



Hamilton

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Barton-Tiffany Urban Design Study

Design Concept and Guidelines

August 2014



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1

INTRODUCTION

1.1 Background

The West Harbour (Setting Sail) Secondary Plan adopted by the City of Hamilton established the comprehensive land use plan for the West Harbour area in the north end of the city, which came into full force and effect following the 2012 Ontario Municipal Board decision. As part of this land use plan, the Secondary Plan identified three areas of major change: the waterfront; the Barton-Tiffany area south of the CN rail yard; and, the Ferguson-Wellington corridor comprising former industrial lands. Specifically, Section A.6.3.8.11 of the Secondary Plan requires that *"the City shall initiate an Urban Design study for Barton-Tiffany to guide development in the area, help ensure development proposals support the objectives of this plan and achieve excellence in design."*

The Barton-Tiffany area is an important redevelopment opportunity in the revitalization efforts for the West Harbour area in the north end of the City of Hamilton. The City together with the consulting team has worked with community partners, neighbourhood groups and residents in developing the Urban Design Study for the Barton-Tiffany Area. It has been developed to provide an overall strategy and guidelines for what future development will look like in the Barton-Tiffany area. This includes addressing the design of the area's buildings, streets, and public spaces moving forward as reinvestment and redevelopment of the Barton-Tiffany area progresses over time.



Vacant former industrial sites like this on Tiffany Street dominate the fabric of the Barton-Tiffany study area.

1. INTRODUCTION

1.2 Study Area

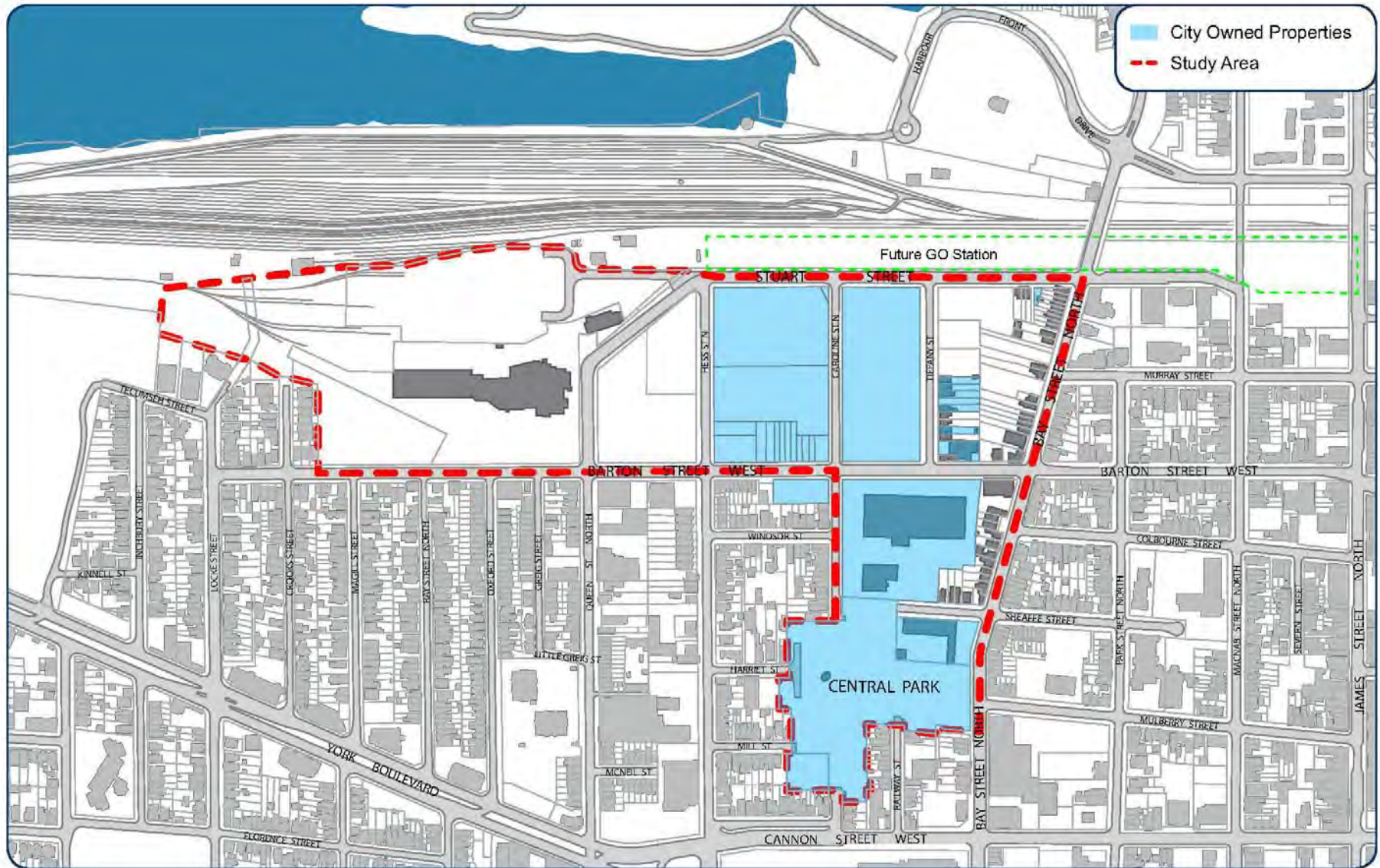
Barton-Tiffany is an area of about 26 hectares (65 acres) located in the north end of Hamilton, bounded by Stuart Street to the north, Barton Street West and Cannon Street West to the south, Locke Street North to the west and Bay Street North to the east (see Figure 1). This area forms part of the West Harbour Secondary Plan area, which extends to Wellington Street North in the east, generally the waterfront to the north, and York Boulevard and Cannon Street West to the south and west. The west side of the study is within Ward 1 and the Strathcona Neighbourhood, while the east side within Ward 2 and the Central Neighbourhood. City landholdings form a major proportion of the overall study area, including the Public Works facility on the south side of Barton Street West; Central Park on the south side of Barton Street West; and three large tracts of vacant, former industrial land bounded by Barton Street West, Stuart Street, Tiffany Street, and Queen Street North (see Figure 2).

While the study area is the principal focus of the Urban Design Study, the immediately surrounding area influences the area's overall design. The surrounding neighbourhood fabric and its land use and built form patterns influence how new development fits with the existing fabric. The CN railine and marshalling yard on the north side of Stuart Street create noise and vibration impact considerations for residential location and design. The planned future GO Station abutting the northern edge of the study area present significant opportunities and design interrelationships. Bayfront Park and the Waterfront Trail to the north as well as Harvey Park and Dundurn National Historic site to the west provide recreational amenities that require linkages to further connect the overall network.

FIGURE 1: Barton-Tiffany Study Area



FIGURE 2: City-owned properties within the Barton-Tiffany area



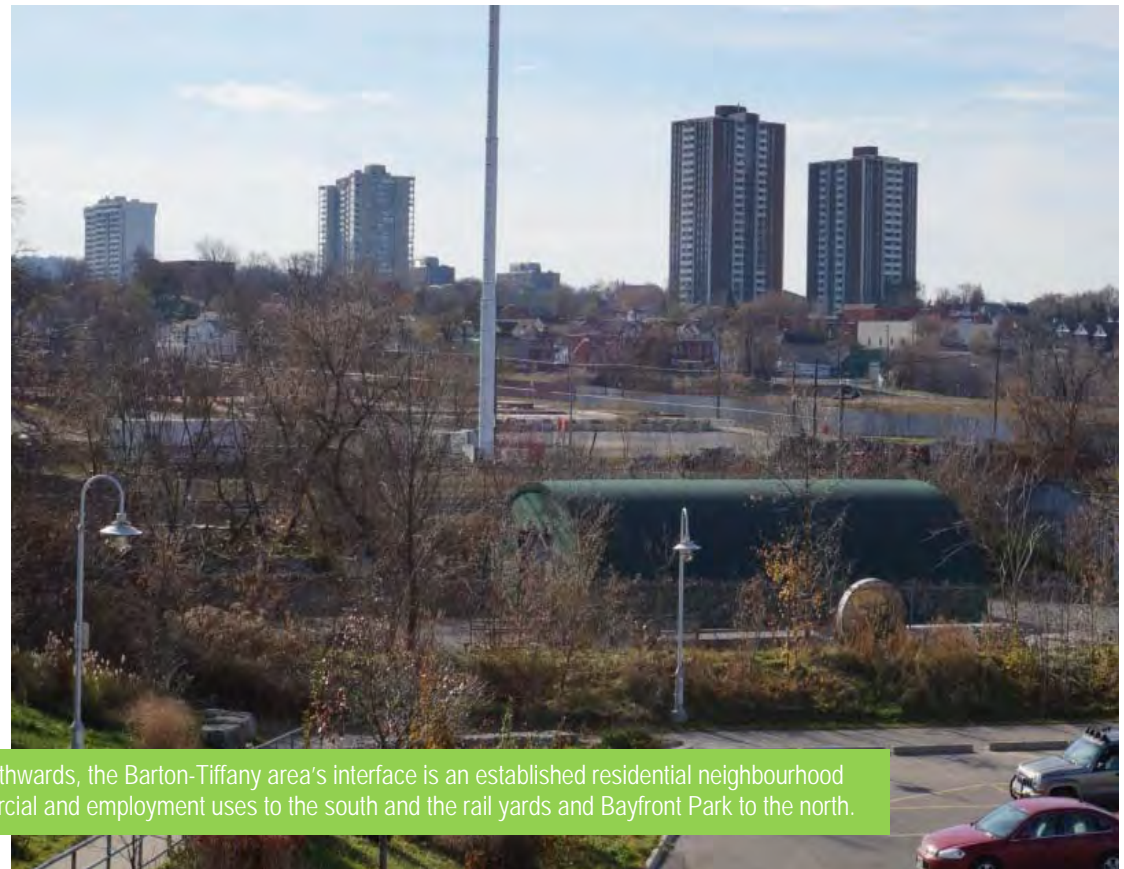
1. INTRODUCTION

1.3 Study Objectives

The Urban Design Study provides an overall strategy and guidelines for what future development will look like in the Barton-Tiffany area. This includes addressing the design of the area's buildings, streets, and public spaces moving forward as reinvestment and redevelopment of the area progresses over time.

The objectives of the Urban Design Study were to:

- > Review the existing policies and regulations relevant to the study area;
- > Assess the study area and the varied opportunities and constraints;
- > Assess the interconnections between the study area and the surrounding neighbourhood, City facilities, and the parks and open space system;
- > Provide the necessary technical studies to inform development options, including matters of municipal infrastructure, traffic, noise, and vibration;
- > Engage the community through meaningful and inclusive public sessions to generate ideas and solutions; and,
- > Provide the design vision for the built form, including building typologies, street networks, streetscaping, landscaping, and other elements.



Looking southwards, the Barton-Tiffany area's interface is an established residential neighbourhood with commercial and employment uses to the south and the rail yards and Bayfront Park to the north.



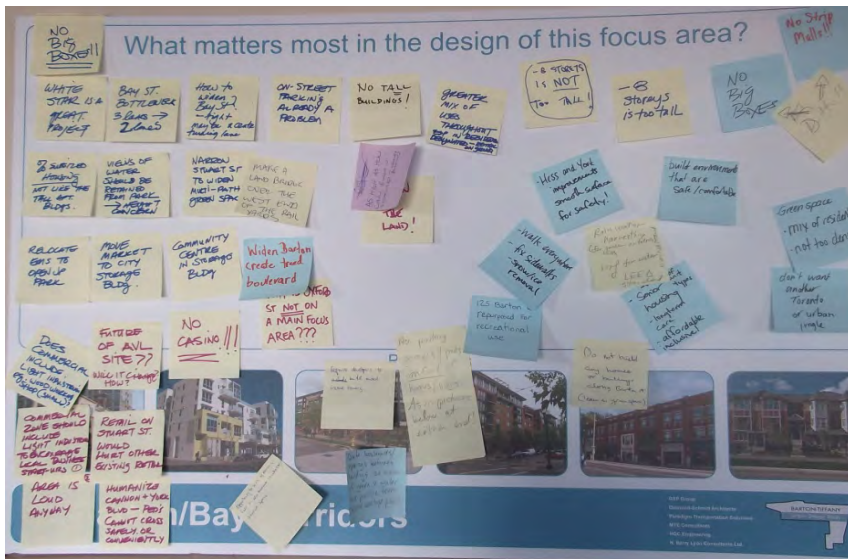
1.4 Community Engagement

The Urban Design Study included multiple forms of ongoing community engagement to broaden the understanding of underlying issues and to identify the type of place the community envisions for the Barton-Tiffany area. The study's engagement program included a Focus Group that was comprised of members representing residents, neighbourhood associations, and community stakeholders that met several times throughout the study. Additionally, there were a series of public engagement sessions with the broader community throughout the study.

The initial design workshop was held in December 2013 and formed the basis for the urban design framework and structure moving forward in the process. Held jointly with the concurrent Barton-Kenilworth Commercial Corridor Study and the James Street Station Mobility Hub Study, the design workshop asked participants to discuss five key focus areas within the broader study area. A similar workshop was held with the Focus Group. This first workshop formed the basis of the Structuring Design Principles in Section 3 of this report.

A second community engagement session was held in April 2014 to “test” the demonstration concepts and the design variables that were illustrated for the area’s buildings, streets, and spaces. The feedback from this session informed the development of a preferred Urban Design Concept for the area.

A third community engagement session was held in June 2014 to present the preferred Urban Design Concept and supporting guidelines. The feedback from this session informed the refinement of the concept and guidelines for this final Urban Design Study report.



1. INTRODUCTION

1.5 How to Use the Report

The following describes the nine sections of the Urban Design Study, and how they are generally to be used through the planning and design process:

- > Section 2 highlights the key policies of the Setting Sail Secondary Plan affecting the study area. This section provides the principal policies affecting the land use and design of the Barton-Tiffany area, so the Secondary Plan itself should be consulted for a more fulsome description.
- > Section 3 outlines the design principles that provide the overall structure for the urban design concepts and guidelines for the area. This section provides the underlying framework upon which the urban design concept and design guidelines for the Barton-Tiffany area were prepared.
- > Section 4 summarizes the urban design concept illustrating the preferred future development of the Barton-Tiffany area. This section is meant to identify a potential build-out of the area, as per the structuring design principles, and informs and articulates the supporting urban design guidelines in the following sections. Given the guidelines are generally flexible in nature, it is meant to illustrate the key design components of the Barton-Tiffany area's structure and a potential built form pattern.
- > Section 5 outlines the design guidelines recommended for the streetscapes throughout the Barton-Tiffany area. This section is meant to be used by the City when reconstructing streets within the area and as well identifying expectations to development proponents.
- > Section 6 outlines the design guidelines recommended for the redevelopment of Central Park. This section is meant to be used by the City when redesigning Central Park.
- > Section 7 outlines the design guidelines for the Barton Mid-Rise Residential Area, situated generally along the north side of Barton Street West. This section is meant to be used by development proponents in preparing development plans for properties within this area as well as by the City when reviewing and evaluating such plans.
- > Section 8 outlines the design guidelines for the Stuart Commercial Area, situated generally along the south side of Stuart Street. This section is meant to be used by development proponents in preparing development plans for properties within this area as well as by the City when reviewing and evaluating such plans.
- > Section 9 outlines the design guidelines for the Low-Rise Infill Residential Area, which dispersed between a number of smaller sites throughout the Barton-Tiffany area. This section is meant to be used by development proponents in preparing development plans for properties within this area as well as by the City when reviewing and evaluating such plans.
- > Section 10 outlines the general development design guidelines for all new developments on sites throughout the Barton-Tiffany area. This section is meant to be used by development proponents in preparing development plans for properties within this area as well as by the City when reviewing and evaluating such plans.

2

SECONDARY PLAN FRAMEWORK

2.1 Planning Principles

The West Harbour (Setting Sail) Secondary Plan was guided by a series of planning principles that set the foundation for the policy direction in the Plan. As per the Policy A.6.3.2 of the Secondary Plan, the guiding principles are to:

1. Promote an healthy harbour through best management, conservation, rehabilitation, and education practices;
2. Strengthen the existing neighbourhoods through respectful new development, relocation and redevelopment of incompatible uses;
3. Provide safe, continuous public access along the water's edge including accommodation of both trails and boating facilities;
4. Create a diverse, balanced and animated waterfront with new uses that promote a diversity of different land uses along the waterfront and provide a year-round destination;
5. Enhance physical and visual connections through and to the waterfront, including developing connected street, open space, walking and cycling systems and augmenting vistas;
6. Promote a balanced transportation network that establishes a hierarchy of streets that accommodate a balanced multi-modal system that maximizes transit connectivity;
7. Celebrate the City's cultural and industrial heritage of the area through conservation of neighbourhoods, buildings, and streetscapes; and,
8. Promote excellence in design by designing and constructing buildings that respect the area's character and are supported by a public realm that creates a memorable "place".

2.2 Urban Design Principles

Sections A.6.3.3.4 and A.6.3.3.5 of the Secondary Plan contain the following relevant urban design principles for the Study Area:

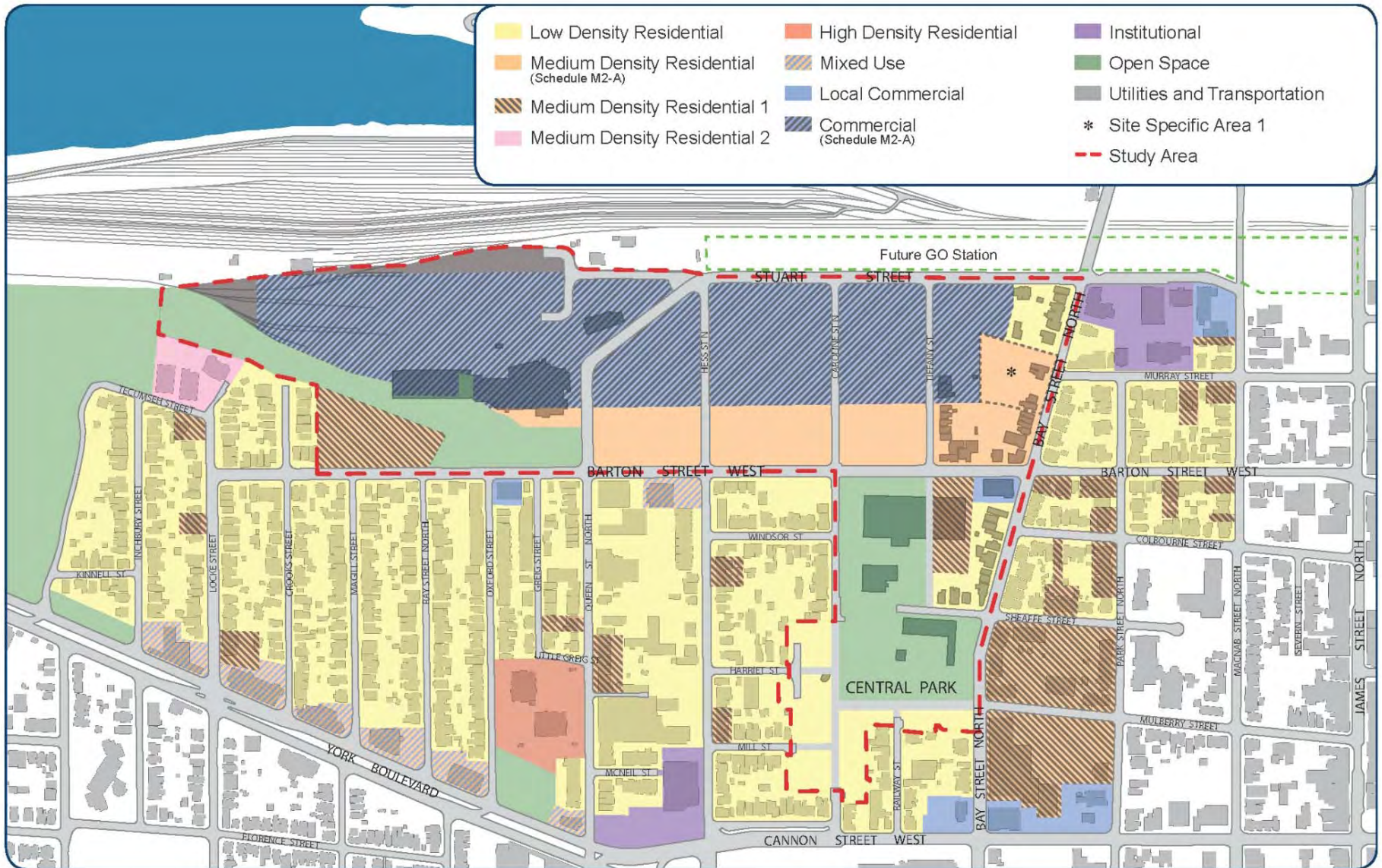
- > Create a comfortable and interesting pedestrian environment;
- > Respect the design, scale, massing, setbacks, height and use of neighbouring buildings, existing and anticipated by this plan;
- > Generally locate surface parking at the rear or side of buildings;
- > Provide main entrances and windows on the street-facing walls of buildings, with entrances at grade level;
- > Ensure barrier-free access from grade level in commercial mixed use developments;
- > Preserve the vistas of and key views leading to the Harbour;
- > Support the use of public transit by creating a comfortable pedestrian environment and providing main entrances on public streets, close to intersections where appropriate; and,
- > Maintain or improve transit accessibility in public street improvements.

2.3 General Land Use Policies

Section A.6.3.3 of the Secondary Plan contains general policy direction that applies to all lands within the Study Area. These policies recognize the decline of heavy industrial activity in the West Harbour and promote relocation of industrial uses to a more suitable area of the City. As such, the policies promote remediation of contaminated former industrial land and conversion of these lands for other permitted uses. The policies discourage new industrial and manufacturing in the area and only permit expansion of existing facilities subject to specified criteria.

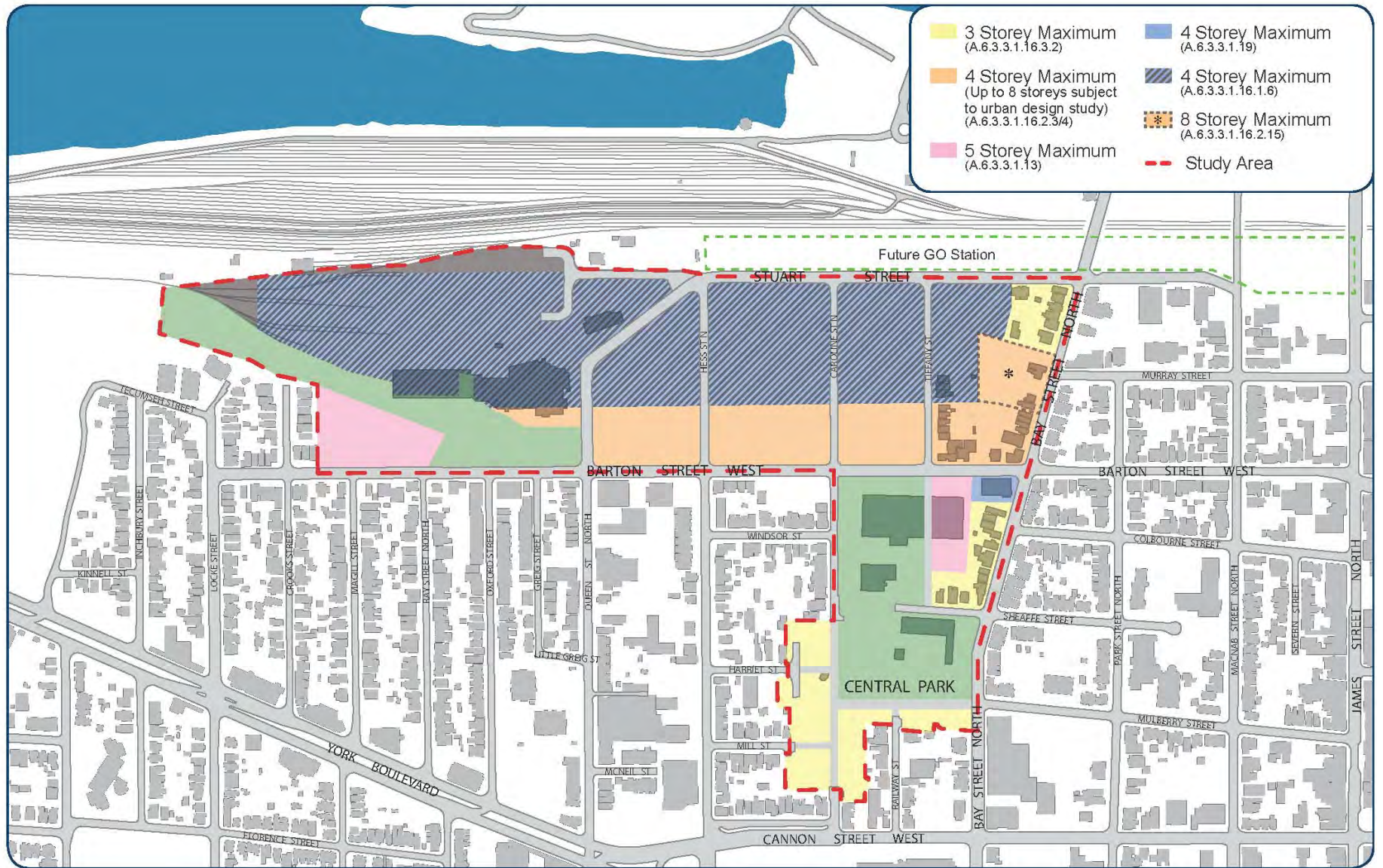
2. SECONDARY PLAN FRAMEWORK

FIGURE 3: Secondary Plan Land Use Designations
(adapted from Setting Sail Secondary Plan, Schedule M-2 and M-2a)



2. SECONDARY PLAN FRAMEWORK

FIGURE 4: Secondary Plan Building Height Permissions
(adapted from Setting Sail Secondary Plan)



2. SECONDARY PLAN FRAMEWORK

2.3.1 Stuart Street Commercial Policies

The land located south of and parallel to the CN Rail line and yards is designated “Commercial” (see Figures 3 and 4). These lands are intended to provide retail and service commercial uses to the immediate neighbourhood and are to serve as the focus for the adjacent neighbourhood by creating a sense of place. The preferred format is a variety of commercial uses, buildings and building sizes, although single use large format retail buildings are discouraged and there are caps on the amount of retail floor space (15,000 m² total) and office floor space (10,000 m² total). Residential, other sensitive land uses, hotels, auto-oriented commercial uses, such as drive-throughs, gas stations and auto-repair garages, are prohibited. From an urban design perspective, the policies promote:

- > Integration of the area and easy access from the surrounding neighbourhood by a range of transportation modes;
- > Buildings built to the street edge to create a strong pedestrian orientation with the main entrances on a street, and barrier free access at street level;
- > Buildings with multiple retail units and multiple entrances oriented to the street, or other similar means to animate the streetscape;
- > Buildings designed and massed to minimize shadow and wind impacts on the public realm;
- > New buildings designed to respect light, views, and privacy enjoyed by residents in adjacent buildings and areas;
- > Parking provided at the rear of sites or in underground and/or above ground structured facilities; and,
- > Above-grade parking structures fronted by retail at the street level.

2.3.2 Bay Street North Residential Policies Central Park (Southwest) Residential Policies

Land along the west side of Bay Street North and the land abutting the south and west a side of the reconfigured Central Park is designated “Low Density Residential” (see Figures 3 and 4). Single, semi-detached, and street townhouse dwellings (as well as stacked townhouse dwellings along Bay Street North north of Barton Street West) are permitted to a maximum height of 3 storeys and a maximum gross density of 25 to 60 units per hectare. From an urban design perspective, the policies promote:

- > Reflecting the scale, type and character of existing low density development in the neighbourhood;
- > Respecting the existing grid patterns of streets, blocks, and open space, and/or those proposed by the Secondary Plan;
- > Implementing lot dimensions and building setbacks consistent with other Low Density Residential properties in the neighbourhood;
- > Locating garages at the rear of properties to be accessed from rear laneways where feasible;
- > Implementing the recommendations of approved noise studies in site layout and design including the location of outdoor amenity space, and building design including the location of non-habitable space to buffer and mitigate noise impacts; and,
- > Locating any outdoor amenity area accessory to residential uses above the first storey, rather than at the ground level.

2.3.3 Barton Street West Residential Policies North Side, Queen to Bay

The land located along the north side of Barton Street West between Tiffany Street and Queen Street North is designated "Medium Density Residential" (see Figures 3 and 4). Multiple residential building up to 4 storeys are permitted, including mixed use buildings that have retail and service commercial stores at grade, as well as open space and parks. The permitted gross density of development is 60 to 150 units per hectare. Heights up to a maximum of 8 storeys may be permitted subject to an Urban Design Study (the land fronting Bay Street North identified as a "Special Policy Area" may be developed prior to the completion of a comprehensive Urban Design Study at a density of 60 to 300 units per hectare and to a maximum height of 8 storeys). From an urban design perspective, the policies promote:

- > Respecting the existing and/or proposed grid patterns of streets, blocks, and open space;
- > Implementing consistent minimum front yard setbacks that are generally consistent with the setbacks of adjacent buildings;
- > Locating parking areas at the rear or underground with access from public streets or laneways;
- > Locating main building entrances to face public streets and provide direct access from the sidewalk;
- > Minimizing shadow, wind and noise impacts on the public realm through building design and massing;
- > Respecting the light, views and privacy in adjacent buildings and areas;
- > Providing balconies and terraces at the front or rear of individual ground-floor units, and/or within internal courtyards outdoors and indoors;
- > Consolidating common amenity space to create useable spaces;

- > Designing outdoor amenity areas for residential uses to meet Provincial guidelines for noise levels and to mitigate potential noise impacts;
- > Implementing the recommendations of approved noise studies in site layout respecting outdoor amenity spaces and interior building/unit design
- > Locating any outdoor amenity area above the first storey if located on the south side of a residential building fronting Barton Street West.

2.3.4 Barton Street West Residential Policies West of Queen and South of Barton

The land on the north side of Barton Street West east of Crooks Street, as well as on the south side abutting the east side of the reconfigured Central Park is designated "Medium Density Residential 1" (see Figures 3 and 4). These lands may be developed for multiple dwellings at a height of 3 to 5 storeys and to a density of 60 to 150 units per hectare. From an urban design perspective, the policies promote:

- > Respecting existing grid patterns of streets, blocks and open spaces;
- > Ensuring consistent front yard setbacks with adjacent buildings;
- > Locating parking areas at the rear of sites or underground with access from public streets or laneways (not direct access to public streets);
- > Locating main building entrances to face public streets;
- > Locating balconies and terraces at the front or rear of individual ground-floor units, and/or within internal courtyards outdoors and indoors;
- > Consolidating common amenity space on the site;
- > Minimizing shadow and wind impacts on the public realm; and,
- > Respecting the light, views and privacy in adjacent buildings and areas.

2. SECONDARY PLAN FRAMEWORK

2.4 Public Realm Policies

The Secondary Plan identifies the public realm network of streets, parks and other publicly-accessible open spaces such as trails, public piers, promenades, plazas and school grounds within the West Harbour area (see Figure 5).

Elements of the public realm plan relevant to Barton-Tiffany include:

- > Views/vistas along Queen and Hess Street North to the Harbour;
- > Views/vistas from Magill Street, Crooks Street and north of Inchbury Street;
- > Potential bridge connection at the northern end of Caroline Street over the railway to Bayfront Park;
- > Potential bridge connection at the western end of the Study Area from Dundurn Park to the Bayfront trail (EA process completed);
- > Potential trail extensions along Caroline Street to Cannon Street West and through Central Park to Bay Street North;
- > Future streetscape initiatives for Queen, Caroline, Barton and Stuart;
- > Bay Street North mobility streetscape initiative; and,
- > Provision of an east-west continuous open space recreational trail on the south side of Stuart Street, Queen Street North and the north side of Barton Street West to Locke Street North with a minimum width of 5 metres.

Policy A.6.3.5.2.7 of the Secondary Plan identifies the direction for a reconfigured Central Park for the Barton-Tiffany area. This reconfiguration includes policies promoting the relocation of the City facilities on Barton and Bay Street North to allow for the expansion, reconfiguration and improvement of Central Park. The adaptive re-use of all or a portion of the Barton Street West facility for recreational or other public uses is to be considered prior to demolition.

