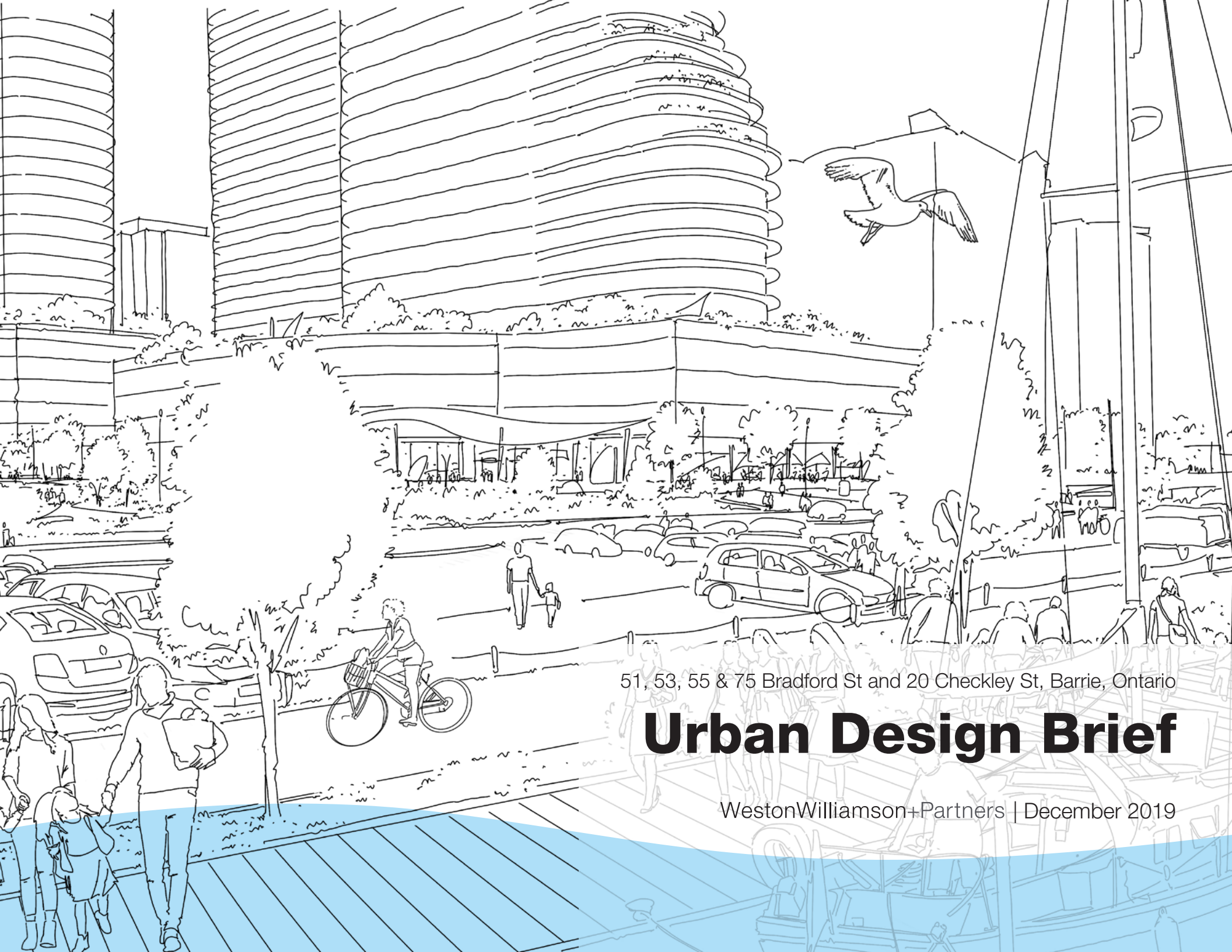




51, 53, 55 & 75 Bradford St and 20 Checkley St, Barrie, Ontario

Urban Design Brief

WestonWilliamson+Partners | December 2019



Figure 1. City of Barrie's Marina

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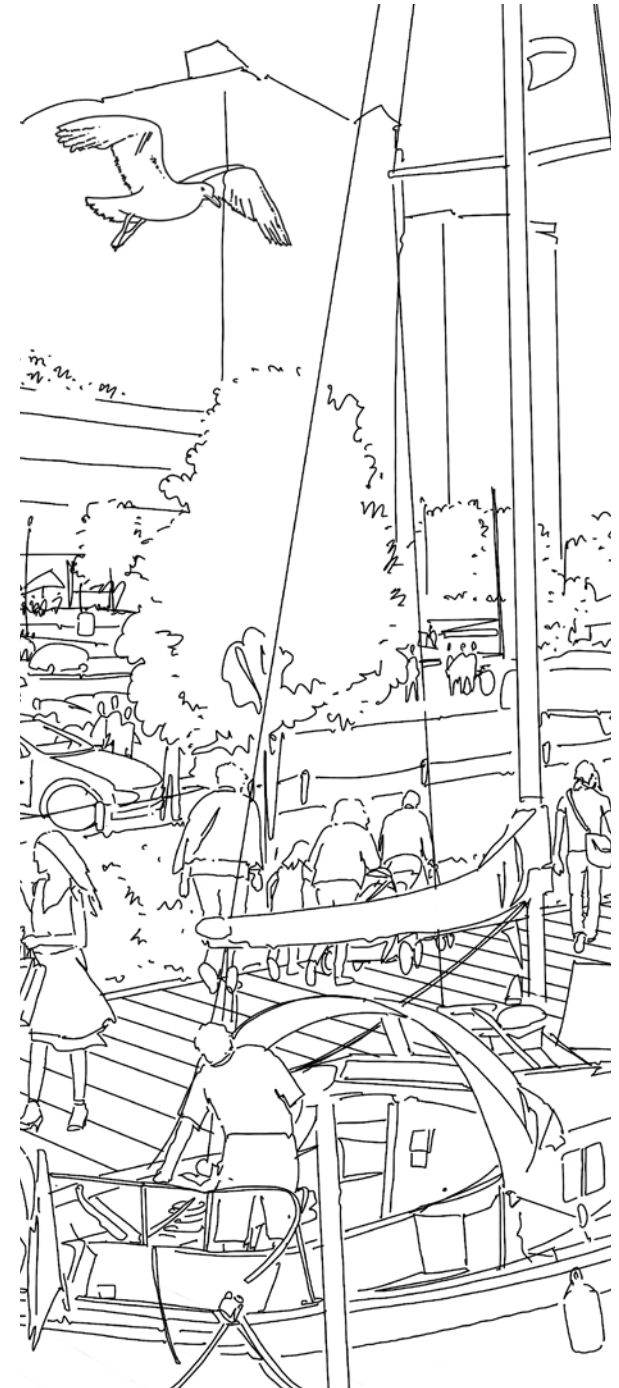




Figure 2. Proposed Development - View from *Barrie By The Bay Shopping Mall*

1. Purpose

This Urban Design Brief (“The Brief”) has been prepared by Weston Williamson + Partners to define the urban design vision, strategy and rationale for the form and pattern of Barrie Lakeshore Developments being proposed through a partnership between Greenwin and Smartcentres: two well established developers with a proven track record and a strong understanding of Canadian communities. Together with the City of Barrie, they have been working collaboratively to establish a vision for a portion of land bounded by Bradford Street and the waterfront.

The Subject Site (“The Site”) is municipally addressed as 51, 53, 55 & 75 Bradford St and 20 Checkley St. It is located east of Bradford Street,

west of Lakeshore Drive, south of the Grand Harbour Condos and north of the Nautica Condos. Overall the proposal represents intensification within the *Urban Growth Centre* (UGC) of the City of Barrie by planning a new mixed-use development facing the lakeshore and the more commercial Bradford Street. This development will urbanize, intensify and transform the current underdeveloped state of the area into a compact, permeable, highly connected, and pedestrian friendly environment that also preserves and enhances valuable natural elements such as the creek and the lakeshore. The Phase 1 of the development is proposed to start with the construction of the eastern building facing Lakeshore Dr.

“The Site” will have to undergo an official plan amendment and re-zoning to change the previously approved development scheme. The proposal seeks to re-zone the entire property from C2-2 to C1/C2 zoning provision. The current zoning is based on a previous owner’s plans which do not take into account the potential benefits the Site can deliver for Barrie. A new zoning application will therefore be required to allow for future, along with greater height and densities.

The purpose of “The Brief” is to illustrate an urban design concept and describe how the proposal will amend and also re-zone the property by addressing the various guidelines, policies and objectives provided for the UGC of the City of Barrie.



Figure 3. Proposed Bradford Street looking North

WW+P Image

2. Policy Framework

The Subject Site is designated as ‘City Centre’ and is within the ‘Urban Growth Centre’, an intensification area in the City of Barrie Official Plan. “The Site” is further identified as a ‘Commercial Planning Area’ within the Schedule B of the Official Plan and consists of four zones; one environmental Protection Area and three development zones; namely, EP, C2-2 (SP-437) (H-114), C2-2 (SP-438) (H-114), C2-2 (SP-436) (H-114) in the *Zoning By-Law 2009-141 North Section Plan* of the City of Barrie (please see official plans on pages 4 and 5 of this Urban Design Brief).

The Brief provides a summary of the relevant urban design policies and guidelines that were developed by the City of Barrie to ensure a development compatible with the existing built fabric in the area. The policy framework also encourages the creation of an attractive pedestrian urban realm that is supportive of active modes of transportation (i.e. walking, cycling, and private and public transit), and is environmentally sustainable.

These design principles have been taken into account within the proposed mixed-use development aiming to create a safe, healthy,

efficient, convenient, and aesthetically pleasing urban environment that also promotes a sense of place and local identity within a community.

The following page illustrates the current official policy documents that the proposed development has followed and responded to. However, all the individual principles listed within these documents do not always apply to each specific development, and are dependent upon the site location and the nature of the proposal. The specific principles which have been taken into account are listed in Section 4 of this Urban Design Brief.



Figure 4. View looking north from Lakeshore Drive

2.1 City of Barrie Official Plan 2018

The Official Plan establishes a set of goals, objectives and policies for proposed public and private developments within the City of Barrie.

It provides a comprehensive framework for guiding and controlling growth in Barrie so as to provide a balanced expansion and building diversification, a healthy community environment as well as a mix of uses and civic attractions in harmony with the existing context.

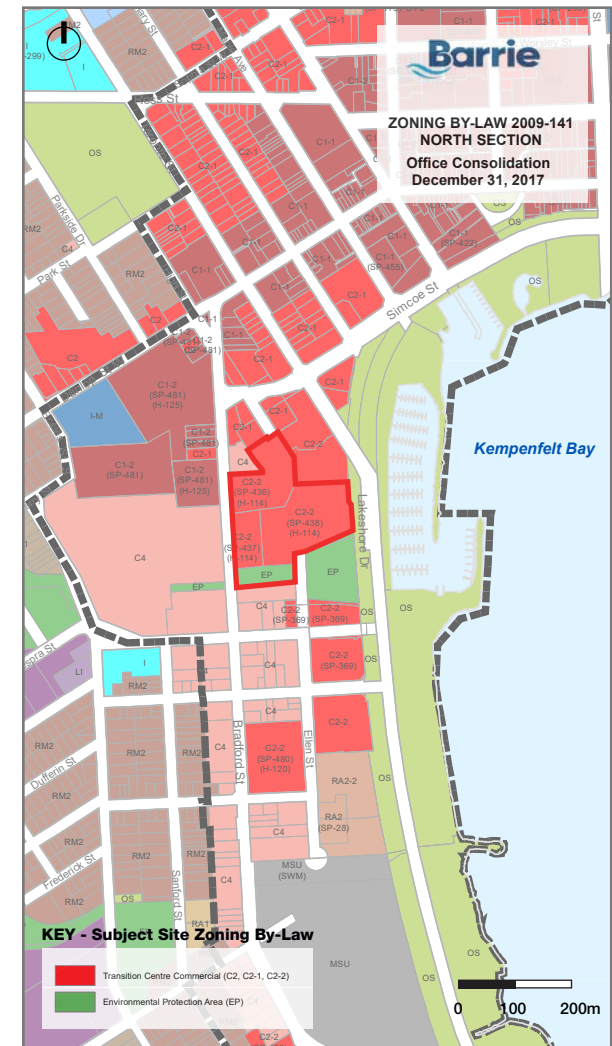


In Section 6.6 of the Official Plan, contains the City's policies in which apply to any proposed buildings which are greater than three storeys in height.

Overall the aim of the policies is to provide direction to creating a high-quality environment where intensification is proposed and measures to mitigate its impact on the surroundings. Elements such as,

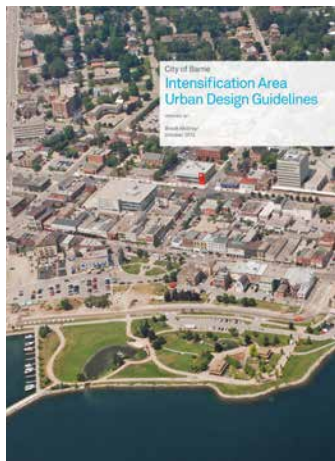
- The visual and physical impact on the surroundings;
- Preservation and/or definition of any vistas;
- Setback and separation distances;
- Accessibility to the waterfront;
- Microclimatic impacts;
- Compatibility with its existing and future context;
- Parking provisions; and
- Architectural design excellence.

The sections in this brief illustrates how the proposed development has responded to the above elements.



2.2 City of Barrie – Intensification Area Urban Design Guidelines

The City of Barrie Intensification Area Urban Design Guidelines provide a vision, a set of priority directions, and detailed design guidelines, to direct new developments within the Intensification Nodes and Corridors, Urban Growth Centre, and Major Transit Station Areas identified in the City of Barrie Official Plan. They provide the City Planning Staff, land owners, developers, designers and the public with clear tools to guide intensification on private and public lands.



The proposed development supports City of Barrie's Intensification Vision by proposing a street-oriented mixed-use buildings with pedestrian-supportive streets, abundant landscaping, public art, and active at-grade uses. Furthermore, the Applicant is committed to work with the City of Barrie to protect and enhance the adjacent pond.

As the site is classified as being within the Urban Growth Centre, the proposed scheme's conforms with the directions outlined in the Intensification Area Urban Design Guidelines (IAUDG) through the following manner:

- Frontages along Lakeshore Drive and Bradford Street are high-quality and provide a new street edge;
- Building separation and setbacks are human-scaled and respond to the surrounding context, notably the waterfront;
- Tall buildings are proposed in the Mixed-Use Main Street area.
- Building transitions are in place to respect neighbouring properties; and
- The character of the open space, built form , and street design will positively contribute to Downtown Barrie.

The Intensification Area Urban Design guidelines reflect the following principles:

1. Create a new development compatible and in balance with the existing built fabric and open spaces
2. Create active, pedestrian-supportive streets that complement adjacent land uses
3. Promote active transportation of all types and healthy environments
4. Activate the public realm
5. Enhance and preserve cultural and natural heritage features
6. Promote a green City development approach
7. Develop leisure and community gathering places such as parks and open spaces, community centres and facilities
8. Encourage creativity and variation through context related guidelines

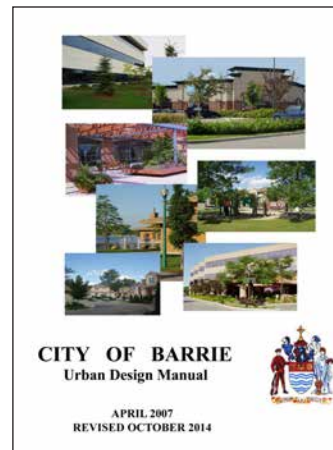
The Urban Design Guidelines reflect the following principles:

1. Promote an inviting physical environment and building siting
2. Maximize pedestrian accessibility
3. Design a discreet vehicle circulation and parking
4. Conceal site servicing within the buildings
5. Create a contextually sympathetic Architectural Design
6. Use lighting fixtures to dramatically enhance the site and its surroundings
7. Integrate the signage to complement the overall design
8. Promote an attractive landscape treatment and improve the visual character of the development
9. Facilitate step-free transit access

2.3 City of Barrie Urban Design Manual

The City of Barrie's Urban Design Guidelines provides direction on matters relating to 'placemaking.' The document implement the urban design policies contained within the Official Plan, to provides direction with establishing the City of Barrie's future urban form, and to ensure that new development is consistent with the City's vision for urban design.

