms on the ground floor. One, facing the driveway courtyard with double height, covers an area of 241 square meters, while the other, overlooking the at-grade outdoor amenity area at the southwest corner of the site, measures 109 square meters. This outdoor amenity, spanning 750 square meters, provides further separation from Building B to the south-adjacent residential dwellings on Limerick Drive.

The indoor amenity rooms on Level 7 in both buildings overlook an outdoor rooftop amenity located between the towers, measuring 880 square meters. This outdoor plaza is designed for various social and amenity functions for residents, complementing the indoor spaces. Private balconies are proposed for individual units throughout the tower mass. The diversity of these spaces offers residents a range of options and enhances the architectural variation throughout the buildings.

- Indoor Amenity Area
- Outdoor Amenity Area

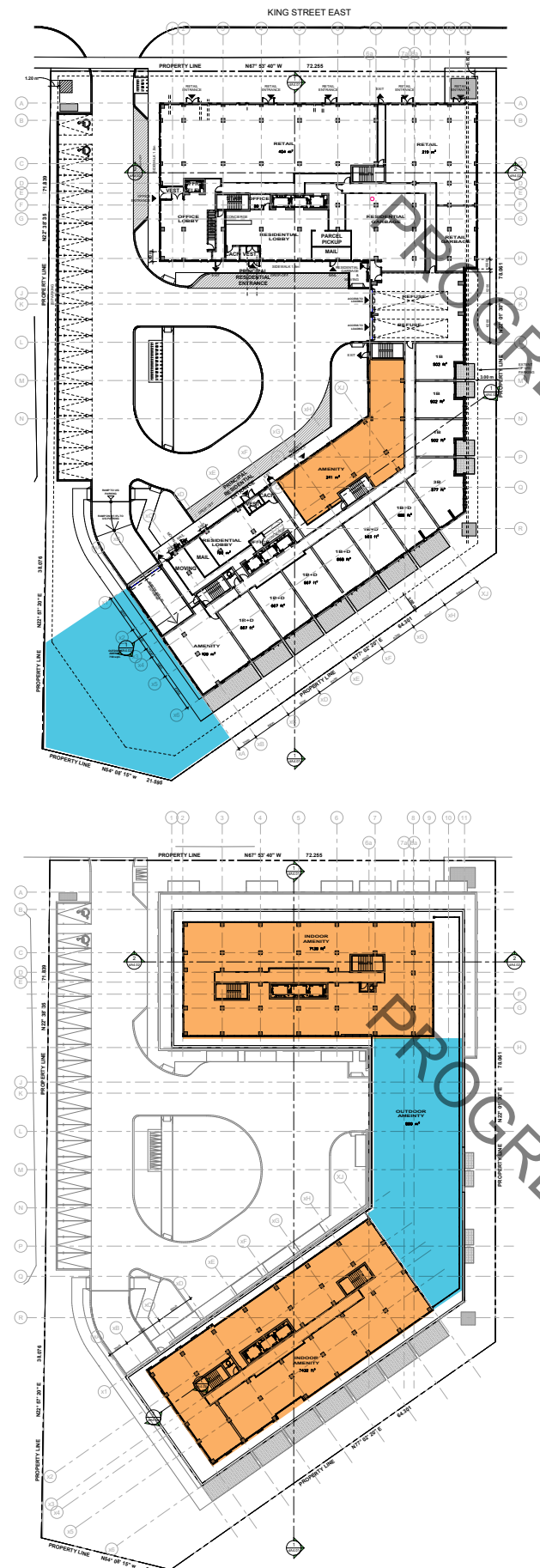


Fig.16: Floor Plans showing the amenity areas

5.11 Sustainable Design

The proposed mixed-use development aims to minimize its impact on municipal infrastructure and the environment through various green strategies:

Site Layout and Transportation

Pedestrian and Cyclist Connectivity: The site layout will provide direct and convenient connections for pedestrians, improving comfort levels for active transportation users, including cyclists and transit users. This design encourages the use of sustainable transportation modes.

Transit Proximity: Located near the future Stage 2 ION Station in Sportsworld and adjacent to the Sportsworld Crossing Plaza, the development supports car-free living by leveraging existing local transit routes.

Parking and Transportation

Minimized Surface Parking: Most parking will be provided below grade to reduce the heat island effect.

Bicycle Parking: Bicycle parking spaces will be available both at grade and below grade to promote alternative modes of transport and active transportation.

Building Orientation and Design

East-West Alignment: Buildings will be oriented along an east-west axis to maximize southern exposure, allowing for passive solar gain through generous transparent glazing.

Bird-Friendly Design: Incorporating bird-friendly window applications, such as patterned or fritted glass and non-reflective glass, along with awnings and overhangs to reduce bird collisions.

Dark Sky Pedestrian Lighting: Pedestrian lighting will be dark sky compliant, enhancing

safety and usage of pedestrian routes.

Green Roofs: Large podium rooftops will feature white roofs and planting details to further reduce heat island effects.

Waste Management and Construction

Internal Garbage Areas: Buildings will have internal garbage areas with systems for sorting garbage, recyclables, and organic waste.

Construction Waste Management: Opportunities for optimized waste management during construction will be considered.

Sustainable Materials: Preference will be given to local manufacturers or suppliers for durable, renewable, and recycled construction materials, minimizing indoor air quality impacts through low VOC-emitting materials.

Water and Energy Efficiency

Water Efficiency: Indoor water design will meet Ontario Building Code standards, featuring water-efficient fixtures such as low-flush and dual-flush toilets. Planting plans will use native and drought-tolerant species with minimal irrigation needs.

