City of Burlington

Downtown Urban Design Guidelines



APPROVED BY COUNCIL
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Brook McIlroy Planning + Urban Design

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1 Introduction

1.1 Background

Over the last ten years, Downtown Burlington has experienced growing development activity, primarily in the form of condominium buildings in addition to ongoing improvements to the Burlington Waterfront. While the vitality of the Downtown area has long been an important objective of the City, the potential loss of character of the Downtown has recently arisen as a concern in the Community.

As Burlington's Official Plan is reviewed, the opportunity to more carefully guide the development of the private and public realms was identified, leading to the commissioning of Urban Design Guidelines (UDGs) in the spring of 2005. To complete this task, the City retained a team composed of Brook McIlroy Planning + Urban Design and Meridian Planning.

1.2 Role of the Guidelines

The Burlington Downtown UDGs are intended to supplement the Official Plan and Zoning By-law by providing property owners, developers and City staff with additional detail on what constitutes desirable built form in the Downtown. Often, the Official Plan (OP) and Zoning By-Law define the type of buildings, uses and densities that are acceptable or desirable, but do not provide details on how these buildings can be articulated and programmed to achieve the goals outlined in the OP.

While key components of the UDGs have been translated into OP and zoning provisions to guarantee their implementation and should be seen as a guide on how the goals of the Official Plan can be implemented on the ground, the UDGs are by themselves neither part of the OP or zoning.

Therefore, the UDGs should be understood as a component of the City's planning framework and read in conjunction with all other relevant documents. By virtue of their official status, the Official Plan and Zoning By-law will always take precedence over the Urban Design Guidelines.

Once a development application is received, the UDGs become a toolbox for municipal planners to assess the application and engage in a meaningful discussion with the applicant on the basis of a clear set of expectations

Even prior to that, the guidelines can be used by a proponent to better guide the design process, anticipating the City's expectations. Through their broad availability, including online, the Burlington Downtown UDGs help educate and inform landowners, developers and builders as to the City's expectations regarding built form in a specific area.

The Burlington Downtown UDGs also identify the form and quality of opportunities for physical improvements both in the public and private realm. It is hoped that the opportunities can inspire both public and private decision-makers to invest in the Downtown.

It should be noted that Guidelines cannot replace talented design professionals and a thorough review process. It is suggested that an independent review process (see Section 2.4) be formed at the discretion of the Director of Planning to review significant applications at the earliest stage of development, with the ability to make recommendations and to assist the City in recommending refinements and changes to developments before approvals and building permits are granted.

Of great importance is the adoption of a urban design review process of the UDGs at regular intervals to ensure their continued relevance and effectiveness.







Aerial photographs of Downtown Burlington.

1.3 Existing Character

As mentioned earlier, urban design guidelines were made necessary in part by increasing development pressures in Downtown Burlington. It is important to stress that the intent of the guidelines is not to prevent all development, restrict development to low-rise buildings or make any new building adopt a "heritage style". Instead, the guidelines provide a set of recommendations to ensure that new development protect the most crucial aspects Downtown Burlington's existing character including - among other elements:

- The relationship of buildings to streets and open spaces;
- The articulation of façades;
- The relationship of buildings to one another;
- The protection of important views;
- The fine-grained pedestrian network with its shortcuts and urban paths, and
- The palette of materials.

1.4 Process

The Guidelines are based on a foundation of public participation including:

- A stakeholder workshop during which key orientations of the study and stakeholder concerns were identified;
- Two open houses during which participants were shown preliminary block plan concepts and were asked to provide input for the completion of the Study;
- The steering committee, composed of City staff, guided the process and provided comments to proposed concepts and study orientations.

1.5 Structure of the Document

- **Section 1.0** outlines the role and process of the Guidelines.
- **Section 2.0** reviews the functional and built context of the Guidelines.
- **Section 3.0** includes a presentation of the Study Area, its context and key structuring elements.
- **Section 4.0** contains public realm Guidelines to guide improvements to all public areas of the Downtown including streets, sidewalks, pedestrian connections and open spaces.
- **Section 5.0** contains private realm Guidelines, focusing on building sites, either privately or publicly owned.
- **Section 6.0** reviews key opportunities for a more sustainable Downtown.
- **Section 7.0** outlines detailed opportunities in each block of the Study Area.
- **Section 8.0** (separate document) makes recommendations on the implementation of the guidelines, including in zoning and the Official Plan.

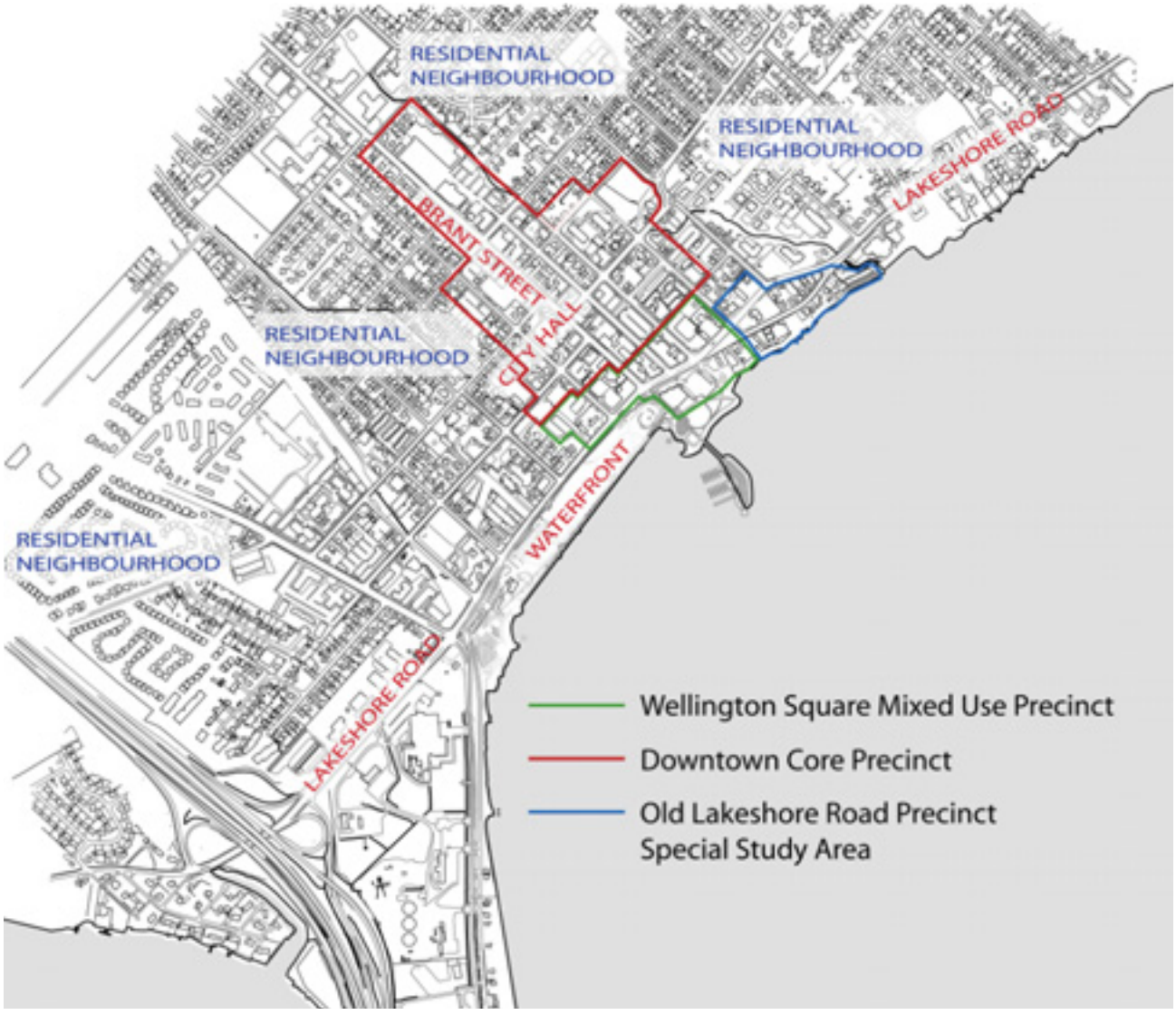
2 Context

2.1 The Study Area within Burlington

The Study Area corresponds to a sub-area of Downtown considered as the downtown core and characterized by the following criteria:

- Lands centred around the City's historic main street and central waterfront area.
- Lands not dominated by single family detached homes;
- A mix of uses including office, commercial and institutional in the same block and occasionally in the same building;
- City-wide or region-wide destination.

FIGURE 1: *Study Area Context*



2.2 Precincts and Blocks

The Study Area is composed of three precincts which correspond to the Official Plan precincts (Figure 2):

The Downtown Core Precinct

The largest and most diverse precinct, the Downtown Core Precinct encompasses many of the uses that make Downtown Burlington an important destination for all Burlington residents. Development should respect the character of the existing built form to ensure that this area retains its attractiveness. New development should also be designed sensitively to ensure proper transitions to surrounding stable low-density neighbourhoods. Transportation and access , both pedestrian and vehicular, are important issues in this precinct to achieve a balance between accessibility and local quality of life.

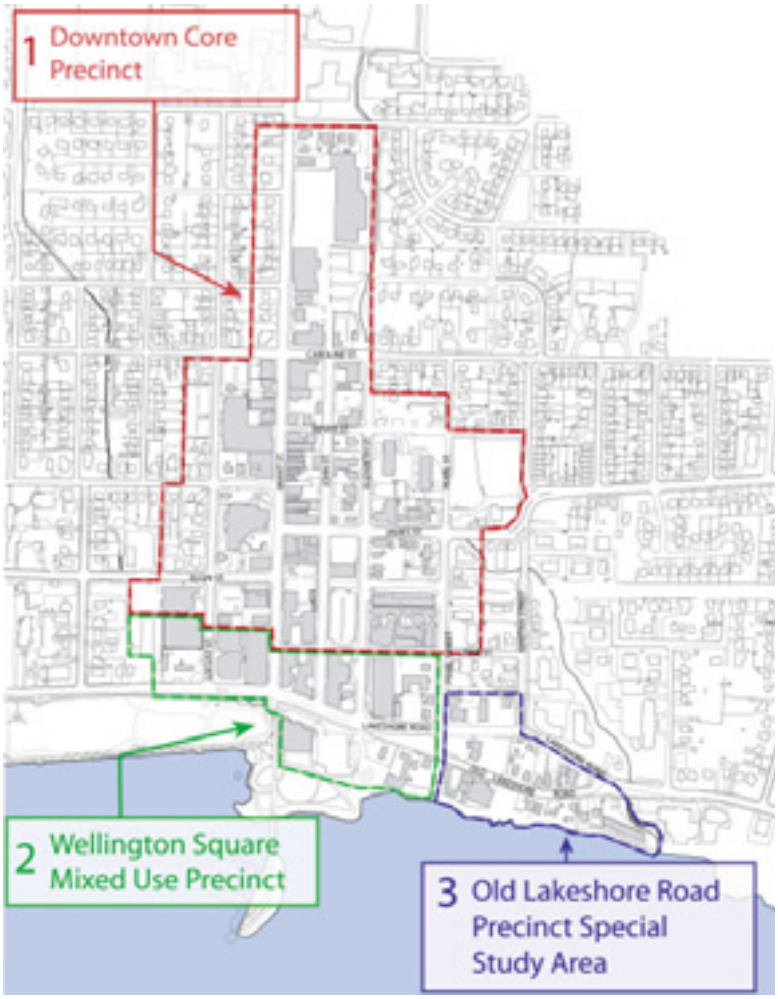
The Wellington Square Precinct

This precinct has seen significant growth in the area over the last several years and this trend can be expected to continue. With taller permitted heights than in the Central Area and generally larger buildings, key issues include the preservation of views from public streets, the diversity of the façade landscape and maintaining a fine grain of built form at the street level.

The Old Lakeshore Precinct

The Old Lakeshore precinct is a special study area within the Official Plan review. Further design guidelines will be developed as part of that exercise.

FIGURE 2: *Burlington Downtown Precincts*



2.3 Recent Development Trends

The Guidelines presented in this document have been partially written in response to current development trends and pressures in Downtown Burlington. Most new construction has been residential, typically in the form of townhouses, some of which live-work, with a small number of single detached houses built on the edges of the Study Area, or large-scale condominium buildings exceeding 10 storeys with one level of non-residential uses on the ground floor.

- The City has invested in a number of cultural facilities Downtown including the Burlington Art Centre, the Waterfront Centre and the upcoming Performing Arts Centre.
- In the last five years, reflecting general trends in the GTA's Downtown cores, no rental or office buildings, main street or mid-rise mixed-use buildings have been built.
- Application of the Urban Design Guidelines will be of importance particularly if recent development trends continue.

2.4 Beyond the Guidelines

2.4.1 Flexible Guidelines

Guidelines are invaluable in establishing a common understanding among all urban stakeholders – citizens, city staff, developers, landowners, etc. However, despite the best care in creating flexible Guidelines, they remain a static document and cannot predict every eventuality resulting from the creativity of development proponents. It is therefore recommended that the Guidelines be interpreted and where required, modified by City staff and development professionals.

2.4.2 Role of Urban Design Review

To assist City staff and elected representatives in the assessment of development applications, the creation of an Urban Design Review process is recommended. The role of this review will be to provide an objective and unbiased opinion on the fulfilment of performance criteria including the Guidelines, other elements of the municipal planning framework, supplemented by leading edge knowledge in planning, urban design and architecture. It is not the role of the design review to replace or supersede the City's review process conducted by staff, but to supplement it by focusing on functional and aesthetic aspects of urban development currently not explored or extensively reviewed by City staff.

2.4.3 Composition of a Design Review Process

A review group should be composed of a variety of experts in their field including:

- Architecture
- Landscape Architecture
- Urban Design
- Urban Planning
- Sustainability

Members should be nominated for limited periods or by expertise according to a project's design review requirements. Members can be selected through a list of existing City consultants or nominated by professional organizations.

The design review process should be flexible to give projects of differing scope and character appropriate levels of consideration and analysis.

2.4.4 Mandate of a Design Review Panel

Ontario legislation does not yet allow the establishment of formal review panels with decision-making power. The opinions of such panels thus remain advisory rather than binding. However, the Province has tabled the *Planning and Conservation Land Statute Law Amendment Act, 2005 - Supporting Intensification and Sustainable, Well-Designed Communities*, which contemplates allowing municipalities to conduct design review among other innovations, including Development Permits.

3 Study Area Structure

3.1 Key Assets of the Downtown

3.1.1 A stable and healthy adjacent residential fabric

Burlington's Downtown is surrounded by stable and healthy residential neighbourhoods with a variety of housing types. Burlington's residents form a reliable clientele for Downtown's business, provide "eyes on the street" all hours of the day, and contribute to the local workforce essential for a vibrant community.

3.1.2 A walkable and permeable fabric

The Downtown's small blocks, animated frontages and many shortcuts make it both accessible from adjacent neighbourhoods, easy to navigate and interesting to visit on foot. The presence of a number of landmarks allows first-time visitors to find their way easily. The east-west utility easement is also a valuable pedestrian corridor to the outlying Centennial Bikeway.

This high degree of walkability is a key asset to be protected and further enhanced. It also means that parking facilities can be located at key locations and motorists are willing to accept a short walk between parking and their destination rather than expecting each property to provide parking.



Shortcuts through undeveloped sites should be preserved or replaced when built upon.



Buildings with historic character, such as the Queen's Head Pub, contribute to the Downtown character and should be retained.

3.2 Structural Elements of the Study Area

3.2.1 Heritage Buildings

The presence of a large number of listed and designated buildings in the Downtown area must be acknowledged, although no specific block or sub-area of the Downtown is characterized by a large concentration of designated buildings. In addition to designated heritage buildings, the Downtown has a large number of buildings with heritage character, many of which are listed on the Municipal Heritage Inventory. Though not officially designated, these buildings collectively contribute to the character of Downtown Burlington (Figure 3).

Buildings that have retained architectural integrity and continuous frontages of older structures all contribute to the uniqueness of a place. The Guidelines provide advice on the integration and retention of heritage elements as the Downtown grows.

FIGURE 3: *Heritage Buildings*



3.2.2 Views

Views to Lake Ontario from the public realm and many Downtown buildings and landmarks (e.g. City Hall, Knox Presbyterian church spire) are important to protect and frame through new development. As waterfront sites redevelop, the guidelines will help protect views to the Lake from Brant, John, Elizabeth and Pearl Streets.

View termini resulting from T-intersections such as Maria, James and Pine at Brant as well as those observed in the bends in Lakeshore Road between Brant and Torrance Street are also important new view termini to be considered in the placement and design of built form.

3.2.3 Parking Lots

Surface parking lots have come to constitute a defining feature of Downtown Burlington. Vast expanses of surface parking are aesthetically unappealing, result in uninteresting streetscapes, limit the possible intensity of uses (parking is not a use in itself but the physical manifestation of a service - transportation) and foster the heat island effect, a localized rise in temperature.

However, surface parking lots in the Downtown create a large number of shortcuts which shorten walking distances. Public parking facilities are also essential in attracting visitors to the Downtown and through the Defined Parking Area framework, encourages non-residential development in the Downtown by allowing individual projects to rely on public parking facilities instead of providing on-site parking, thus improving the viability of projects and increasing the efficiency of parking facilities as they can be used throughout the day and the week.

Over time, surface parking lots should be replaced with underground or above-ground facilities as per transportation studies conducted by the CIty, and lots that remain in the Downtown should be substantially screened with shrubs, trees, wrought iron fences or low masonry walls.

3.2.4 Open/Civic Spaces and Pedestrian Networks

In addition to a dense pedestrian network, the Downtown also benefits from its proximity to the Waterfront. Strengthening linkages between the Downtown and the waterfront should be a priority as Lakeshore Road continues to be improved and buildings are proposed along both the north and south sides (Figure 4).

Throughout the Downtown, opportunities exist to strengthen existing public and semi-public spaces such as the City Hall plaza, the Cenotaph parkette north of City Hall, the utility easement, the suspended patio area in Upper Canada Mall and Village Square. Opportunities for new patios and plazas will also arise from new public and private development.

Generally, pedestrian comfort could be further improved by extending existing tree lines along sidewalks, encouraging further plantings on public and private properties and adopting a palette of high quality, consistent streetscape treatments.



Although there is adequate space, low level shrubs and trees were not planted to buffer the parking lot.



This green space provides seating and shade, but lacks pedestrian lighting and contains a poorly screened transformer.

FIGURE 4: *Green and Pedestrian Networks*





Brant Street Class "A" frontage.



Old Lakeshore Road Class "B" frontage.



John Street Class "C" frontage.

3.2.5 Streets – differing qualities

Streets can be broken into three distinct categories with varying levels of pedestrian engagement (Figure 5):

"A" Street Characterization:

- Stores and animated sidewalks;
- Park frontage or consistent tree line;
- Wide sidewalks, outdoor patios;
- Slow traffic buffered by trees or parked cars;
- High quality materials with refined details.
- Pedestrians will make a detour to walk on such a street;

"B" Street Characterization:

- Some of the above attributes;
- Not necessarily less attractive than an "A" Street, but less unique or animated;
- Can contain a few undesirable features such as a single entrance in a building that occupies a full block or some blank façades;
- Can be a quieter street with deeper setbacks and a more significant residential component;
- Good quality materials with some refined details.

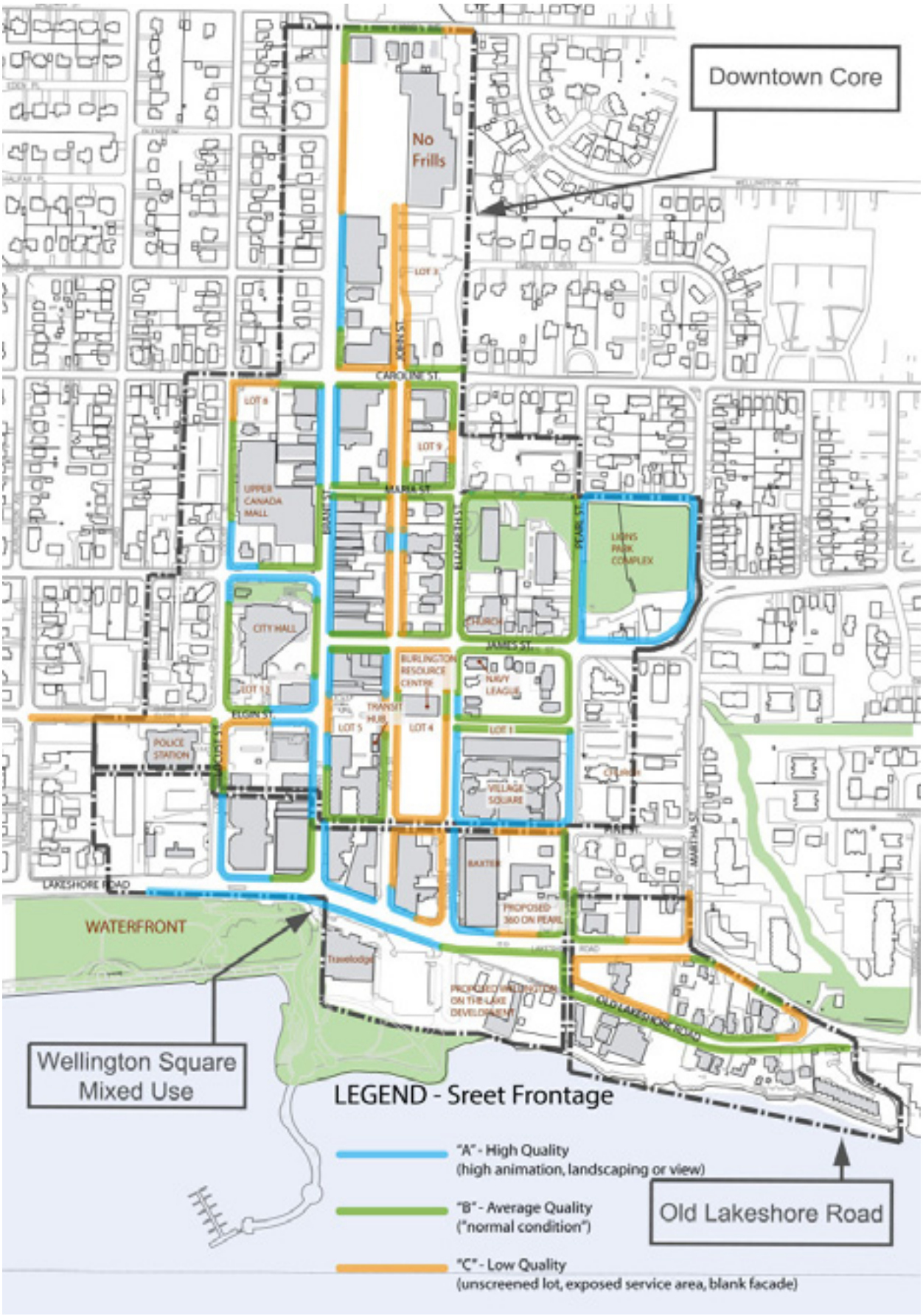
"C" Street Characterization:

- Fast traffic;
- Narrow sidewalks;
- No buffering from traffic by trees or parked cars;
- Blank façades with few details;
- Unscreened parking lots;
- Frequent service entrances;
- Rears of buildings;
- Hydro poles with poor lighting – either too high or too low;
- Pedestrians will make a detour to avoid such streets or will prefer to drive if a significant proportion of the route is on "C" streets.
- Opportunities for improving private and public spheres when redevelopment takes place.

Through public realm improvements and redevelopment, the objective should be to turn "C" streets to "A" or "B" streets. John Street is a high priority in this regard.

Importantly, not every street can, nor should, be an "A" street since some streets must include service entrances and some secondary façades. These, however, should be minimized.

FIGURE 5: *Qualities of Street Frontages*



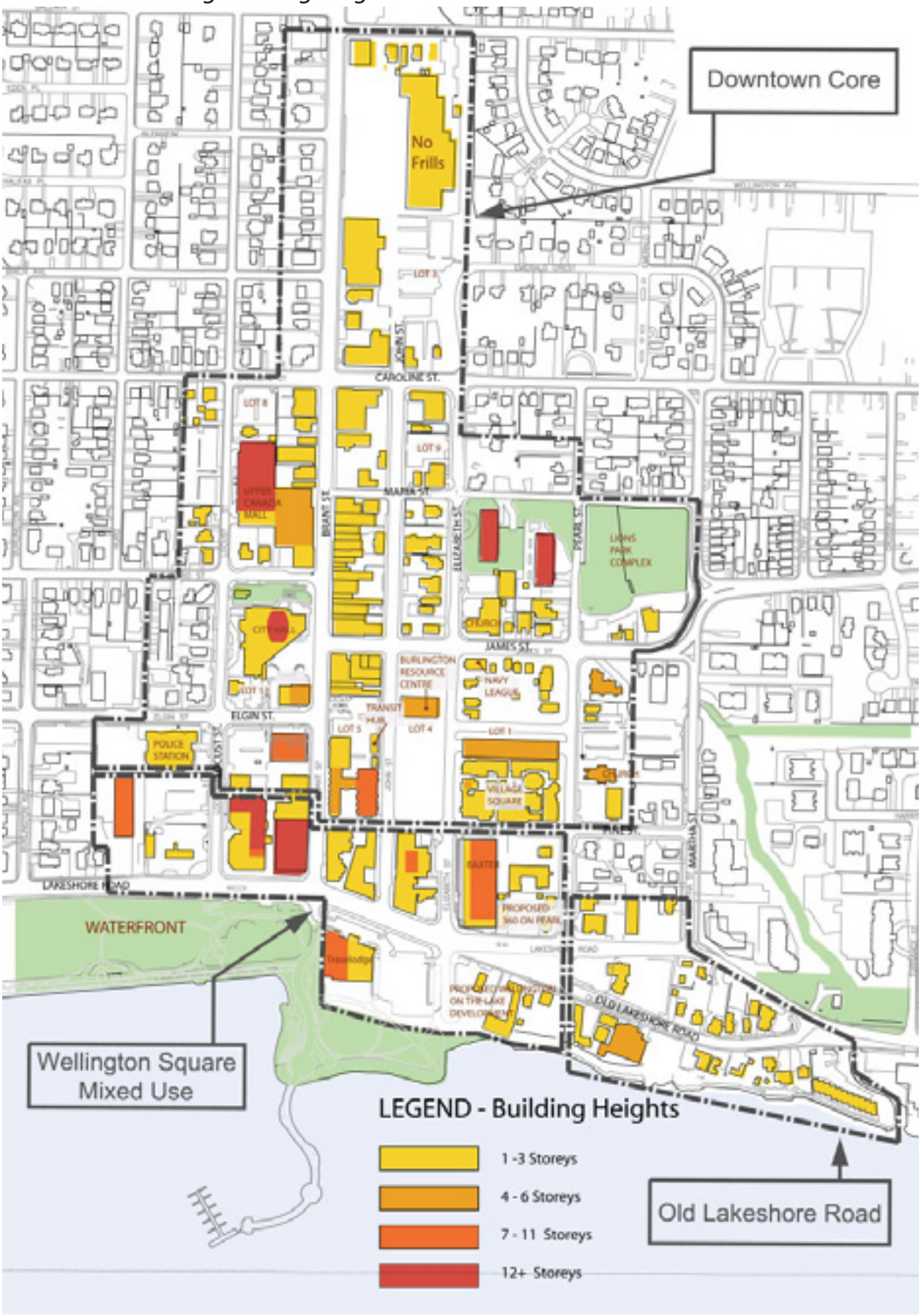
3.2.6 Existing massing and built form

The Official Plan, after extensive consultation, has provided for the emergence of a higher density district - Wellington Square, and for taller buildings on Brant Street. An important role for the Guidelines will be to suggest ways to accommodate these taller buildings while retaining the character of the downtown. For example, the UDGs provide further detail on the articulation of the height limit within a block based on a variety of conditions including the street width, existing buildings, shadow/privacy considerations, impacts on shadowing and views and opportunities for landmark features.



Aerial overview of existing Downtown Burlington massing and built form.

FIGURE 6: *Existing Building Heights*



4 Public Realm Guidelines

4.1 Public Realm

The building-street relationship defines the public realm. A strong building-street relationship distinguishes the Downtown core from residential neighbourhoods where landscaping plays a more predominant role in defining the appearance of the street.

4.2 Streetscape

4.2.1 Power Lines

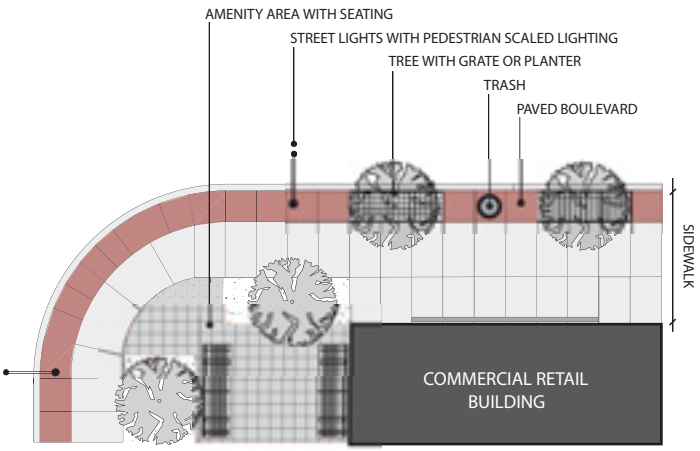
The City of Burlington already has a policy to limit new utility poles and above grade power lines. In the case of existing facilities or if burying is impossible, poles should be limited to one side of the street and be of material and colour consistent with other streetscaping elements. The required clearances between power lines and trees must be factored into tree planting initiatives.

Poles should be coordinated between utilities and be of a joint-use nature, one pole capable of integrating street-lighting, hydro, cable, pedestrian lighting, banners and hanging planters is desirable (Figure 8).



Examples of high quality, durable street furniture.

FIGURE 7: *Sidewalk Design Example*



Commercial area sidewalks should include a paved boulevard accommodating street trees, pedestrian-scaled amenities and lighting.



Wide sidewalks (here in Oakville) are proposed to accommodate the variety of landscape and street furnishings that collectively create a comfortable and attractive place for walking and socializing.

FIGURE 8: *Proposed Brant Street Section*

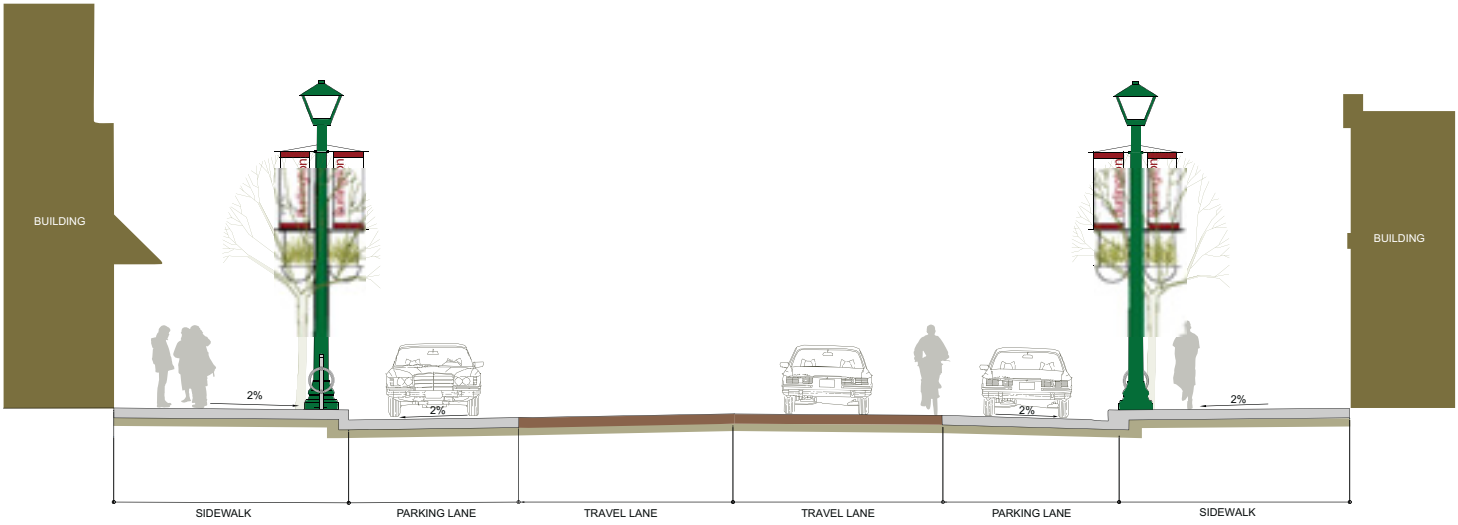
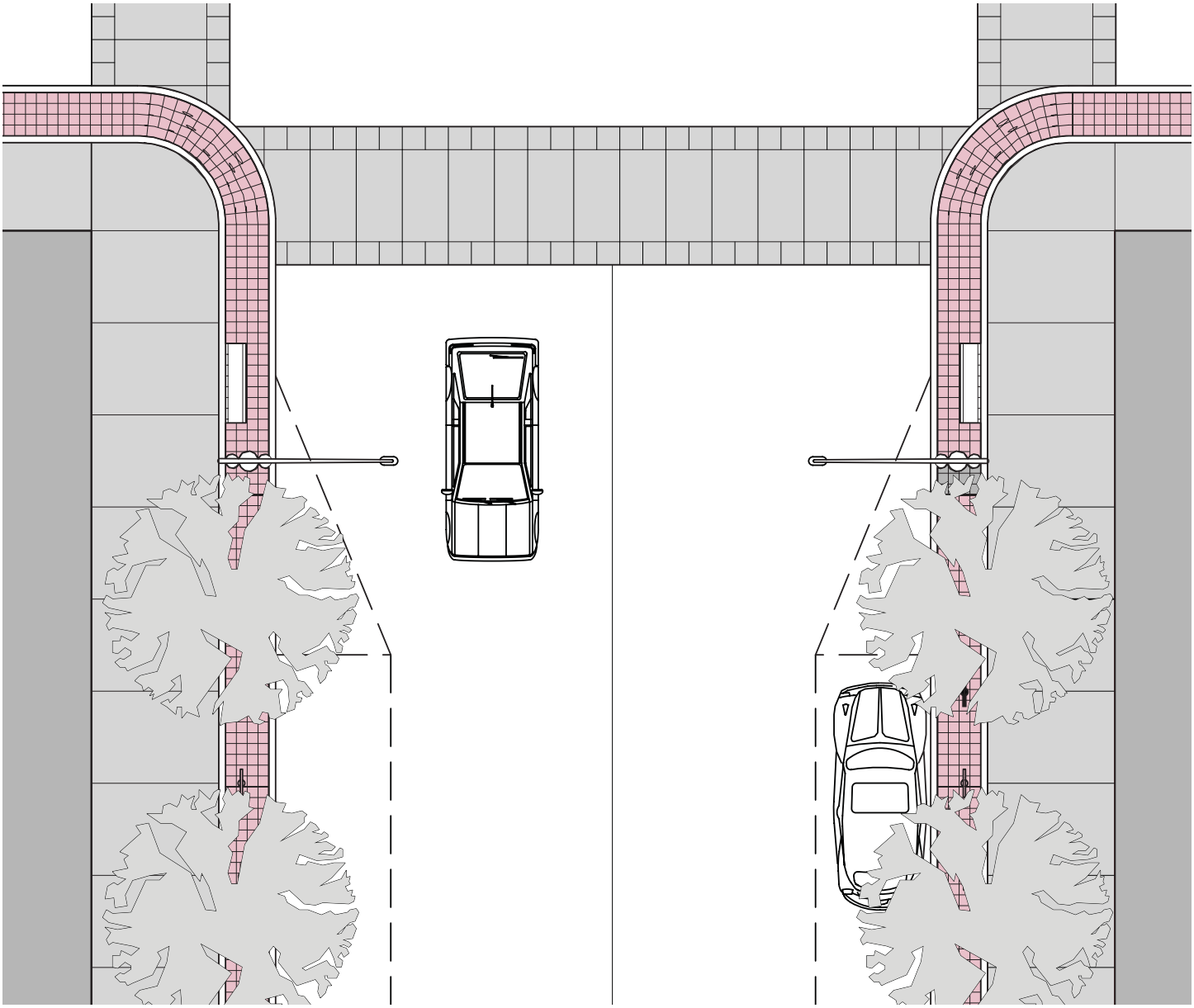


FIGURE 9: *Proposed Brant Street Plan*



4.2.2 Furnishing Recommendations

Benches, bicycle racks, waste receptacles, and bollards should have a standard form throughout the Downtown to unify the area visually, to strengthen the visual and design connections with the Waterfront, to reduce maintenance and to simplify replacement.

- A collection of street furniture should be selected for its durability, its compatibility with Burlington's climate, and its availability for additional purchases in the future.
- Colours and materials of site furniture should be coordinated as much as possible. Painted finishes should be avoided; the natural colours of materials will minimize long term maintenance.
- Furniture styles should be complementary and consistent. A heritage style is appropriate but should not preclude the selection of contemporary, classic designs.
- Street furniture should be placed out of the way of emergency and maintenance vehicles, especially snow removal vehicles.
- Bicycle racks should be installed at regular intervals throughout the Downtown to promote non-motorized transportation. The post-and-ring design constructed of aluminum of galvanized steel is preferred as larger units impede pedestrian movement and snow clearing. Bicycle storage should also be required within private lands, either adjacent to building entrances or as an integrated building enclosure.



Benches, bike racks, garbage receptacles, pedestrian lighting etc (here in Montréal) should be standardized and complementary to each other.



Examples of suitable bicycle rings.