2.5 Transportation Policies

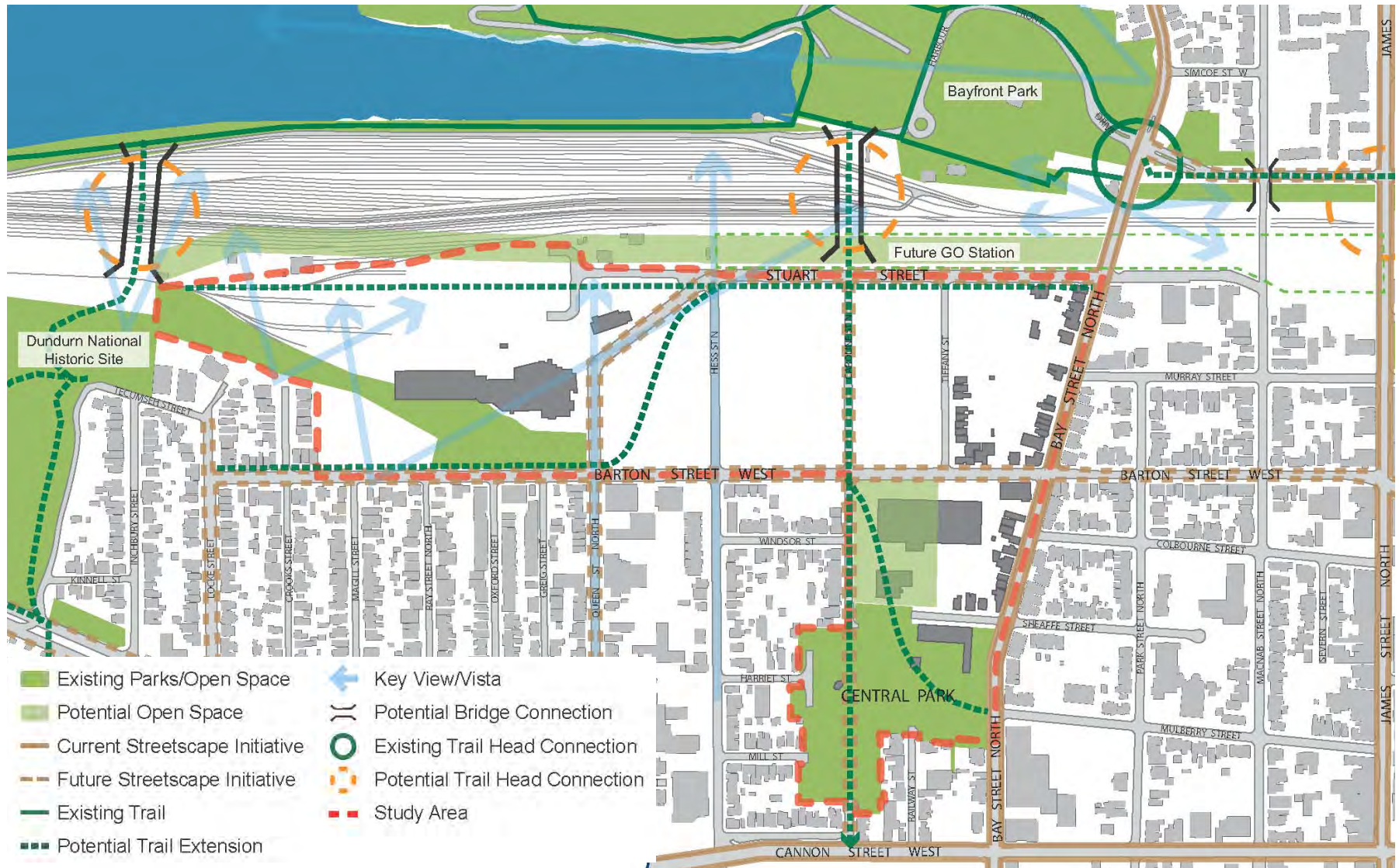
The Secondary Plan transportation network consists of “Primary Mobility Streets”, “Neighbourhood Mobility Streets” and “Local Streets” (see Figure 6). Each type of street has a different function. All streets are to provide a safe and comfortable pedestrian environment including sidewalks, Urban Braille, landscaping, special lighting, seating areas, transit shelters, a signage system and other amenities

“Primary Mobility Streets” are to provide for the movement of through traffic connecting major activity centres and neighbourhood within West Harbour as well as points outside the area. Bay Street North to Strachan Street is a Primary Mobility Street with a right-of-way width of 20 metres, and may be subject to streetscape enhancements within the existing right-of-way including sidewalk widening, improved street lighting improved accessibility, additional trees, improved bicycle facilities and/or other landscaping features.

“Neighbourhood Mobility Streets” are to provide for the movement of traffic, people and goods within the West Harbour serving the local land uses. Barton Street West, Queen Street North, Hess Street North and Stuart Street (west of Bay) are all identified as Neighbourhood Mobility Streets. Right-of-way widths are to be 20 metres, with the exception of Stuart Street and Barton Street West which are designated as 25 metres. The required road widenings are to be taken entirely from the south side of Stuart and the north side of Barton.

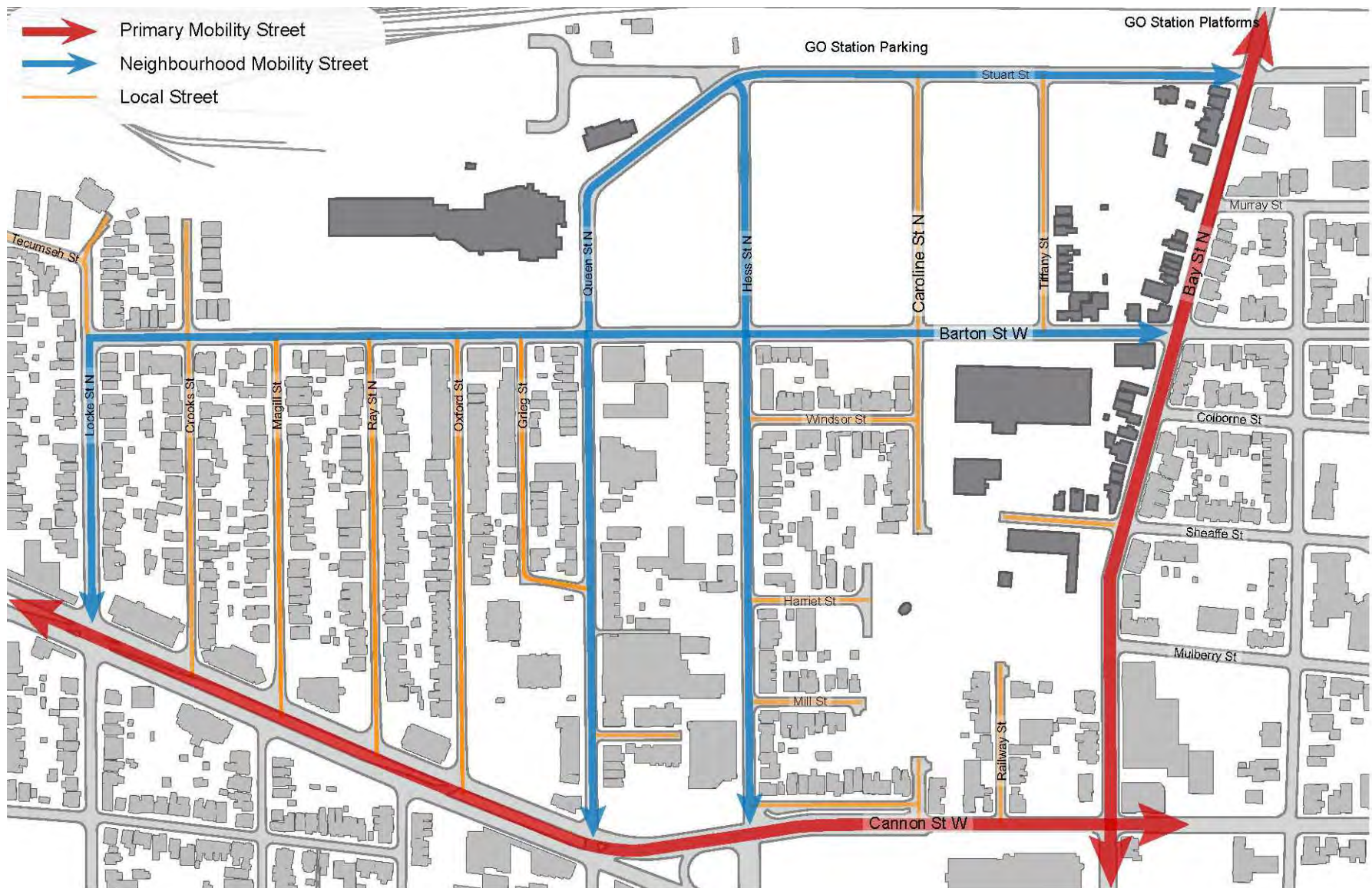
“Local Streets” are to provide for provide access to businesses and residences, on-street parking and pedestrian movement as a priority over traffic movement. The right-of-way width of Local Streets is to be 18 to 20 metres.

FIGURE 5: Secondary Plan Public Realm Plan
 (adapted from Setting Sail Secondary Plan, Schedule M-5)



2. SECONDARY PLAN FRAMEWORK

FIGURE 5: Secondary Plan Transportation Network
(adapted from Setting Sail Secondary Plan)



3

STRUCTURING DESIGN PRINCIPLES

Emerging from the area assessment and community engagement, eight key Structuring Design Principles specific to the Barton-Tiffany area emerged to guide the preparation of the demonstration concepts and design guidelines. These are higher-level elements that establish the design structure for the Urban Design Study, upon which the design concepts and guidelines for the Barton-Tiffany area were formed.

3.1 Caroline Street North pedestrian corridor

DESIGN PRINCIPLE: An emphasis on Caroline Street North as the neighbourhood’s green pedestrian corridor between Cannon Street West and the waterfront.

Caroline Street will be redesigned and reconstructed as a principal pedestrian mover through the Barton-Tiffany area, between the Strathcona and Central Neighbourhoods (and Downtown) to the south and the waterfront to the north. The Caroline Street North linkage between Cannon Street West and Barton Street West will be re-established by extending the street through the existing Central Park space with facilities for vehicular and pedestrian movement and on-street parking to support Central Park and residential uses. A green “allee” on the east side of Caroline Street will be a north-south linkage that is significantly vegetated as part of a park-like setting abutting the redesigned Central Park, and will include wide sidewalks, street trees, other landscaping, and associated amenities.



3. STRUCTURING DESIGN PRINCIPLES



3.2 Central Park redesign

DESIGN PRINCIPLE: A redefined and reconfigured Central Park as the centre piece of the Barton-Tiffany area.

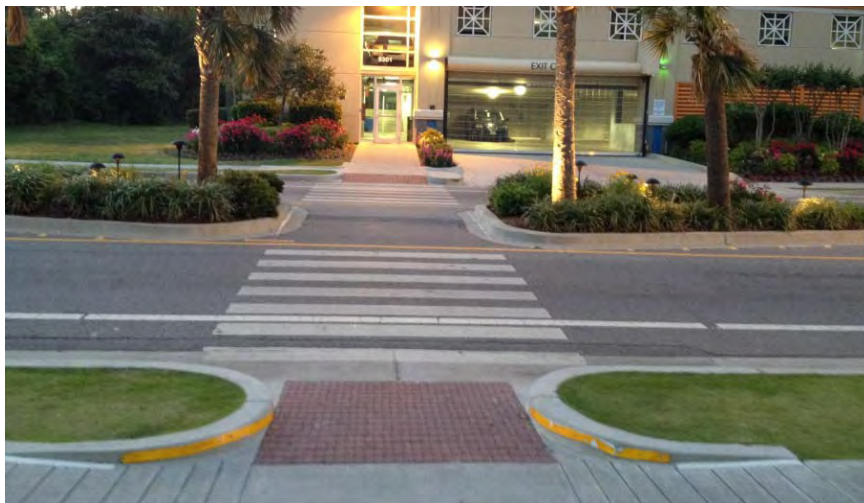
Central Park will have more street presence through a re-established gridded street network with Mulberry Street and Caroline Street extensions, and provide a stronger interface and connection to the Central Neighbourhood east of Bay Street North. The new park space will provide a range of different recreation functions to cater to a range of different users, including opportunities for multi-purpose courts, splash pads, play equipment, multi-purpose playing fields, and open lawns. It may include the retention, either full or partial, of the existing “skeleton” of the existing City maintenance building that may be reprogrammed for additional outdoor recreation activities. The Caroline Street “allee” will be seamlessly integrated into the western edge of the park space. Infill residential developments on the remnant park space will be redeveloped to provide activity along and surveillance of the new park space.



3.3 Complete Barton Street West

DESIGN PRINCIPLE: A more complete Barton Street West providing the key east-west mobility street within and through the neighbourhood.

Barton Street West will be redesigned and reconstructed as a complete street that more equally accommodates all travel modes by all ages and abilities. It will specifically encourage active transportation modes such as walking and cycling. In the interests of a creating a safe, comfortable, attractive and universally accessible streetscape for pedestrians, wider sidewalks, street furnishings, and plantings will be complemented by street-oriented development and redevelopments along the street. The north side of Barton Street West west of Queen Street North will accommodate a multi-use trail that will link with a multi-use trail on Stuart Street and westwards to Dundurn Park. The redesigned street will emphasize traffic calming measures at key intersections for north-south pedestrian movements through the neighbourhood.



3. STRUCTURING DESIGN PRINCIPLES



3.4 Redefined Stuart Street

DESIGN PRINCIPLE: A redefined Stuart Street with an active transportation focus that provides a strong interface with the waterfront and the GO Transit facility.

Stuart Street will be redesigned and reconstructed as a more complete street, with a reduction in vehicular travel lanes and an increase in space for active transportation modes. It will have a consistent design and operation between Bay Street North and Barton Street West to ensure movement is predictable along its entire length. Wider sidewalks, street furnishings, and plantings will be complemented by street-oriented development and redevelopments along the street that will create a safe, comfortable, attractive and universally accessible streetscape. The north side of Stuart Street will accommodate a multi-use trail that will connect to Barton Street West and westwards to Dundurn Park. The northern edge of the street will provide a softer transition and edge to the CN rail and shunting yards and the GO Transit facility.



3.5 Fine-grained Development Blocks

DESIGN PRINCIPLE: Redevelopment of the vacant industrial parcels north of Barton Street West as integrated and fine-grained blocks of commercial and residential uses.

New buildings north of Barton Street West will be low and mid-rise in profile, fitting with the surrounding built form fabric while providing more intensity as planning policy dictates. Barton Street West, Stuart Street, and Caroline Street will be emphasized as the principal block faces and there will be a particular emphasis on the relationship to these street edges. Multi-storey buildings will have active and transparent ground floors that reinforce pedestrian routes, and will be encouraged to incorporate private plazas, greens or amenity areas that relate well to the public realm. Taller buildings will be situated and massed to minimize negative impacts on surrounding properties and the public street, including shadow, view, and transition in scale considerations. A new east-west laneway between Queen Street North and Tiffany Street may provide more east-west permeability of movement through these larger blocks. Residential buildings along Barton Street West will need to incorporate appropriate noise mitigation measures to address the sensitive land use guidelines for railways.



3. STRUCTURING DESIGN PRINCIPLES



3.6 Compatible, Street-oriented Infill Developments

DESIGN PRINCIPLE: Potential infill residential developments surrounding the redesigned Central Park that provide a compatible, street-oriented approach.

New infill buildings surrounding the redesigned Central Park will be low-rise in profile in keeping with the established surrounding built form fabric. A good “fit” with the form, massing, scale and materials of the immediately surrounding properties will be an important consideration. Buildings will be situated close to public sidewalks to reinforce the prevailing built form pattern of the area. Parking areas will be situated to the rear of new buildings with accesses from side streets and lanes. Entrances and windows will be located to face Central Park to every extent possible to contribute a safe, comfortable, and attractive pedestrian environment. The density and form of building envisioned for these sites will further contribute to housing options within the Barton-Tiffany area.



3.7 Tangible Sense of Heritage

DESIGN PRINCIPLE: A tangible sense of heritage as part of private sector redevelopment and public sector reconstruction.

Development and redevelopment will acknowledge elements of the Barton-Tiffany area's industrial roots and respect the established architectural character of the Strathcona and Central Neighbourhoods. New buildings will reinforce the character of surrounding neighbourhoods through the use of complementary architecture, materials, colours and signage in a contemporary expression. Also, building scale, massing, and form will define the character of new buildings as much as the architectural expression. Opportunities for re-purposing the existing City maintenance building will be explored, recognizing the building's historical past while enhancing cultural and recreational amenities in Central Park. Other opportunities to enhance public spaces will be considered, especially where they may serve as landmarks and points of interest within the Barton-Tiffany area.



3. STRUCTURING DESIGN PRINCIPLES



3.8 Sustainable Development Approach

DESIGN PRINCIPLE: A sustainable approach to development as part of private sector redevelopment and public sector reconstruction.

Incorporation of sustainable design practices and technologies will be encouraged as part of the redevelopment of the Barton-Tiffany area. One aspect of sustainability will be achieved through the establishment of a compact built form that will support increased walkability and efficient infrastructure. Also, the City will incorporate sustainability considerations as part of the redesign and reconstruction of the streets and spaces identified in the previous structuring design principles, including considerations for transportation, plantings, surfaces, structures, and amenities. Likewise, development proponents will be encouraged to incorporate sustainability practices as part of all development and redevelopment efforts, whether it is following established processes (such as LEED), or incorporating particular technologies or practices through the design and development process.



4

URBAN DESIGN CONCEPT

4.1 Demonstration Concepts

Two demonstration concepts were prepared to illustrate potential build-out scenarios for the long-term development of the Barton-Tiffany area. They depicted two ways how the area could develop in keeping with the Secondary Plan direction and the urban design guidelines within the Urban Design Study. They were prepared as illustrations to generate discussions with stakeholders and the community and gauge preferences for design elements and approaches. Their preparation recognized that there are various other potential scenarios that may exist that also meet the direction and urban design guidelines.

While the two demonstration concepts shared many of the same design elements, they differ in regard to nine design variables. These variables included:

1. The intensity and height of residential buildings along Barton Street West;
2. The intensity and height of non-residential buildings along Stuart Street;
3. The form of infill development surrounding Central Park and further west along Barton Street West;
4. The design approach for Central Park;
5. The components of the Barton Street West road design;
6. The alignment of a multi-use trail on Stuart Street and Queen Street North;
7. The type and location of pedestrian and cycling accommodation along Caroline Street North;
8. The alignment, location and nature of a new mid-block street between Barton Street West and Stuart Street; and,
9. The location, form and nature of a series of public spaces along Caroline Street North.



4. URBAN DESIGN CONCEPT

4.2 Demonstration Concept 1

Demonstration Concept 1 (see Figure 6) explored a lower intensity form of development for the build-out of the Barton-Tiffany study area. It included the following approach to the nine design variables:

1. **Barton Street residential:** height of residential buildings along Barton Street increasing from south to north across Barton Street West as well as from west to east to the Caroline Street North corridor;
2. **Stuart Street commercial:** height of non-residential buildings along Stuart Street increasing from east and west to the Caroline Street North corridor;
3. **Infill development:** range of ground-oriented multiple dwelling forms on infill sites surrounding Central Park and further west along Barton Street West;
4. **Central Park:** retention of the existing frame of the Public Works facility along Barton Street and active recreation focus at Caroline Street North and Mulberry Street intersection;
5. **Barton Street:** 3 lane configuration with single side on-street parking and shared vehicle/cycle lanes;
6. **Stuart/Queen Street:** 2 lane configuration with multi-trail on the south side of the street;
7. **Caroline Street:** 2 lane configuration with multi-use trail on the east side of the street;
8. **Mid-block Street:** southern location for mid-block street between Barton Street West and Stuart Street separating residential and commercial areas; and,
9. **Caroline Street open spaces:** public square at southeast corner of Caroline and Stuart

FIGURE 6: Demonstration Concept 1 Plan and Model



FIGURE 7: Demonstration Concept 2 Plan and Model



4.3 Demonstration Concept 2

Demonstration Concept 2 (see Figure 7) explored a higher intensity form of development for the build-out of the Barton-Tiffany study area. It included the following approach to the nine design variables:

1. **Barton Street residential:** height of residential buildings along Barton Street West increasing from south to north across Barton Street West;
2. **Stuart Street commercial:** height of non-residential buildings along Stuart Street consistent moving east to west throughout the area;
3. **Infill development:** range of ground-oriented multiple dwelling forms and apartment forms on infill sites surrounding Central Park and further west along Barton Street;
4. **Central Park:** removal of the existing frame of the Public Works facility along Barton Street West and active recreation focus at Caroline Street North and Mulberry Street intersection;
5. **Barton Street:** 3 lane configuration with double side on-street parking and dedicated cycle lanes;
6. **Stuart/Queen Street:** 2 lane configuration with multi-trail on the north side of the street;
7. **Caroline Street:** 2 lane configuration with dedicated cycling lanes and a sidewalk on the east side of the street;
8. **Mid-block Street:** a more southern location for mid-block street between Barton Street West and Stuart Street with a seam between residential uses on both sides of the new street; and,
9. **Caroline Street public spaces:** angled viewshed plaza on west side of Caroline and curved plaza at southeast corner of Caroline and Stuart.

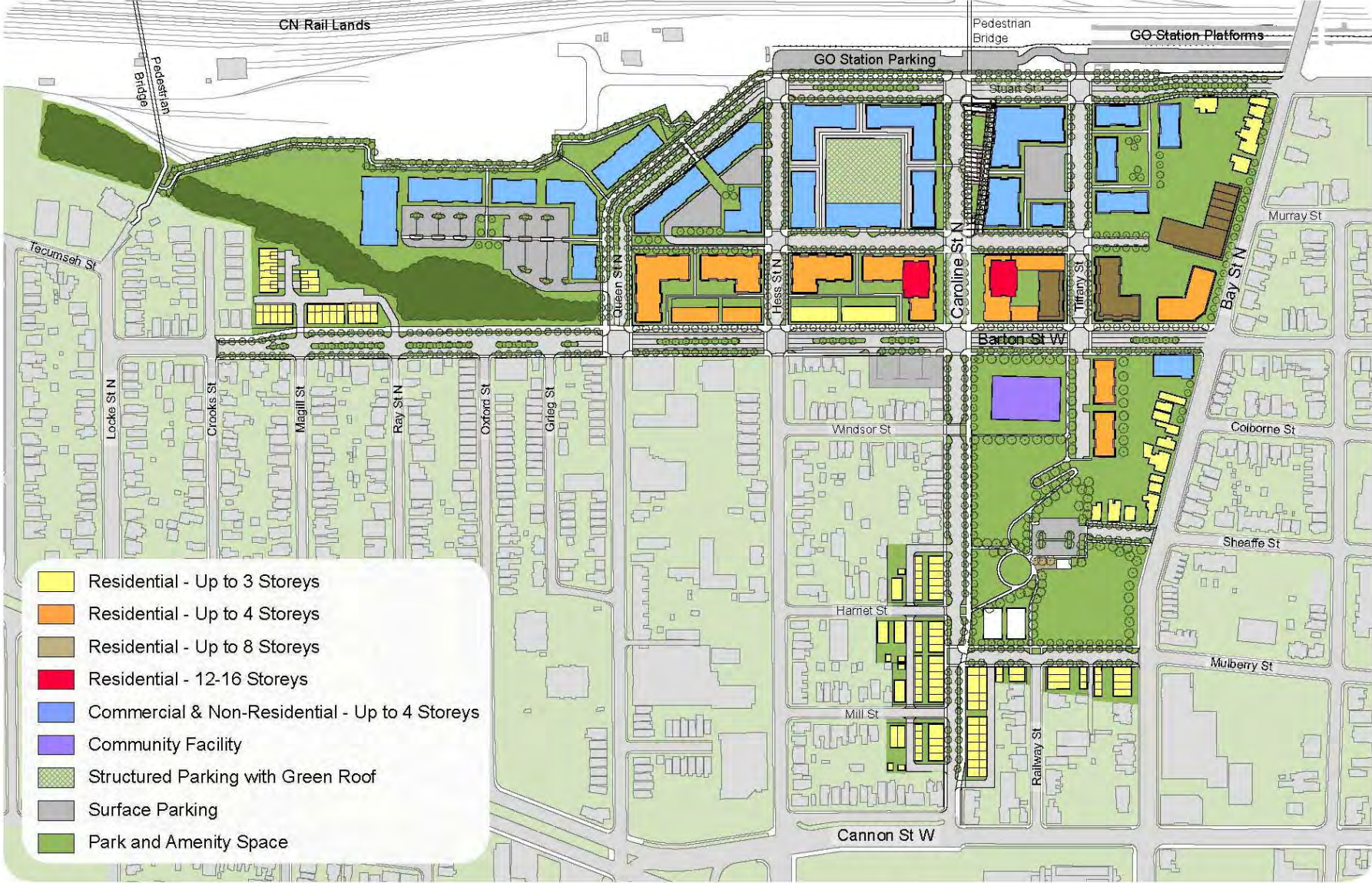
4. URBAN DESIGN CONCEPT

4.4 Preferred Urban Design Concept

The Preferred Urban Design Concept (see Figure 8) emerged from the discussion and evaluation of the design variables considered in the Demonstration Concepts. Based on discussion with the community, comparison to Secondary Plan principles and policies, and further design evaluation, the Preferred Design Concept was developed based on the following approach to the nine design variables (illustrated on Figures 9 through 17):

- 1. Barton Street residential:** a lower height of buildings along the Barton Street West frontage to provide a transition to the surrounding neighbourhood to the south and west, a lower rise building form along the north side of the Barton Street West blocks to shield from the rail noise sources (which also enables potential longer views through the blocks to the waterfront) and an emphasis of height at the Barton/Caroline intersection and moving east towards Bay Street to reinforce the reconfigured Central Park and the Caroline Street pedestrian corridor.
- 2. Stuart Street commercial:** a range of non-residential building footprints throughout the area along Stuart Street that are oriented as separate “campuses” with a particular focus of intensity and use along the Caroline Street North corridor.
- 3. Infill development:** a range of ground-oriented multiple dwelling forms and apartment forms on infill sites surrounding Central Park and further west along Barton Street, that complement the scale and form of the building fabric in the surrounding neighbourhood.
- 4. Central Park:** the retention of the Barton facility, either fully or partially, along Barton Street West for an adaptive re-use (recreation use, community use, or other) and a combination of active and passive recreation uses throughout the southern portion of the site closest to the existing surrounding neighbourhood.
- 5. Barton Street:** a 3 lane configuration with a centre turning/median lane for turning movements to side streets, on-street parking on the north side to support new higher intensity residential buildings (and potential ground floor commercial uses), and, dedicated on-street bike lanes.
- 6. Stuart/Queen Street:** a 3 lane configuration with a centre turning/median lane for access to the GO Transit facility, parking on the south side to support new non-residential uses, and, a multi-trail on the north side of the street connecting to a new recreational multi-use trail running west along the south side of the rail line.
- 7. Caroline Street:** a 2 lane configuration with a multi-use trail on the east side running from Cannon Street to Stuart Street, and enhanced intersection measures and controls at the Barton Street West intersection to accommodate higher pedestrian volumes.
- 8. Mid-block Street:** a new public mid-block street that parallels Barton Street West and follows the block widths in the surrounding neighbourhood in order to efficiently divide the residential and non-residential blocks allowing a phased development while providing rear access to parking away from Barton Street West.
- 9. Caroline Street public spaces:** a new angled plaza on the east side of Caroline Street North at Stuart Street that reveals views to Bayfront Park, as well as generous setbacks and landscaping/amenity areas on the other blocks north of Barton Street West to provide a more open park-like setting extending northwards.

FIGURE 8: Preferred Urban Design Concept



4. URBAN DESIGN CONCEPT

FIGURE 9: Massing illustration of Urban Design Concept looking from the south



FIGURE 10: Massing illustration of Urban Design Concept looking from the north



4. URBAN DESIGN CONCEPT

FIGURE 11: Massing illustration of the potential development surrounding the Barton/Caroline intersection



FIGURE 12: Massing illustration of the Caroline Street pedestrian corridor



The Caroline Street corridor is a key green "spine" to the Urban Design Concept, as it passes a reconfigured Central Park, through wider landscaped setbacks north of Barton Street West, and into an angled park that opens view to Bayfront Park.

4. URBAN DESIGN CONCEPT

4.5 Streets

FIGURE 13: Massing illustration of design components of street system



Barton Street West as a complete street with a reduced number of travel lanes, dedicated bicycle lanes, on-street parking, and transit accommodation.

Caroline Street as a pedestrian connector street with an off-street multi-use trail and significant setbacks to accommodate a green street edge.

Caroline Street and Mulberry Street re-established through Central Park for the purpose of mobility and active park frontages.

4.6 Spaces

FIGURE 14: Massing illustration of design components of spaces along Caroline Street North

- A new angled public plaza at the end of Caroline Street for a programmable space.
- Wider building setbacks from the Caroline Street edge to create a greener promenade setting.
- Adaptive re-use of existing Barton Street facility for recreation and/or community uses.
- A new active recreation focus for Central Park along Caroline Street with courts, play structures, walkways, parking, and washrooms.
- A large open lawn along Bay Street for informal play space.



4. URBAN DESIGN CONCEPT

4.7 Buildings

FIGURE 15: Massing illustration of new buildings throughout the area



Low rise form of development as a transition to the surrounding neighbourhood.

Increase in residential height along Barton Street West from west to east towards Bay Street North as a transition to surrounding neighbourhood.

Use of buildings on the north side of the residential blocks to shield Barton Street West from rail noise.

Commercial blocks developed as a series of smaller campuses, based principally on structured parking.

Concentration of residential development intensity between Caroline Street and Bay Street.

Emphasis with slender point towers at the Barton Street and Caroline Street intersection.

New low-rise infill developments surrounding the reconfigured Central Park edge.

FIGURE 16: Demonstration of topography changes north-south through the area



Topography through the Barton-Tiffany area drops south to north, so a lower profile built form may take advantage of in providing longer range views to the Hamilton Harbour.

