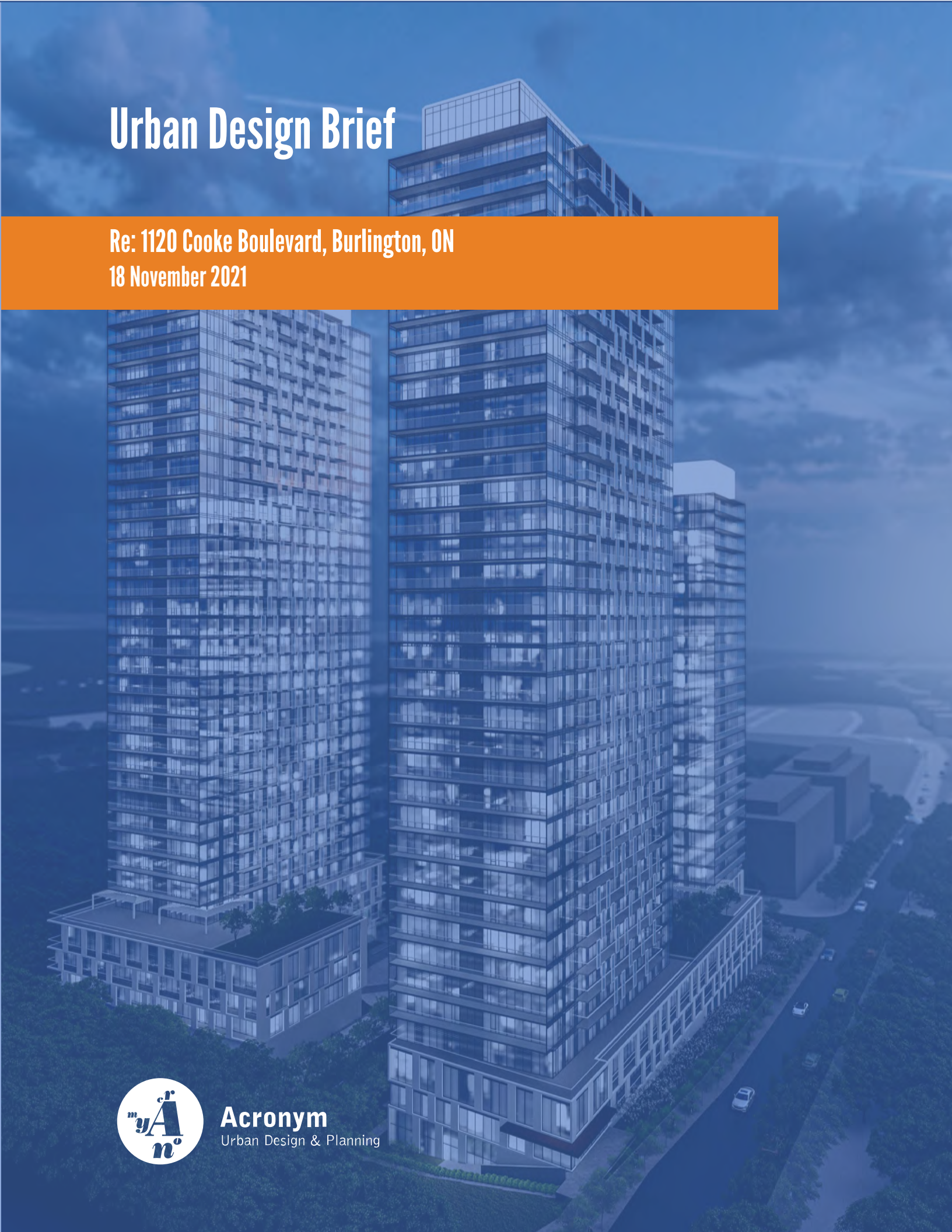
Urban Design Brief

Re: 1120 Cooke Boulevard, Burlington, ON

18 November 2021



Acronym
Urban Design & Planning

18 November 2021

1120 Cooke Boulevard, Burlington, Ontario

Urban Design Brief (updated with responses to City comments)

1. Introduction

This Urban Design Brief has been prepared by Acronym Urban Design and Planning, WND, CORE Architects and Adesso Design to describe the urban design vision, strategy and rationale for the form and pattern of development being proposed by ADI Development Group ("ADI") for its lands located at 1120 Cooke Boulevard, Burlington, Ontario ("the subject property").



Figure 1 Location Plan Source Google

This report accompanies an application for Official Plan and Zoning By-law amendments to permit the construction of a new multi-building high-rise mixed-use building on the subject property located at the intersection of Waterdown Road and Masonry Court nearby the Aldershot GO Station and within the Aldershot GO Mobility Hub.

ADI presented alternative configurations for the proposed development for review Burlington Urban Design Panel and in a public information session early in the design process – in September 2020. Input and feedback from these meetings allowed the development team to arrive at a preferred built form for the proposed development. The proposed development builds upon the strengths of the preferred option, which consisted of three residential tower

elements on two podium elements that frame consolidated main outdoor private open spaces around the central courtyard.

The proposed development has been designed in the context of the City of Burlington's Official Plan and relevant Design Guidelines as well as the City's Draft Aldershot GO Mobility Hub Precinct Plan.

This Urban Design Brief reviews the design prepared by CORE Architects Inc. and the landscape design prepared by Adesso Design. The Urban Design Brief concludes that the proposed development is consistent with the urban design goals and objectives established in:

- the City of Burlington's in-force Official Plan;
- the 2018 Council-adopted Official Plan (which has no policy status at this time due to ongoing revisions); and
- satisfies the intent of the recommendations in the City's Tall Building Guideline document.

In our opinion, the proposed development represents good urban design practice and is appropriate within the existing and future physical context.

2. Location and Physical Context

2.1. The Subject Property



Figure 2 Context Plan Source Google



Figure 3 View from Waterdown Road 403 Overpass Looking South Source Google



Figure 4 Waterdown Road / Masonry Court Intersection Looking North Source Google



Figure 5 View from Masonry Court Looking West Source Google

The subject property is a 0.9534-hectare parcel located at the northeast corner of the intersection of Waterdown Road and Masonry Court. In addition to these two existing street frontages, the subject property is bounded on the north by a stormwater management facility and what will eventually be a new public park. Further to the north is the CN rail corridor, on which the GO Transit Lakeshore West line operates.

To the east the subject property is bounded by an extension of Cooke Boulevard right of way which runs north from Masonry Court. On the east side of this new road is the first phase of a new condominium and townhouse development by ADI Development Group currently under construction at 101 Masonry Court. This development will eventually include 233 street, back-to-back, and stacked townhouse units, and 172 condominium units in two mid-rise buildings along the Waterdown Road frontage, all connected by a network of pedestrian paths and courtyards.

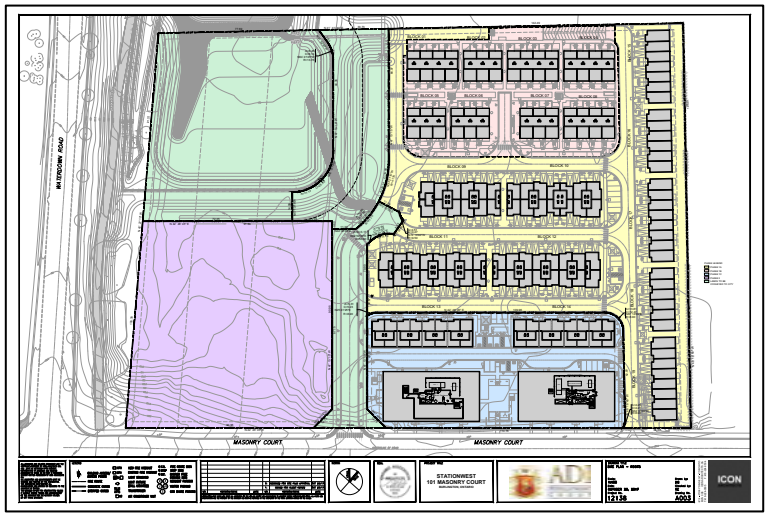


Figure 6 Station West Development Phase 1 Site Plan Source ADI



Figure 7 Phase 1 Looking North West Source ADI



Figure 8 Phase 1 Looking East Source ADI

Further to the east is the Aldershot GO Station south parking lot and access to the Aldershot GO Station. The subject property is located approximately 500 metres along Masonry Court from the south parking lot entrance to the Aldershot GO Station.

The subject property is vacant and generally flat. Waterdown Road along its west edge rises up from the intersection with Masonry Court to eventually become an overpass above the rail corridor and Highway 403 which is located further to the north. The rising elevation of Waterdown Road and its relatively high speed mitigate against its potential as an active street frontage. It does, however have painted bicycle lanes in both directions and is identified in the new Official Plan as a Minor Arterial with a Primary Bus Service and designated Bike Lane street. The extension of Cooke Boulevard on the east edge of the subject property is designated as a

combination Bicycle Priority Street that transitions into a multi-use path as it continues to the north. The Masonry Court street frontage is approximately 90.96 metres. The new municipal street frontage is approximately 90.95 metres. The subject property is approximately 100 metres in depth from Masonry Court.