A palette of streetscape paving materials (Here in Washington, D.C.) should be adopted for use in all future streetscape reconstructions

FIGURE 10: *Proposed John Street Section*

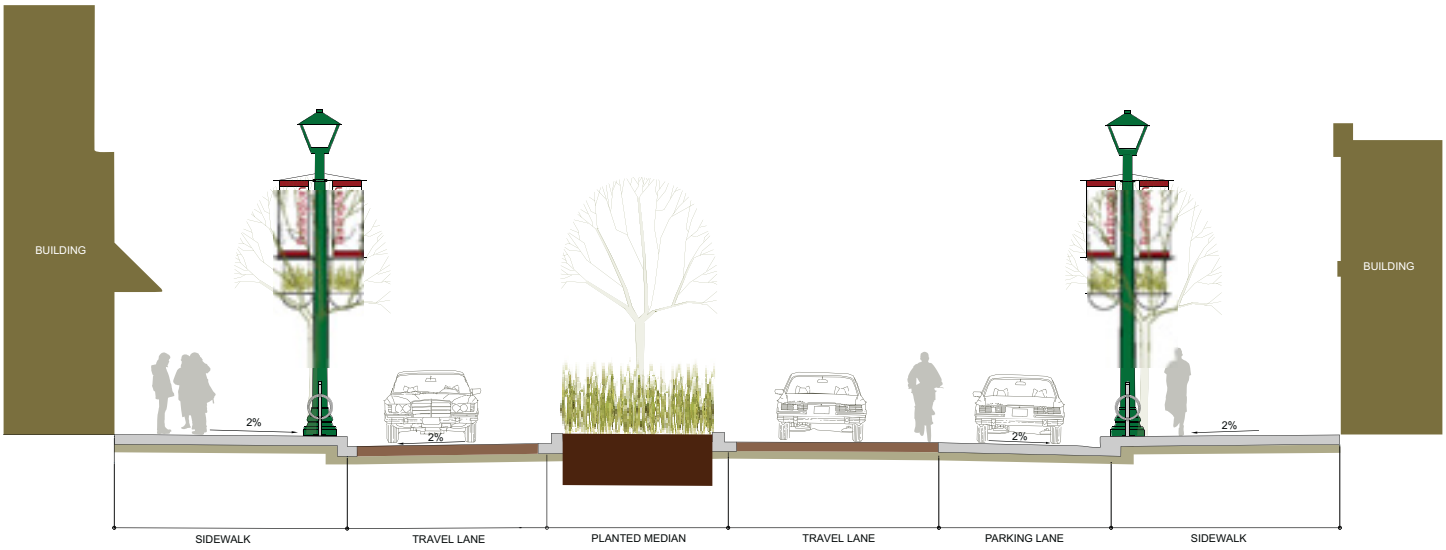
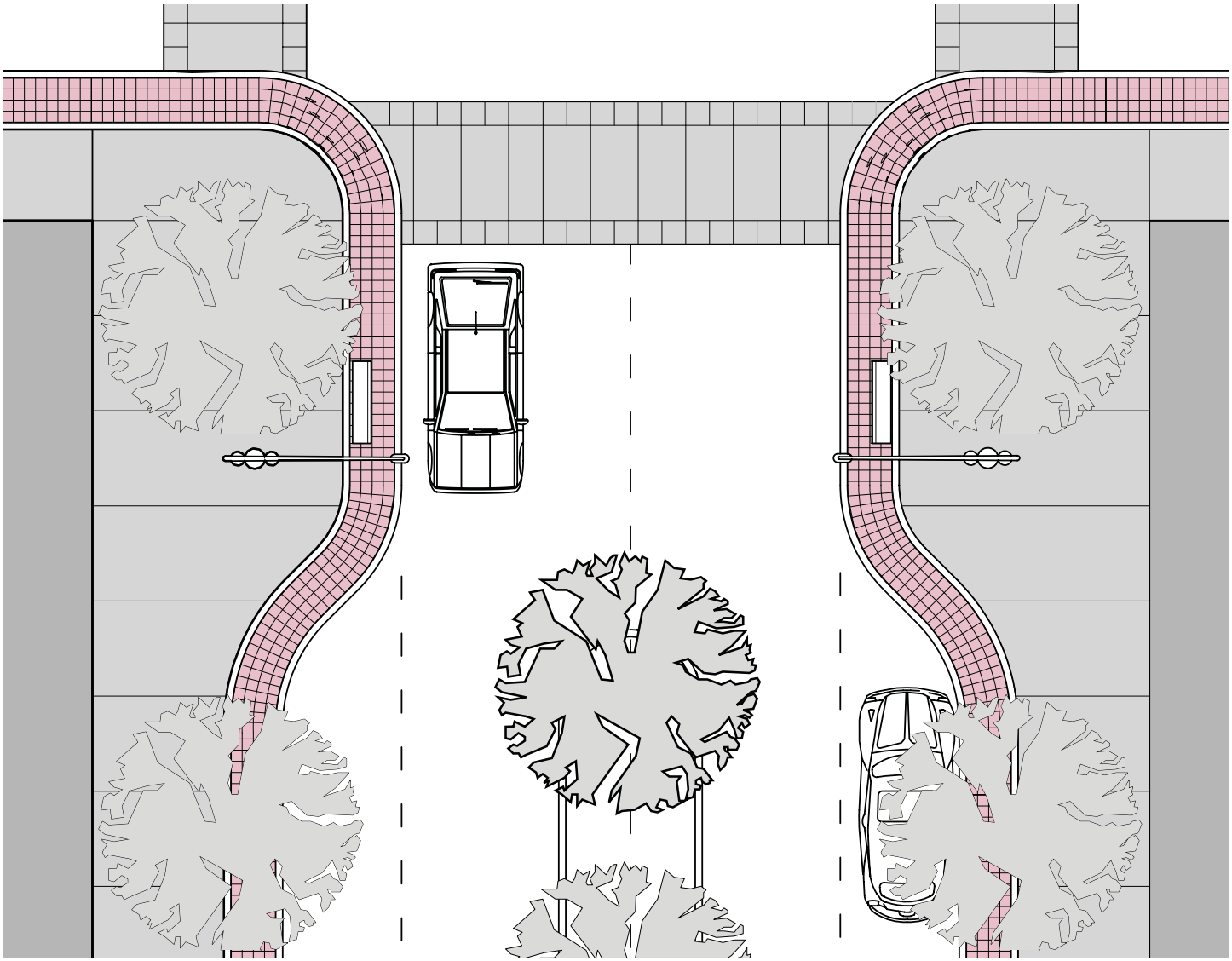


FIGURE 11: *Proposed John Street Plan*



4.2.3 Streetscape Paving Materials

To enhance Downtown Burlington as a desirable pedestrian and commercial destination, a unified and improved palette of streetscape paving materials should be developed. The 1981 Streetscape Design Study covers these items, but should be updated to reflect experience and newer technologies/materials

Sidewalks should be typically broom finish concrete and/or pavers and should be continuous across driveways. Where crossing over driveways and intersections occur, sidewalks should be marked through other materials such as large format concrete pavers. Sidewalk edges and curbs should be graded and scored to provide barrier-free access for people physically and visually impaired.

- Landscape strips that are less than 1.0 meters in width and are adjacent to a hard edge, such as a wall or curb, should be paved with a feature paving material.
- Landscape strips which are 1.0-2.5 meters in width can consist of grass groundcover and/or deciduous street trees that are properly irrigated.
- Alternatives to the current coloured stamped concrete feature strip should be explored, including permeable concrete unit pavers. Stamped concrete cracks and is thus difficult to repair. Pavers, if installed on a strong base with good drainage, are long-lasting and aesthetically pleasing. They are commonplace in cities like Washington DC, Montreal and Quebec City.



The Grande Allée in Québec City was recently reconstructed with elegant concrete pavers on sidewalks and the parking lane.

4.2.4 Planting Recommendations

Planting material should be chosen for its ability to withstand the climate, for its visual interest throughout the year, and for ease of maintenance. Intricate planting patterns should be avoided. Instead, masses of low-maintenance plants should be placed at key locations to direct pedestrian traffic, screen parking lots and provide visual interest.

- To ensure that trees do not suffer from soil compaction that restricts water and air around their roots, the bases of trees should be either planted with groundcover or shrubs and mulch, or metal tree grates for areas with intense pedestrian traffic. Adjustable tree grates that allow for the growth of the tree should be chosen. Gravel should be filled under the tree grate to prevent debris from accumulating between it and the finished planted grade. Products like CU-Structural Soil that promote tree growth in urban environments should also be considered.
- Where possible, sidewalks and walkways should be lined with a landscaped strip. Such areas should be protected from vehicle traffic, snow storage and removal and should direct but not hinder pedestrian movement (e.g. Figure 10).
- Street trees should be planted on each sidewalk or walkway facing a street or open space at between 6 and 8 meters on centre and should use a continuous trench below the sidewalk to allow for adequate root growth. Trenches should measure 1 meter deep by a minimum of 1.4 meters wide. Tree grates should be provided to protect the underlying soil from compaction. Where possible, street trees should be set back a minimum of 1 metre from the curb line to protect from salt penetration.
- All sidewalks should be designed to accommodate street trees and should therefore be a minimum of 4.0-5.0 meters in width. As blocks and individual buildings redevelop, building setbacks should accommodate this dimension.
- All new trees should be at least 7.5 cm in diameter measured 30 cm from the ground and be planted in soil composed of 50-60% sand, 20-40% silt, 6-10% clay, 2-5% organic and have a ph between 6.8 and 7.5.

- Only species that are tolerant of urban conditions, salt, poor soil and uneven irrigation should be planted. Good examples are Crimson King Maple, Columnar Norway Maple, Ginkgo Princeton Sentry (male only), Honey Locust (skyline or shade master varieties), Japanese Tree Lilac, Lindens (Green spire or Glenleven varieties).
- Most Norway maples should be avoided as they have a very dense canopy and shallow, aggressive roots. Very little will grow underneath them due to lack of water and light. Also, Norway maple seed pods are very fertile and will sprout up anywhere they land. This is of particular issue when seed pods find their way into natural areas. The sprouted trees grow very quickly and will crowd out other species.
- Electrical outlets should be provided at the base of every street tree along Brant Street, Lakeshore Road and other streets to allow for seasonal lighting as determined by the BIA.



Street tree trunks should be set back a minimum of 1 meter from the curb and metal tree grates should be provided.

4.2.5 Above Grade Utilities

Utilities, including utility cabinets, transformer vaults, hydro metres and gas metres should be incorporated into the building and not located at corners or visible to pedestrians. Above-grade utilities generally contribute to a negative image of the streetscape, particularly when placed in highly visible areas of the public right-of-way. Streets that have smaller lots require a greater number of above grade utilities and the location of above grade services reduce opportunities to plant street trees.

Utility companies should be continually encouraged to bury these elements or examine ways to improve the appearance and interface of utility infrastructure. Less publicly visible locations (at the side or rear of buildings) and attractive enclosures or screening for utilities such as on-sidewalk transformers should be developed.



Appropriate trees include the Acer Ginnala Amur Maple (left) and Quercus Rubra Red Oak (right).



Open spaces should be landscaped with native, low maintenance, drought resistant and diverse plantings.

4.2.6 Public Art

Public art creates character and identity, contributing to the overall spirit and success of a location. For a small percentage of a total project budget public art will provide an added level of sophistication and quality. A public art strategy is encouraged to identify appropriate locations for art and the requirements for making it happen.

- Public art locations include public plazas, street intersections, courtyards, gardens and institutional or public building sites.
- Public Art should not be installed where no opportunity for casual surveillance exists. Conversely, pieces should benefit from adequate visibility from adjacent buildings and/or public streets.
- Public art pieces should be surrounded by appropriate paving materials that complement the piece. Benches should be located nearby to allow for passers-by to better admire the piece.
- Opportunities should be sought to celebrate historic events and figures of local, national and international relevance with public art installations.
- Sites should be reserved for groupings of complementary pieces, included temporary installations.



Examples of discrete public art installations.



In this Québec City example, a fountain was constructed to celebrate a United Nations meeting in the City. The Fountain is surrounded by complementary paving materials.

4.2.7 Façade Renovations/Restoration

Policies that encourage the maintenance and upgrading of existing buildings and structures should be pursued to assist community stakeholders promote a strong and viable Downtown commercial district.

To maintain and enhance the street wall built form, grants targeting existing two and three storey buildings could initiate new private re-investment.

Key areas for façade improvement include:

- Improving the state of good maintenance including – e.g. cracking paint, broken signs;
- Replacing rusting banisters and fences;
- Upgrading doors and windows from generic aluminum models;
- Concealing utility wires, pipes and infrastructure (e.g. gas metering equipment);
- Concealing Air Conditioning and HVAC equipment at windows and roofs;
- Removing redundant signage;
- Coordinating signage among properties on the same block for size and style;
- Restoring the historic appearance of heritage buildings, with the involvement of a heritage architect and specialized trades;
- Avoiding materials that age poorly, e.g. stucco, in renovations;
- Marking entrances with larger doors and canopies or awnings;
- Increasing glazing at grade.





Façade renovations improve both the image of the business and the street.



Advertising on this municipal "column" should be supplemented with maps of the City and the Downtown as well as event information.





Examples of pedestrian directional signage (Baltimore, Md.).

4.3 Signage

Signage should be integrated into the site plan for each proposed development to ensure complementary and overall consistency of design throughout the Study Area.

Signage is encouraged to be integrated in building design rather than applied to a standalone structure. Building identification signs should be compatible with the building design in scale, material and colour, should not occupy more than 15% of a façade and should comply to the City's Sign by-law. Standalone signs should be shared among tenants, integrated in landscaping and are recommended not exceed 3.0 meters in height.

4.3.1 Downtown Special Signage Zone

Due to its scale, density and special role as a regional focal point, Downtown Burlington requires a distinct framework for signage, including tailored provisions for the following:

- Billboards;
- Ground signs (unless a wide private setback is available and with strict height and surface limits);
- Mobile signs;
- Sandwich boards (e.g. specify minimum sidewalk clearance and maximum width);
- Advertising vehicles (i.e. vehicles whose sole purpose is as a driving billboard).

4.3.2 Signage Size and Proportion

Generally, principles are needed to guide the size of signs as a proportion of building frontages depending on the location and nature of the building, and the design of the sign.

4.3.3 Murals

Murals can greatly add to the character of a Downtown and even become "postcard material" as in other cities if they are unique and well-executed. Specific policies should be prepared for murals, acknowledging the long-term impact of greater permissiveness through legal non-conformity. Guiding principles include:

- Murals should be assimilated with public art where appropriate and the same criteria and selection process applied to guide the design and execution of the mural;
- Murals should be allowed only on blank façades where windows will not be covered;
- The City should discuss whether murals should be allowed only if applied permanently to the façade (e.g. painted) or if printed media are allowed (e.g. printed vinyl sheet);
- Approval should be required based on a submitted concept.
- Advertising through murals should be avoided.

A number of buildings in Burlington through location, shape, colour scheme and signage provide good mural potential. Provided that murals add to public interest and are artfully executed, they should be permitted on a limited basis.



Artistic murals can add character to blank façades.



Mural identifying entry into a Business Improvement Area in Toronto.

4.3.4 Buildings as Signs

Buildings-as-signs occur when the building itself is instantly recognizable from a distance as representing a corporate interest. Such buildings generally fit poorly with neighbouring buildings, age quickly, and undermine a unique sense of place. As a result, the City should not permit this type of buildings in the downtown.

4.3.5 Street Furniture Signage

Street furniture should not include signage except to indicate the source of funding for the streetscape item in simple lettering on a small surface. The City's tall parking lot signs and other freestanding markers that feature advertising on all sides should instead include maps and event listings.



Chain stores and restaurants will often seek to use the entire building as a sign. This practice should be avoided.



Signage on this Alexandria (Va.) street is coordinated and fits with the heritage feel of paving and lighting.



Signage on this Picton (Ont.) building marks each business without overwhelming the building façade.

4.3.6 Heritage Building Signage

The following principles should be considered for buildings with heritage character:

- Vintage signs should be inventoried and protected.
- The installation of signage on heritage buildings should only result in reversible changes.
- Only front-lit signs should be allowed, except for signs created with individual lettering.
- The total permitted area per façade should be reduced (i.e. from 15% on non-heritage buildings to 5%).

4.3.7 Other Signage Principles

- Signs (including lettering) should not obstruct more than a small percentage of window areas (e.g. 10%) unless the building in under significant renovation and vacant.
- Backlit signs (except individual letters) are less desirable and should thus be subject to a lower area limit than other signs.
- Just as total signage area is subject to a limit, the total power consumption devoted to commercial signage should be limited as well. If additional consumption is desired, the proponent should commit to purchases of renewable energy.
- Up-lighting of signs should be prohibited to limit light pollution.

4.3.8 Directional Signage

The City is developing a comprehensive wayfinding strategy for the Downtown and the rest of the City.



Wayfinding and directional signage (here in Baltimore, Md.) should be appropriately scaled and located.

4.4 Pedestrian Circulation and Permeability

4.4.1 Walkways

As a means to promote walking and cycling, walkways through blocks and open spaces are encouraged to increase accessibility between public amenities and facilities. Walkways should generally be lit from adjacent street lights. In general, they should have a minimum 3 meter right-of-way incorporating a concrete surface that is suitable for pedestrian and bicycle use and requires minimum maintenance.

4.4.2 Sidewalks

Where possible, sidewalks should be widened to a minimum of a 4.0-5.0 metres in width. The additional width creates a safer pedestrian zone and may accommodate public benches, sidewalk cafés and street trees. In some cases the additional width should be achieved through development setbacks, the developer contributing land to the public right-of-way in return for additional sidewalk amenities.

- At corners, boulevards should widen to provide planting areas, seating areas and other pedestrian amenities that beautify the street and create a pedestrian buffer from vehicular traffic.
- At locations where the difference in grade between the sidewalk and ground floor is extreme, sidewalks should be designed to address the grade as a tiered/stepped construction that accommodates planting, building access and seating instead of prominent ramps and staircases.
- Curb bumpouts should be installed wherever possible, typically at intersections or to break up extended lengths of parallel parking. Curb bumpouts provide additional sidewalk space used for bicycle racks, benches, mid-block crosswalks, way finding signage or additional street trees. They should be designed to facilitate snow clearing.
- Wider sidewalks should be considered for areas which receive sun for extended periods throughout the day all year long. These "sun spots", generally on the south side of blocks, can contain additional pedestrian amenities.



Textured paving on the parking lane helps make this Québec City sidewalk feel even wider than it already is.

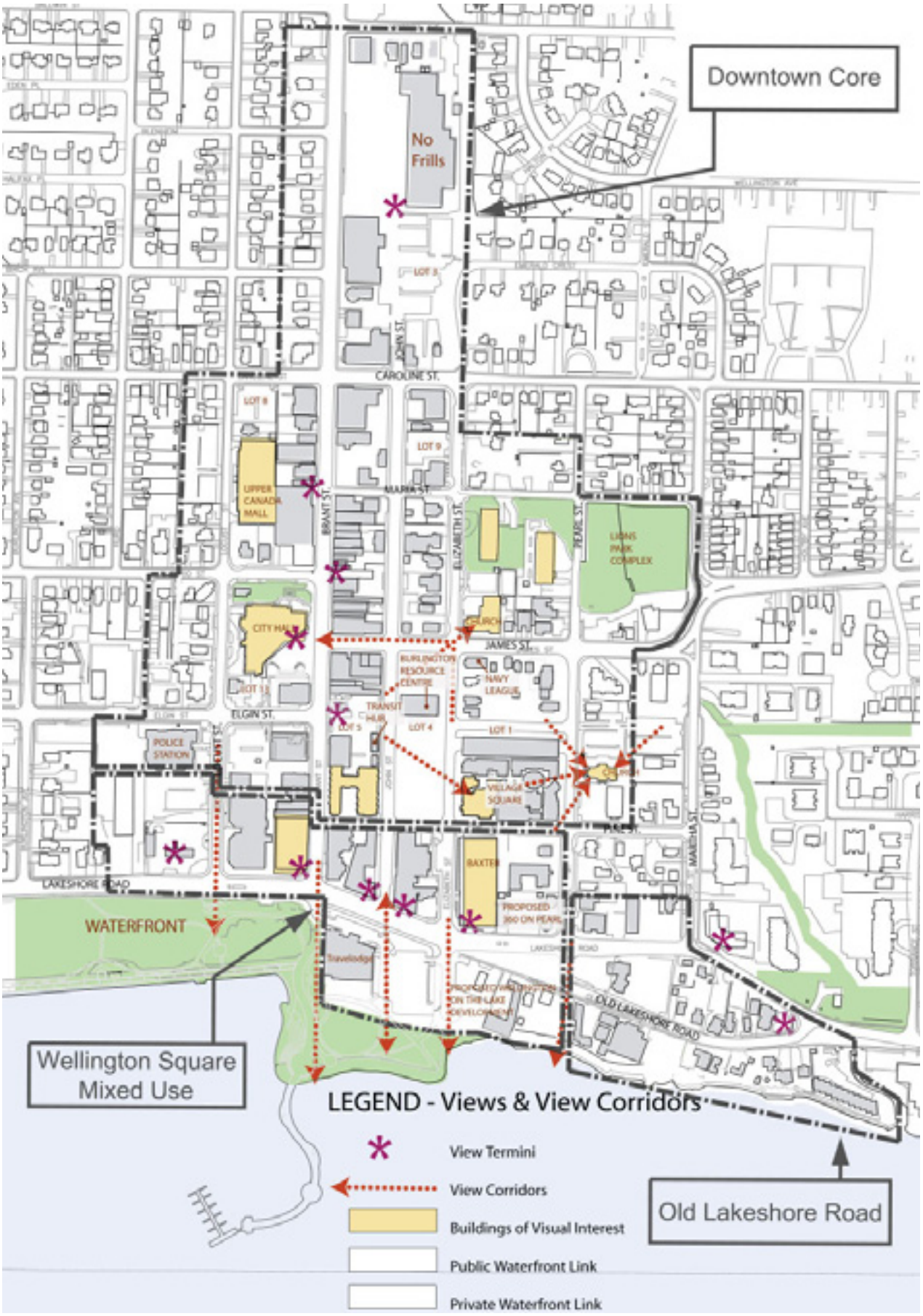


Curb bumpouts (here in Miami Beach Fla.) maximize pedestrian space, reduce crossing distances and eliminate illegal parking near intersections.



Highly visible pedestrian walkways through parking lots are desirable.

FIGURE 12: *Circulation and Views*



4.4.3 Open and Civic Spaces

Spaces between structures not occupied by parking lots, streets, sidewalks or walkways should be landscaped as usable open space and accessible to pedestrians. Large expanses of grass should be minimized or broken up with trees, shrubs and native plantings. Pedestrian-scaled downcast lighting should be provided in all open spaces. Areas in need of specific attention include:

- Private lands, such as courtyards and gardens that are publicly accessible;
- Parking lots that do not have well-screened lot edges;
- City Hall and its civic square;
- Future Performing Arts Centre;
- Travelodge site at waterfront;
- The proposed Wellington on the Lake development;

The east-west utility easement should be developed into a pedestrian spine connecting Elgin Street to the Centennial Bikeway. The trail width and tree lined nature of Centennial Bikeway should be integrated with Downtown materials, pedestrian lighting and pedestrian amenities to create an attractive, well-signed, park-like pedestrian connection across Downtown Burlington.

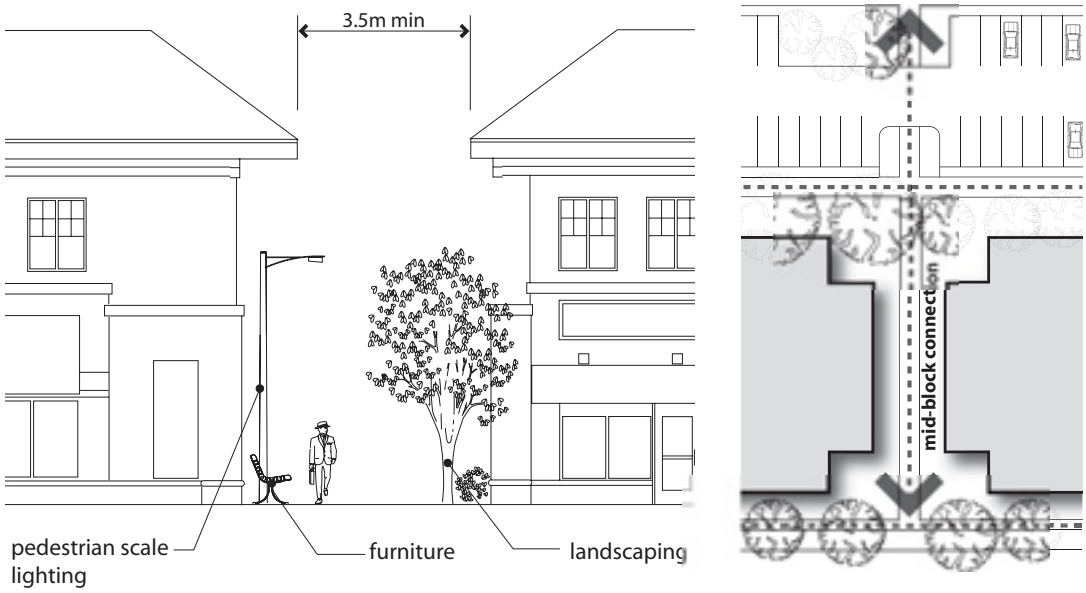


This park in Yorkville (Toronto) is well-used for a variety of activities.



This pathway at the University of Toronto features attractive paving and landscaped borders.

FIGURE 13: *Example of Pedestrian Midblock Connections*





Landscaped areas around parking provide a visual buffer, absorb stormwater runoff and are visually pleasing.



Site grade changes can be used to visually buffer parking, but visual contact between the street and parking is critical for safety.



Landscaped areas internal to parking lots are desirable.

4.5 Surface Parking Lot Design

Some of the recommendations below may result in a decrease in the number of spaces that parking lots can accommodate, but it is important to balance efficiency with safety and aesthetics imperatives, as is the case with building and street design in general.

These guidelines apply to the design of both public and private parking lots.

4.5.1 Scale

Off-Street Surface Parking should be configured and designed to reduce the overall mass and visual dominance of paved areas. Surface parking lots should be defined as landscaped parking "courts" separated by planted internal walkways.

4.5.2 Pedestrian Friendly Access

Off-Street Surface Parking should incorporate walkway infrastructure as an integral element of the design to safely separate pedestrian and vehicle movements.

4.5.3 Positive Appearance

Off-Street Surface Parking should be designed to provide a strong visual quality through the use of high quality landscaping, lighting and pavement materials.

4.5.4 Environmental Sustainability

Off-Street Surface Parking should be designed according to environmental sustainability principles, including the minimization of stormwater runoff and 'heat island' effects. Permeable pavement and tree planting should be implemented wherever possible (Figure 15). Snow storage or removal should be considered when designing parking lots, with special attention paid to the limited salt resistance of trees. Snow storage should occur at a low point, allowing melting snow to drain directly into catch basins or swales.

FIGURE 14: *Downtown Burlington parking*

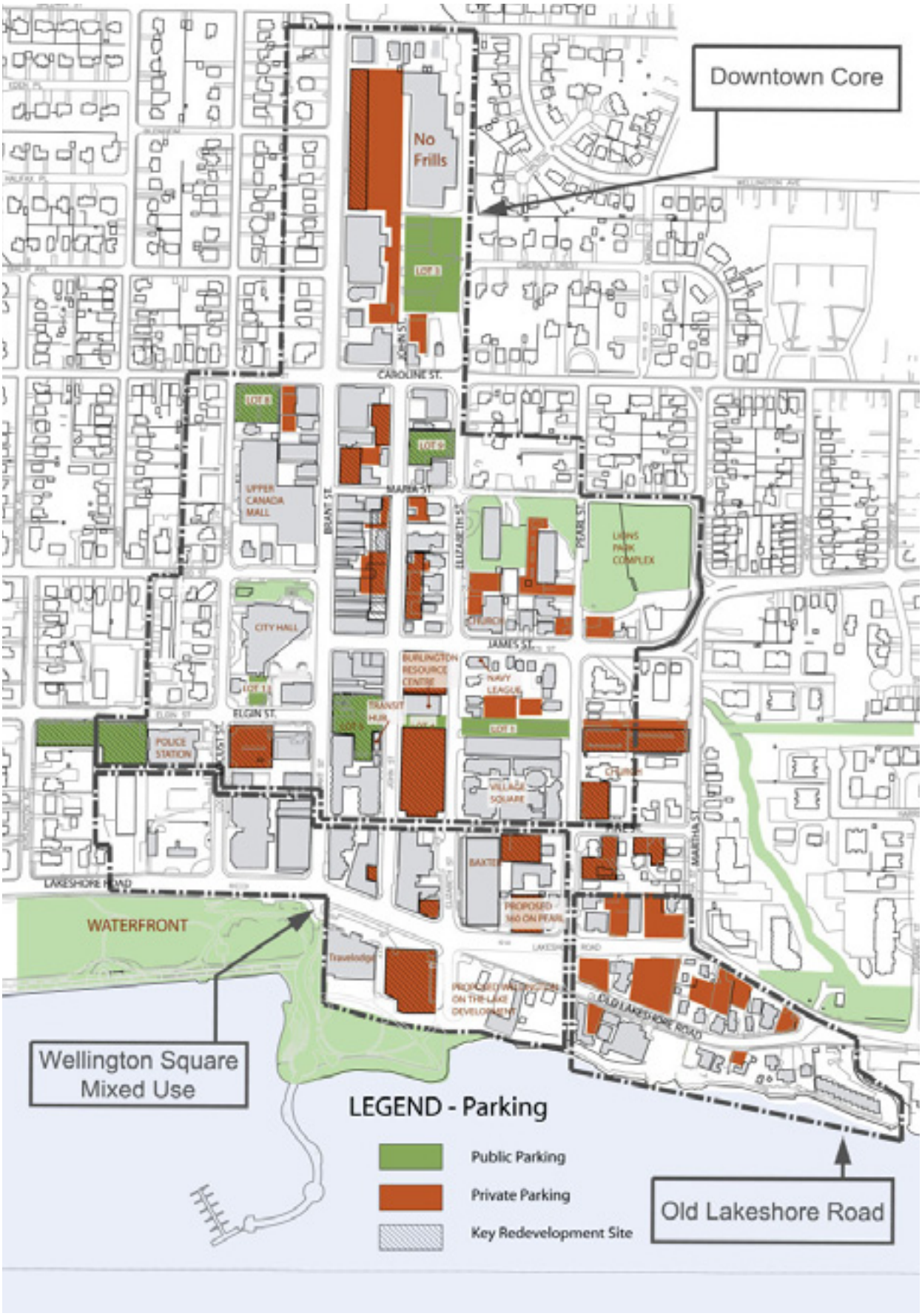
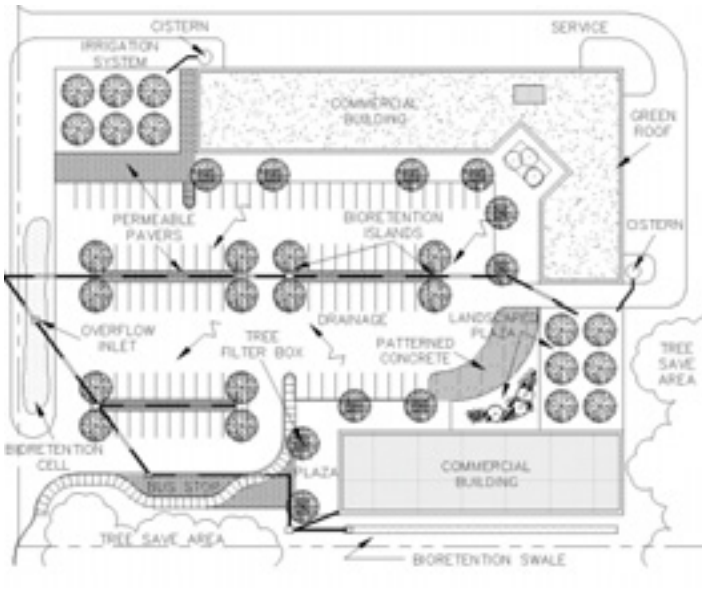


FIGURE 15: *Sustainable Parking Lot Example*



4.5.5 Layout and Orientation

The total amount of parking should be minimized through shared parking between adjacent properties, particularly in the evenings, on weekends and during other off peak periods.

- Parking should be located at the side or behind buildings.
- Internal vehicular routes should be clearly defined by raised and curbed landscape islands planted with trees and low level vegetation. Parking bay dimensions should comply with municipal standards.
- Appropriate lighting levels and consistency of coverage should be provided in parking areas to assist both pedestrian and vehicular circulation. The height and intensity of light standards should be sensitive to adjacent land uses.
- Designated disabled and mobility impaired parking spaces should be located as close as possible to building entrances and be clearly identified by signs or markings.

4.5.6 Landscape Buffers

High quality landscaping treatments should be used to define site boundaries, provide buffers between adjoining developments and screen storage and utility areas.

- The property setback of all parking areas should provide a landscaped area a minimum of 3 meters wide.
- Trees at the perimeter of parking areas should be planted approximately 6 to 9 meters on centre and coincide with the spacing of parking stalls.
- To ensure opportunities for surveillance from adjacent areas, perimeter hedge and shrub screening should not exceed 1.2 meters in height.
- The selection of plant materials should consider year-round appearance, seasonal variety, hardiness & resistance to disease, maintenance requirements, tolerance of salt and other urban conditions.



When this Montréal sidewalk was reconstructed, a wall with integrated landscaping was introduced to screen the surface parking lot.

4.5.7 Pedestrian Access

Pedestrian walkways should be contiguous to main drive aisles opposite primary building entrances to enable safe and direct pedestrian movements.

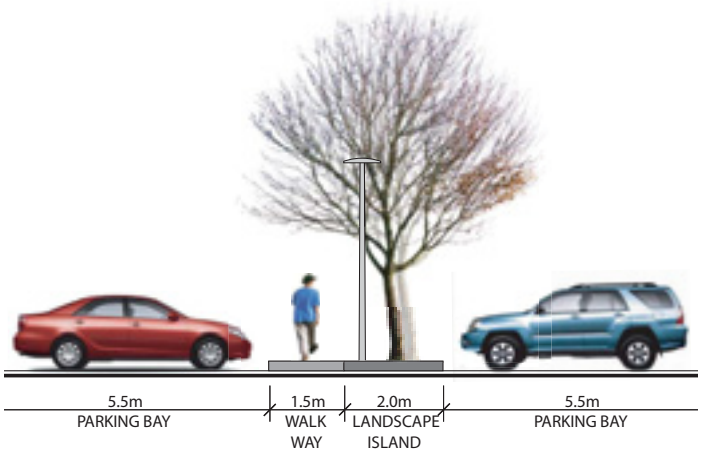
- An internal pedestrian walkway network should define visually and functionally smaller parking 'courts'.
- Walkways should be a minimum of 3.5 meters wide, including a pedestrian zone of 1.5 meters wide and a landscaping zone of 2.0 meters wide.
- Walkways should include pedestrian-scaled amenities wherever possible, such as benches, trash receptacles and lighting.
- Drive aisle crosswalks should be signed and constructed of materials that are different than the drive aisle, such as interlocking brick paving.

4.5.8 Internal Landscaping

Internal landscaping elements should define visually and functionally smaller parking 'courts' and reduce the overall impact of surface parking areas.

- A landscaped island should be located at each end of every parking aisle. Landscaped islands should be a minimum width of 2.5 meters and include one tree per parking row. Ideally, islands should include a walkway.
- A landscaping island should be provided at the mid point of the parking aisle, and/or every 13 to 15 parking bays (whichever provides a greater number of islands). The landscaping island should be a minimum width of 2.5 meters and include one tree per parking row.
- Landscape islands are recommended between rows of parked cars.
- Parking islands should be designed to facilitate snow clearing and storage.
- Planting beds and landscaped islands should include a 4 inch curb to prevent damage caused by vehicular movements and snow clearing.
- Permanently installed irrigation systems should be provided for all non drought resistant landscaping.
- Where possible, internal landscaping should incorporate existing vegetation and significant tree planting.

Figure 16: *Pedestrians in Parking Lots*



Section demonstrating preferred design of pedestrian walkways located within the parking aisle. The walkway should be a minimum width of 1.5m.



This supermarket parking lot integrates narrow landscape islands between rows of parked cars.



Pedestrian walkways should be provided through parking areas to enable safe and direct pedestrian movements.



Public art and lighting can be used as unifying elements between the Downtown and the Waterfront.



Some existing streets terminating at Lakeshore Road have no visual connection to the lake. Tree placement should be carefully considered to frame, but not block important views.



Streets currently terminating at Lakeshore Road should continue through to the lake as pedestrian corridors, providing views from the City to the lake.

4.6 Linking the Downtown to the Waterfront

Primary north-south streets, including Brant, Locust, John, Elizabeth and Pearl, should be extended towards the waterfront as pedestrian access routes and, where appropriate, vehicular access routes.

- Built form and open space should be respectful of view corridors to and from the waterfront. Buildings framing these access points should, where feasible, incorporate active at grade or public uses, such as cafés or bookstores for commercial buildings and common areas for residential buildings.
- Pedestrian-only access routes to the waterfront should be a minimum of 8 meters wide and where vehicle access is required routes should be a minimum of 12 meters wide. These routes should be tree-lined and be detailed to express pedestrian priority.
- Street furniture on the Waterfront and in the southern area of the Downtown should convey a common image. Expressions of the Waterfront like paving treatments, public art, lighting, banners, signage and wayfinding can be extended to the southern portion of the Downtown as well, particularly the north side of Lakeshore Road and the first two blocks of perpendicular streets.
- Brant Street, Elizabeth Street and Pearl Street are the only road alignments that publicly continue through to the waterfront, road alignments continuing to the waterfront on private property should maintain the same standards, mid-block connections to the waterfront should be designed similarly.

5 Built Form Guidelines

5.1 Objectives

The identity of Downtown Burlington is closely linked to its human scale and historic buildings. Built form elements such as height, mass, setbacks, parking, servicing, access, sun penetration and visual condition at the street level are crucial to fostering and maintaining a positive pedestrian experience. The built form requires careful consideration of the following concerns to maintain and enhance the vitality of the pedestrian environment.

5.2 View Termini

Sites that terminate view corridors are strategic locations for public or commercial uses. They offer an opportunity for visual interest and can act as orienting devices. Treatments can include architectural elements including main entrances, signage, advertising, monuments, and art installations. Blank façades, service areas and garage entrances should be avoided.



A garage entrance terminates Pine Street.



The entrance of City Hall provides an excellent view terminus for James Street.

5.3 Vehicular Access

5.3.1 Parking

Surface parking should not be permitted between the public right of way and the front of the adjacent primary building. Structured parking should be screened from view at sidewalk level, and the street-level wall should be enhanced by architectural detailing, artwork, landscaping or similar treatment that will add visual interest.

Access to structured parking should be provided at the interior of the lot on a secondary street, not at a corner or at a view terminus. Vehicular ramps to internal parking should be minimized and located away from public areas where feasible.

5.3.2 Loading and Service Areas

Loading and service areas should not be visible from major pedestrian or residential areas and should therefore be screened from view on all sides. It is preferable to locate service areas off side streets or service driveways.

Service areas should be an integral part of the building and not separate stand alone structures. Storage of goods or garbage should be internal to the main building, wherever possible.

Horizontal through-wall venting to the street should only be allowed if it is integrated with the architectural design and not visible to the passer by.



Examples of integrated structured parking, note the ground level shops, lack of visible entry point and attention to streetscape (including curb bumpouts).

5.4 Quality of Frontages

5.4.1 Setbacks

Building setbacks generally should be sensitive to the location of existing built form, sun angles and the intended use of the sidewalk (patio, gathering place, etc). Setbacks are generally recommended to achieve the desired 4.0-5.0 meter boulevard and sidewalk width between the curb and building face. These setbacks should be well designed to accommodate a variety of soft and hard streetscapes.

5.4.2 Street Wall

The street wall is the portion of the building that fronts the street and which makes the greatest impact on the image of the street. It is critical that the street wall be constructed with the highest quality of architectural design and materials, as this portion of the building is the most visible and accessible to pedestrians.

It is at the street wall that the quality of the public realm can be most enhanced. Stepbacks of upper storeys should be provided so that building bulk is minimally perceived from the vantage of a pedestrian on the street. Stepbacks should be considered for buildings above three storeys.

5.4.3 Entrances

The sense of arrival to a building should be celebrated through the design and detailing of its entrance. Canopies extending towards the street providing weather protection should be incorporated at all principal entries to residential and commercial buildings, where possible.

5.4.4 Design of first floor

The first floor requires transparency and access to animate the public realm and should generally correspond to existing at-grade uses and street character. Façades facing a public street or public area should incorporate 60% glazing at-grade to encourage pedestrian interaction and safety. The floor to ceiling height of the ground floor should be of a minimum of 4.5 metres. Height limits expressed in metres and numbers of storeys in the Zoning Bylaw should accommodate a tall ground floor.



On this Bethesda (Md.) street, buildings create a consistent street wall with sufficient space to accommodate a linear patio and landscaping.



All buildings should clearly mark their primary entrances with unique design elements.



Transparent covered walkway integrating pedestrian seating.



Changes in cladding materials provide vertical and horizontal transition.



Acceptable high quality street wall materials: steel, wood, stone, glass and brick, and to a lesser extent, concrete.

5.4.5 Weather Protection

Colonnades, covered walkways and porticoes are recommended as a means of weather protection and add articulation to the building elevation. These building projections should be allowed to project beyond the minimum front setback line, but should not extend beyond the front property line. Lighting and landscape elements should be incorporated into the design of these structures to promote their use. Pillars should convey a sense of solidity yet promote visual contact with storefronts.

5.4.6 Materials

Under current legislation, municipalities cannot regulate materials. However, the palette of materials used in a given geographic area greatly contributes to its character. Key principles should include the following:

- Cladding materials should be used in their natural state and include brick, stone, metal, wood, glass and concrete. Materials should be selected for their durability and compatibility with surrounding buildings.
- Materials used at the base of a building should be durable, convey permanence and contrast with higher sections of the building in the case of a tall building (i.e. taller than 7 storeys).
- Glass should be the dominant material on façades facing a public street.
- The use of stucco is generally undesirable, particularly on the first 3 floors of a building. Stucco ages poorly, is damaged easily and is not a traditionally widespread material in Ontario.
- Materials including vinyl siding, plastic, plywood, concrete block, darkly tinted and mirrored glass and metal siding utilizing exposed fasteners should never be used in the Downtown.
- Materials should be one-tone only (e.g. brick).
- To avoid monotony, a variety of complementary materials and colours should be encouraged on the same block frontage or series of block frontages.