4. URBAN DESIGN CONCEPT

FIGURE 17: Demonstration of topography changes east-west through the area



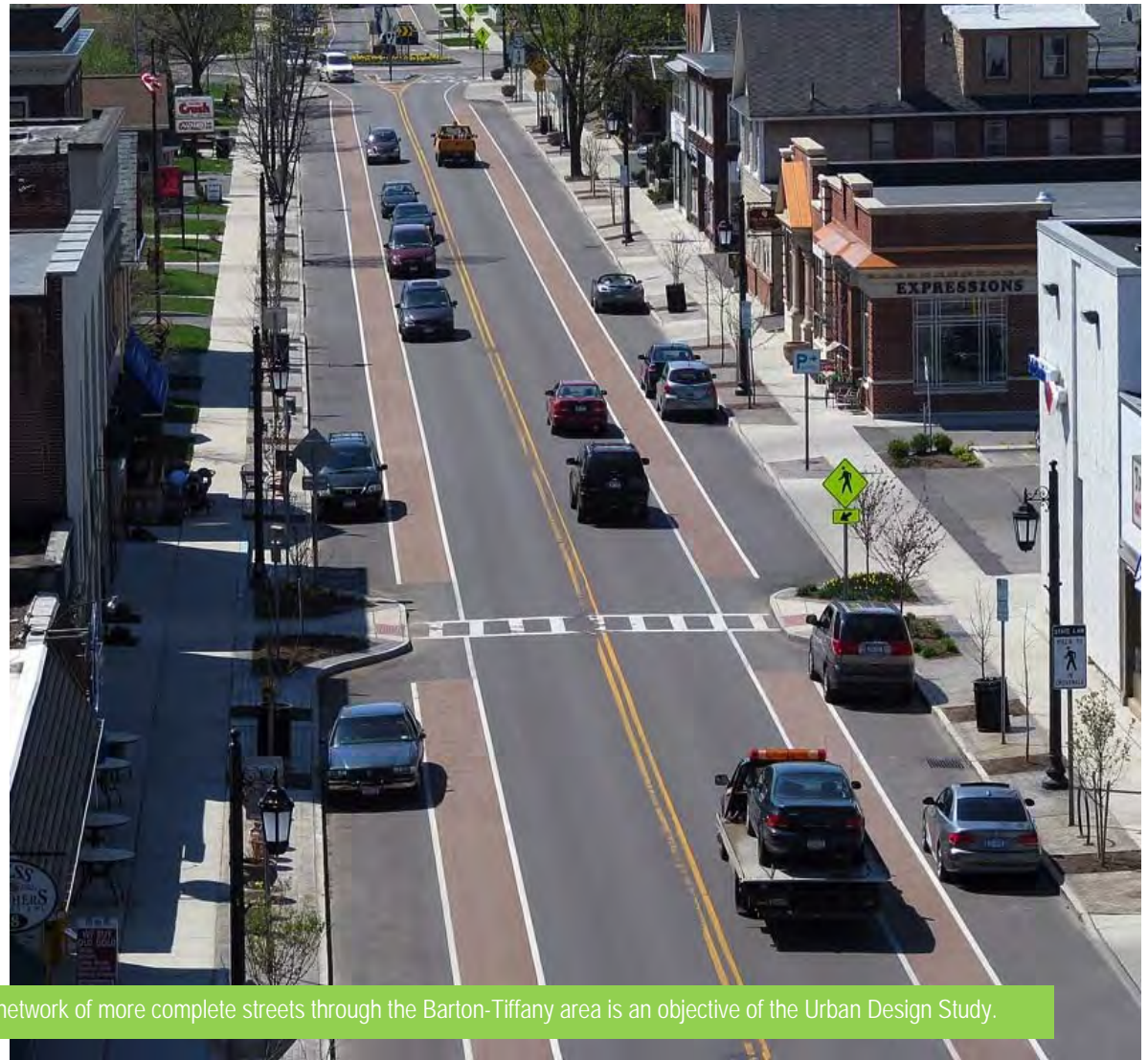
5

STREETSCAPE DESIGN GUIDELINES

5.1 Design Intent

Streets are key elements within any urban environment. They function, first and foremost, as people movers to and through an urban environment, but they are also key people spaces within an urban environment for people to stroll and relax. A successful urban area is dependent on a vibrant, welcoming and comfortable public realm of streets and spaces that allow people to move through the area by a multitude of transportation modes, including moving by transit, foot, bicycle, mobility device, and automobile. The Urban Design Concept seeks to rebalance the streets within the Barton-Tiffany area in order to make them more complete and create a walking, cycling and transit environment that is more convenient, more connected, and more comfortable to all users, of all ages and abilities.

Section 5.2 below outlines the intended design for the street system and circulation routes (see Figures 18 through 21) throughout the Barton-Tiffany area for vehicles, bicycles, and pedestrians. Sections 5.3 through 5.5 provide specific design guidance for particular street types. Section 5.6 provides general design guidance for all street types.



A network of more complete streets through the Barton-Tiffany area is an objective of the Urban Design Study.

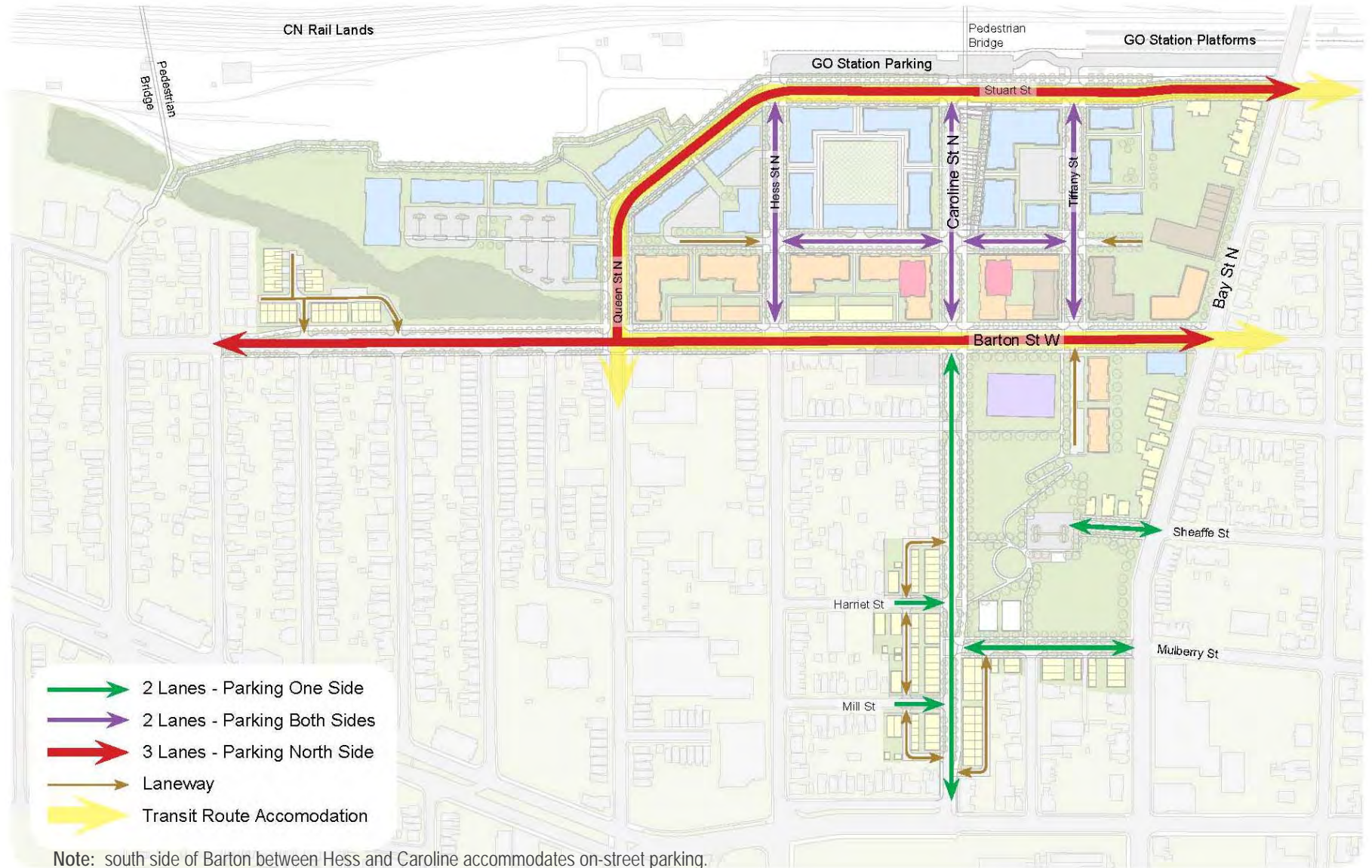
5. STREETScape DESIGN GUIDELINES

5.2 Street Network

TABLE 1: Design Components of the Barton-Tiffany Street System

	Barton Street (East of Queen)	Barton Street (west of Queen)	Stuart Street / Queen Street North	Caroline Street (north of Barton)	Caroline Street (south of Barton)	Tiffany Street & Hess Street	Mulberry Street	Sheaffe Street	Harriet, Mill & Railway Streets
Street Type	Neighbourhood Mobility Street	Neighbourhood Mobility Street	Neighbourhood Mobility Street	Pedestrian Connector Street	Pedestrian Connector Street	Local Street	Local Street	Local Street	Local Street
Right-of-way width	26 metres	26 metres	26 metres	23 metres	23 metres	20 metres	20 metres	20 metres	20 metres
General Traffic	2 (plus centre turn lane)	2 (plus centre turn lane)	2 (plus centre turn lane)	2 (plus centre turn lane)	2	2	2	2	2
On-Street Cycling	Dedicated lanes	Shared lanes	General traffic lanes	General traffic lanes	General traffic lanes	General traffic lanes	General traffic lanes	General traffic lanes	General traffic lanes
Off-street cycling	None	Multi-use trail on north	Multi-use trail on north/west	Multi-use trail on east	Multi-use trail on east	None	None	None	None
Pedestrians	Sidewalk on north	Multi-use trail on north	Sidewalk on south/east	Sidewalk on west	Sidewalk on west	Sidewalk on west	Sidewalk on north	Sidewalk on north	Sidewalk on north
	Sidewalk on south	Sidewalk on south	Multi-use trail on north/west	Multi-use trail on east	Multi-use trail on east	Sidewalk on east	Sidewalk on south	Sidewalk on south	Sidewalk on south
On-street Parking	North side only (Both sides between Hess and Caroline)	North side only	South/east side only	Both sides	Both sides	Both sides	North side only	One side	One side

FIGURE 18: Vehicular circulation within Barton-Tiffany



5. STREETScape DESIGN GUIDELINES

FIGURE 19: Cyclist circulation within Barton-Tiffany

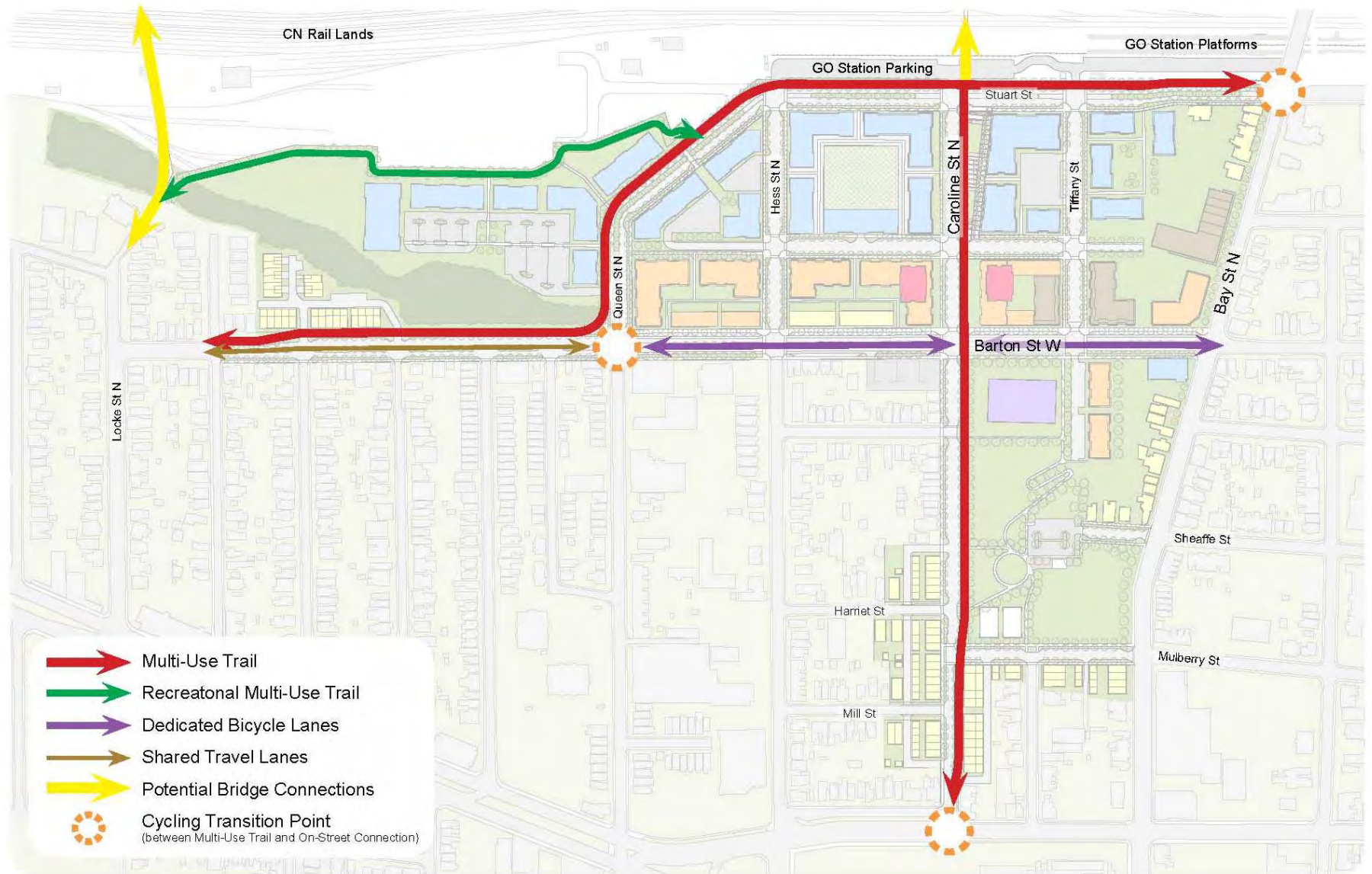
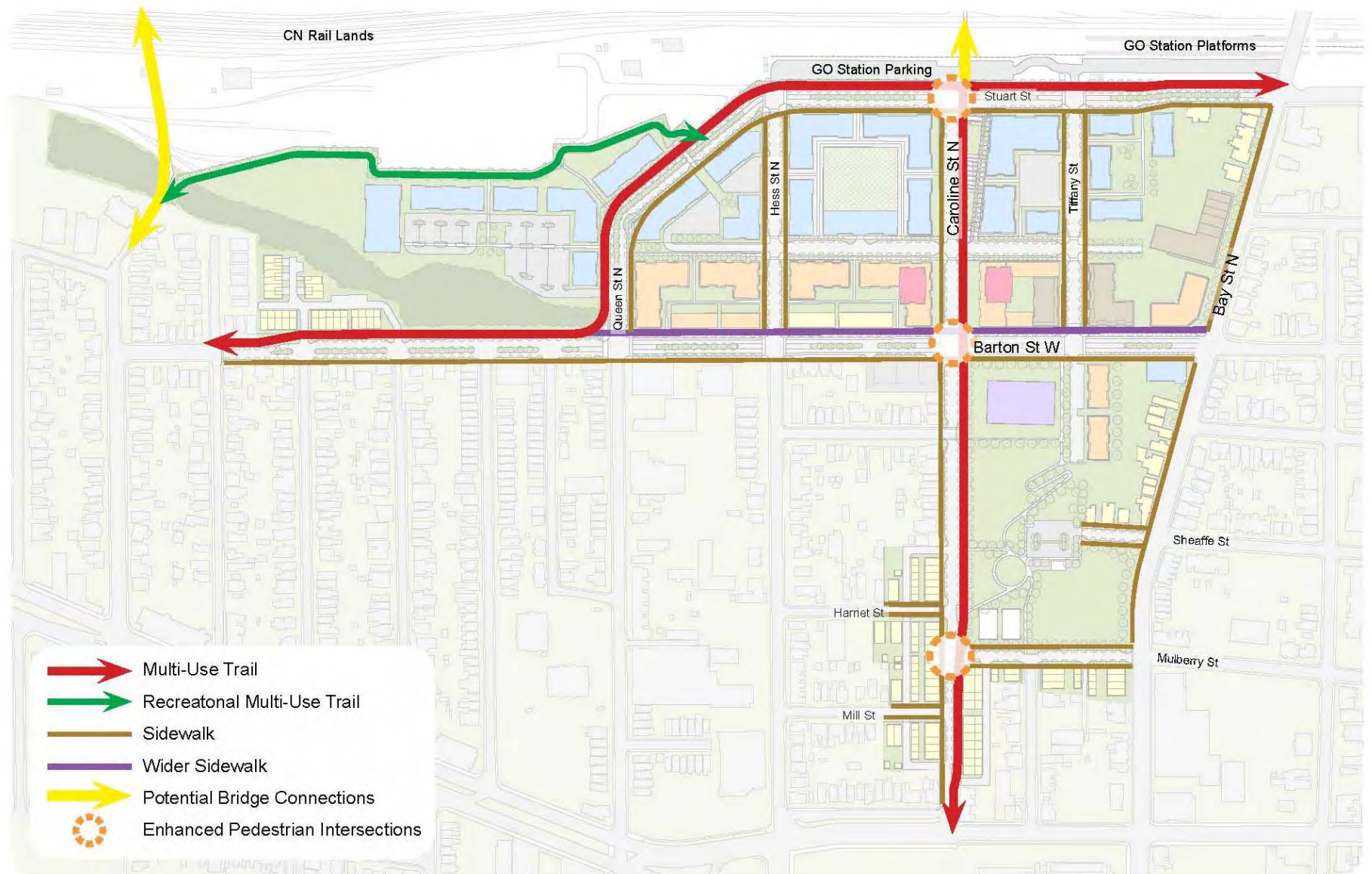
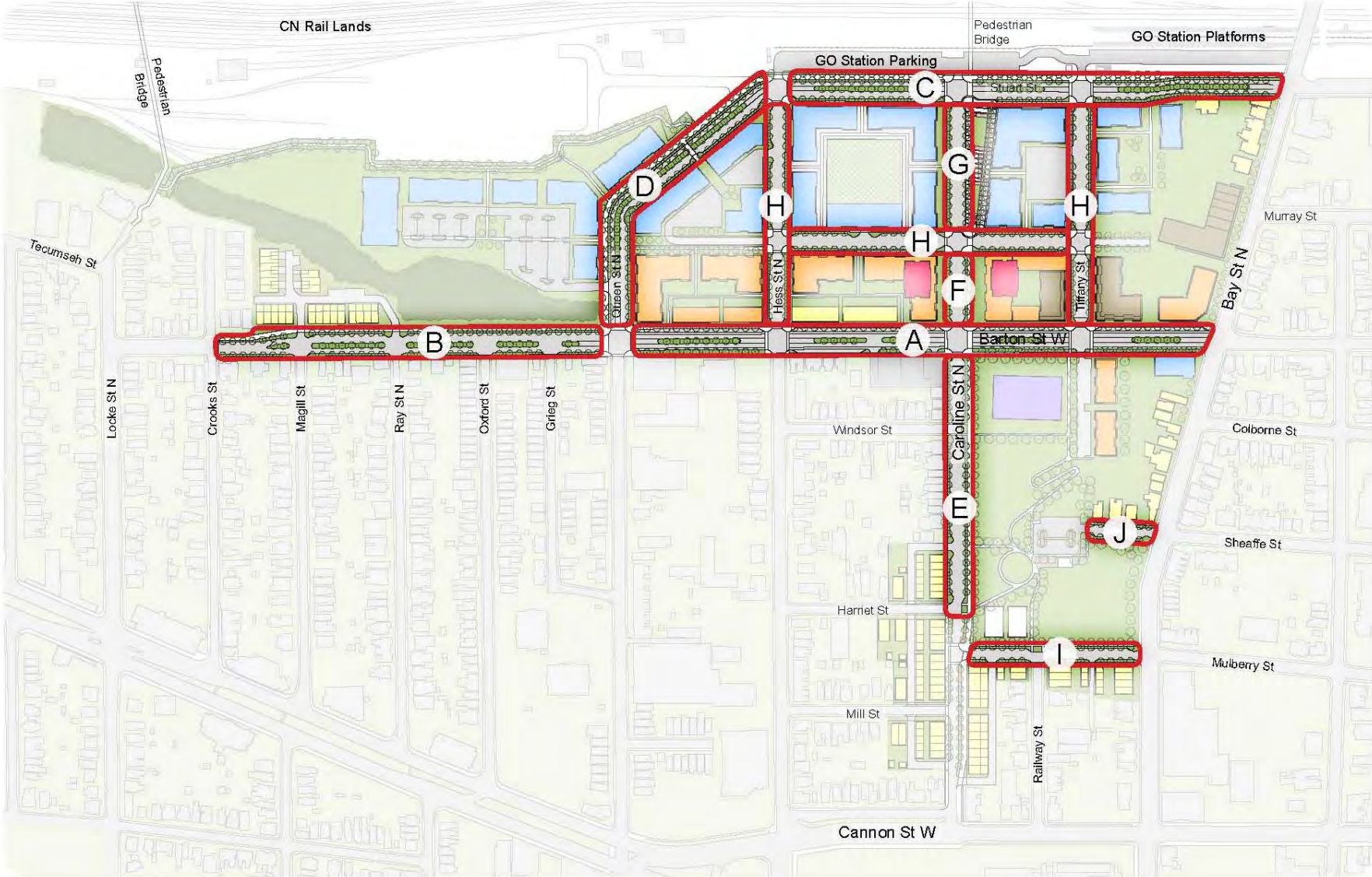


FIGURE 20: Pedestrian circulation within Barton-Tiffany



5. STREETScape DESIGN GUIDELINES

FIGURE 21: Street sections within Barton-Tiffany
(see Section 5.3 through 5.6 for discussion)



5.3 Neighbourhood Mobility Streets

5.3.1 Barton Street West

In terms of hierarchy, Barton Street West is the “Primary” Neighbourhood Mobility Street in the Barton-Tiffany area in that it carries more of the east-west traffic through the area as compared to Stuart/Queen Street North. Barton Street West currently is a 4-lane street with sidewalks on both sides from Bay Street North to Hess Street North, but only on the south side west of Hess. On-street parking exists on the north side west of Queen Street North (without restrictions) and on the south side from Ray Street North to Little Greig Street and again between Queen and Tiffany Street (with and without restrictions).

The design concept for Barton Street West envisions a complete street that more equally accommodates all travel modes and all ages and abilities (see Figures 22 and 23). It would be the primary east-west spine for moving people through the Barton-Tiffany area between Locke Street North and Bay Street North. Its design includes:

- > One travel lane in each direction with a centre shared turning lane that may be divided by planted centre medians, and wider travel lanes east of Queen Street North to accommodate a potential transit route in the future;
- > Dedicated on-street bicycle lanes in each direction abutting the travel lanes;
- > Curb-side on-street parking on both sides of the street;
- > West of Queen, a multi-use trail on the north side that connects to the multi-use trail along Queen/Stuart Street, and a sidewalk on the south side;
- > East of Queen, a wider “commercial” sidewalk on the north side that connects, and a standard sidewalk on the south side; and,



5. STREETScape DESIGN GUIDELINES

FIGURE 22:

Section A - Barton Street (East of Queen)
26 metre right-of-way

Note: south side of Barton between Hess and Caroline accommodates south side on-street parking.



FIGURE 23:
 Section B - Barton Street (West of Queen)
 26 metre right-of-way



5. STREETScape DESIGN GUIDELINES

5.4.2 Stuart Street / Queen Street North

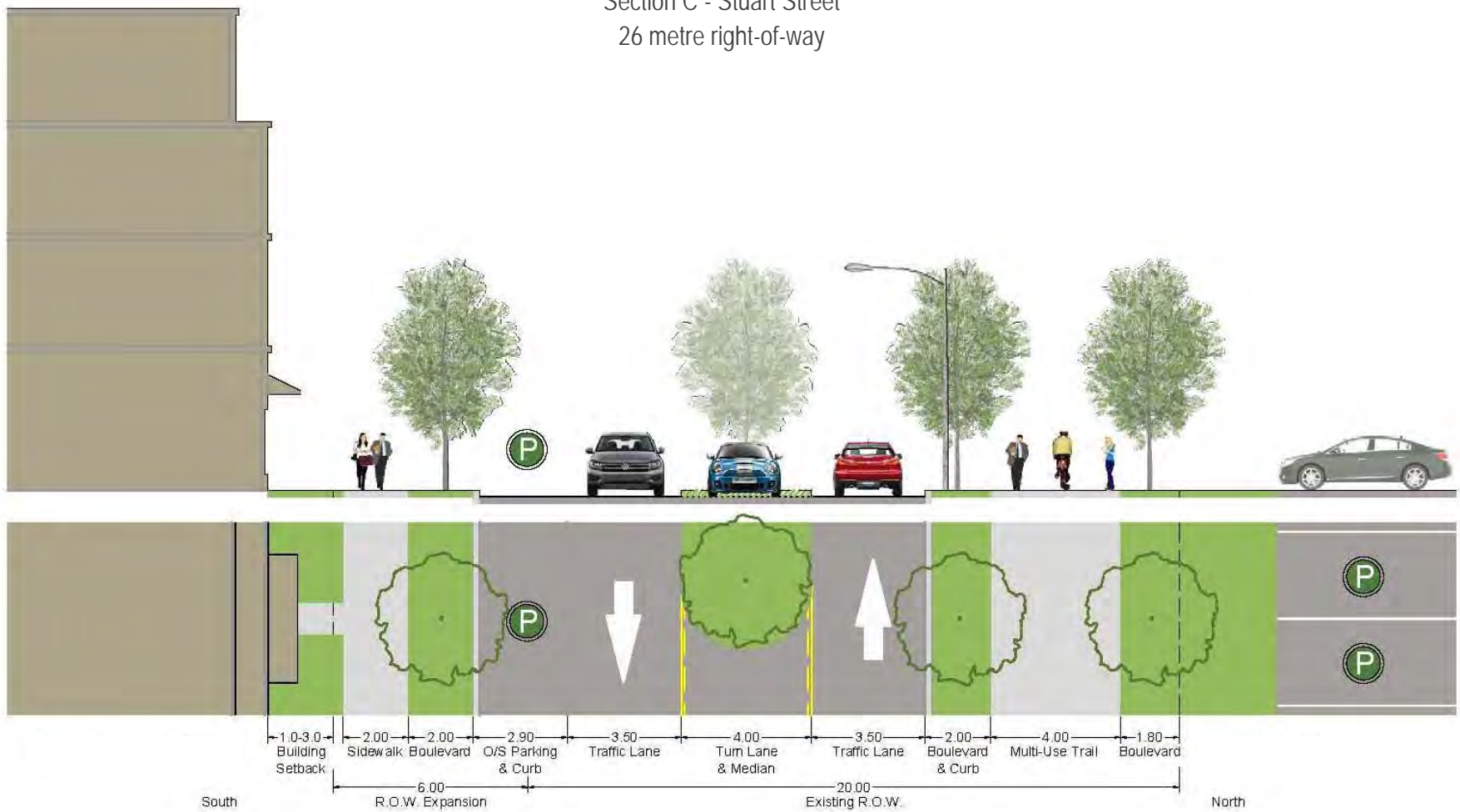
In terms of hierarchy, Stuart/Queen Street North north of Barton Street West is the “Secondary” Neighbourhood Mobility Street through the Barton-Tiffany area in that it carries less of the east-west traffic through the area as compared to Barton Street West. Stuart Street is currently a 4-lane street with a sidewalk on the north side from Bay Street North to Hess Street North, on the south side from Bay Street North to Caroline Street North and from Hess Street North to Queen. On-street parking exists on the north side between Tiffany Street and Bay Street North (without restrictions). Queen Street North is a 4-lane street with a sidewalk on the east side from Barton Street West to Stuart Street and no on-street parking.

Similar to Barton Street West, the design concept for Stuart/Queen Street North envisions a complete street that more equally accommodates all travel modes (see Figures 24 and 25). It would be a secondary east-west route through the area with a direct interface to the proposed GO Station, and would provide frontage to new mixed commercial developments on the blocks between Barton and Stuart. Its design includes:

- > One travel lane in each direction that are wider to accommodate a potential transit route in the future;
- > Curb-side on-street parking on the south/east side along the commercial development blocks;
- > A multi-use trail on the north/west side of Stuart/Queen that connects to the multi-use trail along the north side of Barton Street West west of Queen Street North, and to the multi-use trail along the rail line to the west; and,

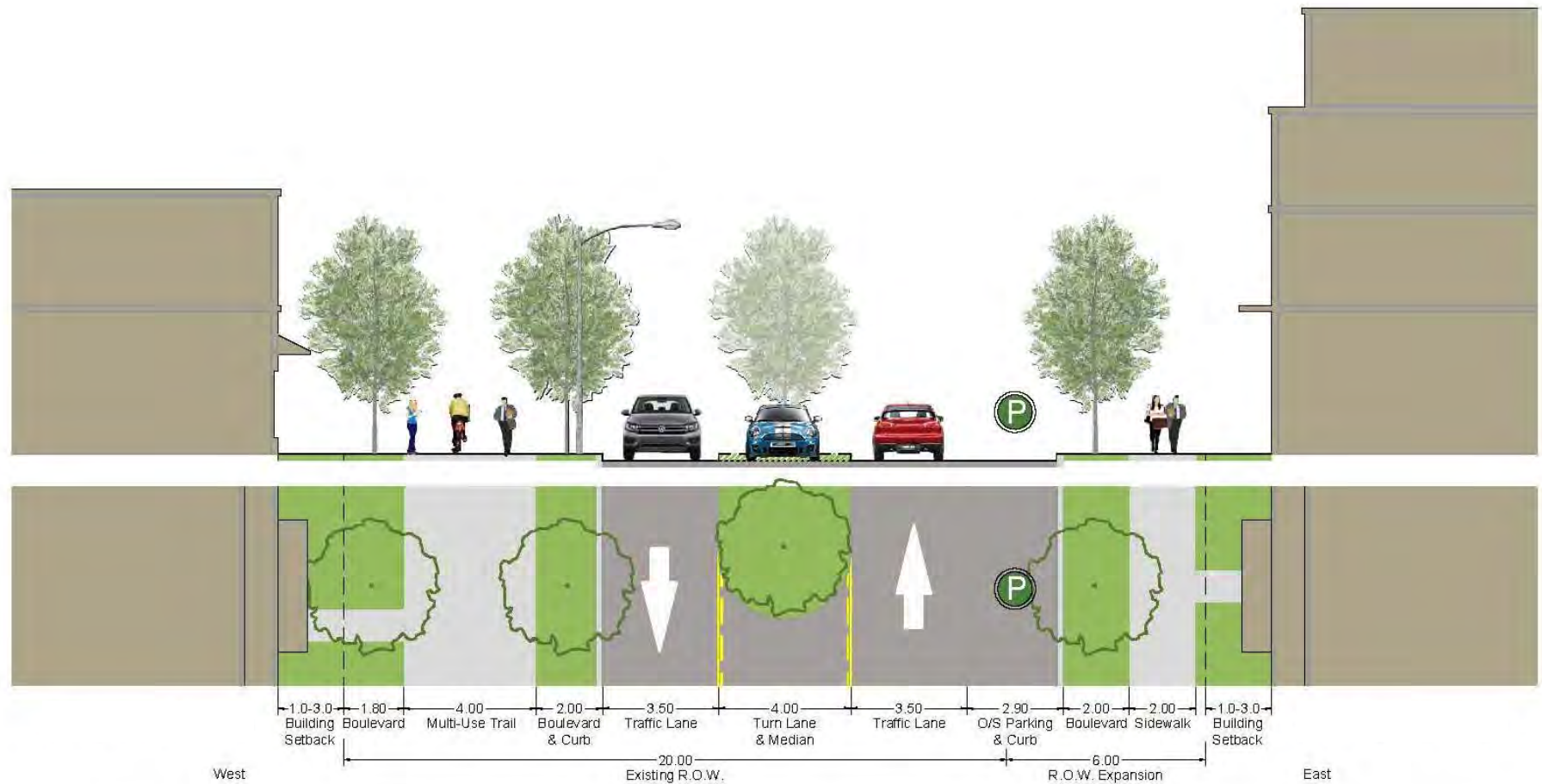


FIGURE 24:
Section C - Stuart Street
26 metre right-of-way



5. STREETScape DESIGN GUIDELINES

FIGURE 25:
Section D - Queen Street North
26 metre right-of-way



5.4 Pedestrian Connector Street

5.4.1 Caroline Street North

The Secondary Plan supports reestablishing the street grid surrounding Central Park, including Caroline Street North in a north-south direction as well as Mulberry Street, Harriett Street, and Mill Street in an east-west direction. Caroline Street North currently is a 2-lane street that is disconnected between Barton Street West and Cannon Street West by the existing configuration of Central Park. It has an intermittent pathway on the west side north of Barton Street West and a sidewalk on the west side south of Barton Street West.

Caroline Street is envisioned as a prominent pedestrian corridor through the Barton-Tiffany area connecting Cannon Street West to the waterfront and the GO Station, while better integrating Central Park into the fabric of the neighbourhood (see Figures 26, 27 and 28). It would provide a more comfortable environment for walking or cycling due to the interface of new infill developments near Cannon Street West, a redesigned Central Park, and new residential, commercial and mixed-use buildings north of Barton Street West. Its design would include:

- > One travel lane in each direction;
- > A multi-use trail on the east side abutting Central Park and new developments north of Barton Street West;
- > A standard sidewalk on the west side;
- > Curb-side on-street parking on both sides of the street;
- > Enhanced intersection treatments at Mulberry Street, Barton Street West, and Stuart Street with additional traffic calming features; and,
- > An angled public plaza at its northern end at Stuart Street that provides views in the direction of Bayfront Park.



