



Final

Urban Design Brief

50 Borden Avenue South, Kitchener

Official Plan and Zoning By-Law Amendment Application



IBI GROUP

Prepared for 2806399 Ontario Inc. and Woodhouse Investments Inc.
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1 Introduction

On behalf of our client, 2806399 Ontario Inc. and Woodhouse Investments Inc., we are pleased to submit this Urban Design Brief (“Brief” or “UDB”) as part of the complete Official Plan and Zoning By-Law Amendment application for the proposed development on the subject lands municipally known as 50 Borden Avenue South in the City of Kitchener (“Subject Lands”, “Site” or “Subject Property”).

Our client is proposing to develop the subject property to accommodate a mixed use development consisting of 1,224 dwelling units. A total of two (2) towers are proposed on-site. Tower 1 proposes a height of 57-storeys at the north-eastern corner of Borden Avenue and Charles Street East. Tower 2 proposes a height of 51-storeys at the south-western corner of the subject property. A total of 312.6 m² commercial/retail space is provided from the ground floor to second floor. A total of 6,926.7 m² institutional space is proposed from the ground floor to sixth floor.

In order to permit the proposed development, an Official Plan Amendment/Mill Courtland Woodside Park Secondary Plan Amendment and Zoning By-Law Amendment are required. This Report has been prepared as part of the complete Official Plan Amendment and Zoning By-Law Amendment applications required to advance the proposed development.

This Urban Design brief has been prepared as part of the complete Official Plan Amendment and Zoning By-Law Amendment applications for the proposed development and provides an overview of the proposed design of the building and how it conforms to the planning policy, zoning, and urban design framework applicable to the property, including the City of Kitchener Official Plan, Urban Design Manual, and Tall Building Design Guidelines.

2 Background

The subject property is municipally known as 50 Borden Avenue South in the City of Kitchener and legally identified as follows:

PT PARKLT 25 PL 404 KITCHENER; PT LT 171 STREETS & LANES KITCHENER PT 1, 58R2633, SAVE & EXCEPT PTS 2 & 3 ON WR769305 & PTS 7 & 8 ON WR838571; PTS 1 & 2 ON WR859435 & PART 1 ON 58R-18475; S/T 250238, 338603E SUBJECT TO AN EASEMENT IN GROSS OVER PT PARK LT 25 PL 404 BEING PT 3 ON 58R18049 AS IN WR902342 CITY OF KITCHENER.

The subject property is located at the corner of Charles Street East and Borden Avenue South. The subject lands have an approximate total area of 0.711 hectares, an estimated frontage of 69.6 metres along Charles Street East and an approximate flankage of 73.31 metres along Borden Avenue South. An aerial image of the subject property is shown in Figure 1 below.

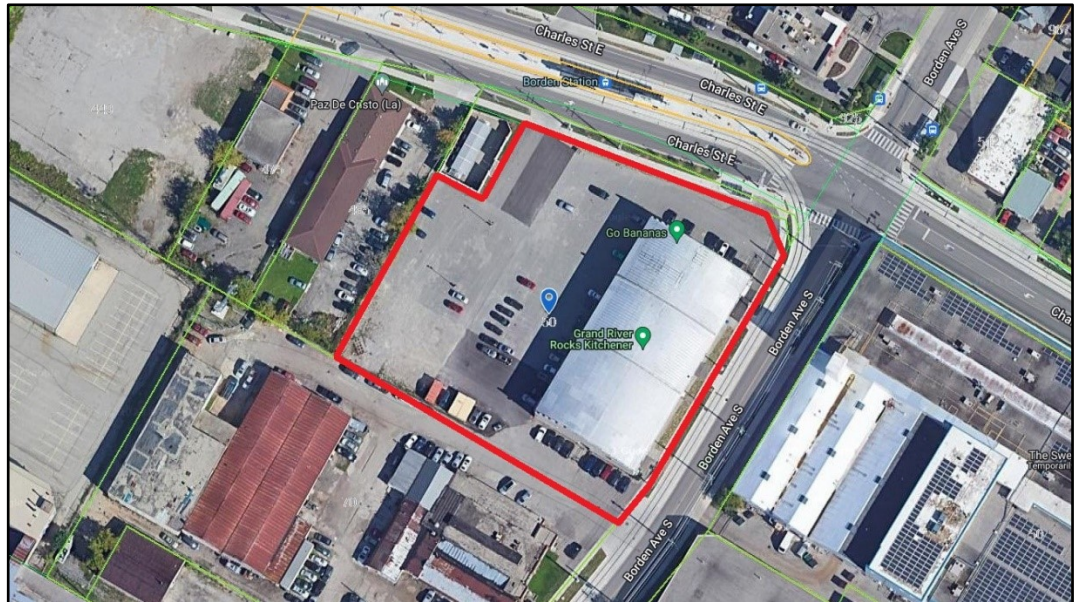


Figure 1: Aerial View of the Subject Property (Source: GeoWarehouse)

2.1 Site Location and Existing Conditions

The subject property currently contains a recreational building that is occupied by “Go Bananas” and “Grand River Rocks”, which are indoor climbing and bouldering commercial recreational facilities. The existing building is located adjacent to the Borden Avenue South property line. Parking for the current use exists along the western portion of the site, as well as the front and rear of the existing building. There is currently (2) vehicular access to the site. One from Borden Avenue South, and one along Charles Street South. The site contains little to no vegetation on the property, as the lands are completely developed.

Figures 2 to 5 below provide Streetview images of the subject property.

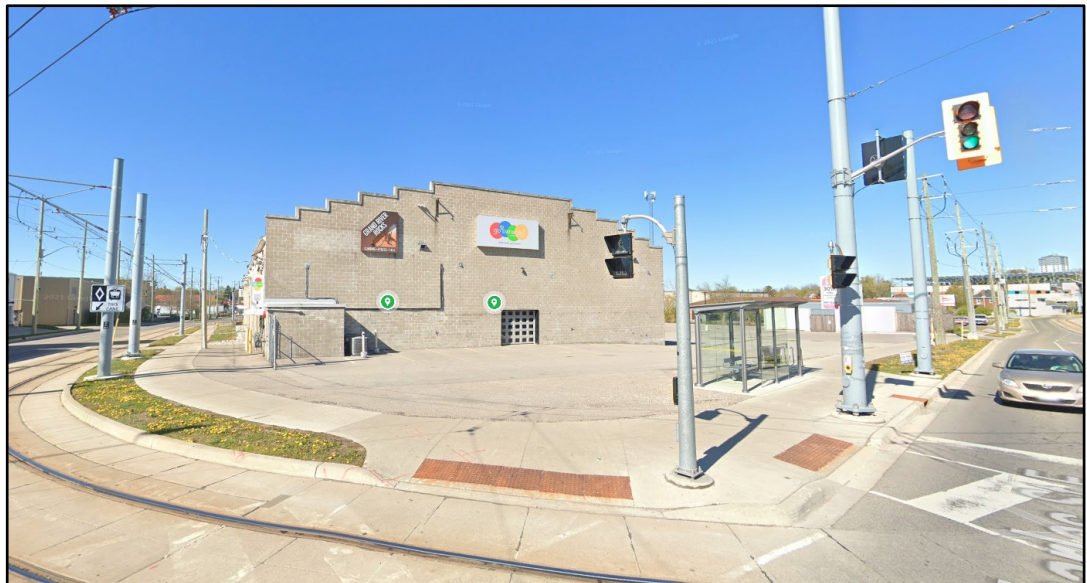


Figure 2: Streetview of the Subject Property, facing Southwest at the corner of Charles Street East and Borden Avenue South (Source: Google Maps)



Figure 3: Streetview of the Existing Access, facing South from Charles Street East (Source: Google Maps)

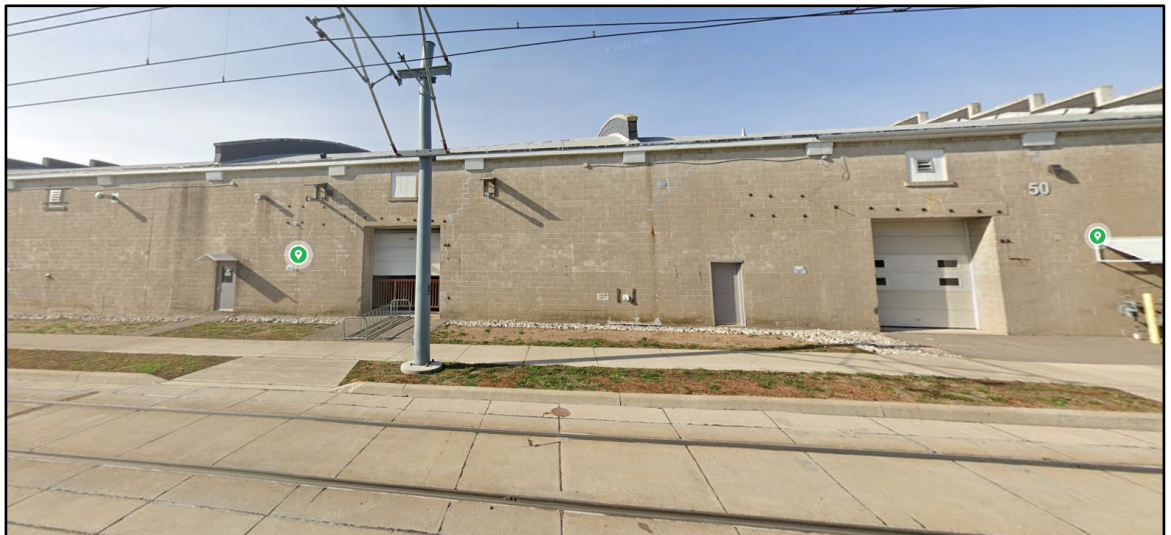


Figure 4: Streetview of the Existing Building, facing West from Borden Avenue South (Source: Google Maps)



Figure 5: Streetview of the Existing Access, facing West from Borden Avenue South (Source: Google Maps)

2.2 Neighbourhood Context

The subject lands are located within the Built-Up Area of the City of Kitchener. The subject lands are surrounded by a range of uses including employment, retail, commercial, open spaces, and residential. The subject lands are bounded by employment uses to the south, Borden Avenue South to the east, a place of worship (Paz De Cristo) to the west, and Charles Street East to the north.