5.5 A Note on Heritage

The provision of a comprehensive set of heritage guidelines is beyond the scope of this document. However, some key principles can help guide development and redevelopment in the Downtown. This document distinguishes between designated and listed buildings, and buildings with heritage or historic character. Designated and listed buildings are protected by law, are to be retained, and should be renovated and added to with the greatest respect. Buildings wih heritage or historic character are not designated but collectively contribute to the character of the Downtown. Their listing or designation can be contemplated, but their protection can also be assured by ensuring that height and density limits do not create a compelling case for their removal. The following guidelines apply to both listed or designated buildings, and buildings with heritage or historic character:

- In general, buildings should be retained or removed. Retaining the façade is not an acceptable substitute to the retention of the whole structure.
- In the restoration of a heritage building, a heritage architect should be involved to advise on the most appropriate renovation techniques and materials to be employed.
- The façade material of any building and particularly older buildings should not be changed or covered.
- Doors and windows as well as hardware, roof shingles and other building elements should be replaced with models as visually close as possible with the original model, striking a balance with modern standards of safety and energy efficiency.
- Utility and heating/ventilation equipment should be hidden from public view.
- New buildings constructed on adjacent sites should not mimick the heritage structure but use sympathetic massing, height, alignment of windows, roofline, location of entrances, treatment of the ground floor and materials.
- Signage should be sympathetic to the character of the building. Please refer to Section 4.3 - Signage for additional details.



The Miller Bush House at Ontario and Locust (1880) - a designated building.



447 Locust Street was built in 1867 and is also designated.



The "Shaver Building" at John and Lakeshore is only listed but is an attractive and unique landmark along Lakeshore Road.

5.6 Heights and Massing

5.6.1 Heights – Minimum and Maximum

The Official Plan and Zoning By-laws determine the allowable height of developments while the Guidelines make recommendations as to how to how the height should be articulated, addressing a variety of issues and conditions (existing low-rise, heritage fabric or residential fabric adjacent, shadow and privacy impacts, etc.) regarding future infill and new site development.

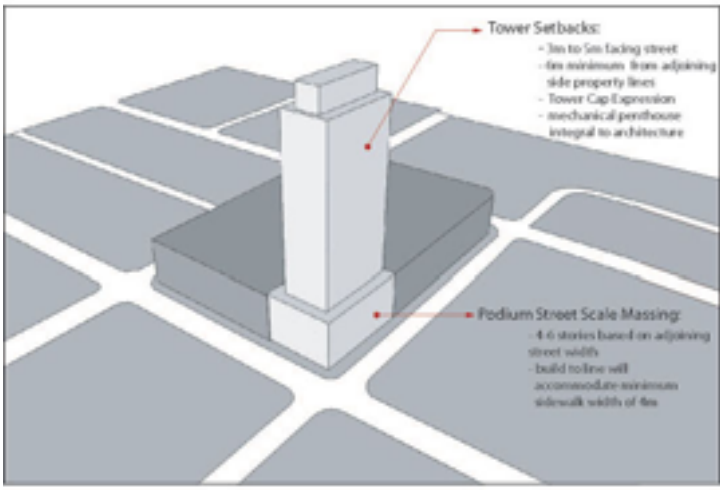
A combination of building height and massing, visual angular plane, sun angular plane shadow impacts and building articulation are used in part or in combination to create appropriate building envelopes. Existing or approved building heights generally follow a logical pattern that has a "peak" around the Lakeshore-Brant intersection and descends along "ridges" towards low-rise areas. This pattern reflects the existing infrastructure of primary roads and the resultant concentration of high-rise uses that rely on highly accessible locations. The remaining areas generally have buildings that are of lesser height, and the uses or built forms may be sensitive to the impact of high-rises.

In this document, "high-rise" includes buildings 9 to 14 storeys, "mid-rise" encompasses buildings 5 to 8 storeys and "low-rise" relates to buildings 2 to 4 storeys in height.

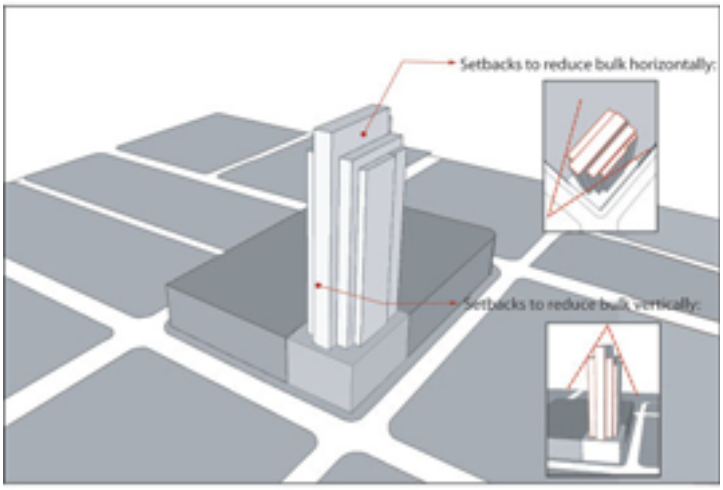


Bunton's Wharf is one of the tallest buildings near the Waterfront.

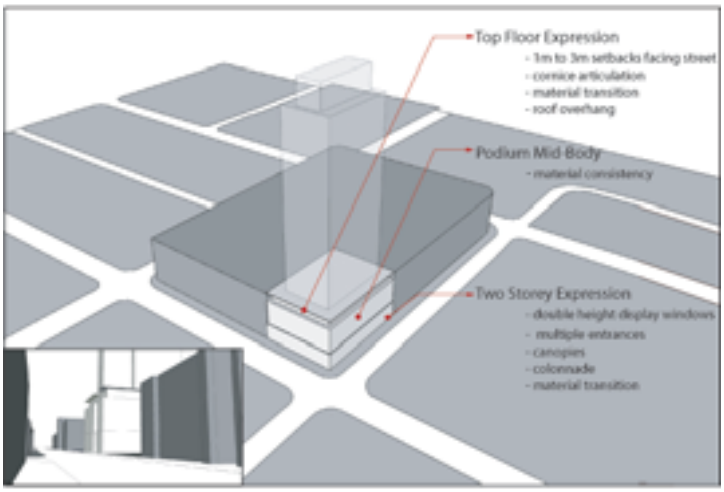
FIGURE 17: *Building Massing Elements*



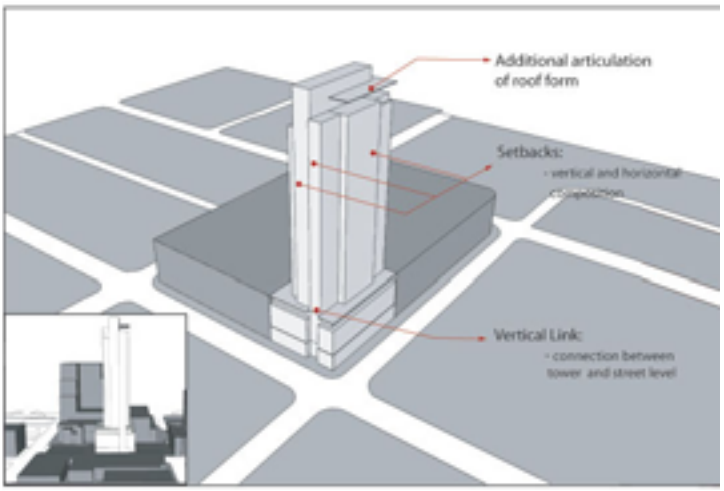
Tier One: General Massing Guidelines



Tier Two: Elements - Tower

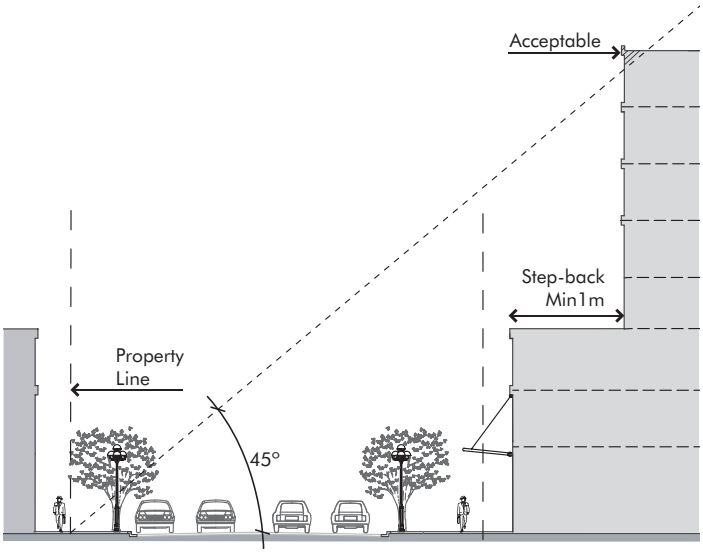


Tier Two: Elements - Podium



Tier Three: Synthesis and Refinement

FIGURE 18: *Visual Angular Plane Example*





This development respects the scale of surrounding buildings and successfully uses stepbacks to minimize the presence of its high rise component.



Green roofs provide communal outdoor areas.

5.6.2 Visual Angular Plane

Areas identified as low-rise generally correspond to areas where existing low-rise form is a general characteristic of the area. Building over the 2-4 storey low-rise height may require a building stepback that makes the upper storeys less perceivable from the street. The visual angular plane test is intended to be used in association with other visual means of testing building height suitability such as sun/shade analysis, 3D modeling, etc.

'Visual Angular Plane Analysis' should be used for determining the appropriate building envelope for a specific site. Visual Angular Plane Analysis determines the building envelope utilizing a site cross-section and drawing a 45-degree angle measured from the property boundary located directly across the street of the proposed development. The line extension of this angle determines the overall maximum building massing along that frontage. Additional building height can be achieved with stepbacks. (Figure 17).

5.5.3 Sun Angular Plane

The sun angular plane test applies to frontages on streets and open spaces that currently receive sunlight during significant periods of the day during most months. Where the portions of the building above the street wall form a continuous frontage (greater than 30 meters), they are subject to the sun angular plane test. Depending on whether a building is fronting on a north-south or east-west street, this test defines a setback envelope beyond a certain height to ensure that sunlight continues to reach the street at certain times and seasons.

5.5.4 Shadowing Impact

Buildings should be sensitive to casting shadows on low rise residential neighbourhoods, open spaces and pedestrian areas or streets where a high degree of sun penetration exists. Shadow impact analysis is a tool to determine the location and animation of shadows cast by buildings on adjacent properties at varying times of day and seasons. The level of impacts should be assessed on a site by site basis.

5.5.5 Massing – Stepbacks

Stepbacks should be considered for buildings above three storeys to minimize the perception of upper storeys from the vantage of a pedestrian. Properly articulated buildings can create a visual street-wall while defining

visually distinct upper storeys without stepbacks, but stepbacks are regarded as a better option since they generate terraces and achieve suitable visual angular planes. Stepbacks should be designed as amenity spaces or green roofs.

5.6.6 Roofs

Roofs and terraces should be useable for private and communal outdoor patios, decks and gardens. Green roofs are encouraged as a means of retaining stormwater, improving air quality and adding visual interest.

Rooftop mechanical penthouses and machinery should be included within the allowable building height to ensure developers consider the appearance of such items early in the design process. Rooftop mechanical penthouses should be screened from public view.

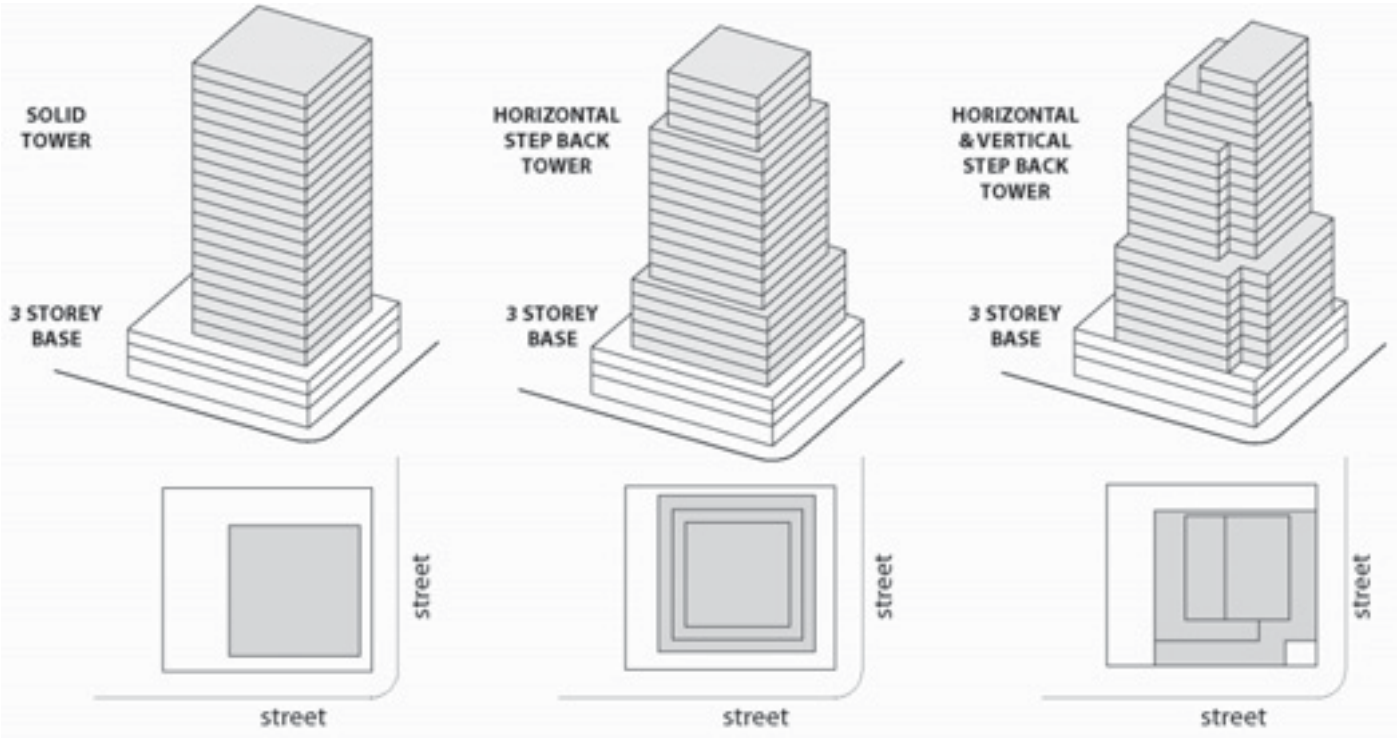


The roof of this Montréal building is unique and helps create a landmark in the area's skyline.

5.5.7 Separation between Tall Elements

Where possible and appropriate, towers should be placed away from the corner of two intersecting streets and staggered from adjacent towers. The minimum separation between towers should be 10 meters. The narrowest width of a point tower should orient to the main street wall or so as to minimize shadowing impacts.

FIGURE 19: *High-Rise Massing*





This buildings unique and highly articulate base reduces the mass of the upper storeys.



Burlington's condominium at Lakeshore and Locust demonstrates a good example of how building stepbacks on top of a well articulated 2 storey building base can mitigate the effects of a multi-storey building adjacent to lower rise buildings.

5.7 High-rise Design and Architectural Quality

5.7.1 Introduction & Design Principles

High-rise buildings are an acceptable element in urban form when appropriately located and designed. The Wellington Square Precinct is generally identified for higher rise buildings north and south of Lakeshore Road. This section provides guidelines to assist in the planning and design of high-rise buildings in this location.

- Human scale should be reinforced through appropriate building height, mass and architectural design. The articulation of the building base is critical as it promotes pedestrian amenity elements including entrances, canopies, large areas of glazing, retail opportunities, etc.
- The impact of high-rise buildings on open spaces and adjacent properties should be minimized through adequate height and mass transition, separation, and landscaping.
- High-rise buildings should have a strong relationship to the street, both by use and form.
- Retail Commercial uses are encouraged at-grade, office and/or residential uses are encouraged above grade.
- High-rise buildings should be designed to achieve a high degree of environmental sustainability and address opportunities for solar orientation and water runoff minimization.
- Parking areas should be located underground. Wherever possible, surface parking should be limited and located to the rear of buildings. Parking within a structure should be animated or with store frontages screened from view at sidewalk level.

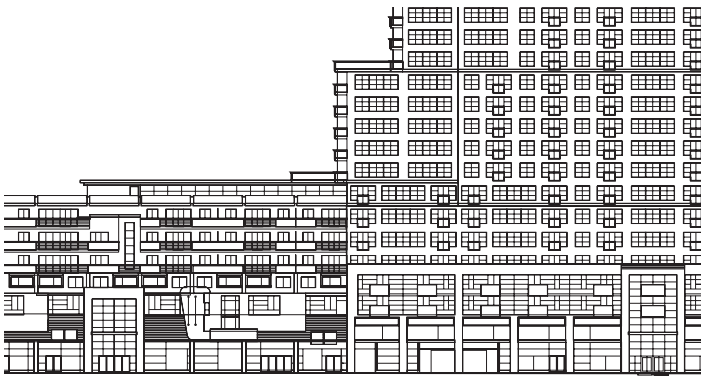
5.7.2 High-Rise Building Massing

- High-rise buildings constitute structures nine to fourteen storeys in height.
- High-rise building should extend vertically with the smallest possible floor plate and include a podium base height consistent with surrounding built form at approximately 2 to 5 storeys.
- New developments should clearly express a minimum 2 storey podium at the street level with proportioning consistent with the existing 2 to 5 storey surrounding built form. The main body of the building and roof form must be clearly expressed through setbacks, architectural detail and expression.
- New developments should be designed to provide a height transition to surrounding lower scale developments and public spaces to minimize impacts of taller buildings, including shadowing and wind acceleration. These transitions or step-backs should generally be at the height of the adjacent buildings or one additional storey more.
- Stepbacks should be considered to minimize the perception of upper storeys from the vantage of a pedestrian.
- Vents, mechanical equipment and elevator penthouses should be integrated with the architectural treatment of the roofs and screened from view.
- Negative impacts on adjacent properties including overshadowing, overlooking and wind tunnel effects should be addressed through appropriate building set-backs, 'stepbacks', height and massing.
- Visual Angular Plane Analysis should be used in combination with other tools (sun/shade analysis, 3D models, etc.) to determine appropriate building envelopes. Depending on site location, adjacent properties and street widths, building stepbacks above the 2-4 storey base may be required to mitigate issues of privacy, sunlight, shadows and views. A visual angle is typically measured from pedestrian areas located opposite the proposed development or from the boundary of an adjacent property.



This Bethesda (Md.) building introduces variety in the City's skyline with its distinct roofline.

FIGURE 20: *Illustration of Stepbacks*



Stepbacks of upper floors should be introduced to create adequate transition to the street edge.

5.7.3 High-Rise Building Articulation

New developments should be composed of a base at street level, the main body of the building and a roof form. This may be achieved through various means including terracing, projecting roof lines, vertical elements, trellises, textures and materials.

- Building façades should be articulated with architectural features such as awnings, pilasters, bay windows, a distinct base, recessed display windows, a cornice or varied roof line.
- New developments should seek to achieve a unique expressive identity respectful of context. Fitting developments within more historic contexts should be achieved with compatible building proportions, replicating rhythms of vertical and horizontal lines and through the use of similar materials and colouring.
- Blank façades should be avoided and must not face a public street or public space.
- Façades facing a public street or public area should incorporate substantial glazing at-grade and the first two storeys to encourage pedestrian interaction and safety. Transparent areas should allow views into the structure or into display windows from outside.



This tall building in Montréal is clearly separated into a base and upper section with clear distinctions of materials, fenestration and setback.

5.7.4 High-Rise Building Detailing

New developments should seek to achieve a unique expressive identity respectful of context. The ground floor of buildings should be designed to express the individuality of the commercial or residential use through architectural expression of doors and windows addressing the street.

- The sense of arrival to a building should be expressed through the design and detailing of its entrance. Canopies extending towards the street providing weather protection should be provided at all principal entries, where possible.
- The detailing of window elements is important to avoid a dull appearance and is particularly important for retail uses. The use of recessed or projecting windows will create a more solid expression and increase shadow lines.
- Balconies should be provided for residential units, wherever possible. They should be designed as an integral part of the building rather than appearing to be unresolved additions.
- Roofs and terraces should be useable for private and communal outdoor patios, decks and gardens. Green roofs are encouraged as a means of retaining stormwater, improving air quality and adding visual interest.
- For residential units with direct access from the street, privacy should be enhanced through the creation of a buffer zone. This can be achieved through private outdoor amenity space, landscaping and shifting grades.
- Signage should add diversity and interest to retail streets but not be overwhelming; mobile signs, temporary signs, backlit sign boxes, billboards, revolving signs and roof signs are discouraged. please refer to Section 4.3 - Signage for more detail.



The base of this new building in Yorkville (Toronto) creates an attractive transition between the street and the tall section of the building.



This Montréal high rise mitigates the visual impact of its height with strong articulation of massing and materials.



This development in Toronto continues the scale, rhythm and colouration of a historic building integrated into its podium, upper storeys step back to reduce their visibility.



A green roof can be an amenity enjoyed by building occupants and those who look upon the roof from surrounding buildings. (Toronto)



Residential off-street entrances can be buffered with plantings to enhance privacy. (Montréal)

5.8 Mid-Rise Design and Architectural Quality

5.8.1 Introduction & Design Principles

Downtown Burlington's Central Area precinct is working to include a number of mid rise buildings.

- Human scale should be reinforced through appropriate building height, mass and architectural design.
- Mid-rise buildings should have a strong relationship to the street, both by use and form.
- Retail Commercial uses are possible at-grade, office and/or residential uses are encouraged above at grade.
- Mid-rise buildings should be designed to achieve a high degree of environmental sustainability and address opportunities for solar orientation and water runoff minimization.
- Surface parking should be limited and located to the rear of buildings. Parking within a structure should be screened from view at sidewalk level.

5.8.2 Mid Rise Building Massing

Mid-rise buildings constitute structures five to eight storeys in height.

- Mid-rise building should include a podium base height consistent with surrounding built form, 2 to 5 storeys. Alternatively, a mid-rise building on a corner site may replace a stepback with a corresponding wider setback from the front property line.
- New developments should clearly express a podium at the street level with proportioning consistent with the existing 2 to 5 storey surrounding built form. The main body of the building must be clearly expressed through setbacks, architectural detail and expression.
- New developments should be designed to provide a height transition to surrounding higher or lower scale developments and public spaces to minimize impacts of shadowing.
- Stepbacks should be considered for buildings above three storeys to minimize the perception of upper storeys from the vantage of a pedestrian. The step back distance should be a minimum of 2.0m to promote useable outdoor terraces.

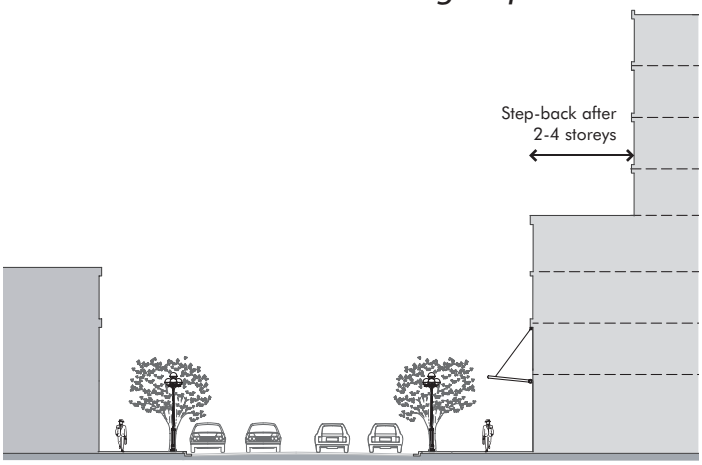
- Vents, mechanical equipment and elevator penthouses should be integrated with the architectural treatment of the roofs and screened from view.
- Visual Angular Plane Analysis should be used in combination with other tools (sun/shade analysis, 3D models, etc.) to determine appropriate building envelopes. Depending on site location, adjacent properties and street widths, building stepbacks above the 2-4 storey base may be required to mitigate issues of privacy, sunlight, shadows and views.

5.8.3 Mid Rise Building Articulation

New developments should be composed of a base at street level and a main body form above. Building façades should be articulated with architectural features such as awnings, pilasters, bay windows, a distinct base, recessed display windows, a cornice or varied roof line.

- New developments should seek to achieve a unique expressive identity respectful of context. Fitting developments within more historic contexts should be achieved with compatible building proportions, replicating rhythms of vertical and horizontal lines and through the use of materials and colouring complimentary of context.
- Blank façades should be avoided and must not face a public street or public space.
- Façades facing a public street or public area should incorporate 60% glazing at-grade and the first two storeys to encourage pedestrian interaction and safety. Transparent areas should allow views into the structure or into display windows from outside.

FIGURE 21: *Mid-Rise Building Stepbacks*





A mid-rise building with an articulate entrance, balconies and roof.





The tall ground and second floors of this mixed use building in Vancouver emphasize the retail and common areas of the building, while the residential above is carefully setback to provide privacy.



A double height ground floor emphasises the commercial role of the interior space. (Bethesda, Md.)

5.8.4 Mid Rise Building Detailing

New developments should seek to achieve a unique expressive identity respectful of context. The ground floor of buildings should be designed to express the individuality of the commercial or residential use through architectural expression of doors and windows addressing the street.

- The sense of arrival to a building should be expressed through the design and detailing of its entrance. Canopies extending towards the street providing weather protection should be provided at all principal entries, where possible.
- The detailing of window elements is important to avoid a dull appearance. The use of recessed or projecting windows will create a more solid expression and increase shadow lines.
- Balconies should be provided for residential units, wherever possible. Balconies should be designed as an integral part of the building rather than appearing to be unresolved additions.
- Roofs and terraces should be useable for private and communal outdoor patios, decks and gardens. Green roofs are encouraged as a means of retaining stormwater, improving air quality and adding visual interest.
- For residential units with direct access from the street, privacy should be enhanced through the creation of a buffer zone. This can be achieved through private outdoor amenity space, landscaping and shifting grades.
- Signage should add diversity and interest to retail streets but not be overwhelming. Backlit sign boxes, billboards, revolving signs and roof signs are discouraged. For residential buildings, signage should be closely related to the principal building entrance and generally placed in a low wall element. Please refer to Section 4.3 - Signage for more detail.

5.8.5 Commercial Mid-Rise Buildings

The street level of commercial mid-rise buildings should either contain office or commercial space. Only street level units should have separate entries, all other units should share a single entrance and lobby. Providing multiple secondary entrances to a development helps animate the street whilst the primary main entrance defines the symbolic entrance and civic address. Office uses on the second floor and above are generally encouraged.

5.8.6 Residential Mid-Rise Buildings

The street level of residential mid-rise buildings should either contain multi-storey residential units or flexible space useable for either live-work or commercial purposes. Only street level units should have separate entries, all other units should share a single entrance and lobby. Providing multiple secondary entrances to a development helps animate the street whilst the primary main entrance defines the symbolic entrance and civic address.



Residential entrances are buffered from the street by front yard amenity space, while lower quality stucco finishes are only used on upper storeys. (Toronto)



This entrance integrates signage, lighting, high quality finishes and has an articulate canopy. (Vancouver)



This low-rise commercial building on Lakeshore Road in Oakville is well-articulated and creates visual interest for pedestrians.





This low-rise market in Calgary has an appropriate fine-grain scale, uses high quality finishes and articulates the public realm.

5.9 Low Rise Design and Architectural Quality

5.9.1 Introduction & Design Principles

Much of Downtown Burlington is characterized by low rise (1-3 storeys) buildings. Low-rise buildings have often outlasted their useful life and do not allow for upper floor opportunities such as residential or office space. Structural and building code issues make these buildings less desirable and in some cases not habitable, particularly on upper floors. It is generally recommended that redevelopment - even with taller buildings - replicate the fine grain and rhythm of existing storefronts and the significant character and even 'eclectic' detailing that makes shopping, visiting and socializing in downtown visually intriguing.

- Fine-grain scale, building 'character' and detailing are essential aspects of low rise development.
- Human scale should be reinforced through appropriate building height, mass and architectural design.
- Low rise buildings should be designed to achieve a high degree of environmental sustainability and address opportunities for solar orientation and water runoff minimization.
- Surface parking should be limited and located to the rear of buildings.

5.9.2 Low Rise Building Massing

Low rise buildings constitute structures two to four storeys tall. Low-rise does not necessarily imply low density. Four storey stacked townhouses for instance can achieve up to 26 units per hectare.

5.9.3 Low Rise Building Articulation

Building façades should be articulated with architectural features such as awnings, pilasters, large windows, a cornice or varied roof line with particular emphasis to detail at grade.

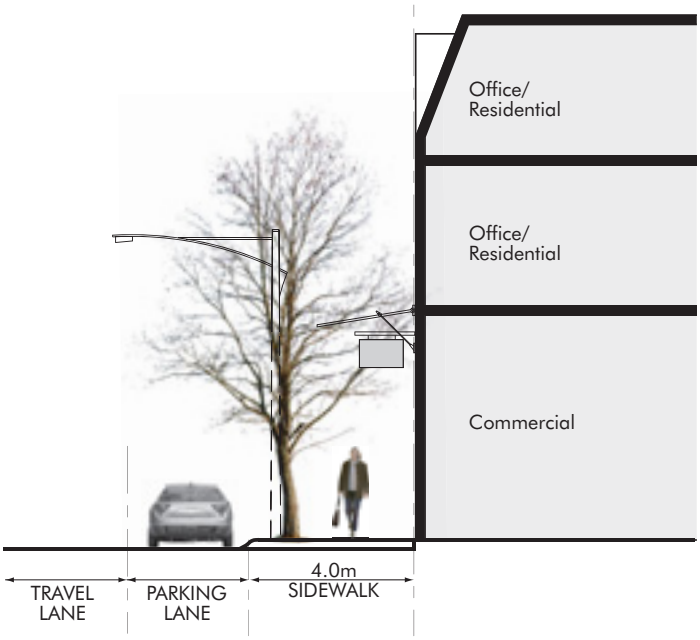
- New developments should seek to achieve a unique expressive identity respectful of context. Developments within a historic context should be integrated with compatible building proportions, replicating rhythms of vertical and horizontal lines and through the use of similar materials and colouring.
- Blank façades should be avoided and façades facing public street or public space should have a high degree of architectural expression. The location of access to parking garages or loading areas is not appropriate facing public streets or open spaces.

5.9.4 Low Rise Building Detailing

New developments should seek to achieve a unique expressive identity respectful of context. Signage, windows, doorways and awnings as well as architectural elements (eaves, cornices, roof lines, etc.) should have careful detailing to contribute to a rich visual composition of lower building storeys.

- The sense of arrival to a building should be expressed through the design and detailing of its entrance.
- The detailing of window elements is important to avoid a dull appearance. The use of recessed or projecting windows will create a more solid expression and increase shadow lines.
- For residential units with direct access from the street, privacy should be enhanced through the creation of a buffer zone. This can be achieved through private outdoor amenity space, landscaping and shifting grades.

FIGURE 22: *Low rise Building and Street Section*





High quality finishes, landscaping and stepbacks are used here to create a warm and welcoming environment.



These mixed-use townhouses on Lakeshore Road in Oakville were very successful with buyers and create a friendly street edge.



This low rise development uses massing, materials and details to break up its large scale.



Stacked townhouses are a low rise alternative to achieving higher density without increased building height.

5.9.5 Commercial Low-Rise Buildings

Commercial buildings generally depend on a strong relationship with the street, as such the building face should have a direct relationship with the street, parking should either be provided on the street or at the rear of the development.

- Franchise or corporate style architecture and/or highly contrasting colour schemes are discouraged. Prefabricated buildings are strongly discouraged. All CRUs should be sited and designed to be compatible with the character of adjacent development.
- Areas enclosed or between buildings should be heavily landscaped, at the street edge and through parking areas. Pedestrian amenities, including walkways that connect entries, seating and human scaled lighting should also be provided.
- Excessive illumination of the signage, building or site should be avoided. Roof lighting, down-lighting washing the building walls, or illuminated awnings are all strongly discouraged
- All rooftop mechanical equipment, including antennas, should be screened visually and acoustically. Such screening should be integral to the architectural design of the building.

6 Urban Design Sustainability Guidelines

6.1 Sustainability Introduction

6.1.1 Definition

In 1987, the World Conference on Environment and Development defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Since then, sustainability has been understood as the need for all development to take place in an environmentally, socially and economically responsible fashion – over the long term rather than the short term.

6.1.2 Relevance

As a city on the lake, Downtown Burlington is obliged to respect its unique natural setting and steward it for future generations. The principles and objectives of sustainable development relate to any city, however proximity to the lake and other natural features make sustainable development a top priority for Downtown Burlington. Significant opportunities exist to implement key aspects of sustainability through urban design guidelines. Some of these opportunities are discussed below.

Other municipalities, particularly in Europe, have endeavoured to examine all their operations and regulations to reduce the impact of private and public activities on the environment. A popular 'bottom up' approach such as 'The Natural Step' is based on the involvement and ultimate accountability of each City department, guided by a set of corporate objectives and guidelines. Through this process, each city employee becomes a sustainability advocate and proposes improvements based on a detailed knowledge of the processes involved in his or her job.



Trees are essential in creating a sustainable community, they provide summer shade and winter daylighting, buffer pedestrians from traffic and contribute to a healthy urban ecosystem.



Residents of sustainable communities often have an increased awareness of the natural environment.



Alternative transportation such as bicycles and hybrid cars are encouraged.



Pervious and light coloured pavements reduce stormwater runoff and the 'heat island effect'.

6.1.3 Implementation

The principles and guidelines below are only some of the opportunities for a healthier, greener and more energy efficient Downtown Burlington. As stated above, they should be evaluated in the context of city-wide policies. Also, while the body of literature on green design is already substantial and growing, implementation strategies are unique to each context. In Ontario and Canada, few regulations and incentives are available today to foster these innovations and implementation remains largely voluntary and unsupported. It is through municipal awareness, coordination, leadership and advocacy that this situation can change. A significant first step is for the City to demonstrate leadership by implementing as many of the principles and guidelines below as possible in its own capital projects and operations. Sustainable design elements are an up-front capital cost investment that often achieve full payback in under five years through operational savings. Lifecycle costing, or the calculation of a project's capital and operational cost over its entire life, demonstrate that substantial cost savings can often be realized in the long-term, in addition to reduced exposure to volatility in energy prices.

6.1.4 Public Realm Principles

In parallel with encouraging sustainable buildings from the private sector, the City should promote green streets and public spaces. Key opportunities include minimizing impervious hard surfaces, choosing reused and local materials in construction, favouring local species, minimizing the use of pesticides and minimizing light pollution.

Building stepbacks and terracing, as mentioned in previous sections, can enhance the public realm by providing roof gardens with cityscape and lake views, as well as providing the City with views of green roofs.

The public realm is also adversely affected by the heat gain attributed to asphalt surfaces and conventional roofs, the sustainable alternatives substantially reduces the heat island effect and thus provide a more habitable public realm in the hot summer months.

6.1.5 Development Application Principles

The site plan should address environmental sustainability principles. Stormwater management, heat islanding reduction, light pollution reduction, site disturbance reduction, redevelopment of contaminated sites, alternate transportation and building orientation are all key site sustainability issues. A range of appropriate design measures should be considered to evaluate the ability to achieve above mentioned elements. Emerging provincial legislation will allow municipalities to increasingly prescribe sustainable design.

6.1.6 Green Principles

Green buildings are resource efficient, use less energy, utilize construction materials efficiently (including recycled, renewable and reused resources), are designed to reduce internal and external impacts on the environment and can reduce operating costs. Green building certification (e.g. Leadership in Energy and Environmental Design-LEED) should be both pursued by the City and encouraged for private property owners.

6.1.7 Costs and Incentive Programs

Sustainable components generally are initially more expensive than conventional components because they are more complex. But when energy savings, durability and non-monetary advantages are factored in, sustainability becomes advantageous.

Many cities and regions have incentive programs for sustainable design. These include density bonusing for buildings achieving sustainable objectives, sustainable requirements for buildings built with public money and the requirement of development to meet the Commercial Building Incentive Program (CBIP) energy efficiency requirements.



Native planting and low level lighting.



Bio-retention area such as this retain and slowly absorb stormwater runoff from adjacent parking lots and buildings.

6.2 Sustainable Sites

6.2.1 Public Realm

Materials selected for use in the public realm should be durable to avoid premature replacement. They should be recycled to reduce the energy needed to extract and manufacture new materials. Many products that use recycled components are now available. Materials should also be locally sourced as the use of local materials and products prevents the expenditure of fossil fuels used for freight transportation. Canadian products are also generally designed with our climate in mind.

There are many emerging sustainable technologies and products that, in the future, should be considered for use.





These naturalized landscapes are virtually maintenance free and absorb significant amounts of stormwater runoff.

6.2.2 Site Landscaping

Landscaping should be sized and located to allow plants to consume stormwater or building greywater. The use of potable water to irrigate landscaping is discouraged. Emerging technologies such as Structural Soil should be considered where appropriate.

- Native plant materials should be used wherever possible as they require less maintenance, watering and fertilization.
- Existing significant trees, tree stands and vegetation should be protected and incorporated into site design and landscaping. Provisions should be made to protect such trees from construction if development occurs in close proximity.
- Landscape design should incorporate a wide range of strategies to minimize water consumption, e.g. native species, use of mulches and compost, alternatives to grass and rainwater or greywater collection systems.
- The width of all planting beds should be at least 2.5 metres wide (except on sidewalks) to enable plant material to be massed to create a healthy and sustainable landscape and reduce irrigation dependency.
- Impervious areas directly connected to the storm drain system are the greatest contributor to the storm water management system. Breaks in such areas, by means of landscaping or other permeable surfaces should be provided to allow runoff absorption into the soil.

- The distribution of outdoor lighting should be controlled according to outdoor lighting design recommendations of the Royal Astronomical Society of Canada to minimize light pollution and maintain a dark night sky. Well-designed lighting networks that incorporate full cut-off fixtures are also more energy-efficient.

6.2.3 Building Design and Orientation

Buildings consume about 38% of total Canadian secondary energy use, produce about 30% of total Canadian greenhouse gas emissions and use 40% of raw materials globally.

- New development should seek Leadership in Energy and Environmental Design (LEED) certification. At a minimum, new development should achieve all LEED prerequisites. LEED certification distinguishes building projects that have demonstrated a commitment to sustainability by meeting higher performance standards in environmental responsibility and energy efficiency.
- Building construction and operation methods should aim at reducing dependence on non-renewable resources by using appropriate recycled materials and by promoting adaptive reuse of existing structures.
- A high degree of indoor environmental quality should be achieved through design techniques including daylighting and the use of low-emission finishes formulated to low or zero volatile organic compounds (VOC) standards.
- Building flexibility should be maximized to satisfy the varied demands of current and future users and residents. Raised access flooring, modular partitions, a consistent structural grid and non-centralized HVAC systems all contribute to building flexibility.
- Building energy consumption and site systems (HVAC, hot water, lighting) should be reduced through the use of appropriate mechanical and sustainable technology (natural cooling, heat recovery, passive solar design, etc.).
- Renewable energy systems should be considered to power on-site lighting and to supplement building power requirements, solar panels on a flat roof is an example.
- Innovative wastewater treatment, water reduction and sustainable irrigation strategies are encouraged, including the use of water efficient or greywater plumbing fixtures.





Sustainable buildings harness the environment for energy, use reclaimed material, consume less energy and provide better indoor air quality than conventional buildings.



Asphalt parking lots and roofs greatly increase summertime urban temperatures, resulting in greater discomfort and cooling equipment loads.



Green roofs are attractive, reduce building energy requirements, cool the outdoors and absorb stormwater.