2.2. Immediate Surroundings

To the West: across Waterdown Road is the spur road called Railway Road that serves currently operating employment uses including trucking and concrete batching facilities. Lands further to the west share the Aldershot GO Centre designation in the Draft Precinct Plan documents and as such are intended to develop in the future.



Figure 9 Railway Road Looking North Source Google

To the North: adjacent to the subject property is a future stormwater management facility and public park further to the north is the CN Rail corridor, the Aldershot GO station and Highway 403.



Figure 10 View from Waterdown Road Toward Future SWM Facility Source Google

To the East: beyond the Station West development is the Aldershot GO Station south parking lot.



Figure 11 Aldershot GO Station South Parking Lot Source Google

To the South: A mixed group of commercial and single-family house form buildings line both sides of Waterdown Road.



Figure 12 Waterdown Road Looking South Source Google

To the South East is Cooke Boulevard, a street which runs between Masonry Court and Plains Road further to the south, which is lined on both sides with low rise employment use buildings.



Figure 13 Cook Boulevard Aerial View Source Google

2.3. Area Context

The subject property is located to the north of Plains Road which is the primary commercial main street of Aldershot. The built form along Plains Road in the vicinity is primarily low-rise, auto-oriented retail, restaurant and entertainment use buildings with some low-rise and multi-unit residential development.

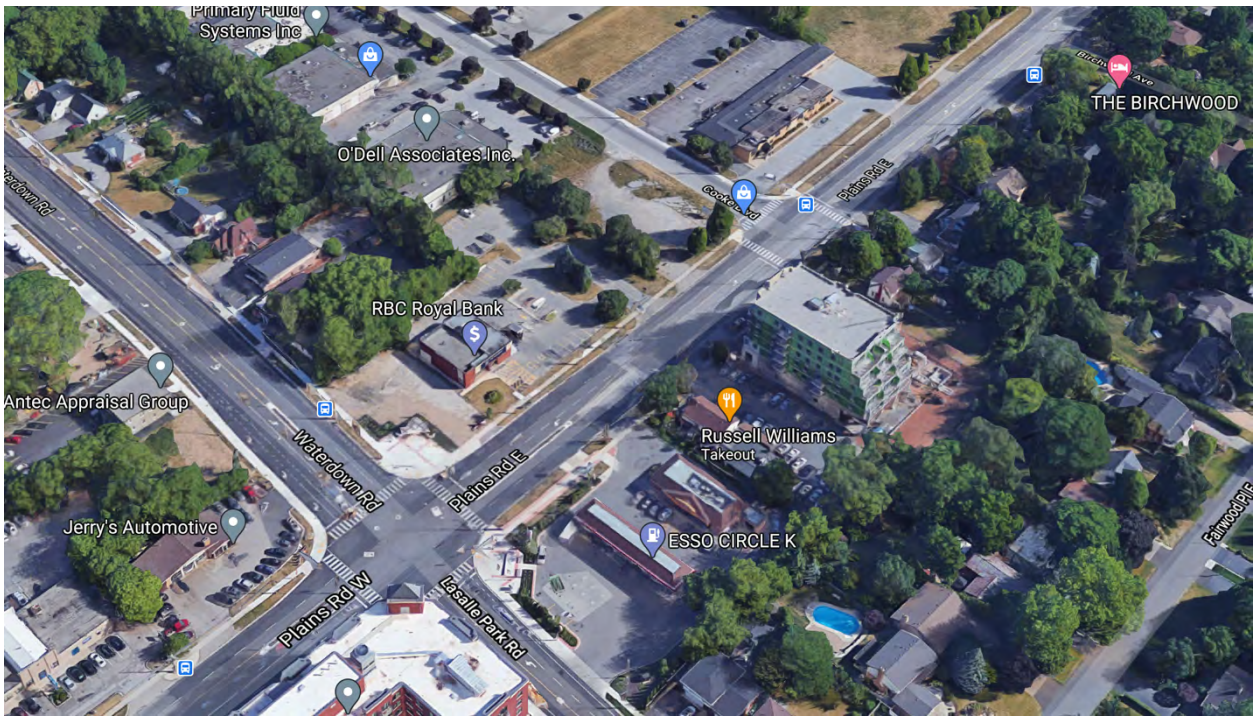


Figure 14 Plains Road and Waterdown Road Looking Toward the North East Source Google

To the southeast is the Grove Park/St. Matthew's Neighbourhood which is a stable residential area generally characterized by single family houses, developed in the 1960s. Reflecting the former industrial use of the lands to the north, the street system of these neighbourhoods is not currently connected to Masonry Court.

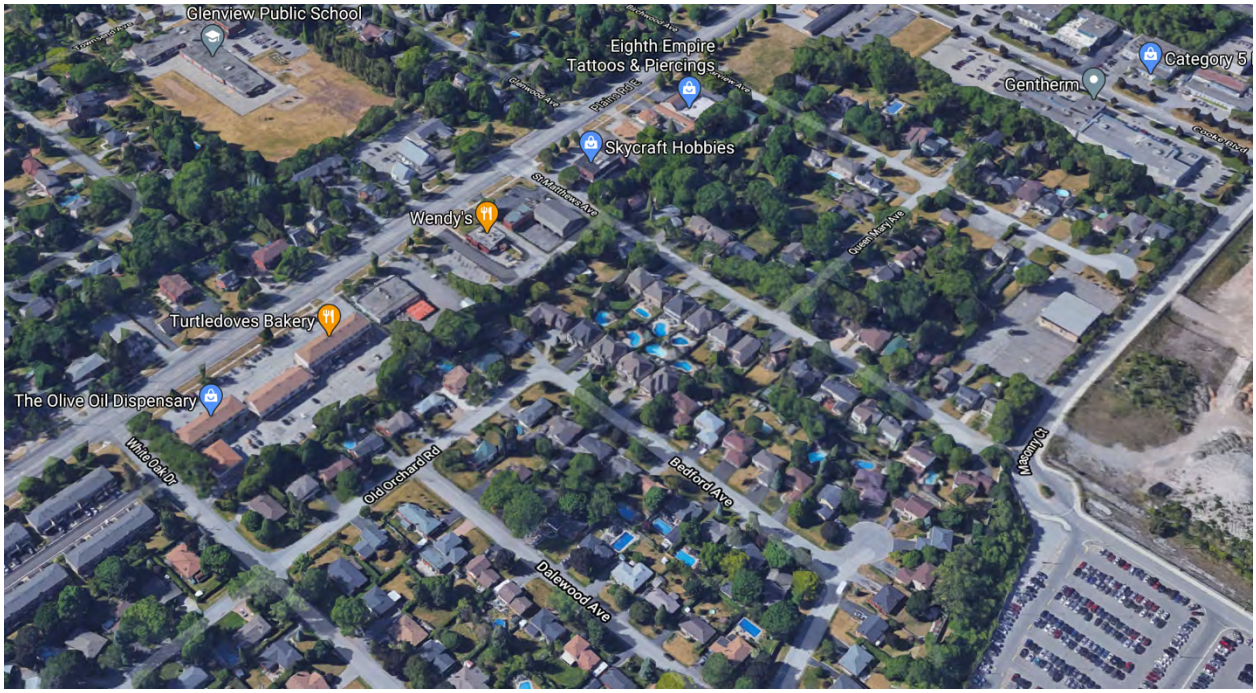


Figure 15 Grove Park/St. Matthew's Neighbourhood Looking Toward the South West Source Google

2.4. Transportation Network

In addition to the Aldershot GO station, which is within 500 metres of the subject property, and access to Highway 403, the transportation network in the area includes the following bus routes:

- Route 4 Central has stops along Waterdown Road;
- Routes 1 and 101 have stops within walking distance; and
- Route 87 (at Aldershot GO north).

Masonry Court, Waterdown Road and a number of minor streets in the area have been identified as parts of a future active transportation network in the area – connecting to Grove Park and Aldershot Park in the east and Hidden Valley Park and beyond in the west.

The Waterdown Road ROW in the vicinity of the subject property is 30 metres wide while the Plains Road ROW varies between 30 and 36 metres. Masonry Court opposite the subject property is 20 meres in width.

Waterdown Road is classified as a Minor Arterial while Plains Road is a Multi-Purpose Arterial.

3. Description of the Proposed Development

The proposed development consists of three residential tower elements ranging between 26 and 36 storeys on 3 and 4 storey podium elements as well as a large consolidated open space.



Figure 16 View from the Intersection of Masonry Court and Cooke Boulevard Source CORE Architects

The two southern towers along with a connecting podium frame the north east corner of the intersection of Waterdown Road and Masonry Court and extend to the east along the Masonry Court frontage.

Tower C on the south west is a total of 36 storeys in height with a tower floor plate of 750 square metres. Tower B on the south east is a total of 26 storeys in height with a tower floor plate of 750 square metres. Towers B and C are connected by a 3-storey podium. The third tower, Tower A with a total of 36 storeys in height and a tower floor plate of 750 square metres, is located in the north west corner of the subject property. Tower A has a 4-storey podium element which provides enclosure to the proposed central courtyard and vehicular drop off area.



Figure 17 View from Cooke Boulevard Looking South Source CORE Architects

The proposed consolidated open space is located at the north east corner of the subject property fronting on to the new municipal street and the future park space to the north.