5. STREETScape DESIGN GUIDELINES

FIGURE 26:
Section E
Caroline Street North - South of Barton
23 metre right-of-way

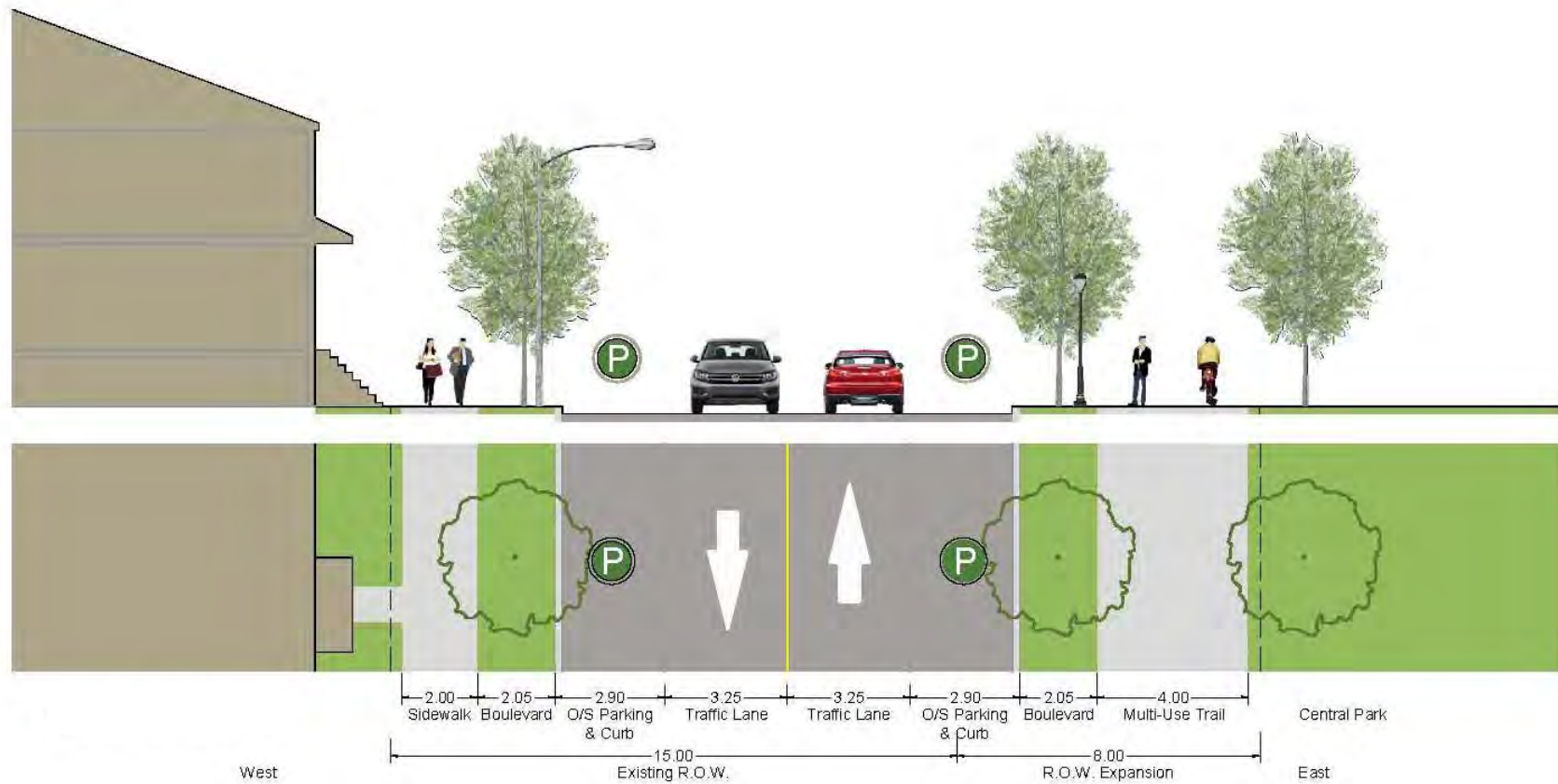
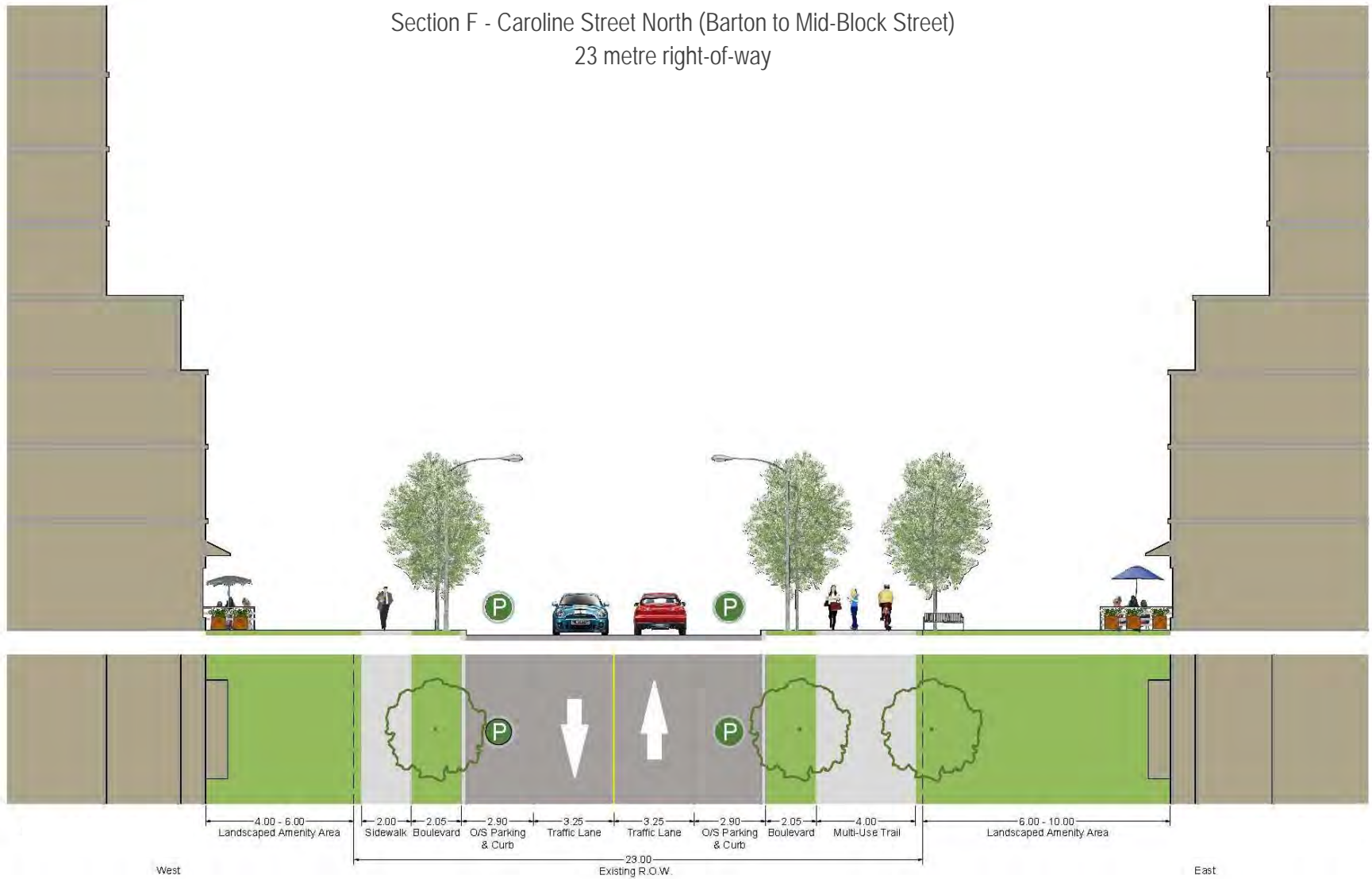
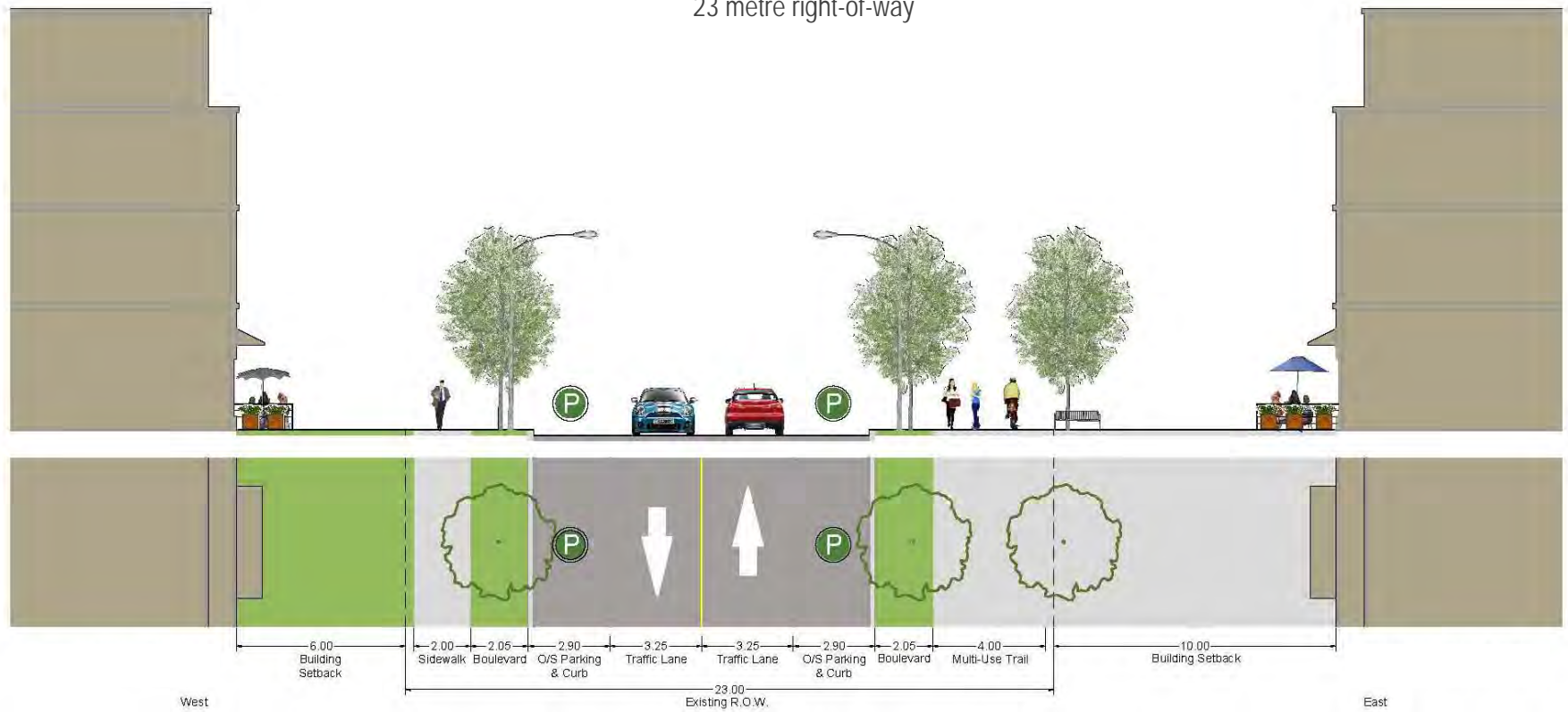


FIGURE 27:
 Section F - Caroline Street North (Barton to Mid-Block Street)
 23 metre right-of-way



5. STREETScape DESIGN GUIDELINES

FIGURE 28:
 Section G - Caroline Street North (Mid-Block Street to Stuart)
 23 metre right-of-way





This wide pedestrian route along the edge of a public park sets an appropriate illustration of the intended vision for Caroline Street pedestrian corridor running alongside a reconfigured Central Park.

5. STREETScape DESIGN GUIDELINES

5.4.2 Angled Public Plaza

An angled public plaza is located on the eastern side of Caroline Street North where it connects to Stuart Street to provide additional public amenity space along the pedestrian corridor (see Figures 29 and 30). The angle would open viewlines towards Bayfront Park and connect directly with the trail that extends the length of Caroline Street North through the Barton-Tiffany area. Buildings abutting the space are oriented close to the public plaza edge to reinforce the space, and would ideally contain ground floor activities to animate the space.

The design of this space should include a combination of hardscaped and landscaped spaces to provide opportunities for a diversity of activities. The space should be at least 10 metres wide at the new Mid-Block Street and flaring out to at least 20 metres wide at Stuart Street. It could include a series of open lawn spaces for small recreation activities as well as hardscape areas with shelters and seating opportunities as part of a central square in addition to similar areas lining the abutting buildings for spill-out space for potential ground floor commercial uses. The ends of the space could accommodate place-making elements, such as public art or heritage elements, to help define the space. Plaza finishes and elements should be consistent with the area's industrial vernacular and rail history, so as to assist in creating a space that is unique for the Barton-Tiffany context.

Additionally, the section of Caroline Street between the Mid-Block Street and Stuart Street should be considered as a flexible "flat" street, with rolled curbs and bollards, to allow it to be closed for larger public events associated with the angled public plaza.



FIGURE 29: Angled public plaza concept



5. STREETScape DESIGN GUIDELINES



FIGURE 30:
Angled public plaza views

Views of angled public plaza along the east side of Caroline Street, looking from the west (top), from the south at the Mid-Block Street (bottom left), and from the north at Stuart Street (bottom right)



5.5 Local Streets

5.5.1 Tiffany Street and Hess Street North

Tiffany Street is currently a 2-lane street with a sidewalk on the east side and on-street parking on the majority of both sides (with and without restrictions). Hess Street North is currently a 2-lane street with a sidewalk on the east side and on-street parking on both sides from Barton Street West to Stuart Street (with and without restrictions). Tiffany Street and Hess Street North are envisioned to be secondary local streets providing north-south access through the Barton-Stuart development blocks (see Figure 31). Their design includes travel lanes in each direction, sidewalks and boulevards on both sides of the street, and on-street parking on both sides of the street to support the abutting multiple residential and commercial blocks.

5.5.2 Barton-Stuart Mid-Block Street

The design concept includes a new mid-block street running parallel to the north of Barton Street West between Hess Street North and Tiffany Street. This street divides the commercial and residential portions of the blocks in order to provide access and parking opportunities mid-block. It is situated on the commercial designated portion of the blocks to maximize the residential opportunities. It has been designed as a public street right-of-way, similar to the Mulberry Street cross-section with travel lanes in each direction, sidewalks and boulevards on both sides of the street, and on-street parking on the north side of the street along the park frontage, however, it could operate as either a public or private street (see Figure 28).

5.5.3 Sheaffe Street

Sheaffe Street is currently a 2-lane street and has sidewalks on both sides and on-street parking on the south side. The design for Sheaffe Street remains unchanged (see Figure 33). Although, the Secondary Plan contemplated extending Tiffany Street across Barton Street West to connect with Sheaffe Street, existing grades in that area would be difficult from a functional perspective. The design concept has a small public parking area at the west end of Sheaffe Street to support a redesigned Central Park.

5.5.4 Mulberry Street

Mulberry Street currently terminates at Bay Street North. As per the Secondary Plan, the design concept envisions Mulberry Street extending from Bay Street North to Caroline Street in order to provide street frontage along the southern edge of a redesigned Central Park for the purposes of better park access and enhanced visibility into the park. Mulberry Street's design includes travel lanes in each direction, sidewalks and boulevards on both sides of the street, and on-street parking on the north side of the street along the park frontage (see Figure 32).

5.5.5 Harriet Street, Mill Street, and Railway Street

Harriet Street, Mill Street and Railway Street are local streets that currently terminate at the edges of the existing boundaries of Central Park. The Secondary Plan supports reestablishing the grid of streets, including these three streets, in order to enhance access and visibility to a redesigned Central Park. The design of these streets would extend the existing right-of-way to Caroline Street and Mulberry Street including the continuation of sidewalks and boulevards as applicable.

5. STREETScape DESIGN GUIDELINES

FIGURE 31:
Section H - Tiffany, Hess, and Mid-Block Street
20 metre right-of-ways

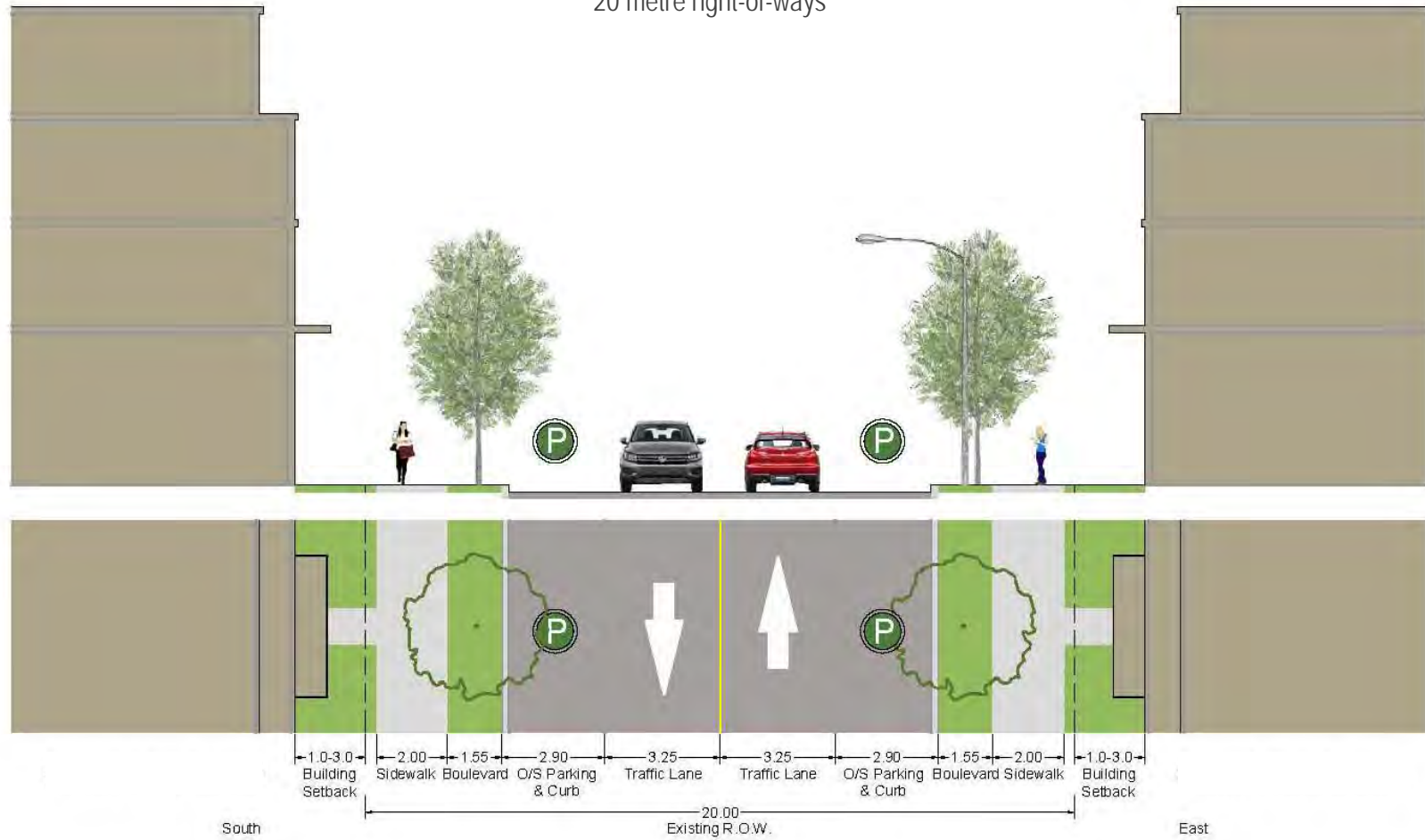
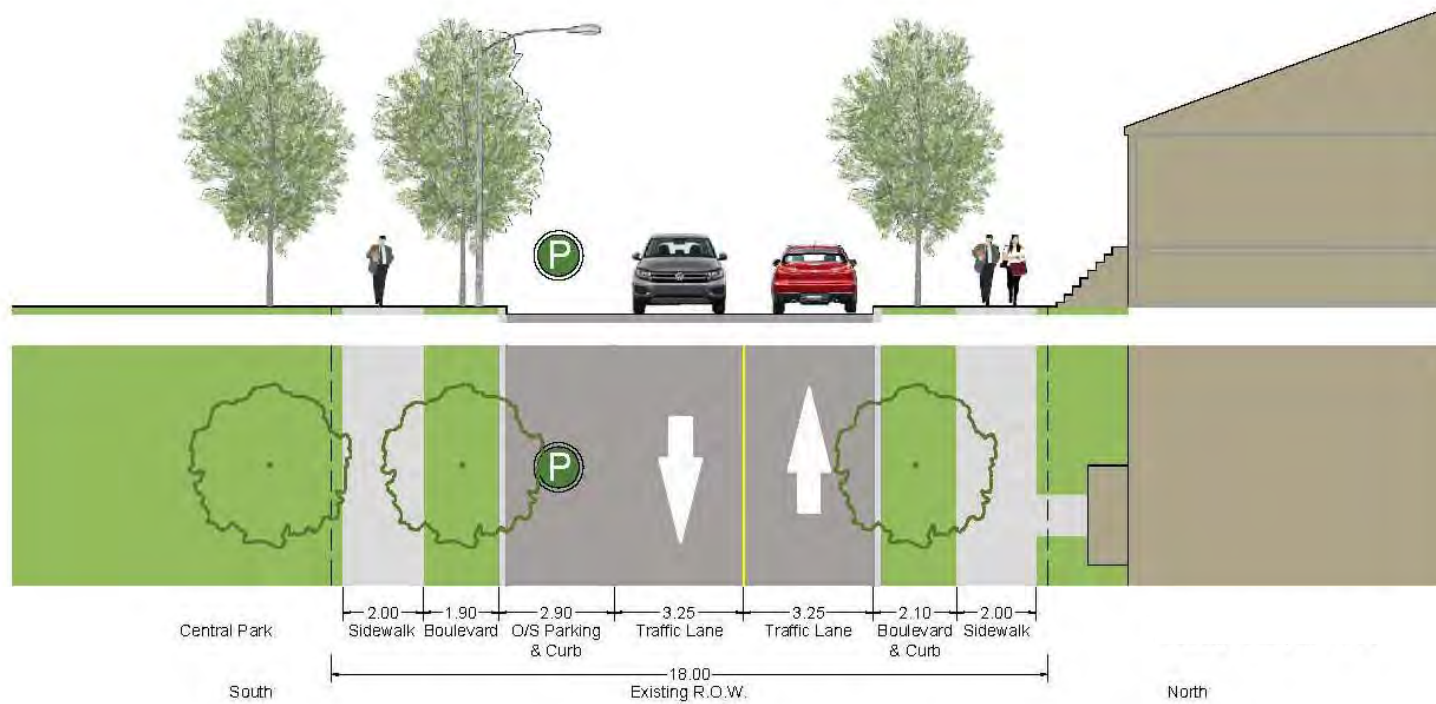


FIGURE 32:
Section I - Mulberry Street
20 metre right-of-way



5. STREETSCAPE DESIGN GUIDELINES

FIGURE 33:
Section J - Sheaffe Street
20 metre right-of-way



5.6 General Streetscape Design Considerations

5.6.1 Streetscape Components

Designing the streetscape involves integrating both the public and private realms as a cohesive environment in terms of treatment from building edge to curb. The following four components are shared by all streets within the Barton-Tiffany area, regardless of the size, hierarchy and function of the street (see Figure 34):

1. The **Roadway** extends between curbs and moves vehicles along the street. It may accommodate the vehicular travel lanes (or shared vehicle/bicycle lanes), turn lanes, on-street parking space, and dedicated on-street bicycle lanes of the street. The specific width and composition of roadways vary throughout the Barton-Tiffany area depending on the street hierarchy and function.
2. The **Boulevard** is immediately beside the curb next to the roadway and performs a number of different functions. It provides a buffer between vehicles on the roadway and people on the sidewalk, including door out swings from parked cars. It provides space for trees, plantings and furnishings along the street (and snow storage). It also provides additional pedestrian space in areas with no furnishings or plantings, effectively widening the sidewalk. Boulevards



FIGURE 34: Streetscape design components

present on all streets and widths vary slightly between different streets depending on right-of-way width and street function.

3. The **Sidewalk** is immediately beside the boulevard and accommodates pedestrian movement along the street. It is typically sized to include a straight, unobstructed clearway for pedestrians, as well as buffer space on the edges between the sidewalk and boulevard and also the sidewalk and building entrances. For the most part, sidewalks are located on both sides of all streets (some have multi-use trails on one side) and at least 2.0 metres in width in keeping with the City's Pedestrian Mobility Plan.
4. The **Transition** area is between the sidewalk and the face of abutting buildings. It is private property abutting the public right-of-way but forms part of the streetscape itself, and accommodates additional space for people moving along the street, as well, in some cases, providing "spill-out" space for ground floor commercial uses or amenity areas for residential uses. The distance of the transition area from the sidewalk varies depending on the nature of the street and the abutting built form.

5. STREETScape DESIGN GUIDELINES

5.6.2 Enhanced Pedestrian Intersections

Three intersections along Caroline Street are identified as “enhanced pedestrian intersections” where additional emphasis and traffic calming features are supported. The Mulberry Street intersection is identified given the pedestrian movements associated with a redesigned Central Park. The Barton Street West intersection is identified given it is the principal intersection in the study area for pedestrian flows. The Stuart Street intersection is identified given the connections to the multi-use trail network and the future GO Station.

Enhanced pedestrian intersections are intended to be physically and visually defined to identify pedestrian routes across vehicular routes. The following elements, either standalone or in combination, should be considered as part of the intersection design of enhanced intersections along Caroline Street:

- > Intersection Pedestrian Signals (IPS) at the Barton Street West and Caroline Street intersection to provide a protected pedestrian crossing of Barton Street West along Caroline Street (the latter with stop controls) recognizing the intended pedestrian focus of Caroline Street;
- > Curb extensions (“bump outs”) as horizontal intrusions of the curb into the roadway resulting in a narrower section of roadway, which can reduce crossing distances and improve pedestrian visibility;
- > Textured and/or coloured crosswalks that contrast with the adjacent roadway (i.e. such as stamped concrete or textured/coloured asphalt) in order to better define the crossing location for pedestrians, emphasize pedestrian priority, and reduce pedestrian-vehicle conflicts;

- > Curb radius reductions using a smaller radius (generally in the range of 3 to 5 metres), which can reduce the speed of right-turning vehicles, reduce crossing distance for pedestrians, and improve pedestrian visibility;
- > Raised crosswalks as a marked pedestrian crosswalk that is constructed at a higher elevation than the adjacent roadway, which can reduce vehicle speeds, reduce pedestrian-vehicle conflicts and improve pedestrian visibility; and,
- > Raised intersections, which includes the crosswalks, at a higher elevation than the adjacent roadways, which can reduce vehicle speeds, define crosswalk areas, and reduce pedestrian-vehicle conflicts.



5.6.3 Boulevards

Boulevards create separation between the roadway and sidewalk and provide opportunity for plantings and furnishings to enhance the pedestrian experience along the street. Soft surface boulevards should be at least 1.75 metres wide from the back of curb to the sidewalk to allow tree planting as per the Hamilton Site Plan Guidelines. Soft surfaced boulevards should be sodded, or use low-maintenance seed-mixes or groundcovers where appropriate to reduce maintenance and watering requirements. Any plant materials should be provided in raised planters or planter pots, recognizing daylighting requirements at intersections or driveways. Where the available boulevard width is less than 1.75 metres, boulevards should be hard surfaced with similar paving materials as the sidewalk to read a continuous space and along tree plantings with tree grates.

Street furnishings, such as benches, waste receptacles, bike racks and pedestrian light standards, should be located in a manner that does not obstruct clearways or sight lines and daylighting requirements. Furnishings should be placed in line with on-line parking space dividers and offset the curb to reduce conflicts with door swings from parking vehicles. In commercial areas, site furnishings such as planters and benches should be clustered at intersections to frame street frontages. Where widened sidewalks are provided which extend to the back of curb, the pedestrian corridor and the site furnishings zone should be made distinct through variations in colour, patterning or texture of paving materials, such as textured and coloured concrete.



5. STREETScape DESIGN GUIDELINES

5.6.4 Street Furnishings

Street furnishings assist with creating streets that perform well as outdoor living spaces. Benches, waste receptacles, bike racks, and pedestrian light standards should be incorporated within the boulevard in a manner that does not obstruct pedestrian circulation or sight lines, and should be complemented by and coordinated with the furnishings for retail units in the land use transition zone. The boulevard should be sized to allow efficient snow removal with the furnishings in place, and furnishings and other amenities should be positioned around the building edges in a manner that will facilitate snow and ice removal in the winter. A consistent style and placement of railings should be coordinated with the overall furnishings program to distinguish the private (semi-private) spaces within the transition area from the public spaces of the remainder of the streetscape.



5.6.5 Street Lighting

Street lighting should seek to provide a lighting level that ensures a comfortable environment for those moving through the area. Street lighting should be designed as an integrated system that considers the needs of drivers and pedestrians. Most streets would require light standards for illumination of the street and sidewalks, although higher pedestrian volume streets (such as Barton Street West, Stuart Street, and Caroline Street North) may warrant additional pedestrian scale lighting fixtures. Only those areas which need to be illuminated should be lit in order to avoid a false sense of security or lead people to isolated, unlit areas. Lighting styles and fixtures should be “night sky compliant”, as per appropriate and relevant standards and are not to unnecessarily intrude into surrounding areas.



5. STREETScape DESIGN GUIDELINES

5.6.6 Sidewalks & Crosswalks

Sidewalks should provide a corridor for pedestrians to navigate through the urban environment. The sidewalk width, quality of surfacing, and location of banding, colour and textures used is important to support movement along the street. Sidewalks should be provided on both sides of all streets and be installed with a minimum width of 2 metres as per the City's Pedestrian Mobility Plan. Where the available boulevard width is less than 1.75 metres, boulevards should be hard surfaced with similar paving materials as the sidewalk to read a continuous space and along tree plantings with tree grates.

Sidewalks should be concrete surfaces given its durability for long-term maintenance and mobility initiatives. A combination of banding, textures and colour should be used on walkway surfaces to emphasize intersections, driveways, direction changes, and site furnishing zones to assist with mobility and wayfinding, as per the City of Hamilton's Urban Braille system. Sidewalks should extend across all driveway crossings and be visually extended across intersections through paving differentiation or surface markings. The pedestrian clearway of the sidewalk should be unencumbered from site furnishings provided within the boulevard or in building transition areas to maintain clear paths.

Crosswalks across streets should be at least 3 metres wide extending between curbs directly across the roadway, preferably with an interior field that is the principal pedestrian

route and accented on either side by banding strips. They should have dropped or rolled curbs as well as texture or color differentiation between the sidewalk and the intersection for pedestrian visibility and accessibility purposes. Materials should be textured asphalt or stamped concrete for distinct crosswalk surfaces, and surface treatment should through differentiate in colour and/or texture between the roadway and the intersection's interior field.



5.6.7 Street Trees

Trees are a fundamental component of any vibrant, active and comfortable urban street, providing visual interest along the street as well as a canopy for shade along the sidewalk, in addition to sustainable benefits. Large canopy trees should be planted within the boulevard in regular intervals preferably 6 to 10 metres apart, but depending on species selection and considering utility requirements and clearances. In soft-surfaced boulevards, trees should be planted with continuous trenches containing an appropriate growing medium, such as structural soil mixtures that provide opportunity for root growth and development, and set back at least 0.8 metres from the curb face. In hard surfaced boulevards, street trees should be situated in grates with engineered soil zones, with a cut-out area of 1.5 m² and set back at least 0.8 metres from the curb face.



Tree species should be selected based on appropriate characteristics with a tolerance for urban conditions, heat, drought and salt; their suitability for use within the public realm; and consideration of the species hardiness (refer to Hamilton Site Plan Guidelines for preferred species list by particular use). Native species with high branching canopies are preferred in order to reduce maintenance, promote long-term success, and to keep sight lines across the laneway open for pedestrians. Using multiple species along an individual street or to define different streets should be considered to provide visual interest given differences in leaf colour, bloom period, and leaf drop, in addition to biodiversity benefits.



5. STREETScape DESIGN GUIDELINES

5.6.8 Ground Plantings

Ground level plantings will complement street trees in providing interest along the street and help to define the boulevard, pedestrian clearway and transition areas along building frontages. Ground level plantings should be selected based on form, hardiness, seasonal interest and colour, and maintenance requirements. Preference should be given to selection of species which demonstrate higher tolerances for urban conditions including heat, drought and salt exposure.