- Natural ventilation systems should be considered as an alternative means to air conditioning through the promotion of passive convection cooling and ventilation. Passive systems can minimize or eliminate mechanical system usage for heating, cooling and ventilating buildings during prolonged periods in the year.
- Efficient lighting equipment should be used and unnecessary lighting of occupied space should be eliminated by using room and task light switches, occupancy sensors and photocells as energy efficient occupant controls.
- Vegetated roofs should be developed to mitigate stormwater runoff, improve building insulation and reduce ambient heat gain. Roof design should also incorporate daylighting to reduce dependence on internal artificial lighting (see below).
- The annual energy consumption of existing buildings should be measured. Upgrading should be undertaken to existing buildings so that energy and thermal performance is comparable to new buildings.

6.2.4 Urban Heat Island Effect

Temperatures in urban areas can be up to 5.5 degrees higher than in rural settings (LEED) due to heat generated by asphalt roofs, impervious pavement, cars and mechanical equipment. This results in higher ambient temperatures and the need for larger HVAC equipment and higher energy use. Higher temperatures can also be unpleasant and have adverse health effects, especially among seniors and small children. Heat island effects are also detrimental to plants and animals. Paved surfaces and roofs should be constructed of materials that reduce the urban heat island effect.

6.2.5 Sustainable Opportunity Sites

Blocks 18, 20, 21, 22, 23, 24, 25 and 26 all contain outstanding opportunities to implement sustainable principles and promote responsible stewardship through new developments. The Elgin Street utility easement is also an excellent opportunity as it potentially can become a green corridor penetrating Downtown urban development, representing balance between nature and city. In general, it is recommended that natural features be integrated into all new developments.

6.3 Water Efficiency

Note:

Practices presented below should be pursued where possible. Soil conditions or the high water table may preclude some of these approaches. Where the urban fabric is at its densest, standing water or mushy turf conditions may be problematic. From a volume standpoint (but not water quality), the proximity of the Lake allows stormwater to be conveyed without the usual concern with impacts on creeks or the need for expensive stormwater infrastructure.

6.3.1 Water Runoff – Buildings

In general, multi-storey development is preferred over single storey buildings with the same total floor area to reduce the building footprint and impact on the site.

- Where practical, roof drainage should flow, in part or fully, into landscaped areas on site where lot size and soil conditions are adequate to absorb such runoff. Several downspouts should be provided to better distribute rain run off into various areas of the adjacent landscape.

6.3.2 Water Runoff – Surface Areas

Paved areas, such as surface parking, should be minimized wherever possible in order to maximize permeable surfaces that absorb and biodegrade certain toxins. This also reduces the volume of runoff into the storm drainage system.

- Streets, driveways and parking areas should be as small as possible within allowable standards. This challenges the status quo – do streets really need to be this wide, can adjacent developments share a common parking area, can a driveway be permeable?
- Parking areas should drain into vegetative or grassy swales that are incorporated into large common landscaped areas within a project or perimeter landscaping.
- Bioswales should be created next to parking lots and walkways to collect stormwater runoff to minimize the dependency on stormwater sewers. Bioswales should be planted with salt-tolerant shrubs and grasses to filter water before it percolates into the ground. They should be graded to direct water away from paved areas.



Native drought resistant plant materials are landscaped here in a unique maintenance free way.



Rainwater here is directed into a landscaped area instead of into a stormwater culvert.

- Drainage basins should be located throughout parking lots to collect stormwater. These basins should be planted with native plant materials that thrive in wet conditions.
- A well-drained snow storage area should be provided in a location that enables melting snow to leach into drainage courses and storm drain inlets to prevent toxic materials from being washed into streams.

6.3.3 Water Efficiency Opportunities

There are four elements to water efficiency that holistically work together to reduce water use and building effluence.

- Stormwater management can be achieved through pervious pavement, naturalized landscaping, green roofs, and underground cisterns. A project by project analysis should be employed to determine what features are possible, reducing peak stormwater runoff reduces the required capacity of the City stormwater system and generally benefits the environment.
- Water efficient landscaping that uses no potable water or no irrigation should be pursued for all developments. Such landscaping can use building grey water for irrigation or use native drought resistant plantings that don't require irrigation. However, where such options have been explored and found to be problematic, traditional irrigation systems may be considered.
- Innovative wastewater technologies such as grey water systems can be used to reduce building wastewater, irrigate landscaping, and reduce building potable water consumption.
- Water use reduction can be achieved through the use of high efficiency appliances and fixtures as well as through the use of grey water where possible.



Material reuse is preferred over recycling as it does not require reprocessing, here demolished materials are sorted into piles for reuse.



Bricks from demolished buildings can be sorted and reused, they often have a charter impossible obtain in a new brick.

6.4 Materials and Resources

6.4.1 Adaptive Material Reuse

An effective means of achieving environmental sustainability objectives in the 'private realm' is to reduce dependence on new materials use through remodelling or adaptive reuse of all or parts of existing buildings. When feasible, this is often a better environmental option than demolition and recycling. However, the energy consumption of existing buildings should be carefully considered when assessing the environmental merits of a project.

- Materials salvaged from demolition should be used in new building design, avoiding the waste and pollution of material extraction and production.
- If there are no salvageable materials available from an existing development site, they should be purchased directly from building demolition sales, from salvage contractors and used materials dealers. Reused materials can be used both in new buildings and in public amenity areas, for example and as outdoor paving. Material reuse is more sustainable than the use of recycled materials as reused components do not require significant reprocessing.
- Older industrial and commercial buildings were often built for long term value. As these buildings outlive their intended purpose, opportunities for adaptive reuse should be explored to find new uses while retaining their historic features. Similarly, old materials and architectural features can be given new life through reuse or recycling.

6.4.2 Adaptive Material Recycling

Many new and established construction products made with reprocessed waste materials are available for use on new projects. Construction materials containing post-consumer waste or recovered materials have the greatest recycling merit and should be used where feasible.



This green roof is not accessible, but still achieves all the performance benefits of a roof garden.



This roof garden is enjoyed by building occupants and contains a variety of plant and tree species.



Photovoltaic cells can be integrated into green roofs.

6.5 Green Roofs and Roof Gardens

Green roofscapes add to the city skyline, providing views to and from each building as well as providing private or public open space. Green roofs, particularly for developments surrounded by higher buildings, can add visual interest, amenity space, and help mitigate stormwater runoff.

6.5.1 Planted Roofs Introduction

Even a casual analysis of an aerial photograph of Downtown Burlington shows large grey areas of building rooftops, streets and parking areas surrounded by the green of the tree canopy on surrounding streets. Hard and dark surfaces are not only unattractive, but they tend to raise temperatures and result in runoff.



Sedum planting can be used where, cost, weight, depth or slope prevent conventional green roofs from being used.

6.5.2 Planted Roof Runoff

In a storm, all water that falls on a hard surface in the Downtown is either directed to the storm or sanitary sewer. In either case, expensive pipes must be laid and maintained and the runoff must be processed. Often, the runoff water collects pollutants which often flow into watercourses untreated.

A better alternative is to capture water on site through on-site infiltration or evapotranspiration. With on-site infiltration water is allowed to infiltrate slowly into the ground, a bio-swale can be constructed to filter the water before it seeps into the ground. Evapotranspiration is when, over time, water evaporates from the ground and is consumed by vegetation.



This lightly coloured cool roof has some of the benefits of a green roof and integrates photovoltaic cells to supplement the building energy needs.

6.5.3 Green Roofs vs. Roof Gardens

It is important to distinguish green roofs from roof gardens as the former can achieve the same or even greater environmental benefits with lower construction and maintenance costs.

6.5.4 Green Roofs

Green roofs refer to planted roofs. Their purpose is to provide a visual amenity to occupants of surrounding buildings and to provide environmental services as described below. Plantings may consist of a single species and/or species that require little care. They may not be accessible to the public.

6.5.5 Roof Gardens

Roof Gardens are designed as an amenity for the occupants of the building. While their environmental benefits generally do not exceed those of green roofs, they are more expensive to build and maintain as they generally require a greater variety of species, wider walkways and sitting areas.

6.5.6 Advantages

Mitigation of the Urban Heat Island Effect and Potential Reduction in Cooling Loads – through shading and evapotranspiration (evaporation and plant activity), temperature peaks on green roofs are lower than on conventional roofs. Not only is the general comfort level increased, but air conditioning equipment loads are reduced, resulting in substantial energy savings. While the temperature of a conventional roof can reach 90 degrees Celsius, vegetation experiences temperatures between 15 and 40 degrees because it retains moisture (LEED). In general, temperature variations are greatly reduced on planted roofs. Over a full year, heat gain is reduced by 95% and heat loss by 26% (Soprema – NRC study).

- Reduction of Runoff – rainwater is captured and returned to the atmosphere. Some excess may be evacuated through pipes as on a conventional roof, but the overall amount is reduced. In an NRC study, runoff volume was found to be reduced by 54% (Soprema).
- Air quality improvements – plants absorb carbon dioxide and emit oxygen. They also filter pollutants. 1 m2 of unmowed grass on a roof absorbs up to 2 kg of windborn dust each year (minimum area of 2000m2). 1.5 m2 of unmowed grass produces enough oxygen for one single person's needs for one year (Soprema).
- Improved longevity of the roof membrane – the membrane is shielded from ultraviolet rays and the elements. Manufacturers of planted roof systems routinely offer warranties on their membranes.
- Thermal Insulation – planted roofs work hard even in the winter months by providing extra insulation.
- Sound Insulation – planted roofs also reduce noise penetration. 10 cm of growing medium reduces the noise by 15-20 dB (Soprema).
- Visual Amenity – for occupants of surrounding buildings, a green roof offers visual relief.

6.5.7 Alternative: Cool Roofs

Roofs with high solar reflectance and high thermal emissivity reflect heat and sunrays and thus achieve some of the same benefits as planted roofs in reducing the Urban Heat Island Effect.

- Cool roofs do not offer some of the advantages offered by planted roofs such as runoff retention, carbon dioxide conversion and visual amenity.
- Over time, cool roofs require cleaning to maintain their performance rating.

7 Block Plan Guidelines

7.0.1 Introduction

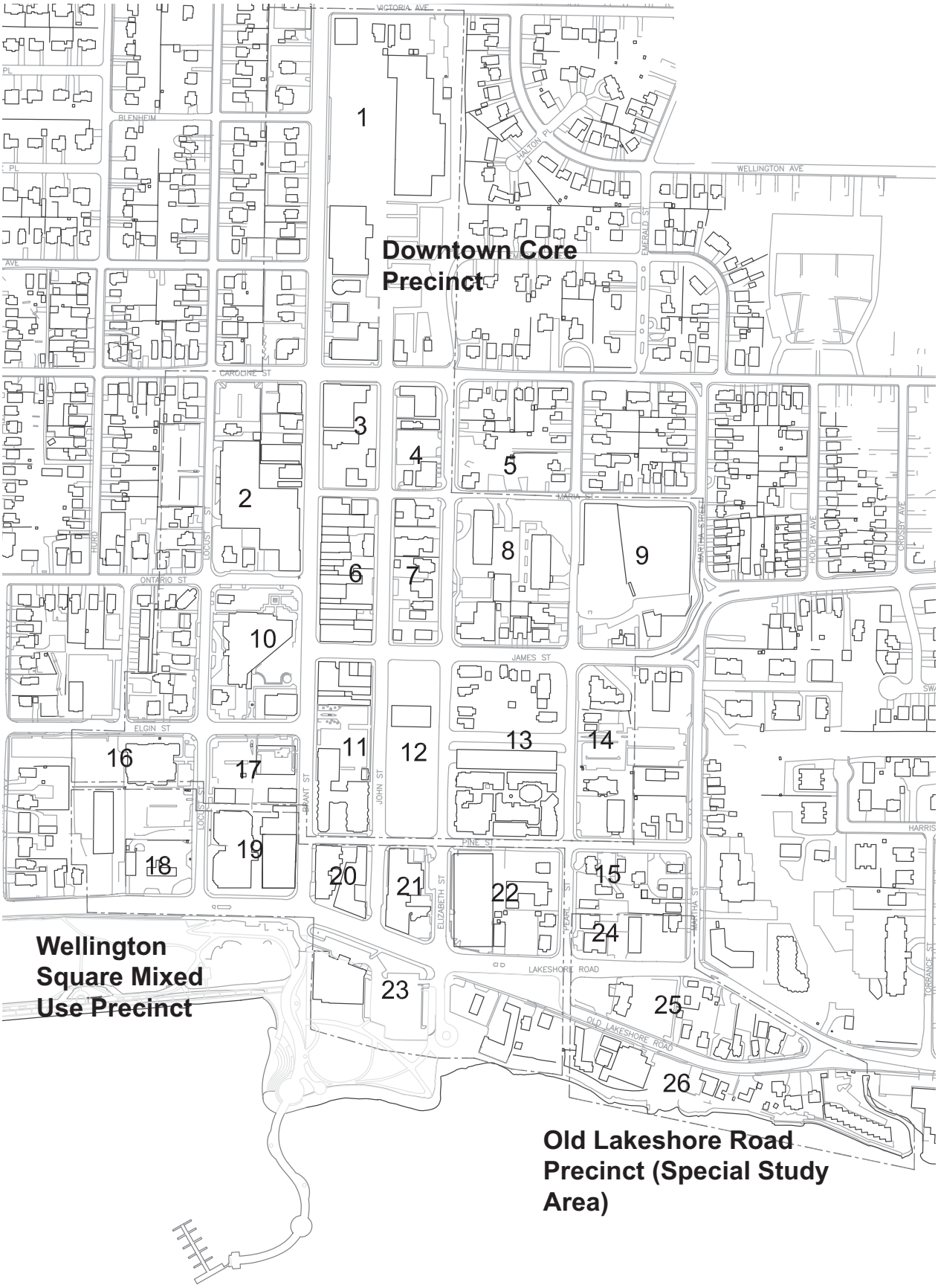
The following Block Plan Guidelines are intended to provide the City of Burlington with a more detailed means of responding to development applications in the Downtown Area. Each development block within the Downtown contains a variety of built form, open space and streetscape conditions, all of which are considered to be integrally related. The Block Plan Guidelines identify the existing revitalization and development opportunities, with the goal of creating a well integrated Downtown fabric. The Block Plan Guidelines address the public (streets and open space) and private (buildings, site design, parking and pedestrian connections) and through setbacks, building heights and massing, site plan and landscaping recommendations, provide a comprehensive Downtown Urban Design Vision.

These site specific design recommendations contained in the Block Plan Guidelines are not intended to represent requirements for a fixed building design, but rather to provide a framework for development potential. For example, the illustrated three dimensional building envelopes are intended to illustrate a scenario which applies many of the urban design tools to ensure appropriate built form such as building setbacks and 'step backs', mid block pedestrian connections and other open space/streetscape treatments.

Please note that in the event of inconsistencies between this document and the Official Plan or any Zoning By-laws, the Official Plan and Zoning Bylaws will prevail.

Also, the blocks analyzed may not exactly correspond to district boundaries provided in the Official Plan. Discrepancies stem from the simultaneous preparation of the Official Plan and Guidelines.

FIGURE 23: *Block Numbering Key Plan*



7.1 Block 1

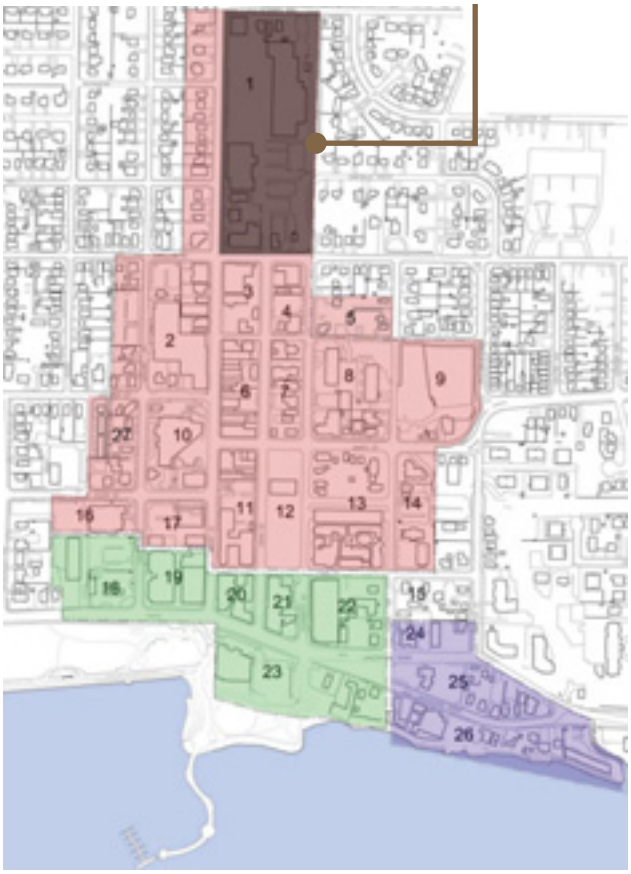


FIGURE 24: Block 1: *Existing*



FIGURE 25: Block 1: *Potential Building Envelope*



7.1 Block 1

Boundaries

- Brant Street
- Eastern edge of NoFrills
- Victoria Avenue
- Caroline Street

Characteristics and Issues

1. The supermarket and its ancillary uses (banks, shops) form a focus of downtown living.
2. The Brant Street frontage offers the advantage of a relatively high frequency of entrances.
3. The northeast corner of Brant and Caroline Streets is occupied by a Bell Canada exchange. Due to the cabling infrastructure terminating at such buildings, they are rarely redeveloped. The building presents a blank façade on Caroline Street.
4. The other side of Brant Street is occupied by house forms used for commercial uses.
5. John Street has generally poor buildings and an undefined streetscape, including:
   a. Hydro poles
   b. Narrow sidewalk on east side
   c. No sidewalk on west side
   d. Blank façade from the Bell Canada building
   e. Parking and back ends of buildings north of Bell building
   f. Parking edge on the east side

Opportunities

General

1. A long term objective should be to implement a consistent tree line along Victoria Avenue and John and Brant Street.
2. The redevelopment of the block should maintain general land uses, but create a more attractive, street-oriented frontage on John and Brant Streets is proposed.

Victoria Avenue

1. The houses at 2012 and 2022 Victoria Avenue are listed on the City's heritage inventory and should be retained.
2. Infill of similar mass and character would further enhance the Victoria frontage.
3. In the short term, improvements should be made to front yards. Front yard parking should not be permitted.
4. Improvements to the property to the north (Acura dealership) through landscape screening and more orderly storage of vehicles would improve the street appearance and entry to Downtown Burlington.



North end of John Street looking south.



Brant Street at Caroline Street looking north.



North end of John Street looking north.



Caroline Street at John Street looking west.

John Street

A key priority is the improvement of John Street, both aesthetically and functionally including:

1. Development of parking lot, at least fronting onto John Street.
2. Removal of hydro poles.
3. Widening of sidewalks (5 metres min.) and construction of sidewalks on both sides.
4. John Street between Caroline Street and the No Frills lot should become a narrow pedestrianized street where speeding is discouraged and pedestrians have the right of way.
5. The extension of John Street internally through the No Frills parking lot should occur as part of any redevelopment. Note that John Street north of Caroline Street is not a road allowance, though it is owned by the City.
6. Entrances from John Street to businesses fronting onto Brant Street should be encouraged.
7. Significant plantings on both sides of John Street, with improved definition of edges on the west side of John Street.
8. The long-term desirability of the auto-related use backing onto John Street should be evaluated.

Brant Street frontage

1. The Brant Street frontage should be improved with buildings that are close to the street, include increased landscaping and consistent streetscape treatments. In the longer term, the site could be entirely redeveloped with mid-rise buildings, retaining a supermarket use on the ground floor, with underground parking. A key site is at the corner of Brant Street and Victoria Avenue. A future redevelopment should include a well-designed, min. 3-storey building on this corner.
2. New trees can be planted immediately in front of the Bank of Montreal and the Bell exchange, as well as on front yards on the west side of the street. Low-level plantings on a green boulevard could be accommodated in front of the Scotia Bank plaza. The parking lot is currently partially screened. A more comprehensive planting program should be adopted to screen the parking lot with low-level plantings, additional trees and possibly a low fence.
3. Long-term redevelopment of properties to the north of the Bell building is desirable. The pedestrian connection from John Street to Emerald Crescent through the parking lot should be maintained.
4. New buildings should be aligned with the Bell Building, which is likely to remain in the long term. The resulting setback should be reserved for plantings and patios.
5. Landmark features should be incorporated in new buildings at the corner with Victoria Avenue and the south end of the parking lot. These would act as gateways into the downtown area.
6. House forms on the west side of Brant Street constitute an appropriate transition to the stable residential neighbourhoods to the west. The Official Plan does not foresee redevelopment of these properties but allows for changes in use.

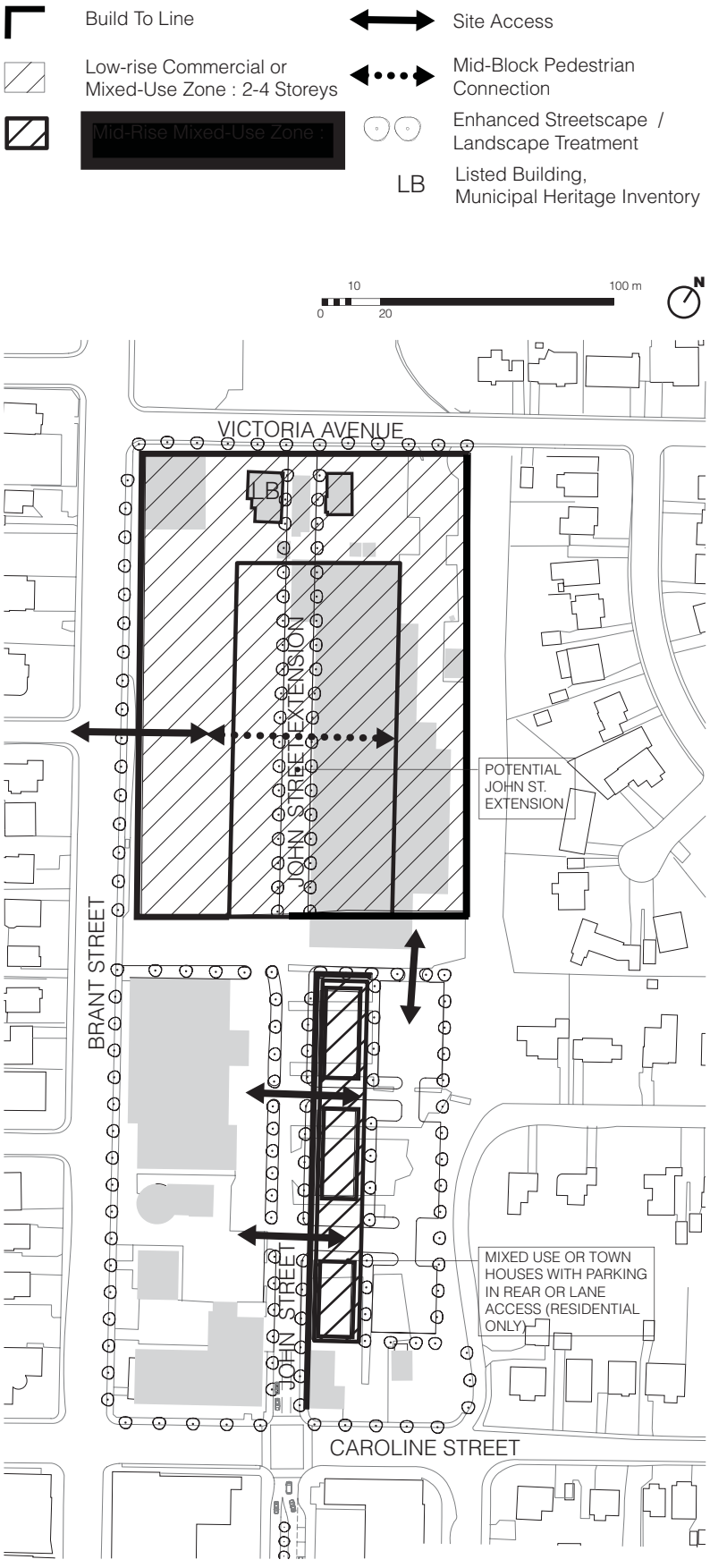
Parking Lot

1. In the short term, the parking lot should be screened better. Planted aisles should be built, with clear north-south and east-west pedestrian walkways.
2. In the longer term, the parking lot should be redeveloped along with the two properties to the south into mixed use buildings or residential buildings. Heights must transition to residential neighbourhoods to the rear. 2-4 storeys at John and rear of property, 6-8 storeys midblock, set back from the creek.
3. A pedestrian connection should be maintained to Emerald Crescent.

Caroline Street

1. The Bell Canada exchange should be landscaped on Caroline Street. The opportunity exists for a mural to enliven the blank façade.
2. A planted median between John and Elizabeth Streets would act as a gateway into residential neighbourhoods to the east and discourage speeding.

FIGURE 26 : *Block 1 Plan*



7.2 Block 2

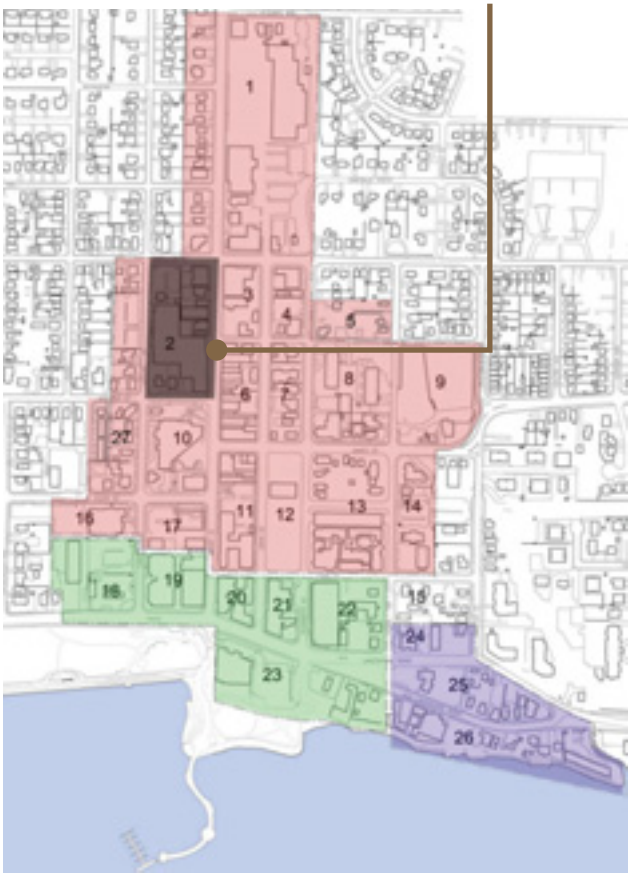


FIGURE 27: Block 2: *Existing*



7.2 Block 2

Boundaries

- Locust Street
- Brant Street
- Caroline Street
- Ontario Street

Characteristics and Issues

1. Upper Canada Mall has a large blank façade on its south side and a poorly defined edge on Brant for the following reasons:
   a. Grade change
   b. Lack of street-facing windows
   c. Recessed main entrance
   d. Staircase to second-storey poorly maintained terrace area
   e. Poor accessibility
2. The high-rise apartment building dominates the block. Its height at 13 storeys is designed as a sheer wall façade and should not serve as a precedent for redevelopment in this area.
3. Parking Lot 8 occupies the southeast corner of Caroline and Locust Streets. It is a prime redevelopment site that should be developed with low-rise, residential and/or mixed use to provide an appropriate transition to adjacent neighbourhoods. The City wishes to retain or replace the parking provided on this site.
4. There is a row of low-rise commercial buildings on the southwest corner of Caroline and Brant with a high frequency of entrances, which contribute to the character of the street. The buildings at 484 and 490 Brant Street are listed.
5. The 2-storey retail building on the northwest corner of Brant and Ontario Streets does not have a strong street presence but the south-facing planters and benches on the widened sidewalk are a desirable feature.
6. There is a significant presence of surface parking on the south side of the block.
7. Two older houses front onto Ontario Street, one residential, one commercial. They constitute an appropriate transition from residential neighbourhoods to the west. 1457/1463 Ontario Street (The Fox-Ryckman House, 1880) on the northeast corner of Ontario and Locust is designated and should thus be retained.

Opportunities

1. Parking Lot 8 is a good development site for a 2 to 4-storey building with entrances on Caroline and Locust or at the corner, a narrow setback and underground parking. A planted boulevard should be introduced. This type of development would be most appropriate in creating a transition to the low-rise neighbourhoods to the west. A structured parking garage would have to be set back from the property line and substantially landscaped to mitigate its visual impact on neighbouring properties.
2. If buildings north of Upper Canada Mall are redeveloped:
   a. Maintain the rhythm of regularly space storefront entrances
   b. Building infill should have a height of 5-8 storeys with a low-rise height of 2-4 storeys facing Brant Street.
3. The building at corner of Brant and Ontario Streets is a prime redevelopment site. A taller ground floor height (min. 4.5 metres) should be maintained.
4. Existing designated, listed or character buildings should be retained and included in the redevelopment.
5. The Different Drummer book shop building is listed and should be retained as a single building with appropriate (2.5 metre) setbacks from surrounding buildings.
6. The edge of the Upper Canada Mall should be infilled to draw the commercial uses to the street edge.
7. If the portion of the Mall that faces Brant Street is redeveloped, special attention should be applied to the creation of an appropriate view terminus at the end of Maria Street.
8. The roof deck of Upper Canada Mall should be improved and better connected to interior building spaces or redevelopment with infill.
9. Ontario Street should be enhanced with street trees and street lamps as a gateway to the St. Luke's Neighbourhood.
10. As redevelopment occurs, increased setbacks on Brant Street would provide for a wider sidewalk and enhanced streetscape elements including street trees, street lamps and bicycle parking (see General Provisions re. Streetscape Amenities).
11. A mid-block pedestrian connection should be considered between Brant Street and the Different Drummer book shop.
12. A double row of trees should be introduced on Ontario Street.
13. Additional trees should be introduced on Locust and Caroline Streets on existing boulevards and as development occurs.



SE corner of Caroline and Locust Streets.

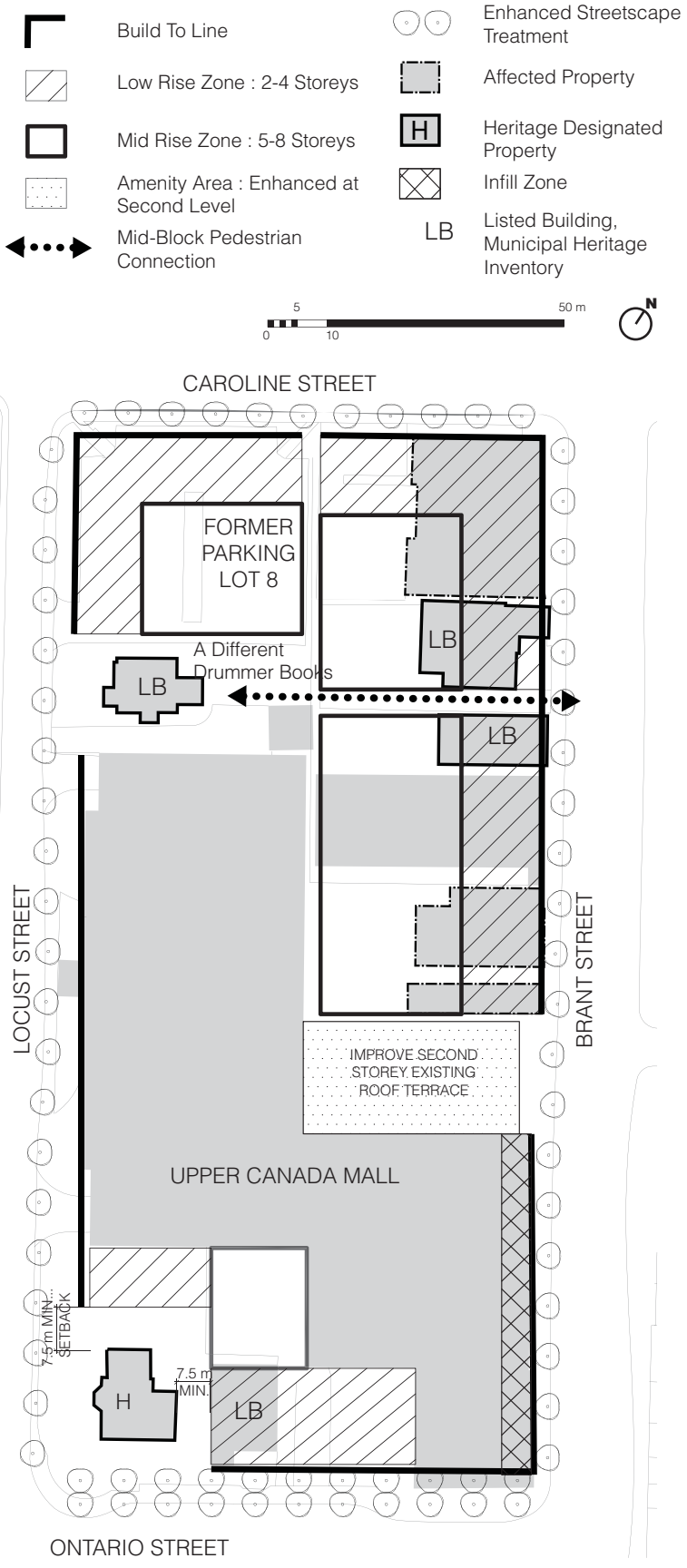


North side of Ontario Street between Locust and Brant street.



Above-ground amenity area off Brant Street.

FIGURE 28 : *Block 2 Plan*



7.3 Block 3

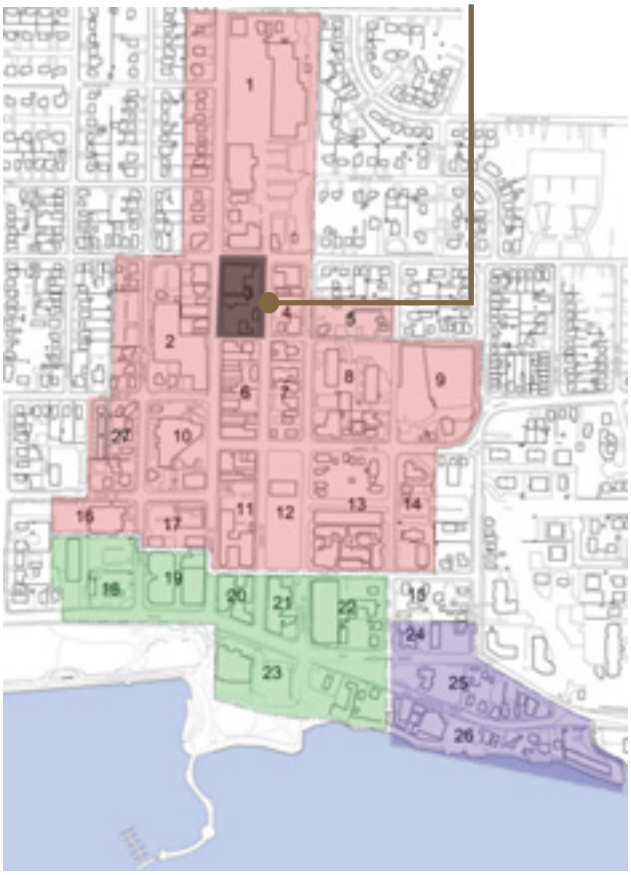


FIGURE 29: Block 3: *Existing*



FIGURE 30: Block 3: *Potential Building Envelope*



7.3 Block 3

Boundaries

- Brant Street
- John Street
- Caroline Street
- Maria Street

Characteristics and Issues

1. Low-rise retail at the corner of Brant and Caroline.
2. The Caroline and John Street edges are not well addressed due to building setbacks, rear building edges and surface parking.
3. No defined edge exists on John Street and includes multiple driveways, little landscaping and hydro poles.
4. The Smith Funeral Home at 485 Brant Street is listed on the City's Inventory of Heritage Resources as the Henderson-Smith House (1905).
5. The Funeral home parking lot is prominent but well screened on Brant Street. Two ancillary buildings on the parking lot mitigate its visual impact from Maria and John.
6. An east-west pedestrian connection exists through the funeral home parking lot and should be maintained.

Opportunities

1. The entire block can be redeveloped with the opportunity to continue to provide a positive frontage onto Brant Street while also improving the John Street frontage.
2. The retail scale and rhythm found on Block 6 to the south should be extended.
3. Any redevelopment should improve John frontage with street-facing buildings, improved building façades, wide sidewalks, plantings, underground hydro and pedestrian-scaled lighting.
4. The Caroline and Maria Street frontages should include at-grade retail to encourage east-west movement.
5. Existing trees on Brant Street greatly contribute to the character of the street. They should be interplanted to ensure the long-term survival of the tree line and reinforce the character of the street. This treatment should be extended throughout the block.
6. On John Street, the tree line should be reinforced by a central planted median.



Southwest corner of Brant Street and Maria Street.



Shops on the east side of Brant Street.

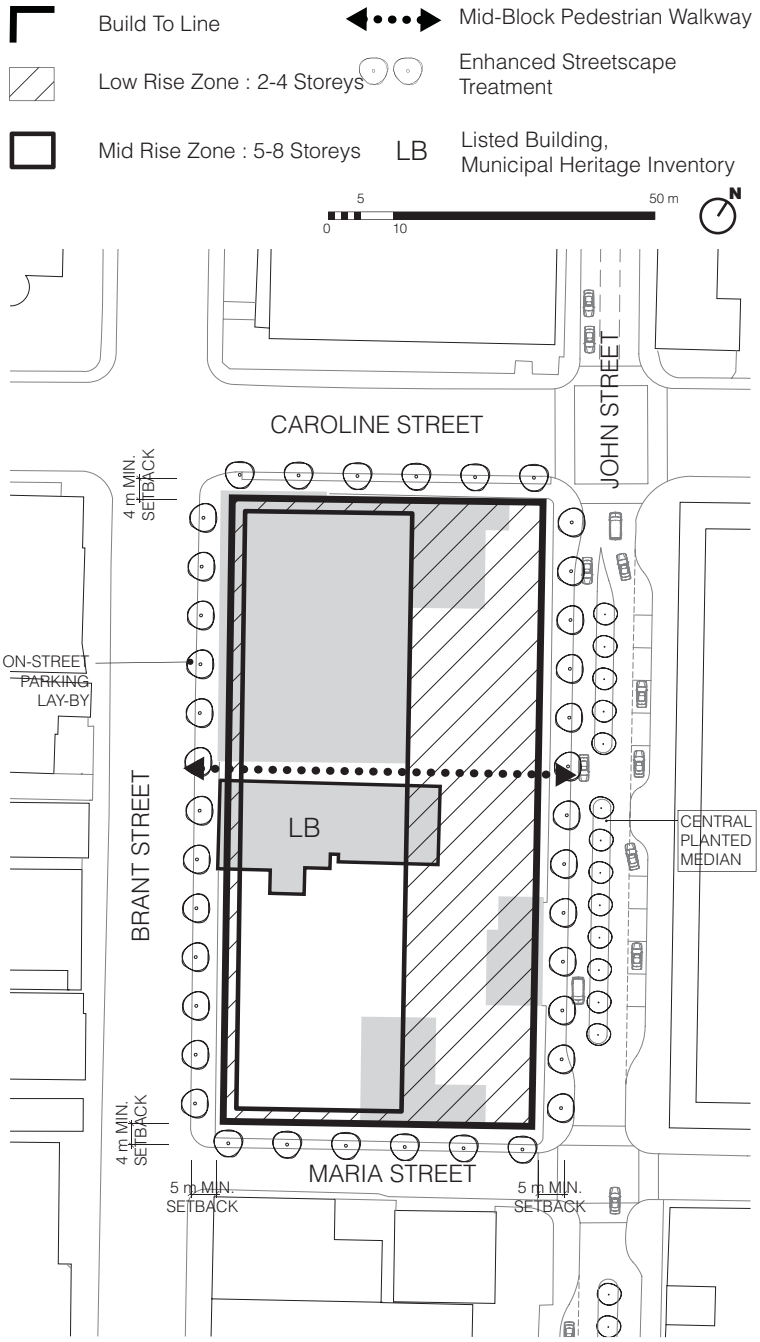


Maria Street at Brant Street looking east.



John Street south of Caroline Street looking south.