The Guidelines are intended to be flexible. They do not prescribe specific design solutions but rather to express the preferred design objectives of the City.



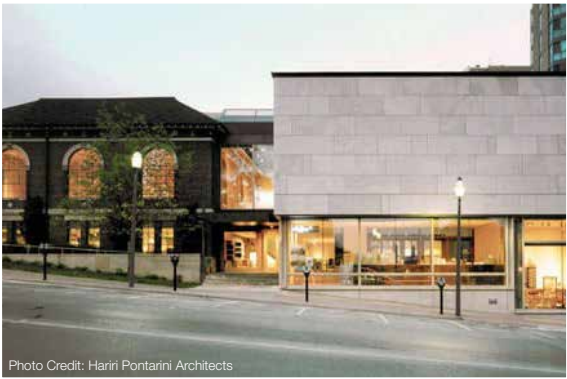
Overall, the proposed development conforms to the policies outlined in the document as the scheme is designed at a human-scale. However, the following are notable features which are embedded in the design and layout for the site:

- A animated pedestrian link from Bradford Street to the waterfront is provided.
- Parking areas are screened within the podiums to reduce/eliminate views from the public realm.
- Active uses are located at the Bradford Street and Lakeshore Drive.
- Buildings are oriented to mitigate from micro-climatic conditions.
- Outdoor spaces are programmed and respond to the quality views provided by the Kempenfelt Bay.
- Pedestrian and vehicular crossing within the proposed development is minimized.
- Movement, access and circulation is designed for ease for emergency vehicles to, within and from the site.

1. Downtown Barrie



2. MacLaren Art Centre



3. Heritage Park



4. Centennial Beach



5. Allandale GO Station



6. Barrie Waterfront

3. Context

3.1 Greater Context

The City of Barrie continues to grow and is shaped by its residents. Understanding the existing context will inform the future development in order to create a vibrant, new community which builds on the emerging character of the City, bringing nature and people together.

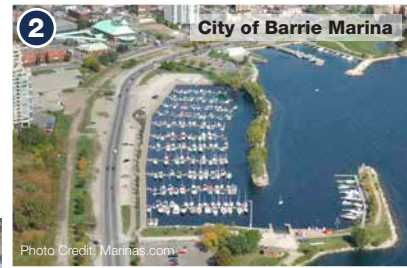
Located at the southern edge of Downtown Barrie, the Subject Site is situated in a strategic location within the Urban Growth Centre (UGC) of the City of Barrie. The UGC has been identified as a higher-density growth and intensification area in Barrie that will sustain and build a strong economy and community, and support a healthy environment for the Simcoe area and Southern Ontario.

The Subject Site is surrounded by heritage, arts, entertainment and public facilities as well as natural features (please refer to the adjacent images and next page) that attract a greater number of residents and tourists:

1. **Downtown Barrie.** The entire area is undergoing strategic growth development of commercial, residential, educational and public space enhancements that will provide the community with spaces to gather and experience.
2. **MacLaren Art Centre.** It's an award winning architectural landmark, a regional art gallery and a cornerstone of culture for Barrie. The arts centre adds to the social, intellectual, creative and economic fabric of the community. It is an example of the City's balance between the historic and modern buildings.
3. **Heritage Park.** It features a gazebo, water feature, paths, duck pond, gardens and features boat docking. The park has become a community gathering place which holds various festivals and events.
4. **Centennial Beach.** Lakefront Park with a sandy beach, offering seasonal swimming with lifeguards, a playground & trail.
5. **Allandale GO Station.** Historic train station that occupies a large property on the southern shore of Lake Simcoe in the waterfront area of Barrie, Ontario, Canada.
6. **Barrie Waterfront.** The Waterfront Trail is the City's most popular path running along Lake Simcoe. The trails offer views of Kempenfelt Bay and the City's skyline and forms part of the eastern boundary of our Site.



Figure 5. Bird's-eye view



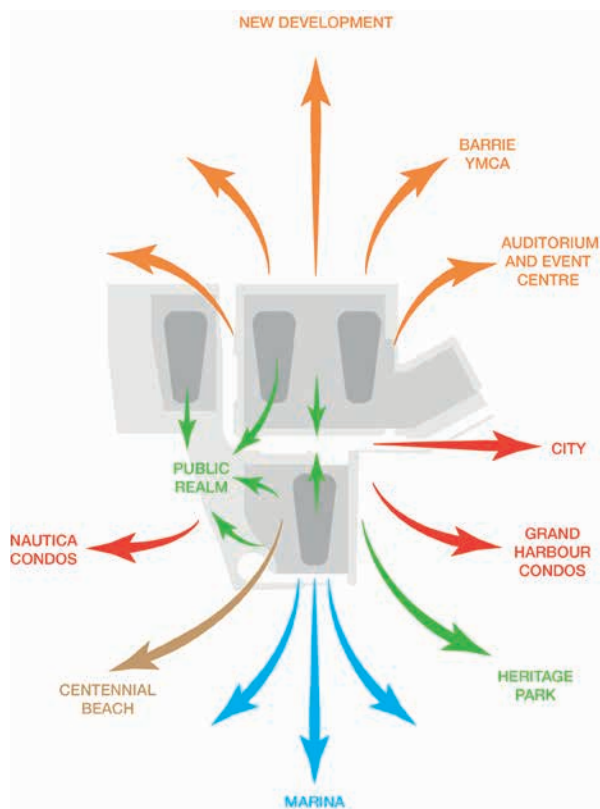


Figure 6. Connection of “The Site” with the surroundings

3.2 The Immediate Context

The neighbourhood that surrounds the Subject Site has a variety of residential, commercial/retail and leisure places which are described below.

Immediately west of the Subject Site, along Bradford Street is a low-rise neighbourhood consisting of single/double storey residential buildings as well as a low-rise commercial/retail development, including the *Barrie By The Bay* Shopping Mall. It is one of the three malls within Barrie, which offer a shopping experience not only for Barrie, but also for Huronia and Muskoka.

Adjoining the Subject Site are high-density residential buildings, the Grand Harbour Condos to the north-east and the Nautica Condos to the south-east, both consisting of 16-storey buildings fronting onto Lakeshore Drive and Lake Simcoe.

On the north-west of the Subject Site two major public facility projects will take place to support the neighbourhood growth and development in Barrie. A new YMCA public facility is planned to be built as a new regional hub in order to support the youth-at-risk but also create a gathering place for the whole local community.

A new auditorium is proposed for the site next to the YMCA. The proposal is for a multi-purpose centre which would consist of a 650-seat theatre and 400-seat centre for cultural events.

Immediately east of the Subject Site, the City of Barrie Marina and waterfront offer leisure opportunities and attractions throughout the year. With its high quality natural environment and amenities, it is recognized as a major contributor to the lifestyle enjoyed by residents and visitors as a meeting and social interaction place.

“The Site” benefits from a high degree of access to local and regional public transit and a robust vehicular road network. There are different bus routes operating immediately adjacent to the Site including routes 1 and 4, and within 400m, routes 2 and 3 to name a few. Also, within 600m to the north-east of the Site, there is the Barrie Bus Terminal, a main transit Hub for the local Barrie Transit system and an intercity stop for the GO Transit, Ontario Northland and Greyhound Canada services.

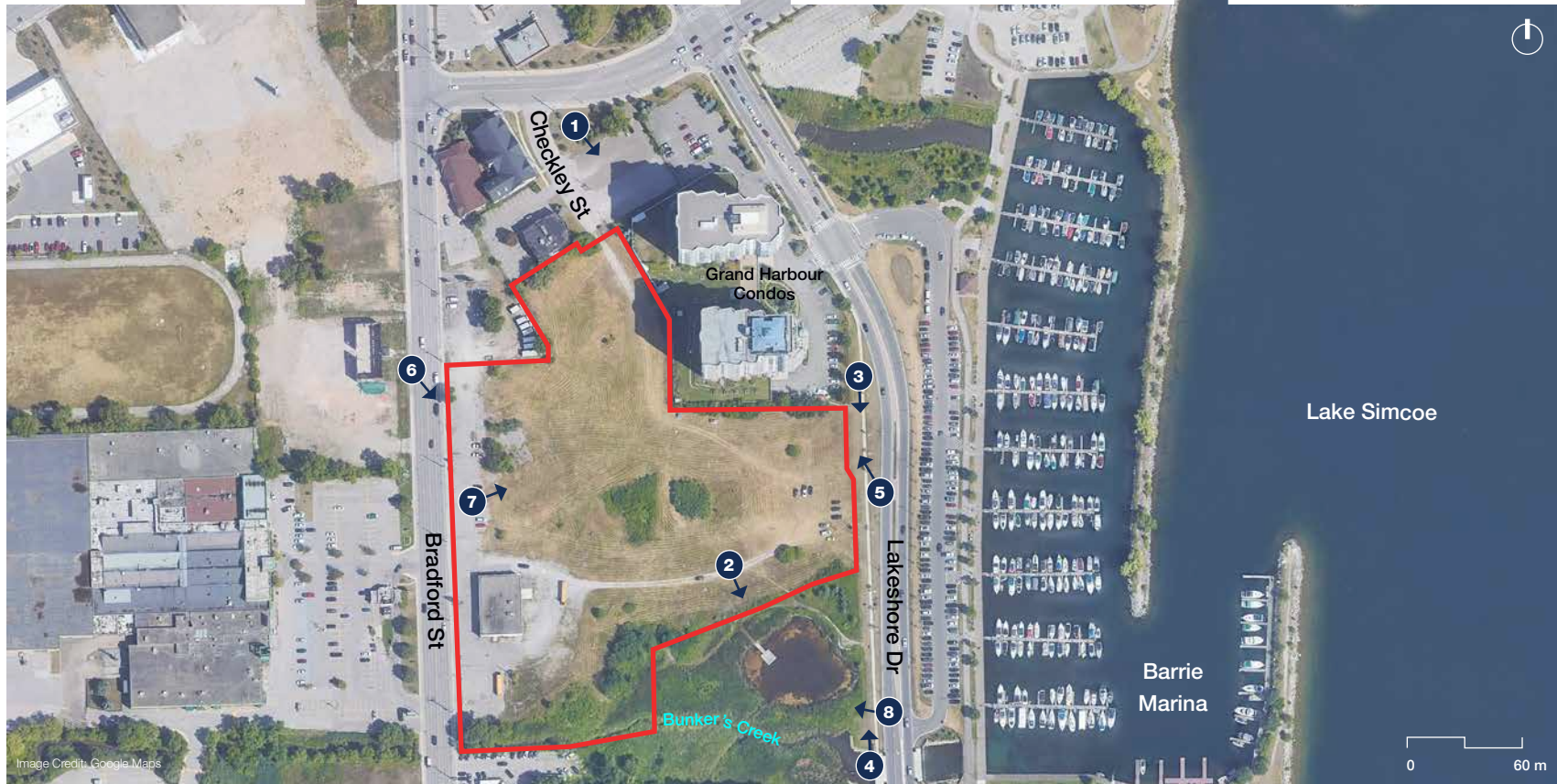




Figure 7. Bird's-eye view

3.3 The Site Today

The Subject Site is located within the Urban Growth Centre of the City. It is bound by Bradford Street to the west, Lakeshore Drive to the east, and a mixture of low and high-density residential buildings to the north and south. The site is an irregular shaped parcel of an overall land area of 7.8 acres. Along Bradford Street the sites frontage is 650ft just and along Lakeshore drive it is 275ft. It is located approximately 164ft to the west of Barrie's Marina and Waterfront Trail, adjacent to Lakeshore Drive.

The Subject Site currently contains an existing single storey building on its south-west side while the whole remaining surrounding land is vacant.

A portion of Bunker's Creek runs along the southern portion of the land, draining into Lake Simcoe to the east. Due to its proximity to this Creek, a portion of the land contains an identified floodplain where flow route capacities will have to be preserved.

The Site's topography gradually descends from the north-west down towards the south-east with a significant slope adjacent to Bunker's Creek.

There are three entrances in to "The Site". The main accesses are provided from Bradford Street and Lakeshore Drive, whilst a secondary entrance can also be made via Checkley Street to the north.

The Subject Site is a unique place, set within a nature led environ with unparalleled views and access to Lake Simcoe. It offers an inspiring setting for the masterplan vision. Our proposal seeks to deliver a development that enhances the existing setting and provides greater access and opportunity for people moving between the City Centre and the waterfront.





Figure 9. Existing building on the Subject Site



Figure 10. Bird's-eye view of the Marina

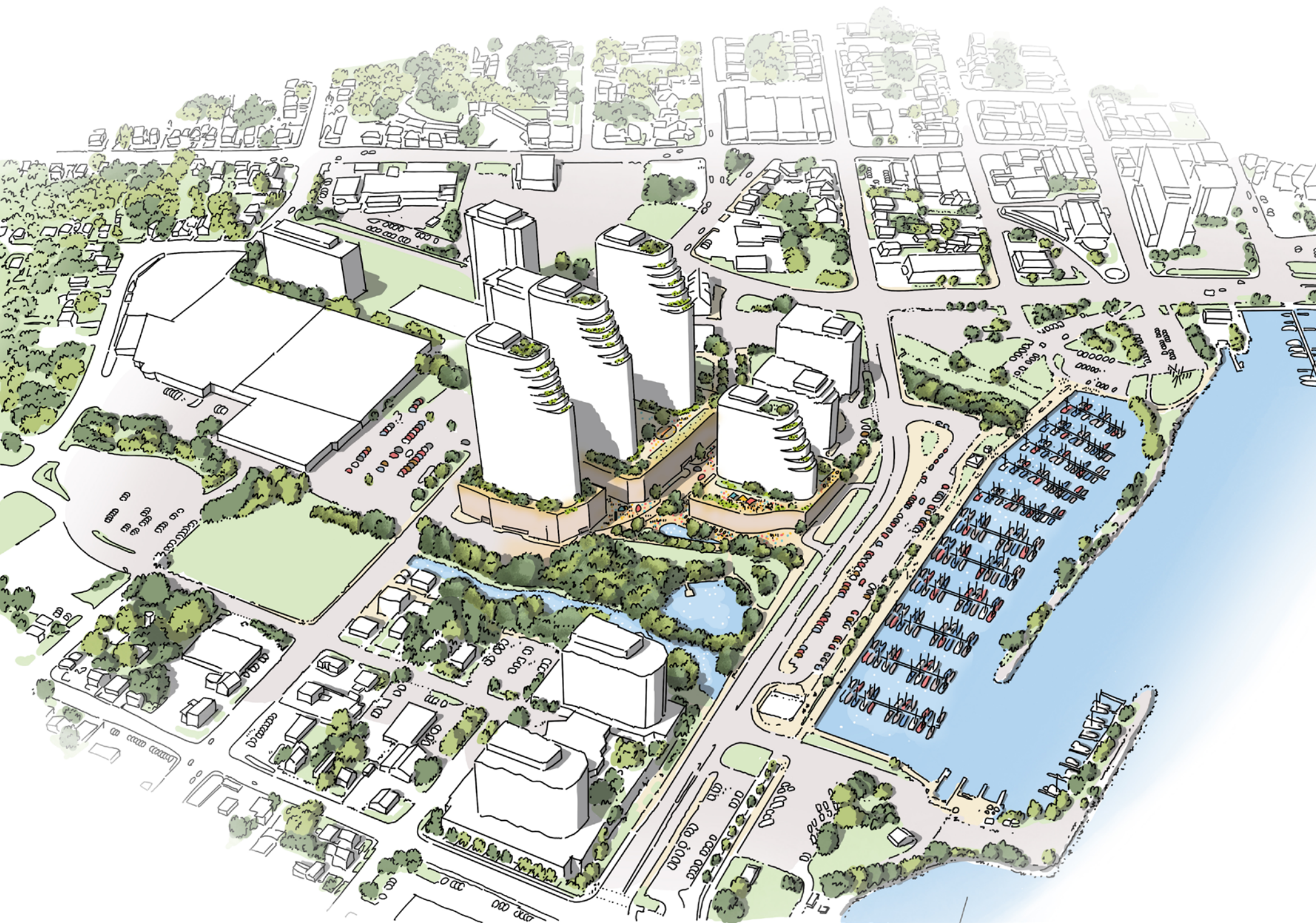
Photo Credit: Marinas.com



Figure 11. Bird's-eye view of the Marina

Photo Credit: Marinas.com

Figure 12. Development fitting within its context



4. Urban Design

4.1 The Proposal

The design envisions a new 'Place' characterized with a high-quality mixed-use development consisting of residential, a hotel, food and beverage, and retail uses, animated with open space and amenity areas.