Plantings within the boulevard should be low-growing in form to maintain sight lines across the right-of-way, and should be provided in raised planting beds, and located at street ends to frame intersections and avoid conflict with on-street parking areas. The City should explore opportunities for sustainable practices as swales or permeable that assists with the stormwater management function. Preference should also be given to mass planting clusters (instead of elaborate planting schemes) to reduce maintenance requirements. Where raised planting beds cannot fit given boulevard width restrictions, moveable planters can be used to plant vines, perennials and ornamental grasses to add interest to the street.

Plantings within the transition area abutting the sidewalks should be used to highlight pedestrian areas patios, building entrances, walkways or sitting areas. Plant heights should depend on their proximity to the walkway, with lower growing species used in close proximity to clearways and higher growing species used further away along building foundations, patio walls, or retaining walls to maintain open sight lines for pedestrians towards building entrances, ground level windows, and site access points. Higher growing perennials, ornamental grasses and deciduous or coniferous shrubs should be used within these spaces.



5.6.9 Bike Lanes

Barton Street West is envisioned as the principal on-street cycle route within the Barton-Tiffany area. East of Queen Street North, the street has dedicated bicycle lanes that should be at least 1.8 metres wide outside of the gutter pan, particularly where they run alongside on-street parking spaces and distinguished with distinct pavement markings and colours to define from vehicular travel lanes. West of Queen Street North, Barton Street West should have shared travel lanes that are at least 4.5 metres and clearly marked or signed, given the multi-use trail on the north side of the street in this section. While dedicated on-street bicycle lanes provide an enhanced comfort level for cyclists, the City may explore opportunities for physically separating bicycle lanes (raised lanes or barriers for instance) from vehicle travel lanes on key streets on a system-wide basis. Such solutions provide a further level of protection, however, also bring additional design and maintenance considerations.



5.6.10 Street Public Art

Ground-mounted public art pieces should be considered along prominent streetscapes within the Barton-Tiffany area to enhance the “sense of place” and connect to Barton-Tiffany area’s historic industrial roots. Locations along the east side of Caroline Street, as the pedestrian connector street within the area, should be a principal choice; additional opportunities also include locations along Barton Street West and Stuart Street where space permits. Curb-side public art pieces should be located to limit any conflicts with vehicular (including door swing for on-street parking spaces), bicycle, or pedestrian circulation. In terms of design, public art pieces should be an original piece of artwork, and a range of different purposes (functional, interpretive, abstract, or historical), sizes, artistic mediums (metal, stone, paint), and forms (architectural features, sculptures, landscape features, street amenities) should be considered.



5. STREETScape DESIGN GUIDELINES

5.6.11 Multi-Use Trails

The multi-use trail network in the Barton-Tiffany area includes a trail on the north side of Barton Street West (west of Queen), on the north side of Stuart/Queen Street North (north of Barton), and, on the east side of Caroline Street (between Cannon Street West and Stuart Street). Multi-use trails should have a travelled width of at least 4 metres, outside of which may be edge landscaping or the street boulevard. They should have concrete or asphalt surfaces, and visually different from sidewalk surface materials in terms of texture and/or colour. Signage along the route, either trail side freestanding signs or part of the trail surface, should be included at key locations for decision-making along the route.



5.6.12 Rail-side Recreation Trail

The recreational multi-use trail along the south side of the rail line connecting between the future York Street bridge and the north side of Stuart Street will complement to the on-street movement system. A landscaped berm on the north side of the trail will screen the trail from the rail line and marshalling yards for user comfort, while landscaping on the south side within the trail right-of-way itself should provide a soft edge to the trail edge with adequate visibility for natural surveillance purposes. Redevelopment of the property west of Queen/Stuart Street should seek to provide additional connections to the trail, complementary landscaping, and building windows facing the trail to provide natural surveillance opportunities of the trail.



6

CENTRAL PARK DESIGN GUIDELINES

6.1 Design Intent

The Secondary Plan established the design direction for a redesigned Central Park as a key component of the parks and open space system within the Barton-Tiffany area. This will be accomplished through increased street presence from the re-establishment of the surrounding street grid, as a stronger interface with Bay Street North through the relocation of the existing City facilities along those frontages as per the direction of the Secondary Plan, the potential adaptive re-use of the Barton facility, and infill residential development opportunities. Specifically, the Secondary Plan identifies that the City will endeavour to relocate its existing facilities on Barton Street West and Bay Street North in order to reconfigure and improve Central Park. As part of this reconfiguration, the City will contemplate the *"adaptive re-use of all or a portion of the Barton Street Works building for recreational or other public uses"* prior to demolition of the buildings.

The Urban Design Concept for Central Park envisions a new park space that provides a range of different recreation functions to cater to a range of different users (see Figure 35). The park design concept is comprised of three definable components as one moves north-south from Barton Street West to Mulberry Street: a north section, a middle section, and, a south section, that are seamlessly integrated to make up the overall park function. The following guidelines are intended to inform the park master plan process that would be required to implement the reconfiguration and redesign of Central Park.



"Urban" parks with a diverse range of active and passive spaces, and structured and unstructured activities that easily cater to a broad range of users provide the design precedent for a redesigned Central Park in the Barton-Tiffany area.

6. CENTRAL PARK DESIGN GUIDELINES

FIGURE 35: Illustration of Central Park redesign

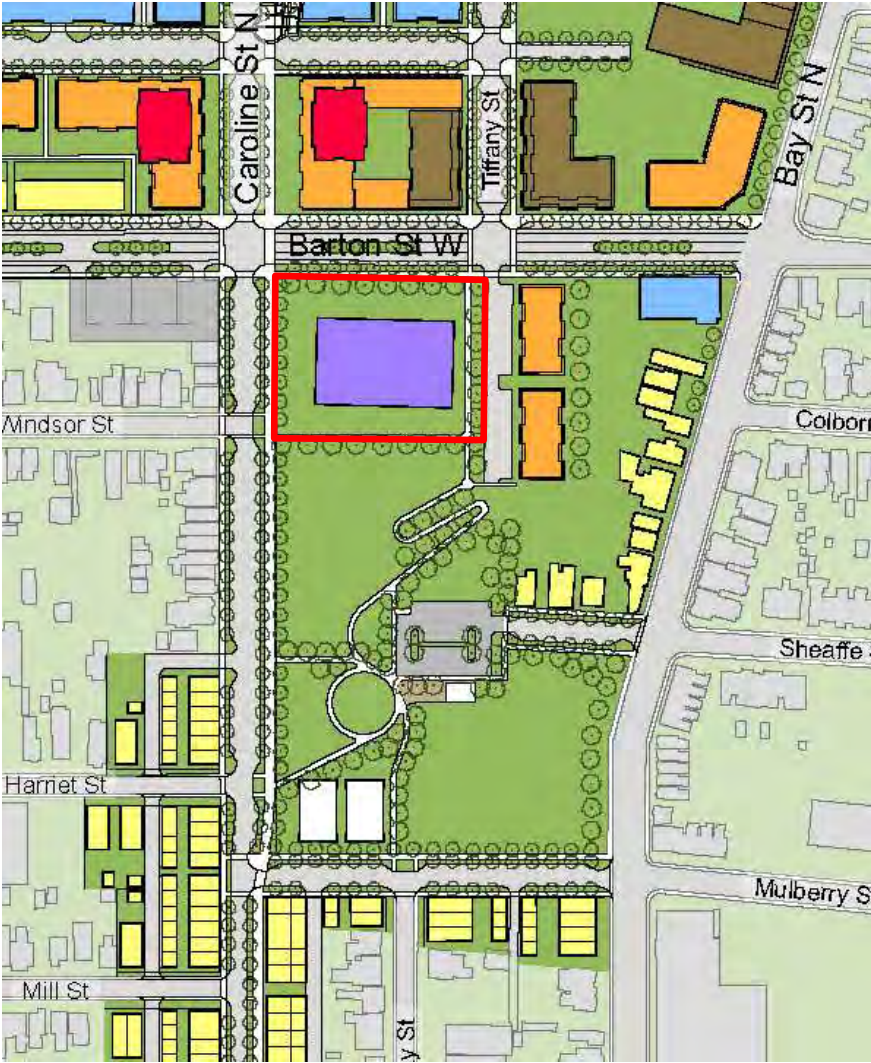


6.2 North Section

The Urban Design Concept envisions the northern section of Central Park as an acknowledgement of the industrial heritage of the area, while providing a unique community amenity (see Figure 36). The Urban Design Concept retains a large portion of the existing City facility facing Barton Street West and re-purposes the structure as an integral part of the Central Park redesign (see below for discussion). Areas surrounding the retained facility would accommodate pathways connecting to the abutting public streets, landscaping, and sitting areas and amenities.



FIGURE 36: Illustration of Central Park north section



6. CENTRAL PARK DESIGN GUIDELINES

FIGURE 37: Illustration of Central Park middle section



6.3 Middle Section

The Urban Design Concept envisions the middle section of Central Park as a largely unstructured, passive space that integrates the natural topography of this section of the park (see Figure 37). This section would include landscaped pathways along the western and eastern edges of this section, with gradual switchbacks along the eastern edge of this pace to work with the grades in that area. The open space with the pedestrian pathways could accommodate a range of potential activities, such as raised, terraced community gardens or a small toboggan hill.

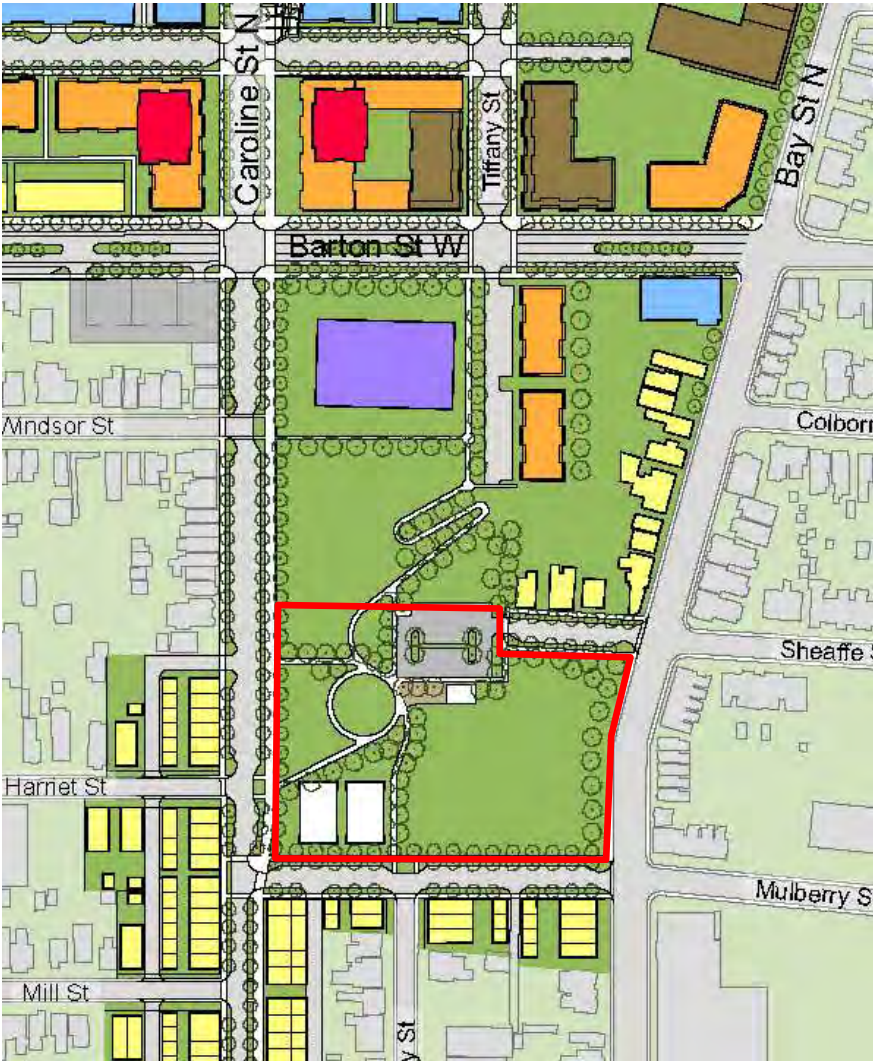


6.4 South Section

The preferred design concept envisions the southern section of Central Park as the active and structured recreation focus of the park (see Figure 38). The western portion along the Caroline Street corridor would contain the programmed portion of the space, including opportunities for such uses as multi-purpose courts, splash pads, play equipment, multi-purpose playing fields, and associated sitting areas and amenities. The end of Sheaffe Street would accommodate a small parking area for park users, adjacent to a shade structure and washroom facilities. The remainder of this space would be an open lawn area exposed to the frontages of Mulberry Street, Bay Street North and Sheaffe Street that would accommodate informal play opportunities as well as entrances features from Bay Street North.



FIGURE 38: Illustration of Central Park south section

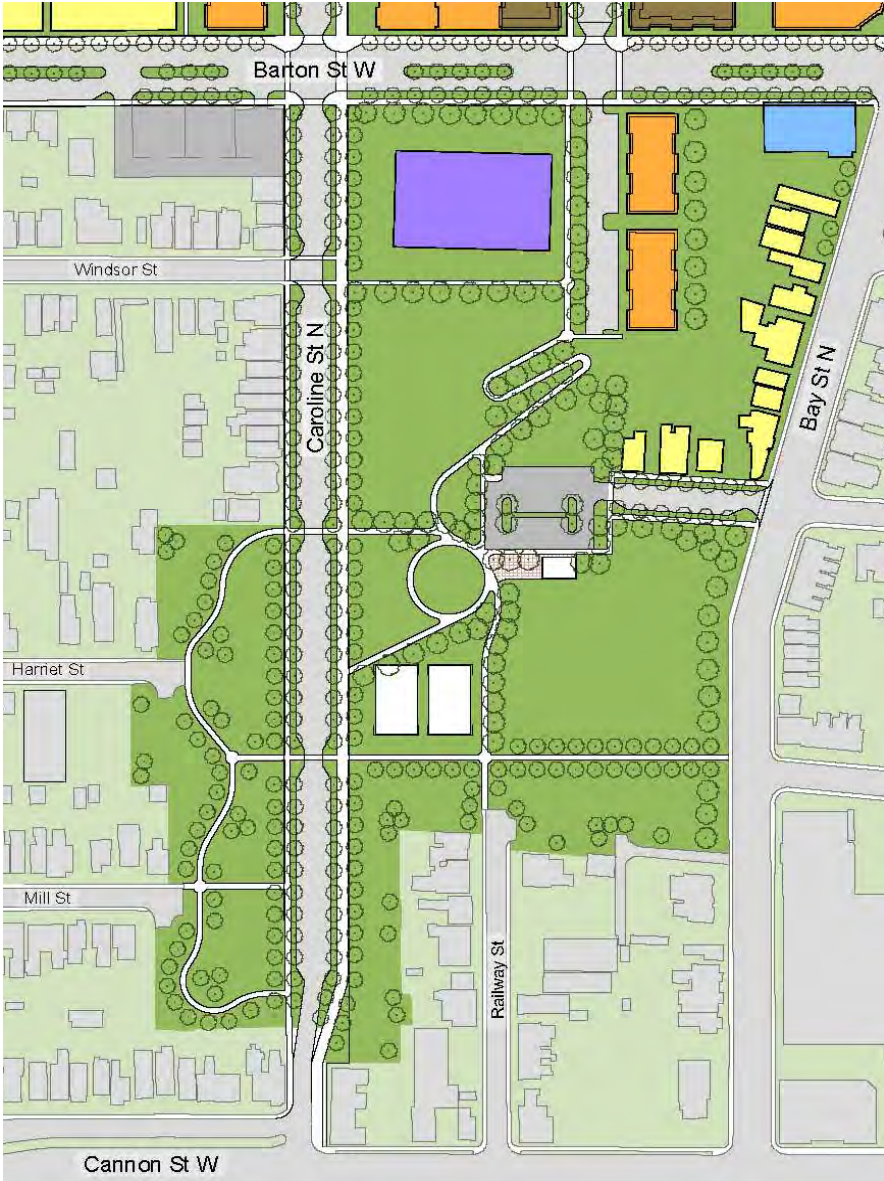


6. CENTRAL PARK DESIGN GUIDELINES

6.5 Park Redesign Option

The Urban Design Study contemplates a contingency option for the redesign of Central Park should the infill residential on Caroline Street, Mulberry Street, and the other side streets surrounding Central Park not be feasible from a development perspective (see Figure 39). In this option, the extension of Caroline Street North through Central Park should still be pursued as per the Secondary Plan given it is a key connection in the Barton-Tiffany overall transportation system accommodating car, bicycle, and walking travel. The Mulberry Street extension would provide an important east-west connection between Caroline and Bay, however, it would create park space on the south side of Mulberry Street that would provide a limited function. Bicycle and walking connections can be accommodated from Railway Street, Mill Street, and Harriett Street through Central Park without those street extensions.

FIGURE 39: Concept of Central Park option without infill residential developments surrounding the park



6.6 General Park Design Considerations

6.6.1 Barton Street Facility

The Urban Design Concept calls for the adaptive re-use of the existing Barton Street Facility given its contribution to the industrial heritage fabric of the Barton-Tiffany area. The City should undertake a detailed feasibility assessment of the re-use of the existing facility, including assessments of structural and mechanical matters, financial considerations, and potential options for use. Re-use of the facility would be contingent on a relocation of the existing City functions in the facility.

Based on a cursory assessment of the building and the significant financial investment likely needed to bring the building up to contemporary standards, the following three options could be contemplated:

- (1) Retention of part of the facility's frame and re-use as a covered, multi-season, multi-purpose space (such as an outdoor skating rink and indoor fields or courts).
- (2) Retention of part of the facility and re-use as flexible indoor community space that could accommodate a diversity of community events throughout the year.
- (3) Salvage of key building components of the facility (such as steel beams or wood flooring) for re-use as design pieces in Central Park's redesign, whether for functional purposes or artistic purposes.



6. CENTRAL PARK DESIGN GUIDELINES

6.6.2 Public Art

Ground-mounted public art pieces should be considered within Central Park to connect to Barton-Tiffany area’s historic industrial roots. Locations at the retained building shell near the entrance from Barton Street West/Caroline Street, as part of open lawn facing Bay Street North as part of an entrance feature, and/or the pedestrian corridor along the Caroline Street frontage are all prominent locations for consideration. Public art pieces should be located to limit any conflicts with vehicular, bicycle, or pedestrian circulation. In terms of design, public art pieces should be an original piece of artwork, and a range of different purposes (functional, interpretive, abstract, or historical), sizes, artistic mediums (metal, stone, paint), and forms (architectural features, sculptures, landscape features, street amenities) should be considered.



6.6.3 Fencing

Any required fencing along the edge of the park along Caroline Street and Mulberry Street should be low-rise and decorative in nature. Materials should reflect the architecture of the surrounding urban fabric, including brick and stone. Low seat walls can be considered as an option where functional for the purpose and where practical. Plantings should support low fencing, with a consideration of not creating hiding spaces or entrapment areas. Openings in fences should be strategically located to connect to internal park walkways (and complemented by locations for signage and wayfinding) with clear sight lines for safety purposes.

While on-street parking is preferred from a design perspective abutting the park frontages on Caroline Street and Mulberry Street, it should be shifted to the other side of the right-of-way if taller, more utilitarian fencing is required along the park edges in the interests of maintaining the intended open park character.



6.6.4 Plantings

Central Park's overall planting scheme should be simple in design through the use of a variety of high canopied trees along pathways and seating areas, taking advantage of sun exposure around such areas. Native tree species should be used, or those trees which provide character through leaf colour, canopy form or bark characteristics to enhance the experience of travelling through the space (refer to Hamilton Site Plan Guidelines for preferred species list by use). Trees with smaller leaflets, or those species which bear fruit should be avoided in close proximity to programmed spray pad areas or paved seating areas. Coniferous trees with a canopy that extends to the ground should not be used close to walkways, while significant groupings of trees should be avoided in order to maintain clear sightlines and visibility. Along street frontages and the multi-use trail on the east side of Caroline Street, tree planting arrangements should focus on variation of spacing and include the use of tree groupings to frame walkways, points of interest, and views.

Ground plantings in Central Park should be limited to at-grade plantings to highlight park entrance points, to frame activity areas or seating plazas, or be used in transition areas between park pathways and re-use of the public works building. Shorter plant materials should be used adjacent to walkways, with increases in height moving further away to maintain visibility from the travel way. Plant varieties which provide seasonal interest through colour, bloom period, or twig colour should be used, with preference for those species which have higher tolerances towards dry or wet conditions, depending on where they are proposed. To reduce maintenance and upkeep, mass planting schemes should be used where planting beds are installed, with consideration given to use of ground

cover plantings in areas that will receive constant shade, or to retain slopes where significant grade change occurs. The use of any plants which produce noxious fruit, contain thorns or is considered invasive by local conservation authorities should be avoided within the Central Park entirely.



6. CENTRAL PARK DESIGN GUIDELINES

6.6.5 Pathways

Pedestrian pathways within Central Park should be minimum 3 metres in width to provide comfortable two-way travel, and preferably surfaced with asphalt or concrete rather than stonedust or granular for reasons of durability, maintenance and mobility. Pathways grades should be relatively flat, but where areas of significant grade change occur, switchbacks or curvilinear pathways should be provided to increase pathway length and reduce overall slopes with landings and refuge areas offset from the pathway at regular intervals. Variation through banding, texture or colour should be considered on the pathways to indicate changes in direction, or where areas of significant slope begin. Pathways should also be constructed so they are slightly higher than the surrounding grade, to ensure runoff and prevent water-pooling on the path of travel.



6.6.6 Parking

There are opportunities for new vehicle parking at the end of Sheaffe Street to support a redesigned Central Park. Such a parking area should be small in size (such as 20 to 25 spaces in total) to provide short term parking opportunities within the park while not disrupting the design or intent for this neighbourhood park. Parking should be clearly signed and edged with landscape plantings. On-street parking recommended along both Caroline Street and Mulberry Street would provide complementary parking opportunities for park users. Bicycle parking should be incorporated into the redesigned park space to support active transportation to the neighbourhood park. There are two priority locations for bicycle parking: the first location near the Caroline Street and Barton Street West intersection surrounding the retained facility; and, the second location centrally surrounding the active and structured recreation focus of the park.



7

BARTON MID-RISE DESIGN GUIDELINES

7.1 Design Intent

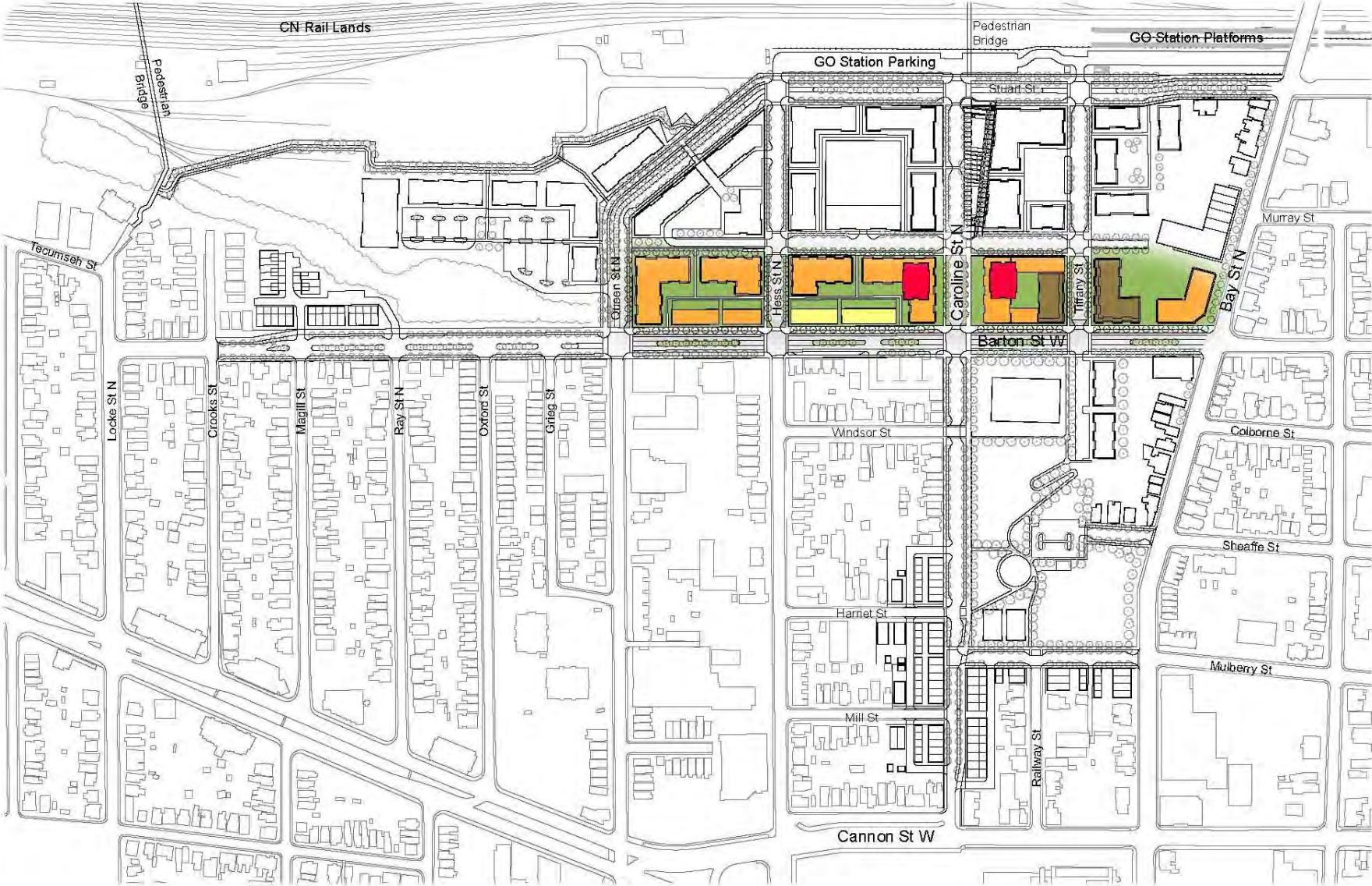
The “Barton Mid-Rise Residential Area” is situated on the north side of Barton Street West, between Queen Street North and Bay Street North (see Figure 40). This area forms the bulk of opportunities for infusing new activity within the Barton-Tiffany area. The design intent for this area is a principal mobility street within the Barton-Tiffany area supported with a low and mid-rise building scale and the potential for local commercial activities located on the ground floor of the predominantly residential buildings. New buildings are to create a continuous street wall along Barton Street West to frame the street space and to create interest for those using the street. Minimum building heights will ensure a sense of enclosure along the street edge. Building massing will be divided into smaller, pedestrian-scaled bays along the street edge with articulation that will provide interest and depth to the streetscape.

Three building typology modules are illustrated in the Urban Design Concept for the development blocks within the Barton Mid-Rise Residential Area (see Figures 41 and 42). The typology modules could be applied to any of the three development blocks within the area, adjusting for block dimensions and abutting land use context. The typology modules include: a stand-alone ground-oriented multiple residential form; a shared ground-oriented multiple residential and apartment residential form; and, a ground-oriented multiple residential and apartment residential form.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 40: Barton Mid-Rise Residential Area



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 41: Building Typologies within the Barton Mid-Rise Residential Area



(A) Ground-oriented form of development that is appropriate for the Barton-Street Mid-Rise Residential area to provide strong interface with the public street and gradual transition in height to the existing surrounding area.

(B) Ground-oriented form and apartment forms of development sharing a development block are appropriate for the Barton Street Mid-Rise Residential area to create a transition from surrounding areas to taller buildings at the Barton Street and Caroline Street emphasis point.

(C) An integrated form of ground-oriented dwelling at the base with taller buildings at the corners are also appropriate for the Barton Street Mid-Rise Residential and perform an excellent role of balancing the desire for density/height and street presence.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 42: Building Typologies within the Barton Mid-Rise Residential Area (rendering)



Demonstration renderings of potential built form typologies within the Barton Mid-Rise Residential area.

- Top Left: Residential block between Queen Street North and Hess Street North featuring low rise apartment and townhouse forms.
- Bottom Left: Block between Hess Street North and Caroline Street North featuring low rise apartment and townhouse forms as well as a point tower accent.
- Top Right: Block between Hess Street North and Caroline Street North featuring low rise apartment and townhouse forms, mid-rise apartment forms, and forms as well as a point tower accent.

7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.2 Building Setbacks

The extent of building setbacks along Barton Street West depends on whether buildings contain ground commercial units or ground floor residential units.

- > For buildings with ground floor commercial units or the provision of conversion to commercial uses over time, the build-to line for the building street wall portion (first three storeys) should be up to 3 metres. At least 75% of the lineal length of the building's frontage should be set within this build-to line; the remaining 25% may be set back up to 4.5 metres of the property edge. Any setbacks for new building should be functional space for such as elements as entrance plazas, bicycle parking, sitting areas outdoor spill-out space for ground floor commercial uses, or landscaping. For side streets (Queen, Hess, Caroline or Tiffany), the build-to area of the building street wall portion (first three storeys) should also be up to 3 metres.
- > For buildings with residential ground floor units, and no provision for potential conversion to commercial uses over time, the build-to line for the building street wall portion should be 3 to 4.5 metres in order to provide adequate privacy to the ground residential units as well as provide sufficient space to allow access to the units without interrupting the public sidewalk. Building setbacks from the street edge on the same development block should be similar for continuity of the street wall, while building setbacks on adjacent blocks should be generally consistent to each other.

7.3 Building Massing

Buildings should be massed to frame the street edge, or street edges for corner sites with at least 80% of public street frontages should be occupied by building edges. The remainder of the frontage should be used for pedestrian walkways and landscaped areas. Apartment buildings should be separated at least 15 metres from other buildings on the respective block, whether apartments or townhouses and should be longer than 60% of the length of any block along the street edge so as to visually divide the street wall along the street. Townhouse unit widths should be consistent with the prevailing pattern of ground-oriented residential units in the surrounding neighbourhoods (which is generally between 5.5 and 7 metres). Townhouse blocks should not exceed 45 metres in length so as to provide division and relief along the street edge.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.4 Minimum Building Height

All buildings on the Barton Mid-Rise Residential Area blocks are to have a building height of at least 3 storeys. This building height will help to ensure a minimum sense of enclosure and definition of the public realm, as well as to provide a minimum threshold for development and density in the area.

7.5 Maximum Building Height

A street-to-height width ratio of between 1:1 and 1:2 is appropriate for this section of Barton Street West to achieve a more urban sense of enclosure to streets, while fitting with the surrounding neighbourhood. Thus, building heights between 4 storeys and 8 storeys are generally appropriate given Barton Street West's proposed street width of 26 metres. There are certain locations along Barton Street West where 3 storeys are the preferred design height (across from existing residential), although up to 4 storeys is permitted.



With height permissions up to 8 storeys, it is important to shape the building mass to be context-specific to the block, street, and neighbourhood interface. Based on context-specific considerations, there are two alternatives for building heights through the Barton Mid-Rise Residential Area:

> **Alternative A:**

A lower rise base across the northern edge of the blocks for noise shielding that progresses in height from the west to east towards Bay Street North; a lower rise form along the Barton Street West frontage for transition to the surrounding neighbourhood; and, an emphasis of height bookending the ends of the blocks oriented in north-south fashion to reinforce view corridors along Hess Street, Caroline Street and Tiffany Street (see Figure 43).

> **Alternative B**

A lower rise base across the northern edge of the blocks for noise shielding that is consistent in height from the west to Caroline Street North, and progresses in height past that point; a lower rise form along the Barton Street West frontage for transition to the surrounding neighbourhood; and, a slender point tower emphasis fronting Caroline Street North (see Figure 44).