FIGURE 31: *Block 3 Plan*



7.4 Block 4

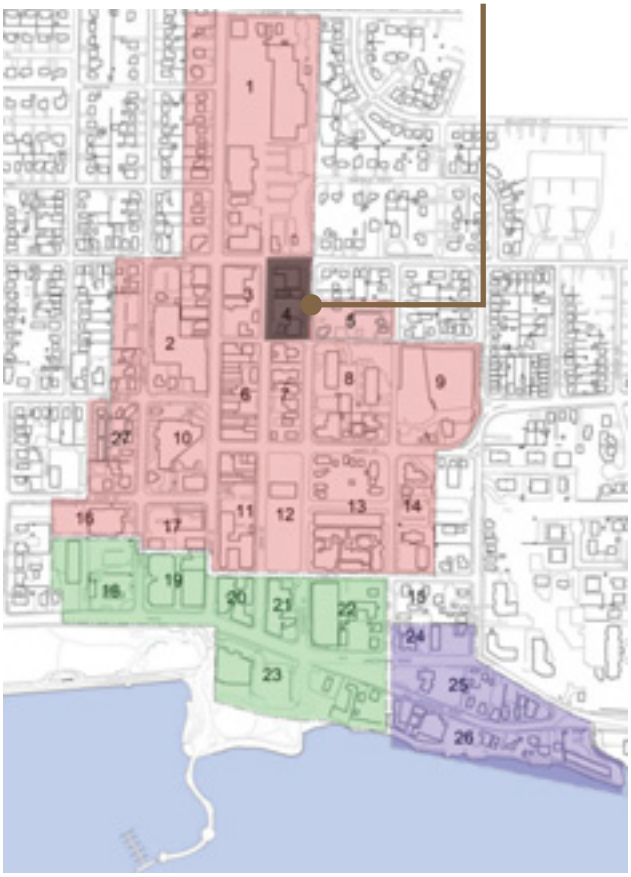


FIGURE 32: Block 4: *Existing*



7.4 Block 4

Boundaries

- John Street
- Elizabeth Street
- Caroline Street
- Maria Street

Characteristics and Issues

1. The retail plaza at the north end presents a poor edge on all sides. Its wide setback on John is occupied by a parking lot.
2. The house at 511 John Street is listed.
3. Lot 9 occupies the majority of the middle of the block.
4. The south end of the block is occupied by a one-storey retail plaza and house-form occupied by commercial uses.

Pedestrian Connections

1. An east-west pedestrian connection is provided through Lot 9 between John and Elizabeth Streets.



Elizabeth Street just north of Maria Street looking south.

Opportunities

1. The entire block should be redeveloped and present a positive face to all sides of the block:
   a. On John Street, street-oriented frontages would replace the existing fragmented rear-building appearance. Businesses should be supported by on-street parking.
   b. Elizabeth Street should be defined by a low-rise building (2-4 storeys) to transition well with residential building forms on Block 5 and to the north where single-family residences will be maintained.
   c. On Caroline Street, new buildings should include retail at grade with entrances at regular intervals. Building frontage should not read as the side of a building as is the case presently.
   d. On Maria Street, active retail frontages are desirable as well, with the opportunity for a wider setback that can accommodate a patio or landscaped plaza that takes advantage of the southern exposure.
   e. Buildings should accommodate the opportunity for either office and/or residential use above grade level.
2. Servicing access should be provided in the middle of the block.
3. Wider sidewalks should support a consistent tree line.
4. On John and Elizabeth Streets, corner bump-outs would delimit on-street parking spaces, act as traffic mitigation measures and shorten crosswalks.



Maria Street just west of Elizabeth Street looking east.

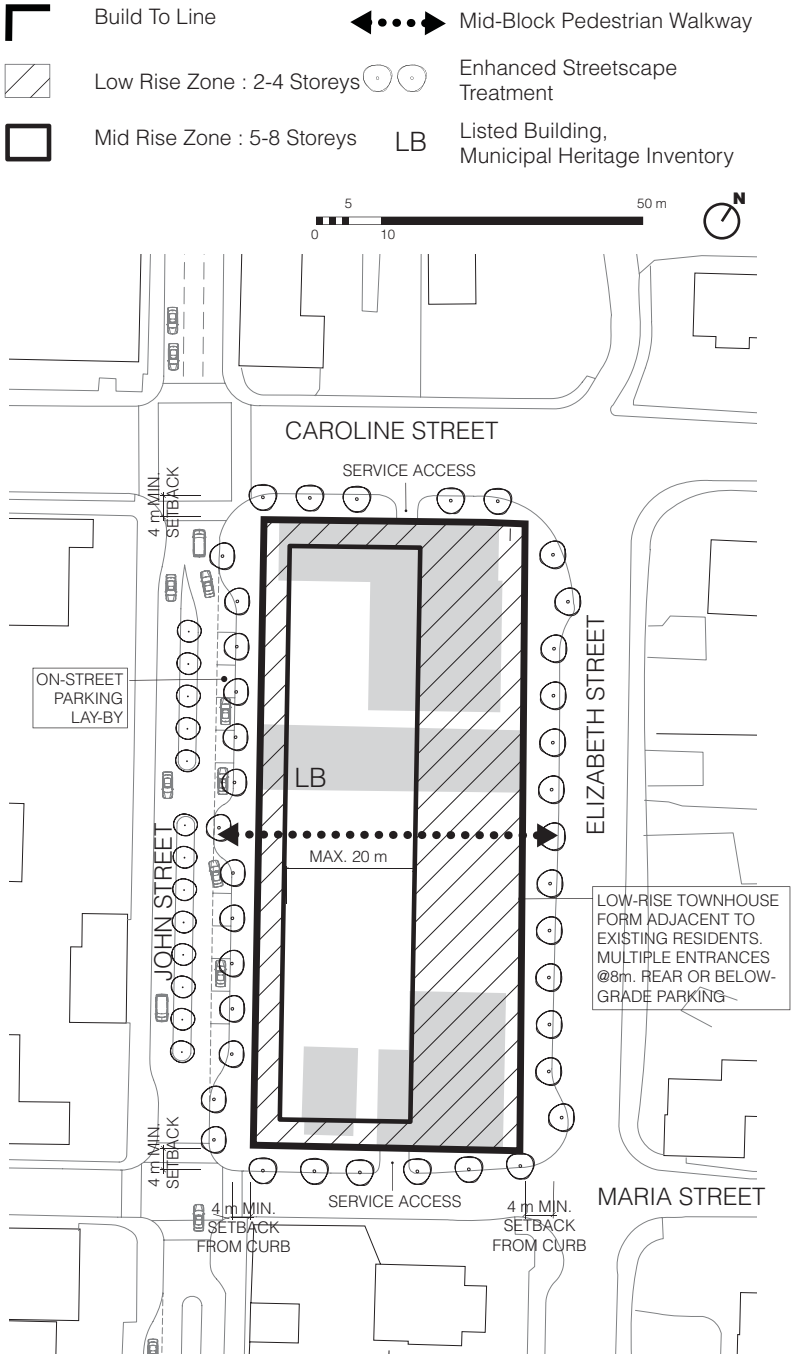


John Street South of Caroline Street looking south.



Caroline Street between John Street and Elizabeth Street looking east.

FIGURE 33: *Block 4 Plan*



7.5 Block 5

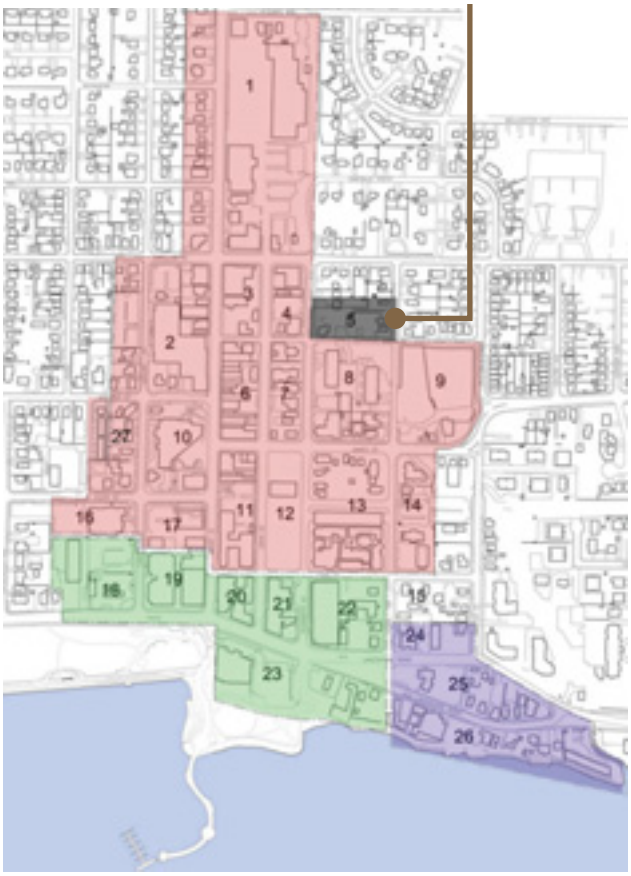


FIGURE 34: Block 5: *Existing*



7.5 Block 5

Boundaries

- Elizabeth Street
- Pearl Street
- Midblock – see plan
- Maria Street

Characteristics and Issues

1. Block 5 is characterized by low-density residential uses. The building on the SW corner houses institutional uses. All but one structures within this block are listed. 497 and 507 Elizabeth Street date back to 1842 and 1845, respectively.
2. A creek traverses the block, resulting in a large open space area within the block.
3. Houses on Pearl Street are in poor physical condition, with some vacant and slated for demolition and replacement.
4. The block to the west features suburban low-density form: single detached house set back with a garage at the front.
5. The Caroline Street edge is well-maintained with single-family residences.

Opportunities

1. The Pearl Street edge can be redeveloped with townhouses and/or live-work buildings close to the street, with entrances at grade and access through a rear lane.
2. Existing mature trees should be preserved as much as possible.
3. The closure of curb cuts will allow for additional planting opportunities including the creation of a consistent tree line.
4. On Elizabeth Street, corner bump-outs would delimit on-street parking spaces, act as traffic mitigation measures and shorten crosswalks.
5. The open space lands at the creek should be preserved and enhanced through planting that also acts as a buffer to adjacent residences and other uses.



North side of Maria Street at the corner with Elizabeth Street.

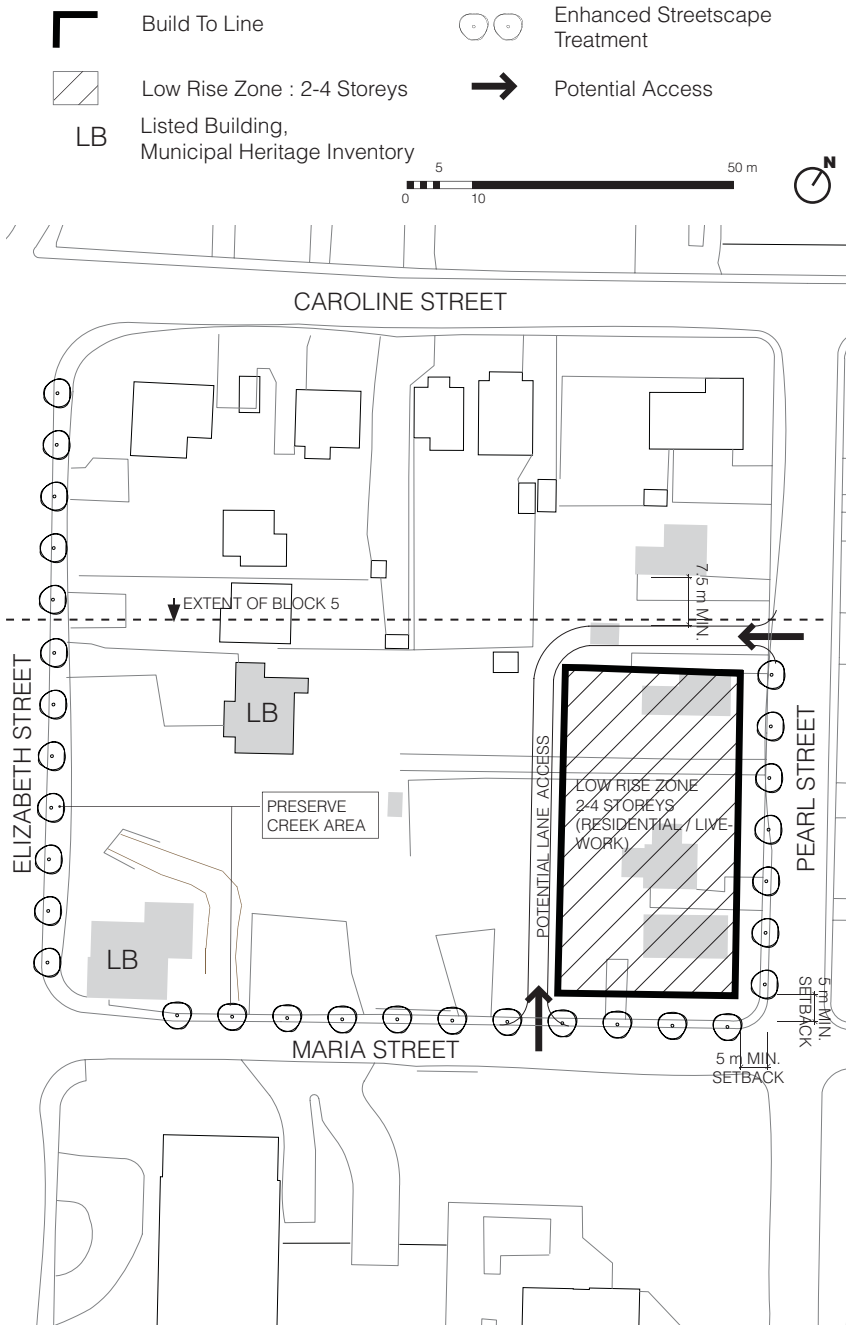


House on Pearl Street.



Private open space in the centre of the block.

FIGURE 35: *Block 5 Plan*





Concrete embankment of the creek.

7.6 Block 6

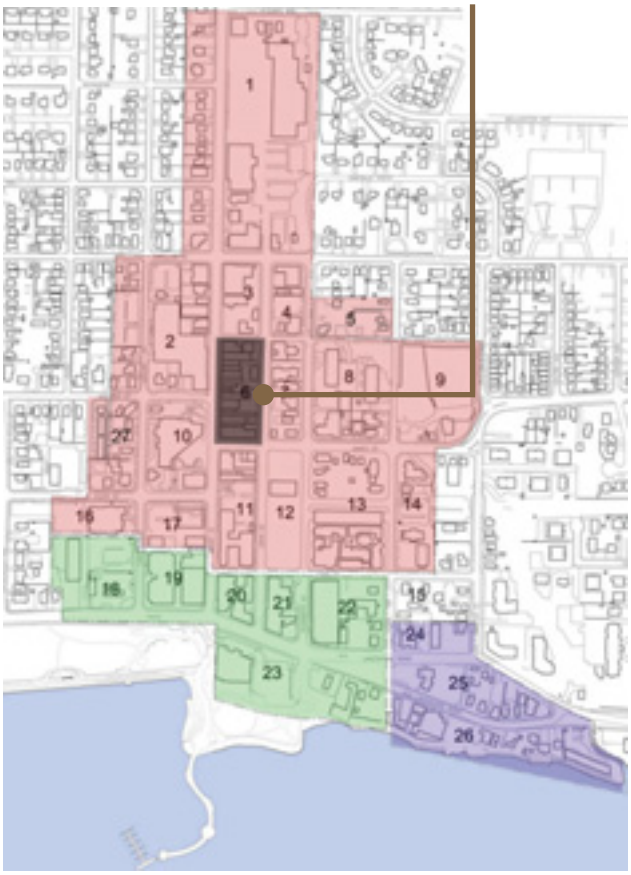


FIGURE 36: Block 6: *Existing*



FIGURE 37: Block 6: *Potential Building Envelope*



7.6 Block 6

Boundaries

- Brant Street
- John Street
- Maria Street
- James Street

Characteristics and Issues

1. Block 6 is the most consistently developed block with a sequence of 1-3 storey main street buildings fronting on Brant Street and a consistent rhythm of front entrances.
2. The 2-storey building at James and Brant echoes the form on the south side of James, contributes to a small town atmosphere and frames a view to the Knox Presbyterian Church at James and Elizabeth.
3. Listed buildings on the block include 421, 431, 433 and 443 Brant Street, as well as 482 John Street.
4. There is a poorly developed edge on John (rear of buildings, streetscape, parking, loading, etc).

Pedestrian Connections

1. The vacant property aligned with Ontario Street provides an east-west connection aligned with another informal connection through the block to the east. It should be retained if possible as part of any redevelopment.



Northeast corner of Brant Street and James Street looking east.

Opportunities

1. Short-term: John Street should be improved through a redevelopment of the street including a central planted median, street edge planting and a well-landscaped boulevard (i.e. street trees and/or planters, bicycle parking, pedestrian-scaled lighting). As properties redevelop, improvements to rear façades and screening of parking should be provided.
2. Long-term: redevelopment of the block is possible, but the same rhythm of entrances and scale at the property line must be maintained, as well as a midblock pedestrian connection.
3. Taller elements can be introduced on Brant Street, transitioning to low rise at John Street.
4. The listed building facing on John Street (formerly Aveda Spa, now the Native Cultural Centre) should be retained and integrated with new development.
5. Progressive redevelopment should avoid the creation of leftover sites too small to support intensification, yet not transitioned to appropriately – e.g. large blank façades on the sides of buildings.
6. The block would benefit from streetscape improvements on John Street, including the removal of hydro poles and overhead wires.
7. Curb cuts on John Street should be grouped to allow for street trees and plantings.



Brant Street just south of Maria Street looking south.

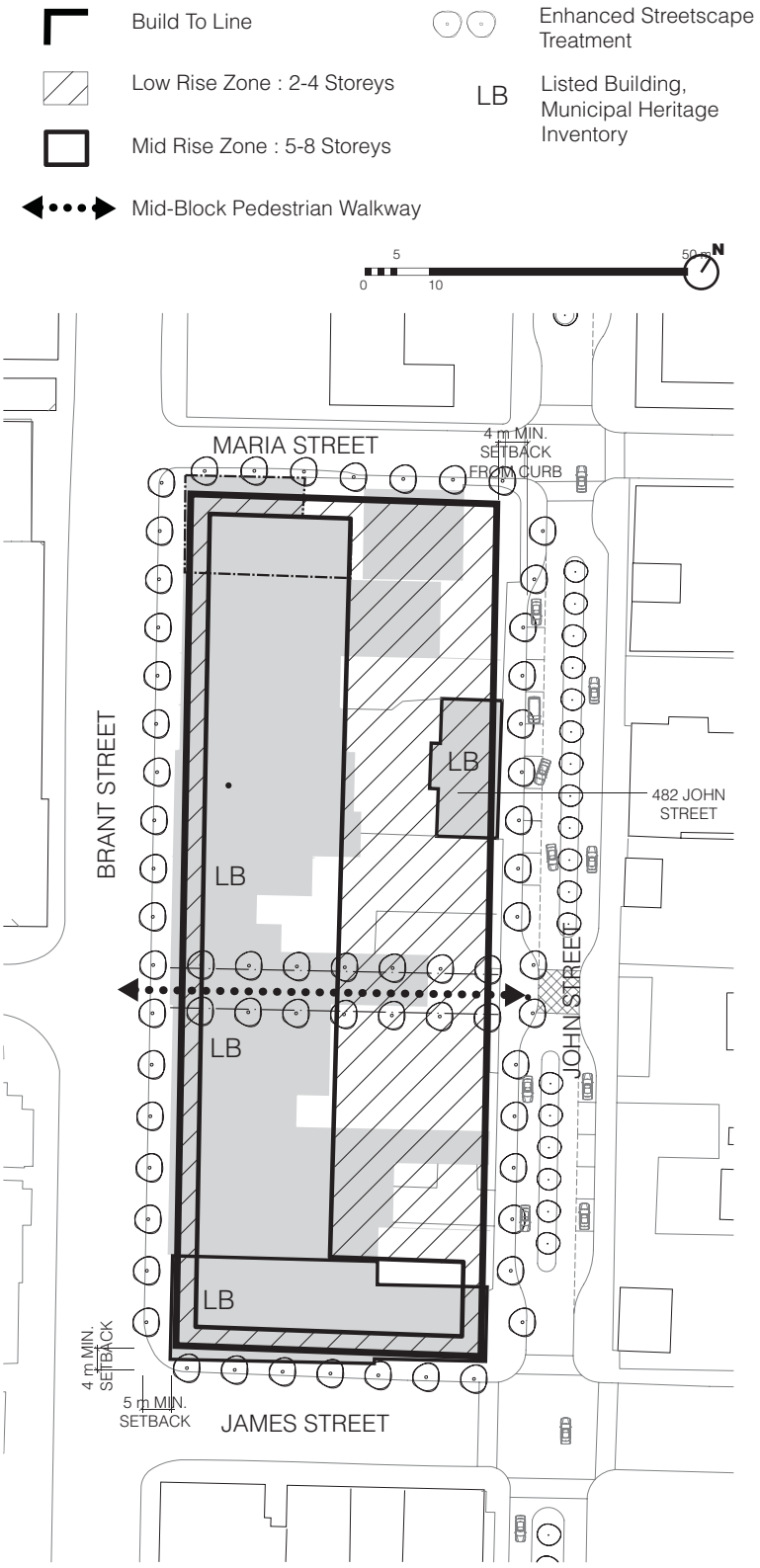


John Street just south of Maria Street looking north.



Midblock connection from Brant Street to Elizabeth Street.

FIGURE 38: *Block 6 Plan*



7.7 Block 7

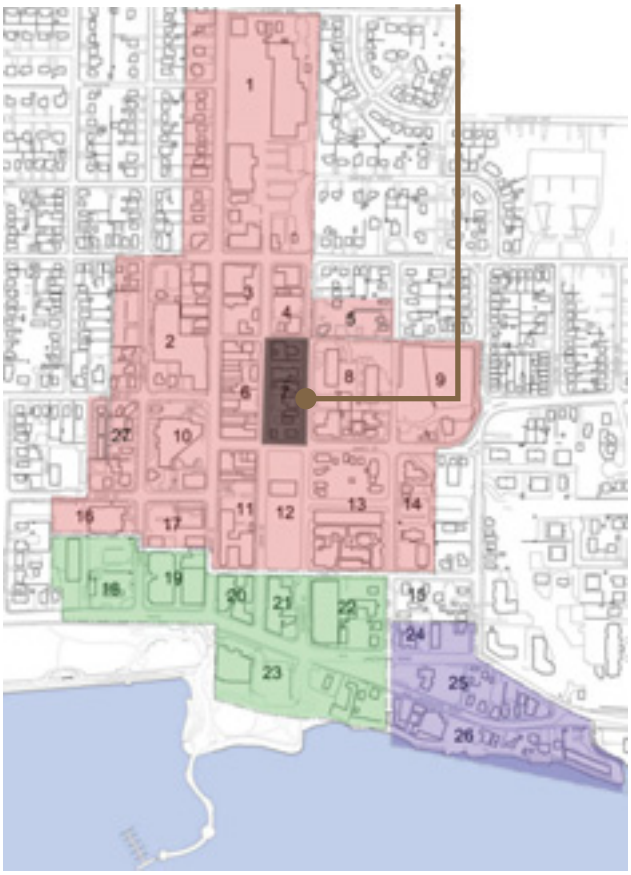


FIGURE 39: Block 7: *Existing*



FIGURE 40: Block 7: *Potential Building Envelope*



7.7 Block 7

Boundaries

- John Street
- Elizabeth Street
- Maria Street
- James Street

Characteristics and Issues

1. Buildings on this narrow block tend to be oriented towards Elizabeth and use their John Street frontage for parking and servicing.
2. All the buildings (except one) facing Elizabeth Street between Maria St. and James St. are listed:

   2031 James Street: The John Taylor House, 1876

   472 Elizabeth Street: The Henderson House, 1862

   478 Elizabeth Street: The former Wesleyan Methodist Manse, 1864

   482 Elizabeth Street: The Laing Speers House and Former Burlington Library, 1873

   490 Elizabeth Street: The Laing-Fisher House (Langston Hall), 1855
3. Several of these listed structures have been converted to commercial uses.
4. The Elizabeth Street edge is consistent, continuous and attractive. It should be retained as a coherent whole.
5. The John Street edge is poor, particularly south of the middle point of the block. The excessive frequency of driveways creates a poorly defined edge dominated by asphalt and hydro poles.

Pedestrian Connections

1. An informal east-west midblock connection exists through private property. It is aligned with a connection to the west.

Opportunities

1. Maintain existing buildings on the block as the basis for future development height and massing and to maintain views to the Knox Presbyterian Church as a visual landmark. Higher density forms are not recommended.
2. Provide infill throughout the block between existing buildings on surface parking areas.
3. Block 7 would benefit from streetscape improvements on John Street, including the removal of hydro poles and overhead wires.
4. Curb cuts should be grouped to allow for the provision of continuous street trees and plantings.



Looking east through the block.



Southeast corner of Elizabeth Street and James Street looking north.

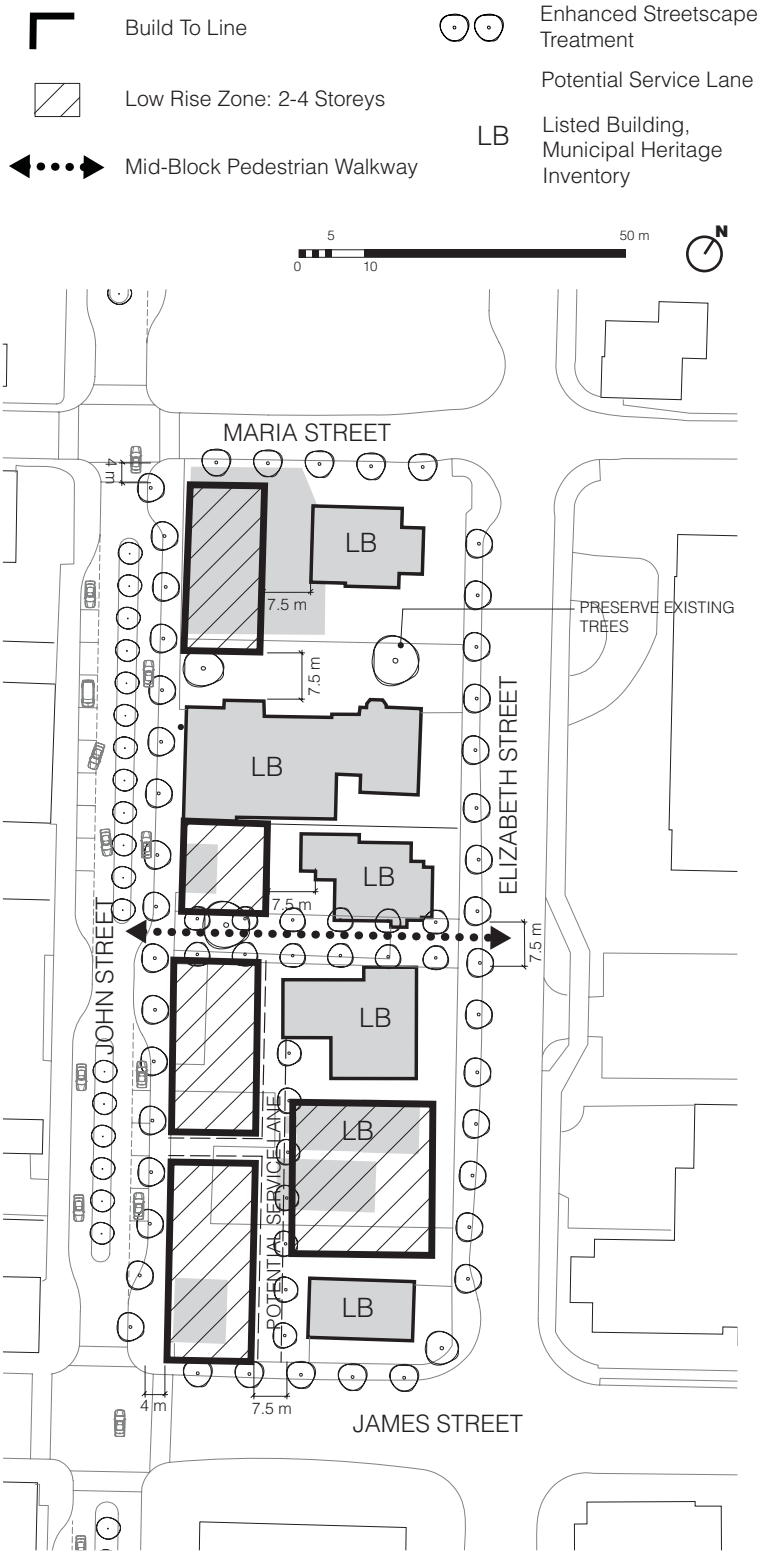


John Street at midblock looking north.



Elizabeth Street just south of Maria Street looking south.

FIGURE 41: *Block 7 Plan*



7.8 Block 8

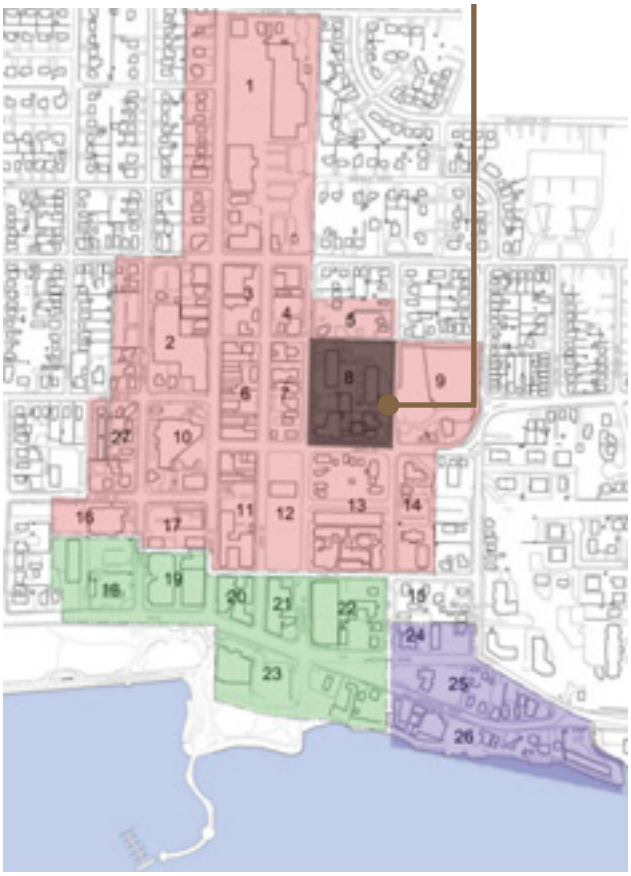


FIGURE 42: Block 8: *Existing*



7.8 Block 8

Boundaries

- Elizabeth Street
- Pearl Street
- Maria Street
- James Street

Characteristics and Issues

1. Most of Block 8 is occupied by two 15-storey apartment buildings with deep setbacks from the street – "towers in the park".
2. The Knox Presbyterian Church on the southwest corner of the block is a downtown landmark (built in 1845) and is a listed building. It is surrounded by surface parking and an adjacent ancillary building to the northeast.
3. The balance of the block is occupied by houses, most of which residential, with some used commercially.

Opportunities

1. The front yards of the two apartment buildings could be redeveloped with 2-3 storey townhouses.
2. The southeast corner of the block could be redeveloped with residential or live-work townhouses or walk-up apartment buildings.
3. The church parking lot could be considered as an infill site provided that some surface parking is maintained on the church site. Additional parking may be available through shared arrangements with the adjacent apartments. The opportunity to share parking among properties on the block should be explored.
4. An amenity space or forecourt could be created in front of the Church, replacing part of the parking.
5. Double entrance driveways on Maria Street at the apartment should be consolidated to a single entrance.
6. Continuous street tree planting should be provided throughout the block.



Elizabeth Street north of Maria Street looking south.

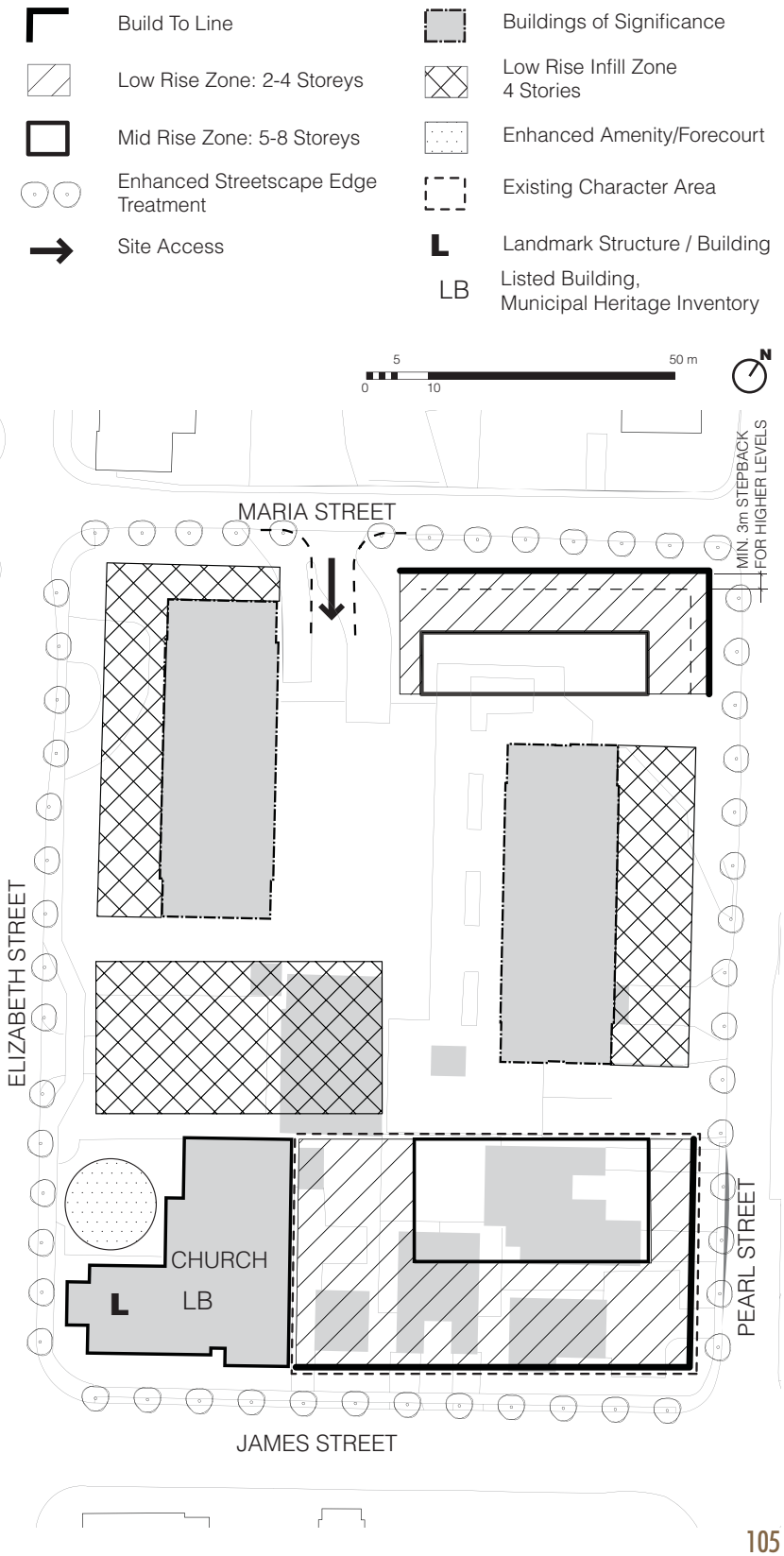


Southwest corner of Elizabeth Street and James Street looking north.



Church parking lot looking south.

FIGURE 43: *Block 8 Plan*





North side of James Street between Elizabeth and Pearl Streets.

7.9 Block 9

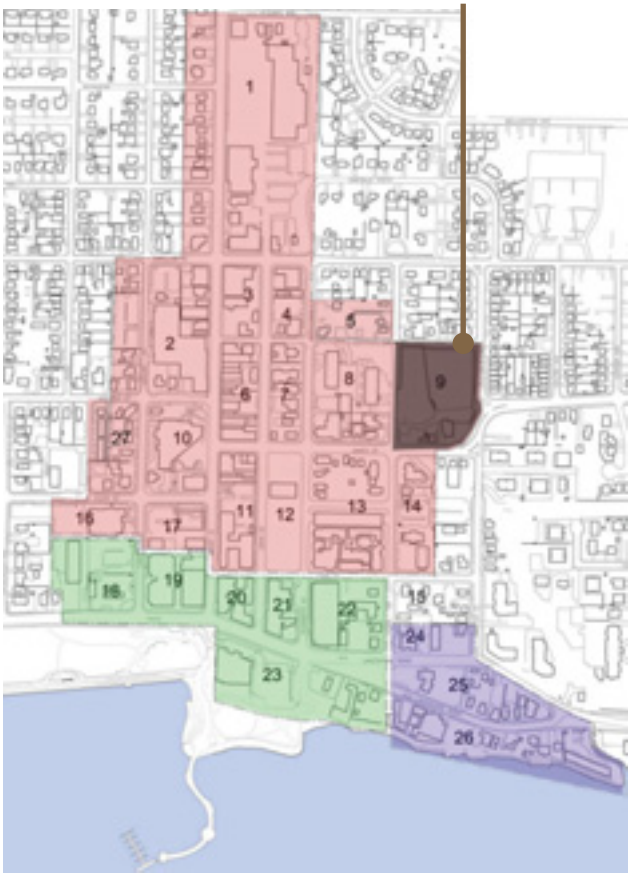


FIGURE 44: Block 9: *Existing*



7.9 Block 9

Boundaries

- Pearl Street
- Martha Street
- Maria Street
- James Street

Characteristics and Issues

1. The block is mostly occupied by the Lions Club Park and Hall and should be retained as a destination for public use and outdoor activities.
2. The Hall parking lot is well screened with trees and a tree-lined pathway and thus integrates well in its park setting. It should be a precedent for other parking lots.

Pedestrian Connections

1. The site is easily traversed on foot.

Opportunities

1. No development should occur in the park.
2. Redevelopment of the Hall could occur in the long term and should integrate underground parking.
3. Formal tree-lined pathways should be created to easily traverse the park in all directions.



Pathway intersecting the parking lot.



View of the Park on Pearl Street.



View of the Park.



Corner of Pearl and Maria Streets.

7.10 Block 10

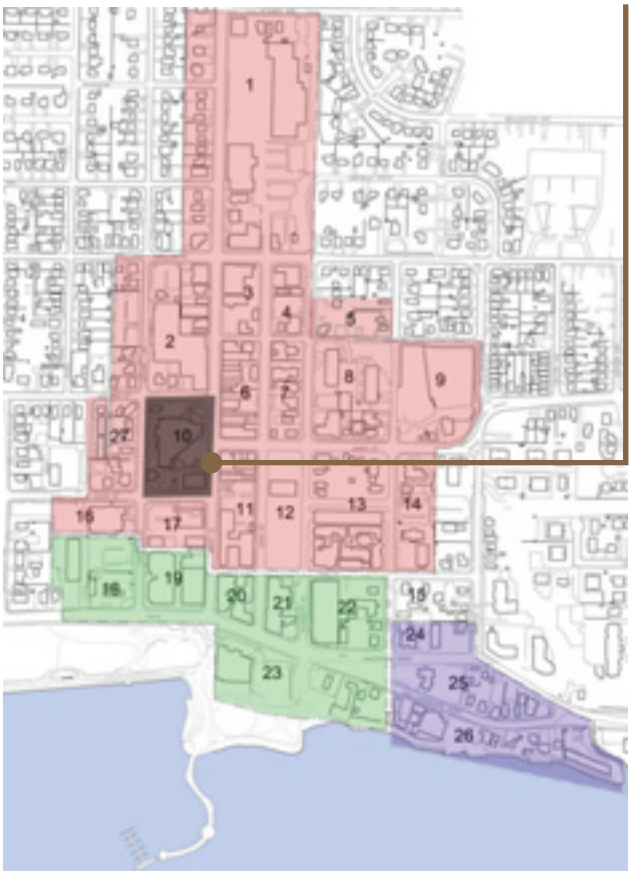


FIGURE 45: Block 10: *Existing*



7.10 Block 10

Boundaries

- Locust Street
- Brant Street
- Ontario Street
- Elgin Street

Characteristics and Issues

1. Block 10 is primarily occupied by City Hall, which has been designed to project a positive image on all sides.
2. Remaining houses on the north and southwest corners soften the edges of the block and create a transition to low-density neighbourhoods to the west. The house at 447-449 Locust was built in 1867 and is designated, while the house on the northwest corner of the block was built in 1885 and is listed.
3. The 'bowl-shaped' plaza in front of city hall is underutilized and poorly furnished.
4. The rear of City Hall on Locust Street is primarily occupied by a lay-by providing vehicular access to the building. It is well-landscaped and provides an attractive – but not well animated – frontage onto Locust Street.
5. The Queen's Head Tavern, a listed building from 1860, relates poorly to City Hall with a laneway separating the two properties.
6. The cenotaph parkette fronting onto Ontario Street is not well used.

a. Blank façades and windows covered with blinds front onto the parkette.

b. The park is divided into 2 parts: the western portion is mostly grass with no seating, while the eastern part includes the cenotaph and poorly organized and sparse seating.