Four high-rise buildings with heights up to 42 storeys will deliver a Place that will enhance the waterfront, improve the permeability to and from the water's edge, and create economic and social opportunities for the surrounding neighbourhood.

The proposed built form responds its surroundings by matching the existing street enclosure and interacting sympathetically with the adjacent neighbouring properties, such as the high-rise Grand Harbour and Nautica Condos as well as the one-to-three floor height commercial buildings.

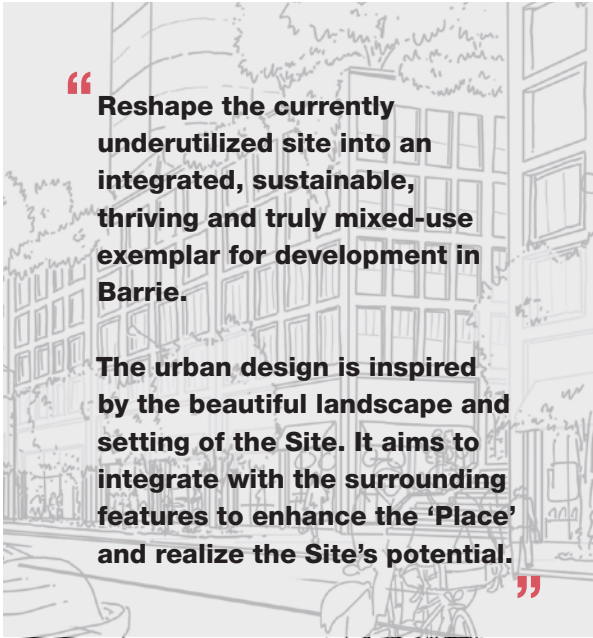
The podiums are laid out so that the back of house elements (i.e. parking entrances, servicing, and loading bays) are placed in areas that do not interfere with the public realm. The towers respond to its context by capitalizing on its views of the water and of Downtown Barrie. This is achieved by stepping back the towers to provide balconies to overlook the new high-quality public realm, the water, and the city.

The proposed development will be well integrated within its setting. Careful consideration will be made with the design to ensure that the resulting forms enhance the waterfront and create an attractive civic presence. The buildings have been laid out in a manner which frames views of the water, which also double as a placemaking and wayfinding strategy. In addition, they step down towards the waterfront to respond with the existing condo heights while the five-to-seven storey podiums to ensure there is a relationship with the existing low-rise properties at ground level.

A new route will be introduced to Barrie's vast network of waterfront trails. This will add an additional layer of character to the network characterized by new public realm activated by uses provided by the development, as well as those already in existence along the waterfront.

Bradford Street will be animated with an improved streetscape and active uses at the ground floor which will complement the proposed YMCA and conference centre.

The proposal respects the existing natural features such as Bunker's Creek, the pond and the trails, but seeks to enhance them with landscape improvements to complement the ground floor uses. Direct access from both the waterfront and

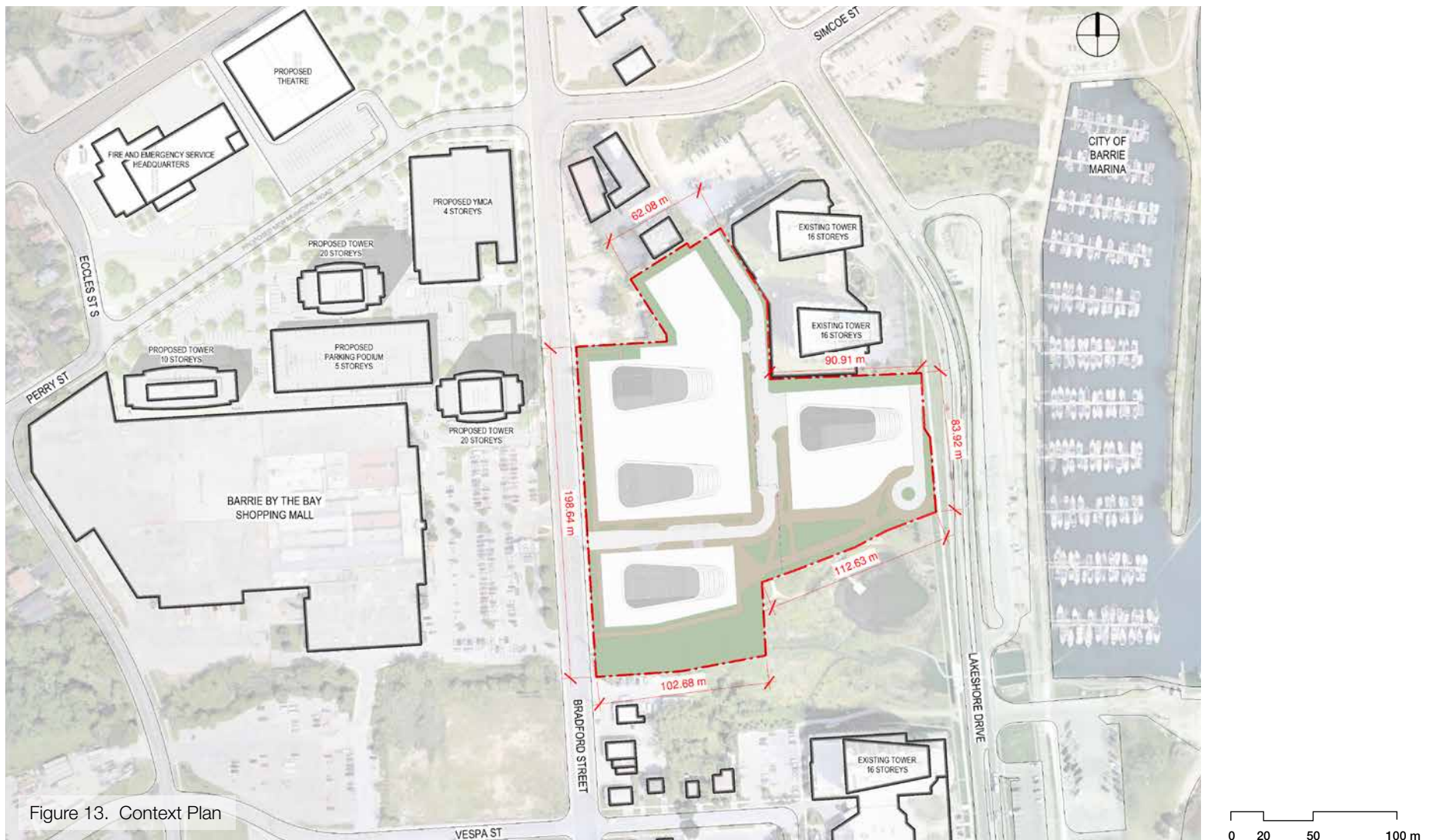


“Reshape the currently underutilized site into an integrated, sustainable, thriving and truly mixed-use exemplar for development in Barrie.

The urban design is inspired by the beautiful landscape and setting of the Site. It aims to integrate with the surrounding features to enhance the 'Place' and realize the Site's potential.”

Bradford Street will also be improved in order to minimize the environmental impact of the development and contribute to the sustainable development of the City.

The proposed public realm will create a vibrant, new community which builds on the emerging character of the City - bringing nature and people together. It will contribute to the development of the UGC creating a modern identity and unique signature for Barrie along the waterfront.



-  **Build upon the existing context and assets**
-  **Residential and mixed-use development**
-  **Creating a destination**
-  **Leisure and community gathering places**
-  **Maximize public access**
-  **Balance environmental benefits with human needs**
-  **Activating the water's edge**
-  **Start small to make big changes**



Figure 14. Uncovering the opportunities

4.2 Placemaking Framework

Build upon the existing context and assets.

Foster the local identity and channel the vibrancy of Barrie with a variety of uses and strengthen the connectivity between. The proposed development will embrace its waterfront context with appropriate orientation and uses.

Residential and mixed-use development.

Development of the site will include new homes for people of all age groups, incomes and aspirations

to create a balanced community. A range of well-designed units, combined with a mix of other uses, and set in high quality landscape linked to Lake Simcoe will create a different character area across the entire site and the waterfront.

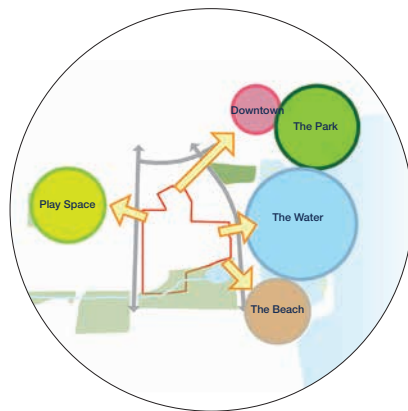
Creating a Destination.

The City of Barrie will have a series of destinations along the waterfront. Our Site will be a 'Place' connected to the other existing and future

destinations with the intent that it will be incorporated into a vision for Barrie's waterfront as a whole.

Leisure and community gathering places.

Activities for all residents, in particular young and senior people, will promote healthy lifestyles and generate a distinct community character. There will be a variety of spaces for the community to come together with affordable activities.



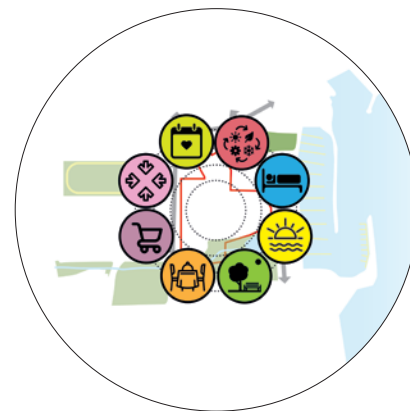
Build upon the existing context and assets



Residential and mixed-use development



Creating a destination



Leisure and community gathering places

Activating the water's edge.

Interaction with the water and its edge should be available to the people. From picnicking along the dockside, feeding the ducks, skating or dipping one's hands in the water, such activities create a gathering place for the community and bring people together.

Maximize public access.

Accessibility for everyone to the greatest extent possible. Waterfronts with continuous public access

are much more popular places than those where the public space is interrupted – as a disconnection greatly diminishes the experience. Where access to the water is not available, views to the water will be established where possible.

Balance environmental benefits with human needs.

Embracing the natural surroundings by creating a close connection between human and natural

needs. Providing a link along the pond and creating paths between Bradford Street and Lakeshore Drive will balance the natural environment with human use.

Start small to make big changes.

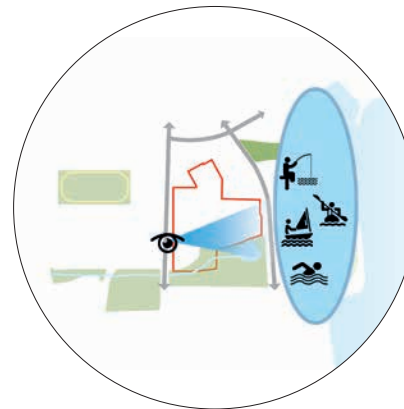
Establishing high-quality public spaces through placemaking. Short-term actions such as streetscaping, art installations, and landscape improvements will give people confidence that change is occurring.



Maximize public access



Balance environmental benefits with human needs



Activating the water's edge



Start small to make big changes

4.3 Character Areas

Four character areas are identified for the Subject Site. These areas take into account the immediate area to help uncover potential opportunities which the masterplan provides.

The intent of these spaces is to improve/animate its surroundings and together establishes a sense of 'place' that will define the new development.

The following pages illustrate a sequence of precedents which outline the key principles and individual attributes desired for each Character Area.

The Character Areas take into account aspects elements of the street, public realm, waterfront and building articulation and helps describe the overall vision for the site and its surroundings.



Figure 15. Identification of Character Areas

WATERFRONT

The development delivers a new skyline along Kempenfelt Bay. The proposed uses will activate the water's edge and animate the pedestrian experience along this portion of the waterfront.

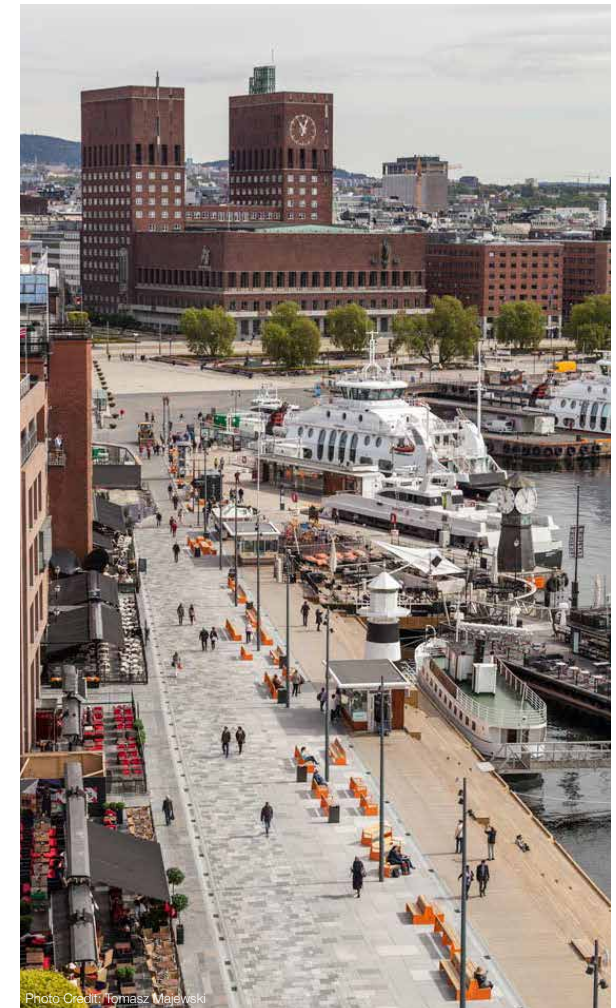


Figure 16. Precedents of inviting and interactive waterfront places

BRADFORD STREET

The proposed development seeks to replace the existing environment characterized with a high quality streetscape and retail uses, support facilities and residential lobbies along the ground floor of the proposed buildings.

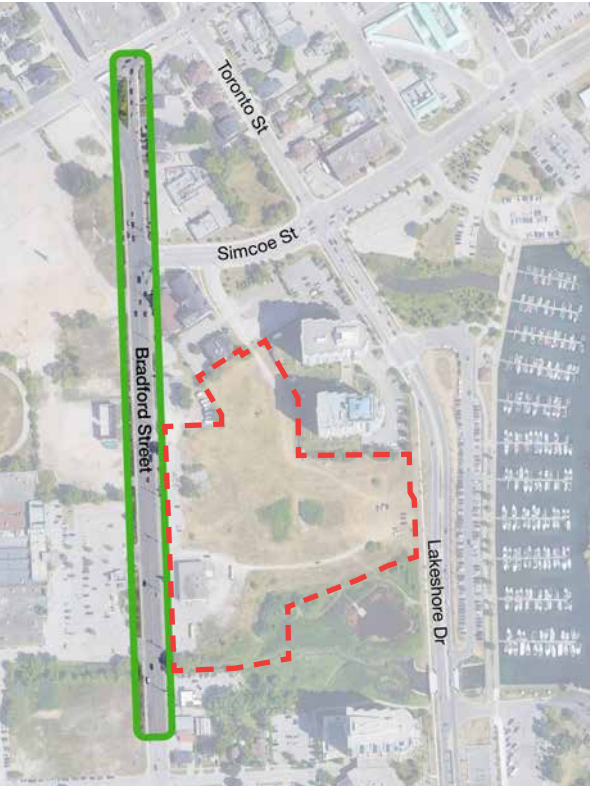


Figure 17. Precedents of active commercial streets

WATERFRONT LINKS

Green links are proposed to connect Bradford Street to the waterfront. These routes will create a vibrant green heart within the area providing public services and amenities for residents and visitors as well as offering a quieter, sheltered environment away from the busier main roads.

