

DRAFT FOR DISCUSSION



Town of LaSalle
**HOWARD
BOUFFARD**

**Appendix 1:
Design Guidelines**

August 2024 • **DRAFT**





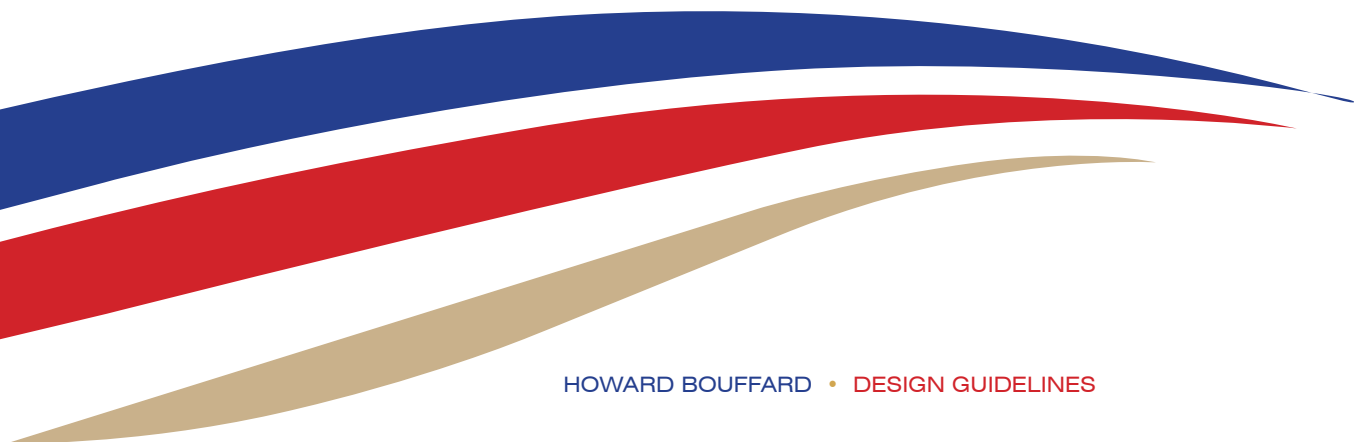
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1.0 introduction



1. INTRODUCTION

1.1 Context of the Design Guidelines

Context

The Howard Bouffard Secondary Plan (Howard Bouffard) is located in the Town of LaSalle and consists of the lands bounded by the Vollmer Culture and Recreation Complex, Seven Lakes Golf Course, and Seventh Concession Road to the south, Malden Road to the west, Huron Church Line and Howard Avenue to the east, and Normandy Street to the north, as identified on the map below.

Howard Bouffard is approximately 940 hectares in size and includes a number of existing uses including residential neighbourhoods, the Vollmer Culture and Recreation Complex, Sandwich Secondary School,

Seven Lakes Golf Course, a number of existing churches, a hydro corridor and a gas pipeline. Howard Bouffard also includes natural heritage features that are comprised of significant woodlands and drainage corridors.

Howard Bouffard, at a minimum, will accommodate approximately 16,000 to 29,000 residents and jobs and 8,100 to 10,200 dwelling units.

The current planning paradigm plans for the Town's greatest height and density along its major roads and intersections while promoting compatibility and stability in the surrounding low-rise neighbourhoods.



Howard Bouffard Secondary Plan area.

1.2 Interpretation & Implementation of the Guidelines

What Are Design Guidelines?

Design Guidelines support the principles and policies of the Official Plan and the Howard Bouffard Secondary Plan and guide development within Howard Bouffard, as it is implemented through subdivision, zoning, and site plan control.

The Design Guidelines encourage the design of a complete, effective, and sustainable built environment consistent with LaSalle's character and vision for the future. The Design Guidelines provide guidance, recommendations, criteria, and standards for how to shape the built environment to achieve a desired level of prescribed quality in both the public and private realms. Guidelines typically address the design of sites and buildings and their organization within a defined area, as well as their relationship to their surroundings - both built and natural.

The Design Guidelines will provide predictability for applicants, the Town, and stakeholders by offering consistent direction about the criteria for the design of development in Howard Bouffard. The provisions and examples in the Design Guidelines should be used as the foundation of design for all development projects.

Note. Illustrations and photographs shown throughout this document demonstrate examples of how the Guidelines can be applied, and are not intended to exclude other designs that meet the intent of the document.

How Will the Design Guidelines be Used?