To the north exists the ION's Borden Station that has been operational since 2019. A Tim Hortons and various restaurant and retail uses are located north of the subject property. King Street East is also within walking distance of the subject property, which contains a range of uses to the east and west.

South of the subject lands are predominantly employment uses. These uses range from automotive services, distribution centres, recreational facilities, and light manufacturing/fabrication shops. The proposed commercial/retail units on the ground floor of the development may benefit those working within the employment area that are within walking distance.

To the east exists a commercial/office building with a range of occupants. These occupants include storage services, printing services, and a small bakery. Further east along Charles Street exists low-rise residential dwellings, as well as a range of commercial uses in the form of low-rise residential buildings.

West of the subject lands is commercial / retail uses, an automotive service shop, as well as Cameron Heights Collegiate Institute further down Charles Street East. In the broader context of the City, the Urban Growth Centre is also located northwest of the site and can be accessed by the ION's LRT system via Borden Station.

Green space within proximity of the site includes Kaufman Park to the west and Knollwood Park to the north. The Iron Horse Trail is also south of the subject property, abutting Schneider Creek, which provides access to the City's trail network and Victoria Park to the west.

The proposed development is well connected to a number of transit stops. Most notably, the ION’s Borden Station that is located immediately north of the subject property and is within walking/cycling distance. A number of GRT bus stops pertaining to routes 2, 7, and the 205 are also within walking distance of the proposed development. Given the site’s proximity to public transit facilities, this will provide future residents greater mobility and access to goods and services throughout the City and Region.

The proposed development has consideration for the planned function of the immediate area, being located adjacent to Charles Street East and the King Street East corridor. The proposed development would act as a logical extension of high-density, transit-oriented development occurring along this corridor. For example, it is understood that a development of similar nature is currently under review at 1027 King Street East (just east of the subject property). The applicant is proposing a 30-storey, mixed-use development with a Floor Space Ratio of 9.05. The planning approvals for the Official Plan Amendment and Zoning By-Law Amendment are currently under review. It is our opinion that the proposed mixed-use development would certainly reflect the transit-oriented, high density nature of development occurring in a transitioning area of the City.

The following table highlights a number of the notable land uses in proximity to the proposed development. This table is to be read in conjunction with the Neighbourhood Context Map, or Figure 6 below.

No.	Description
1	Borden Station
2	Employment Uses
3	Commercial / Retail Uses
4	Low Rise Residential
5	First Mennonite Church and Cemetery
6	Commercial / Retail Uses
7	Cameron Heights Collegiate Institute
8	Kaufman Park
9	Iron Horse Trail
10	Urban Growth Centre
11	Kitchener Memorial Auditorium
12	Rockway Golf Course

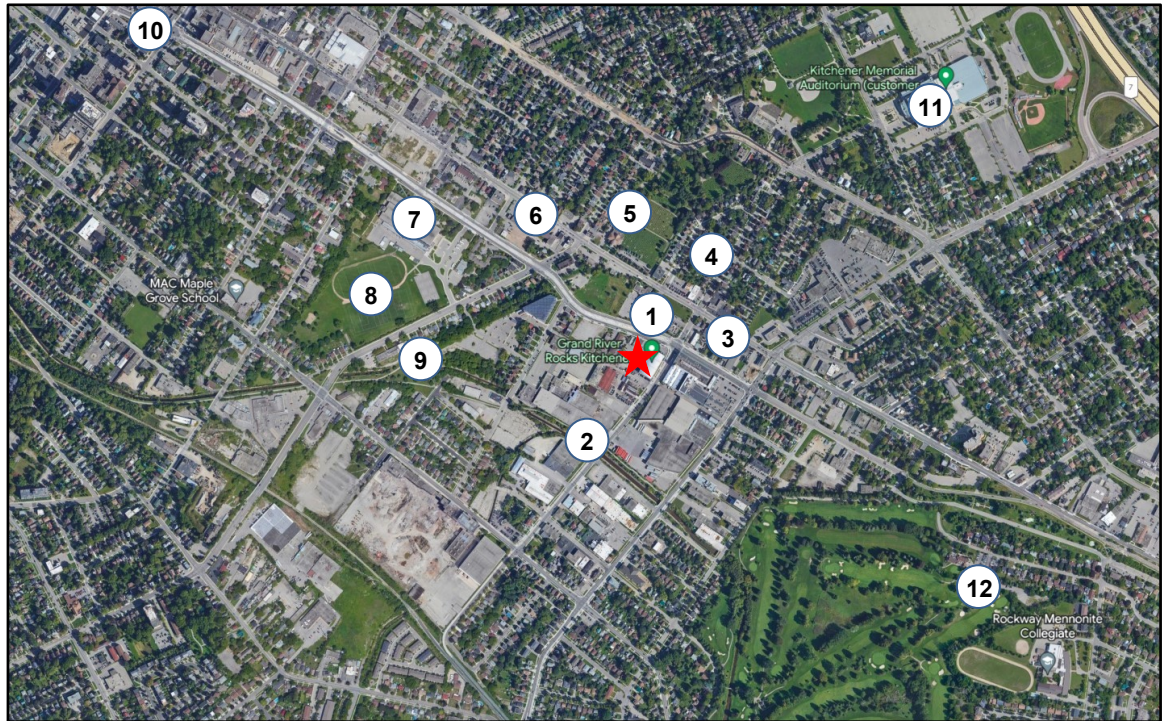


Figure 6: Neighbourhood Context (Source: Google Earth)

The following Figures show images of nearby land use and/or buildings within close proximity of the site.



Figure 7: Borden Station, facing North from Charles Street East (Source: Google Maps)



Figure 8: Commercial Development, 50 Ottawa Street South facing Southeast from Charles Street East
(Source: Google Maps)

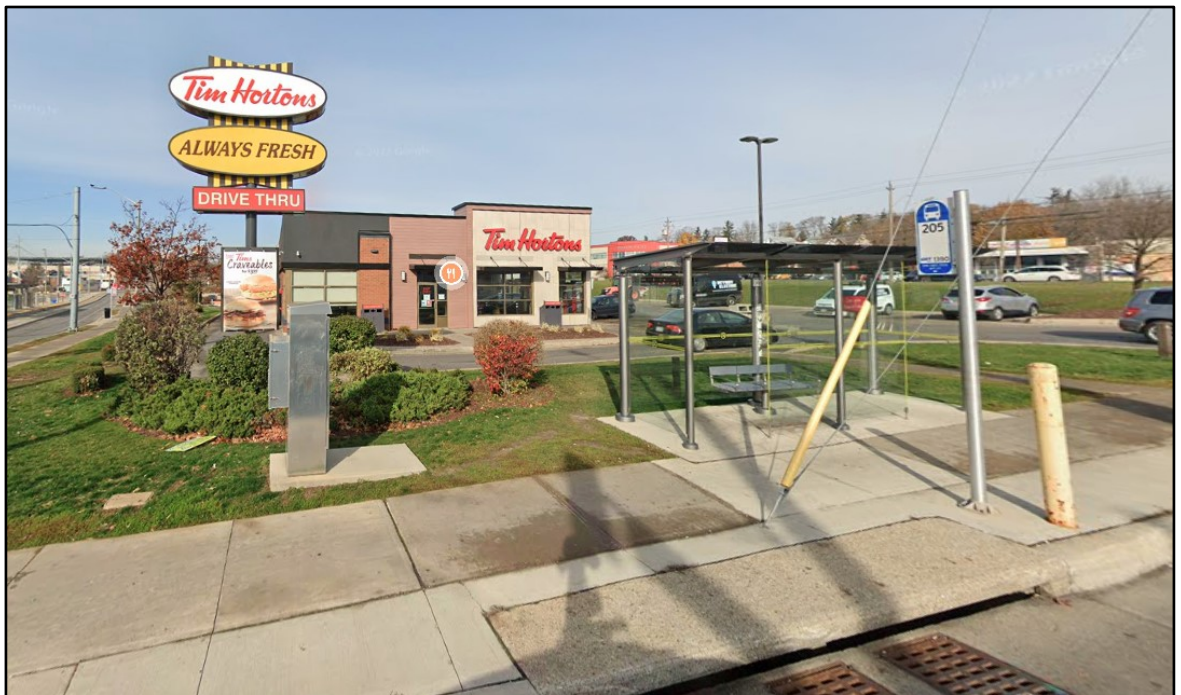


Figure 9: Tim Hortons and GRT Bus Stop (Route 205), 925 King Street East facing West from Borden Avenue South (Source: Google Maps)

3 Proposed Development

Our client is proposing to develop the subject property to accommodate a mixed-use development, consisting of 1,224 dwelling units. Two (2) towers are proposed on-site. Tower 1 proposes a height of 57-storeys at the northeastern corner of Borden Avenue and Charles Street East. Tower 2 proposes a height of 51-storeys at the southwestern corner of the subject property. The proposed shared podium is 6-storeys in height and transitions to 13-storeys to connect both towers.