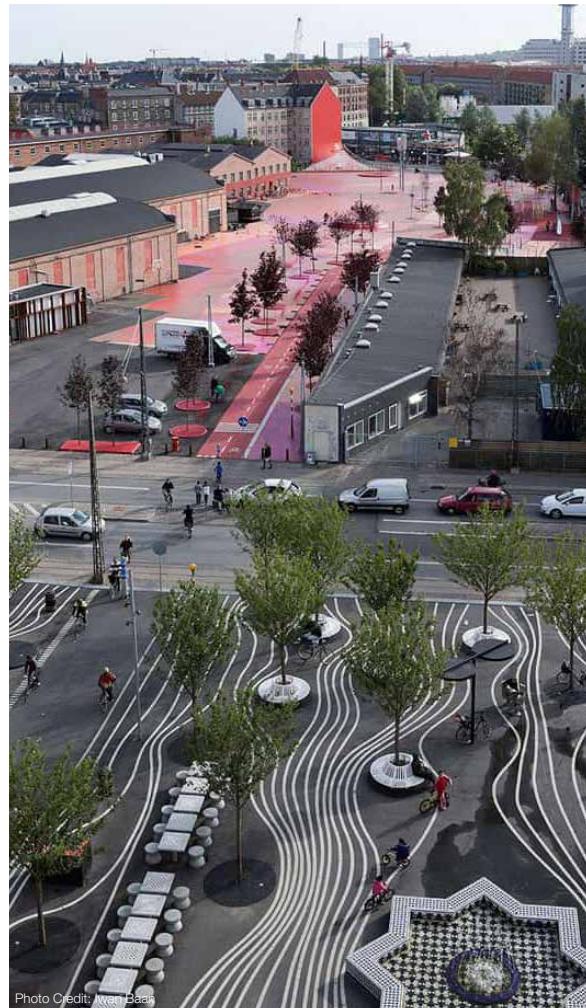


Figure 18. Precedents of pedestrian urban links

THE STRAND

The proposal envisions landscape improvements around the existing pond supported with community activities - it is accessible during all times of the year. This will minimize the environmental impact of the development and contribute to the ecological sustainability of Barrie.



Figure 19. Precedents of gathering community places



Figure 20. An all season Place

4.4 Site Design and Orientation

The proposed mixed-use development adheres to the policies outlined for the Urban Growth Centre in Downtown Barrie.

The development fronts both on to Bradford Street and on to Lakeshore Drive. Each frontage possess different qualities as one responds to the street while the other responds to the water.

The roof plan on the next page illustrates the site design and orientation. Three towers are located to the west along Bradford Street and one tower along Lakeshore Drive fronts onto Barrie's Marina.

Buildings 2 and 3 house retail uses and indoor amenities at grade frontages along the commercial Bradford Street. A hotel is located within the podium of Building 1 where guests will be able to enjoy views of the revitalized pond, a high-quality public realm and Barrie's waterfront.

The proposed building's orientation and tower setbacks provide an architectural language which is defined by its articulation and façade undulations. This contributes to the urban character whilst allowing sunlight penetration that creates both internal and external high-quality spaces.

Also, the building facade stepbacks create a human-scaled street wall along Bradford St and Lakeshore Dr, and mitigate the overall impacts of the building height on the adjacent context. The details of the setbacks provided are shown on Figure 21 of this Urban Design Brief.

The proposed towers step down in heights from 42 to 22 storeys from west to east towards the waterfront to maximize views of the water and cohesively interact with the 16 storey-buildings of the Nautica and Grand Harbour Condos. The massing respects both the immediate and wider context. At the micro-scale, the podiums are scaled to be perceived at human-scale and directly related to the existing low-medium rise buildings along Bradford St. However, at the macro scale, careful consideration was given to the new residential towers during the design stage to fit between the existing high-rise condos.

Overall, the new development will create an active, pedestrian-supportive place, tightly connected and compatible with adjacent building types whilst providing a new distinctive form to Barrie's skyline.

Building 1 will be the first Phase of the development which will animate the waterfront.

GUIDANCE RELATED TO SITE DESIGN AND ORIENTATION

City of Barrie - Official Plan:

6.5.2.2 (a) i). Building and siting to be designed to complement and contribute to a desirable community character;

6.5.2.2 (d). Preservation of environmental features;

6.5.2.2 (g). Energy efficient Urban Design strategies;

6.5.2.3 (b). High quality design to create an enjoyable, safe, accessible, pedestrian-oriented place;

6.5.2.3 (c). Design to consider pedestrian scale, comfort, safety and access;

6.5.2.3 (d). Protection of view sheds to the lake, City skyline, landmarks and public spaces;

6.5.2.3 (f). Construction of new buildings compatible with heritage structures shall be encouraged.

City of Barrie – Intensification Area Urban Design Guidelines:

2.4. Create a high standard of urban design that supports the integrity of stable neighbourhoods and guides all new development within the Intensification Areas;

4.1.1. Community Structure with well-connected streets and blocks, street-oriented buildings and attractive boulevards;

GUIDANCE RELATED TO SITE DESIGN AND ORIENTATION (cont.)

4.3.1. Building Orientation and Site Layout to control the amount of consumed energy, provide comfort of pedestrians at the street, and create high quality spaces;

4.3.4. Building Step-Backs to mitigate the overall impacts of the building height on the context;

City of Barrie - Urban Design Manual:

2.0 A. Incorporate development measures to address the physical environment of the site and adjacent lands when siting the building(s);

2.0 B. Ensure compatibility of the development with adjacent area development and create visual character and unity of the neighbourhood;

2.0 H. Locate active uses such as retail, service shops and restaurants at the street level to encourage pedestrian activity and interaction between internal spaces and the public realm;

2.0 K. Site buildings to reduce the visibility of parking areas and reduce impact;

2.0 Q. Locate buildings close to the street with unobstructed views of the street, parks or open spaces and neighbouring buildings;

2.0 R. Orient building entrances and windows toward the street to enhance surveillance;

2.0 S. Promote the design of mixed land use development and supporting facilities.

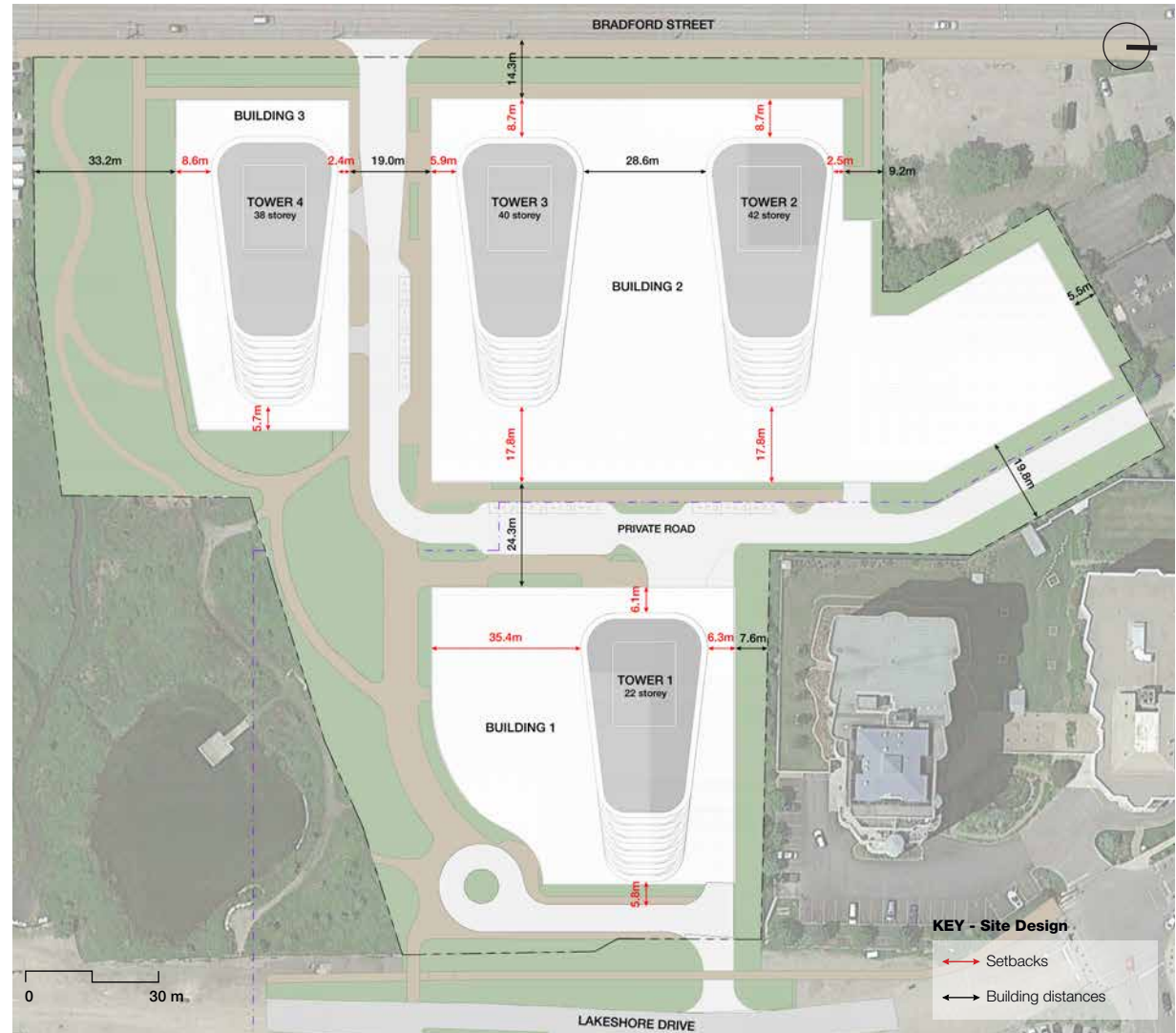


Figure 21. Proposed Block Plan - Site Design and Orientation

4.5 Circulation and Access

The proposed buildings will benefit from a high degree of access to local and regional public transit routes and a robust vehicular road network. The closest local transit stop, *Simcoe Street/Barrie By the Bay Plaza*, is located along Bradford Street just adjacent to the proposed development connecting the site to the north and south of the City. Additional public local transit connections are within a 5-minute walking distance at the High Street bus stop. Furthermore, within a 10-minute walk, the Site's residents and its visitors have access to Barrie Transit Terminal, a main transit Hub for the local Barrie Transit system and an intercity stop for the GO Transit, Ontario Northland and Greyhound Canada services.

The plan on page 19 illustrates the vehicular access in to the Site. Access to the development is consolidated at three points through private roads: two main entry points from Bradford St and Lakeshore Dr, and a secondary access from the northern Checkley St.

Pedestrian multiple access at-grade for all ages and mobilities will establish an inclusive environment and will be a measure of success of the development. The proposal will connect to the expanse network of trails and routes along and to

the waterfront, possess direct access to Centennial Beach, and introduce a route to the proposed YMCA and conference centre. This will encourage active lifestyles and create leisure and community gathering places.

Access to retail units is provided from Bradford Street while the hotel will have the main entrance from Lakeshore Dr in order to encourage customers walking in to the building. Similar to the adjacent Nautica and Grand Harbour Condos, lobbies to the residential uses are located off of the main streets to ensure a safer and more discreet way in.

Internal paths are also provided to ensure good pedestrian flow within the development. These semi-private pedestrian walkways to the interior courtyard have been designed to be safe and connect directly to public sidewalks along Bradford St and Lakeshore Dr which also link to the surrounding existing buildings. The circulation pattern of the proposal is shown in Figure 27.

The lighting strategy for the development is integrated within the buildings and landscaping which is intended to contribute to an inviting and safe pedestrian experience when passing by or walking through.

GUIDANCE RELATED TO CIRCULATION AND ACCESS

City of Barrie - Official Plan:

6.5.2.2 (a) v). Building entrances should be well-defined and accessible to pedestrians and the handicapped persons with disabilities;

6.5.2.2 (a) vi). Pedestrian links should be designed to promote the safety of the user and be fully accessible between the commercial and residential properties;

6.5.2.3 (e). New development shall connect the Downtown to the waterfront and create an attractive urban presence along the waterfront;

6.5.2.3 (h). Promote pedestrian orientation through the development of open space systems that incorporate bicycle and barrier-free walking paths linking the downtown to the waterfront.

City of Barrie – Intensification Area Urban Design Guidelines:

3.1.3 (a) Semi-private open spaces should be directly accessible from public sidewalks;

3.2.3 Continuous system of crosswalks to ensure the safe coexistence of vehicles and pedestrian traffic;

4.1.3. Transit Supportive Design to ensure successful intensification in the City of Barrie;

4.3.1 (c) Main building entrances should be directly accessible from public sidewalks.

GUIDANCE RELATED TO CIRCULATION AND ACCESS (cont.)

City of Barrie - Urban Design Manual:

3.1 A. Provide a safe and convenient and accessible pedestrian network from street to building, parking area to building, and building to building, that is visible from the street and buildings, and clear from visual obstructions;