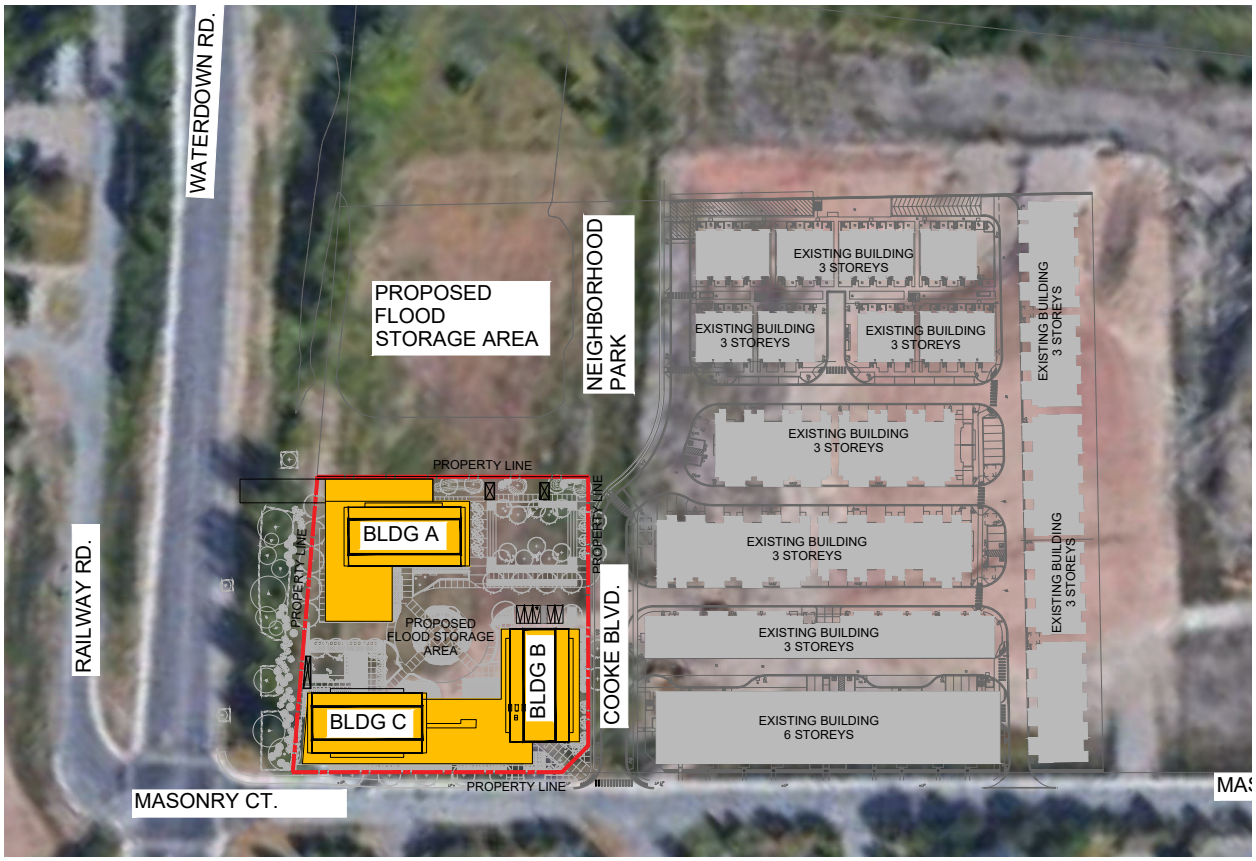


Figure 18 Context Plan Source CORE Architects

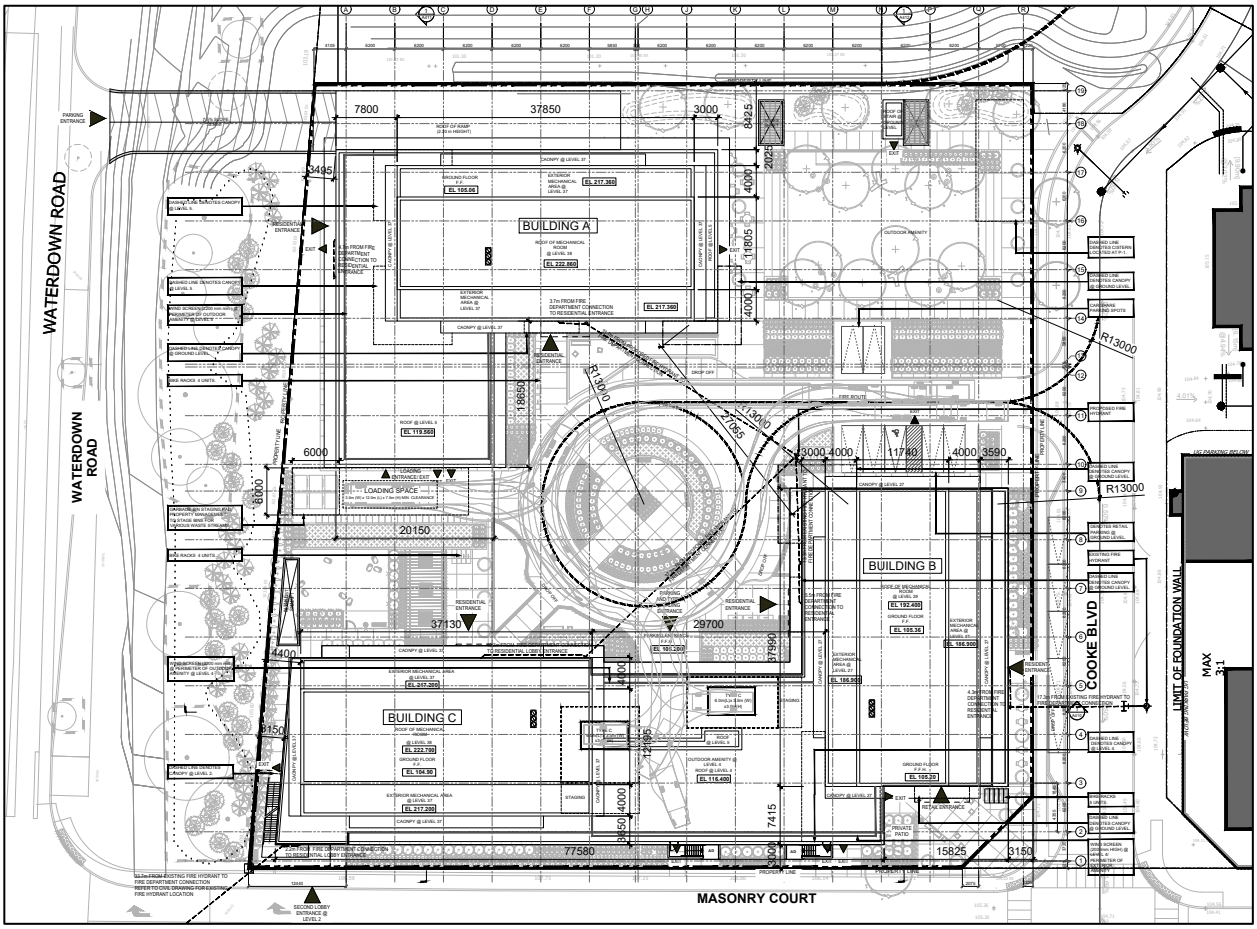


Figure 19 Site Plan Source CORE Architects

The total Gross Floor Area of the proposed development is approximately 74,087 square metres or 7.77 FSI. Approximately 231 square metres of commercial GFA is included within that total, accommodated on the ground floor at the intersection of Masonry Court and Cooke Boulevard.

Each of the three buildings have entrances to residential lobbies from the surrounding streets and from the proposed central courtyard.

Pedestrian access to the proposed development is by means of a network of sidewalks connecting the central courtyard with Cooke Boulevard and the future park to the north east.

1,139 dwelling units are proposed. 5 levels of underground parking, accommodating a total of approximately 1,031 parking spaces are proposed (including 5 commercial parking spaces). 574 bicycle parking spaces are proposed in a variety of locations throughout the development primarily on the ground floor and P1 levels.

Vehicular access to the proposed development is by means of: a 6.0-metre-wide driveway from Cooke Boulevard that is aligned with the private street to the east; and a ramp from Waterdown Road at the north west corner of the subject property.



Figure 20 View from the Corner of Waterdown Road and Masonry Court Source CORE



Figure 7 View from Waterdown Road looking South Source CORE

3.1. Building Materials and Sustainability Features

Building Envelope

The project will comply with the requirements of the Ontario Building Code for Energy modeling.

Roof areas will include exterior amenity and private residential terraces. Continuous tower balconies will provide shading to the building glazing in order to mute reflections to deter bird collisions.

Vertical panels in frosted glass attached to the outside of balconies help with solar shading as well as creating depth and interest to the tower façade while also keeping the appearance light.

The more solid materiality of the podium elements and the projected balconies that create further shading combine to assist in the reduction of energy consumption from solar gain/heat loss.

Mobility

The design of 1120 Cooke Boulevard is intended to contribute to the development of a future mobility hub, providing environmentally sustainable, well located, places to live within good proximity to mass transit. The proposed development will promote the use of public transit and support cycling and pedestrian modes of travel - reducing auto dependency. Proposed car share facilities and interior bicycle storage for residents and visitors further contributes to this reduction.