This applicant is proposing a phased development, as Tower 1 will be part of Phase 1, and Phase 2 will be addressed during Phase 2.

The proposed 1,224 dwelling units will be located above the ground floor, starting from the third floor and beyond. The proposed development will include both 795 one-bedroom units and 429 two-bedroom units.

A total of 312.6 m² commercial/retail space is provided from the ground floor and spans to the second floor with high ceilings. The commercial/retail units are located at the corner of the podium/intersection of Charles Street East and Borden Avenue South.

Further, a total of 6,926.7 m² institutional space is proposed from the ground floor and spans to the sixth floor. One of the institutional spaces is located along the frontage of Charles Street East, while the second institutional space is located to the rear, below Tower 2.

The proposed development features combined lobby and amenity space in the ground floor. One is dedicated to each tower. A number of indoor amenity spaces/rooms are provided on floors 9 to 13 and can be accessed within the podium by residents of both towers.

The proposed development contemplates outdoor amenity space to the rear of the site, as this area is impacted by the GRCA regulated 'Flood Fringe'. The specific details and programming of the proposed outdoor amenity space will be determined at the Site Plan Approval stage, however, the intent is to create a space with extensive landscaping for a unique sense of place. Please see Sheet 1.4 (Reference Images) in the architectural package prepared by Edge Architects Ltd. for reference.

The proposed development provides a total of 618 parking spaces. The site will feature one (1) level of underground parking that will be designed with floodproofing measures. The remaining parking levels are located above-ground and integrated into the podium from levels 1 to 8. The proposed development has been designed to seamlessly blend or integrate the parking levels into the podium in order to minimize visual impacts of parking from the public realm. The proposed parking structure can be accessed from both Charles Street East and Borden Avenue South.

3.1 Site Plan

As shown in Figure 10 below, a Site Plan was prepared by Edge Architects Ltd. for the proposed Official Plan and Zoning By-Law Amendment submission. The proposed development will have two (2) lobbies/entrances, one for each tower. The lobby for Tower 1 is located in the north-eastern corner of the site, with access from Borden Avenue South. The lobby for Tower 2 is located in the south-western corner and can be accessed from Charles Street South. This will provide access to the elevator and amenities within each tower. Independent accesses for the non-residential uses are also provided.

The site is proposed to have two (2) vehicular accesses from Borden Avenue South and Charles Street East, one on the east and the other on the north side of the site. These accesses will provide access to the parking structure, specifically the one (1) level of underground parking and

eight (8) levels of the above-ground parking integrated with the podium. This also provides access to the loading spaces and garbage collection.

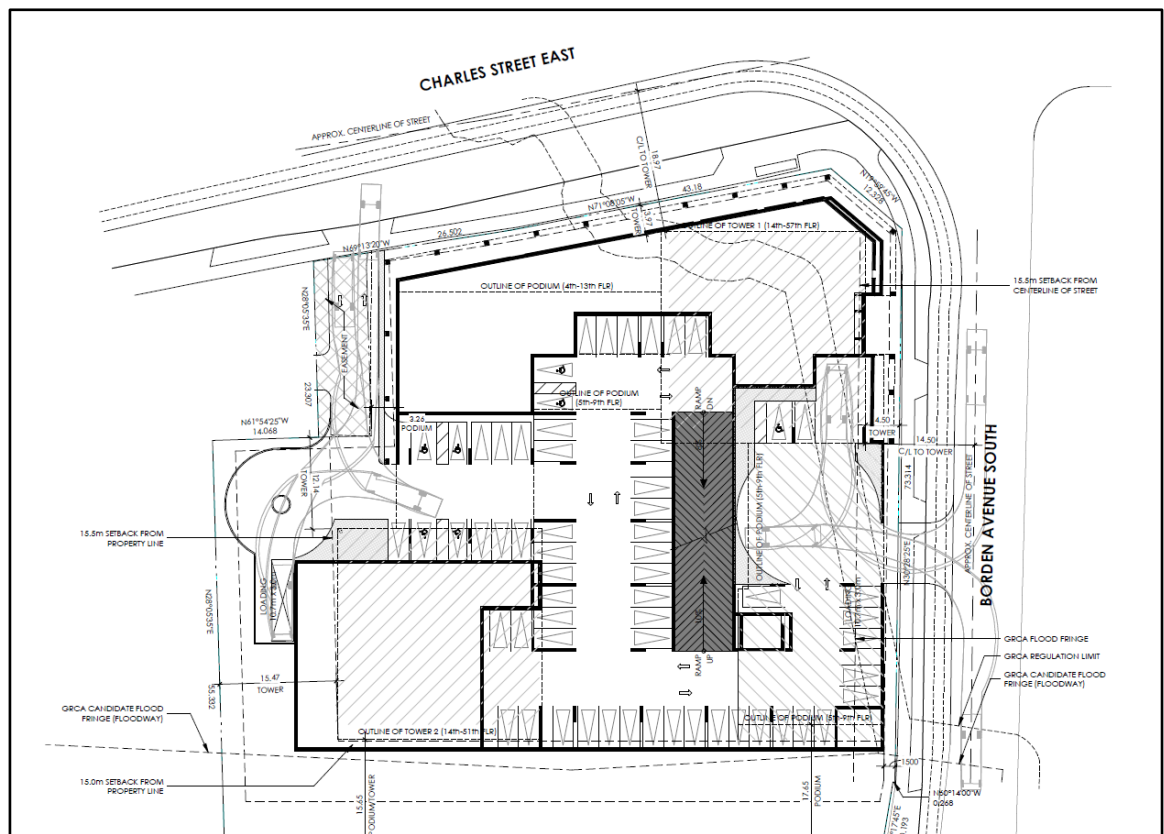


Figure 10: Site Plan prepared by Edge Architects Ltd.

3.2 Elevations

Figures 11 to 14 show Building Elevations from various perspectives of the proposed development. At this time, building materials for the proposed podium and tower have yet to be determined at the OPA/ZBA stage and will be provided and refined during the Site Plan Approval stage. Notwithstanding this, the proposed materials and articulation of the development will be designed to capture an aesthetically pleasing look considerate of the City’s urban design objectives. Please also refer to Sheets 1.3 and 1.4 of the architectural package prepared by Edge Architects Ltd., illustrating precedent images of design elements to be incorporated into the final design.