3.1 C. Provide pedestrian walkways connecting municipal sidewalks to all surrounding places;

3.2 D. Incorporate pedestrian circulation within the parking area;

3.1 E. Minimize pedestrian and vehicular crossings on site;

3.4 A. Locate site access in a manner that reduces traffic conflict and confusion;

3.4 B. Ensure pedestrian safety and maximize visibility through the proper location of driveways;

3.6 A. Ensure that emergency vehicles can gain easy access to, within and from the site;

3.6 B. Provide on-site vehicle circulation and parking which does not conflict with the use of emergency access routes;

3.6 C. Provide clear pedestrian passage to and from the building to enhance emergency access and exit.

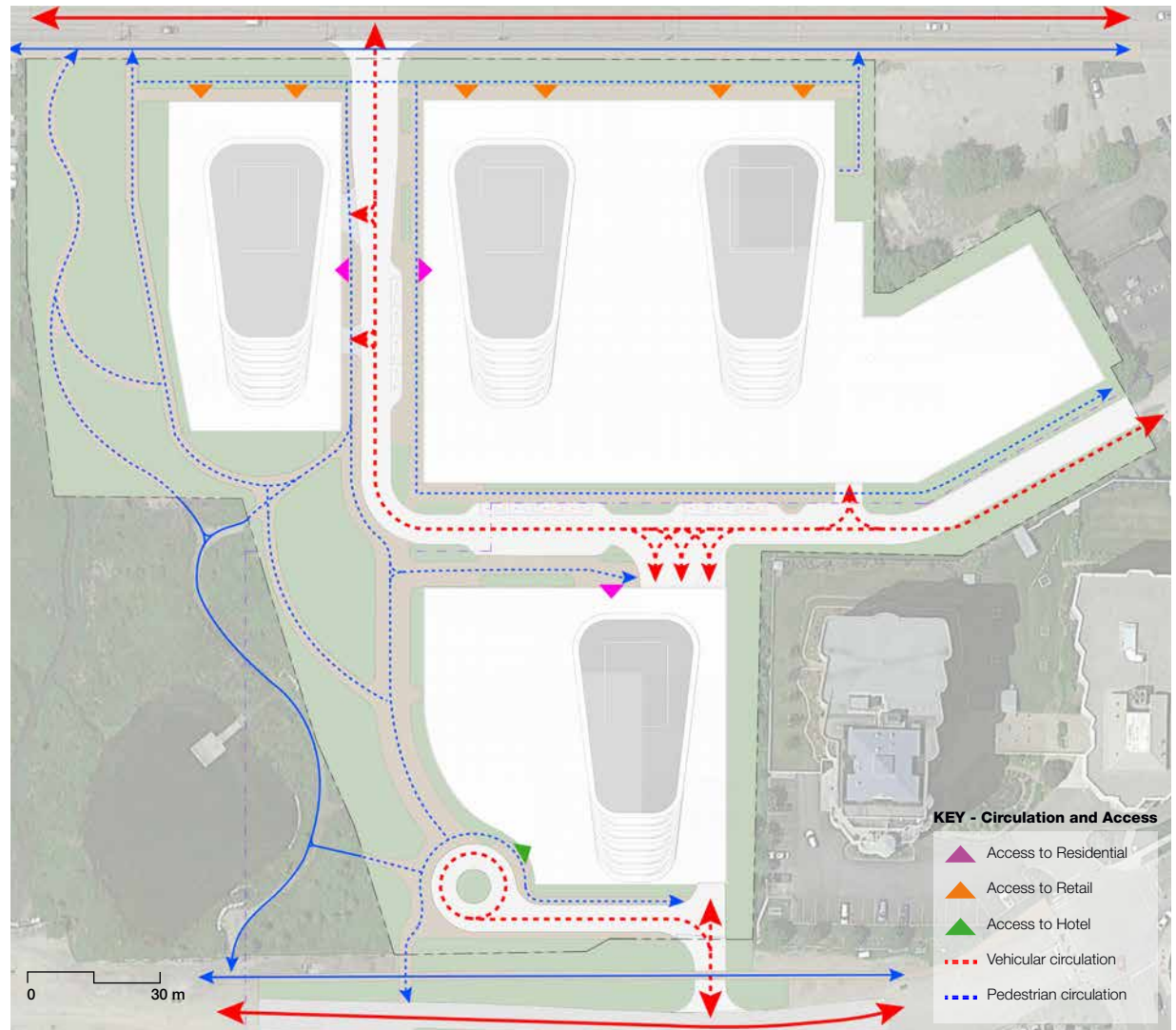


Figure 22. Circulation and Access plan

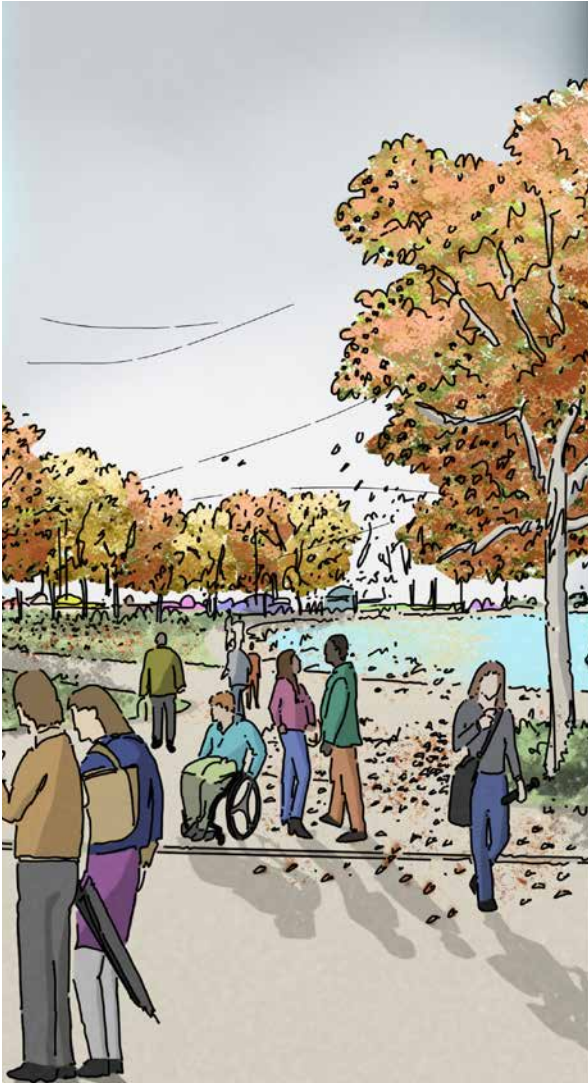


Figure 23. Illustration of the proposed public realm in fall

4.6 Public Realm and Landscape

The proposed development has a number of areas at-grade that will facilitate pedestrian movement and barrier-free landscaping, and enhance the transition to public streets and adjacent properties.

The proposal aims to create a vibrant new destination along Barrie's waterfront adding to the civic, social and cultural events already in place, as well as the provision for flexible and adaptable public spaces that support multiple activities and users. The masterplan's high-quality landscape will soften views of the buildings and promote a sense of place characterized by its green landscape, integrated signage, and consistent street furniture.

The new development with its proposed public spaces creates an all-season place that will reinforce and enliven Bradford Street and also provide a link to Lake Simcoe and Kempenfelt Bay. Active uses and links to the waterfront through new and existing trails will promote and animate its public use and attract a diverse audience to engage and interact with the water. The natural surroundings are enhanced, preserved, and embraced within the development by creating a close connection between human and natural needs. A new link along the pond and new paths

GUIDANCE RELATED TO PUBLIC REALM AND LANDSCAPE

City of Barrie - Official Plan:

6.5.2.2 (c) ii). Where commercial uses abut residential uses, they should be properly screened through a combination of landscaping, berming and fencing measures;

6.5.2.2 (c) i). Minimum planting strips shall be provided along the street frontage and contain planting materials and street furniture consistent with any themes established by the municipality;

6.5.2.2 (c) iv). Landscaping should seek to utilize native vegetation, and water conservation practices;

6.5.2.3 (g). Street furniture to achieve a high standard of design and be located to link the Downtown and the waterfront in a consistent manner.

City of Barrie – Intensification Area Urban Design Guidelines:

3.1.3 (b). Features within semi-private open spaces should be constructed of materials equal in quality and appearance with those of the main buildings;

3.1.3 (e). Interior courtyards of buildings should be designed to maximize sun exposure through the massing and location of taller building elements;

3.1.1. Natural Heritage Features (i.e. Kempenfelt Bay, waterfront) must be enhanced and preserved;

3.1.2. Parks and Open Spaces should form part of a larger network of natural features;

GUIDANCE RELATED TO PUBLIC REALM AND LANDSCAPE (cont.)

3.1.3. Semi-Private Open Spaces to provide opportunities for socialization and function as gathering spaces within an intimate environment;

3.1.4. New development should connect to the City's existing trail network, as well as optimize opportunities for the expansion of the network through the creation of new multi-use trails;

3.2.1. Green Street Design to enhance the visual and environmental qualities of streets;

3.2.2. Boulevard Design to accommodate the significant increase in pedestrian traffic associated with intensification, while ensuring streets that are pedestrian-supportive;

3.2.6. A hierarchy of signage should be implemented uniformly ensuring that wayfinding signage is highly visible and easy to understand;

5.2.2. New Parks and Open Spaces should be well-connected to park network within walking distance of the UGC to ensure all residents have access to outdoor recreational areas;

5.2.3. Boulevard Design including heritage style light standards, street signage, banners and street planters. New developments should reflect and build on this pedestrian-supportive main street character;

City of Barrie - Urban Design Manual:

2.0 D. Incorporate natural features, major vegetation and topography into the design;

between Bradford St and Lakeshore Dr will balance the natural environment with human use and better connect the area to the adjacent open spaces.

Appropriate green screening is proposed along the edges of the development to provide subtle buffer zones from outer streets and adjacent buildings. Frontages along Bradford St and Lakeshore Dr will have street trees that will ensure a microclimate thermal and visual comfort. Plant species will be selected based on their hardiness and capability to tolerate extreme urban conditions as well as seasonal effects. Also, the new proposed rows of trees along Lakeshore Dr will complement and connect to the existing green edges of the residential Nautica and Grand Harbour condos creating a continuous green waterfront walkway.

Careful consideration was given to the proposed development's impact of its shadow on existing and proposed open spaces (please see *Appendix A*). Sunlight penetration is provided to the internal public realm, ensuring natural light is available throughout the day.

Maximizing the overall ambient light in open public spaces establishes a sense of safety and visual balance. Natural light plays a crucial role in delivering an enhanced visual environment, that is inviting and encourages regular use.

Overall, the public realm includes landscape architectural design that conforms to City of Barrie's policies and guidelines.



Rendering Credit: Turner Fleischer Architects Inc.

Figure 24. Illustration of the Public Realm interfacing with the Built Form



Figure 25. Providing a new public realm

GUIDANCE RELATED TO PUBLIC REALM AND LANDSCAPE (cont.)

- 2.0 O. Consider future site intensification and possible integration with adjacent lands including connections between parking lots;
- 2.0 P. Screen with landscaping external transformers located on arterial roads and in areas of high visibility;
- 3.1 G. Install Park and street furniture to create monitoring opportunities along pedestrian pathways and open areas;
- 5.0 A. Select exterior lighting fixtures based on compatibility with the architectural design and the character of the neighbourhood;
- 8.0 G. Ensure that mature landscaping and signage work in harmony with each other;
- 9.0 A. Promote the preservation of existing natural features to minimize the environmental impact on the site and surrounding areas;
- 9.0 B. Promote an attractive landscape treatment and improve the visual character of the development;
- 9.0 E. Ensure soft landscape areas on the perimeters of the site to delineate boundaries, and establish streetscape appeal;
- 9.0 I. Provide additional soft landscape areas within the site to reduce the negative impact of continuous expanses of pavement;
- 9.2 A. Provide landscaping strips adjacent to municipal roadways and side and rear lot lines.



Figure 26. Enlivening Bradford Street

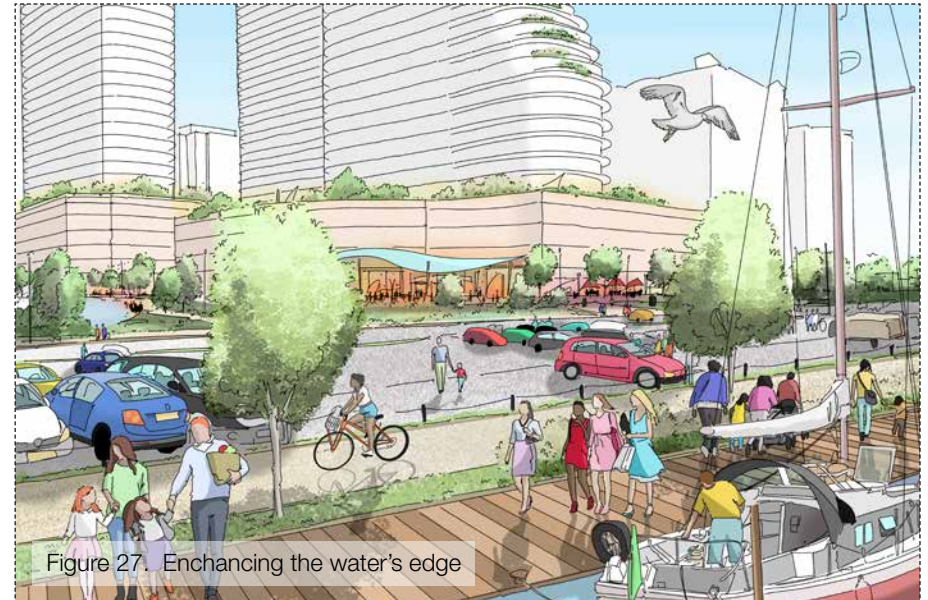


Figure 27. Enhancing the water's edge



Figure 28. West-East Section through the site

4.7 Parking and Servicing

The proposed development's strategy for the provision of parking and servicing is organized so that there is minimal impact in the surrounding streetscape. The placement within the buildings' podiums and its corresponding entrances are located in a manner of which has a minimal visual impact on the surrounding public realm.

A total of 2,055 parking spaces are provided for the proposed uses. Similar to the existing Nautica and Grand Harbour condo buildings, parking is mostly located within above-ground podium-structures so as not to interfere with the resident's and visitor's enjoyment of the public realm. The podiums screen the visual prominence of the parking from the public realm and provide for a continuous streetscape, allowing the creation of active frontage along Bradford Street and Lakeshore Drive.

An adequate number of parking spaces, including barrier-free spots for people with different mobilities, are distributed throughout all levels of the podium structures and divided into 356 spaces within Building 1 to the east, for residential and hotel's customers, and 1,221 within Building 2 and 478 for Building 3 to the west, for residential and retail uses.

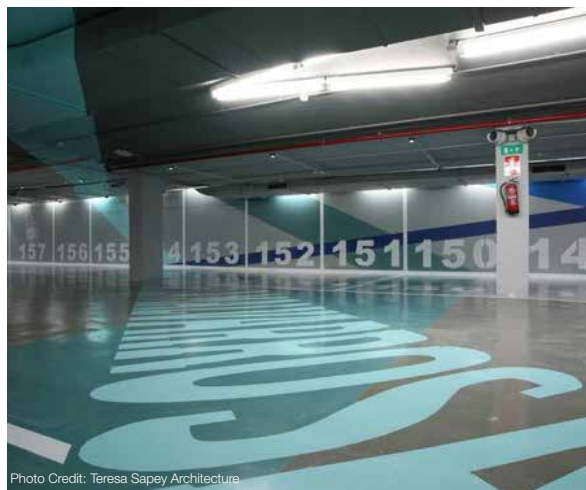


Figure 29. Examples of parking

GUIDANCE RELATED TO PARKING AND SERVICING

City of Barrie - Official Plan:

6.5.2.2 b) i). Linking parking areas, driveways and access points should be encouraged to reduce the number of turns onto and off the major road;

6.5.2.2 b) ii). Adequate disability parking spaces will be provided where required;

6.5.2.2 b) iv). Major parking, loading and delivery areas, as well as garbage enclosures should be confined to the rear of the buildings;

6.5.2.3 (j). New development to encourage location of all utilities underground;

6.6.3 (d). Site servicing and parking to be appropriately screened.

City of Barrie – Intensification Area Urban Design Guidelines:

3.3.1 (a). Parking parallel on-street parking is preferred over perpendicular or angled parking to minimize the overall width of the roadway and optimize sightlines;

3.3.1 (b). On-street parking may be situated within bump-outs;

3.3.1 (c). Bump-outs should be landscaped with street trees or low level ground cover;

4.2.1. Enhance the design of surface parking lots to minimize their impacts on the public realm;

GUIDANCE RELATED TO PARKING AND SERVICING (cont.)

4.2.2. Above-ground structured parking should be incorporated into new mixed-use buildings;

4.2.4 (a). Loading docks and service areas should be located at the side or rear of buildings and should be screened from public view;

4.2.4 (b). Where possible, garbage storage areas should be accommodated internally.

City of Barrie - Urban Design Manual:

2.0 F. Locate open storage, loading, garbage enclosures or equipment areas where they are not visibly prominent from public space(s) or street(s);

3.2 C. Locate parking areas in close proximity to building entrances;

3.2 L. Provide landscaping around the perimeter of parking areas and laneways without creating hiding places or visual obstacles;

3.2R Visitor parking areas should be located near main entrances of buildings and marked with signage, providing visitors with a direct route to and from the building;

4.0 A. Ensure that loading bays, recycling areas and garbage storage facilities are located away or screened from public streets;