Public Realm

Covered outdoor waiting areas will be provided at the building entrances for pedestrian comfort in inclement weather.

Sidewalk zones of 7-8 metres measured from curb to building face will support a variety of streetscape elements that contribute to a vibrant street, including: residential terraces; pedestrian clearway; trees and other landscaping with appropriate soil volumes; furniture, lighting and utilities etc.

Solid Waste

A construction waste management plan and tracking system will be implemented. The building will have triple chute waste management.

4. Policy and Guideline Context

4.1. City of Burlington Official Plan (2008)

The following is a summary of the relevant urban design policies in the In-force City of Burlington Official Plan.

Site Design and Orientation

6.5 a) The density, form, bulk, height, setbacks, spacing and materials of development are to be compatible with the surrounding area.

6.5 b) The compatibility of adjacent residential and non-residential development shall be encouraged through site design and buffering measures, including landscape screening and fencing.

6.5 c) The design of all buildings must recognize pedestrian scale, safety and the perception of safety and access and the preservation of public vistas and views.

6.5 i) Reverse frontage lotting patterns and the use of acoustical walls next to major, multi-purpose and minor arterial and collector roads should be avoided. In addition, side and end elevations of buildings facing major, multi-purpose and minor arterial and collector roads should be designed with an upgraded level of architectural treatment for the purpose of avoiding the use of blank walls facing these roads. Building setbacks from the street are to be minimized along pedestrian and transit-oriented streets.

Site Circulation

6.5 e) All developments shall be designed having regard for public transit accessibility in the Urban Planning Area, convenience and comfort, and access and parking for the physically challenged, and to ensure that the needs of persons with disabilities and other special needs groups are addressed.

6.5 h) The streetscape appearance of major, multi-purpose and minor arterial roads and collector streets shall be enhanced by encouraging buildings to present their main building facades to these roads or to enhance their treatment to avoid the appearance of blank buildings at service entrances.

Public Realm and Open Space

6.5 d) The creation of a continuous and harmonious streetscape environment shall be encouraged with emphasis on maintaining the continuity of grade-related activity areas, both inside and outside of buildings.

Parking Servicing and Utilities

6.5 f) City Council shall require that design plans promote public safety and security, with adequate visibility and lighting and the avoidance of secluded areas.

6.5 g) The location, amount, position and design of parking areas shall be reviewed to minimize their potential to erode the qualities of the public streetscape, and to lessen their visual impact. City Council shall require landscaped islands and screening in the design of large parking lots.

6.5 j) The functional and visual impact of site servicing, loading, air conditioning and ventilation equipment and waste handling facilities shall be minimized, by integrating them into the building's main structure, by screening or by site design.

Sustainability and Microclimate

6.5 m) All development shall be designed having regard for Sustainable Development considerations as set out in Part II, Subsection 2.7.3 of this Plan.

4.2. City of Burlington Official Plan (Council-adopted April 2018; no policy status at this time due to ongoing revisions)

The following is a summary of the relevant urban design related policies in the 2018 Council-adopted City of Burlington Official Plan (February 2021 version).

Site Design and Orientation

7.3.2(1)a)(i)a. locate buildings generally parallel to the public street to define the street edge and along the edges of parks, urban squares and other open space features, and in close proximity to the street and transit services;

7.3.2(1)a)(i)b. provide appropriate transitions to adjacent land uses, particularly residential uses;

7.3.2(1)a)(i)c. mass new buildings to frame adjacent streets in a way that respects the existing and planned street width but also provides for a pedestrian-scale environment;

8.1.2.(1) b) to develop the MTSAs into compact, pedestrian, environmentally sustainable and transit-supportive places each with a distinct character;

8.1.2.(1) j) To provide low-rise, mid-rise and tall building forms, where appropriate, that support a variety of demographics in MTSAs;

8.1.2.(1)m) To ensure the provision of a range of open spaces and connections;

8.1.2.(1)n) To ensure that there is an appropriate transition in scale, intensity, height, massing and spacing of development in including appropriate transitions between various land uses and built forms;

8.1.2.(1)p) To achieve design excellence in MTSAs that will encourage long-term investment and the creation of high quality and sustainable built forms in the public and private realm;

8.1.2.(1)u) To encourage transit-supportive, pedestrian-oriented and cycling-friendly development in a compact built form, while ensuring compatibility with the surrounding areas is achieved.

Site Circulation

7.3.2(1)a)(i)e. include direct pedestrian access, including barrier free access from grade level, to the primary public entrances located on the building façade;

7.3.2(1)a)(i)d. locate building primary public entrances for uses located at grade towards a public right-of-way and visible and accessible from the public sidewalk;

7.3.2(1)a)(ii)c. limit the number and location of vehicular access points to minimize disruption to traffic flows; and to minimize the impact on local streets, pedestrian travel along sidewalks or cyclists' travel along bikeways;

Public Realm and Open Space

7.3.2(1)a)(i)g. create an attractive and connected interface between the private and the public.

7.3.2(1)a)(i)h. create a continuous streetscape with emphasis on maintaining the continuity of grade-related activity areas, both inside and outside of buildings;

7.3.2(1)a)(i)i. provide appropriate outdoor amenity areas and open spaces and promoting the incorporation of private open spaces to the open space network of the immediate community.

7.3.2(1)a)(ii)f. incorporate landscaped islands and pedestrian walkways

8.1.2.(1)v) To ensure development establishes a high-quality public realm featuring a network of new and existing public squares, parks and open space that incorporate street trees, landscaping and vegetation.

Parking Servicing and Utilities

7.3.2(1)a)(i)f. screen or integrate roof top mechanical equipment within the overall composition of the building;

7.3.2(1)a)(ii)a. locate off-street parking in the side and/or rear yards, in underground or structured parking where appropriate, away from the street edge and adjacent residential uses;

7.3.2(1)a)(ii)b. integrate parking areas located at or above grade within the built form of the building and away from the street frontage, where appropriate;

7.3.2(1)a)(ii)d. screen and buffer off-street parking areas from public view through the use of setbacks and landscaping;

7.3.2(1)a)(ii)e. locating loading areas and service areas to avoid conflict between pedestrian and vehicular traffic, and away from adjacent residential uses and adjoining streets;

7.3.2(1)a)(ii)g. incorporating fencing and/or screening of service facilities, such as loading bays or outdoor storage areas, in a manner which enhances screening from adjacent land uses and the public right-of-way and improves the aesthetic quality of the development.

4.3. Draft Precinct Plan for the Aldershot GO Station Mobility Hub (May 2018)

The Draft Precinct Plan for the Aldershot GO Station Mobility Hub is part of a broader consideration of the City's Mobility Hubs through the Official Plan Review process in 2014. The creation of Area Specific Plans (ASPs) for each of Burlington's four Mobility Hubs was identified as a key priority for City Council through the development of Burlington's 2015-2040 Strategic Plan.

On 4 December 2017, staff brought forward Report PB-76-17, which presented preferred concepts and supporting technical memos for the GO Station Hubs (Aldershot, Burlington, and Appleby GO) for community and Council feedback and discussion. The preferred concepts outlined land uses and building heights within each of the three GO Station Hubs. These preferred concepts were based upon public and stakeholder feedback and were intended to prompt discussion regarding the emerging vision for each of the hubs. Since that time, staff have taken that feedback and used it to develop draft precinct plans for each hub.

City Council received and filed the discussion draft precinct plans and land use policy directions 16 July2018. The draft precinct plan for the Aldershot GO Station Mobility Hub ("the precinct plan") was described in Appendix A of Report PB-76-17.

- Within the Aldershot GO Mobility Hub, the following were identified as additional unique objectives for this area:
- Recognizing the need to vary the maximum heights for new mid-rise development within the hub in order to achieve sensitive transitions to established residential neighbourhood areas outside of the hub;
- Concentrating higher intensity development on large brownfield/greyfield sites that contain existing employment uses in order to encourage mixed use development;
- Recognizing the existing employment function in the area and planning for future employment and commercial uses in the hub;
- Planning for flexible commercial and retail spaces that can respond to the changing commercial / retail landscape;
- Creating new streets and active transportation connections to enhance the existing transportation network, including the establishment of new east-west corridors which will improve permeability through the area for pedestrians and cyclists and mitigate traffic associated with future growth; and
- Focusing height away from Plains Road and towards the rail corridor to concentrate future residents in close proximity to the GO station and to maintain the mid-rise vision for Plains Road.

The draft precinct plans were not endorsed or approved by City Council in 2018. In early 2019, the Mobility Hubs Study was paused. A Council Workshop took place on 17 May 2021, a draft MTSA project workplan and draft public engagement plan were considered and endorsed by Community Planning, Regulation and Mobility (CPRM) Committee of Council in early June 2021.

The precinct plan illustrated: seven precincts; a hierarchy of street types; potential locations for a transit plaza and public service uses; several proposed new parks; and conceptual active transportation links within the overall study area.