3.2.1 North Elevation

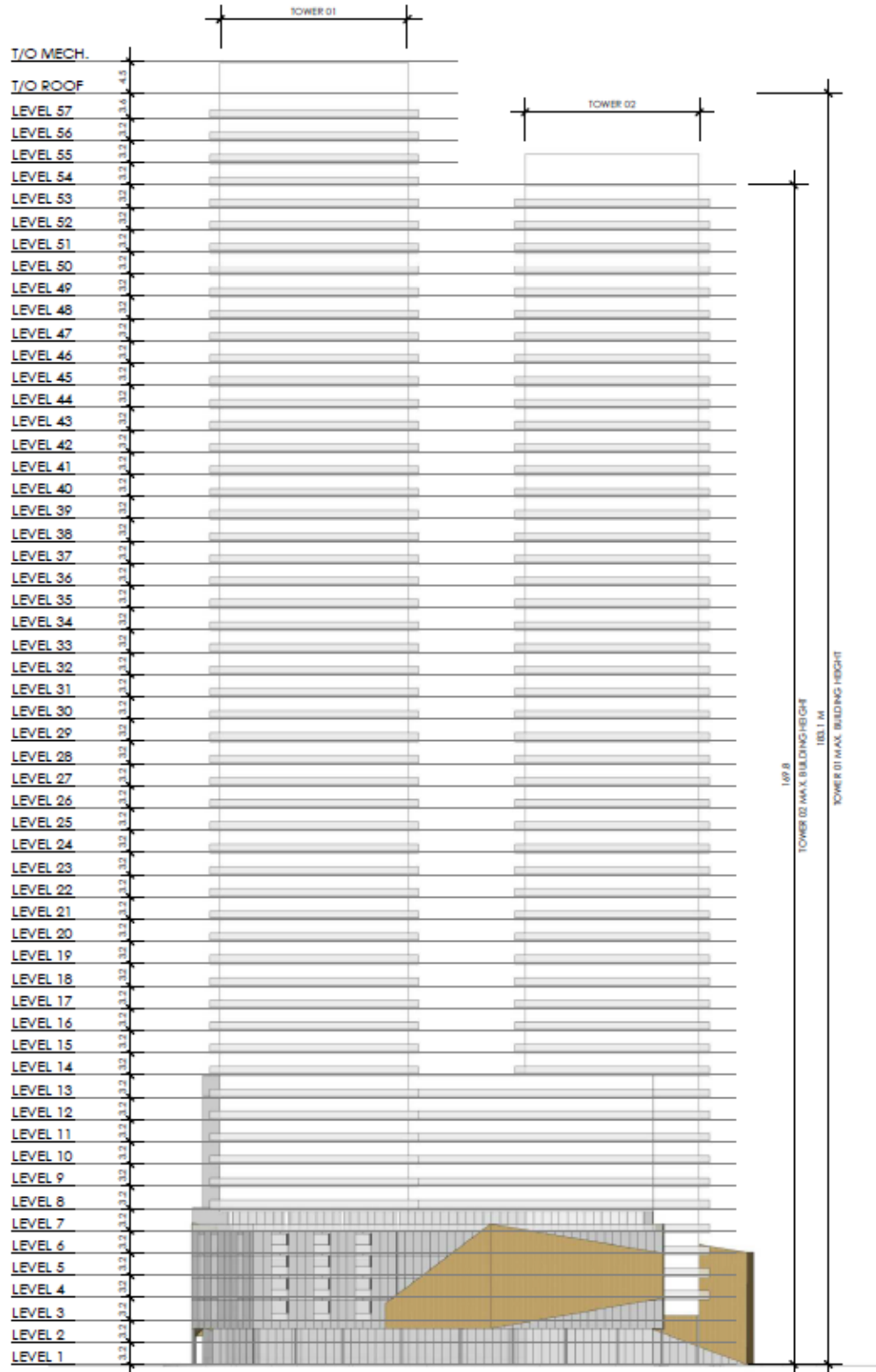


Figure 11: North Elevation Plan prepared by Edge Architects Ltd.

3.2.2 West Elevation

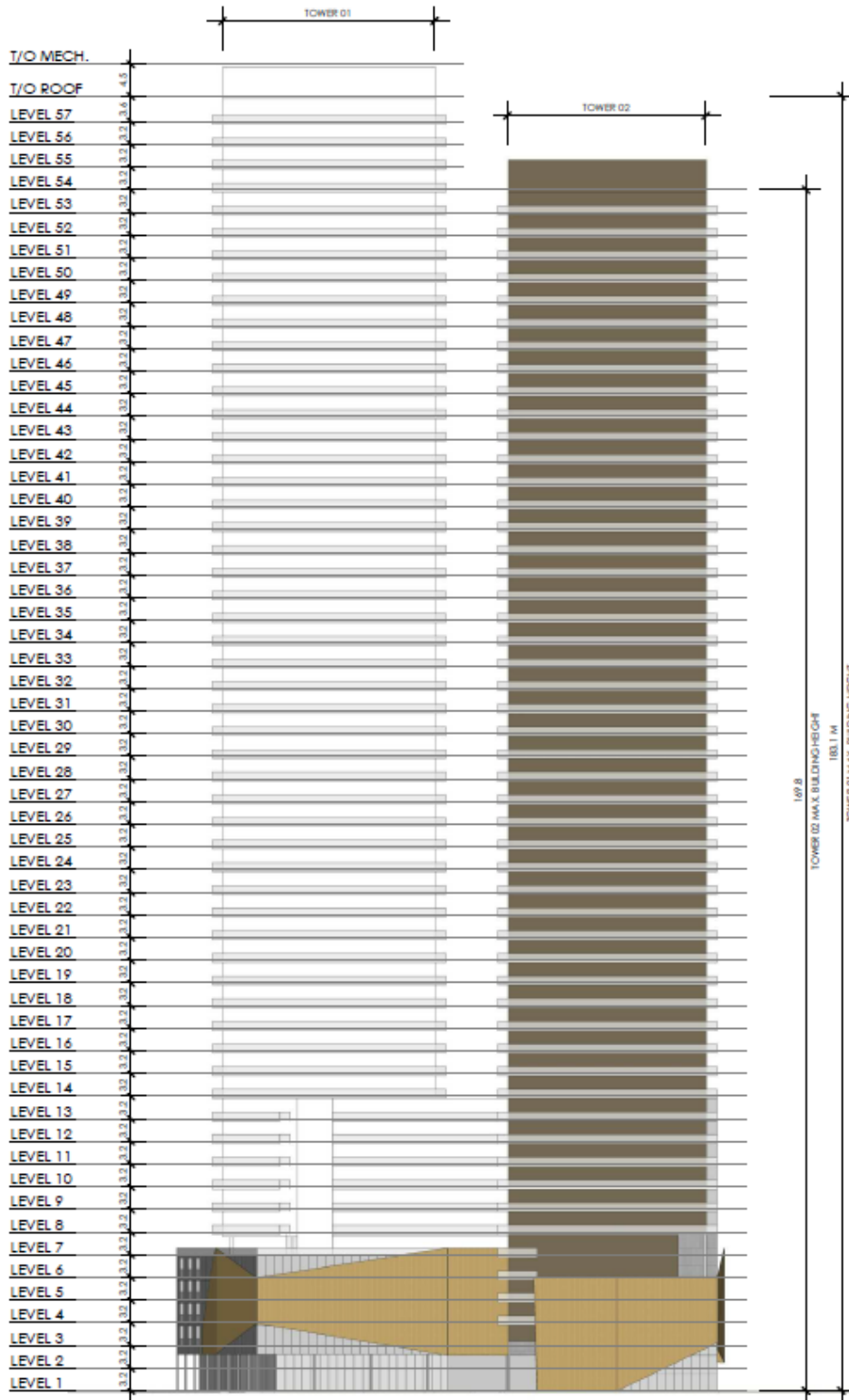


Figure 12: West Elevation Plan prepared by Edge Architects Ltd.

3.2.3 South Elevation

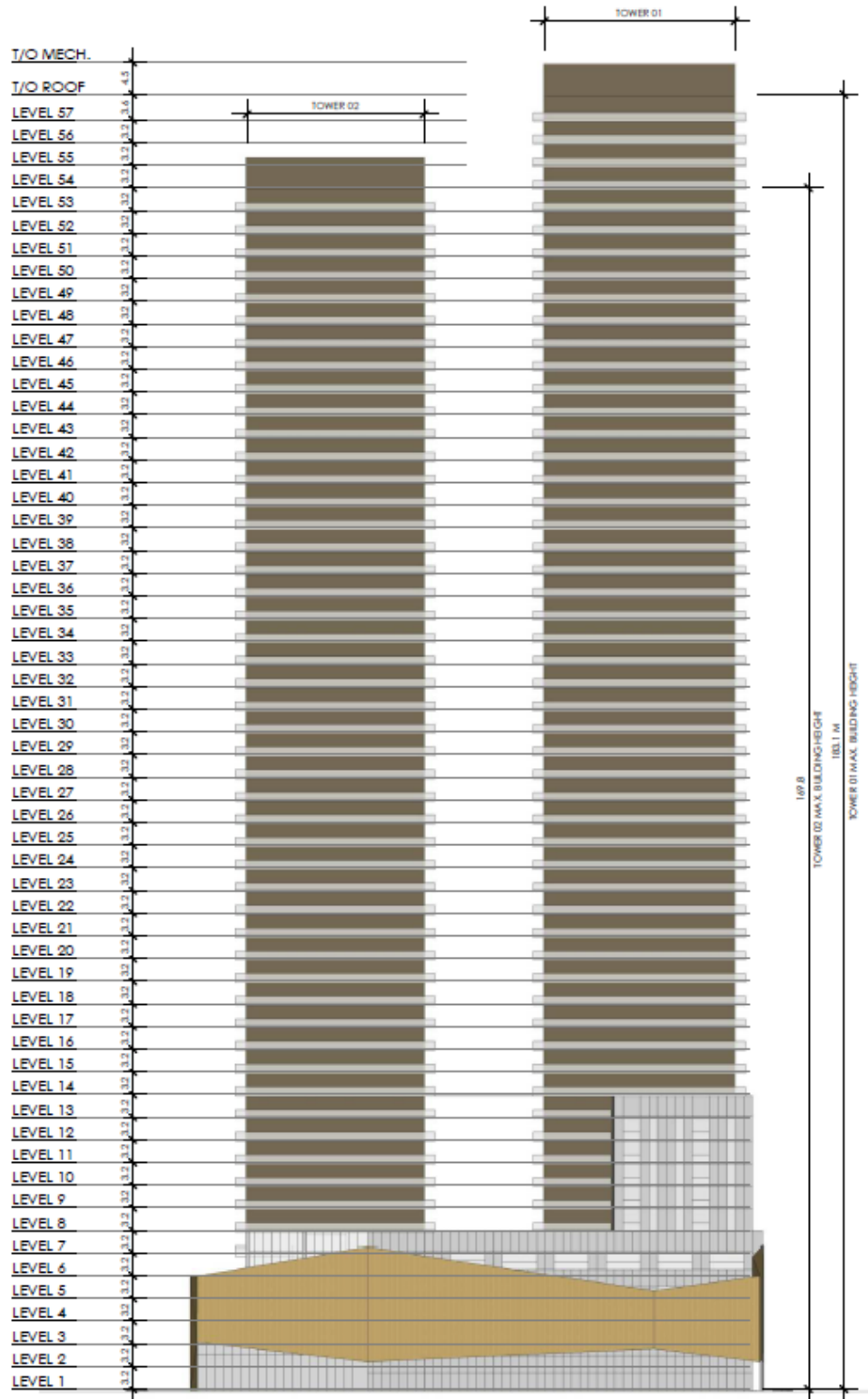


Figure 13: South Elevation Plan prepared by Edge Architects Ltd.