4.0 B. Eliminate conflict between service/loading areas and vehicle/pedestrian routes.

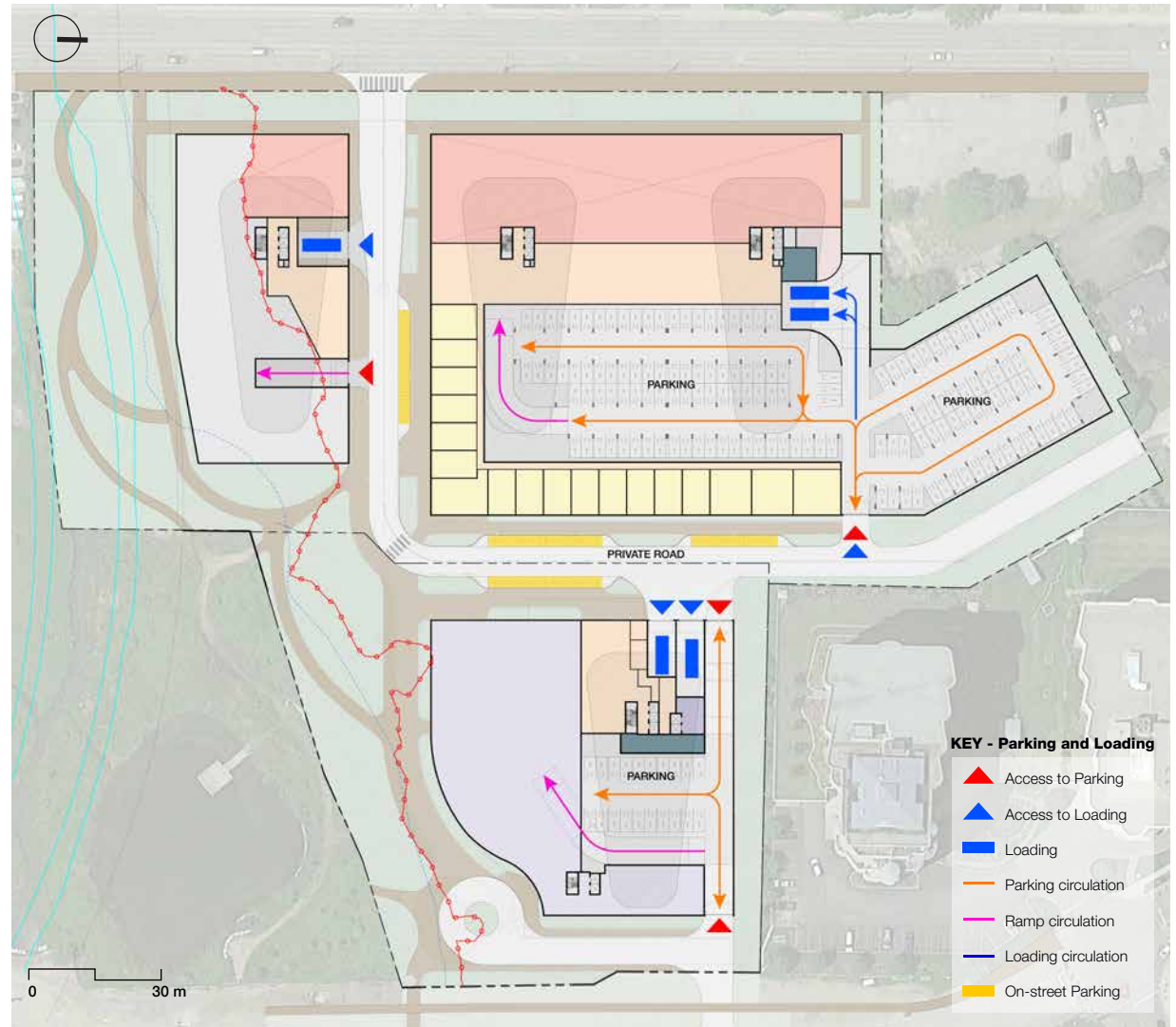
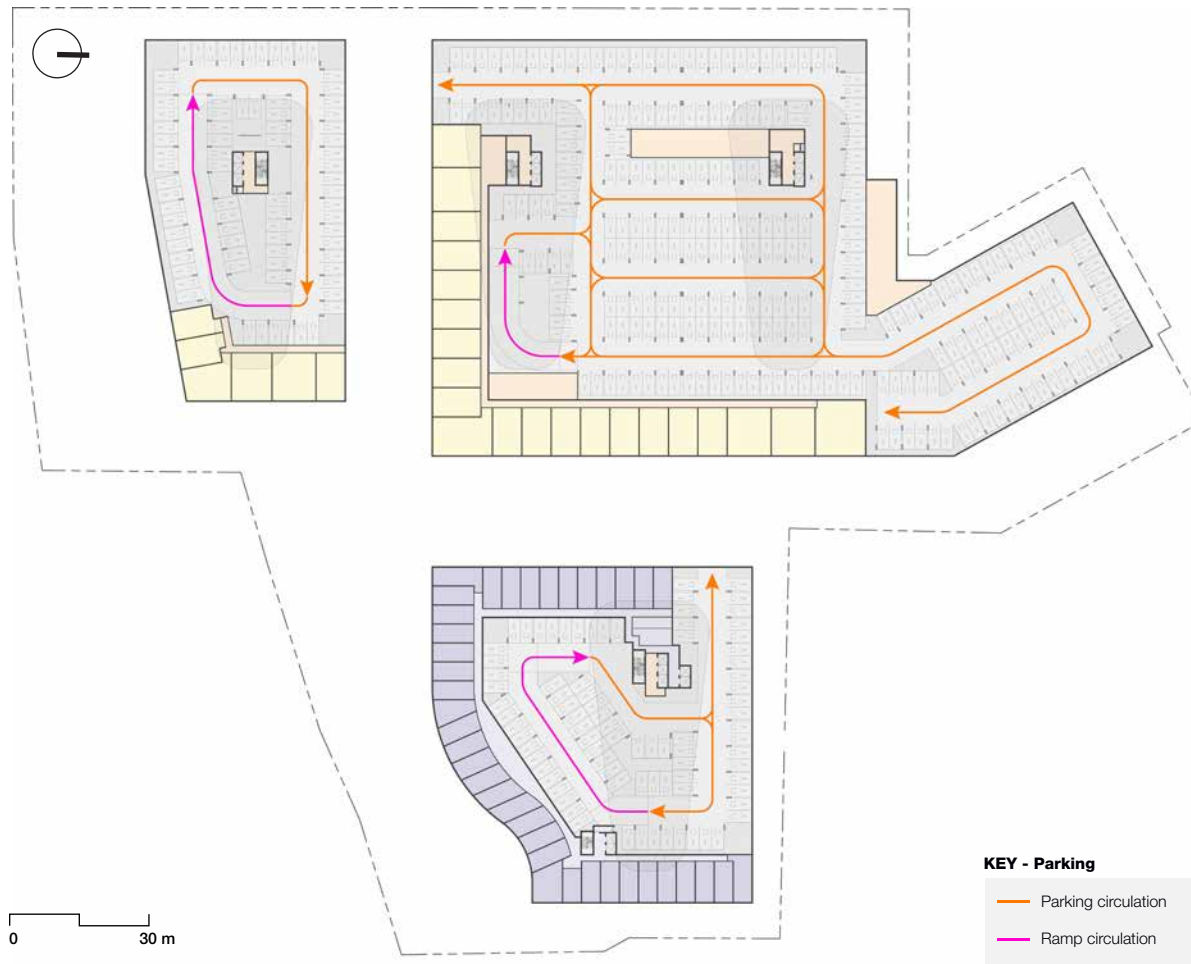


Figure 30. Ground Floor plan - Parking and Loading access

4.7 Parking and Servicing (cont.)



Site services, including loading bays and garbage storage areas, are also located within each building, concealed from the public realm and neighbouring uses.

Parking, Loading, and Servicing are all accessible with ramps from the new private roads and do not impact the safety of pedestrians as pedestrian and vehicular routes are clearly separated. The circulation route of servicing vehicles is also designed within the development to allow reversing or manoeuvring away from the public streets, minimizing disruptions and impact on the public realm.

A total of 15 parking spaces are provided within on-street bump-outs at the rear of the development to support the future retail customers and provide visitors with a direct route to and from the buildings.

All required safety features will be provided in the parking areas including intuitive wayfinding, clear exit routes and doors, appropriate signage and adequate and uniform lighting for visibility and safety surveillance.

Figure 31. Typical Podium Plan - Parking

Since the development will be built in phases, temporary at-grade parking are required during the construction of the permanent podium-structures. A total number of 169 interim at-grade parking spaces are proposed during the construction of the eastern building facing Lakeshore Dr in Phase 1.

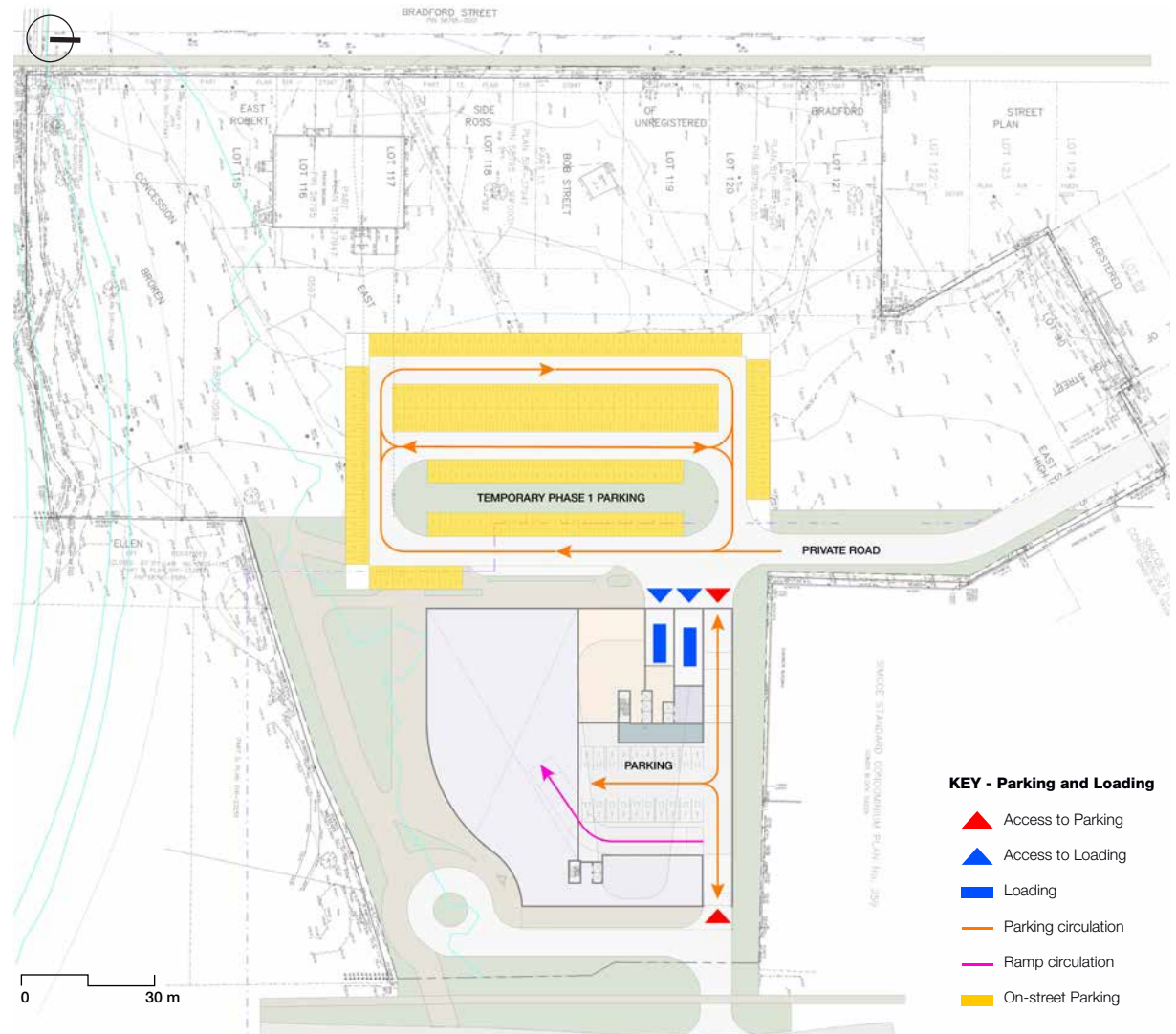


Figure 32. PHASE 1 Ground Floor plan - Parking and Loading access

4.8 Built Form and Massing

The proposed development features three buildings comprised of four towers, which is described as the following:

- Building 1 includes hotel, parking, and leasable and non-leasable residential use at 22 storeys,
- Building 2 is the largest block in the Subject Site and comprises retail uses, parking spaces and 2 residential towers of 42 and 40 storeys;
- Building 3 includes retail uses, parking spaces and a 38 storey residential tower.

Each tower includes a five storey podium, with the exception of Building 3 having a seven storey podium. The separation distance between podiums ranges from 19 to 24m while the orientation and spacing of the above towers ensure sunlight is filtered down to the street level and open spaces.

Through the proposed design of the towers, the development steps back from the street to provide a sense of human-scale from the ground level.

The architectural design proposes a bipartite design. The “Bottom” consisting of the five or

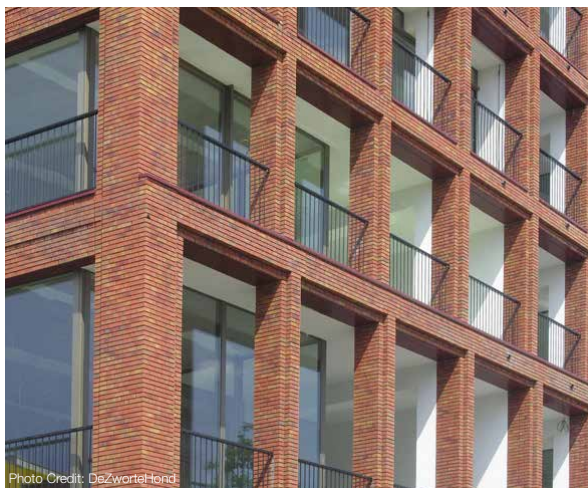


Figure 33. Examples of brick-clad facades

GUIDANCE RELATED TO BUILT FORM AND MASSING

City of Barrie - Official Plan:

6.6.3 (a). Innovative architectural design to reduce the impact of height on the adjacent public realm;

6.6.3 (b). Tower design featuring floor plate sizes to be preferred over slab style building design;

6.6.3 (c). Sufficient separation distance among tall buildings;

6.6.3 (e). Tall buildings with high standard of design excellence to promote a visually interesting skyline;

6.6.4 (d) ii). New development to foster a pedestrian friendly public realm by featuring a street wall of continuous built form frontage adjacent to any principal streets.

City of Barrie – Intensification Area Urban Design Guidelines:

4.3.2. Building Heights to fit into the existing context, and contribute positively to its character;

4.3.3. Minimum commercial Ground Floor Height is generally greater than a typically residential floor;

4.3.5. Side Building Set-Backs to allow the adjacent properties access to natural light and air;

Guideline 4.3.8 (i). Where residential uses are included above retail uses, separate entrances should be provided;

GUIDANCE RELATED TO BUILT FORM AND MASSING (cont.)

4.3.10. Building materials are to be integral to the appearance and function of new buildings. Particular attention should be paid to building podiums that are most visible from the streetscape.

City of Barrie - Urban Design Manual:

2.0 C. Scale of the designed buildings to be compatible with adjacent structures;

2.0 E. Design outdoor spaces with regard to the programmed uses, the quality of views and the influences of sun and wind;

2.0 N. Provide a variety of reliefs and architectural elements within the façade to enhance and diversify the visual presentation of the structure;

7.0 A. Ensure that the architectural design is compatible with the developing character of the neighbouring area;

7.0 B. Design multiple buildings on the same site to create a cohesive visual relationship between them;

7.0 C. Coordinate exterior building design and detail on all elevations to achieve harmony and continuity of design;

7.0 I. Effective use of building materials, architectural details and lighting is encouraged;

7.0 M. Balcony space should be large enough to provide a useable activity area for residents.

seven storey podiums designed to provide a continuous streetwall which will frame and animate Bradford Street and proposed open spaces. The “Top” consists of the towers which are designed to capitalize views of the water and Downtown Barrie.

The articulated massing, the changes in materiality as well as the multi-coloured palette of traditional and innovative materials between the “Bottom” and the “Top” will contribute to a visual emphasis of the new buildings that establish a harmonious relationship with the neighbourhood.

Bricks are frequently used to clad buildings at street level in the existing surrounding context. The treatment of the podiums with such material will create a similar architectural language and materiality resulting in a further design cohesion. Extensive glazed facades for the “Top” will maximize natural light and create high quality spaces.

Overall, the buildings are meant to frame views to the water as you travel through the Site from Bradford Street to the water’s edge. The adjacent pond and the proposed entrance to the hotel will provide a sense of arrival at Lakeshore Drive.

Each building will contribute to Barrie Lakeshore's skyline by adding prominence and height distinction to the area. The four towers will contribute to the existing and future character area by complimenting the proposed YMCA, conference centre, and Barrie By The Bay Shopping Mall directly north west of the proposed development.



Figure 34. Proposed podiums as continuous streetwall



Figure 35. Proposed active frontage along Bradford Street

4.8 Built Form and Massing (cont.)

Addressing the Existing Community

The location, scale, floor plate size, orientation, massing and separation distances of buildings in the proposed development are designed to provide adequate spacing and solar access on the neighbouring streets and surrounding development.

The tall buildings along Bradford Street provide a progressive transition in the height, from both south to north and east to west, are in-place to respond to the adjacent 16-storey high density buildings – notably Grand Harbour and Nautica Condominiums. This will mitigate the intensity of

scale of development and fit within the existing and planned context.

Potential impact on privacy, daylight, sky view, and shadow on to the public realm and neighbouring properties is of the upmost importance for the proposed development. Studies such as shadow, wind and noise have been completed to ensure existing residence are not negatively impacted from the proposed development. The results of the wind and noise studies completed by GradientWind concluded that comparing the existing versus future

conditions the proposed development will have a generally neutral influence on grade-level conditions on the surrounding area. Design features such as the towers' setback from the podium level and the towers themselves as you go to the higher levels ensure that the design is focused on the human-scale at the ground level. Tower orientation and separation distances provide appropriate facing distances and setbacks are combined to mitigate overlook between the windows or balconies of one building and those of another.