7. The south end of the block includes a parking lot south accessible from Elgin Street. The parking lot is well-screened from the street, but can be confusing to navigate for pedestrians seeking a shortcut to Elgin Street from City Hall.

Pedestrian Connections

1. Pedestrians can walk through the block from Brant to Elgin Street over the City Hall plaza.
2. During office hours, City Hall can be traversed from Brant to Locust Street.

Opportunities

1. The Queens Head Tavern should maintain its three story building frontage at Brant and Elgin Street. The single storey portion of the building may be redeveloped to include a building addition (up to 3 storeys) which is compatible in architectural character, mass and scale to the existing 3 storey building.
2. The north side yard of the Queens Head Tavern should be redeveloped to create a more positive frontage onto City Hall's Civic Plaza. Vehicular access should be removed from Brant Street and maintained from Elgin Street. The side yard should be developed as an outdoor patio to complement the public function of the Civic Square, while providing a private attractive seasonal dining area for pub patrons. A well defined edge should be maintained between the Civic Square and private patio (landscaping, fencing, etc.,) which is attractive, well maintained in summer and winter such as the existing hedge and row of trees at the northern lot line.
3. The overall image/design of the Civic Square should be improved. Wooden picnic tables should be removed and opportunities to restore socializing in the Civic Square should be accommodated by the inclusion of permanent, multi-functional design.
4. Diagonal circulation from the north east to the south west areas of the block should be reinforced through paving and placement of pedestrian amenities.
5. The colonnaded frontages should be infilled/ redeveloped to create an improved and more active street edge at Brant Street.
6. Views to City Hall as a major downtown landmark building should be maintained from all sides of the building and in particular from the terminus of James Street.
7. The Ontario Street frontage should be retained and enhanced as a gateway to the heritage residential district. Some improvements are recommended.
8. The walkway should be realigned to be straight and continuous on the south side of Ontario Street. A double rows of street trees should be planted.
9. The outdoor open space at the northeast corner of City Hall should be maintained. The visibility/ safety of the area should be improved by removing low branching shrubs in favour of high branching trees.
10. Seating in the Cenotaph parkette should be increased and sited strategically both in clusters and individually, in the shade and exposed, to encourage use.
11. The City Hall façades should be more open onto the Cenotaph parkette to animate the space.



The Queen's Head Tavern - NW corner of Brant and Elgin Street.



Locust Street at Elgin Street looking north.

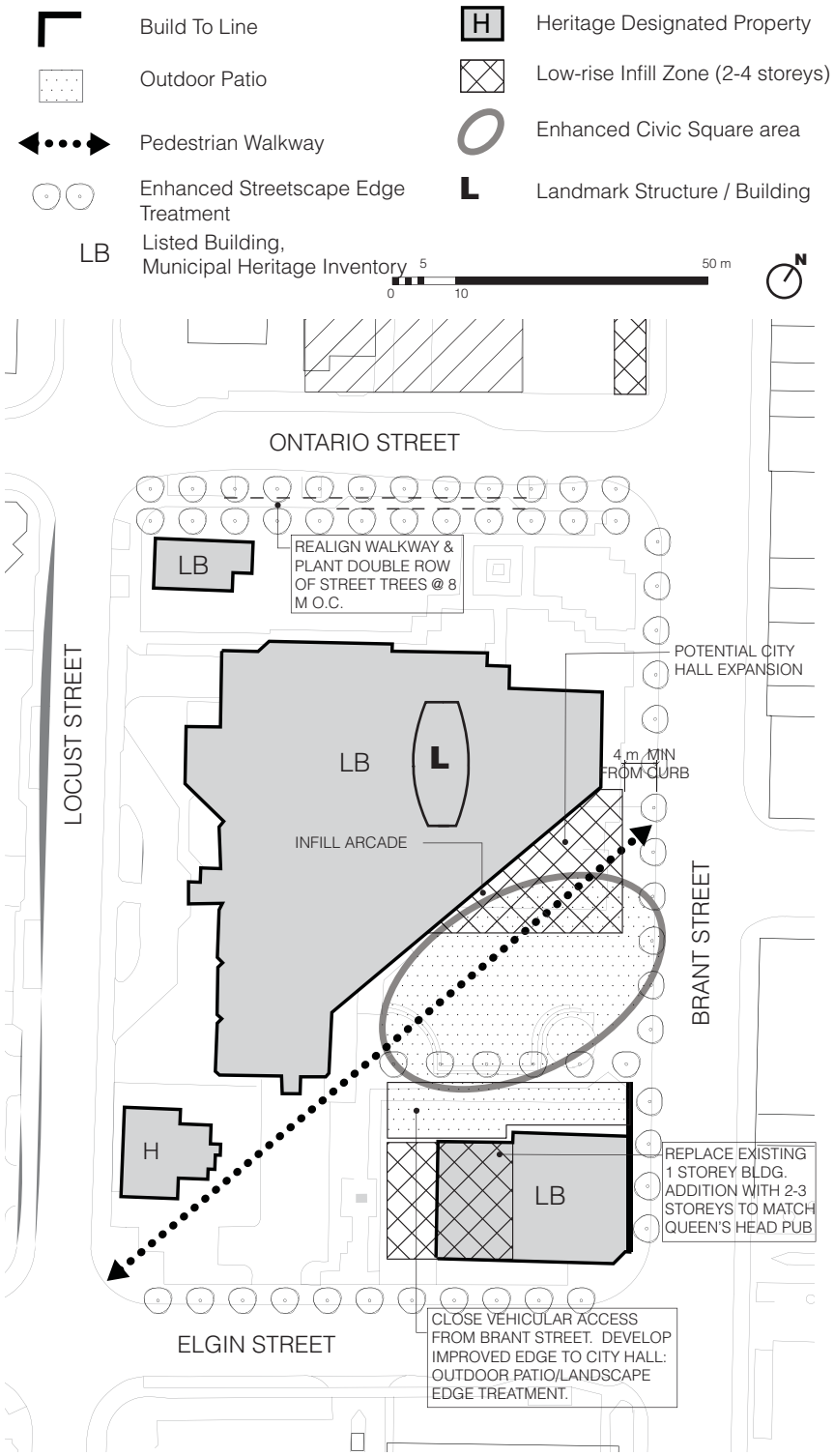


City Hall Plaza.



Cenotaph and parkette north of City Hall.

FIGURE 46: *Block 10 Plan*



7.11 Block 11

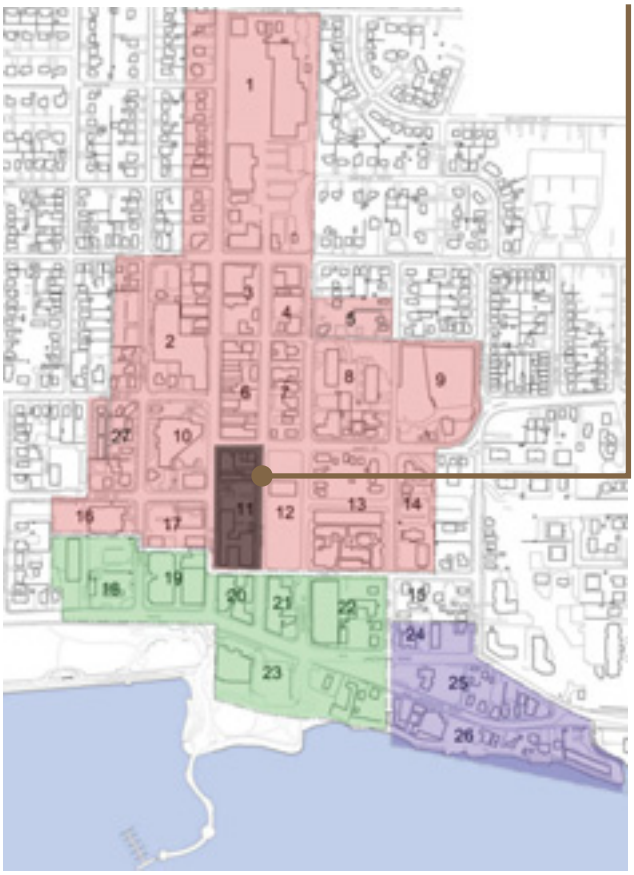


FIGURE 47: Block 11: *Existing*



FIGURE 48: Block 11: *Potential Building Envelope*



7.11 Block 11

Boundaries

- Brant Street
- John Street
- James Street
- Pine Street

Characteristics and Issues

1. A recent non-profit seniors building occupies the southern end of the block with a one-storey commercial component to the north of the building.
2. Lot 5 occupies the middle of the block. It is the proposed site for a bus terminal.
3. The north end of the block is occupied by a series of listed low-rise commercial buildings, many of which have been assembled to form the Thomasville store. Active frontages are provided on Brant, James and John Streets:

   401 Brant Street: The Cline/Dickenson/Johnstone/ Watson Store, 1872
   413 Brant Street: Chinese Laundry/Berry Residence/ Joe Fink Barbershop, 1910
   444 John Street: The Dickenson Ice House, 1916
   2012 James Street: 1924.

Pedestrian Connections

1. The east-west connection through Lot 5 is a very important connection in the downtown area. It aligns with Elgin Street to the west and two other parking lots and a trail through parkland to the east, in the alignment of a pipeline easement. It should be retained and include a walkway/recreational trail lined by trees, pedestrian-scaled lighting and other amenities.

Opportunities

1. The bus terminal should be reconsidered for the following reasons:
   a. Bus idling and traffic leads to a less desirable environment.
   b. John Street already suffers from being treated as an alleyway. Additional bus traffic will reinforce this a poor street and site condition.
   c. This is a prime development site that can support a midrise building.
2. The parking lot should be redeveloped as a prime downtown site while maintaining a continuous east-west pedestrian connection along the pipeline easement.
3. Building infill and redevelopment opportunities exist at the north end of the block where existing single and two-storey building fabric may be subject to transition over the mid to long term. The following criteria apply:
   a. The views to the east (Knox Presbyterian Church) and west (City Hall) should be protected through a stepback.
   b. The fine grain of loosely-spaced entrances should be maintained.
   c. Garage entrances should be located on James or John Street.
4. High rise is an exception in this area of the Downtown, buildings not exceeding 8 storeys in height are recommended.
5. Additional amenity areas in the form of public courtyards or private outdoor spaces should be provided as part of redevelopment.
6. The mid-block pedestrian walkway over the pipeline easement should be developed as an enhanced amenity area framed by strong landscape edge treatments in conjunction with surrounding development. If the site develops without the Bus Depot, the mid-block walkway should be framed by low-rise building edges which should include retail at grade and office and/or residential above.



Pedestrian walkway through the block looking west.



South of James Street between John and Brant Street.

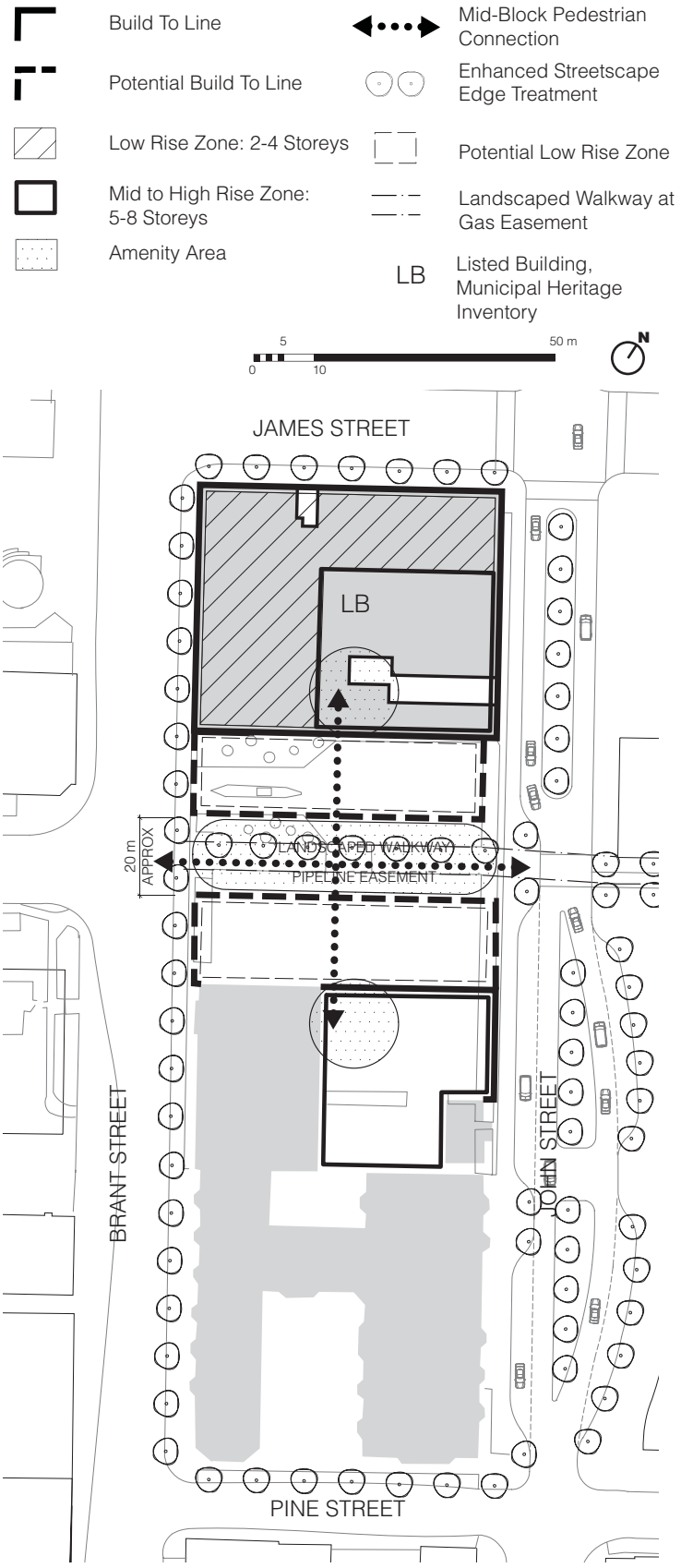


John Street looking north. Block 10 at left.



Brant Street at James Street looking south.

FIGURE 49: *Block 11 Plan*



7.12 Block 12

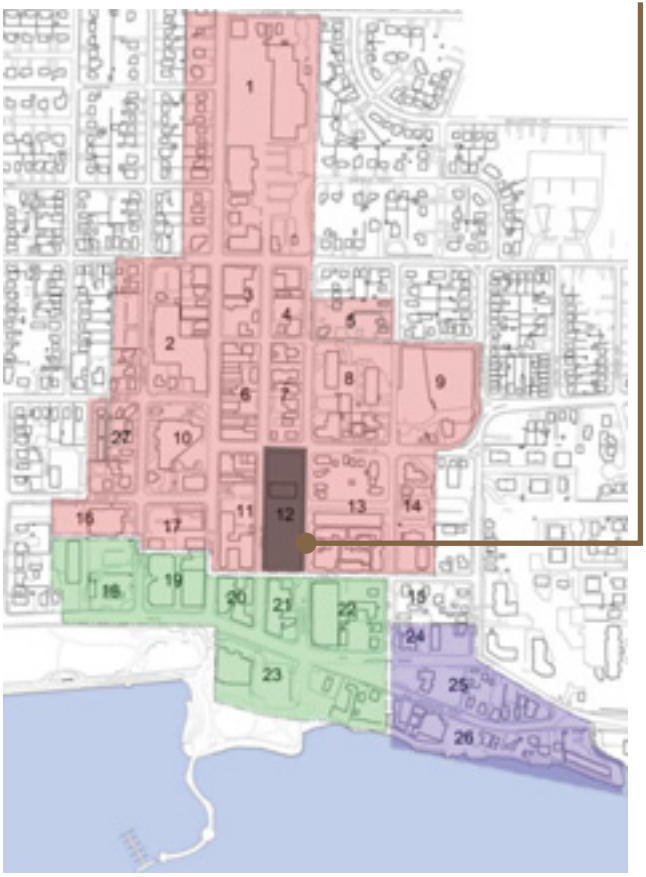


FIGURE 50: Block 12: *Existing*



FIGURE 51: Block 12: *Potential Building Envelope*



7.12 Block 12

Boundaries

- John Street
- Elizabeth Street
- James Street
- Pine Street

Characteristics and Issues

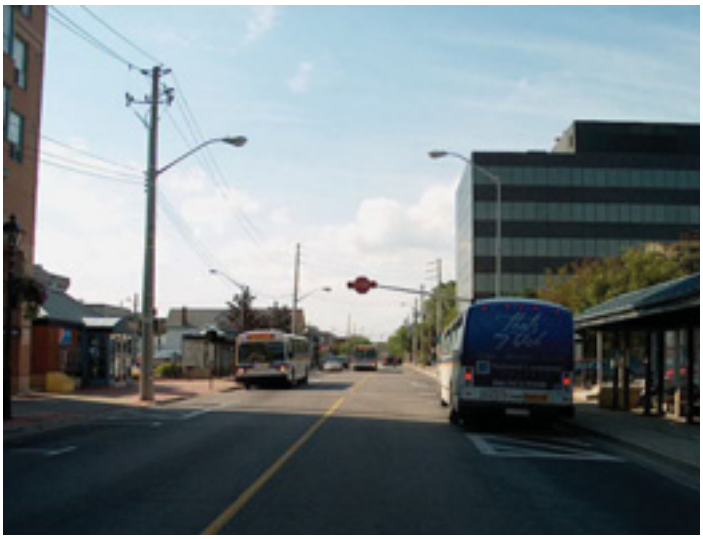
1. The block is mostly occupied by parking lots with the exception of a 6-storey office building just north of the pipeline easement. The office building has a blank façade to the north, presumably to accommodate a future addition.
2. The parking lot located to the north of the building is privately owned, but the southern lot (lot #4) is a municipal lot.
3. The City of Burlington has initiated an RFP process to build an office building with underground parking south of the existing office building.
4. The absence of development on Lot 4 allows views to Village Square from the west.

Pedestrian Connections

1. Due to the lack of development, the site is very permeable, particularly on an east-west axis. The pipeline easement, aligned with Elgin Street, is an important connection which should be retained and improved through redevelopment.

Opportunities

1. Redevelopment of both parking lots would have a positive effect on the continuity of all the adjacent streets.
2. Redevelopment on the north parking lot should maintain views to the Knox Presbyterian Church to the east. The new building can be built as an addition to the existing building on the site.
3. As part of this addition, the existing building should be reclad in a more transparent and contemporary material.
4. Redevelopment on the south site should maintain views to Village Square, for example through two narrow-floorplate buildings instead of one large building.
5. Servicing should be internal to each development block.



John Street north of Pine Street looking north.



Southeast corner of Elizabeth and Pine Streets looking north.

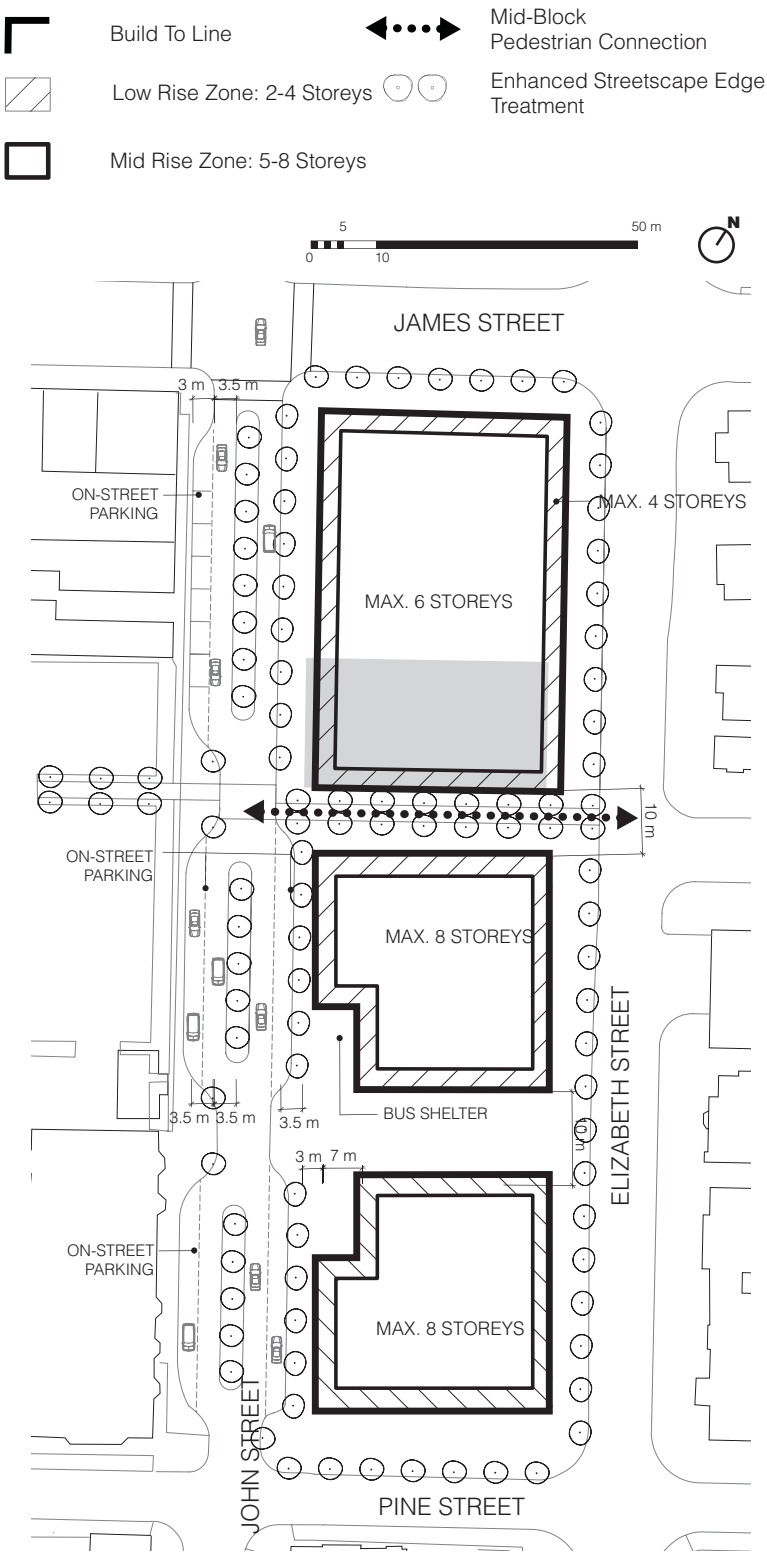


Looking west through the block, south of the existing office building.



Elizabeth Street at midblock looking north.

FIGURE 52: *Block 12 Plan*



7.13 Block 13

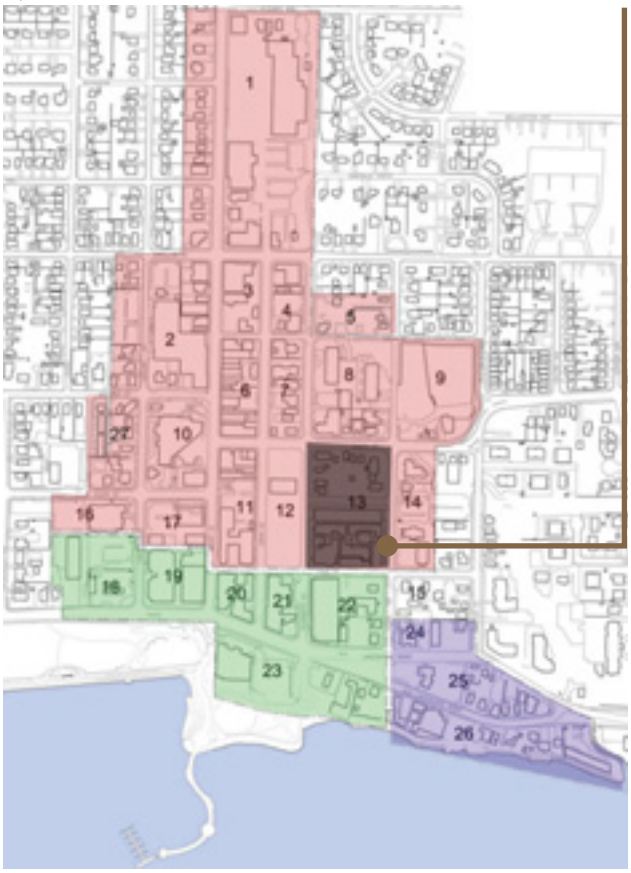


FIGURE 53: Block 13: *Existing*



7.13 Block 13

Boundaries

- Elizabeth Street
- Pearl Street
- James Street
- Pine Street

Characteristics and Issues

1. This block is composed of two distinct sub-areas separated by the pipeline easement:
   a. To the north: low density fabric with a vacant site on Elizabeth Street, long yards resulting in an unbuilt centre of block, and anchored by the Navy League of Canada housed in a former church on the corner of Elizabeth and James Streets. The two former homes south of the Navy League include retail and restaurant uses. Several buildings in the northern portion of the block are listed:

      437 Elizabeth Street: The Mortimer House, 1855

      441 Elizabeth Street: 1927

      451 Elizabeth Street: The Former Methodist Episcopal Church, 1868

      2046 James Street: 1915

      2050 James Street: before 1910

      436 Pearl Street: 1910

   b. To the south: a condominium building built along the southern edge of the pipeline easement. A colonnade wraps around the building but due to its depth, the ground floor retail units have poor visibility and are mostly vacant. The Village Square complex is a unique mix of old and new buildings on a network of narrow mews walkways. The complex is now largely vacant and suffers from poor permeability and legibility from its edges.
   c. The easement itself is occupied by a city-owned parking lot.

Pedestrian Connections

1. The pipeline easement accommodates a narrow east-west pedestrian connection.
2. A connection exists between the Village Square and the condominium to the north.
3. Village Square itself is permeable, but connections are maze-like and suffer from poor legibility and curb edges that create narrow walkways.

Opportunities

1. The north end of the block can be redeveloped, but the former church should be retained as a local landmark. In the interim, the value of listed houses on the block would greatly improve with the removal of later additions and a return to original cladding materials and elements.
2. New development should provide a positive edge onto the easement. Elizabeth Street and Pearl Street buildings should have retail units and/or restaurants at grade.
3. The pipeline easement should be developed into a linear urban park with planters, benches and textured paving. Access should be provided to the centre of the block for service vehicles.
4. A clear through connection should be provided between the easement and Village Square through the existing condominium building.



View through the pipeline easement and municipal parking lot to the west.



Northwest corner of Pearl and Pine Streets.



Vacant site and Navy League building on Elizabeth Street looking north.



Pearl Street just south of James Street looking north.

Village Square

Issues

The complex is difficult to decipher for pedestrians, particularly visitors. Its amenities are not visible from the street as entrances are narrow and sightlines short. This is compounded by the high vacancy rate. Once inside, outdoor spaces are small. Streets are narrow and made even narrower with stone curbs.

Opportunities

The complex would lend itself well to artists' studios with exhibition space since they rely less on pass-through traffic and can create their own 'buzz' that would attract visitors to the Square. Art shows and events can also be planned. Over time, the area can be expected to create its own vibe and attract other complementary uses to the neighbourhood.

Proposed Modifications

The following modifications are aimed at drawing visitors into the complex, establishing stronger sightlines, increasing pedestrian comfort and providing opportunities for additional outdoor programming within the Square.

1. Widen Entrances

   Where possible, additions to buildings should be removed to widen entrances. An opportunity to do so exists in the short term on the Elizabeth Street edge of the Square. On the south side, the staircase should be moved so as not to obstruct the entranceway into the Square. On the east side, the gate should be widened or removed altogether.

2. Enlarge the central courtyard

   Through the removal of the central building - or a portion thereof - the internal courtyard can be widened to accommodate a large patio and significant landscaping, thus facilitating movement between buildings and seasonal patios. The existing fencing and gazebo should be replaced with moveable furnishings to adapt to the season and a variety of events.

3. Remove the stone ledges

   The stone ledges should be removed to facilitate clear pedestrian walkways.

4. Standardize the paving

   Over time, a variety of paving styles have been introduced in the Square. A single 'Village Square' paving material should be selected.

5. Replace Light Posts with Fixtures

   Light posts located in the centre of walkways contribute to visual clutter and should be replaced in most places with fixtures affixed to façades.

6. Introduce Contemporary Elements

   Historic districts, particularly in Europe, have successfully introduced contemporary architectural elements and street furnishings to enliven and lighten the overall character of an area. This strategy could be pursued here – particularly in the light of the Square's mixed heritage pedigree.

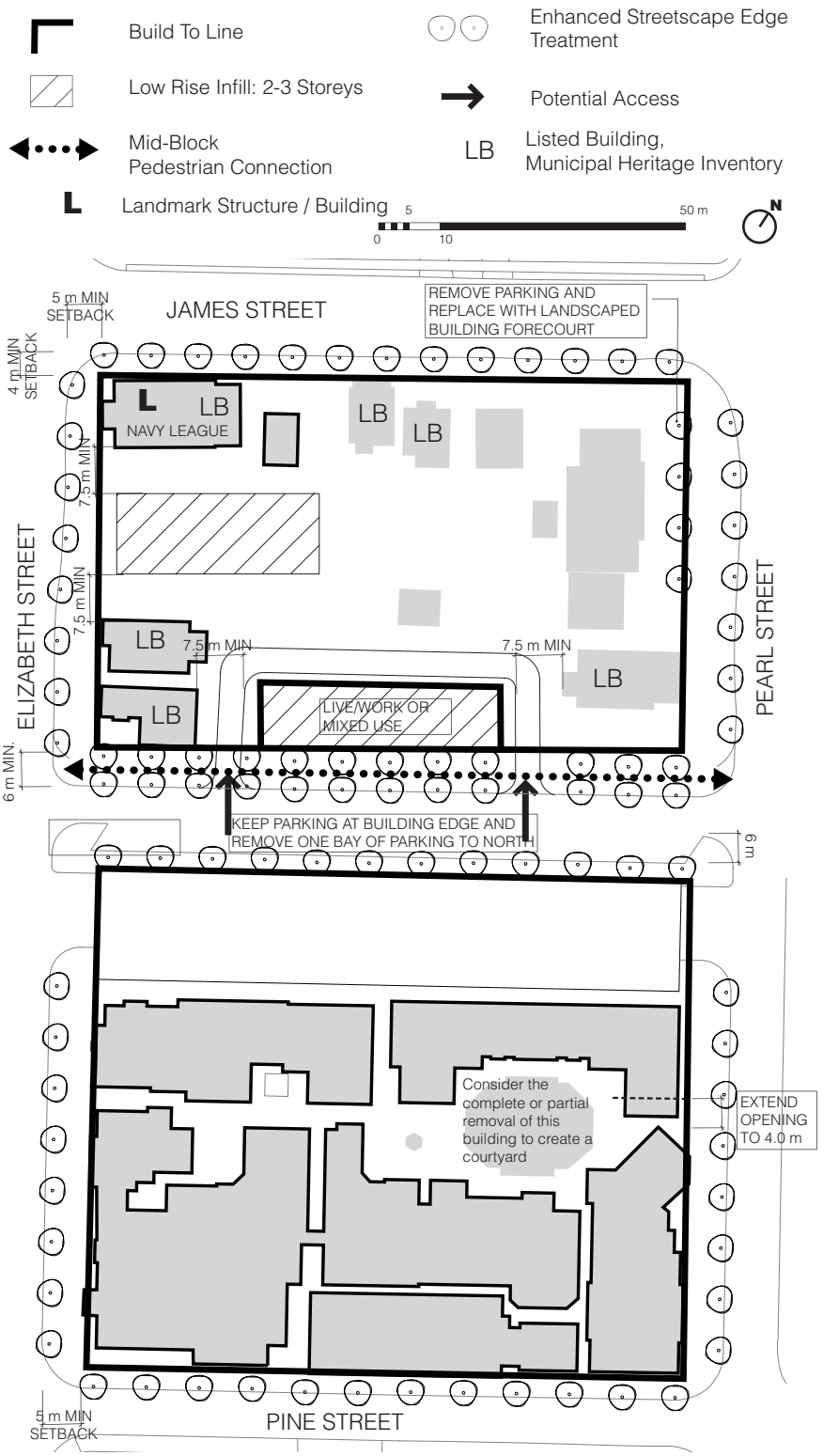
6. Adopt a Landscaping Strategy

   A variety of plantings including planters and flower boxes should be introduced to create a consistent planting image for the Square.

Other Recommendations

1. Protocols should be established for maintenance and storage to ensure a positive appearance year-round.
2. As windows are replaced, real mullions should be used for a sense of authenticity.

FIGURE 54: *Block 13 Plan*





Introduce additional landscaping, e.g. planters to furnish the space.

Preserve tree.

Remove addition to enhance sightlines and widen entrance.

Introduce landscaping at edge of buildings.

Select one paving type.

Remove bump-outs.

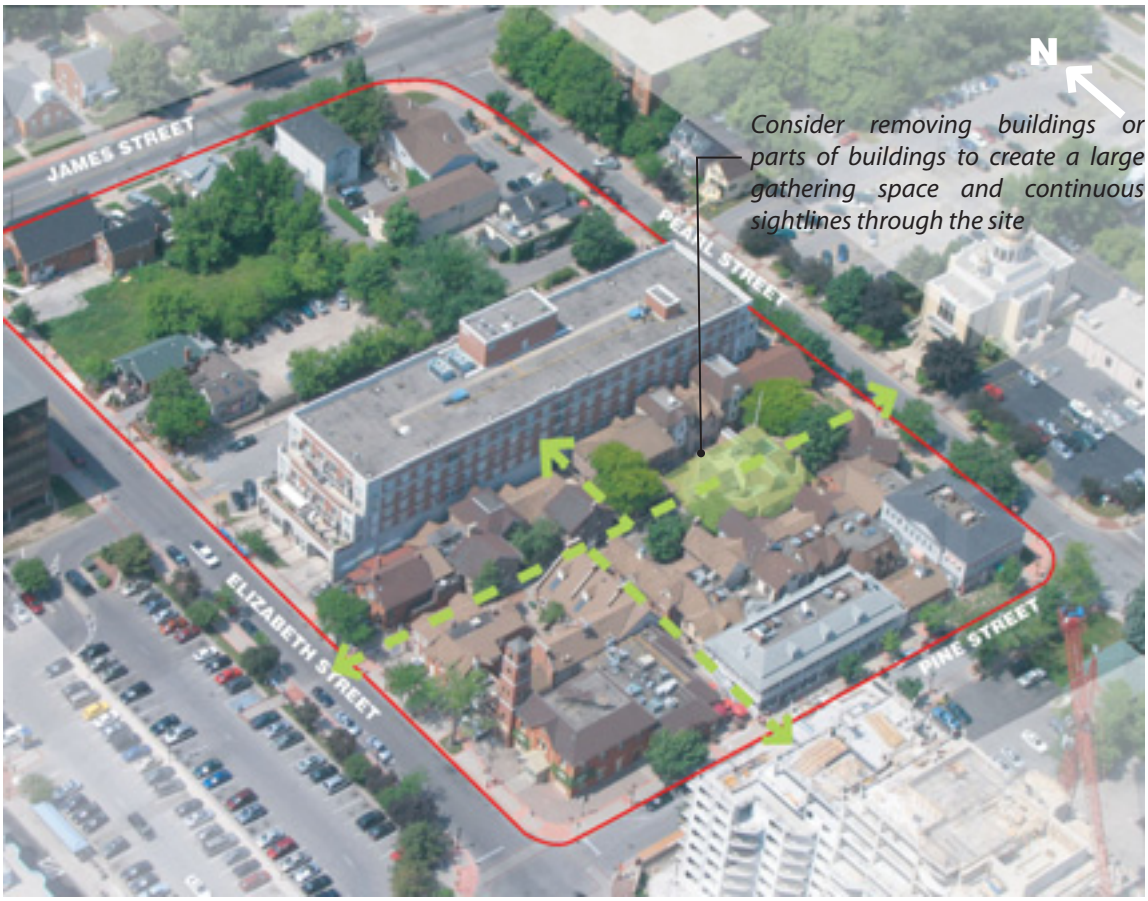


All doors should be transparent.

Add planter boxes.

Remove sidewalks and introduce benches.

FIGURE 55: Block 13: *Existing with Circulation*





7.14 Block 14

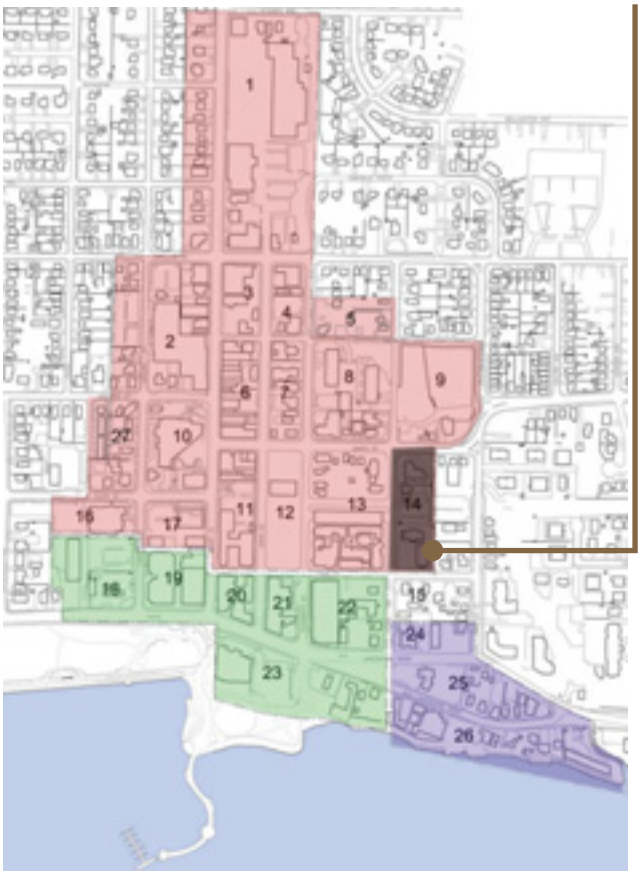


FIGURE 56: Block 14: *Existing*



7.14 Block 14

Boundaries

- Pearl Street
- James Street
- Pine Street
- Straight line down middle of block from James to Pine

Characteristics and Issues

1. This block includes an apartment building on the southeast corner of James and Pearl Street with parking at the rear. Grade differences allow some parking to be located within the building but hidden from the street.
2. South of the apartment building are two small Victorian houses used as retail stores which are listed. 431 Pearl St. was built in 1860, and 435 Pearl St. in 1866.
3. Further south is a large private parking facility that spans the block from west to east in the gas easement alignment.
4. The south end of the block is occupied by the Holy Protection of the Blessed Virgin Mary Ukrainian Catholic Church, a church hall and a parking lot.

Pedestrian Connections

1. The parking lot extends the east-west pedestrian connection that intersects the entire downtown and abuts Martha Street in the alignment of the trail system.