3.2.4 East Elevation

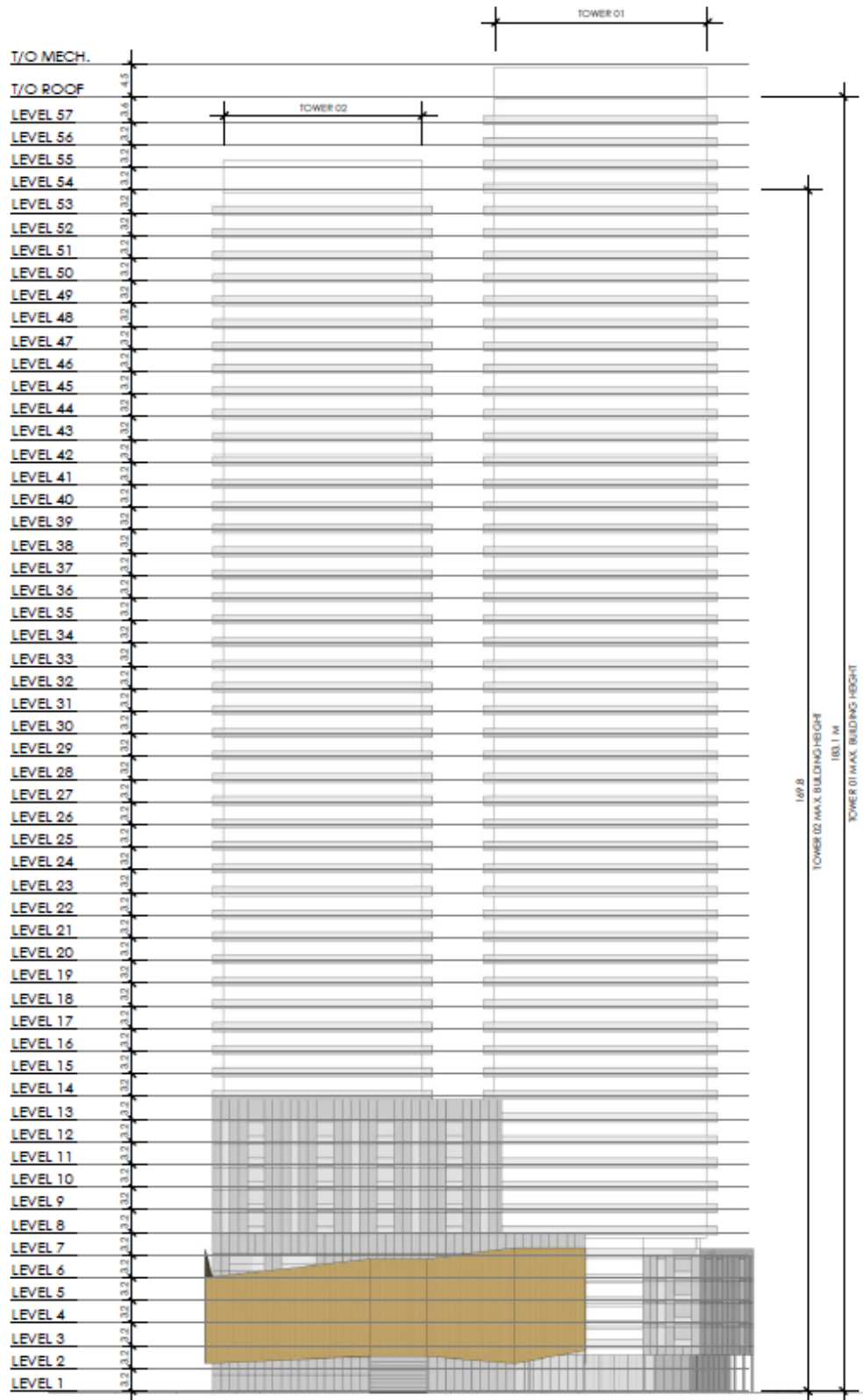


Figure 14: East Elevation Plan prepared by Edge Architects Ltd.

4 Land Use Planning Framework

The use and development of the subject lands is guided by a range of legislation, policies, plans, and regulations including the following:

- Planning Act;
- Provincial Policy Statement;
- Growth Plan for the Greater Golden Horseshoe;
- Region of Waterloo Official Plan;
- City of Kitchener Official Plan;
- Mill Courtland Woodside Park Secondary Plan;
- Planning Around Rapid Transit (PARTS) Rockway Plan;
- City of Kitchener Zoning By-Law, and;
- City of Kitchener Urban Design Manual.

Generally, provincial and regional plans/policies defer urban design direction to lower-tier policy documents, and accordingly are not discussed in this Brief. The following subsections of this Urban Design Brief discuss the City's urban design policies outlined in the City of Kitchener Official Plan and the City of Kitchener Urban Design Manual.

4.1 City of Kitchener Official Plan

Section 11 of the City of Kitchener Official Plan outlines urban design objectives and policies to ensure growth and development in the City achieves a high standard of urban design. The proposed development has been designed to reflect the following urban design objectives of the Official Plan:

- To support and achieve a high standard of urban design in order to help create a complete and healthy community that is safe, attractive, thriving, innovative and inclusive in which to live, work and interact.
- To create visually distinctive and identifiable places, structures and spaces that contribute to a strong sense of place and community pride, a distinct character and community focal points.
- To create a built environment of human scale that respects and enhances cultural heritage resources, natural heritage features, community character and streetscape.
- To design individual site elements, buildings, structures and spaces to have mutually supportive relationships with one another and with the overall urban fabric and interrelated networks and systems.
- To minimize and mitigate potential adverse impacts of development and infrastructure works on surrounding land uses, the built and natural environments, the integrated transportation system and infrastructure through careful design considerations and solutions.
- To create a safe, secure and walkable community dedicated to pedestrian activity.
- To promote and recognize excellence and innovation in architecture, urban design, sustainable building design and landscape design.
- To encourage and support the provision of public art in private and public developments.

In our opinion, the proposed development conforms to the urban design objectives noted above for the following reasons:

- The proposed development aims to achieve a high level of urban design that is both contemporary and respectful of the surrounding context based on the proposed massing and articulation of the towers.
- The proposed development is compatible with the planned function of the area, being adjacent to the ION's Borden Station, by achieving a high-density, transit-oriented development.
- The proposed development encourages public transit use, as the subject lands are in walking distance of Borden Station just north of the site and proposes a significant parking rate reduction.
- The proposed development promotes the use of active transportation through a reduction in parking spaces and creating a pedestrian linkage to Borden Avenue and Charles Street East.
- The proposed development promotes infill development and intensification on underutilized lands within an MTSA and planned for mixed-use development.
- The proposed development ensures accessibility for all persons and will be designed to conform to the standards of the Ontario Building Code and the AODA.
- The proposed development provides residential dwellings in proximity to a broad range of commercial, retail, and institutional uses along Charles Street East and King Street East. Further, given the site's immediate proximity to the LRT system, this will provide residents greater connectivity to other goods and services across the City and Region.
- The proposed development is within close proximity of green spaces and trails, including the Iron Horse Trail to the south (which connects to various parks in the City), as well as Kaufman Park.

The following table examines the applicable Urban Design Policies outlined in the Official Plan and discusses how the proposed development conforms to these policies:

Policy No.	Policy	Discussion of Conformity
STREETSCAPE		
11.C.1.11.	The City will support the character of streets through the coordination of site, building and landscape design on and between individual sites with the design of the street.	<ul style="list-style-type: none"> • The proposed development offers a pedestrian-oriented streetscape, predominantly along Charles Street, with retail/commercial and institutional uses facing the public realm. This will enhance the public realm and foster an interaction between the private and public realms. • The proposed podium transitions from 6 to 13 storeys with the street facing retail/commercial and institutional units on the ground floor in order to maintain a pedestrian scaled environment.
SAFETY		
11.C.1.13.	The City will apply Crime Prevention through Environmental Design principles in the review of new developments, redevelopments and infrastructure projects to implement crime prevention strategies that will	<ul style="list-style-type: none"> • The proposed development has consideration for CPTED principles and entrapment areas have been avoided. A Lighting Plan will be prepared during the Site Plan Application Stage in accordance with the City's lighting standards.