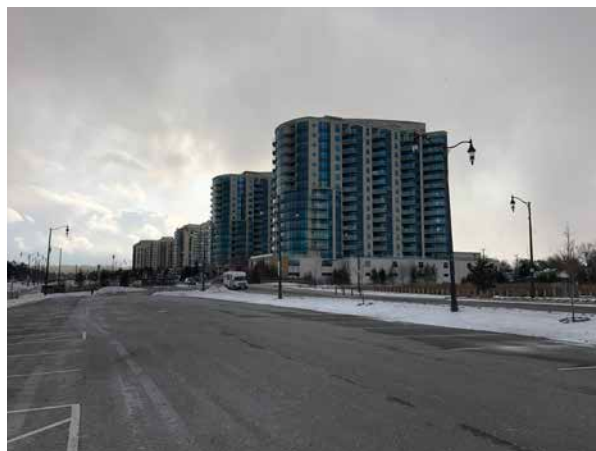


Figure 36. Existing Nautica Condos to the south



Figure 38. View of the Subject Site from Checkley St



Figure 37. Existing Grand Harbour Condos to the north

City of Barrie - Official Plan:

6.5.2.2 (g) i). Energy efficiency shall be encouraged through community, site, and building design measures that use energy efficient building materials, energy conserving landscaping, building orientation that uses shade and sunlight to advantage, panels for solar energy;

6.6.4 (a) i). Tall buildings will be designed to best mitigate the impact of shadows on public parks and open spaces, private amenity areas, and surrounding streets, throughout the day;

6.6.4 (a) ii). Buildings will make use of setbacks, stepping provisions, and other such design measures in order to reduce shadow impacts. Appropriate spacing will be provided to allow for adequate sunlight and views of the sky between adjacent building towers;

6.6.4 (c) i). Tall buildings will be designed to minimize adverse microclimatic impacts in order to foster a comfortable pedestrian realm at the street level. Microclimatic impacts may include the effects of wind channelling, the urban heat island effect, adverse shadowing, and the interruption of sunlight;

Policy 6.6.4 (c) ii) Where appropriate, tall buildings will incorporate features that provide weather protection for pedestrians, such as podium bases, canopies, awnings, facade interruptions, arcades, landscaping, or other creative solutions.

4.9 Sustainability and Microclimate

The Applicant supports the City of Barrie's sustainable initiatives and intends to work with the City and the community on what initiatives are important during this approval process. The proposal utilizes the space between the buildings and Bradford Street and Lakeshore Drive to provide a variety of landscape features, such as tree planting along the majority of the building frontages. Furthermore, the Applicant intends to work with the city to ensure the local ecology, notably the pond, is enhanced through landscaping measures and better access to the water's edge.

The generous provision of tree planting, both along Bradford Street and the space surrounding



Figure 39. Example of sustainable measures

the pond will be drought tolerant, salt-resistant and primarily native. Consideration has been given to also make the proposed development an 'all-season' Place by designing the spaces to be season adaptable. The terrace areas on the podium rooftop areas will have green roof and cool roof features to assist in reducing urban heat island effects.

The proposed massing has been designed and oriented on the Site to mitigate shadow impact on adjacent lands, maximize views of Lake Simcoe, and provide weather protection, through building articulations and step backs at higher floors.

The development will ensure compatibility with the surrounding context by minimizing shadow impacts on the low-rise existing buildings to the north-west, west and south-west of the property. Also, it will not generate shadows on the existing condos to the northeast different from what would occur with the approved building on the Subject Site which consists of a total of 24 floors and a podium structure.

The shadow study for the proposed development demonstrates that from Spring to Fall seasons

GUIDANCE RELATED TO SUSTAINABILITY AND MICROCLIMATE (cont.)

City of Barrie – Intensification Area Urban Design Guidelines:

3.2.2 (j). Where possible, the principles of low impact development (LID) should be applied to control stormwater on-site and minimize discharge to the City's sewer system;

4.3.6. Side Building Step-Backs and breaks in the street wall on the upper levels to maintain views and sunlight penetration and mitigate the “canyon effect” on longer corridors;

4.3.9 (d). Sustainable technologies, such as photovoltaic panels, are encouraged on the roofs of buildings. These panels must fit within the prescribed angular planes.

City of Barrie - Urban Design Manual:

2.0 E. Design outdoor spaces with regard to the programmed uses, the quality of views and the influences of sun and wind;

2.0 M. Minimize shadows cast on adjacent properties, especially outdoor spaces and pedestrian activity areas.

9.0 I. Provide additional soft landscape areas within the site and foundation planting to reduce the negative impact of continuous expanses of pavement.

a minimum of 5 hours of sunlight is available for surrounding streets, buildings, parks and open spaces (please see *Appendix A*). On April 21 shadows will be more present between 7.55am and 12:35pm on the lands directly across the Subject Site fronting on Bradford Street and consisting of commercial uses, on-street parking spaces and vacant lands. During fall the same area will have shadows for a similar amount of time from 8.34am and 1.04pm. Shadow impact is later experience on all the other adjacent properties and open areas in both spring and fall.

On June 21, the shadows resulting from the proposed development are mainly projected on to the spread out commercial buildings to the west throughout most of the day. The impact is lesser on the Grand Harbour Condos to the north and the Marina to the east. In December, shadows largely move off neighbourhoods to the northwest and northeast from around 9am to 3pm but impact less on neighbouring open spaces as these areas are typically used less than between spring and fall.

Overall, the proposed development will not create significant impacting shadows on to the existing context as a minimum of 5 hours daylight is

achieved between April 21 and September 21, which are the periods of the year when outdoor spaces are most frequently used.

Particular consideration has been given to the use of materials and built form in order to create a bird-friendly design that will reduce and mitigate collisions of the migratory population of birds traveling from Lake Simcoe. The element of which threatens migratory birds is the provision of large glazed facades. However, the proposed development provides breaks in large surfaces of glass through the use of opaque balconies. This will reduce the amount of visible or reflective glass



Figure 40. Example of sustainable measures



Figure 41. Illustration of proposed sustainable measures

4.9 Sustainability and Microclimate (cont.)

without interfering with the inside view. Also, the shadows from the projecting balconies cast onto the glazed facade increasing visibility for birds.

Preliminary wind impacts in the public realm and rooftop outdoor amenity areas have been assessed by GradientWind (please see *Pedestrian Level Wind Study* provided as a separate document).

The existing versus future wind comfort surrounding the study site indicates that the proposed development will have a generally neutral influence on grade-level wind conditions over surrounding areas, with a few minor exceptions. The recommendation for wind control measures in the form of recessed entrance locations or vertical wind barriers in certain areas may be required. Although wind speeds marginally increase along portions of the Bradford Street sidewalk and walkways south of the Subject Site, conditions nevertheless remain acceptable for the intended uses. Within the context of typical weather patterns, which exclude anomalous localized storm events such as tornadoes and downbursts, no areas over the study site were found to experience conditions that could be considered unsafe.

The podium rooftop areas will have mitigation measures to ensure conditions are comfortable for sitting during intended use periods.

The proposed development is within walking distance from regional public transportation services as it is located 600 metres from the Downtown Barrie Transit Terminal. While the parking provision complies with the parking rate recommended by the City of Barrie, the proposed development encourage the reduced use of single-occupant vehicle use. The proposed ground floor uses accompanied with the proposed developments in its immediate surroundings will allow future residents to be within walking distance to places which meet their daily needs. Overall the proposed development will assist in reducing green house gas emissions.

5. Conclusion

The masterplan will positively contribute to the intensification and enhancement of the Urban Growth Centre in Downtown Barrie.

The development has been carefully designed to complement the existing context by adhering to the design direction pursued by the City of Barrie and by addressing all relevant municipal policies, objectives and guidelines. The proposed

masterplan aims to increase density and building heights in a way that facilitates the high-rise mixed-use development to strengthen and enhance the waterfront, as well as create an inviting urban presence along the unique waterfront. With this in mind, SmartCentres and Greenwin envision a new destination along this portion of Barrie's Waterfront which will be a safe, healthy, efficient, convenient, sustainable and aesthetically attractive

to the immediate surroundings and from afar. The masterplan establishes a unique sense of place, but also respects the local identity.

The combination of the new attractive landscaping, the high-quality architectural design, the energy-efficient site orientation and the well-connected circulation will result in the creation of an appealing place that is welcoming to residents and visitors.

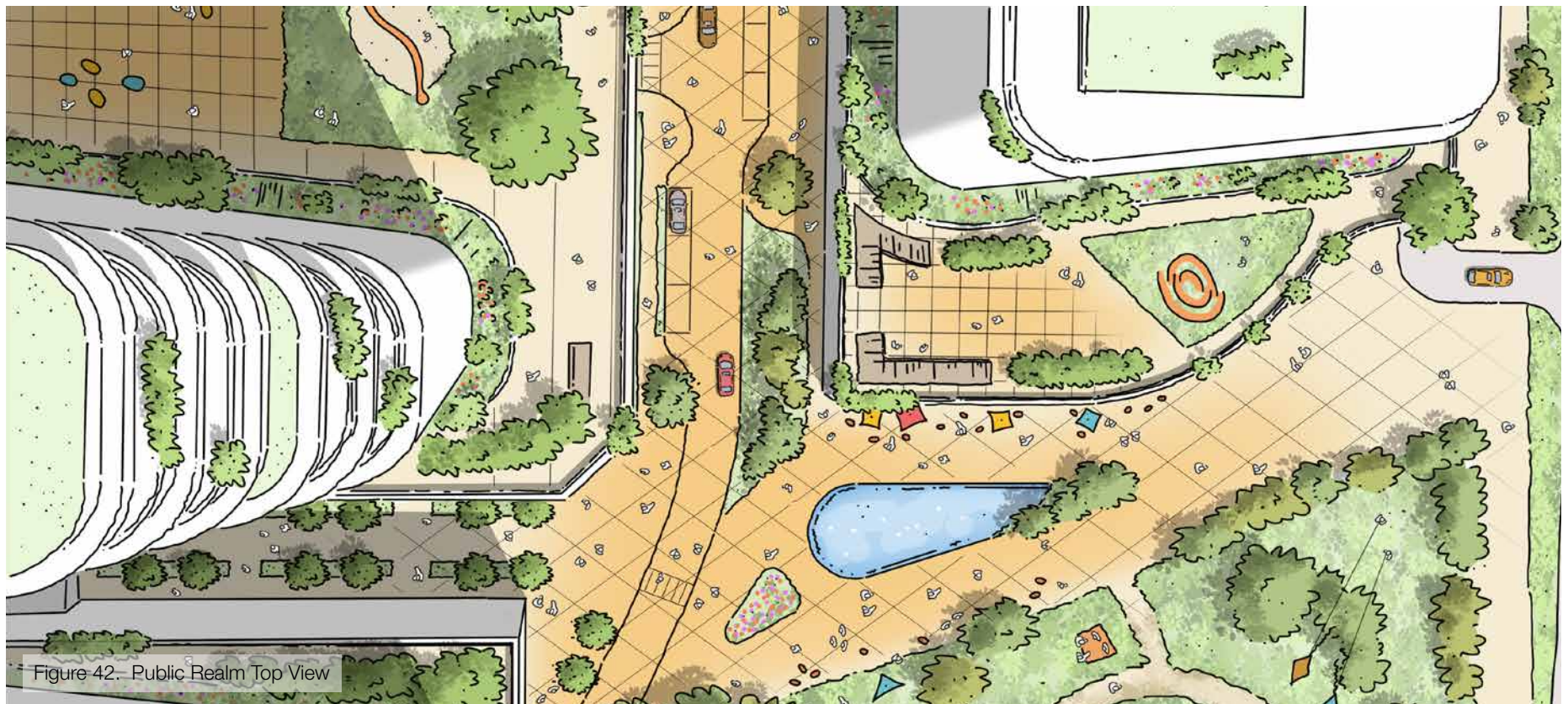
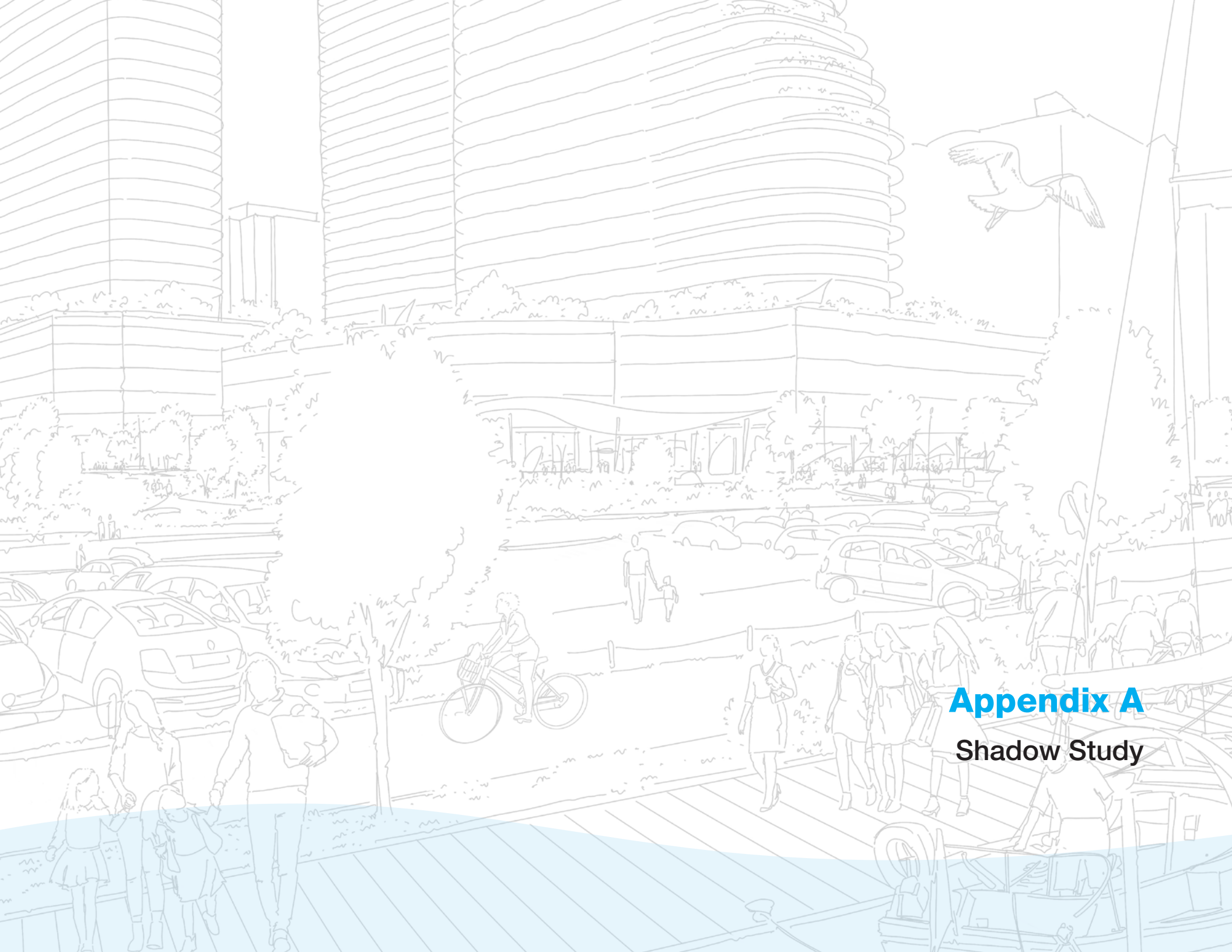


Figure 42. Public Realm Top View

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Appendix A

Shadow Study

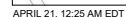
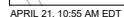
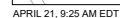
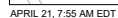
— PROPERTY LINE

- - - PROPOSED EASEMENT

SHADOW OF EXISTING

	HIGH RISE BUILDINGS
	FLUORESCENT LIGHTING

FROM GOLD DRAVON



**SITE IS ASSUMED FLAT.



RZ811

1.	2018/2/18	RETURN FOR REASONED	CR
2.	2018/2/18	RETURN FOR REASONED	CR

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PROJECT	BARRIE WATERFRONT
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\$1, 53, 55 & 75 BRADFORD STREET AND 20 CHECKLEY STREET BARRIE, ON