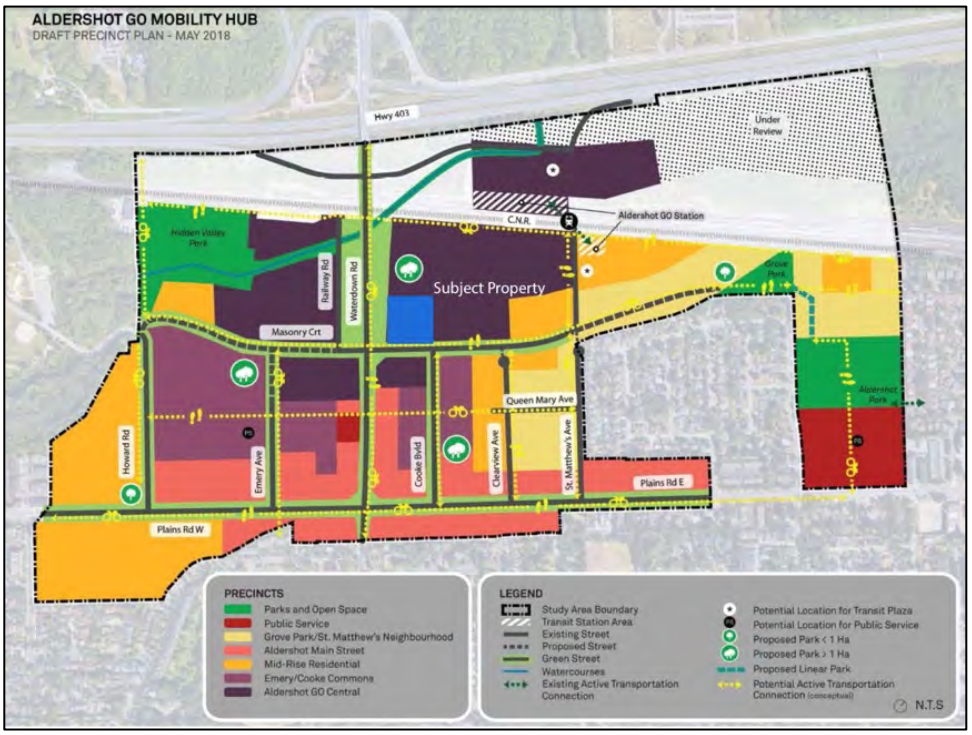


Figure 22 Draft Aldershot Go Mobility Hub Precinct Plan 2018

The subject property is located within the Aldershot GO Central Precinct which is conceptually centred around the intersection of Waterdown Road and Masonry Court.



Figure 23 Draft Aldershot GO Central Precinct Plan 2018

The precinct plan identifies the Aldershot GO Central Precinct as a location in which to establish a "height peak" in close proximity to the rail corridor and GO station. The precinct plan notes that:

"*The precinct will accommodate the most significant concentration of residential, retail and commercial uses and be the preeminent destination for office, affordable housing and urban format retail. Development will significantly contribute towards the creation of a complete transit-oriented community and achieve a high degree of compatibility with adjacent land uses and transportation infrastructure.*

"*Key Directions*

- *Establish a maximum building height of 30 storeys, where appropriate and compatible.*
- *Require developments to achieve a high standard of architectural and urban design excellence to create a distinct and identifiable landmark area within each hub.*
- *Introduce a requirement for buildings to incorporate a podium element to create a pedestrian scaled environment at street level.*
- *Provide residential developments that achieve a level of affordability and mix of unit sizes and bedrooms to attract people from a range of income and demographics to the areas in close proximity to the GO station.*
- *Require retail, office and/or other service commercial uses at street level within buildings.*
- *Introduce new building setback requirements from the sidewalk at street level to allow for potential patio spaces, greenery and/or other elements that will enhance the public realm and pedestrian experience and enjoyment.*
- *Incorporate a significant employment function within mixed use developments.*
- *Require developments to achieve a minimum of two uses within a building.*
- *Require the provision of Transportation Demand Management (TDM) and traffic mitigation measures within developments, such as carshare, transit passes, shared parking facilities, etc.*"

The precinct plan identified the potential for the Aldershot GO Central Precinct to accommodate a mix of stacked townhouses, mid-rise and tall buildings and notes that the precinct will be the location of the area's tallest buildings.

4.4. City of Burlington Tall Building Guidelines (May 2017)

General Guidelines

2.1a) The podium shall be located to frame the street. On corner lots, the podium shall be located to frame both streets.

2.4j) On corner lots, articulation of the podium should acknowledge its important location through corner entrances, chamfering (and associated public space), and/or other architectural features.

3.1b) Where multiple towers exist on a site, they shall be arranged to provide a gradual and appropriate transition in height to adjacent uses.

4.1d) Where located at a gateway intersection or terminating view, the tower top is encouraged to act as a recognizable landmark with signature features defining its importance.

Site Circulation

2.1d) On sites with multiple towers, mid-block pedestrian connections should be provided through the podium to enhance permeability, break-up the podium, and create additional corner conditions.

2.4g) Main building entrances shall be clearly demarcated, and should be a focal point of the building design. Where applicable, main building entrances should be located at the corner of an intersection and/or in close proximity to transit stops.

2.5e) Publicly-accessible private open spaces should be used to provide mid-block pedestrian connections through the site and create short block lengths (80-120 metres).

Podium Massing

2.1c) Where no streetwall has been established, setbacks should create a 6.0 metre boulevard width to accommodate pedestrians, street trees and landscaping, and active at-grade uses.

2.2a) The height of the podium, and the tower stepbacks above, should generally reflect the established streetwall subject to the guidelines below. Small variations are encouraged to create a varied streetscape.

2.2b) Where no established streetwall exists, the minimum height of the podium should be 10.5 metres.

2.2 c) The maximum height of the podium should be 80% of the adjacent right-of-way width, up to a max of 20 metres.

2.4f) Large podiums shall be broken into smaller components both visually and functionally. Mixed-use podiums shall reflect multiple retail units, while residential buildings shall provide individual entrances for ground floor units.

2.4k) Mixed-use buildings with retail at grade should incorporate vestibules, frequent building entrances, canopies and structural overhangs to provide weather protection for the length of the street.

Tower Massing

2.2e) Above the podium, stepbacks should be provided on all sides to clearly differentiate between the building podium and tower.

3.1a) The placement of the tower shall have no adverse impacts on adjacent Residential Neighbourhood Areas, parks, open spaces, or natural areas.

3.1c) A minimum separation distance of 25 metres shall be provided between towers to maximize privacy and sky views, and to minimize the cumulative shadow impacts of multiple tall buildings. Balconies shall not be provided within this separation distance.

3.2b) The height of the tower, and its location on the building base, shall provide a gradual and appropriate transition in height to adjacent uses. Where multiple towers exist on a site, this transition shall be reflected across the entire site.

3.2c) The tower portion of a tall building should be slender and shall not exceed 750 square metres, excluding balconies.

5.2c) Mixed-use, commercial and apartment buildings shall provide flexibility in the building floor plate, envelope and façade design to accommodate a variety of uses over their lifespan.

Public Realm and Open Space

2.2f) Stepbacks should be a minimum of 3 metres to ensure usable outdoor amenity space (i.e. patios).

2.4e) Portions of the podium that are not occupied by a tower should be used as outdoor amenity space to provide casual surveillance and interesting views from the street.

2.5c) Publicly-accessible private open space, including courtyards and plazas, parkettes, or Neighbourhood Parks (where site size permits) should be encouraged within tall building sites through applicable planning tools (i.e. Section 37).

2.5d) Publicly-accessible private open spaces shall be designed and located to encourage public use, provide connections to the broader open space network, and/or highlight important site characteristics (i.e. plazas at corner sites).

2.5f) Public art should be encouraged within tall building sites where appropriate (i.e. on corner sites, sites with publicly-accessible private open spaces, etc.) through applicable planning tools (i.e. Section 37). The selection and location of public art should reinforce the objectives of the City's Public Art Master Plan.

4.1e) Where possible, outdoor amenity space should be included within the top of the building, including balconies and patios, terraces, rooftop gardens, pools, etc.

5.1b) On larger sites, vegetative or grassy swales should be provided between buildings, and within courtyards and open spaces. These drainage basins should be planted with native plant materials that thrive in wet conditions.

5.1d) Existing significant trees and vegetation should be protected and incorporated into site design.

5.1e) Recommended landscape materials should include species that are native to the City of Burlington and non-invasive, as well as species that are generally drought resistant and require minimal maintenance.

5.2d) Vegetated or "green" roofs are recommended, especially in areas with minimal landscaping, to minimize water runoff, improve building insulation, and provide additional outdoor amenity areas.

Parking Servicing and Utilities

2.2d) The floor-to-ceiling height of the ground floor shall be a minimum of 4.5 metres to accommodate internal servicing and loading, and active commercial uses (where permitted).

2.5a) Parking, servicing and loading shall be accommodated internally within the building podium and screened from the street.

2.5b) Access to parking, servicing and loading shall be provided from the rear of the building, or a laneway where possible. On corner sites, access may be provided from secondary streets provided the entrance facilities are well integrated into the rest of the frontage.

4.2a) Rooftop mechanical equipment shall be sized and located and screened from view, in order to protect or enhance views from other buildings and the public realm.

4.2b) Where possible, rooftop mechanical equipment should be wrapped by residential units, or other occupiable space (i.e. amenity areas).

4.2c) Rooftop mechanical equipment should be limited to no more than 50% of the area of the uppermost floor, and stepbacks on all sides should be no less than 3 metres from the edge of the floor below to ensure they are screened from view.