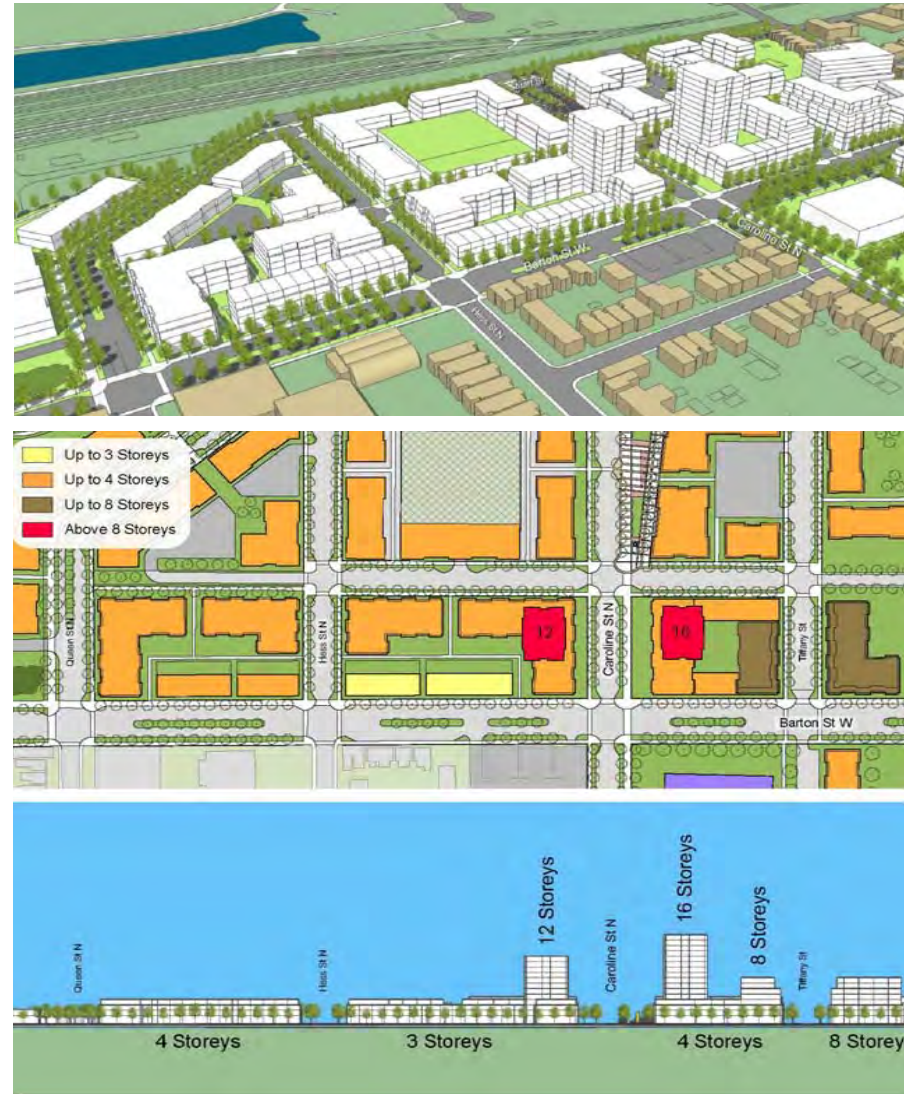
While both alternatives are appropriate and fit with the surrounding neighbourhood, Alternative B is preferred given it provides a lower-rise base to buildings with slender tower extensions at Caroline Street North rather than taller and bulkier bases, which assist in accommodating potential longer range views to the waterfront from the south; adding vertical landmarks and a point of emphasis for the Barton-Tiffany area; reinforcing the green pedestrian corridor of Caroline Street North; and, providing impressive views from new buildings to Bayfront Park and the waterfront.

7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 43: Height Alternative A



FIGURE 44: Height Alternative B

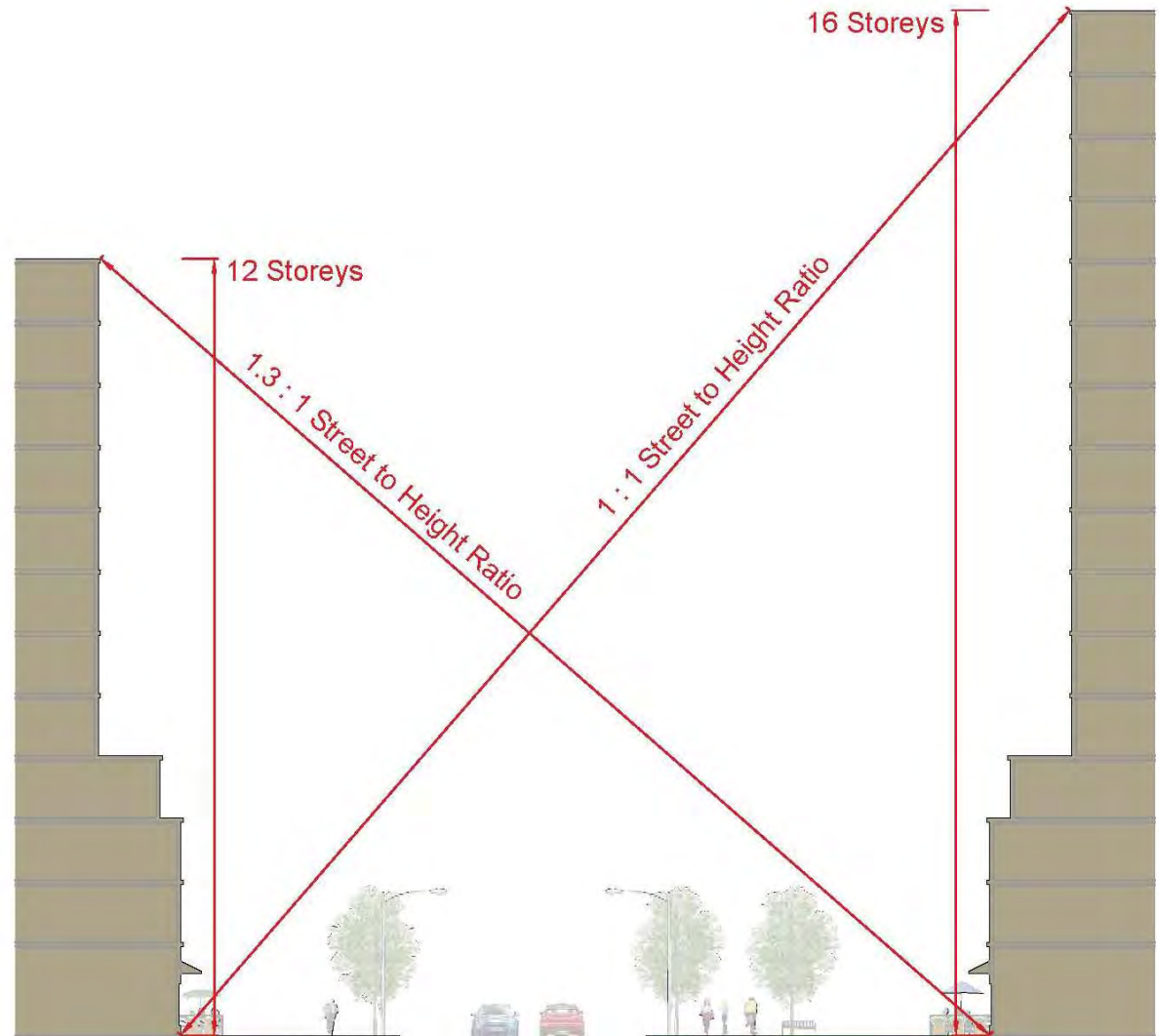


7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.6 Maximum Building Height (Caroline)

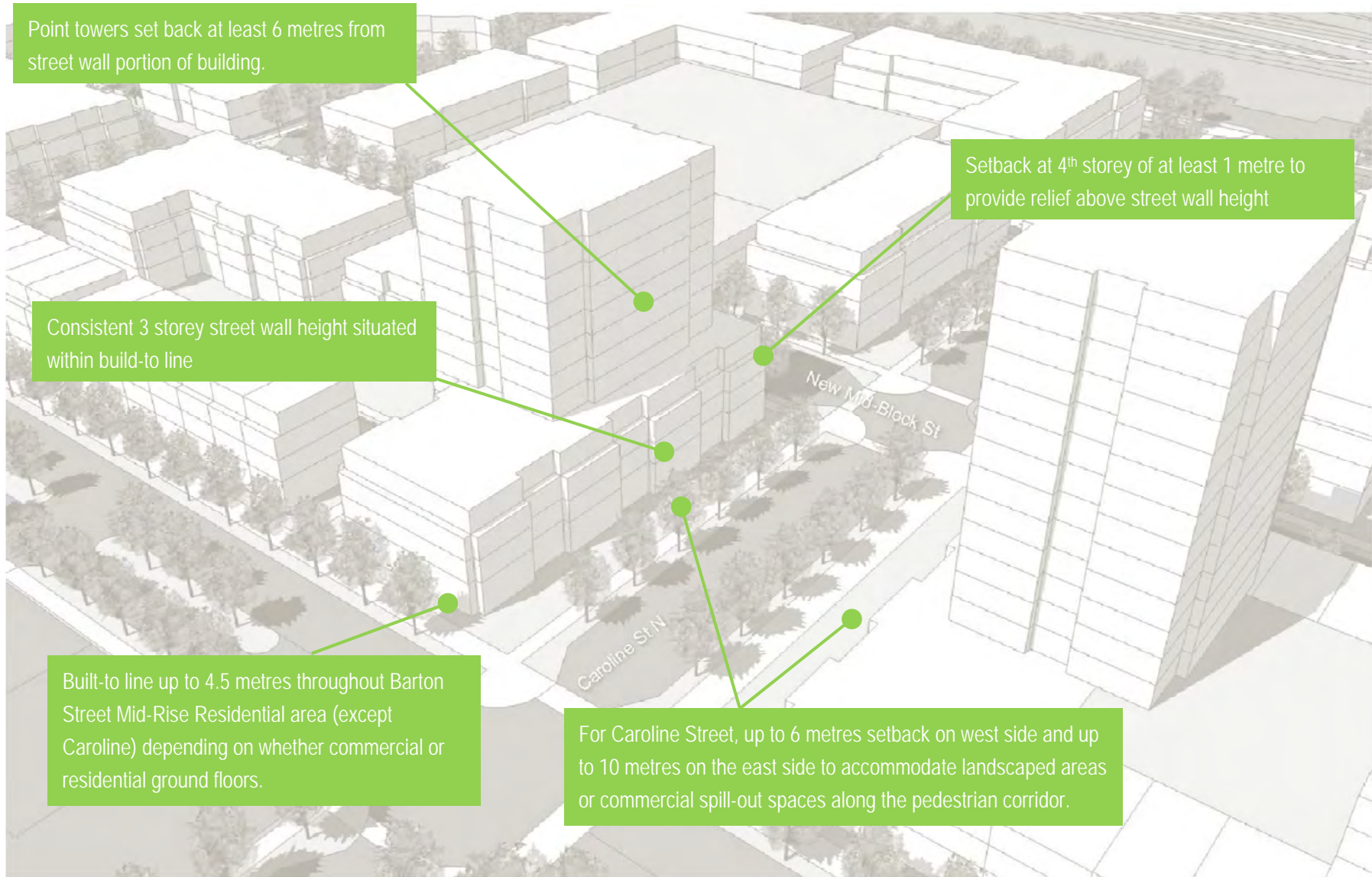
Facing the Caroline Street corridor, additional height over 8 storeys should be allowed in a point tower form for the portions of the blocks facing Caroline Street so as to reinforce the Caroline Street edge as well as provide a point of emphasis or landmarks for the Barton-Tiffany area. Given the street width and wider setbacks envisioned for the Caroline Street corridor, heights between 12 and 14 storeys are appropriate on the west side of Caroline Street heights and heights up to 14 to 16 storeys are appropriate on the east side (see Figures 45, 46 and 47). This provides the transition in height from west to east across Barton Street West, as well as the desired street-to-height proportions for the street. In order to promote a more slender form of development, floor plates for point towers should be no more than 800 square metres in size and should be generally square in shape. Any building heights over 8 storeys in the Barton Mid-Rise Residential Area would require any Amendment to the Setting Sail Secondary Plan and corresponding Zoning By-law Amendment to permit the taller buildings.

FIGURE 45: Caroline Street North street-to-height ratio



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 46: Caroline setbacks and setbacks



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 47: Demonstration of residential form at the Caroline Street North and Barton Street West intersection



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

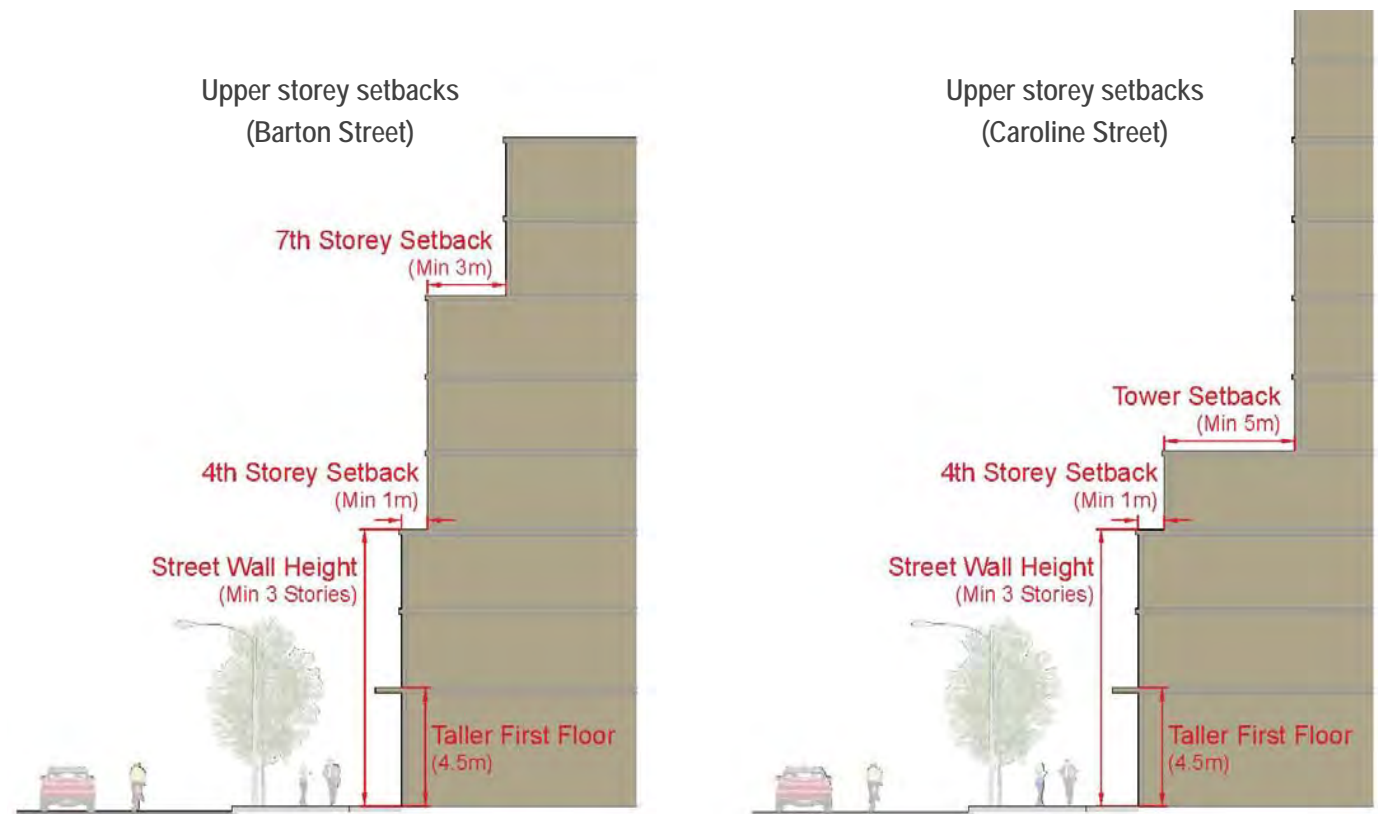
7.7 Upper Storey Setbacks

Along the Barton Street West frontage, the perception of building height should be mitigated through two main techniques (see Figure 48). First, there should be a consistent street wall of 3 storeys defined along the elevation, which can be accomplished on the upper storeys starting on the 4th storey defined through minor step backs (at least 1 metre for relief) and/or changes in the materials or colours to emphasize the pedestrian realm and fit with existing residential buildings on the south side of the street. Second, there should be at least 3 metres and up to 5 metres setback from the building's street wall edge starting at the 7th storey.

For blocks that have frontage on Barton Street West as well as Hess Street North, Queen Street North, or Tiffany Street, the location of upper storey setbacks should be consistent around the corner. For buildings that extend around the corner from Barton Street West onto Queen Street North, above the 6th storey there should be a minimum setback of 3 metres from the building's street wall edge on both building frontages given the intended 26 metre street widths. For buildings that extend

around the corner from Barton Street West and Hess Street North or Tiffany Street above the 5th storey there should be a minimum setback of 3 metres from the building's street wall edge on both building frontages, given both streets have an intended 20 metre street width.

FIGURE 48: Barton and Caroline upper storey setbacks



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.8 Apartment Design

Apartment buildings within the Barton Mid-Rise Residential Area should complement the traditional architecture styles of the surrounding neighbourhood, albeit with contemporary expressions (see Figures 49 and 50). Building design should clearly define the three general components of a building: a base that defines the street edge and anchors the building; the middle that provides visual interest in connecting the base and top portions; and the top that caps the building, provides a distinctive profile along the skyline. Building design should take cues from the surrounding built form fabric in terms of building massing, siting, and architectural elements when designing a contemporary reflection of the traditional fabric.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

The ground floor should receive the greatest level of detailing as it is the point of greatest interaction for pedestrians along the sidewalk. Ground floor space facing Barton Street West should principally contain active uses, which may include commercial units, residential entrances, residential lobbies or communal space, or integrated transit shelters. A target of 40 to 60% of the ground floor wall as transparent glazing is appropriate to promote visibility to and from the street and accommodate natural surveillance opportunities, recognizing a balance between transparency and energy efficiency. Principal building entrances should be situated with direct access to the sidewalks from Barton Street West and should be physically defined using a combination of materials, colour, articulation, canopies and signage in order to clearly identify such locations to visitors. Parking entrances from the new mid-block street should be fully integrated into the building's architectural design.

The street wall portion of the building should be a coordinated unit. Vertical openings and articulation should be used to create greater visual interest along facades at street level and make walking distances seem shorter. Designs should seek to vertically divide the ground floor and street wall section into definable bays or modules of 6 to 8 metres wide through the use of building articulation such as columns, piers, projections or recessions, colours, and/or materials. The building articulation should be extended from Barton Street West around the corner to the side streets to provide a defined "return" or "wrapping" for the street wall. Pedestrian weather protection, including building overhangs and canopies, should be provided at a minimum at building entrances, but also should be considered continuously along the street facing frontages.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

The upper storeys should create visually attractive wall elevations through the building's middle portion that complement the street wall and provide an attractive roofline that suitably caps the building. The following design measures should be considered:

- > Vertical architectural elements (such as materials or window patterns) and building elements (such as stairwells) on the wall elevation should tie the three building sections from base to top.
- > Vertical articulation on upper storeys elevations should seek to reduce the perception of mass, through the use of varied transparent and solid materials, the placement of balconies, and changes in materials or colours.
- > Balconies on the upper storey residential units should be framed with transparent glass materials with accents for balcony railings to complement the overall façade articulation and style.
- > The location of balconies or terraces that wrap around building corners (on different floors or different grouping of floors) should be varied so that the pattern does not dominate a wall elevation and provides visual interest.
- > The proportion of transparent openings on externally visible residential stairwells should be maximized to create vertical definition as well as for visibility and natural surveillance purposes from the street.
- > The uppermost floor(s) should be distinctly articulated so as to provide a meaningful building roofline.
- > Mechanical penthouses should be integrated into the building's overall form and should have similar cladding to the materials used on the remainder of the upper storeys.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES



Distinction of the ground floor through colour changes, vertical extensions of varied materials and architectural projections, and a distinct roofline breaks up the mass of this lower rise apartment building.

7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES



A mixed-use building that is scaled to reinforce the street and designed with a palette of materials that incorporates traditional base materials and contemporary accents that would fit within the Barton-Tiffany context.

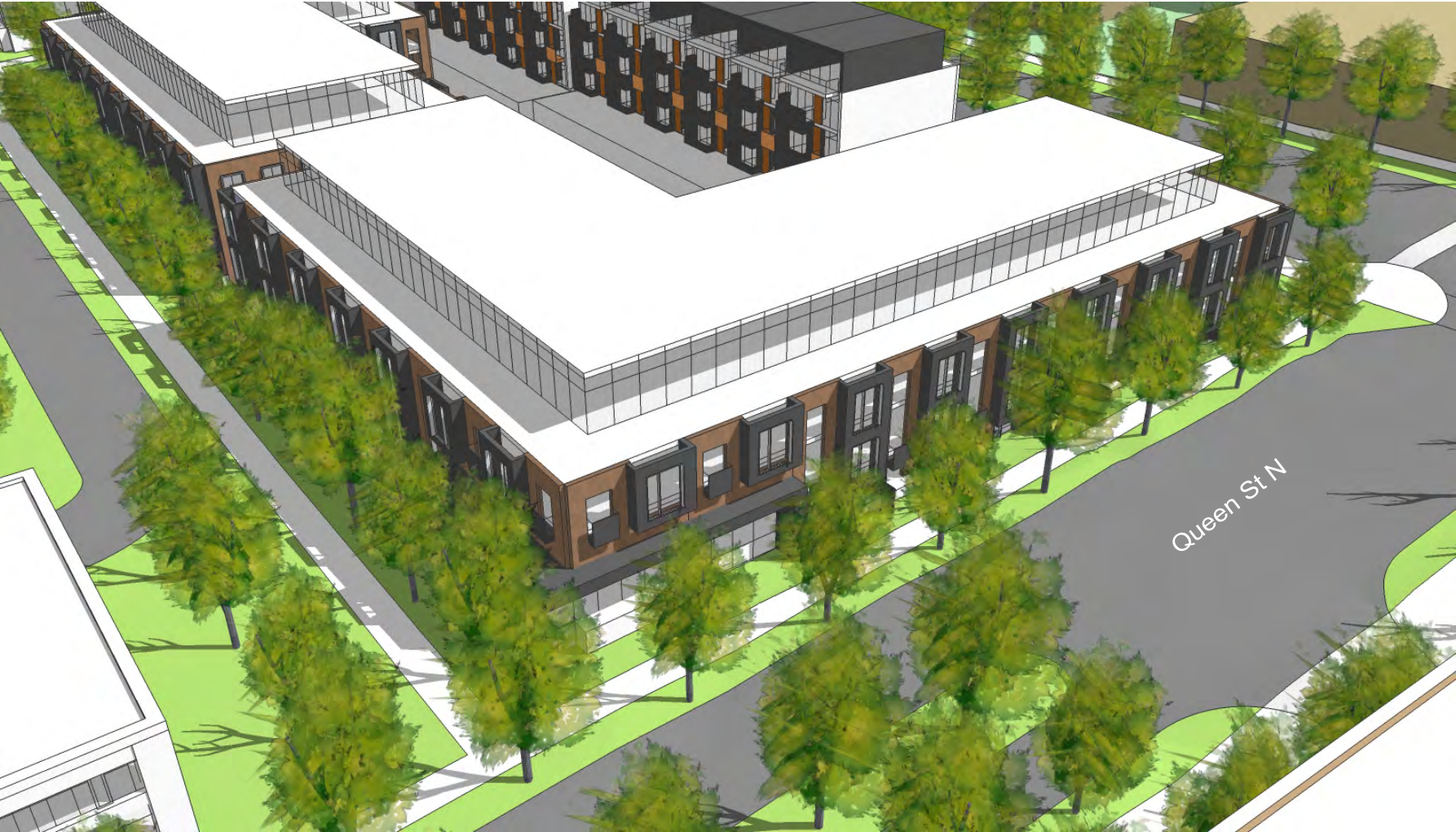
7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 49: Demonstration of apartment residential form along Barton Street West.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 50: Demonstration of apartment residential along side streets and new Mid-Block Street.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.9 Ground-Oriented Multiple Design

Townhouses within the Barton Mid-Rise Residential Area should reinforce the character of surrounding neighbourhoods through the use of complementary architecture, albeit with contemporary expressions as warranted (see Figure 51). Their form is particularly useful for providing a transition between lower rise and higher rise forms of development, while still achieving a higher intensity level of development. The following design considerations apply to ground-oriented multiple buildings within the Barton Street Mid-Rise Residential area:

- > Primary entrances to residential units should be accessed from the Barton Street West sidewalk to engage the streetscape. Secondary entrances can be situated from the internal residential courtyard.
- > The first floor level should be raised, up to 1.2 metres, from the public sidewalk height to provide privacy for residential use for the lower unit.
- > The ground floor façade should be further animated with windows to indoor dwellings space on the ground floor that look out onto the street.
- > Elevations of townhouse rows to have a variety of different features and treatments, including variations in colour, material, projections, windows and horizontal/ vertical elements to provide visual interest.
- > Corner units should have side elevations with a similar level of detailing to the front elevation to provide an attractive street edge on both sides. This similar architectural details, materials, colours, windows, and articulation.
- > A variety of roof line types on each building should be considered to enhance visual interest and diversity along the block. A common type and colour of roofing materials should be used throughout the block.

- > Architectural details such as lintels, cornices, reveals should be used to add visual interest and depth to the façade.
- > Any changes in the use of wall facing materials should occur at wall setbacks or projections so as to appear structural rather than as a veneer.
- > Utility meters should be situated away from the Barton Street West edge, and incorporated into the building design and screened with landscaping.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

Form, scale and detailing of a low-rise residential building that would appropriately fit within the context along Barton Street West.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 51: Demonstration of ground-oriented residential form along Barton Street West.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

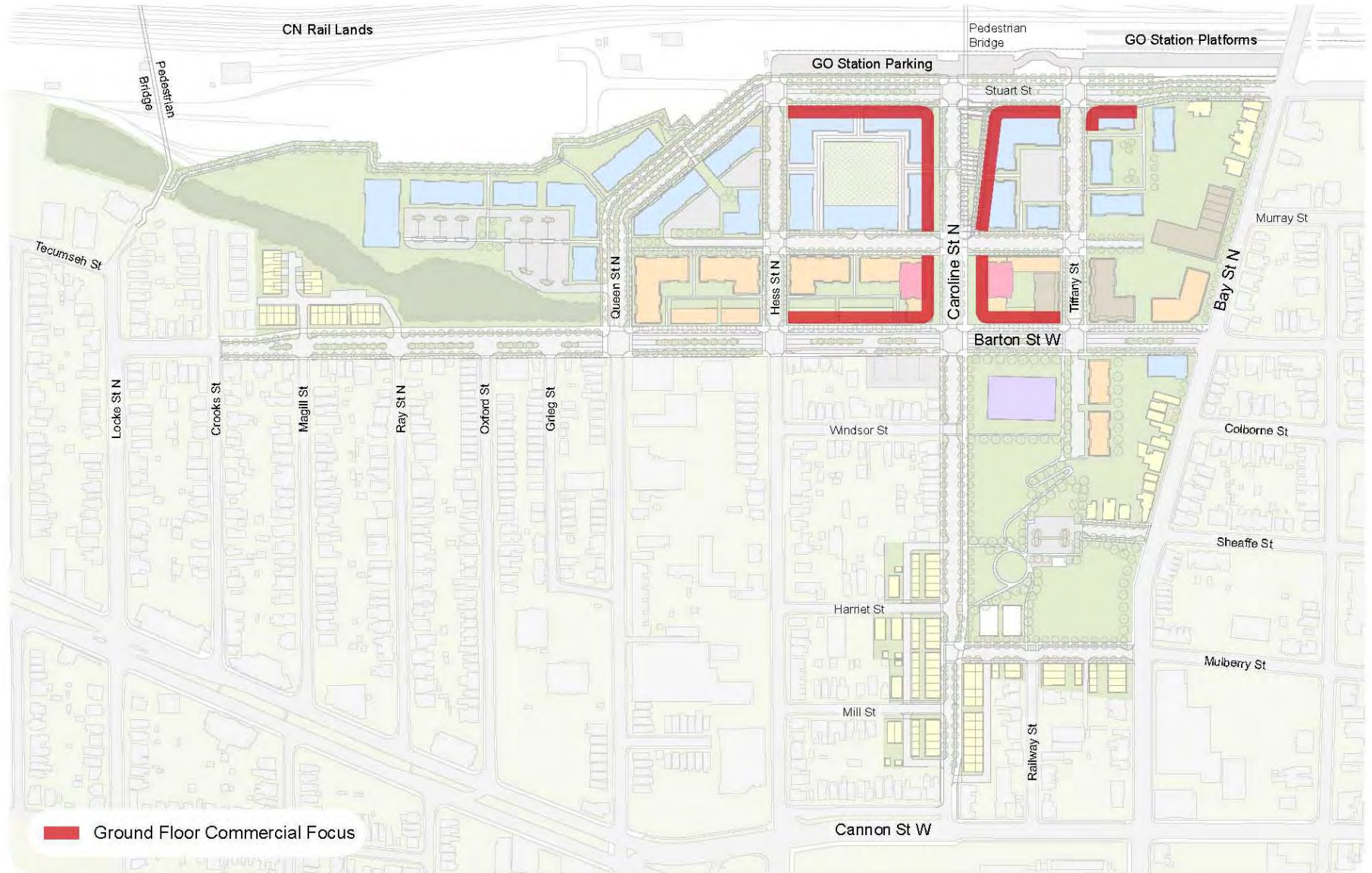
7.10 Ground Floor Commercial Uses

Ground floor commercial uses are permitted throughout the Barton Mid-Rise Residential Area and should be encouraged to further animate the Barton Street West corridor, and complementing the ground floor commercial uses permitted in the Stuart Street Commercial area. Within the Barton Mid-Rise Residential Area, the focus for ground floor commercial uses should be centred on the Caroline Street North and Barton Street West intersection to reinforce the pedestrian corridor, as well as extending from the intersection along Barton Street West as the market dictates (see Figure 52). Ground floor commercial floor space could be accommodated within the ground floor of an apartment building (with taller ground floors of 4.5 metres to accommodate commercial uses) or as live-work units with residential uses above.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

FIGURE 52: Focus locations for ground floor retail uses



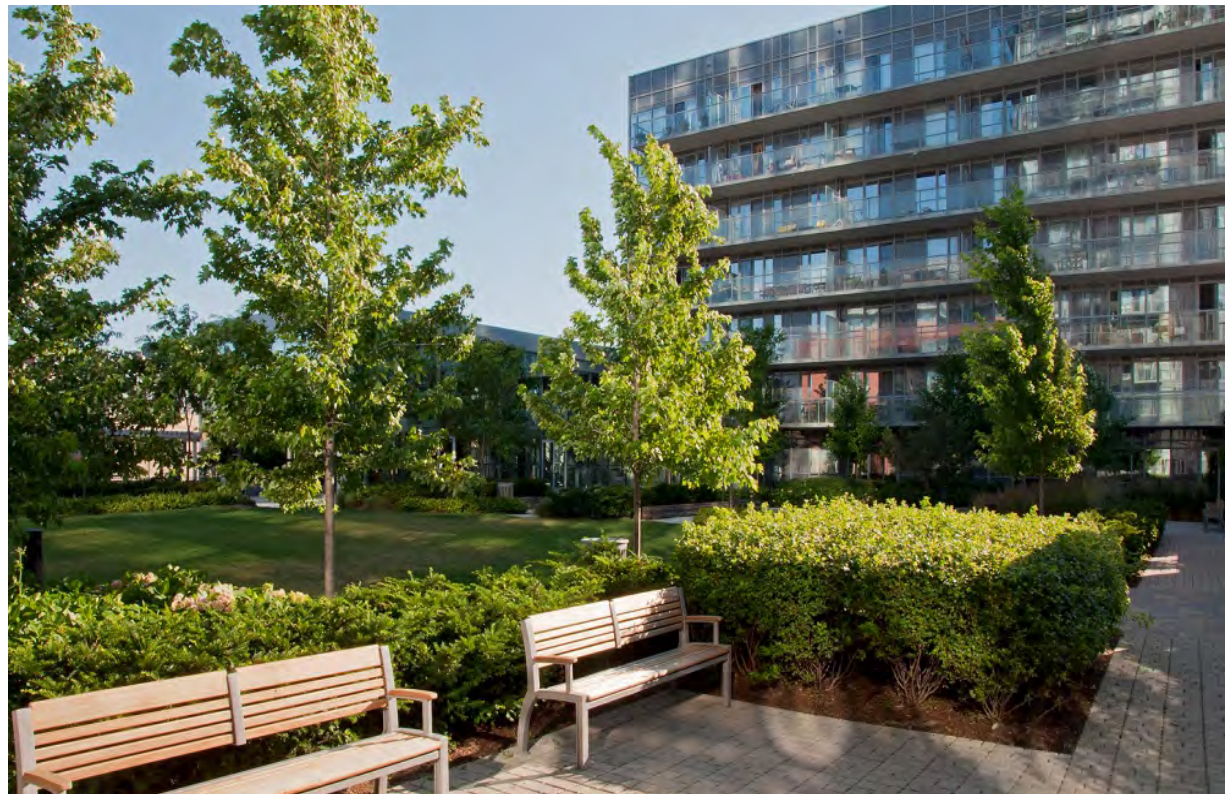
7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.11 Residential Courtyards and Rooftop Terraces

Residential courtyards (at-grade) and terraces (rooftop) will form the base of interior of the Barton Mid-Rise Residential Area blocks. Courtyards and terraces should be designed to provide consolidated recreational amenity spaces of residents, permeability for moving through the block, as well as breaks for relief of the street wall along the Barton Street West edge. Residential courtyards should have clearly defined walkways through the space that are lined with canopy trees and plantings to frame the open space and connect with building entrances. Intended as a mix of hardscape and softscaped spaces, courtyards should be situated to maximize natural surveillance opportunities from buildings, streets and walkways.