Stores in houses on Pearl Street.

Opportunities

1. The apartment building can be redeveloped with a full level of underground parking that takes advantage of the grade difference.
2. Access to the creek should be preserved and its edges naturalized.
3. The Victorian houses contribute to the character of the street and could be maintained in a larger-scale development or added to.
4. Pearl Street is emerging as a specialty retail street. This character should be extended with built form that maintains and further fosters small retail units with clear frontage onto Pearl Street.
5. The parking lot could be developed on either side of the pipeline easement.
6. The creek should be daylighted where it is channelized and buried.
7. The church hall could be redeveloped to occupy the corner and provide underground parking. The space thus liberated can be transformed into amenity space for the Church.



Rear of apartment building and edge of the creek on the corner of Pearl and James Streets.

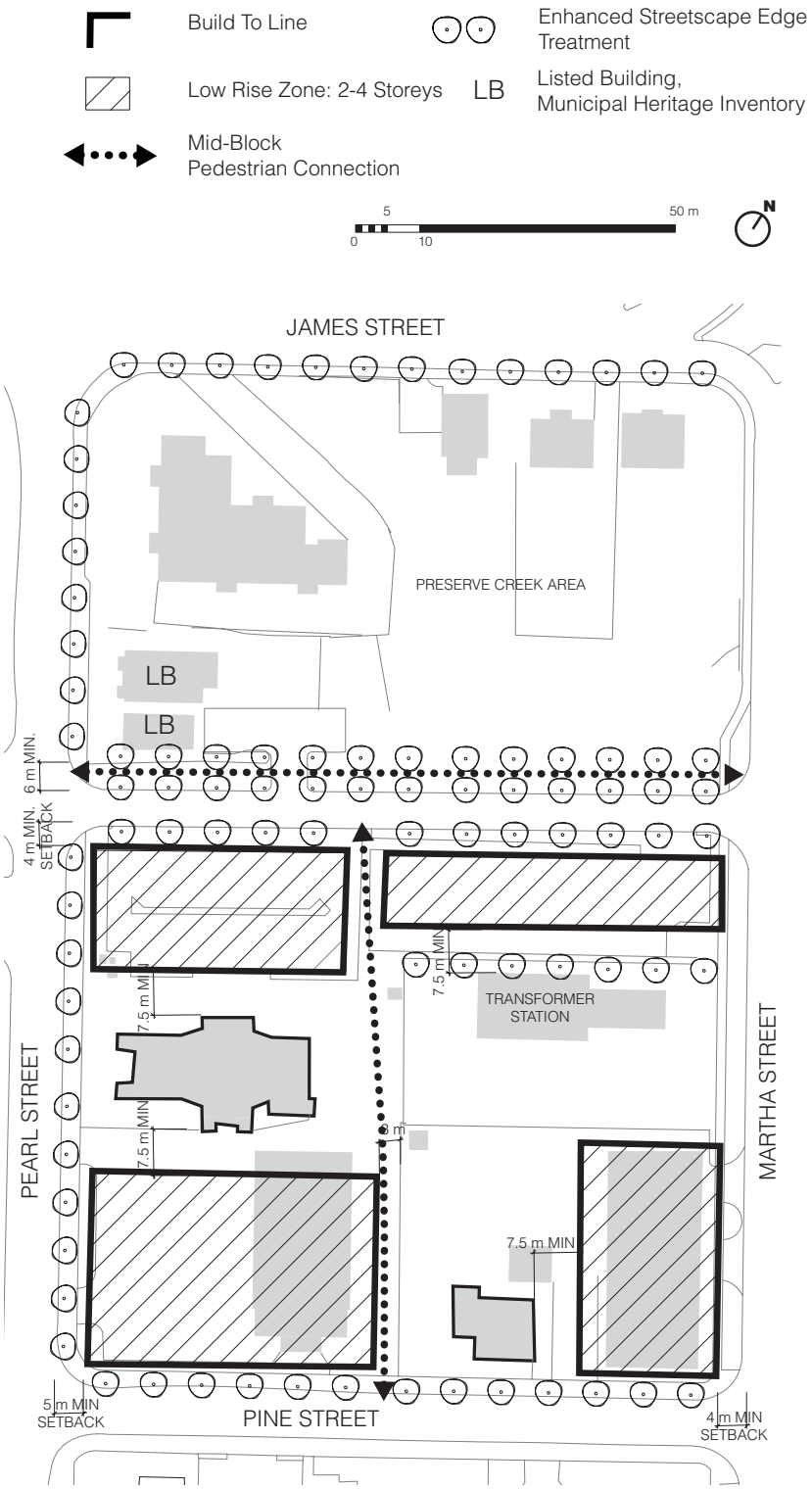


Mid-block parking lot looking west.



Ukrainian Catholic Church on the corner of Pine and Pearl Streets.

FIGURE 57: *Block 14 Plan*



7.15 Block 15

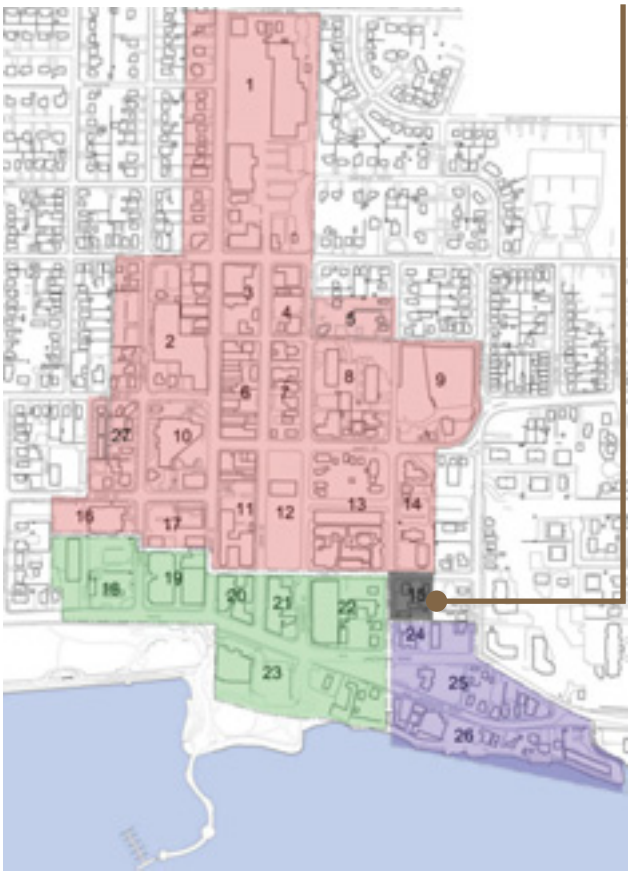


FIGURE 58: Block 15: *Existing*



7.15 Block 15

Boundaries

- Pearl Street
- Martha Street
- Pine Street
- Midblock

Characteristics and Issues

1. The north half of this block has been cleared to prepare for the construction of the "Pine & Pearl" live-work townhouse project.
2. As a result of this approved development, no new opportunities exist on this block in the short term.
3. The south half of this block will be subject to further study prior to any development occurring.



Corner of Pearl and Pine Streets.



Cleared site on Pearl Street looking south.

7.16 Block 16

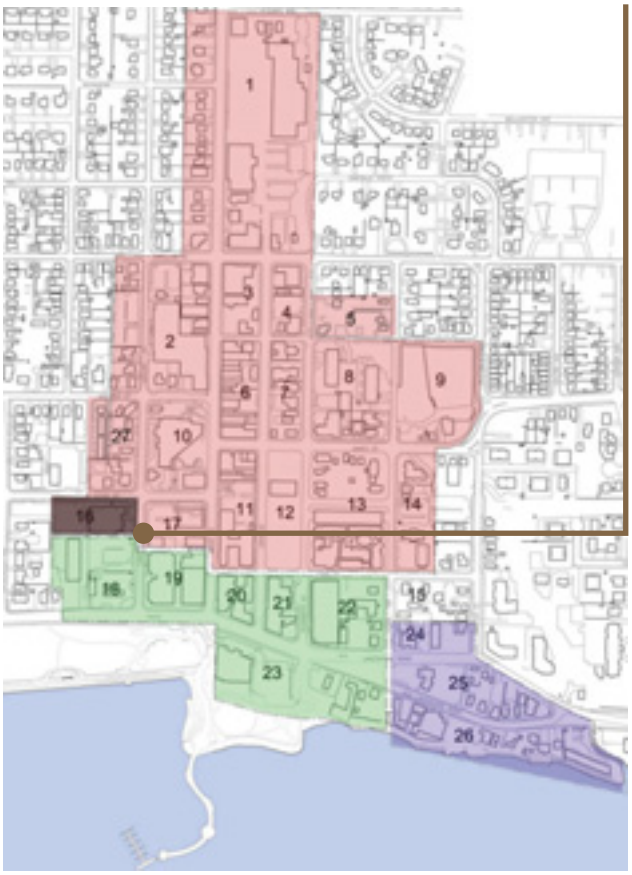
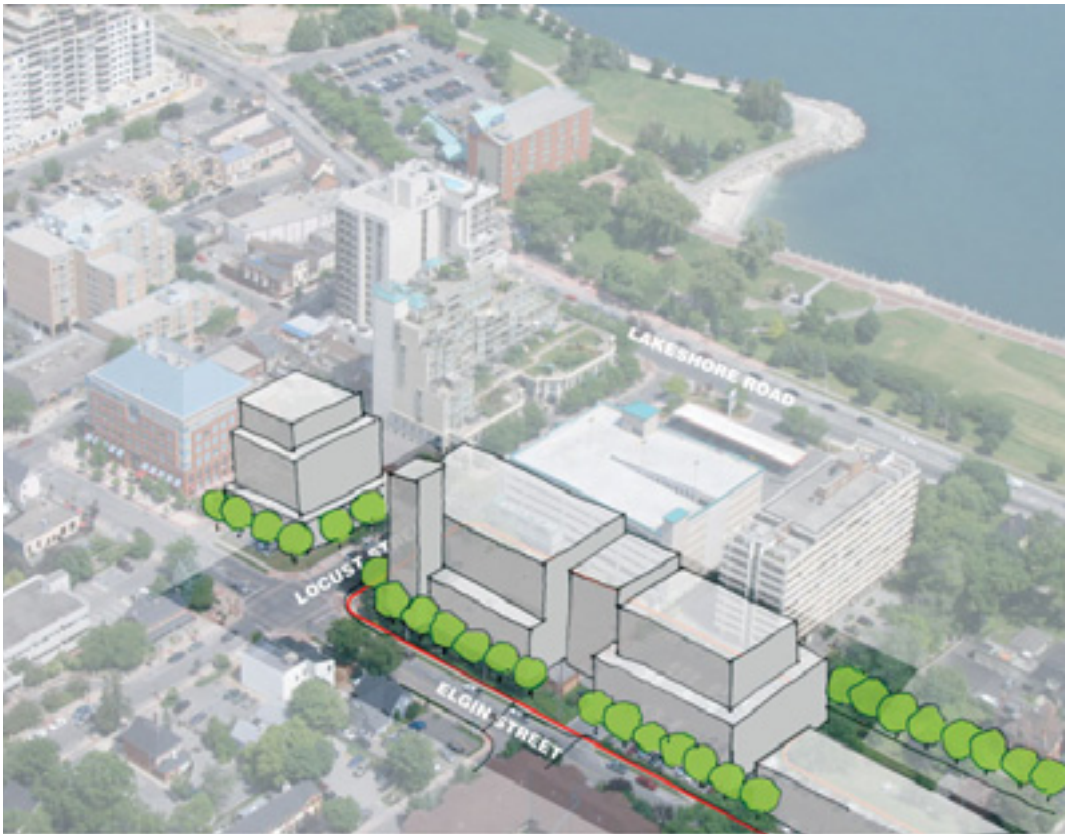


FIGURE 59: Block 16: *Existing*



FIGURE 60: Block 16: *Potential Building Envelope*



7.16 Block 16

Boundaries

- Burlington Avenue
- Elgin Street
- Locust Street
- Southern boundary of the Police Station site and the parking lot to the west

Characteristics and Issues

1. Block 16 includes the police station and a large parking lot.
2. The blank façade of the police station and the unscreened parking lot create an unattractive edge on this important east-west connection between residential neighbourhoods and the Downtown Core.
3. This site has been proposed to house the new Performing Arts Centre and a separate consultation and design process has begun.
4. The southern boundary of the block includes an east-west walkway which dead-ends.

Pedestrian Connections

1. The site does not offer pedestrian connections outside of the ability to walk in the parking lot in a parallel line to Elgin Street.

Opportunities

1. The mass of the potential Performing Arts Centre should be focused on the eastern part of the site and transition down towards low-density neighbourhoods to the west.
2. The building should be horizontally and vertically articulated to mitigate its height and bulk.
3. A transparent façade at grade with retail or public spaces should face Elgin Street.
4. A taller landmark feature is desirable on the southwest corner of Elgin and Locust Streets to frame the view to the Lake.
5. A pedestrian connection should be established to the high-rise building to the south and on to Lakeshore Road.
6. The northern edge of the development on Elgin Street should be highly animated and lined with trees. This is an important east-west connection through the entire downtown.
7. Two civic spaces can be created facing Elgin Street and the corner of Elgin Street and Locust Street.
8. On-street parking should be provided on Elgin Street as a traffic management and buffering measure, and to support potential street-oriented retail in this area.
9. Towards the west, ground oriented residential development not exceeding 2.5 storeys would create an appropriate transition to properties to the south and west.
10. The new development should allow for a landscape buffer to the south.

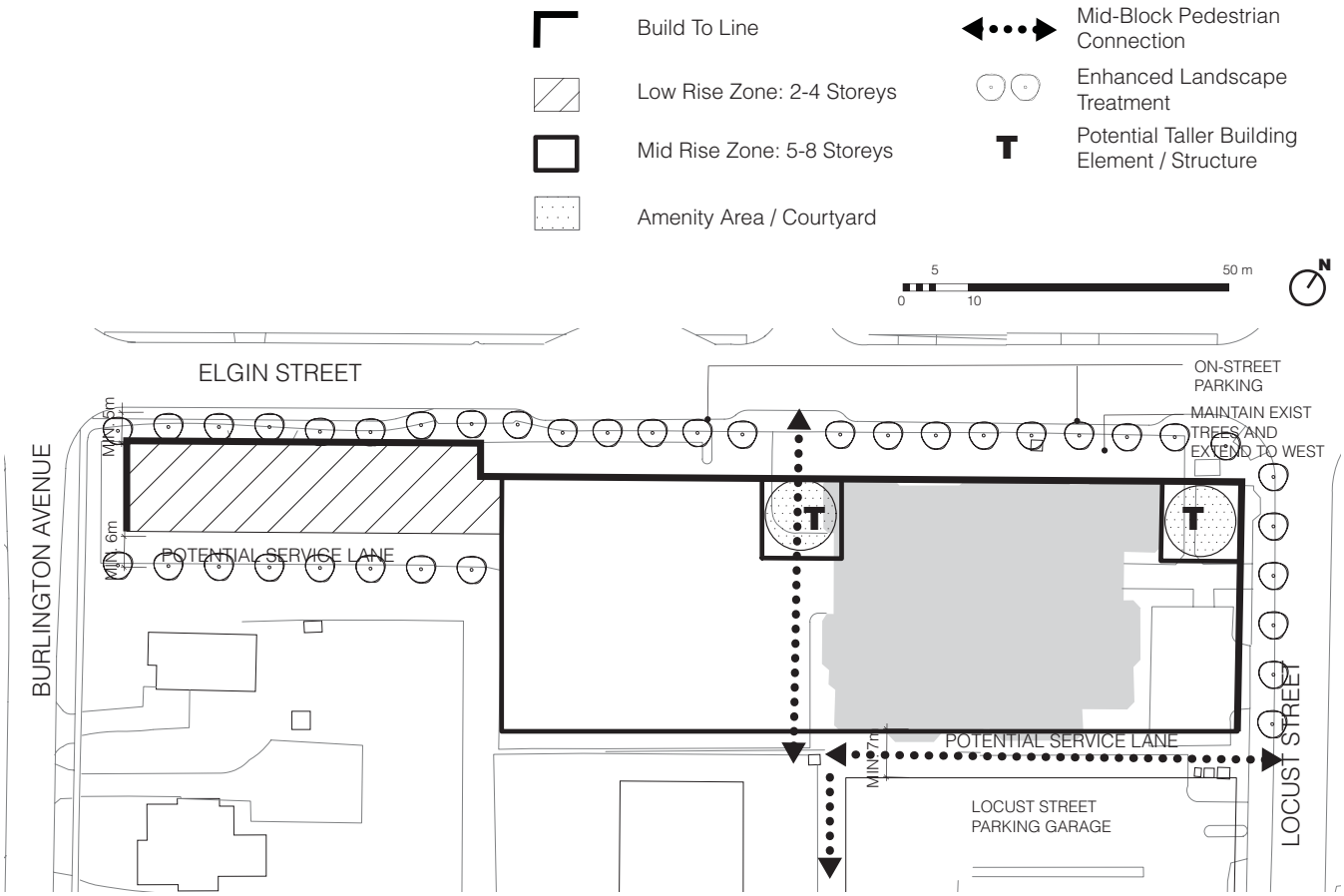


Northeast corner of Locust Street and Elgin Street looking south.



Elgin Street at midblock looking east.

FIGURE 61: *Block 16 Plan*





Northwest corner of Elgin Street and Burlington Avenue looking east.



Elgin Street at Burlington Avenue looking east.

7.17 Block 17

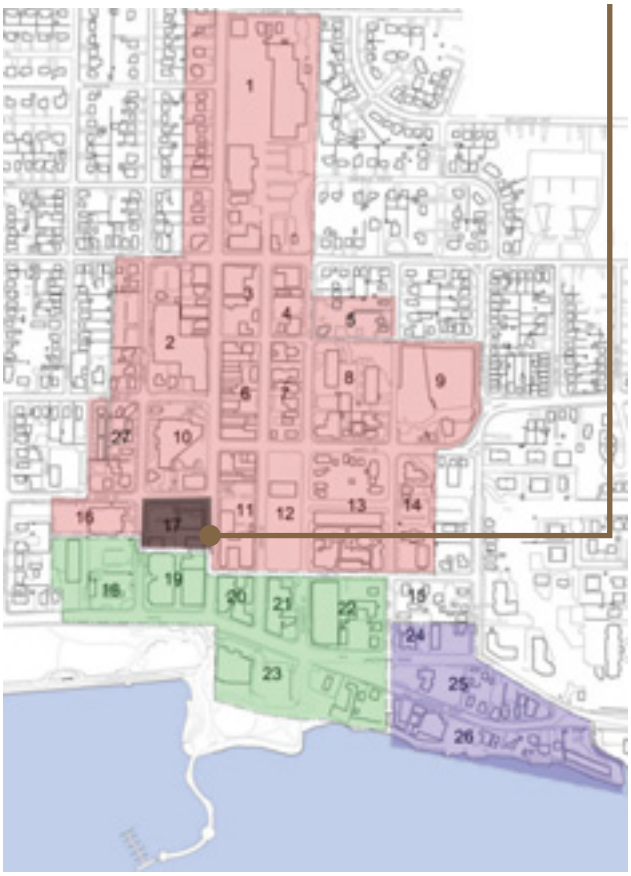


FIGURE 62: Block 17: *Existing*



7.17 Block 17

Boundaries

- Locust Street
- Brant Street
- East-west midblock laneway
- Elgin Street

Characteristics and Issues

1. This block is primarily occupied by an office building completed in the 1990s and a vacant site expected to be developed with a second phase of the adjacent building.
2. South of these uses on Locust are two house-form buildings occupied by stores and restaurants. The recent condominium building on the northeast corner of Lakeshore Road and Locust Street was designed to step down to match the height of the house. On Brant Street, the 2-storey commercial building south of the recent office building is listed (1864) and completes a continuous series of storefronts from the corner of Brant Street and Lakeshore Road.

Pedestrian Connections

1. An informal east-west connection exists south of the office building. It should be retained and formalized.
2. Pedestrians also cut the corner through the parking lot from Locust Street to Elgin Street.



Interface with condominium building on Locust Street.

Opportunities

1. The parking lot is an excellent development site that would complement the potential Performing Arts Centre on the other side of Locust Street.
2. New development should either include the redevelopment of the house to the south of the vacant site or step down as the condominium building to the south.
3. A pedestrian connection should be formalized between Locust Street and Brant Street.
4. The opportunity exists for an amenity courtyard between the existing office building and a new phase, connected to an east-west pedestrian connection leading to the proposed Performing Arts Centre.
5. The 2-storey listed building to the south of the office building on Brant Street should be preserved in conjunction with adjacent buildings to the south forming a continuous retail façade.



Office building on the southwest corner of Brant and Elgin Streets.

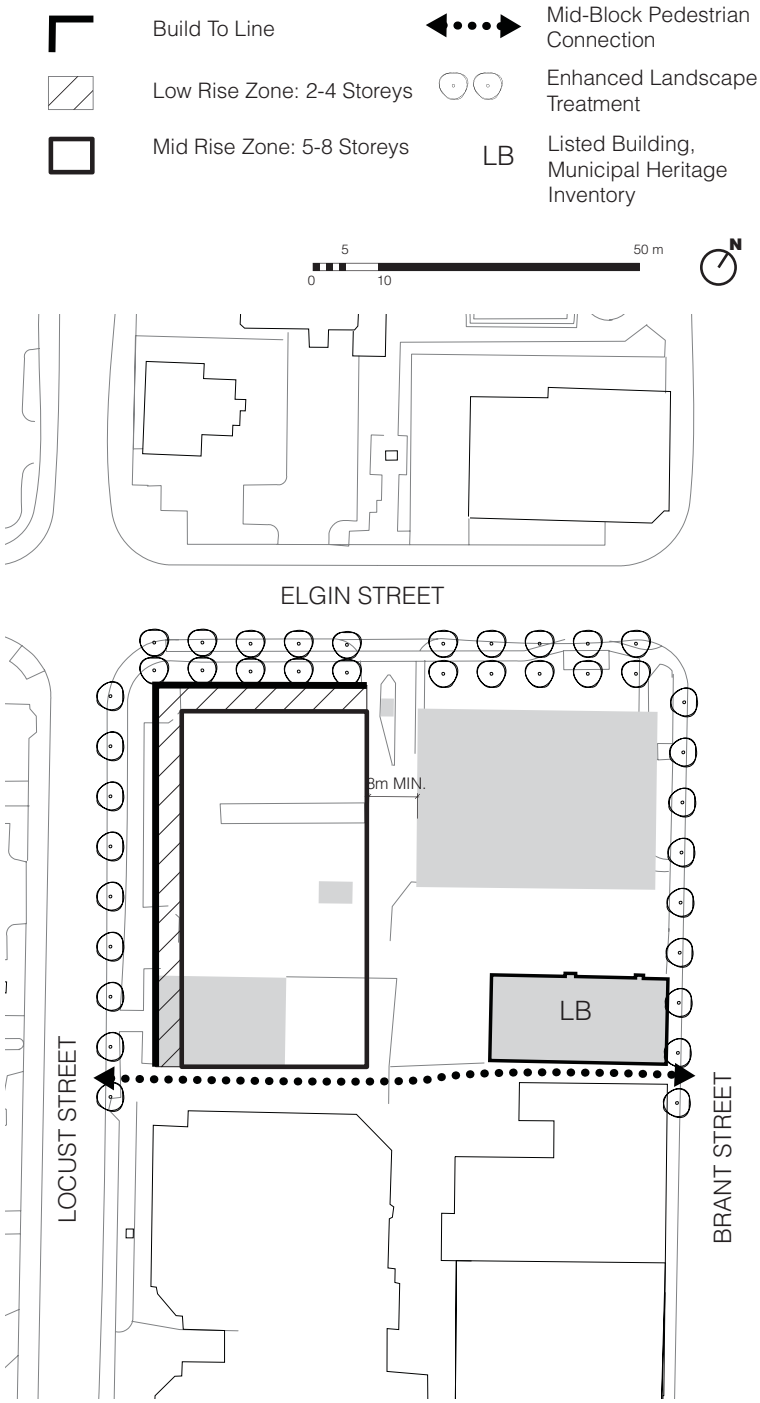


The block seen from the west.



Parking lot at rear of houses facing onto Locust Street.

FIGURE 63: *Block 17 Plan*



7.18 Block 18

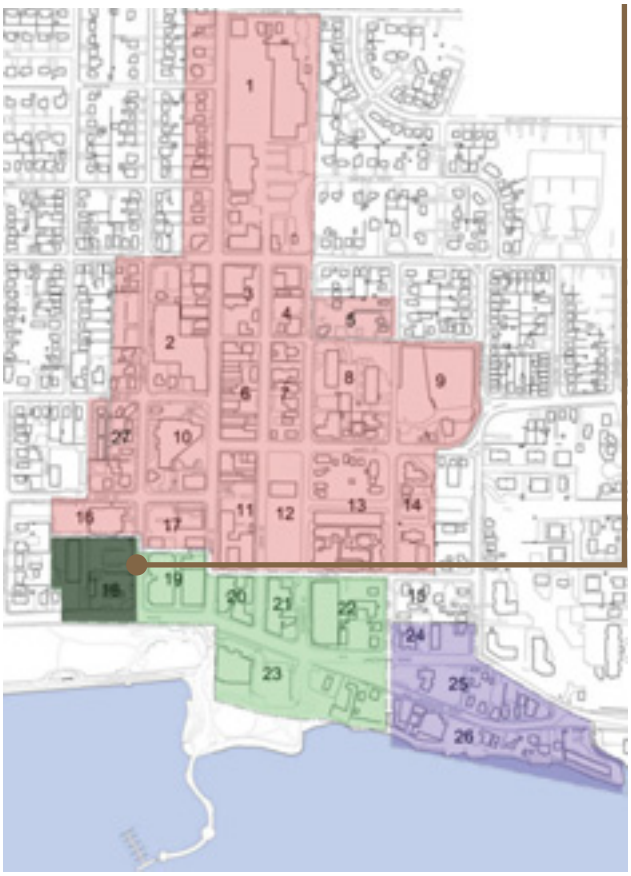


FIGURE 64: Block 18: *Existing*



FIGURE 65: Block 18: *potential building envelope*



7.18 Block 18

Boundaries

- Western property line of apartment tower
- Northern property line of apartment tower and Locust Street parking garage
- Locust Street
- Lakeshore Road

Characteristics and Issues

1. Primarily occupied by stable properties: an apartment building sited perpendicularly to Lakeshore Road and surrounded by surface parking, and the municipal Locust Street parking garage.
2. The west side of the parking garage presents a blank façade to the residents of the adjacent apartment tower.
3. The only potential development site in this block is an Esso gas station and car wash on the northwest corner of Brant Street and Lakeshore Road.

Pedestrian Connections

1. Redevelopment should incorporate a north-south pedestrian walkway connection to align with those proposed/existing in Block 16.

Opportunities

1. The Esso station occupies a prime site at the corner of two of Burlington's most important and well-known streets. It could be redeveloped into a mixed-use building composed of one or even two tower elements on a street-related podium.
2. Building heights should transition between the highest at the north end of the site, stepping down to the south to create tiered buildings on top of a low-rise building podium.
3. The corner of a new building should be designed with great care as it forms a view terminus coming from the east on Lakeshore Road.
4. Vines or a mural should be considered to present a more positive side of the parking garage to the west side.
5. The removal of a driveway to the Esso station on Lakeshore Road should be considered to reduce traffic impacts and allow a continuous green frontage.



Lakeshore Road just west of Locust Street looking east.



Lakeshore Road at midblock looking east.

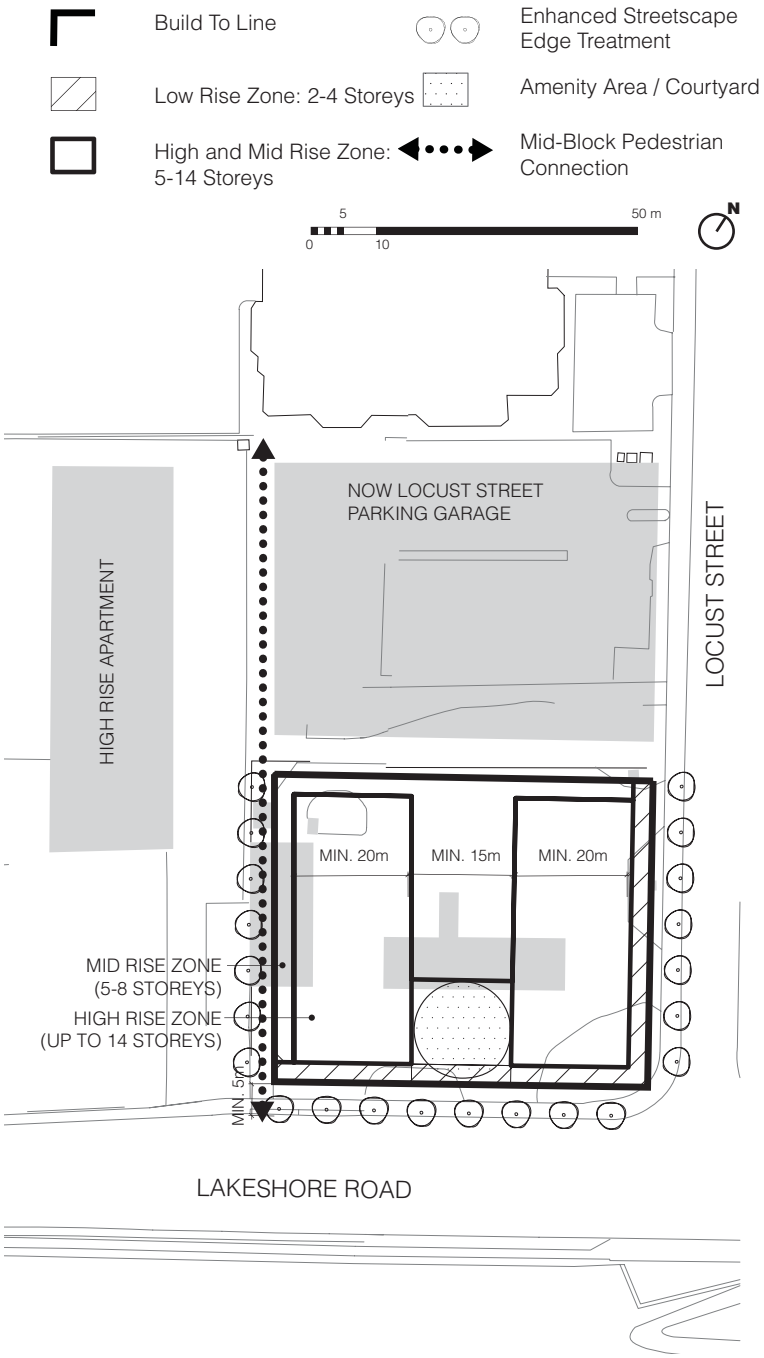


Looking south through the block.



Looking west through the block.

FIGURE 66: *Block 18 Plan*



7.19 Block 19

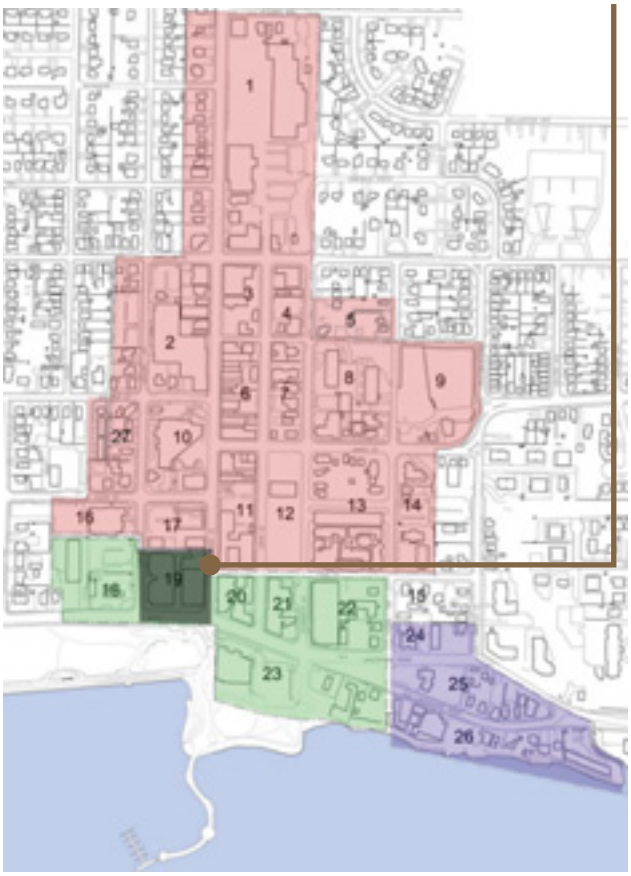


FIGURE 67: Block 19: *Existing*



7.19 Block 19

Boundaries

- Locust Street
- Brant Street
- East-west laneway
- Lakeshore Road

Characteristics and Issues

1. Primarily occupied by two recent condominium buildings.
2. To the north of the "Bunton's Wharf" building, a series of one and two-storey century-old "Main Street" buildings remain with a narrow setback preventing tree planting. These buildings form a consistent and continuous commercial edge typical of the earlier character of Downtown Burlington:

   368 Brant Street: The Bell - Wiggins Boot and Shoe Store, 1867

   370 Brant Street: The Office of the Burlington Gazette, 1900

   372 Brant Street: The Williamson Furniture and Undertaker Business, 1877

   380 Brant Street: The Hotel Raymond, 1864
3. From Brant Street the blank rear façade of the large condominium building facing Locust Street is highly visible.

Opportunities

1. The 2-storey "Main Street" buildings between the office building on the corner of Brant Street and Elgin Street and the "Bunton's Wharf" condominium building should be retained because of their significant contribution to the character of Downtown Burlington.
2. Buildings other than 380 Brant St can be replaced but their scale, massing and façade organization including fenestration should complement adjacent buildings, particularly 380 Brant, and the rhythm of entrances and transparency of the ground floor maintained.



The block seen from Lakeshore Road looking east.



The northwest corner of Brant Street and Lakeshore Road.



The south face of the block on Lakeshore Road.



Brant Street frontage.

7.20 Block 20

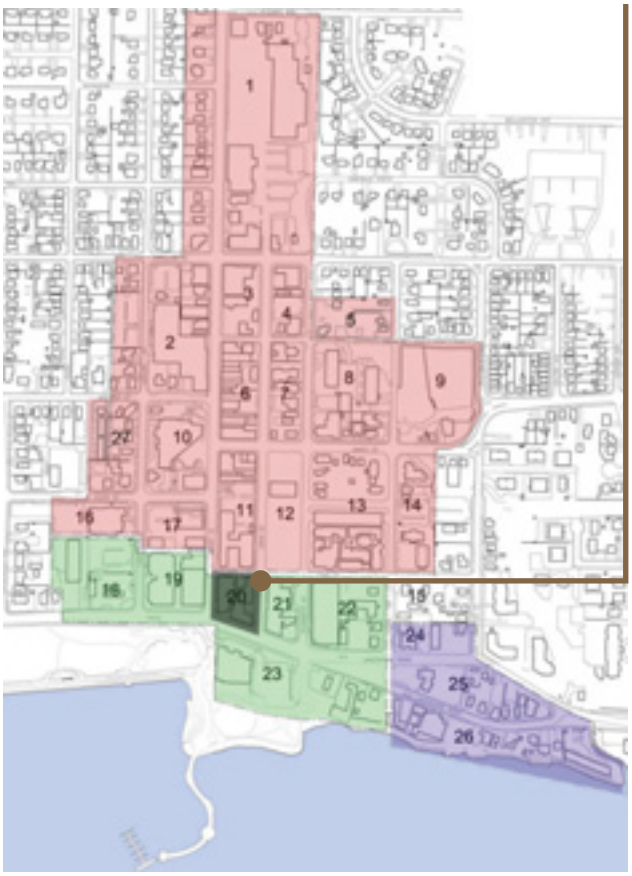


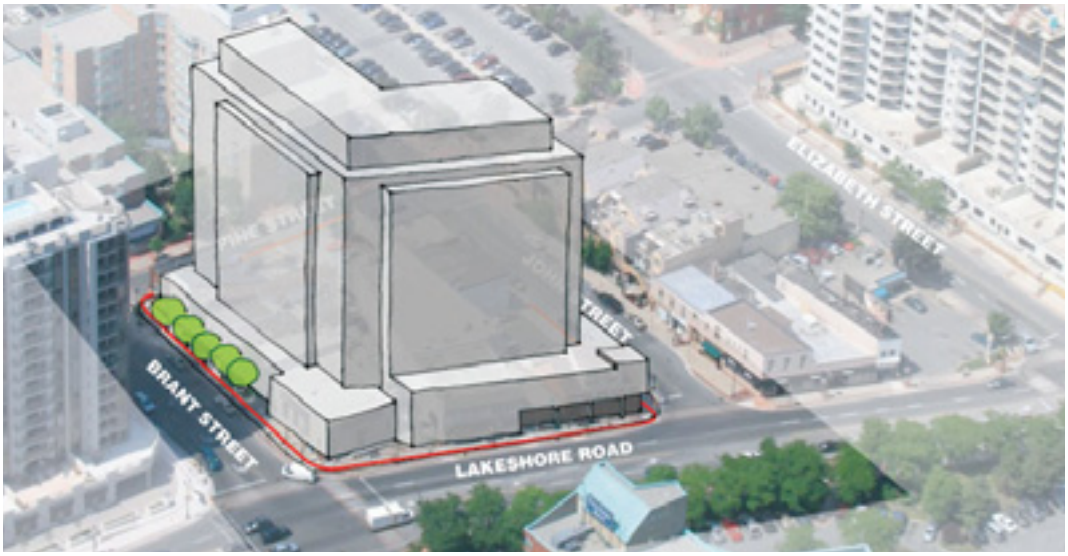
FIGURE 68: Block 20: *Existing*



FIGURE 69: Block 20-A: *Potential Building Envelope*



FIGURE 70: Block 20-B: *Undesirable Condition*



7.20 Block 20

Boundaries

- Brant Street
- John Street
- Pine Street
- Lakeshore Road

Characteristics and Issues

1. Block 20 is small, but important in the Downtown with full redevelopment opportunity. The potential to retain the Royal Bank façade with redevelopment should be considered.
2. An important view terminus from Lakeshore Road coming from the west.
3. Most buildings on this block are listed, for example the 1947 Royal Bank building on the southwest corner of the block and the 1881 "Shaver Building" on the southeast corner.
4. Only Brant Street and Lakeshore Road present a positive frontage. The Pine Street and John Street façades are fragmented and not representative of their potential.

Pedestrian Connections

1. An informal north-south connection exists through the block. Because of the small size of the block, it could be integrated through interior building circulation.



East side of Brant Street Just south of Pine Street looking south.

Opportunities

1. The block can be redeveloped to take advantage of its prominent location at a key intersection in the downtown.
2. New development of the block should 'replicate' the low rise scale and fine grain of retail entrances, rather than attempting to integrate existing façades that are part of early woodframe construction.
3. Façades on Lakeshore Road should recognize their view terminus from the west through projecting building bays and windows, and elements that emphasize corners and permit strong views along Lakeshore Road as well as southerly to the Waterfront Park and Lake.
4. An active frontage should be created on John Street and Pine Street with a consistent setback sufficient to plant a line of trees.
5. If the RBC branch site redevelops, a small parkette with plantings and benches should be incorporated near the corner of Brant Street and Lakeshore Road.
6. Servicing to the block should be internal to the block and access provided off of Pine Street.
7. An amenity space can be created on Pine Street as a result of redevelopment to match the similar space created by the condominium building to the north.
8. Any redevelopment of this block should include consideration of the heritage elements of the two buildings at either corner of Lakeshore Road.



Southwest corner of Brant Street and Lakeshore Road looking east.