Policy No.	Policy	Discussion of Conformity
	enhance the effective use of the space.	<ul style="list-style-type: none"> The proposed building will include windows and private balconies along all facades, in order to provide 'eyes on the street' to entrances and walkways.
11.C.1.14.	Where feasible and in compliance with the other policies of this Plan, the City will ensure that the efficiency of emergency medical, fire, and police services be considered in the design of communities, neighbourhoods and individual sites.	<ul style="list-style-type: none"> Emergency service access to the site will be provided via the municipal roads, Charles Street East and Borden Avenue South.
11.C.1.15.	Development applications will be reviewed to ensure that they are designed to accommodate fire prevention and timely emergency response.	<ul style="list-style-type: none"> Emergency services will have access from Charles Street East and Borden Avenue South to accommodate fire prevention and timely emergency response.
UNIVERSAL DESIGN		
11.C.1.16.	The City will encourage new sites to be designed, existing sites to be redeveloped, the public realm and community infrastructure to be planned to be barrier-free and universal accessibility by all citizens. In this regard, the City will enforce the Ontario Building Code and other accessibility related legislation and regulations.	<ul style="list-style-type: none"> The proposed development will be designed to conform to the standards and regulations of the AODA and the Ontario Building Code. Barrier-free parking spaces will be provided on-site in proximity of the entrances/elevators for ease of access.
SHADE		
11.C.1.22.	The City will require the provision of shade, either natural or constructed, to provide protection from sun exposure, mitigate the urban heat island, and reduce energy demands provided it does not generate unacceptable adverse impacts.	<ul style="list-style-type: none"> A Shadow Study was prepared as part of this application, capturing the shadow impacts for the Spring, Summer, Autumn and Winter timeframes. Based on the results, the proposed development will provide acceptable levels of shadowing and will not have adverse impacts to any low-rise residential development.
SITE DESIGN		
11.C.1.29.	The City will ensure that new sites are designed, existing sites are redeveloped, and community infrastructure is planned to enhance the site, buildings, open spaces and the streetscape.	<ul style="list-style-type: none"> The proposed development enhances both the Borden Avenue South and Charles Street East streetscapes through high-quality design and intensification of existing urbanized lands. The proposed ground floor retail/commercial and institutional units addressing Charles Street East create a pedestrian oriented design that will enhance the streetscape and

Policy No.	Policy	Discussion of Conformity
		produce lively frontage the adjacent streets.
BUILDING DESIGN, MASSING AND SCALE DESIGN		
1.C.1.31.	The City will ensure new buildings are designed, existing buildings are redeveloped, expanded, converted or renovated to enhance pedestrian usability, respects and reinforce human scale, create attractive streetscapes and contribute to rich and vibrant urban places.	<ul style="list-style-type: none"> • The mass and scale of the proposed development considers the surrounding uses, as the proposed 57-storey and 51-storey, mixed-use development meets the planned function of the surrounding area being located in an MTSA. • The Charles Street East and King Street East corridor is also designated for mixed-use, higher density development. • The proposed development includes tower separation distances with consideration of future development in the area and adheres to the City's Tall Building Guidelines. • The proposed development also has a respect for human scale, as the building features a 6-storey podium that transitions to 9-storeys, as well as street facing retail/commercial and institutional units.
11.C.1.33.	<p>The City will encourage the following:</p> <ul style="list-style-type: none"> a) provision of attractive building forms, façades and roof designs which are compatible with surrounding buildings; b) infill development to complement existing buildings and contribute to neighbourhood character, particularly if located within close proximity of a recognized cultural heritage resource or Heritage Conservation District; c) minimization of adverse impacts on site, onto adjacent properties (particularly where sites are adjacent to sensitive land uses) and into the 	<ul style="list-style-type: none"> a) The development adheres to this direction as the development provides an attractive built form that is in keeping with the planned function of the site and surrounding area. b) The massing of the Tower 1 has been oriented toward the corner of Charles Street East and Borden Avenue South, while the massing of Tower 2 is positioned in the south-west corner of the site. This provides adequate tower separation and consideration of the existing land uses, which are predominantly employment uses. c) The proposed development includes aims to minimize shadowing and privacy issues to adjacent uses. The tower has been designed in accordance with the City's Tall Building Design Guidelines to minimize massing and overlook

Policy No.	Policy	Discussion of Conformity
	public realm through building design;	issues onto adjacent lands. It is noted that the surrounding lands in the immediate area do not include low-rise residential dwellings, therefore, little to no impacts are expected.
	d) individual architectural innovation and expression that reinforces and positively contributes to achieving the City’s urban design goals and objectives; and,	d) The proposed building features high quality architectural design elements and a unique architectural expression. Specific details pertaining to the design elements and building materials will be finalized during the Site Plan Approval stage.
	e) the highest standard of building design for buildings located at priority locations, with particular emphasis on architectural detailing for all façades addressing the public realm.	e) The building massing, including heights and setbacks, have been proposed to ‘future proof’ for development on adjacent properties. The proposed development will comply with the urban design principles for this area. The proposed podium design is also intended to create an environment that is pedestrian-orientated, as retail/commercial and institutional units address the public realm along Charles Street East.

Based on the above, it is our opinion that the proposed development conforms to the Urban Design policies in Section 11 of the City’s Official Plan.

4.2 City of Kitchener Urban Design Manual

The City of Kitchener’s Urban Design Manual (UDM) sets out additional policies specific to urban design and built form objectives, specific requirements for geographic areas or land uses, as well as site development requirements that pertain to the proposed development. The City completed a comprehensive update of the Urban Design Manual which was approved by Council on September 9, 2019.

Part A of the Urban Design Manual contains the guidelines for various land uses, buildings and areas of the City. Based on our review of the Urban Design Manual and consultation with City staff, the following guidelines apply to the proposed development:

- **City-Wide:** applies to all areas of the City.
- **Major Transit Station Areas:** applies to all lands within proximity of ION Stations.
- **Structured Parking:** applies to parking structures.

Further, Part B of the Urban Design Manual contains guidelines relating to tall buildings in the City of Kitchener and applies to the proposed development:

- **Tall Buildings:** applies to all buildings greater than 8-storeys in height.

The following subsections provide an analysis and/or response to each of the sections in Part A and Part B of the City's Urban Design Manual. This analysis discusses key themes which are shared between the various parts/sections of the City's Urban Design Guidelines.

4.2.1 Inclusive Design

PART A: City-Wide, Major Transit Station Areas, Structured Parking

Natural Surveillance

The proposed development will feature large windows and private balconies on all façades to provide natural surveillance of the subject property and surrounding area. The proposed windows and balconies will provide 'eyes on the street' to entrances and walkways on the subject property and surrounding lands. The ground floor features floor-to-ceiling glazing to provide greater natural surveillance.

Barrier Free Design

The proposed development will conform to the requirements of the OBC and the AODA to ensure that accessibility for persons with disabilities is provided. Barrier-free parking spaces will be provided on-site in proximity of the entrances/elevators for ease of access. The exact number and location will be determined during the site plan process.

Ramps, Barrier-free parking spaces, barrier-free access between floors, and other accessibility practices are anticipated to be provided. All non-residential and shared amenity spaces will be barrier-free.

Inclusive Amenity Areas

The proposed development will feature indoor amenity spaces from Levels 9 to 13 that are inclusive for all residents. Please see Figure 15 below illustrating the proposed indoor amenity space areas within the podium portion of the development.



Figure 15: Indoor Amenity Spaces (highlighted in blue) from Levels 9 to 13 prepared by Edge Architects Ltd.

Range and Mix of Housing Options

The proposed development will feature a mix of one-bedroom and two-bedroom apartment style-units, from 42.8 square metres (One-bedrooms) to 95.2 square metres (Two-bedrooms) in size. This will support the provision of a range and mix of housing options in the City.

Non-Hostile Design

The proposed design does not feature hostile or defensive design elements in order to create a development that is inclusive.

CPTED

The proposed development has consideration for CPTED principles, which include the reduction of entrapment areas and suitable lighting to ensure safe access at all times of day. A Lighting Plan will be submitted upon issuance of Approval in Principle of the Site Plan Application.

Access to Services

The proposed development is within walking/cycling distance of various social services being located along Charles Street East and proximity of King Street East. Future residents will have access to a broad range of services for their social needs. In addition, the site is well served by public transit, including the ION's Borden Station immediately adjacent to the site, as well as GRT bus routes 2, 7 and 205.

Arts & Culture

At this time, arts and/or cultural design elements pertaining to the proposed development have not been considered. This will be determined at the Site Plan Approval stage once the design details have been refined.

4.2.2 Design for Sustainability

PART A: City-Wide, Major Transit Station Areas, Structured Parking

PART B: Tall Buildings

As part of the combined Official Plan and Zoning By-Law Amendment application, a "Preliminary" Sustainability Statement was prepared by Arcadis IBI Group outlining various sustainable and environmentally conscious design elements proposed by the building. The following provides an overview of some sustainable design elements/considerations of the development.

Health & Well Being

The proposed development provides intensification on underutilized lands for higher density residential units that are supported by a range of goods and services in the immediate area. The proposed development is well served by existing public transit, including Borden Station and GRT bus routes 2, 7, and 205 within a short walking distance.

The development contemplates extensive glazing/windows and terraces for the proposed residential units which will provide sunlight for future residents in order to maintain passive heating. The subject lands are also within walking and cycling distance of parks/opens space, including Kaufman Park and the Iron Horse Trail which connects to various parks throughout the City.

A Landscaping Plan will be submitted at the Site Plan Application stage. The development contemplates extensive at-grade landscaping to the rear of the proposed buildings, which will be programmed for use by occupants of the building.

Design for Climate Change

The development contemplates a reduced parking ratio from the requirements of the Zoning By-Law 85-1 and is supportive of active modes of transportation to and from the site. This reduced parking ratio has been proposed in response to the geographic location of the site, being adjacent to the ION's Borden Station. This will reduce vehicular use to and from the site given the close proximity to higher order transit.

This parking ratio will encourage other forms of transportation as opposed to the use of automobiles. This includes cycling and walking, to minimize green greenhouse gas emissions as a result of less motor vehicles operating to and from the site.