Softscape areas may include combinations of open sod areas, planting beds (raised or at-grade), and groundcover areas to provide opportunity for outdoor gathering of small groups and individual users. The height, form, colour and seasonal qualities of tree and ground plantings should be considered based on their proposed use location and whether irrigation is present. High canopy or columnar trees should be used along walkways to maintain open sight lines, shade canopy trees for shading seating areas, or smaller ornamental trees should be

considered where privacy screening is required from units or the public right-of-way. Low-growing and colourful plant materials should be used adjacent walkways, where as larger growing shrubs, grasses and coniferous materials should be used for foundation plantings or where privacy is required. Planting beds which are proposed above podium decks should have a minimum soil depth of 1 metre to accommodate tree plantings.



7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

Hardscape areas may include walkways, sitting areas, and other activity spaces. High-end paving materials such as coloured or textured concrete should be used within the courtyard areas, with unit paving, or natural stone pavers used as accents and banding. Site furnishings should be made of durable materials, be consistent in theme and compliment the surrounding built-form, preferably for site-furnishings which have been made from recycled content, or which have been manufactured by local suppliers. Custom furnishings, or public art features which compliment the theme, or heritage of the area should be encouraged to create a stronger sense of place for the space. Slopes within the courtyard



hardscaped areas should be relatively level, with ramps provided where grade transition is required, or the use of cast-in-place seatwalls or raised planter beds should be considered where appropriate in order to retain grades and provide interest to the space. Elements such as plantings, decorative fencing, bollards, or structures such as masonry walls, arbours, or trellises should be used in combination to act as edge treatments and to frame points of interest or courtyard access points by providing differentiation between private, semi-private, and public areas. Consideration should be given to providing canopied structures for shade and shelter from the elements where group seating areas are proposed.

The entire courtyard should be well lit for safety and comfort. All entrance points and walkways should be well lit, and distinguish which areas are public or private through the use of wall sconces, bollard and pathway lighting, as well as pedestrian scaled light standards where appropriate. Uplighting to highlight public art, structures, or specimen tree plantings, or down-lighting for signage elements is also encouraged for interest during evening hours.

Courtyards should be supported by ground floor amenity areas for individual units as well as upper storey balconies or terraces facing the internal courtyards. For buildings along Barton Street West, ground floor outdoor amenity areas are only to be situated facing the internal courtyards rather than facing the street, although upper storey amenity areas may face Barton Street West.

7. BARTON MID-RISE RESIDENTIAL DESIGN GUIDELINES

7.12 Vehicle Parking

Parking and loading for the Barton Mid-Rise Residential Area blocks should be entirely accommodated through structured parking facilities. Vehicular access to the structured parking facilities, including resident and visitor access as well as loading and service areas, should be taken from the new mid-block street as the preferred access option. Although not preferred, access from the side streets may be possible provided adequate separation and sightlines to and from Barton Street West can be achieved. Off-street structured parking facilities can be complemented by on-street parking spaces on Barton Street West, the side streets, and the new mid-block street parallel to the north of Barton Street West.

Above-grade parking structures incorporated into the base floors of buildings is also a possibility. For such structures, the design should integrate with the buildings in terms of a complementary scale and style to the associated building(s). This should include complementary treatment of massing, style, materials, colours, and articulation, among others considerations, along with appropriate landscaping. External facing stairwells within parking structures should incorporate glass or transparent openings for visibility purposes. The base portion of the structure should be screened as necessary with a combination of landscaping and fencing as appropriate, and incorporate landscaped islands or planters on the rooftop decks.



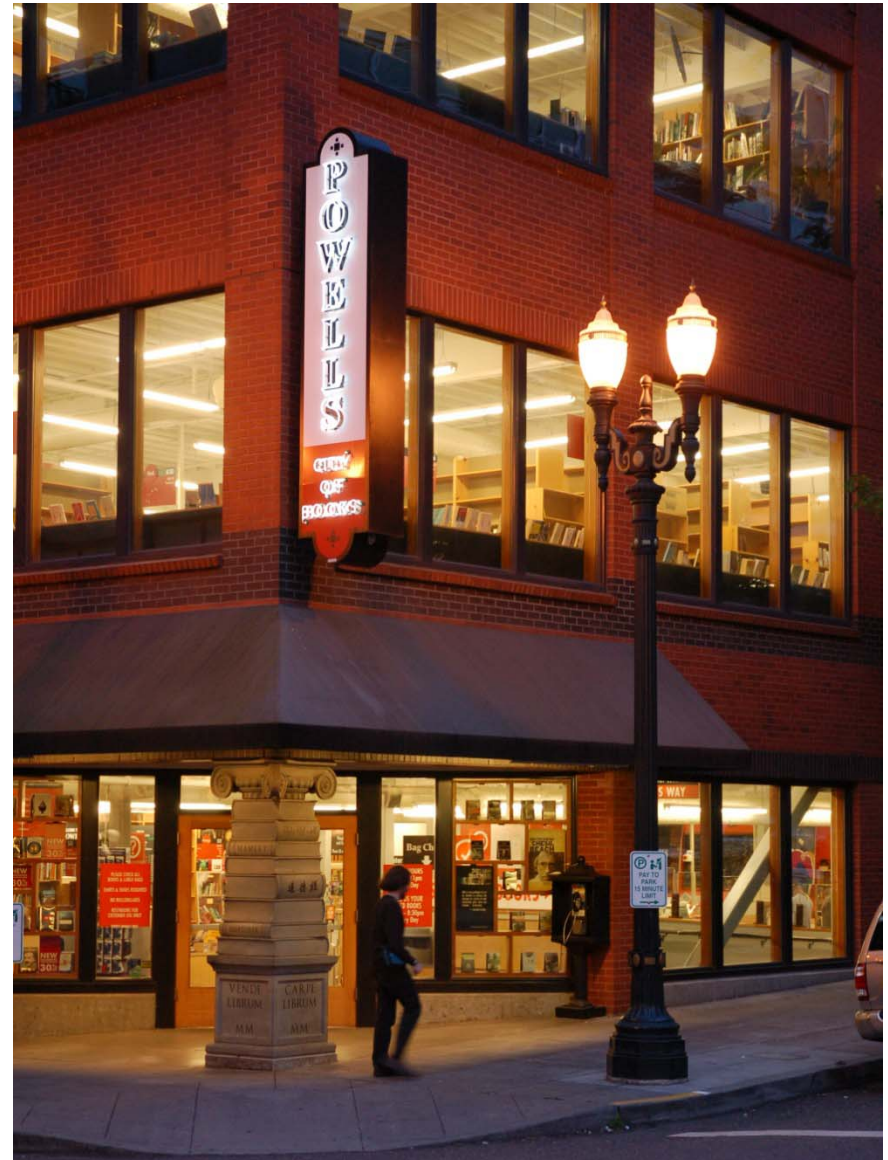
8

STUART COMMERCIAL DESIGN GUIDELINES

8.1 Design Intent

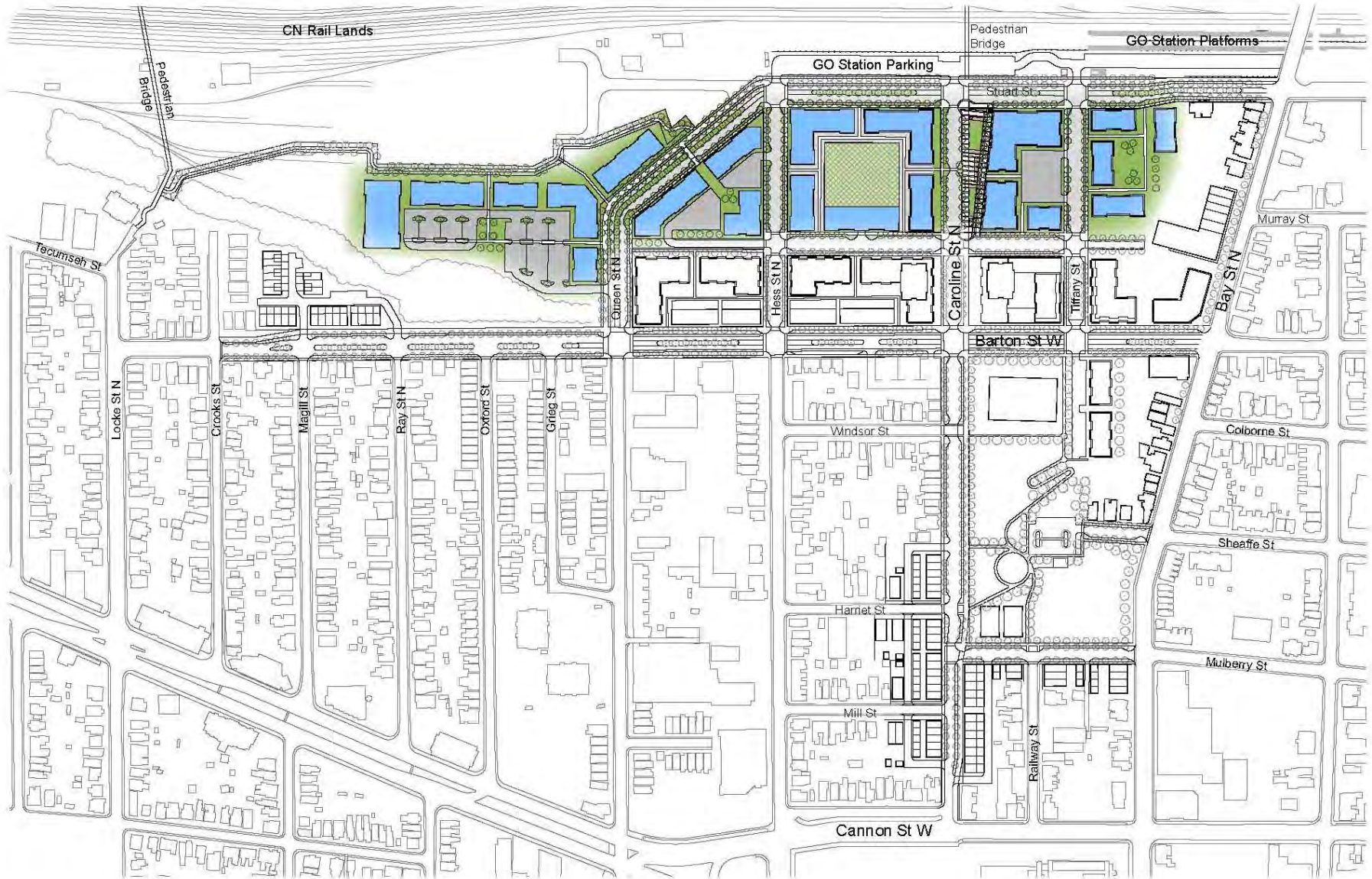
The “Stuart Commercial Area” area is situated between the new mid-block street and Stuart Street and generally extends across the northern edge of the Barton-Tiffany area (see Figure 53). The design intent for this area is a low-rise, smaller scale form of development that accommodates opportunities for a broad range of commercial, institutional, and civic activities. It is intended to be developed as an integrated and comprehensive unit with a campus-like setting, rather than a series of individual buildings with limited inter-connections, and may accommodate a range of non-residential uses, including retail, office, personal services, community, institutional, and open spaces. New buildings are to create a continuous street wall along all streets, particularly along Stuart Street and Caroline Street, in order to frame the street spaces and to create interest. Minimum building heights will ensure a sense of enclosure along the street edge. Building massing will be divided into smaller, pedestrian-scaled bays along the street edge with articulation that will provide interest and depth to the streetscape.

The Urban Design Study recognizes that the Stuart Commercial Area is a large area intended for commercial and non-residential activities that will take a longer time to fully develop as compared to the residential areas. With this in mind, the City should consider opportunities for interim uses (such as recreation uses or community uses) that could be accommodated on the vacant blocks until the ultimate development materializes on the sites. Additionally, the City should ensure that vacant blocks are restored and maintained in an appropriate condition (such as a “clean and green” condition) so that the area’s image is not negatively impacted as residential development and first phases of commercial development progresses to ensure a minimum visual aesthetic for the area.



8. STUART COMMERCIAL DESIGN GUIDELINES

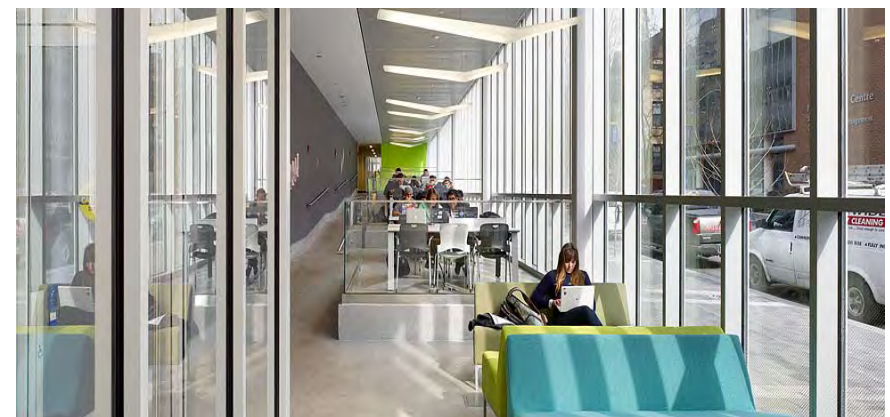
FIGURE 53: Stuart Commercial Area



8. STUART COMMERCIAL DESIGN GUIDELINES

8.2 Building Setbacks

The design intent for new buildings within the Stuart Commercial Area is to create a continuous street wall along Stuart Street and Caroline Street North, as well as the Tiffany Street and Hess Street North although they may be less given preference for vehicular accesses from these side streets. Generally, the build-to line for buildings should be up to 3 metres (see Figure 47). At least 75% of the lineal length of the building's frontage should be set within this build-to line; the remaining 25% may be set back up to 4.5 metres from the property edge to accommodate functional space such as entrance plazas, bicycle parking, sitting areas outdoor spill-out space for ground floor commercial uses, or landscaping. Along the east side of Caroline Street, the build-to line for buildings should be up to 4.5 metres for 75% of the linear length and up to 6 metres for the remaining portion, in recognition of opportunities along and interrelationships with the Caroline Street pedestrian connector street.



8. STUART COMMERCIAL DESIGN GUIDELINES

8.3 Minimum Building Height

Buildings with direct frontage on Caroline Street should have a street wall height at least 3 storeys to promote activity along Caroline Street (see Figure 46 and 54). Other buildings within the Stuart Commercial Area should have a street wall height at least 2 storeys to maintain a minimum level of intensity in the area.

8.4 Maximum Building Height

Buildings throughout the Stuart Commercial Area are permitted up to 4 storeys in height. There should be a consistent street wall of 3 storeys defined along the elevation, with the fourth storey set back at least 1 metres from the building's street wall edge (see Figures 54 and 55). Buildings with direct frontage on Caroline Street should be allowed with building heights of up to 8 stories to reflect the intended focus on this pedestrian corridor and wider setbacks. Taller buildings over 4 stories would require an amendment to the Setting Sail Secondary Plan and a corresponding Zoning By-law Amendment.

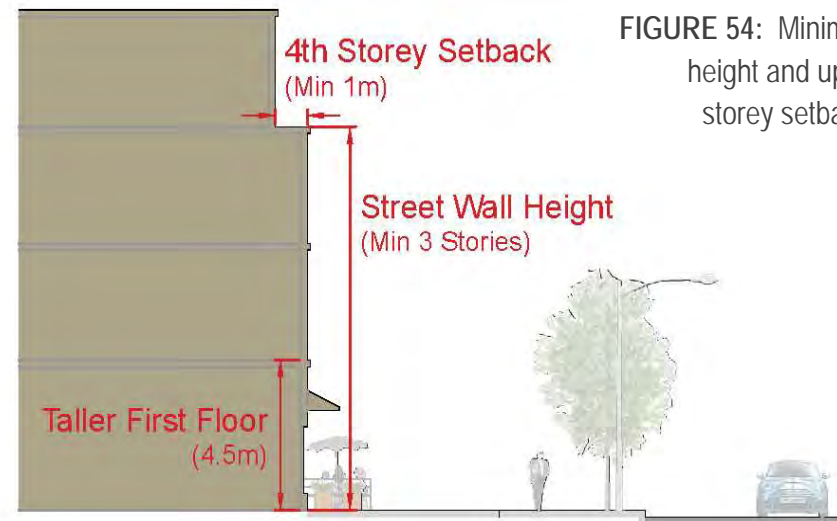
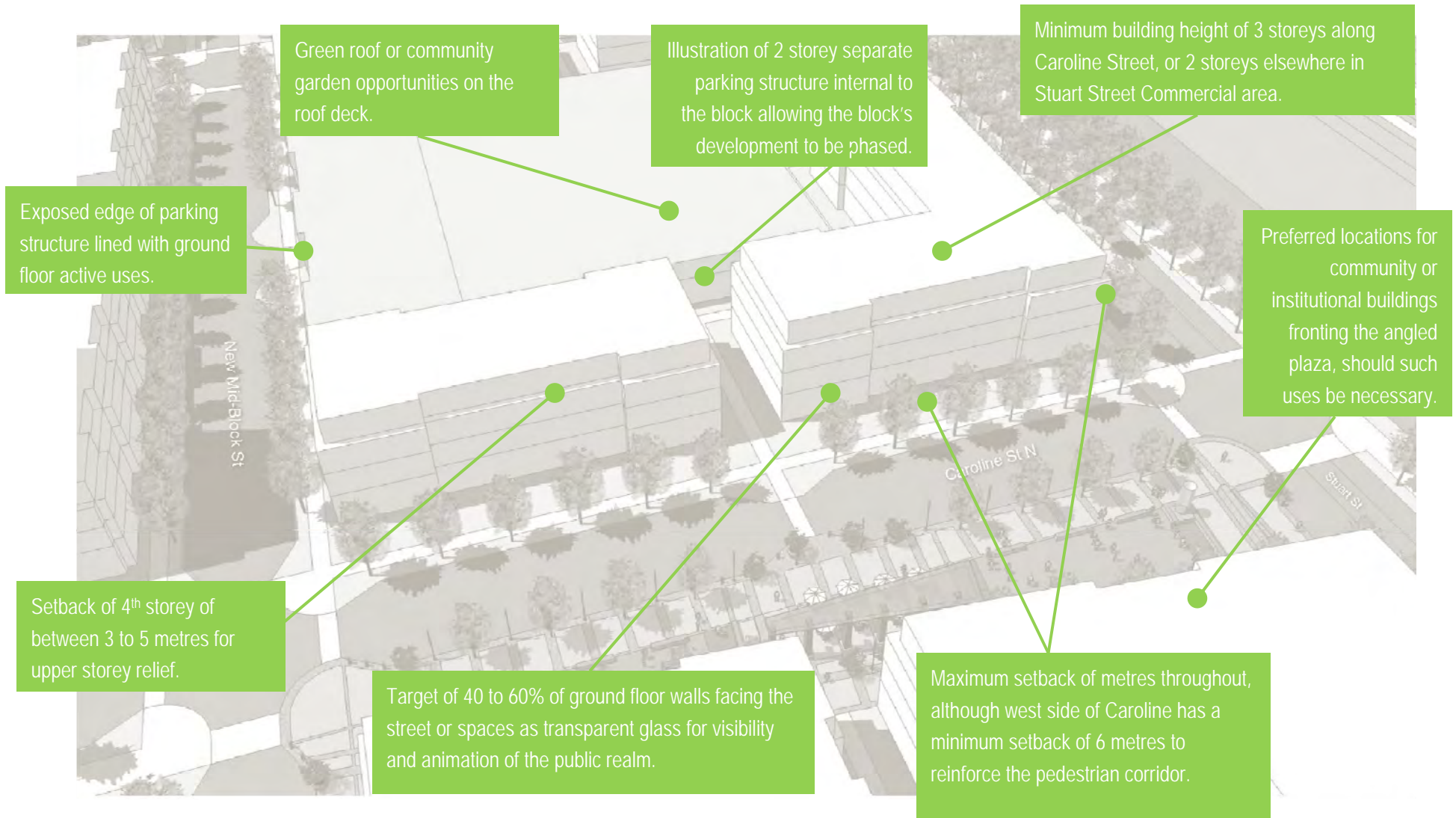


FIGURE 54: Minimum height and upper storey setbacks



8. STUART COMMERCIAL DESIGN GUIDELINES

FIGURE 55: Illustration of built form guidelines within Stuart Commercial Area



8. STUART COMMERCIAL DESIGN GUIDELINES

8.5 Building Detailing

Building elevations facing streets, open spaces and pedestrian connector streets should be designed as principal building elevations with the highest degree of attention in terms of articulation detail and transparency (see Figure 56). Entrance doors and areas should be emphasized through the use of architectural features, including canopies, awnings and other architectural elements as warranted. The proportion of transparent glazing on the ground floor walls should be maximized to promote visibility to and from the street and accommodate natural surveillance opportunities, with a target of 40 to 60% of the ground floor wall area as transparent glazing recognizing a balance between transparency and energy efficiency.

Building architecture should reflect an industrial vernacular that is evident throughout the surrounding area. Architectural detailing (use of windows, projections, recessions, colour, material) should be incorporated that creates balance and rhythm on the elevation, particularly for longer wall elevations. Horizontal divisions (architectural, material, colour) should be incorporated that create a defined base, middle and top to the building. Rooftop mechanical equipment should be incorporated into the overall building design and screened from views from streets and spaces.



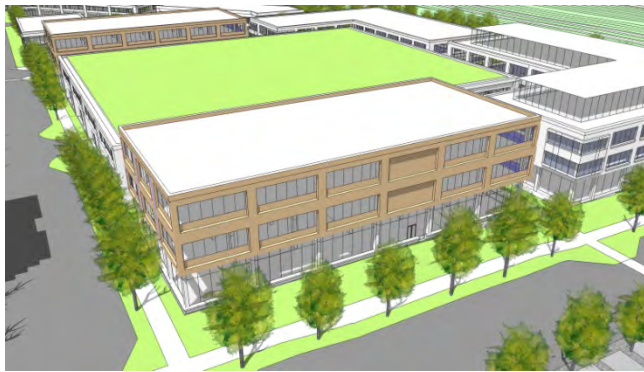
8. STUART COMMERCIAL DESIGN GUIDELINES



An industrial vernacular with elements such as brick materials and large upper windows that would fit within the Stuart Commercial Area with the Barton-Tiffany area.

8. STUART COMMERCIAL DESIGN GUIDELINES

FIGURE 56: Demonstration of built form detailing within Stuart Commercial Area



Local industrial vernacular setting the context for the Stuart Commercial Area includes “boxy” forms with generous amounts of windows and transparency.

8. STUART COMMERCIAL DESIGN GUIDELINES

8.6 Courtyards

Courtyards should be accommodated within the Stuart Commercial Area to provide spaces for relaxation and outdoor amenities shared between individual buildings on the block. These courtyards should be situated to maximize natural surveillance from buildings, streets and walkways and should be shared by adjacent buildings to maximize use and exposure. They should have a greater emphasis on hardscaped areas for gathering and spill-out space for commercial uses, with access points, walkways and seating areas that are well lit for evening safety and interest.

This includes concrete paving with heavy duty stone (or precast pavers) and coloured/textured banding, rather than smaller sized unit pavers or asphalt paving. Slopes within the hardscaped areas should be relatively minimal with ramps provided for grade transitions. Cast-in-place seatwalls or raised planter beds should be used, as appropriate, to retain grades and provide interest. Such areas should be flexible in terms of programming with moveable tables and chairs to accommodate various group functions and uses throughout the year.

Landscaped areas should include raised planting beds or open areas with informal seating opportunities. High canopied trees should be used to maintain open sight lines across the space, with the species selection depending on their proposed location and preferably those which show higher tolerances toward salt, heat and drought conditions. Low-growing ground planting materials in raised planting beds should be used to reduce on-going maintenance requirements. Species should be selected based on their proposed location, as well as whether they will be irrigated. Planting beds above podium decks should have a minimum soil depth of 1 metre to accommodate trees.



8. STUART COMMERCIAL DESIGN GUIDELINES

8.7 Structured Parking

Structured parking facilities for buildings are intended to provide the majority of the parking supply in the Stuart Commercial Area in order to provide an efficient and intensive development form. They may be located underground within a building, or above ground either within a building or as a standalone structure. Parking structures should be designed and integrated with the buildings to produce a complementary scale and style to the associated building(s), including consideration of similar massing, style, materials, colours, and articulation. Stand-alone parking structures should be lined with active uses and transparent windows on the ground floor facing public streets to animate the streetscape (see Figure 57).

In terms of design, pedestrian entrances to structured parking should be clearly demarcated, highly visible, incorporated into the building's overall design, and provided from both the public street and internal to the block. Vehicular entrances to parking structures should be from the new mid-block street rather than from Stuart Street, Queen Street North, Hess Street North, Caroline Street, or Tiffany Street. Entrances should be fully integrated into the building through appropriate architectural design. Stairwells should be accommodated on external walls within parking structures and treated with glass or transparent openings for visibility purposes from the street. Clearly separate loading, servicing, drop-off areas from pedestrian circulation routes within parking structures. Where they cross, a different surface treatment should be considered, such as imprinted, textured or colour concrete or asphalt, to visually define pedestrian routes.



8. STUART COMMERCIAL DESIGN GUIDELINES

FIGURE 57: Demonstration of parking structure lined with buildings within the Stuart Commercial Area



8. STUART COMMERCIAL DESIGN GUIDELINES

8.8 Surface Parking

Surface parking areas for buildings are intended to provide a minimal amount of the parking supply in the Stuart Commercial Area. They should be limited to small scale areas internal to the block, not situated between a building and a public street, and geared more towards short term parking needs such as visitor parking. Surface parking areas should be located and designed to maximize natural surveillance from buildings, streets and walkways. Vehicular entrances to surface parking areas should be from the new mid-block street rather than from side streets.

Surface parking areas should be physically and visually divided to reduce the appearance of large parking areas and to provide safe pedestrian travel through the space. Landscaped parking islands should be incorporated internal to the parking area to divide the larger parking area into smaller parking pods. The perimeter of surface parking areas should be designed with a combination of landscaping and low fencing from abutting streets and pedestrian routes, while still maintaining appropriate visibility. Pedestrian access to buildings from or across surface parking areas should be safe, well-lit, convenient, and well-defined. Pedestrian routes through surface parking areas should be at least 3 metres wide and should be defined with distinct surface materials and colours. Parking rows should be aligned perpendicular to the building to minimize the number of drive aisle crossings for pedestrians.



8. STUART COMMERCIAL DESIGN GUIDELINES

8.9 Building Signage

Commercial signage for buildings plays an important role in the design and character of streetscapes and building forms. Development on the same block and between the blocks within the Stuart Commercial Area should have overall pattern that coordinates the type, style and placement of all signage in a comprehensive fashion, which may require co-ordination between owners and tenants. Fascia signage for ground floor retail uses should be an integral component of the storefront architecture, and should be situated between vertical divisions on the building elevation in a fashion that divides the storefront windows from the upper façade. Durable, weatherproof materials for all building signage should be used that complements the overall character of the building façade in terms of design, style and materials. Lettering should be simple, clear and easy-to-read with complementary graphics that relate to the business function. Opportunities for hanging signage as part of building overhangs within the public right-of-way may be explored, provided adequate overhead clearance and sight lines to any approaching transit vehicles is maintained.



8. STUART COMMERCIAL DESIGN GUIDELINES

8.10 Existing Industrial Building

There is one existing, large industrial facility currently operating with the Barton-Tiffany area, the AVL facility, situated west of Queen Street North and north of Barton Street West below the ridgeline. Although the Preferred Urban Design Concept illustrates a full development of the property and facility, an adaptive re-use of the facility is also an option that fits with the principles and intent of the Urban Design Study (see Figure 58). The City should encourage exploring opportunities for adaptively re-using the facility for a suitable use in keeping with the policies of the Secondary Plan and the respective land use permissions on the property. A number of uses and activities could potentially take advantage of the large footprint of the facility, including commercial, recreation, or community uses.

FIGURE 58: Options for new development or retention of existing industrial facility west of Queen Street North.

Top: Full redevelopment of property
Bottom: Full retention and re-use of facility



9

LOW-RISE INFILL DESIGN GUIDELINES

9.1 Design Intent

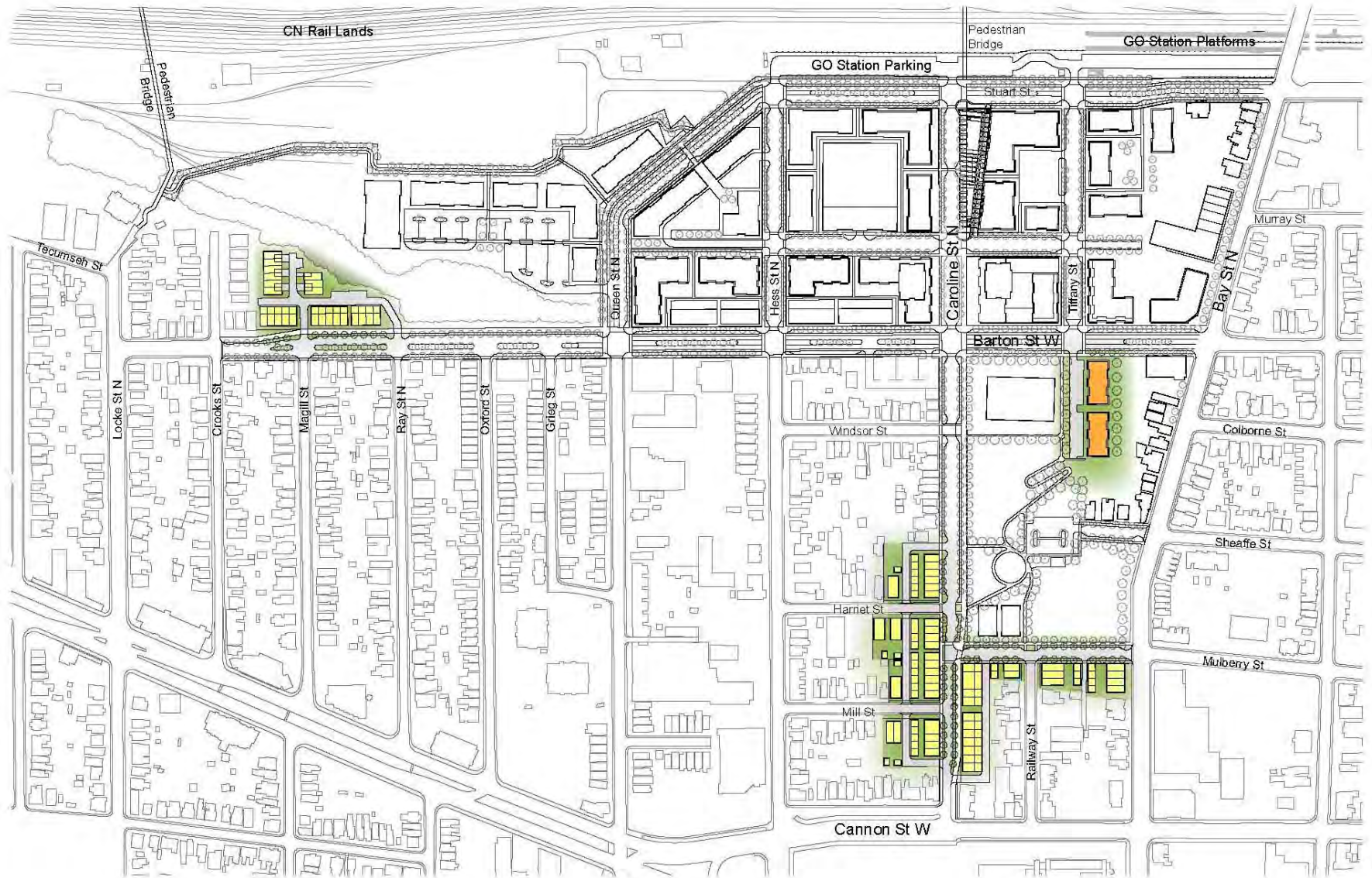
The “Low-Rise Infill Residential Area” is comprised of smaller parcels of land that are situated, for the most part, south of Barton Street West (see Figure 59). This area includes parcels created through the Central Park reconfiguration and street extensions, as well as an existing undeveloped site at the western end of Barton Street West. The design intent for the Low-Rise Infill Residential area is a lower rise form of development, both ground-oriented multiples and apartments, that is sensitively integrated into the neighbourhood fabric, which predominately up to 2 storeys in height and characteristically urban in nature with minimal setbacks and side and rear parking driveways. New buildings in this area are intended to be situated to frame new public spaces and streets within and around Central Park.