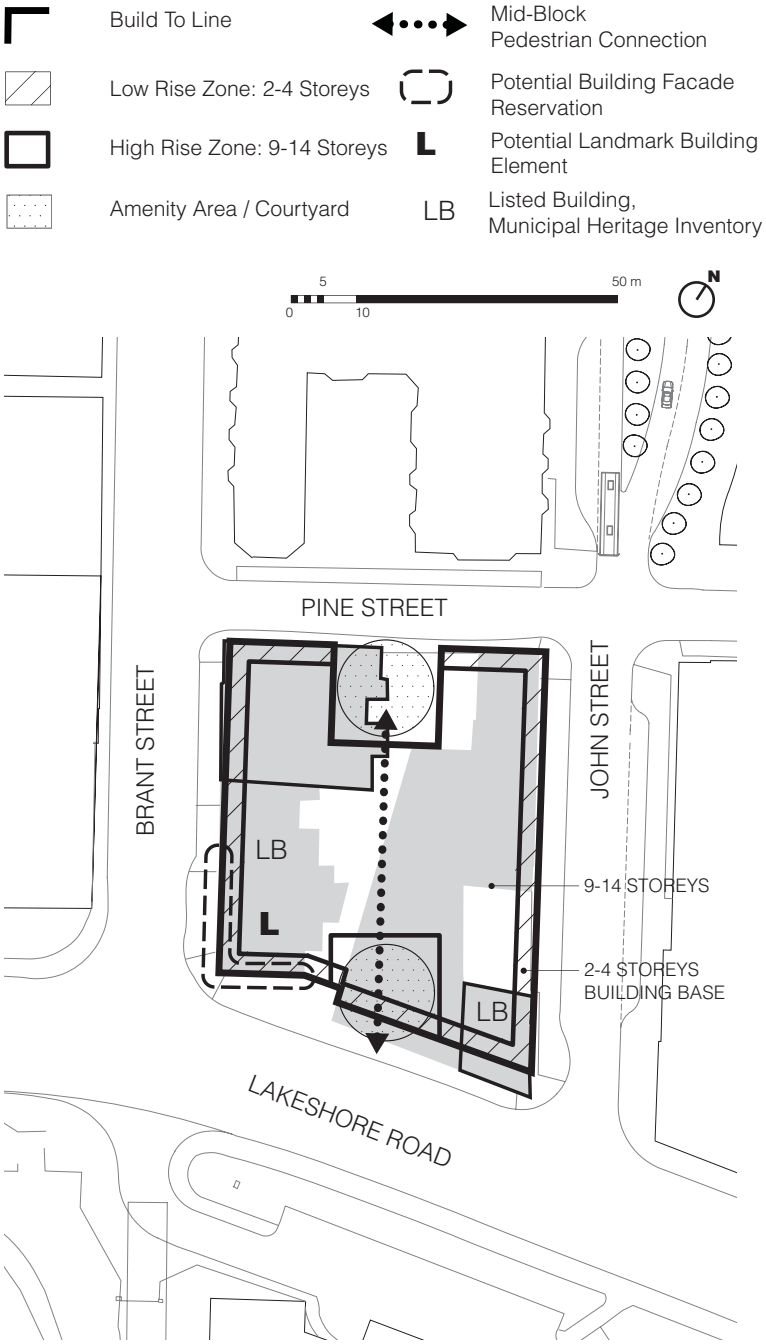


Lakeshore Road just west of John Street looking north.



John Street just north of Lakeshore Road looking west.

FIGURE 71: *Block 20 Plan*



7.21 Block 21

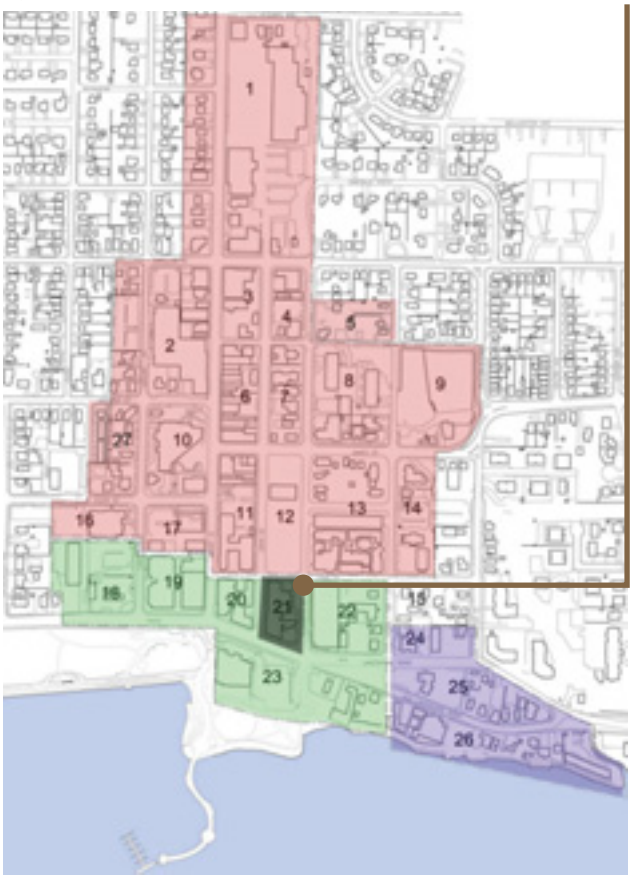


FIGURE 72: Block 21: *Existing*



FIGURE 73: Block 21-A: *Option A, Potential Building Envelope*

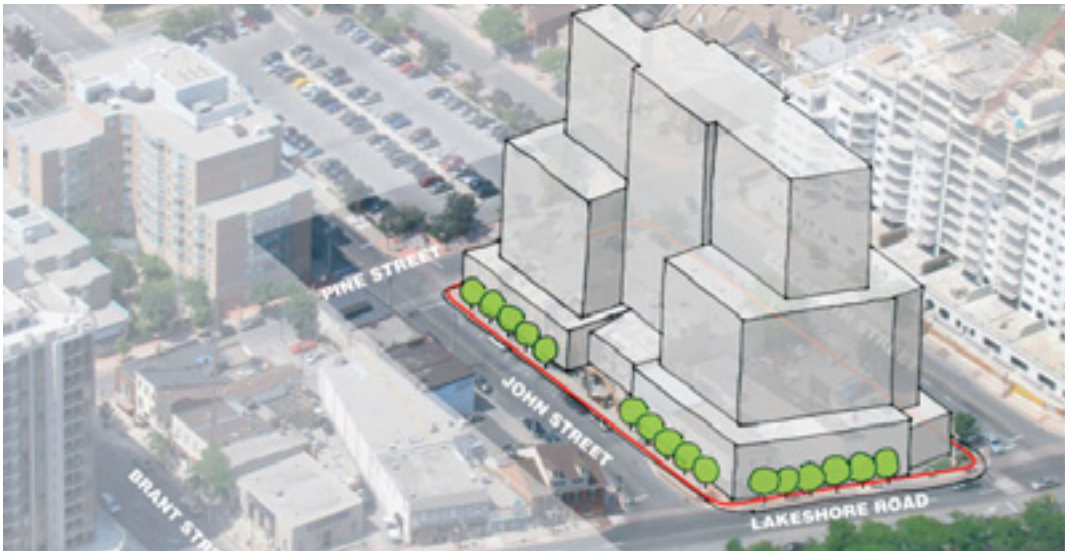
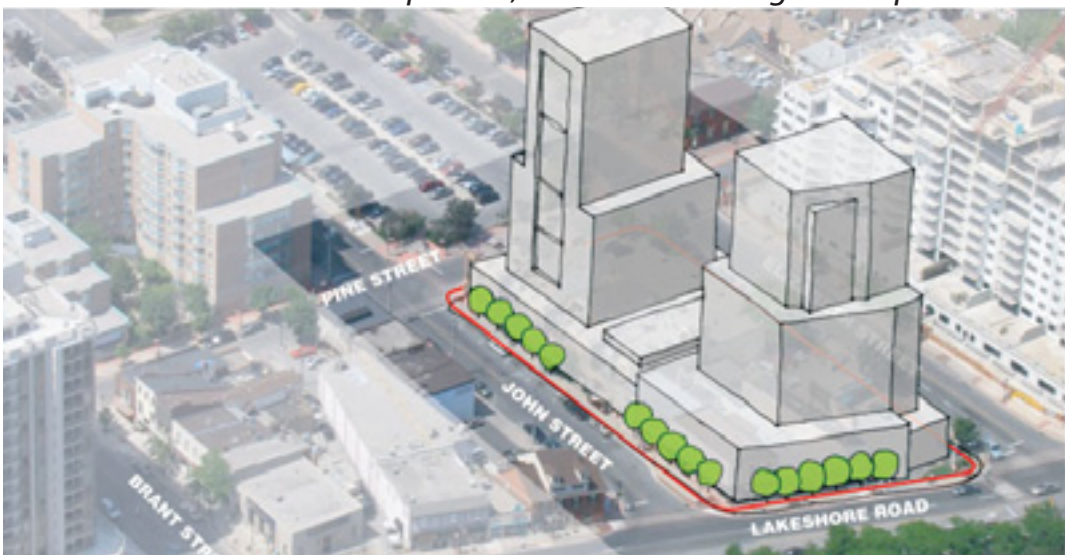


FIGURE 74: Block 21-B: *Option B, Potential Building Envelope*



7.21 Block 21

Boundaries

- John Street
- Elizabeth Street
- Pine Street
- Lakeshore Road

Characteristics and Issues

1. Primarily low-rise with:

a. 1980s stacked apartments on the northwest corner of the block with poor legibility at the street due to the absence of at grade entrances, blank façades and integrated parking and servicing at the street level.

b. A Beer Store with front yard parking on the northeast corner of the block.

c. Main Street type retail buildings on the southwest corner of the block: the original John Waldie General Store, built in 1865 and now listed.

d. A retail plaza with front and back yard parking on the southeast corner of the block facing Lakeshore Road.

Pedestrian Connections

1. An interior east-west connection could apply to Block 21.

Opportunities

1. The entire block could be redeveloped with the opportunity to integrate servicing within the block and present a more positive frontage onto all surrounding streets.
2. Due to the size of the block, two tower elements could be constructed on top of a single 2 or 3-storey podium with opportunities for a planted roof.
3. The John Street frontage could include a bus lay-by to accommodate a bus stop.
4. A landscaped plaza is proposed on the corner of Pine Street and Elizabeth Street to extend and strengthen the tree line along Pine Street.
5. Façades facing Lakeshore Road should be designed as a view terminus as seen from the west on Lakeshore Road. Buildings should include corner building projections and windows to promote views to the west along Lakeshore Road and south to the Waterfront Park and the Lake.



John Street at Lakeshore Road looking north.



Elizabeth Street just south of Pine Street looking south.

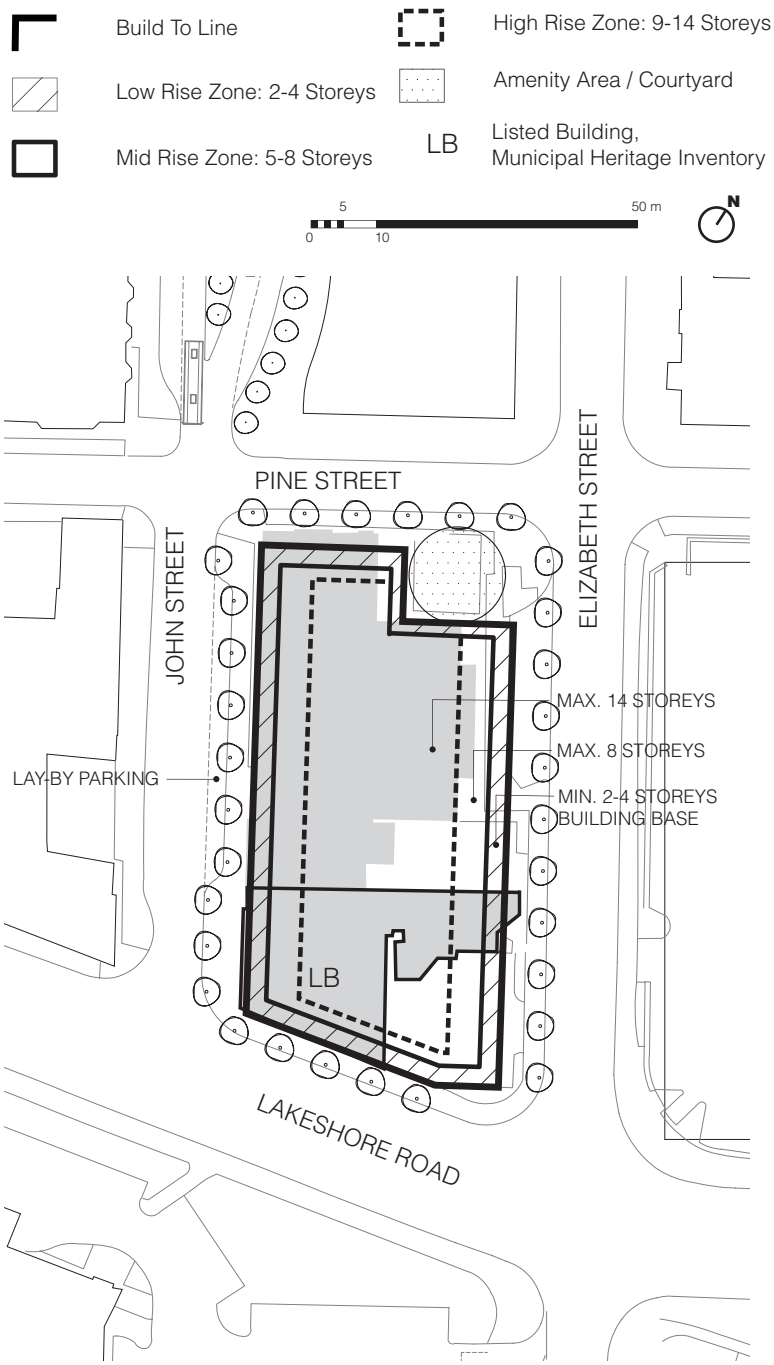


Southeast corner of Elizabeth Street and Lakeshore Road looking north.



Northeast corner of Elizabeth and Pine Streets looking west.

FIGURE 75: *Block 21 Plan*



7.22 Block 22

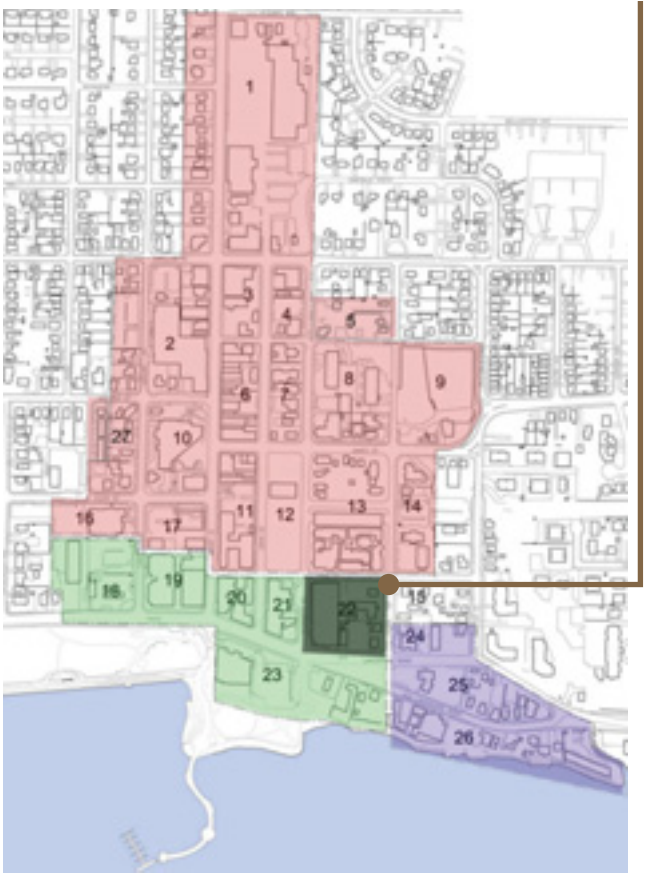


FIGURE 76: Block 22: *Existing*



FIGURE 77: Block 22-A: *Potential Building Envelope*



FIGURE 78: Block 22-B: *Potential Building Envelope*



7.22 Block 22

Boundaries

- Elizabeth Street
- Pearl Street
- Pine Street
- Lakeshore Road

Characteristics and Issues

1. The "Baxter" condominium building occupies almost the full western half of the block.
2. The northeast quarter of the block is occupied by the Christopher Court seniors home with a large and underutilized parking lot fronting onto Pine Street and a single house with commercial uses on the corner of Pine and Pearl Streets.
3. An application has been received for a new condominium building that would replace the retail plaza and two corner houses.



South side of Pine Street between Elizabeth and Pearl Streets looking west.

Opportunities

1. A new building on the southeast corner should extend the retail frontages in the "Baxter" and extend an animated treatment on Pearl Street, which is establishing itself as a retail destination.
2. A new high-rise building with a maximum of 14 storeys and a low-rise building base is proposed to the south of the existing seniors residence.
3. The seniors home parking lot and the house on the corner could be redeveloped into townhouses or mixed-use without redeveloping the seniors residence. Retail at grade would match the north side of Pine Street at Village Square.
4. The redevelopment of the residence, corner house and parking lot together would allow for a form that is more consistent with the remainder of the block.
5. New buildings should have podiums of at least 2 storeys, and preferably three.
6. The site should be graded to allow as much linear frontage of the ground floor to match the elevation of the sidewalk.
7. Existing tree stands in the centre of the block should be preserved.
8. Redevelopment should allow for the creation of east-west and north-south midblock connections.
9. The tree stand in the centre of the block should be preserved.
10. The Pearl Street edge should include retail uses at grade to complement existing retail uses on the street.



Pearl Street at midblock looking north.

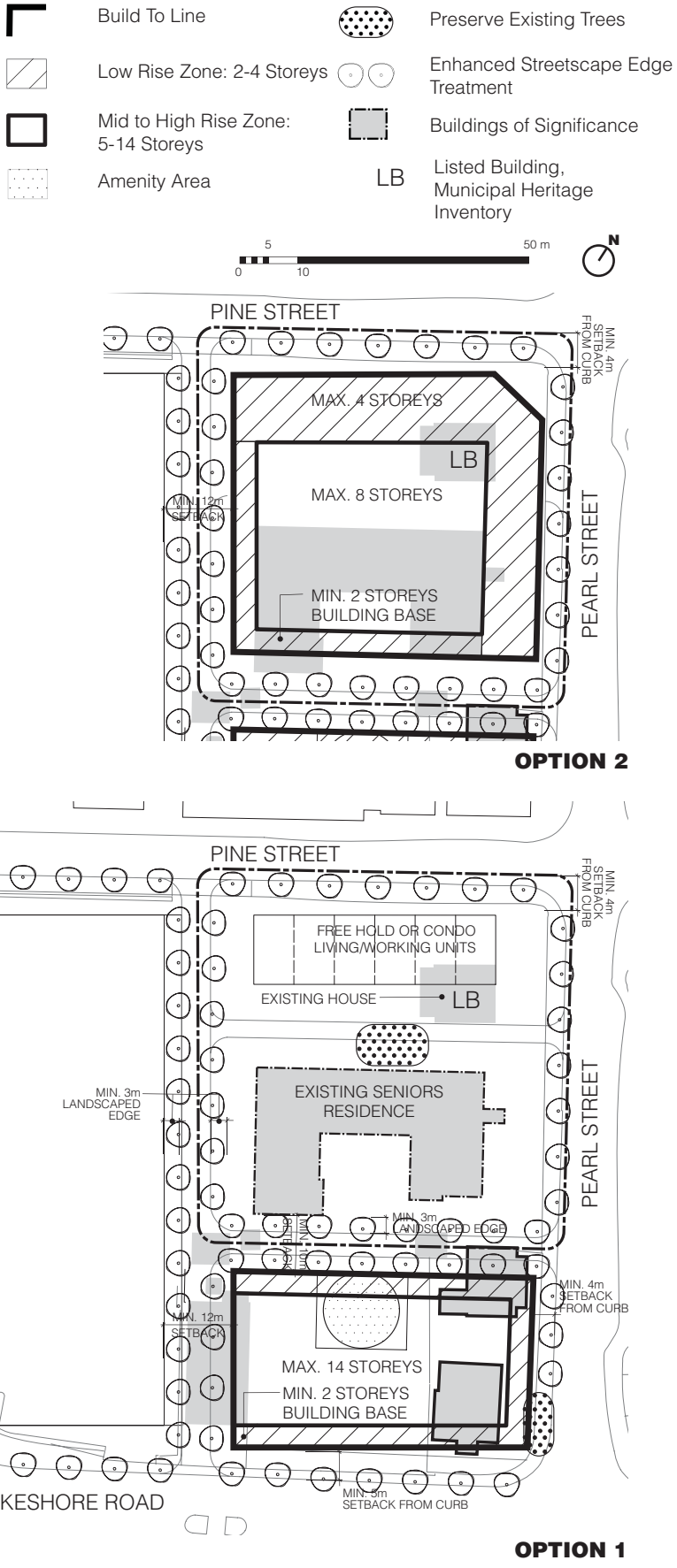


Lakeshore Road between Elizabeth and Pearl Streets looking north.



Southwest corner of Elizabeth Street and Lakeshore Road looking north.

FIGURE 79: *Block 22 Plan*



7.23 Block 23

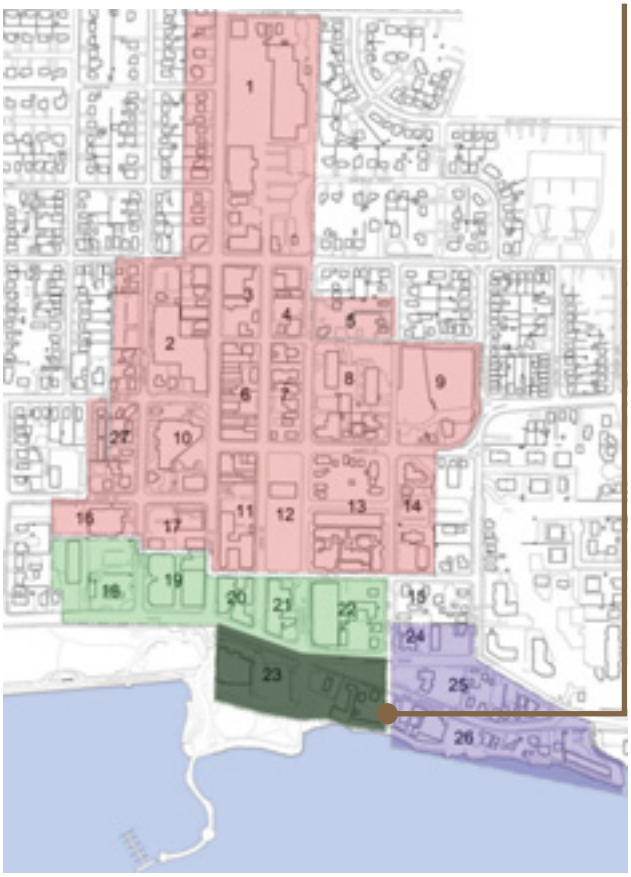


FIGURE 80: Block 23: *Existing*



FIGURE 81: Block 23-A: *Potential Building Envelope*



FIGURE 82: Block 23-B: *Potential Building Envelope*

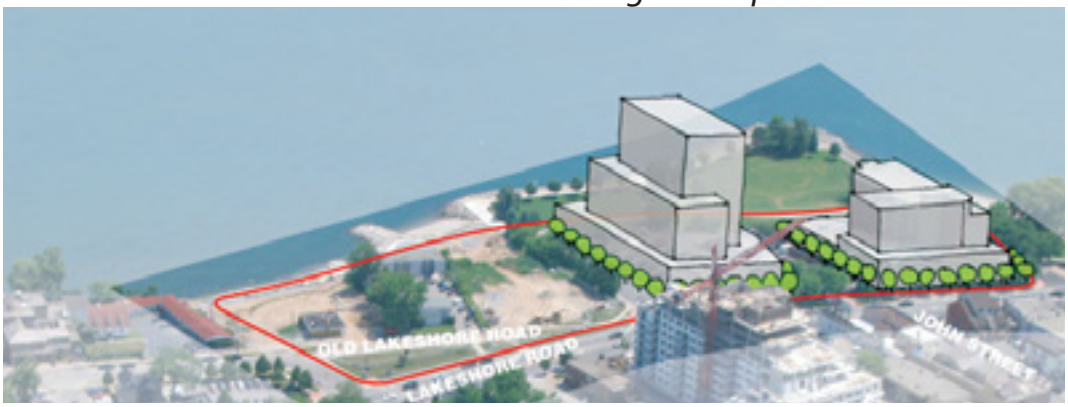


FIGURE 83: Block 23-C: *Potential Building Envelope*



7.23 Block 23

Boundaries

- Two parcels east and west of Elizabeth Street
- South of Lakeshore Road – please refer to the map.

Characteristics and Issues

1. The area to the east of Elizabeth Avenue is the object of an approved proposal for a condominium building.
2. The area to the west is occupied by the Travelodge hotel and its parking lot. This site is surrounded by parkland to the south and west.
3. A sweeping view of the Lake can be seen from Lakeshore Road through the Travelodge parking lot.
4. The Brant and Elizabeth Street rights of way extend south of Lakeshore Road, thus providing physical and visual access to the Lake, John Street currently terminates at Lakeshore Road.

Pedestrian Connections

1. Pedestrians can currently access the Waterfront anywhere from Lakeshore Road except through the Travelodge Hotel, but access is primarily by walking down Elizabeth or Brant Street.

Opportunities

Expanded site-specific opportunities and guidelines were developed for this site:

1. **Permeability and Preservation of Views**
   a. Clear, unobstructed physical access and clear views to the Lake should be maintained and enhanced from Brant, John and Elizabeth Streets. In general, taller and narrower buildings (but consistent with the Official Plan) are preferred.
2. **Northern Interface – Lakeshore Road**
   a. A key principle for this site is the creation of animated, active, attractive and permeable building edges that create a consistent street wall along Lakeshore Road.
   b. Buildings should be brought closer to Lakeshore Road while preserving the existing double row of trees, which should be extended east towards the Old Lakeshore Road Precinct.
   c. The sidewalk width from building façade to curb (7.6 metres) on the Mayrose Tycon site to the east should be extended to the Travelodge site.
   d. No direct vehicular access or loading facilities (except for right-in, right-out following thorough consideration by relevant departments) should be located on Lakeshore Road.
3. **Western Interface – Brant Street**
   a. Brant Street should be developed as the prime pedestrian link between the Downtown with the Waterfront and particularly the future Pier. Uses on the Travelodge site should support and reinforce this important function.
   b. The interface with Brant Street should be improved to include animated, active, attractive and permeable building edges (e.g. cafés and seasonal retail) appropriate to the public path leading to the Pier.
   c. If the Travelodge Hotel tower is replaced, building elements should step down as a podium to lower building edges facing Lakeshore Road, Brant Street and the Waterfront Park.
   d. No residential uses should be located at grade.
4. **Southern Interface – Waterfront Park**
   a. The Waterfront Park interface should include animated, active, attractive and permeable building edges including restaurant uses and outdoor terraces at grade.
   b. No residential uses should be located at grade.
   c. Bermed landscaping treatment may be acceptable to soften the edge of non-active building walls (e.g. wall of potential underground parking facility).

5. Eastern Interface – Elizabeth Street

a. Elizabeth Street is an important pedestrian access point between the Downtown and the Waterfront. Uses on the Travelodge site should support and enhance this function and not create visual or physical obstacles to the Lake.

b. The consolidation of parking entrances and underground garage facilities on the Travelodge site and the Mayrose Tycon site to the east should be pursued.

c. Human-scaled low-rise street walls of 2-4 storeys in height should be provided, with taller elements set back significantly from the street wall. Set backs should accommodate useable terraces and where large flat expanses of roof occur green roofs are recommended.

d. Horizontal and vertical articulation should be introduced in the façade to add visual interest.

e. Access for park maintenance and emergency vehicles should be provided from Elizabeth Street.



Pedestrian walkway through the block looking south.



Lakeshore Road just west of Elizabeth Street looking west.



South end of Elizabeth Street looking south.



Northwest corner of Elizabeth Street and Lakeshore road looking south.

6. Massing and Tower Design

a. Tall buildings are recommended on this site with appropriate stepping back towards public streets and strategic orientation of the building as described below. A number of schemes for building height and massing are depicted. Option A illustrates a maximum height of about 14 storeys on the existing hotel site with a lower 10 storey building on the parking lot. Option 2 illustrates maintaining the existing Travelodge and redevelopment of the parking lot with a 10 storey building. Option 3 illustrates the highest density and 14 storey building on the parking lot and a lower 10-12 storey building on the Travel Lodge site.

b. The floorplate of tower elements should be minimized and not exceed 650-700 square metres. Please note that the Build-to Line is an outer boundary for building edges. A smaller floorplate is to be located within these boundaries.

c. Tower elements should be oriented to maximize sky views with a slender profile as seen from Lakeshore Road and the Park. In the case of a rectangular floorplate, the longer side should be located parallel to north-south streets.

d. Rooftop mechanical elements should be integral to the architecture of the building and use the same high-grade materials as the occupied areas of the building.

e. Above the base of the building, hotel or residential units should face all four sides (i.e. a blank façade or reduced glazing on the north side of the building would not be acceptable).

f. Rooftop gardens or green roofs are encouraged.

7. Wind Impact

a. All proposals should be subject to a wind study to ensure that impacts on the pedestrian realm is minimized.

8. Materials

a. Materials and colours should convey a sense of permanence and quality, particularly at the base of the building.

b. All materials should be used in their natural and unadorned state. Replication or mimicry of past architectural styles should be avoided.

c. At upper levels, materials should be differentiated from the base to articulate the mass of the building and reinforce the slenderness of tower elements.

d. Vinyl window systems should be avoided. Clear glazing with low-E coating should be utilized. Tinted or coloured glass should be avoided and not permitted at the grade level of the building to promote transparency and public safety.

e. In general, "Green" materials that are accepted under LEED standards should be chosen. Materials that engage toxic chemicals during fabrication and/or disposal, such as vinyl, should be avoided.

f. In addition, locally sourced materials that limit environmental impact at fabrication, installation and disposal stages should be preferred.

g. The reuse of materials from building on site or other buildings should be encouraged, in addition to the use of:

h. Recycled building materials

i. Renewable materials

j. Low-emitting materials

k. Certified wood

l. Materials to be avoided include stucco, vinyl siding, metal siding and metal panel curtain wall.

9. Parking Solutions

a. Parking should be located underground, taking advantage of the 5-8 metre grade difference between the north and south ends of the site.

10.Active Retail

a. Retail uses should be located fronting on public streets with entrances from the street.

11. Public Accessibility

a. Due to the size of the site, the complex should be publicly accessible during daytime hours and facilitate east-west and north-south pedestrian movement through the site.

12. Lighting

a. Lighting on the site should be designed with the following criteria in mind:

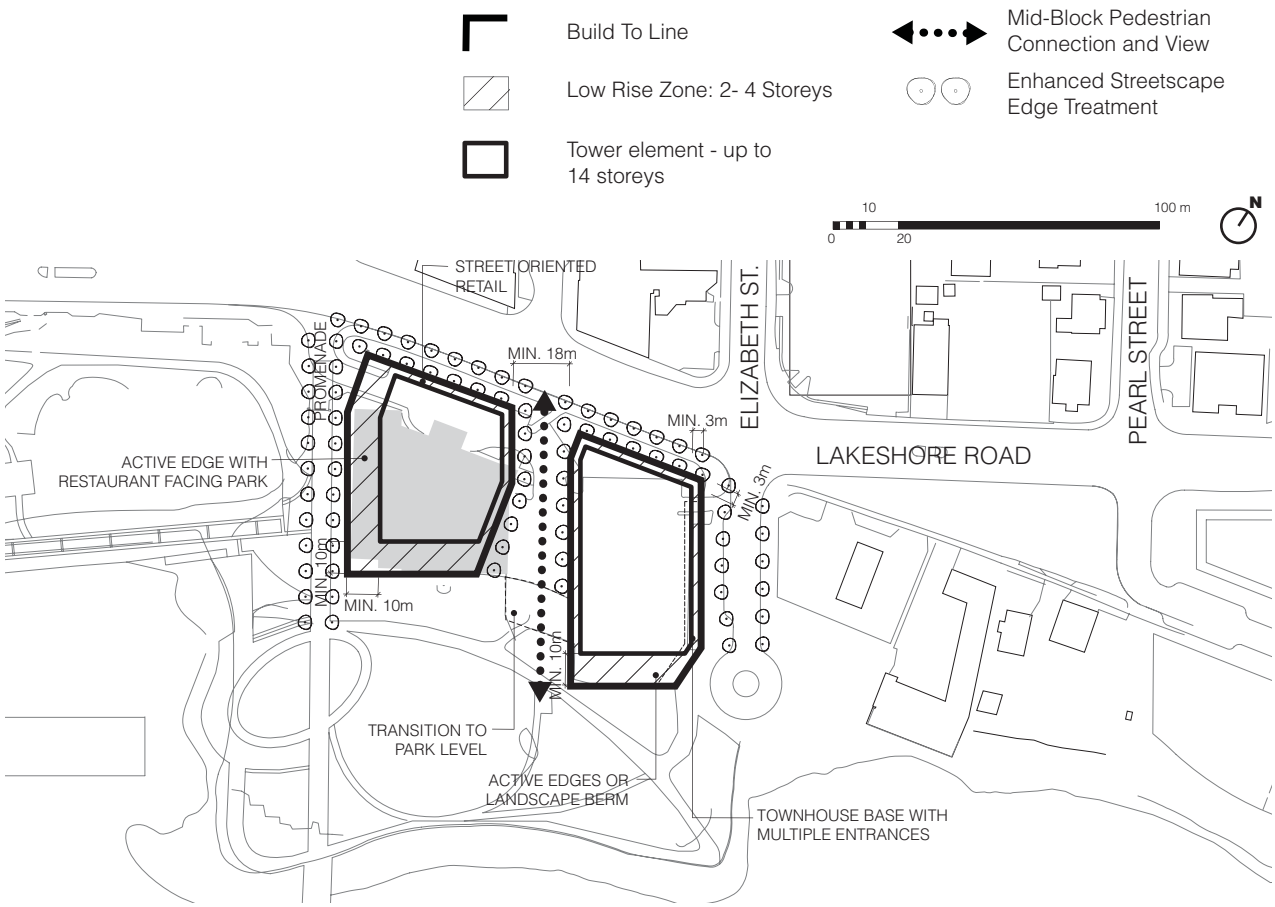
b. Congruent with contemporary lighting adopted further west on Lakeshore Road

c. Pedestrian-scaled

d. Energy efficient

e. Downcast to minimize light pollution

FIGURE 84: *Block 23 Plan*



7.27 Block 27

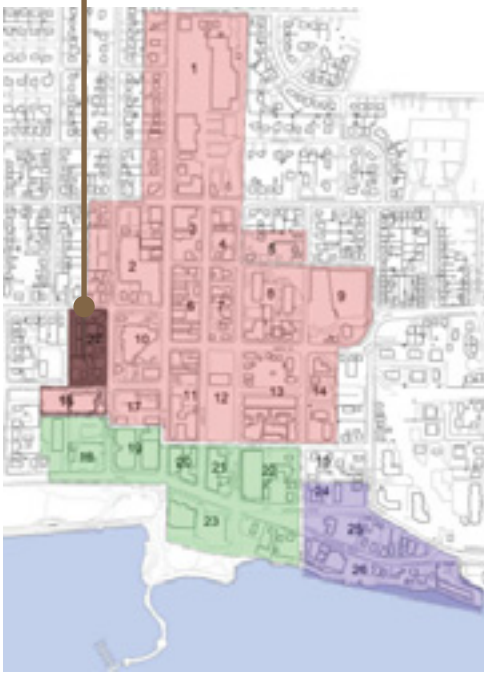


FIGURE 92: *Block 27: Existing*



7.27 Block 27

Boundaries

- Ontario Street
- Elgin Street
- Blathwayte Lane
- Locust Street

Characteristics and Issues

1. A variety of low-rise buildings with house-forms occupied by both residential and commercial uses.
2. Townhouse development along Blathwayte Lane is a stable, desirable use.
3. Three heritage designated buildings located in northern portion of block and numerous heritage listed buildings throughout block contribute to character.
4. The eastern boundary of the block faces City Hall across Locust Street.
5. The southern boundary of the block faces the proposed new Performing Arts Centre across Elgin Street.

Pedestrian Connections

1. The site does not offer pedestrian connections as it is primarily composed of a residential typology.

Opportunities

1. Potential new development in the two parking lots located at the south-west corner of the block.
2. Potential redevelopemnt of 1437 Elgin Street and 452/454 Locust Street.
3. Developments should provide positive frontages to Elgin Street, Blathwaythe Lane and Locust Street
4. Building heights should be low rise (2-3 storeys) and fit in scale and form with existing buildings.
5. Priority should be given to residential uses along Blathwayte Lane, however commercial and hospitality uses at the corner of Elgin Street and Blathwayte Lane would compliment the proposed new Performing Arts Centre. Commercial and hospitality uses for developments fronting Elgin Street and Locust Street would be appropriate, however they should respect the heritage character of the block.

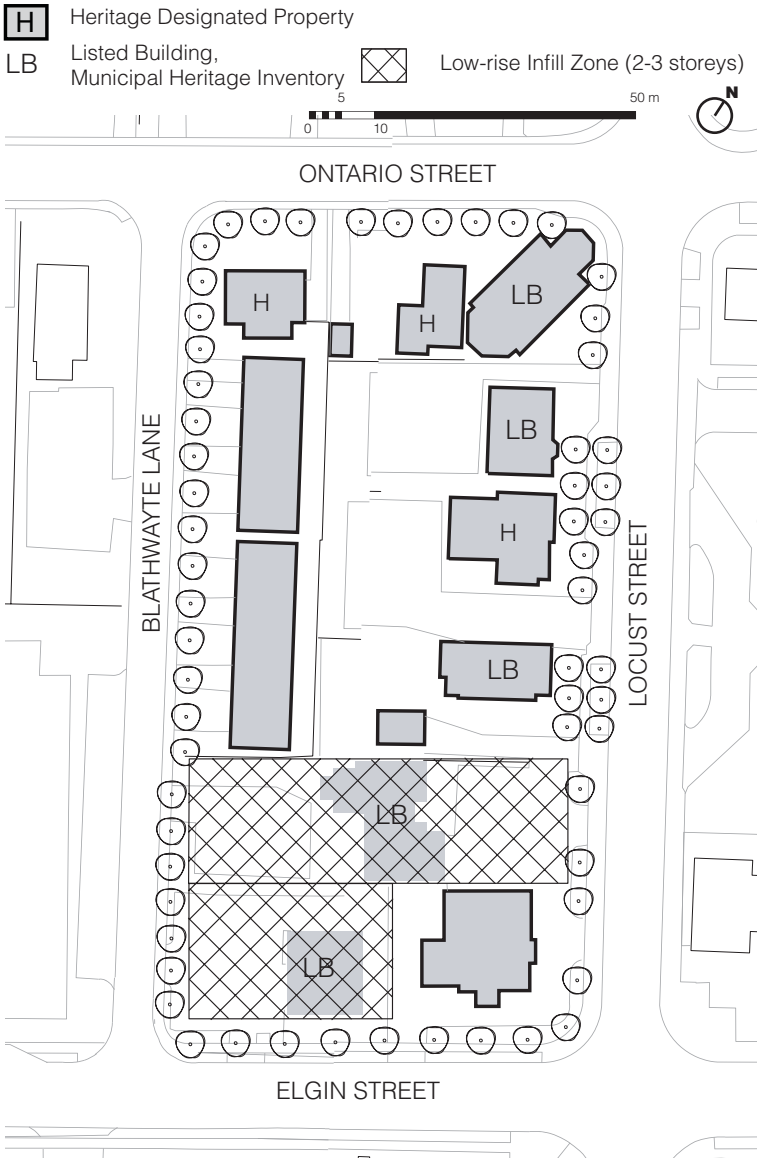


One of several heritage designated buildings located on Block 27.



Townhouse development on Blathwayte Lane.

FIGURE 93: *Block 27 Plan*





Residential building-form on Elgin Street.



Corner of Elgin Street and Locust Street.