Transportation

The applicant is considering the implementation of various TDM measures to support the use of transit and active modes of transportation to and from the site. These include active uses at

grade and integration of a mix of uses on site, reduced parking rate, storage for bicycle parking, pedestrian linkages to transit stops.

Electric Vehicle parking will be provided by the applicant, however, the extent of which will be confirmed during the Site Plan Approval process when design details are further refined.

Waste Collection

Residential waste will be conveyed internally by a vertical garbage chute system leading to a centralized garbage room for garbage, recycling and organic waste.

Bird Friendly Design

In order to create bird friendly design, transparency and reflective glazing and guardrails will be minimized where necessary with the use of frit.

4.2.3 Design of Outdoor Comfort

PART A: City-Wide, Major Transit Station Areas, Structured Parking

Microclimates

Based on the supporting Shadow Study prepared by Edge Architects Ltd. as part of a complete submission package, it is our opinion that the proposed development has consideration for microclimates that may impact the lands and surrounding area.

The Shadow Study determined that the proposed development would have acceptable shadow impacts to the subject property and surrounding uses. Given the subject property is predominantly surrounded by non-residential uses, the shadows cast from the proposed development will not have adverse impacts to any low-rise residential buildings.

Lighting and Landscaping

As mentioned throughout this Brief, the Lighting Plan and Landscape Plan will be submitted during the Site Plan Application stage. The lighting will be designed in accordance with the City's standards, and extensive landscaping will be proposed in order to create an inviting space for future residents or occupants of the non-residential components.

4.2.4 Street Design

PART A: City-Wide, Major Transit Station Areas

The proposed development will connect to the existing municipal sidewalk system along Borden Avenue South and Charles Street East, which will support ease of access to and from the development. This will allow members of the public to access the proposed retail/commercial and institutional spaces on the ground floor.

The proposed off-street parking also has consideration for the street design, as one (1) level of underground parking and eight (8) levels of above-ground parking is provided to minimize visual impacts of surface parking. The proposed parking structure will be designed to seamlessly blend with the podium and create an aesthetically pleasing look from the public realm.

Focal Points & Gateways

The proposed development has consideration through its design as being a focal point given its location at the intersection of Borden Avenue South and Charles Street East and close proximity to Borden Station. The proposed development is also located at the northern limit of the Mill Courtland Woodside Park Secondary Plan area and will aim to create a unique sense of place for those commuting within the area.

Lighting and Landscaping

The Lighting Plan and Landscape Plan will be submitted during the Site Plan Application stage. The lighting will be designed in accordance with the City's standards, and extensive landscaping will be proposed in order to create an inviting space for future residents or occupants of the non-residential components.

4.2.5 Shared Spaces

PART A: City-Wide, Major Transit Station Areas, Structured Parking

Outdoor Amenity

The proposed development will feature outdoor amenity space and extensive landscaping to the rear of the subject property. It is our opinion that the extensive amenity space will provide opportunity for social gatherings and interaction among future residents. The specific programming of this area will be determined at the Site Plan Approval stage.

Public Art

Considering the nature of this private development, at this time the applicant has not considered public art, although this may be considered through the site plan approvals process.

Signage, Lighting, and Landscaping

Signage on the subject property, as well as the Lighting Plan and Landscape Plan will be submitted at the Site Plan Application stage.

4.2.6 Site Function

PART A: City-Wide, Major Transit Station Areas, Structured Parking

Vehicular Access & Parking

The site is proposed to have two (2) vehicular accesses from Borden Avenue South and Charles Street East, one on the east and the other on the north side of the site. These accesses will provide access to the parking structure, specifically the one (1) level of underground parking and eight (8) levels of the above-ground parking integrated with the podium. This also provides access to the loading spaces and garbage collection. The proposed development provides a total of 618 parking spaces

It is our opinion that the accesses to the development will not conflict with pedestrian activity or transit stops based on their placement and design. The proposed development will conform to the requirements of the OBC and the AODA to ensure that accessibility for persons with disabilities is provided. Ramps, barrier-free parking spaces, barrier-free access between floors, and other accessibility practices are anticipated to be provided.

Servicing & Utilities

Servicing and utilities will be located underground and/or internally in order to mitigate visual impacts from the streetscape.

Waste & Recycling

The proposed residential and non-residential waste will be conveyed internally by a vertical garbage chute system and collected in an internal garbage room on the ground floor.

Snow Storage

A preliminary salt management plan has been included as part of the application showing areas of salt application and snow storage. In terms of the snow storage and maintenance, the outdoor amenity areas will be maintained by property management.

4.2.7 Compatibility

PART A: City-Wide, Major Transit Station Areas, Structured Parking

PART B: Tall Buildings

Scale & Transition

The proposed development has consideration for the adjacent neighbourhood, as the area is transitioning to a higher-density, mixed-use area based on the planned function of the surrounding context. The proposed Charles Street East and King Street East Corridor is designated for mixed-use development, as the LRT system is within walking/distance of this area. The proposed scale and density of the development is supported in MTSA's in order to encourage public transit use. The proposed development is also pedestrian-oriented based on the proposed podium height and use of transparent materials on the ground floor to create a human-scale environment.

As previously mentioned, the subject lands are located in an area that is anticipated to see a transition in density. 1027 King Street East (just east of the subject property) is an OPA/ZBA application currently under review by the City. The applicant is proposing a 30-storey, mixed-use development with a Floor Space Ratio of 9.05. It is our opinion that the proposed mixed-use development would reflect the transit-oriented, high density nature of development occurring in a transitioning area of the City.

It is further our opinion that development provides sufficient transition between the proposed building and adjacent uses, as the area is currently dominated by employment uses. Low-rise residential dwellings will not be immediately impacted by the proposed development. The proposed development has been designed with appropriate setbacks, as well as stepbacks on the upper levels of the podium to provide transition in scale and massing to ensure compatibility with adjacent buildings.

Shadowing

Edge Architects Ltd. prepared a Shadow Study capturing the shadow impacts for the Spring, Summer, Fall, and Winter timeframes. The results/analysis are summarized below:

- Spring: March 21 (10AM, 12PM, 2PM, 4PM, 6PM)
 - Shadows cast during the spring are greatest at the 12:00 PM, 4:00 PM and 6:00 PM intervals. All properties most affected by shadows during the spring will have full sunlight for at least two time intervals during the day, and will not be more than 50% shaded for more than two intervals.
- Summer: June 21 (10AM, 12PM, 2PM, 4PM, 6PM)
 - Shadows cast during the summer are greatest at the 10:00 AM, 2:00 PM, 4:00 PM and 6:00 PM intervals. All properties most affected by shadows during the summer will have full sunlight for at least two time intervals during the day, and will not be more than 50% shaded for more than two intervals.
- Fall: September 21 (10AM, 12PM, 2PM, 4PM, 6PM)
 - Fall shadows are very similar to those cast in the springtime, with the strongest shadows being cast at the 12:00 PM, 4:00 PM and 6:00 PM intervals. All properties most affected by shadows during the fall will have full sunlight for at least two time intervals during the day and will not be more than 50% shaded for more than two intervals.

- Winter: December 21 (10AM, 12PM, 2PM, 4PM, 6PM)
 - During the 10:00 AM interval, shadows are most impactful to the low-rise development to the northwest. At the 12:00 PM interval, shadows impact the properties to the north. The shadows cast during the 2:00 PM interval impact the properties to the northeast. All properties most affected by shadows during the winter will have full sunlight for at least two time intervals during the day and will not be more than 50% shaded for more than two intervals.

Based on the results, the proposed development will provide acceptable levels of shadowing.

Structured Parking

The structured parking is also compatible with the surrounding lands, as the underground parking stalls will not be visible from the public realm. Further, the eight (8) levels of above-ground parking are designed to seamlessly blend with the podium and create an aesthetically pleasing look from the public realm. This will minimize visual impacts from the public realm.

4.2.8 Cultural and Natural Heritage

PART A: City-Wide, Major Transit Station Areas

PART B: Tall Buildings

Cultural Heritage Resources

The subject property does not contain any designated or listed (non-designated) cultural heritage resources.

Natural Heritage

No natural heritage resources with significance were identified on the subject property, as well as the surrounding area. Existing vegetation will be removed from the site for construction.

4.2.9 Materials and Articulation

PART A: City-Wide, Major Transit Station Areas, Structured Parking

PART B: Tall Buildings

Base and Tower

At this time, the building material have yet to be determined and will be refined during the development approvals process in coordination with the City's Urban Design staff.

Notwithstanding this, the proposed base features well-articulated façades which include large windows and balconies to enhance the façades and ground floor non-residential units. Further, the architectural elements of the podium masking the above-ground parking structure will provide a unique design and visual interest to onlookers. The proposed articulation of the tower aims to accentuate the depth of the façades to capture an aesthetically pleasing three-dimensional look.

4.2.10 Built Form

PART A: City-Wide, Major Transit Station Areas, Structured Parking

Massing

The proposed development provides a contemporary mixed-use, high-rise development located adjacent to the ION's Borden Station. The proposed development respects the surrounding area and planned function of the immediate area being in an MTSA.

Though the immediate area is dominated by non-residential uses, it is our opinion that proposed built form respects the existing surrounding area and will not have adverse impacts to the surrounding land uses. The proposed siting and setbacks of the proposed development provide a continuous frontage along both Charles Street East and Borden Avenue South which will activate the street frontage and create a development that aims to achieve human scaled massing.