The Secondary Plan permits lower rise residential forms through the Low-Rise Infill Residential Area ranging from single detached dwellings to low-rise apartment buildings, depending on the particular area. The area to the northeast of the reconfigured Central Park along the south side of Barton Street West as well as the area on the north side of Barton Street West at the western end of the study area should be stacked townhouses and low-rise apartments to maximize development intensity under the Secondary Plan’s existing permissions. Along Caroline Street (and Mulberry Street) should be developed as a ground-oriented multiple dwellings such as street townhouses or stacked townhouses to reinforce Caroline Street and the redesigned Central Park. Single detached and semi-detached dwellings are appropriate along the side streets of Harriet Street, Mill Street, and Railway Street to continue the existing built form pattern on those streets.



9. LOW-RISE INFILL DESIGN GUIDELINES

FIGURE 59: Low-Rise Infill Residential Area



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

9.2 Building Setbacks

New buildings along Barton Street West and Caroline Street North are to create a continuous street wall along the street edge to frame the street space and to create interest. The build-to line for the building street wall portion should be up to 3 metres, in order to provide adequate privacy to the ground residential units as well as provide sufficient space to allow access to the units without interrupting the public sidewalk (see Figure 60). This build-to line is consistent with the general pattern of ground-oriented dwellings throughout the surrounding neighbourhoods. The space of the setback should be used for stairs leading to the entrance door, front porches, and plantings to reinforce the sidewalk.

The build-to line for the building street wall portion for buildings on corner lots flanking Mulberry Street should be up to 4.5 metres, with the additional space for opportunities for outdoor space facing Central Park. Enhanced architectural treatment, as per below, should reinforce this edge.

9.3 Building Height

New buildings on Caroline Street and Mulberry Street surrounding the southern edge of the reconfigured Central Park are to be up to 3 storeys in height (see Figure 59). The preferred building height for the infill area west of Queen Street North near Magill Street is 3 storeys to fit with the surrounding community, although up to 5 storeys are permitted by the Secondary Plan. The preferred building height for the infill area abutting the east side of the Barton Street facility is 4 to 5 storeys in height as per the Secondary Plan permissions. Any fourth and fifth storeys on residential buildings should be at least 3 metres and up to 5 metres setback from the building's street wall edge.

9.4 Building Massing

New townhouses along Caroline Street should have unit widths that vary between 5.5 and 7 metres, the prevailing pattern of ground-oriented residential units in the surrounding neighbourhoods (see Figure 59). Given the shallow depth of the block on the east side of Caroline Street, wider units with shallower depths may be considered. Townhouse buildings should not be longer than 40 metres in building length so as to provide division and relief along the Caroline Street edge. Corner sites should be reinforced with a variation in the massing and/or architectural detailing.

Unit widths and massing pattern for new buildings along Harriet Street, Mill Street and Railway Street should consider with the prevailing pattern on the remainder of the street in determining the appropriateness of form. Given the existing forms, single detached and semi-detached forms are appropriate fronting Harriet Street and Mill Street, while townhouses are also appropriate along Railway Street.



9. LOW-RISE INFILL DESIGN GUIDELINES

FIGURE 60: Illustration of minimum heights, setbacks, and unit widths along Caroline

Unit heights up to 3 storeys appropriate for infill surrounding park; other infill sites are appropriate at 3-4 storeys.

Unit widths between 5.5 and 7 metres are the general prevailing pattern in the surrounding neighbourhood.

Build-to line up to 3 metres brings units closer to the street to reinforce the street, consistent with the surrounding built form.

Build-to line up to 4.5 metres for sides can provide additional privacy for the sides of units.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

9.5 Amenity Areas

Each residential unit in the Low-Rise Infill Residential Area should have access to private amenity areas on site or block, either individual or communal in nature, which may vary depending on the context. For the development blocks surrounding Central Park along Caroline Street and Mulberry Street, amenity areas should be located either to the rear of the unit, either on the ground for units with attached garages or as rooftop terraces for units with attached garages (see Figure 60). Infill developments along the south side of Barton Street West abutting the eastern edge of the reconfigured Central Park should consider opportunities for amenity areas above the first storey to provide natural surveillance on the park space, but not facing Barton Street West. For the infill developments on Barton Street West situated west of Queen Street North, amenity areas can be a combination of rear yard ground areas (none facing Barton Street West), rear rooftop terraces, or communal amenity areas on the site. Front porches that accommodate small sitting areas facing the street should be considered for all ground-oriented dwelling, recognizing the suggested build-to line established above.

9.6 Parking

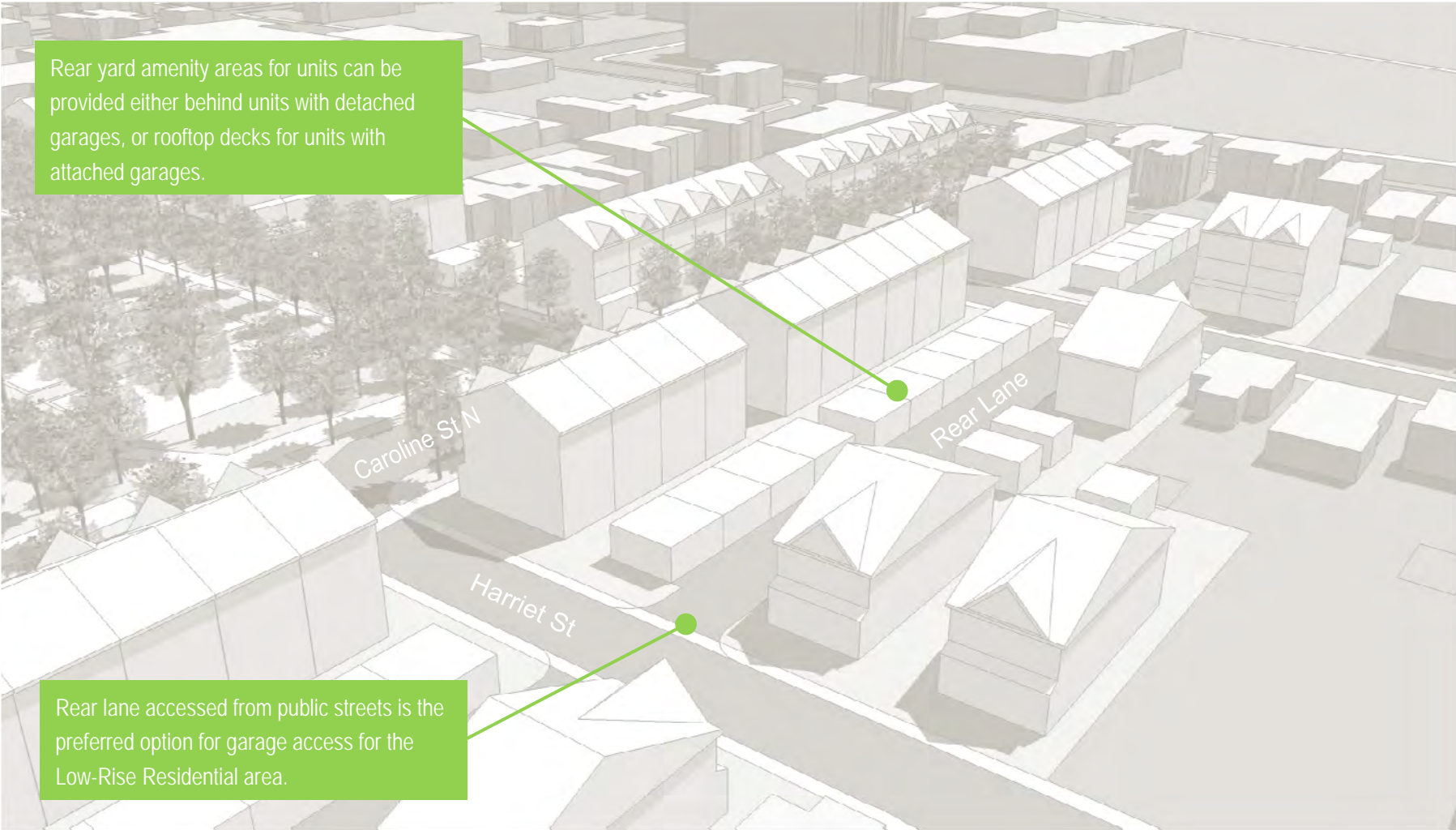
Parking for ground-oriented dwelling units within the Low-Rise Infill Residential Area is to be situated to the rear of buildings, either in attached or detached garages or surface parking areas, accessed by rear lanes or driveways leading from the public street (see Figure 61). Rear attached or detached garages should be finished in the same cladding, roof and trim materials and trim as the

associated residential building. For garages on corner lots that are visible from the public street side, additional detailing and window placement should be considered to highlight these prominent locations. Parking for low-rise apartments within the Low-Rise Infill Residential Area, where permitted along Barton Street West, should be principally accommodated through structured parking as per the guidelines for Barton Mid-Rise Residential area.



9. LOW-RISE INFILL DESIGN GUIDELINES

FIGURE 61: Illustration of rear lane parking option for units along Caroline



9.7 Façade Articulation

New ground-oriented housing within the Low-Rise Infill Residential Area should reinforce the character of surrounding neighbourhoods through the use of complementary architecture, albeit with contemporary expressions as warranted (see Figure 62). The ground floor of dwelling units should be a point of particular emphasis. Primary entrances to residential units should be accessed from the abutting public street (Barton Street West, Caroline Street North or Mulberry Street), while secondary entrances can be situated from the internal lanes or driveways. At least 40% of the front wall area, and side walls for corner units, of each unit should be windows and doors to animate the street. The first floor level should be raised up to 1.2 metres from the public sidewalk height (approximately 3 to 6 steps up to door) to provide privacy for ground floor rooms.

Building elevations should have a variety of different treatments, both on the same block and on different blocks, which should include variations in colour, material, projections, windows and horizontal/vertical elements to provide visual interest and that vary on blocks and between blocks. A variety of roof line types and shapes should be considered to enhance visual interest and diversity along the block, and a common type and colour of roofing materials should be used. Architectural details such as lintels, cornices, reveals should be used to add visual interest and depth to the elevation. Any changes in wall materials should occur at wall setbacks or projections so as to appear structural rather than as a veneer. Corner units with two exposed walls should have side elevations with a similar level of detailing to the front elevation to provide an attractive street edge on both sides. Utility meters should be located away from public streets, and should be incorporated into the building design and screened with landscaping.



9. LOW-RISE INFILL DESIGN GUIDELINES

FIGURE 62: Demonstration of ground-oriented development forms in the Low-Rise Infill Area



Existing buildings in the Barton-Tiffany area and the surrounding Central and Strathcona neighbourhoods should provide the first design cues for new developments.



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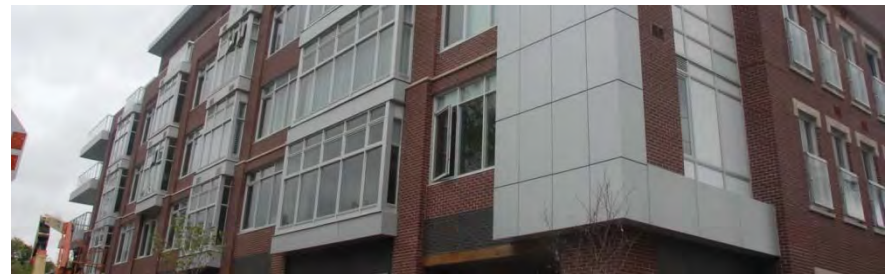
GENERAL DEVELOPMENT DESIGN GUIDELINES

10.1 Building Materials

The West Harbour area's characteristic late 19th and early 20th century form and style of residential, institutional and commercial buildings remains relatively intact in the Strathcona and Central Neighbourhoods. The preferred Urban Design Concept for the Barton-Tiffany area envisions buildings with a palette of materials that has a traditional character with contemporary accents that are consistent with the local vernacular, rather than being overly modern in character (see Figure 63).

Exterior building materials should be of a high quality and selected for their traditional character, durability, and energy efficiency. Base materials should comprise the majority of the material palette used for new buildings, and should include principally brick, stone, and glass, traditional materials for the surrounding neighbourhood. More contemporary materials such as exposed concrete or stuccos should not be used as base materials. Accent materials should comprise the minority of the material palette, and may include such materials as metals, wood and glass.

An appropriate transition in colour, materials and texture to soften building mass and add visual depth to all building elevations should be employed, particularly between the street wall portion and the upper storey. The colour palette for the building should complement and not distract from the character of building materials within the surrounding neighbourhood as a whole.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

FIGURE 63: Demonstration of articulated built form and materials



The desire is for new development in Barton-Tiffany is building architecture and detailing that captures a pedestrian-oriented level of articulation at the building base and creates a contemporary expression using a traditional palette of materials and colours in keeping with the local vernacular.

10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.2 Landscaped Site Edges

Site edges where they face public streets should be appropriately landscaped to provide a strong edge to the public realm. Throughout the Barton-Tiffany area, where space permits and conditions allow, a grouping of plant materials should be used to frame building elevations, to shade transit stops/shelters along the street, and accentuate building entrances. Where space is limited, opportunities for free standing planters should be considered to reinforce the mentioned areas. All landscaping should be used in a balanced fashion with unobstructed views to spaces and buildings so as to not create potential hiding areas.

Landscaped design should consider the following:

- > Select trees and shrubs for their characteristics and those of the proposed locations including soils, sun, root spread, growth rate, canopy size and salt tolerance, with a general preference for native species.
- > Select ground plantings based on appropriate characteristics with a tolerance for urban conditions, heat, drought and salt; their suitability for use within the public realm; the ability to naturalize over time; and consideration of the species hardiness.
- > Utilize a combination of shrubs, ornamental grasses and perennials as part of the planting program, using different forms and textures that create a strong impression.
- > Use low-growing salt tolerant shrubs and ornamental grasses to frame intersections and entrances, but not impede sight lines across the laneway.

- > Include a diversity of plant material that provides visual interest throughout the year, including deciduous and coniferous species.
- > Ensure ground plantings are no more than 1.0 metres in height along the street edge and 0.45 metres in height at street corners or drive aisles to avoid creating entrapment and to preserve sight line triangles.
- > Ensure raised planters use high quality materials and are at least 0.4 metres in height to promote informal seating areas along the street frontage while avoiding the creation of a tripping hazard.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.3 Bicycle Parking

Defined parking areas for bicycles, including short term and long term, should be provided for all apartment and commercial forms of development throughout the Barton-Tiffany study. All bicycle parking should be situated close to building entrances in public view with high visibility, natural surveillance from buildings, and appropriate lighting. Long-term bicycle parking facilities should be internalized within building in secure storage areas that are connected directly to building entrances and end-of-trip facilities where applicable. Short-term bicycle parking may be incorporated within outside areas, but preferably under covered storage areas through building overhangs or separate structures. Outside parking areas should not block pedestrian routes and should be designed to allow the parked bicycle to be oriented parallel to the pedestrian route and minimize obstruction.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.4 Transportation Demand Management

Transportation Demand Management (TDM) is a tool that comprises a broad range of policies, programs, and initiatives that are designed to encourage the use of sustainable modes of transportation, and minimize single occupant vehicle trips as part of an overall transportation master plan and land use plans. TDM looks to affect travel decisions by influencing several factors, including considerations of cost, time, safety, comfort and stress of traveling. Designing the Barton-Tiffany area comprehensively taking into account sustainable mobility and transportation demand management principles, policies and strategies can lead to a significant difference in a commuter's ability to choose sustainable transportation options while not affecting the efficiencies of other travel modes.

The TDM guidelines on the following pages should be considered as part of all development projects, including residential developments (multiple residential uses), commercial developments (retail and service commercial uses), and employment developments (office and institutional uses). They are comprised of four types of strategies that can be used by the site designers to promote walking, cycling, transit and car sharing/carpooling. The four categories include:

- > **Site Organization** involves designing the site in a way that gives higher priority to sustainable modes of transportation over single occupant vehicles. Design options include building placement, building entrance locations, location of parking facilities, and parking supply. These are typically decided at the beginning of the site design process.
- > **Site Layout** includes the internal transportation network of the site, parking facility layout for vehicles and bicycles, location of transit facilities

and location of pickup/drop off areas. All efforts should be made to reduce conflict areas to ensure safety of all modes of transportation. Factors to consider are size, type, capacity and orientation of parking facilities.

- > **Site Infrastructure** should be designed to place a higher priority on alternative/sustainable modes of transportation over the single occupant vehicles. These aspects can be altered after the site is completed; however emphasis should be placed on the site infrastructure during the design phase.
- > **Site Amenities** can also impact a commuter's decision regarding sustainable transportation. Provision of bicycle racks, showers, change rooms, transit shelters and street furniture can make a commuter feel safe and comfortable in their choices and will have a significant impact on their chosen form of transportation. Many amenities can be added after site completion or during a retrofit if necessary.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

TABLE 2: Transportation Demand Management Options

Transportation Demand Management Measure	Residential	Commercial	Employment
Exterior Design			
Provide a clearly visible "way-finding system" which provides direction to everyone including persons with impairment of one or more senses. Features may include textured surfaces, coloured lines and patters, lights raised letters, large lettering and other clearly understandable directional cues.	X	X	X
Locate signage indicating entrances, amenities such as showers, lockers, transit stations/stops and transportation information kiosk strategically throughout the site (every time an individual must make a directional decision, a sign should indicate choices).	X	X	X
Provide signage indicating clear direction from transit to public facilities and service centres.	X	X	X
Transit			
Provide covered seating areas with adequate seating and lighting at all transit stations and bus stops.	X		
Walking			
Provide the most direct, convenient and shortest connections from buildings to public sidewalks, to off-site pedestrian paths, and to transit stops as well as direct connections between buildings on-site. Ensure sidewalks are paved and maintained in winter.	X	X	X
Ensure main entrances of new buildings front directly on and are clearly visible from the public street.	X	X	X
Ensure pedestrian circulation is well-defined with safe and convenient connections to parking areas (car and bike) and off-site pedestrian facilities, and that pedestrian lighting is provided on sidewalks and pathways.	X	X	X
Ensure sidewalks are continuous, depressed where they intersect with a driveway, and barrier-free with at least 2 metres width to accommodate simultaneous passage of a pedestrian and a wheelchair.	X	X	X
Construct asphalt multi-use pathways 3 to 4.5 metres in width with 1 metre "clear zones" on either side and with a middle partition for bi-directional circulation.	X	X	X
Design sidewalks and pathways to ensure personal security and safety through good lighting, unobstructed sign lines and at-grade facilities.	X	X	X
General Interior Design			
Provide adequate signage and way-finding at main entrances to all facilities or amenities such as showers, lockers, information / transit ticket purchase service.			X
Provide a permanent TDM booth at main entrances of all buildings and facilities to display transportation information including a monitor with transit schedules for the nearest transit station/stop.	X		X
Provide for direct access to transit facilities from the lobby of major buildings located along a transit route.	X	X	X

10. GENERAL DEVELOPMENT DESIGN GUIDELINES

TABLE 2: Transportation Demand Management Options (continued)

Transportation Demand Management Measure	Residential	Commercial	Employment
Cycling			
Ensure connectivity between the on-site transportation network, the pathways adjacent to the site and bicycle parking facilities.	X	X	X
Ensure that bicycle parking is visible, accessible, easy to use and conveniently located. Locate parking facilities adjacent to entrances or in a special area within the building to ensure that it does not interfere with pedestrian movement.	X	X	X
Provide bicycle parking in required amounts and designed to meet or exceed minimum depth, width and height requirements.	X	X	X
Provide sheltered cages for all-day bicycle parking with hooks or racks within the cage.	X	X	X
Provide short-term bicycle parking that meet minimum criteria to ensure spaces can be used conveniently and to ensure maximum safety and are easy to use, install and maintain.	X	X	X
Carpool			
Locate carpool parking stalls near the main entrance of the building.			X
Provide ample carpool stalls to meet or exceed requirements.			X
Clearly mark carpool parking stalls as reserved for carpool vehicles.			X
Direct carpoolers to reserved parking stalls with clear and adequate signage throughout the facility.			X
Active Transportation Facilities			
Provide functional and secure change rooms that are well-lit, ventilated and equipped with showers, sinks, toilets, lockers, benches, hooks mirrors and shelves.			X
Connect change rooms, shower and locker facilities with washrooms, exercise and bicycle facilities.			X
Provide separate change/shower facilities for males and females. In buildings with <300 employees, provide a single lockable shower/change room for both genders.			X
Provide ample shower facilities to avoid waits at peak times and to accommodate future demand.			X
Provide the minimum required number of showers based on employee counts. Typically 2 showers (one per gender) up to 300 employees and for each additional 300 employees, one additional shower per gender.			X
Provide one locker for each all-day bicycle parking stall plus 10 additional lockers.			X
Provide full-length lockers to allow for storage of clothing, towels and toiletries.			X

10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.5 Sustainable Design

Sustainable design entails a comprehensive, holistic approach to the design, construction, operation and maintenance of site and buildings. The City should strive to further sustainability efforts as part of all development and redevelopment within the Barton-Tiffany area, either public or private projects. Certification through third party rating should be encouraged for all private developments projects or public works, given they typically provide a comprehensive program for improving sustainability. LEED® rating systems are internationally the most recognized rating system, while other such as Living Building Challenge™, Built Green®, or EcoDistricts provide alternative approaches and alternative scales.

Where the use of comprehensive rating systems is not desired for particular projects, utilizing individual sustainability techniques, whether individually or as a group, should also be encouraged by the City. Many sustainability approaches are naturally aligned with the planning and design initiatives of the Secondary Plan and this Urban Design Study at a larger scale, while others are complements at the smaller scale. For the Barton-Tiffany area, there are three scales of sustainability: the neighbourhood scale, the site scale, and, the building scale.

(a) Neighbourhood Scale

At the neighbourhood scale, many macro level elements of sustainable design have been incorporated through the land use planning of the Secondary Plan and the design through this Urban Design Study. This includes the following elements that are cornerstones of the planning and design of the Barton-Tiffany area:

- > Remediation and redevelopment of a number of existing brownfield sites.
- > Accommodation of different lifestyle needs for residents with a range of different housing types, forms and sizes.
- > Provision of a complete neighbourhood with a potential for a mix of residential, commercial, community, and recreational activities.
- > Provision of a compact neighbourhood with built form densities that efficiently use land and support transit use.
- > Incorporation of potential future transit routes within the design of neighbourhood streets.
- > Interconnected system of sidewalks, walkways, multi-use trails, on-street bicycle facilities, and open spaces that promote opportunities for active transportation choices.

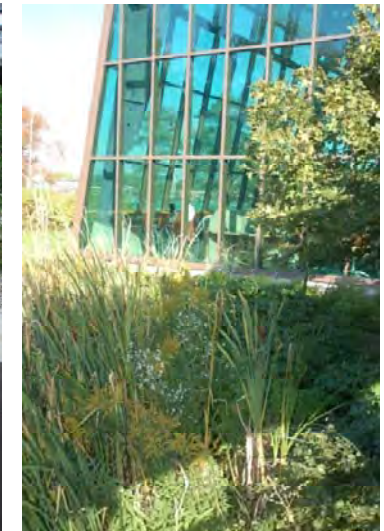


10. GENERAL DEVELOPMENT DESIGN GUIDELINES

(b) Site Scale

At the site scale, sustainable design elements are incorporated into the design guidelines above in the Urban Design Study, while there are other complementary initiatives that can further improve sustainability. The following initiatives at the site scale should be encouraged by the City:

- > Maximize the use of structured parking facilities (either underground or above ground) versus surface parking areas.
 - > Divide larger surface parking areas with landscaped areas to minimize impervious surfaces.
 - > Use permeable or pervious surface materials for surface parking areas.
 - > Use high albedo surface materials on surface parking areas, such as concrete or light coloured asphalt, to minimize heat absorption
 - > Use deciduous trees in strategic locations surrounding buildings to provide natural shading.
 - > Select native species of plants that are hardy, salt tolerant, and sustainable in an urban environment.
 - > Use structural soils for street planting to establish a healthy canopy of trees along all streets over time.
 - > Use a diversity of street tree species to avoid a monoculture that may be susceptible to disease.
 - > Use xeriscape planting practices, including the use of drought-tolerant plant species, to avoid the need for irrigation systems and maximize water conservation efforts.
- > Consider landscape schemes that use groundcover plants and mulching of plantings beds to reduce weeds and maintain soil moisture, in lieu of sod that would require intensive watering and maintenance.
 - > Incorporate opportunities for utilizing non-potable water sources where irrigation is required, such as roof capture, in combination with efficient, centralized drip irrigation systems.
 - > Utilize rainwater practices for ground infiltration where re-use is not needed, such as permeable surfaces, drainage swales, infiltration trenches, or soakway pits.
 - > Undertake lighting plans that ensure a uniform level of lighting across the site, accent pedestrian activity areas, and utilize energy efficient fixtures.
 - > Consider incorporating green roofs or community gardens on exposed roofs of above-grade parking structures for community use (such as gardening and composting) and visual relief.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

(c) Building Scale

At the building scale, the following initiatives at the building scale should be encouraged by the City:

- > Maximize the amount of north-facing building exposures which provide diffuse daylighting and south-facing passive solar heating opportunities
 - > Incorporate on-site renewable energy systems on the site (or the neighbourhood scale), such as solar, geothermal or wind systems.
 - > Optimize energy efficiency within the building to exceed the minimum requirements of the Ontario Building Code.
 - > Balance the wall-to-window ratio between interests of energy efficiency and urban design objectives for visibility and transparency.
 - > Maximize the amount of natural daylighting into building interiors to minimize energy use.
 - > Maximize the use of passive ventilation opportunities through building design to reduce energy requirements.
 - > Incorporate interior controls for climate and lighting that can be tailored to individual building users in order to optimize energy requirements.
 - > Implement construction waste management plans that divert the majority of construction waste from the landfill stream.
 - > Establish minimum thresholds for use of reused, recycled, or reclaimed materials in construction practices.
 - > Select materials on those that are regionally sourced and those that are renewable.
- > Prioritize the selection of low-emitting materials through the interior design process in interests of quality indoor air quality.
 - > Implement a Transportation Demand Management plan for the building in keeping with TDM guidelines above.
 - > Utilize rainwater capture practices by disconnecting roof downspouts from the storm sewer system to manage on site through capture cisterns for re-use or for ground infiltration through permeable surfaces or systems.
 - > Utilize techniques such as green roofs or white roofs to minimize the heat absorption of exposed roofs, and in the case of the former to provide usable space for amenity areas.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.6 Noise Attenuation

The Secondary Plan requires the implementation of approved noise studies regarding site and building design considerations within the Barton-Tiffany area, given the proximity to the Stuart Street Rail Yards. The *"Noise and Vibration Feasibility Study for the Barton-Tiffany Area"* (2014) was prepared by HGC Engineering in support of the Urban Design Study and provides a general assessment of the feasibility of development surrounding the Stuart Street Rail Yards. The Study indicates that detailed noise studies for individual buildings (for both residential and commercial buildings) should be required once development and architectural plans are known.

In the absence of detail plans, the Study recommends acoustical design options for addressing noise impacts from the Stuart Street Rail Yards for both amenity areas and building living space. For amenity areas, options include locating amenity space internal to buildings; locating ground level outdoor amenity areas at locations shielded by the subject building or adjacent commercial buildings; using glazed atria to protect amenity areas; or, using rooftop parapets to shield rooftop amenity areas. For building living areas, options include enclosed noise buffers such as glazed solariums or enclosed balconies to prevent noise from reaching the plane of the windows of bedrooms or living/dining/family room areas; or using single loaded corridors on the sides of residential buildings exposed to the rail yard.

10.7 Public Art

Public art pieces should be considered through building design and site design to enhance the "sense of place" and connect to Barton-Tiffany area's historic industrial roots, or its waterfront proximity and railway heritage. For new development, public art pieces can be installed internal to the ground floor of the building in a publicly visible location, as well considering opportunities, where space permits, for art pieces outdoors along the street. Public art pieces should be located to limit any conflicts with vehicular, bicycle, or pedestrian circulation. In terms of design, public art pieces should be an original piece of artwork, and a range of different purposes (functional, interpretive, abstract, or historical), sizes, artistic mediums (metal, stone, paint), and forms (architectural features, sculptures, landscape features, street amenities, adapted rail cars, adapted shipping containers) should be considered.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.8 Site and Building Lighting

Lighting should be organized and oriented to cater to the needs of both drivers and pedestrians. When comprehensively planning lighting for a site, the need for safety and security with the reduction of energy consumption and nuisance impacts has to be balanced, adhering to the “dark skies” design principles. All lighting fixtures should be installed and oriented in a night-sky friendly fashion that limits horizontal and vertical light spillover. Lighting should be incorporated at regular intervals to prevent the creation of light and dark pockets to ensure visibility into and out from all areas on the site requiring lighting. Pedestrian activity areas especially should be lit at night, including surface parking lots, building entrances, sidewalks and walkways, garbage disposal areas; and other areas with low profile fixtures. The type and style of lighting for sites should be consistent with lighting standards for the streetscape and abutting public spaces, including consideration of pole style and colour, bulb type, and mounting height, as well as consistent with the character and architecture of the building.



10. GENERAL DEVELOPMENT DESIGN GUIDELINES

10.9 Service Areas

Service areas, including garbage storage, loading, and utility areas should be sensitively integrated into the overall site design and appropriately located and located in inconspicuous locations that are hidden as much as possible from public view. They should be shared between buildings on the same block as much as possible to minimize disruptions to vehicular or pedestrian flows. Accesses to service areas should be from the rear of buildings to reduce the number of driveways. For ground-oriented multiple residential building, the preference is to the rear of the buildings away from the public street, while for apartment buildings and non-residential buildings the preference is internal to building with access from the new mid-block street.

For apartment and non-residential buildings, waste handling and recycling areas should be located within the building, with adequate access to the storage area provided for the related collection vehicle and easy pickup without disruptions to vehicular and pedestrian access, play areas and parking areas. For other ground-oriented multiple residential forms, outdoor garbage storage areas for collection containers for general waste, recyclables and organics should be accommodated in locations that are not directly visible from a public street, keeping in mind safe and efficient access needed for collection vehicles. Deep well system should be encouraged where practical.

Utilities should be located underground, where possible, to improve the appearance of the development. Where above-ground utilities and mechanical equipment are necessary, ensure their design is integrated and compatible with other site elements from public view, having regard for maintenance and access

practices. Building utility meters should be located in less visible locations such as the rear of building, or should be screened with an appropriate design that complements the overall façade building design. Roof top mechanical equipment should be enclosed or screened to complement the overall building shape and form and to reduce noise transferred to adjacent properties. The design of the screening should be integrated with the building design.