5.2g) All buildings should have conveniently located waste management facilities to support the separation of waste into different streams according to reuse and recycling regulation (i.e. compost, paper, plastics, etc.).

5.1a) Site design shall minimize impervious hard surfaces. Parking should be located underground, and driveways should be as small as possible within allowable standards.

Weather Protection

3.2a) The total height of the tower (including the top) shall ensure no adverse impacts on adjacent Residential Neighbourhood Areas, parks, open spaces, or natural areas.

3.2d) The massing of the tower, and its relationship to the building base, shall not result in adverse wind effects at the street level.

3.3a) The design and placement of the tower shall be carefully considered to minimize the size of shadows on the opposite streetscape, and the time it takes for them to pass.

3.3c) The widest edge of the tower should generally be oriented in an east-west direction to minimize the impacts of shadows.

3.3d) It is recommended that a shadow study be provided with tall building applications to demonstrate the impacts at the equinoxes (March 21 and September 21).

Sustainability and Microclimate

2.4n) Notwithstanding the above, the design and materiality of the podium should reflect bird-friendly best practices.

5.1c) Porous pavement, and landscaped areas with adequate size and soil conditions, should be maximized to increase the total amount of water run-off absorbed through infiltration.

5.1f) Landscape design should incorporate strategies to minimize water consumption (i.e. use of mulches and compost, alternatives to grass and rainwater collection systems).

5.1g) Well-drained snow storage areas should be provided on site in locations that enable melting snow to enter a filtration feature prior to being released into the storm water drainage system.

5.2a) New buildings should be encouraged to seek Leadership in Energy and Environmental Design (LEED) certification, or an equivalent design standard.

5.2b) New buildings are encouraged to reduce the energy consumption of building and site systems (HVAC, hot water, lighting) through the use of appropriate mechanical and construction technology (natural cooling, light recovery, passive solar design, etc.).

5.2e) Water use reduction technologies are encouraged, including water-efficient appliances, such as aerators, low-flow shower heads, dual-flush toilets, front-loading washers, waterless urinals and high-efficiency dishwashers.

5.2f) Waste water technologies, such as rain barrels or cisterns, are encouraged in new buildings to collect and filter rain water to be recycled for non-potable domestic uses.

5.2h) Where possible, construction materials should be recycled to reduce the environmental impacts of extracting and manufacturing new materials. If there are no salvageable materials available, efforts should be made to purchase materials from demolition sales, salvage contractors and used materials dealers.

5.2i) New construction materials should be locally sourced to reduce the impacts of transportation. Canadian products are generally designed to withstand our climate.

5.2j) Construction materials should be durable and consider life cycle costing to avoid premature replacement.

5. Urban Design Assessment

5.1. Strategies

The urban design intention of the proposed development is to:

(i) expand on the neighbourhood of the successfully created Phase 1 by introducing a different residential typology consisting of a higher density condominium development to create a variety of housing choices for the area;

(ii) utilize a built form that defines street edges and reinforces the spatial definition of the park to the North;

(iii) attract new residents to the area with a high quality of life and amenities that create a community in itself; and

(iv) enhance the pedestrian experience on surrounding streets.

The design of the proposed development is intended to contribute to the development of a future mobility hub, providing environmentally-sustainable well-located places to live.

5.2. Site Organization

The proposed development is a composition of tall buildings with street defining podium elements complemented by a series of outdoor spaces, varying in size and configuration. The building elements are generally organized around a central outdoor courtyard with the podium components providing buffering against: the relatively high-speed traffic on Waterdown Road to the west where it becomes an overpass; and the CN Rail corridor further to the north.

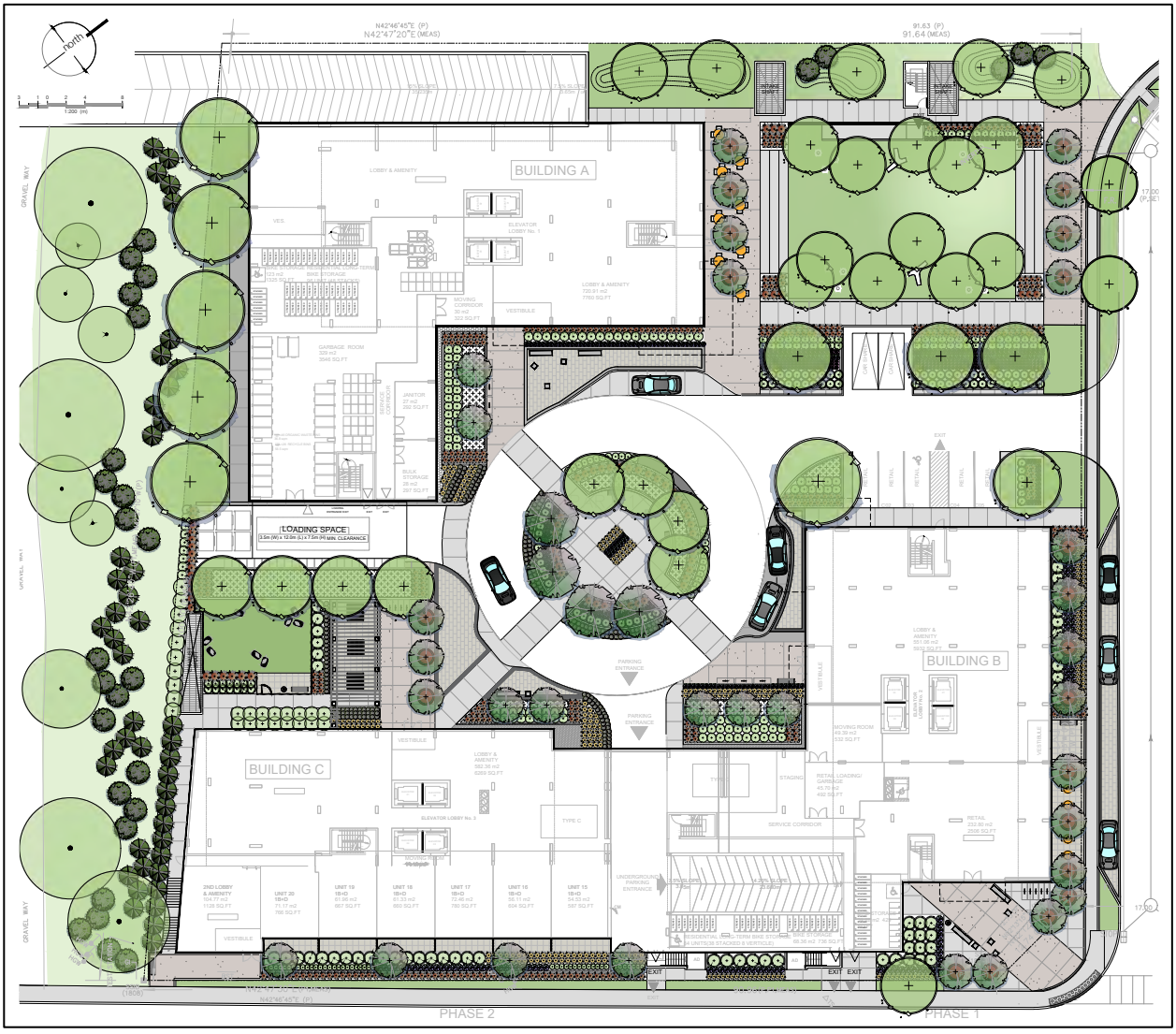


Figure 24 Landscape Plan Source Adesso Design

The proposed central courtyard is open on the north east corner of the property where an at grade outdoor open space is proposed. This open space, which is private, provides a visual connection between the more contained courtyard and the adjacent future public open spaces that will be located to the north.

The courtyard is also open to the Waterdown Road frontage the west in a gap between the podiums of Building A and C. Pedestrian links are provided along this edge of the property by means of a sidewalk parallel to Waterdown Road. No direct pedestrian access to Waterdown

Road itself is possible along this frontage because of the grading of the embankment, other than the sidewalk connection at the intersection of Waterdown Road and Masonry Court. Underground parking is proposed below the at-grade open spaces.

The tallest towers (Buildings A and B at 36storeys) are located on the west edge of the subject property on the Waterdown Road frontage. Building C, which is located at the intersection of Masonry Court and Cooke Boulevard, steps down in height to 26 storeys in total. The podium elements are: 3 storeys between Buildings B and C and 4 storeys at Building A.

Two roof top outdoor amenity areas are included in the proposed development: one between Buildings B and C overlooking both Masonry Court and the proposed courtyard; and another on the roof of the podium of Building A, overlooking Waterdown Road and the proposed courtyard.