ORGANIZING

SHADOW STUDIES

PROJECT NO.	18-10550
-------------	----------

2012-09-04

ORDER BY	NAME
----------	------

AS NOTED

LEGEND
PROPERTY LINE
SHADOW OF EXISTING HIGH RISE BUILDINGS
PROPOSED SHADOW



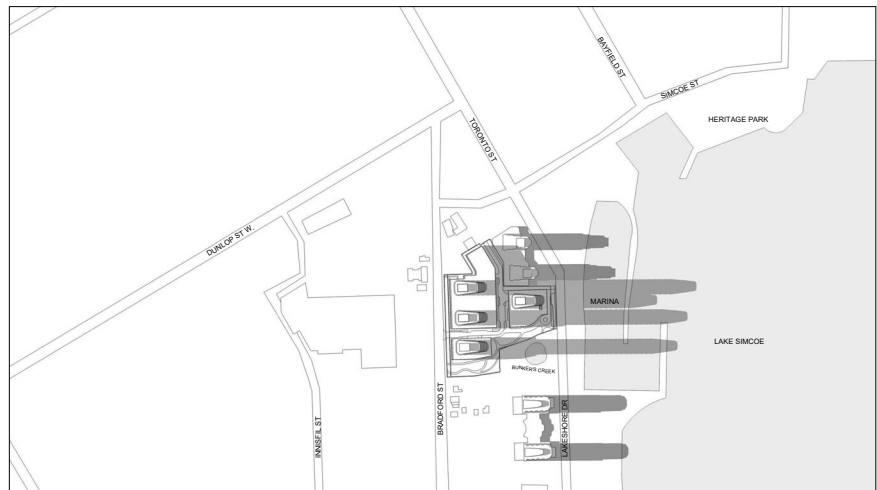
APRIL 21, 1:55 PM EDT



APRIL 21, 3:25 PM EDT



APRIL 21, 4:55 PM EDT

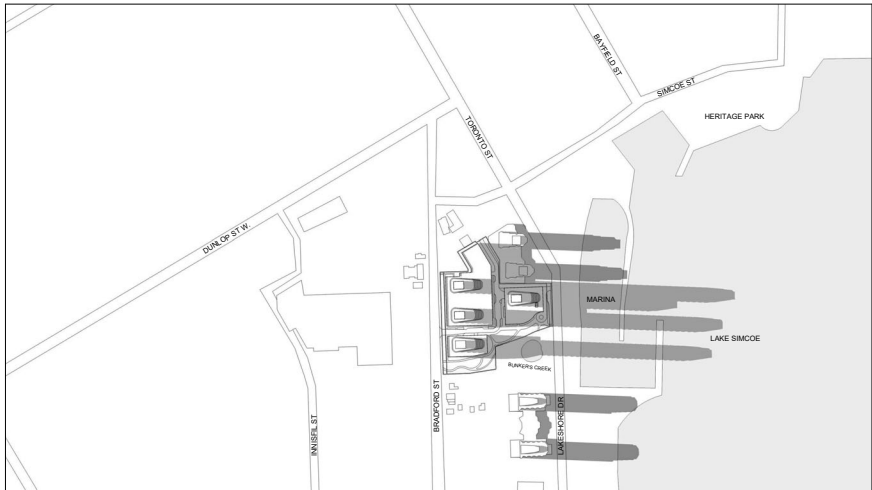


APRIL 21, 6:25 PM EDT

**SITE IS ASSUMED FLAT.



LEGEND	
	PROPERTY LINE
	SHADOW OF EXISTING HIGH RISE BUILDINGS
	PROPOSED SHADOW



APRIL 21, 6:40 PM EDT

**SITE IS ASSUMED FLAT.

PROJECT NO.	2019-08-08
PROJECT DATE	2019-08-08
PROJECT BY	MM
DESIGNED BY	MM
SCALE	AS NOTED

PROJECT
BARRIE WATERFRONT
S1, S2, S3 & S4 BROADVIEW STREET AND S5 CHELSEA STREET, BARRIE, ON

PROPOSED
SHADOW STUDIES

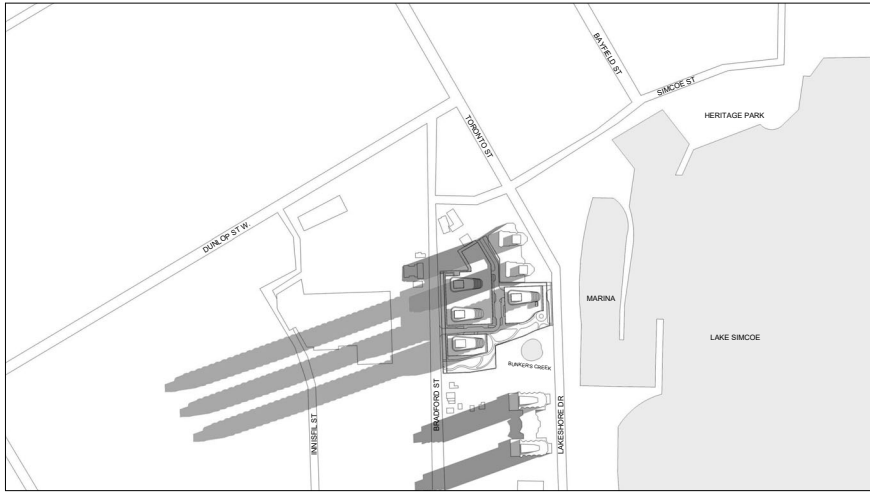
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PROJECT DATE	2019-08-08
PROJECT BY	MM
DESIGNED BY	MM
SCALE	AS NOTED



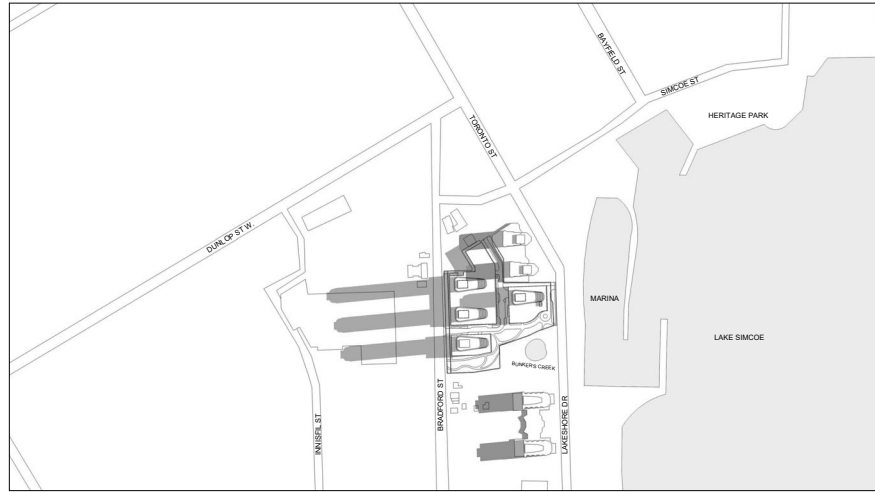
RZ813

LEGEND

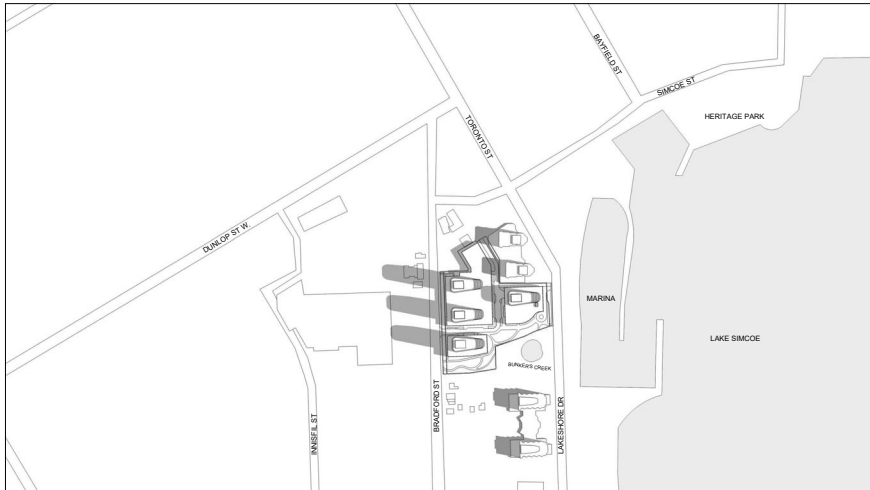
- PROPERTY LINE
- SHADOW OF EXISTING HIGH RISE BUILDINGS
- PROPOSED SHADOW



JUNE 21, 7:04 AM EDT



JUNE 21, 8:34 AM EDT



JUNE 21, 10:04 AM EDT



JUNE 21, 11:34 AM EDT

LEGEND	
	PROPERTY LINE
	SHADOW OF EXISTING HIGH RISE BUILDINGS
	PROPOSED SHADOW



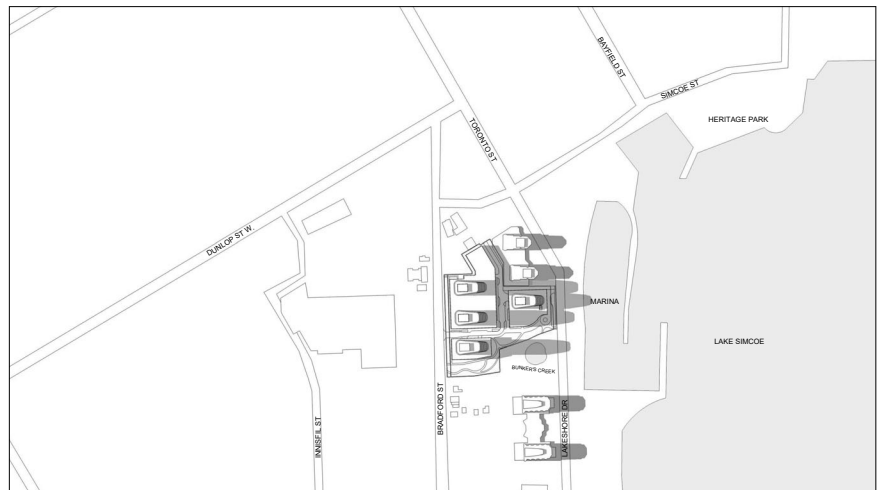
JUNE 21, 1:04 PM EDT



JUNE 21, 2:34 PM EDT



JUNE 21, 4:04 PM EDT



JUNE 21, 5:34 PM EDT

**SITE IS ASSUMED FLAT.



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LEGEND

PROPERTY LINE

SHADOW OF EXISTING HIGH RISE BUILDINGS

PROPOSED SHADOW



JUNE 21, 7:04 PM EDT



JUNE 21, 7:36 PM EDT

**SITE IS ASSUMED FLAT.

DATE	2018-06-08	BY	TURNER FLEISCHER
DATE	2018-06-08	BY	TURNER FLEISCHER

PROJECT
BARRIE WATERFRONT
S1, S2, S3 & S4 BROADVIEW STREET AND S5 CHELSEA STREET, BARRIE, ON

SHADOW STUDIES

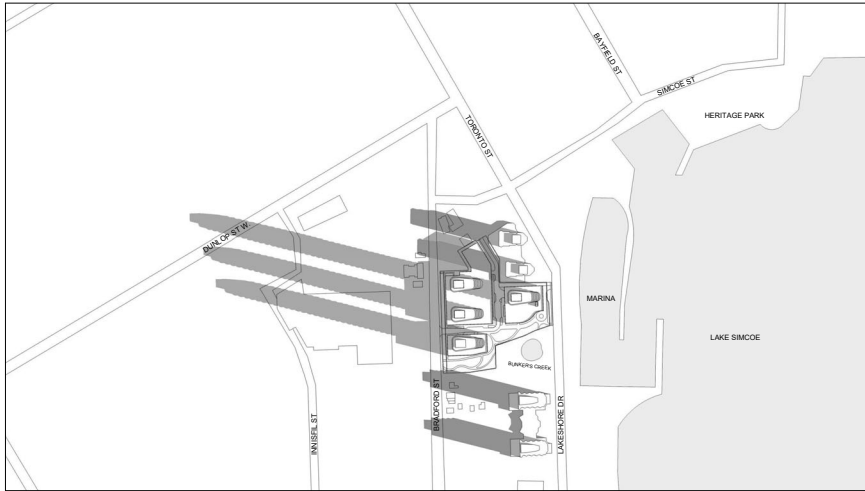
PROJECT NO.	18-0000
PROJECT DATE	2018-06-08
DESIGNED BY	MAA
CHECKED BY	MM
SCALE	AS NOTED



TURNER FLEISCHER
RZ816

LEGEND

- PROPERTY LINE
- SHADOW OF EXISTING HIGH RISE BUILDINGS
- PROPOSED SHADOW



SEPTEMBER 21, 8:34 AM EDT



SEPTEMBER 21, 10:04 AM EDT



SEPTEMBER 21, 11:34 AM EDT



SEPTEMBER 21, 1:04 PM EDT

LEGEND

- PROPERTY LINE
- SHADOW OF EXISTING HIGH RISE BUILDINGS
- PROPOSED SHADOW



SEPTEMBER 21, 2:34 PM EDT



SEPTEMBER 21, 4:04 PM EDT



SEPTEMBER 21, 5:34 PM EDT



SEPTEMBER 21, 5:48 PM EDT

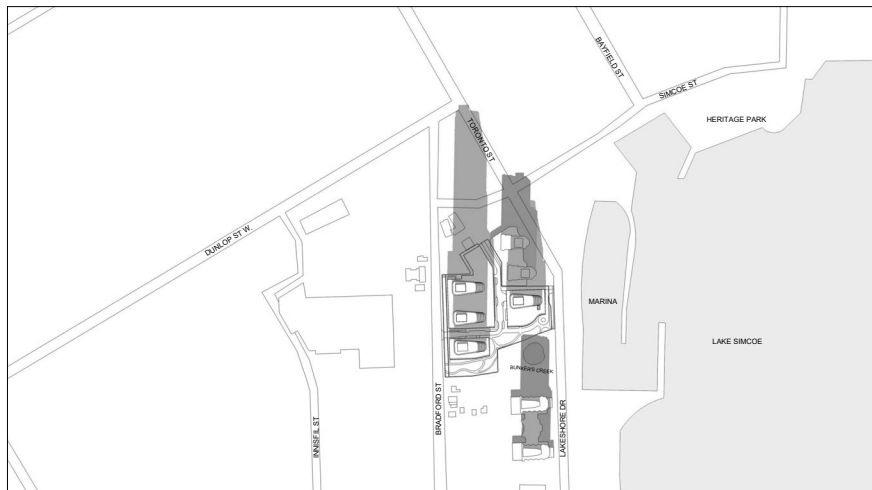
LEGEND
PROPERTY LINE
SHADOW OF EXISTING HIGH RISE BUILDINGS
PROPOSED SHADOW



DECEMBER 21, 9:21 AM EST



DECEMBER 21, 10:51 AM EST



DECEMBER 21, 12:21 PM EST



DECEMBER 21, 1:51 PM EST

**SITE IS ASSUMED FLAT.



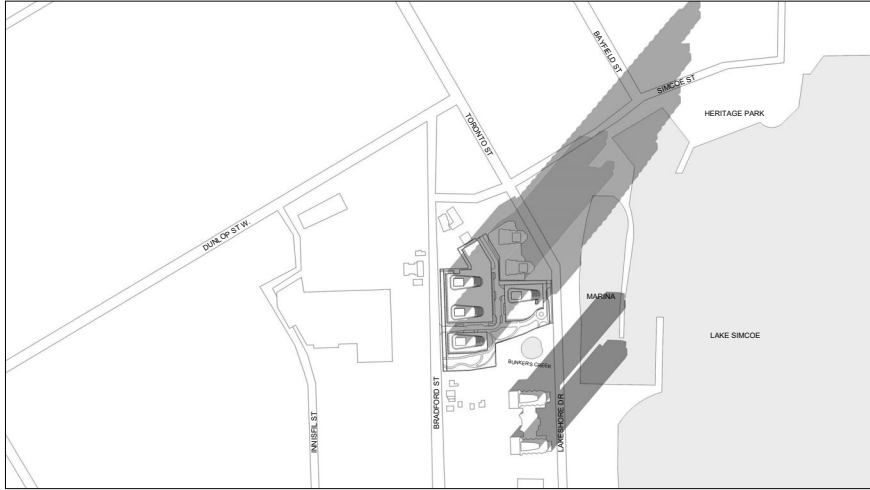
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LEGEND

PROPERTY LINE

SHADOW OF EXISTING
HIGH RISE BUILDINGS

PROPOSED SHADOW



DECEMBER 21, 3:12 PM EST

Sheet 1 of 1

PROJECT
BARRIE WATERFRONT
S1, S2, S3 & S4 BARRIE STREET AND S5 CHELSEA
STREET, BARRIE, ON

SHADOW STUDIES

PROJECT NO.
18-10000
PROJECT DATE
2018-08-08
DESIGNED BY
MFA
DRAWN BY
MFA
SCALE
AS NOTED

DATE
2018-08-08
DRAWN BY
MFA
SCALE
AS NOTED



PROJECT NO.
RZ820

**SITE IS ASSUMED FLAT.