Please Figures 16 and 17 below illustrate the proposed built-form and massing of the development. Please note that the following renderings will be further refined during the development approvals process and are purely conceptual to highlight the proposed built-form and massing.



Figure 16: 3D Rendering of proposed development from Borden Avenue South and Charles Street East prepared by Edge Architects Ltd.



Figure 17: 3D Rendering of proposed development from Charles Street East prepared by Edge Architects Ltd.

4.2.11 Base Design

PART B: Tall Buildings

The base of the building contains extensive glazing and openings to encourage interaction between the building and the public realm. The proposed development will connect to the existing municipal sidewalk system at grade to provide greater access and connectivity to and from the proposed development. This will also provide ease of access to the ground floor retail/commercial and institutional uses on the ground floor.

The proposed base also features a unique architectural design to mask and seamlessly blend the eight (8) levels of the above-ground parking into the podium. It is our opinion that this will enhance the overall streetscape and create a distinct sense of place.

The vehicular accesses to the parking stall and loading spaces for garbage collection are also integrated with the base on the northern and eastern façade to minimize visual impacts from the public view.

The proposed private balconies on the podium will provide natural surveillance to the adjacent streets, entrances, and internal walkways of the site.

Figure 18 below provides a conceptual view of the podium, highlighting the massing.



Figure 18: 3D Rendering of proposed podium from Borden Avenue South and Charles Street East prepared by Edge Architects Ltd.

4.2.12 Ground Floor

PART B: Tall Buildings

The design of the proposed ground floor aims to achieve human scaled massing and built form that is pedestrian oriented. A total of 312.6 m² commercial/retail space is provided from the ground floor and spans to the second floor with high ceilings. The proposed units will feature floor to ceiling windows. The commercial/retail units are located at the corner of the podium / intersection of Charles Street East and Borden Avenue South in order to activate the street frontage.

A total of 6,926.7 m² institutional space is proposed from the ground floor and spans to the sixth floor of the podium. One of the institutional spaces is located along the frontage of Charles Street East, while the second institutional space is located to the south-west corner, below Tower 2.

It is our opinion that the proposed ground floor will be well-integrated with the streetscape and landscaping. A Landscape Plan will be prepared following issuance of approval in principle of the Site Plan Application.

Figure 19 below provides an overview of the Ground Floor Plan prepared by Edge Architects Ltd., illustrating the conceptual programming.

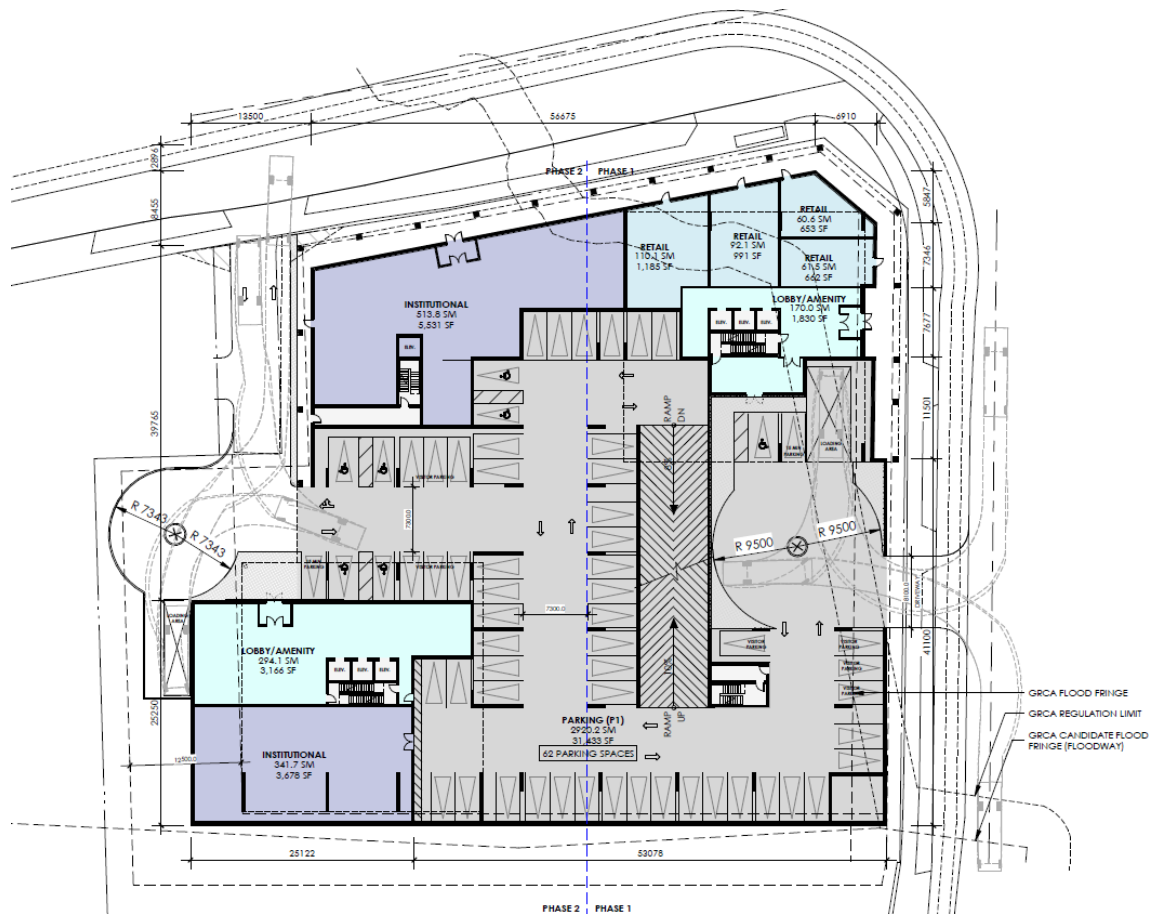


Figure 19: Proposed Ground Floor Plan prepared by Edge Architects Ltd.

4.2.13 Tower Design

PART B: Tall Buildings

Size & Proportion

The area of the typical tower floor plate for both Towers 1 and 2 is approximately 756 m². As such, based on the tower proportion calculation, both Towers 1 and 2 will have a tower proportion of 1.04.

Based on the above, the proposed towers are considered a “Compact Point” for the purposes of the Tall Building Guidelines. It is our opinion that the building type is appropriate in this context, as it concentrates the massing into two compact towers in the north-eastern and south-western corners of the site. It is further our opinion that the proposed size and proportion of the tower is sensitive to the surrounding areas and has consideration for the planned function of the site and surrounding area.

Physical Separation

The physical separation calculations for Tower 1 and Tower 2 are as follows:

Tower 1: $(H*L/200) = (183.1 \times 28.0 \text{ metres})/200 = 25.6 \text{ metres}$

- North = 18.9 metres
- South = 54.9 metres
- East = 14.5 metres

- West = 45.4 metres
- Tower 2 = 19.4 metres

Tower 2: $(H*L/200) = (169.8 \text{ metres} \times 28.0 \text{ metres})/200 = 23.8 \text{ metres}$

- North = 50.4 metres
- South = 15.6 metres
- East = 56.9 metres
- West = 15.4 metres
- Tower 2 = 19.4 metres

In anticipation of any future development, the proposed Tower 1 has a 14.5 metre separation distance from the centreline of Borden Avenue South, and 18.9 metre separation distance from the centreline of Charles Street East. Tower 2 has a tower separation distance of 15.5 metres from the western property line, 15.6 metres from the south, and over 50 metres from the centreline of Charles Street East.

Based on the foregoing, it is our opinion that regard has been given to providing appropriate tower setbacks and that the future redevelopment of the block will not be hindered by the placement of the towers, as proposed.

Relative Height and Overlook

There are not currently any towers located adjacent to the sites. Notwithstanding, it is anticipated that lands along Charles Street East (to the east and west) may at some point be redeveloped given the surrounding area is designated for mixed-use development. As previously mentioned above, the proposed tower separation distances have consideration for future development on the adjacent parcels.

It is our opinion that the proposed location of the towers are appropriate based on the setbacks and massing. Further, it is our opinion that the surrounding lands could be developed to contain a tower with adequate separation, as the proposed towers will not hinder future development in the immediate area.

Placement

While there are no existing towers on adjacent lots, it is our opinion that the tower placement has consideration for the future planned function of the site and surrounding area. The tower separation distances are sufficient to meet the tall building guidelines and ensure future development is not impeded.

4.2.14 Top Design

PART B: Tall Buildings

The proposed tower will feature a top design that seamlessly integrates the mechanical penthouse into the proposed tower. The proposed mechanical penthouse will also be enclosed to minimize visual impacts. Top design will be further refined throughout the development approvals process in collaboration with the City's Urban Design staff.

5 Conclusion

This Brief has been prepared as part of the complete Official Plan Amendment and Zoning By-Law Amendment applications for the subject property known as 50 Borden Avenue South in the City of Kitchener.

As mentioned throughout, this Brief provides an overview of the proposed development and a discussion of how the design of the building is aligned with the land use planning and urban design framework of the City of Kitchener.

In our opinion, the proposed development supports the achievement of the City's urban design vision for the property, demonstrates high quality design, and will complement the surrounding neighbourhood.

Respectfully submitted,

ARCADIS IBI GROUP



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