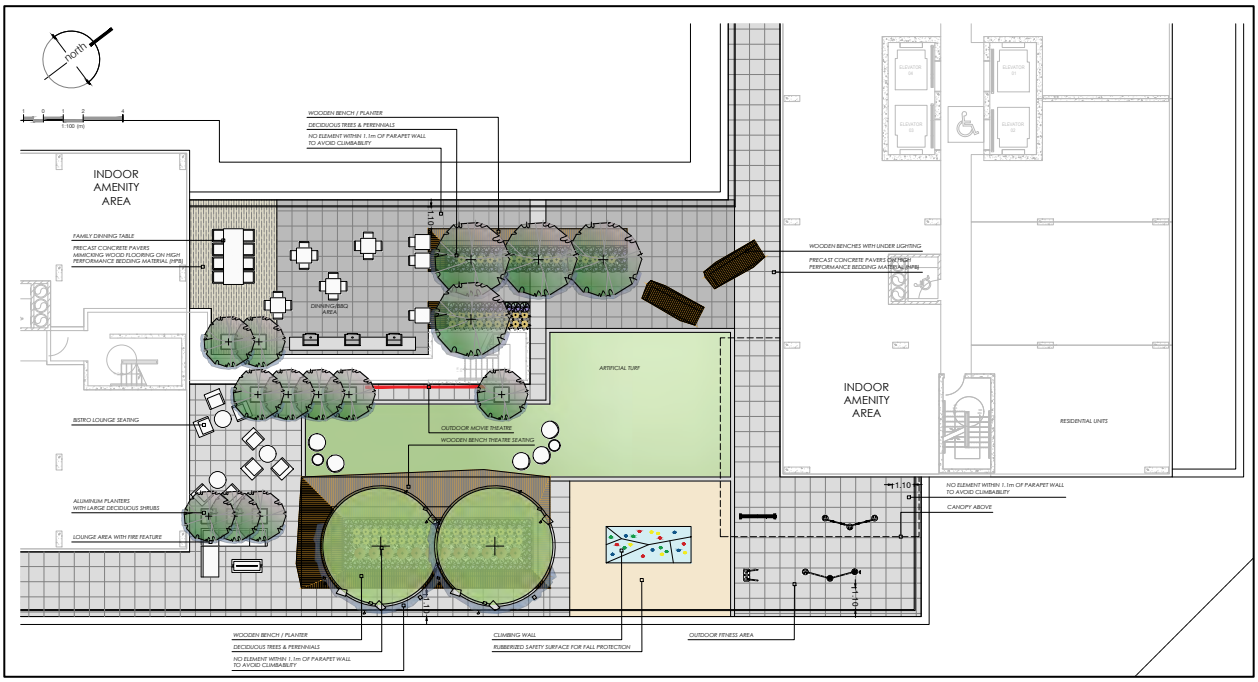


Figure 25 Podium Roof Top Outdoor Amenity Space Between Buildings B and C Source Adesso Design

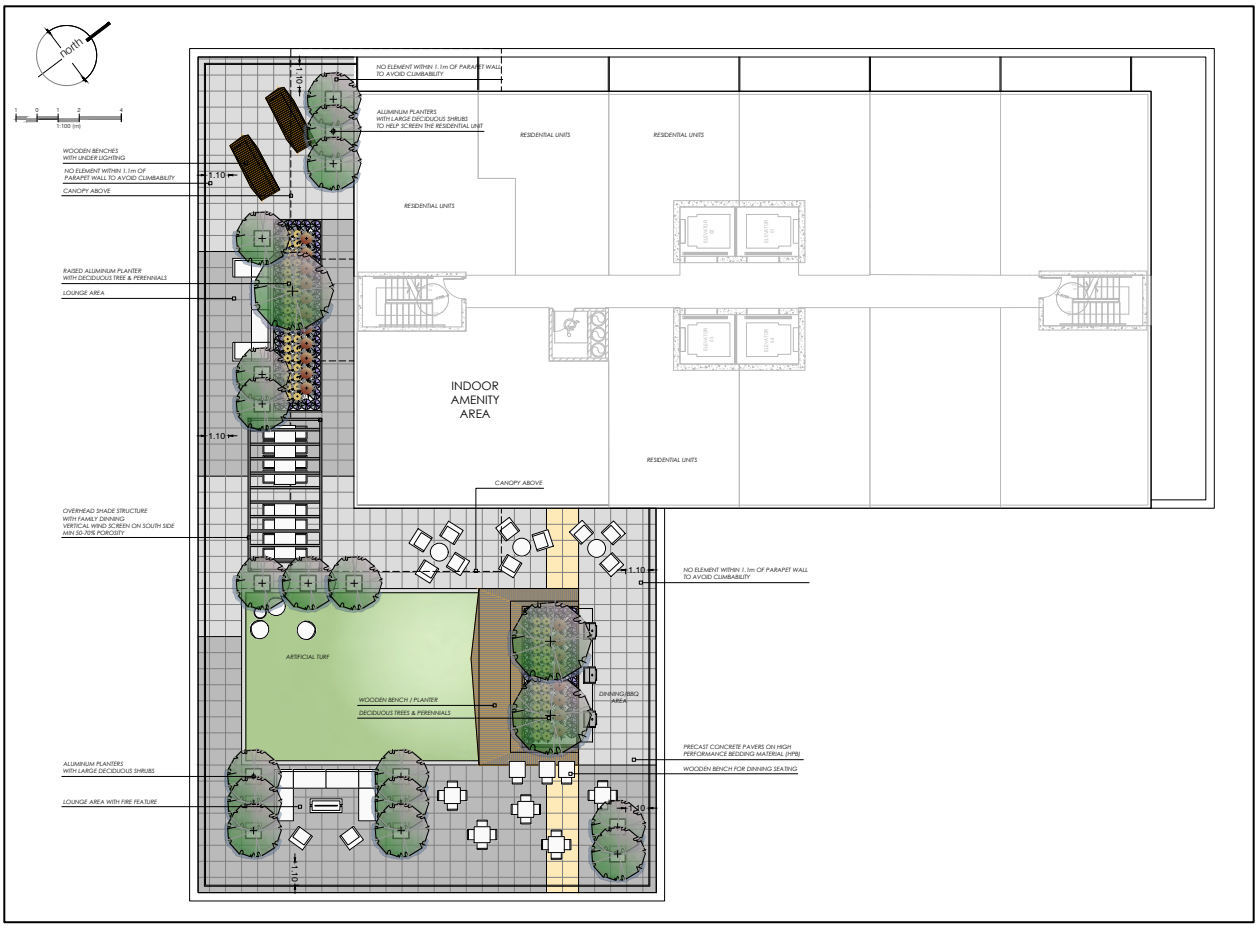


Figure 26 Podium Roof Top Outdoor Amenity Space Building A Source Adesso Design



Figure 27 View Looking East Along Masonry Court Source CORE Architects

The major intersection in the immediate vicinity is at Waterdown Road and Masonry Court. A gateway/open space area that will provide a sense of arrival from the west is proposed for the intersection of Masonry Court and the extension of Cooke Boulevard at the south east corner of the subject property. It will be framed by well-proportioned podium elements and designed with consideration of the approved mid-rise buildings that will be located opposite, east of the extension of Cooke Boulevard. A retail use is proposed at this corner of the proposed development.

As noted elsewhere in this report, access for vehicles is organized in two locations, along the eastern edge and at the north west corner of the subject property, while pedestrian access throughout the proposed development is provided by pathways in the courtyard and associated open spaces linking proposed outdoor areas with Cooke Boulevard and the future park to the north.

The site organization will support the overall vison for the lands north of Masonry Court while respecting and reinforcing the existing and planned context. Approved mid-rise buildings to the east provide a context for the podium elements of the proposed development which in turn, with appropriate stepbacks, will provide a transition between the proposed 26 storey eastern Building B tower element and the emerging mid and low-rise neighbourhoods to the east and south.

Taller tower elements are located to the west along the Waterdown Road frontage, further away from the existing and approved lower scale residential buildings.

5.3. Pedestrian Circulation and Access

Pedestrian access to the main entrances and lobbies are located adjacent to drop-off areas in the central courtyard. Direct pedestrian access to the proposed courtyard space is provided from the public sidewalk on the extension of Cooke Boulevard. Building C has a second lobby access directly from the sidewalk on the extension of Cooke Boulevard.

Pedestrian connections around the proposed development are located around the periphery of the subject property and include landscaped sidewalk areas on both Masonry Court and the extension of Cooke Boulevard.

Framed by active amenity spaces and large residential lobby spaces, the central courtyard is the focal point for the proposed development. Indoor amenity spaces at grade will have direct access to a variety of landscaped outdoor amenity spaces that line the edge of the courtyard.

The proposed development includes a large consolidated outdoor amenity space at the north east corner of the subject property. Direct access to this outdoor amenity space is provided from a large indoor amenity space that is shared by all residents.

5.4. Parking, Loading, and Servicing

The City of Burlington's Official Plan and Tall Building Guidelines provide guidance for servicing, parking and loading areas in development. In general, both documents indicate the importance of: strategically locating parking, loading and servicing areas to minimize their visibility from the public realm; and providing for a continuous streetscape adjacent to buildings.

The proposed development includes two vehicular entrances: one from the extension of Cooke Boulevard, located approximately at the midpoint of the subject property aligned with the private street to the east; and a second driveway and ramp, connected to Waterdown Road at the north west corner of the subject property, leading directly to and from the underground parking facilities. Drop-off points and entrances to parking and loading facilities take their access from the central courtyard. The parking ramps and all garbage handling and moving facilities located off the courtyard are located fully within the volumes of the proposed buildings and will not be visible from the public realm.

The proposed development a continuous pedestrian zone in front of the building along the active street frontages of Masonry Court and the extension of Cooke Boulevard with a single curb cut.