Energy Efficiency: The building design will adhere to Ontario Building Code standards for energy efficiency, including:

- Effective thermal resistance of doors and windows.
- Energy conservation glazing exceeding standard Code requirements.
- Air barrier systems for infiltration control.
- Centralized HVAC systems with programmable thermostats.
- Internal lighting with automatic controls to shut off nonessential lighting.

- Programmable and/or sensed internal lighting control devices.
- Residential units will feature Energy Star appliances, energy-efficient lighting, programmable thermostats, and high-efficiency mechanical systems.
- Low-flow plumbing fixtures to reduce water consumption.

Through these strategies, the development aims to create a sustainable, efficient, and environmentally friendly community.

5.12 Microclimate Impact Analysis

Design for Sustainability – CW Environment – TB

5.12.1 Shadow Analysis

Shadow impacts are reasonable where they maintain a certain threshold of sunlight on different spaces and areas. For private properties, generally the common municipal criterion is 4 hours of sunlight on private amenity areas. For the public realm, the Tall Building Guidelines specifically identify that shadow analysis should demonstrate how a proposed building maintains “daily access to at least 5 hours of cumulative direct sunlight under equinox conditions” on nearby open spaces and sidewalks.

The Shadow Analysis modelling in Appendix A shows the potential shadowing from the proposed development. It models hourly times for the period generally 1.5 hours after sunrise and 1.5 hours before sunset for each of June 21, September 21, and December 21. It reflects the new “net” shadows cast by the proposed development, over and above the existing shadows cast by the existing built fabric.

The Site is adjacent to an arterial road to the north, which has no existing sidewalks in front of it, and is bordered by open space

or a maintenance yard to the east and a commercial plaza to the west. The only sensitive use surrounding the site is the low-rise residential properties to the south.

Given this context, the shadow study primarily evaluates the impact on the low-rise residential properties to the south. During March, June, September, and December, there are no shadow impacts on these residential properties, as the shadows are mostly cast towards the northeast and northwest sides of the surrounding Site.

The outdoor rooftop amenity area between the towers and the at-grade outdoor amenity area generally receives four hours of sunlight during March, June, September, and December.

Based on this analysis, the shadows cast by the proposed development are reasonable and adhere to general criteria. While the December 21 period offers less than the suggested 4 hours of sunlight on outdoor spaces, this is mitigated by the limited use of outdoor spaces in December.

5.12.2 Pedestrian Wind Impact Analysis

RWDI prepared the Pedestrian Wind Study that assessed the potential wind comfort and safety conditions on and surrounding the Site resulting from the proposed development. The Study was based on computer-based modelling of the proposed development under existing and proposed conditions. Although much of the Subject Site would have satisfactory conditions, the Study recommends wind control features through detailed design to improve pedestrian comfort in locations with higher than desired wind conditions. The Study makes the following conclusions:

Entrance and Drop-off Areas

The main entrances to the proposed towers are located in a semi-enclosed area, expecting low wind activity. Suitable wind conditions for sitting or standing are expected in the summer, while higher wind speeds comfortable for strolling or walking are expected in the winter. Retail entrances along the north façade of Building A will have suitable wind conditions year-round, but the drop-off area on the west side may experience higher wind speeds than desired. To improve wind conditions at entrances and drop-off areas, recessing doors, adding screens or planters, and installing trellises with wind screens and landscaping are recommended.

Sidewalks, Walkways, and Parking Lots

Wind conditions are predicted to be appropriate year-round for most sidewalks, walkways, and parking lots. However, higher wind speeds may occur at the exposed western corners of the buildings in winter. Mitigation measures such as modified corner massing, corner-wrapping canopies, dense coniferous landscaping, and wind screens are recommended.

Amenity Terraces

The outdoor amenity space southwest of Building B will have comfortable wind speeds for strolling in summer and walking in winter. Lower wind speeds can be achieved with perimeter landscaping or screens, and additional local wind control measures like bushes and trellises around seating areas.

The Level 6 podium amenity area will experience high wind speeds, potentially exceeding safety limits. To mitigate this, tall guardrails (at least 2.5m) along the west and east edges, as well as landscape elements, portable canopies, and screens, are recommended.

Wind-tunnel testing is recommended at a later design stage to further assess and mitigate wind impacts.

6. SUMMARY

The proposed development includes two residential towers, Building A and B, which are 30- and 25-storeys tall, respectively. Building A and B are joined together through the inclusion of a 6-storey podium, which contains at-grade retail space as well as second-floor office space and an outdoor terrace amenity space. Parking and Site functions (including loading, drop-off, and garbage collection) are located within the interior of the U-shaped building. The building is arranged on the Site to face King Street E while using the Site's unique shape to maximize the highest and best use of the Site while still being respectful of the low-rise context to the south and the commercial context to the west. The scale of the building, with the appropriate front-, side-, and rear-yard setbacks and building articulation contribute to a human-scaled streetscape and site design while being designed in a way that is high quality and contributes to an attractive and engaging streetscape. The towers have also been designed and articulated to maximize sky views and access to sunlight through compact slab floorplates and tower setbacks in all sides.

The proposed development takes good advantage of the Site's proximity to current and future transit, while prioritizing active transportation with the inclusion of bicycle storage and is representative of good planning.

The proposed development aligns with the Urban Design policies outlined in the City of Kitchener Official Plan and reflects the guidance provided in the City's Urban Design Manual, particularly the Tall Building Guidelines. It is well-suited to the immediate and broader surrounding context and embodies principles of good urban design.

APPENDIX A

Shadow Study