A consolidated internal residential garbage and loading facility is located in the podium level of Building A. Residential garbage facilities are located at the P1 level below Buildings B and C through which bins can be moved to the primary facility in Building A for pick up. A dedicated garbage handling elevator is provided in Building A. Three individual moving room facilities are distributed in the podium buildings – one below each of the three proposed towers, each with access to Type C loading facilities. Details regarding the phasing of these operations are discussed in a Waste Management Planning Review memo prepared by Dillon Consulting and included in the development application package.

Bicycle parking in both options is provided on the ground floor and P1 levels in a number of enclosed spaces distributed around and accessible from the central courtyard and the lobby/common areas of the podium buildings in which they are located.

5.5. Built Form and Massing

The City of Burlington's Official Plan and Tall Building Guidelines include similar descriptions of appropriate built form and massing strategies. In general, these include policies and recommendations to ensure that new buildings: are compatible with the surrounding area; provide an appropriate transition in scale with regard to adjacent and nearby buildings; create appropriate relationships with the public realm; and provide architectural articulation to achieve an attractive urban built form.

The urban design strategy employed is to locate building elements around a central courtyard, and to deploy the tallest locating building components away from more sensitive lower scale areas.

The area to the east of the subject property, which is currently under construction, will contain a medium-density mixed-building-form residential neighbourhood.

The proposal has been massed to provide appropriate transitions in height and built form towards areas of lower intensity through a variety of design methods such as the careful consideration of building location and orientation and the use of setbacks and stepbacks of building mass - limiting impacts on this new residential area and enabling: the creation of a comfortable human scale and public realm; the provision of sunlight on sidewalks; and the mitigation of potential uncomfortable wind conditions.

Potential light, view and privacy (LVP) impacts from and within developments are generally dealt with through a combination of spatial separation and tower orientation. The options for the proposed development both generate minimal impacts on LVP within the development and in relation to the emerging neighbourhood to the east the existing urban fabric to the south and south east.

The tower elements are separated from one another by: 27.055 metres (Building A to Building C); 29.7 metres (Building B to Building C); and 40.6 metres (Building A to Building B)

These tower separation distances all exceed the recommendations of the City's Tall Building Guidelines, and will allow for ample sunlight to enter into the proposed central courtyard.

Setbacks and Stepbacks include:

Podium facing Masonry Court	3.0 metres where the ground floor meets adjacent grade
Podium facing Cooke Boulevard	3.15 metres
Podium facing SWM/Park	8.42 metres
Podium Facing Waterdown Road	3.15 – 3.49 metres minimum (varies)
Tower C facing Masonry Court	6.65 metre setback – 3.65 metre stepback from podium
Tower B facing Masonry Court	10.4 metre setback – 7.4 metre stepback from podium
Tower B facing Cooke Boulevard	6.74 metre setback - 3.6 metre stepback from podium
Tower A facing SWM/Park	10.45 metre setback – 2.0 metre stepback from podium
Tower A facing Waterdown Road	11.2 metre min. setback (varies) – 7.8 metre stepback from podium
Tower C facing Waterdown Road	4.4 metre min. setback (varies) – 1.25 metre min. stepback from podium

Neither the in-force Official Plan or the 2018 Council adopted Official Plan (which has no policy status at this point in time) identify a minimum or maximum height for the subject property. However, the Draft Aldershot GO Station Precinct Plan (which also has no policy status at this point in time) states that the maximum height should not exceed thirty (30) storeys.

Notwithstanding the requirements of the Draft Precinct Plan, the proposed taller buildings along the west side (36-storeys) are appropriate at this location for the following reasons:

- The tallest buildings (those over 30 storeys) have been carefully located along the western edge of the proposed development, where in any event the tallest buildings in the area should be located;

- The proposed development with the tallest buildings to the west, maximizes access to light and sky view from the new adjacent mid to low-rise neighbourhood to the east and the existing neighbourhoods to the south and south east. Any incremental increase in shadows cast by the buildings over 30 storeys in height in this area, will generally be cast onto areas on the highway-like roadway of the Waterdown Road overpass and on rail infrastructure. While these elements may cast some additional shadow onto future development lands to the west in the morning periods, in our opinion this incremental increase represents a minor and therefore acceptable increase over that which would be cast by buildings up to 30 storeys in height in these areas;

- The proposed tower heights will ensure its visibility and landmark potential, given the unique gateway location of the proposed development - at the centre of the area designated as the Aldershot GO Centre in the Draft Precinct Plan.

The tower elements have footprints that are 750 square metres as recommended in the City's Tall Building Guidelines.

The added height above thirty storeys will assist in better realizing the density potential of the Go Central Area in proximity to expanded GO Transit service.

The proposed towers meet and, in many cases, exceed the minimum separation distances recommended in Burlington's Tall Building Guidelines. Concentration of the density in the tower elements allows the podiums to be kept to 3 and 4 storeys which contributes substantially to the access to sunlight in the nearby public realm.

5.6. Public Realm

The streetscape and the central courtyard and associated open spaces, which vary in size and configuration, will contribute to the creation of a human-scaled and visually interesting urban environment at this gateway location in the Aldershot GO Centre area.

The connections between the central courtyard and the extension of Cooke Boulevard to the east are generously scaled and appropriately landscaped. The proposed development offers an enhanced landscape condition at the edge of the new municipal street in the form of the landscaped interface and broad visual connection to the open spaces to the north (new public park and storm water management facility).

5.7. Shadow Study

Shadow studies have been prepared by CORE Architects to meet the City of Burlington's Shadow Study Guidelines and Terms of Reference (June 2020) which provide standardized shadow impact criteria, recommending that shadows from a proposed development may be depicted on the hours between early morning through early evening on March 21st, June 21st September 21st, and December 21st. Shadow studies between 9:00AM and 18:00PM have been prepared.

The shadow study is not illustrated in the Urban Design brief. The full shadow study is part of the development application package.

The Council-adopted City of Burlington Official Plan (2018) states in Policy 7.3.2 that development shall adequately limit any resulting shadowing on the streetscape, neighbouring properties, parks and open spaces and natural areas.

Additional guidance is provided in the City's Tall Building Guidelines for the height and massing of the podium as well as the tower. For podiums, the guidelines recommend that the height and massing of the podium (not including the tower) should ensure a minimum of five consecutive hours of sunlight on the opposite side of the street at the equinoxes, except where existing conditions preclude.

The guidelines also recommend that the height and massing of the podium should ensure a minimum of five consecutive hours of sunlight over more than 60% of a park or playground area or a public open space at the equinoxes.

Beyond the shadow guidance for the podium the Tall Building Guidelines recommend the minimum separation distance of 25 metres between towers to minimize cumulative shadow impacts.

The City's shadow study terms of reference require the calculation of a number of sun access factors. These calculations are part of the shadow study package. The shadow study concludes that:

"*The proposed buildings at 1120 Cooke Blvd, Burlington and its resultant massing fits all criteria with reference to the City's Shadow Impact Criteria except the Neighborhood Park area during the winter time which the simulations indicate that SAF fell slightly below the required 0.5 SAF.*

The specific points that relate to this site are as follows: Neighborhood Park area, Private Outdoor Amenity Space and Public Realm/Sidewalks. There are only a few private backyards to the East of the subject site adjacent to Queen Mary Ave and Clearview Ave which are minimally impacted by the proposed development.

The proposed massing results in a calculated SAF of 0.83 on March/September and SAF of 0.42 on December for Neighborhood Park, SAF of 0.30 for Private Outdoor Amenity Spaces and SAF

of 0.86 for Public Realm and Sidewalks, well above the minimum requirement of 0.22 and 0.5 respectively."

Based on the foregoing the proposed development will conform to the Official Plan policy requiring development to adequately limit any resulting shadowing on the streetscape, neighbouring properties, parks and open spaces and natural areas.

The proposed development will provide integrated weather protection elements in the building façade in a number of locations associated with pedestrian circulation and recreation. Down drafts and wind effects will be mitigated by the façade treatment and building articulation. All weather protection design elements will be finalized at the Site Plan Approval stage.

6. Conclusions

This Urban Design brief concludes that the urban design, form and pattern of the proposed development appropriately addresses the relevant municipal policy objectives and guideline recommendations with respect to the intensification within built-up areas, with a particular focus on sites located within strategic growth areas, including Major Transit Station Areas (MTSA).

The development is supportive of and appropriately address the urban design-related policies in the City of Burlington current and new Official Plans, in addition to the recommendations contained in the Burlington Tall Buildings Guidelines.

The proposed development will be appropriate and desirable at its important location within the Aldershot Mobility Hub. It has an urban design character that appropriately reflects transit-supportive, pedestrian-oriented development and supports the City's planned urban structure for the area.

The proposal represents appropriate development in terms of fit within the urban design structure of Burlington, building heights and scale within the emerging Major Transportation Station Area. The proposed composition of tower and podium components, results in an appropriately scaled pedestrian oriented development that will address and frame Masonry Court, Cooke Boulevard and Waterdown Road and the future park and SWM facility to the north with good proportions.

For the reasons set out in this brief, we are confident from an urban design perspective, that the proposed development will be appropriate and desirable, represent good urban design practice and will be able to be appropriately accommodated within the overall regulatory framework for the area.



Acronym
Urban Design & Planning