The Design Guidelines are intended to implement the Secondary Plan direction for Howard Bouffard and provide greater clarity on urban design, streetscapes, built form, and sustainability initiatives. The Design Guidelines are to be read in conjunction with, and complement the objectives and policies of the Secondary Plan, the Town of LaSalle Official Plan, the provisions of the Town of LaSalle Zoning By-law, and other guidelines or standards, such as the Engineering Design Criteria.

All new development within the Howard Bouffard Secondary Plan shall be consistent with the Design Guidelines.

The Design Guidelines, in concert with the Secondary Plan policies, will be used to evaluate development applications in order to ensure that a high level of urban design and the intended level of sustainability is achieved.

The Design Guidelines are to be applied as an evaluation tool for development applications and used by:

- Town Council and Committees when evaluating whether an application meets the Town's vision for development in Howard Bouffard;
- Town staff and external agencies when reviewing development applications and as a reference for design decisions for proposed studies and projects;
- The development industry including but not limited to developers, consultants, and property owners to demonstrate how their proposals align with the Town vision; and,
- The public for use of greater awareness of the benefits of urban design in their community.

Notwithstanding the foregoing, the policies the Official Plan and the provisions of the Zoning By-law shall prevail over the provisions of the Design Guidelines in the event of any conflict.

Structure of the Design Guidelines

Development in Howard Bouffard will reference all sections of the Design Guidelines to ensure that the design of the public realm, buildings, and sites are informed by the comprehensive vision and design goals of the Secondary Plan.

The Design Guidelines are organized under three main sections:

Section 2 - Public Realm

Public Realm guidelines are related to the design of elements within the public realm, including the design of roads, parks, trails, streetscape design elements, street trees and landscaping, and stormwater management facilities. Guidance is also provided for the interface with natural heritage features and their role as defining character elements in Howard Bouffard.



Section 3 - Private Realm

Private Realm guidelines are related to building design, site organization, and design within the private realm. They provide guidance on the design of specific residential, commercial and mixed use, employment, and institutional building types.

Section 4 - Sustainable Buildings + Infrastructure

Sustainable Buildings + Infrastructure guidelines apply to both the private and public realm and are related to energy and water conservation, waste management, green infrastructure and building practices, and urban agriculture.



Implementation Tools

The Zoning By-law addresses matters such as lot coverage, parking, setbacks, and height - many quantitative aspects of a community's physical form. While zoning regulates how buildings sit within a lot or block, it represents only one of the planning tools that may be used to guide and shape development. Zoning is best used in conjunction with draft plan of subdivision or condominium design, or site plan control, all of which would consider the Design Guidelines to create development that promotes design excellence, and is compatible with, and fits within, its surrounding context.

The guidelines address the relative height, massing, and articulation of buildings and landscapes, and their relationship to one another and to their surroundings. These qualitative aspects of physical form work in combination with zoning parameters to lend shape and character to a community.

The Town will utilize the Design Guidelines to guide development and redevelopment to be more sustainable and resilient to climate change. The Town may consider the use of tools such as the Community Benefits By-law, Community Improvement Plans, and associated incentive programs to assist with the implementation of sustainable development design standards.

Applicability

The Design Guidelines shall apply to all projects subject to review and Planning approval by the Town through subdivisions, condominiums, and site plan control applications as permitted under the *Planning Act* and the Town of LaSalle Zoning By-law.

Compliance with the provisions of the Design Guidelines does not preclude compliance with other development regulations associated with an application as required by the Town or other applicable jurisdiction. Where provisions of the Design Guidelines may conflict due to the characteristics of a proposal, the more restrictive shall apply and/or an alternative design solution(s) may be required that meets the intent of the Design Guidelines.

1.3 Planning Principles

The Official Plan promotes LaSalle as A Successful Community.

To achieve **A Successful Town**, the Official Plan sets forth five fundamental planning principles. The guidelines shall support the Official Plan to achieve the following key objectives from the principles:

A Complete Community

A Complete Community meets people's needs for daily living throughout their entire lifetime by providing convenient access to an appropriate mix of jobs, local services, a full range of housing, community facilities, a robust parks and open space system, and convenient access to public transit and options for active transportation.

A Viable Community

A Viable Community actively supports economic development initiatives that create a full range of employment opportunities and to ensure that development is efficient and cost-effective. In a Viable Community there is inherent flexibility to allow new development to respond to the market-place over time, and to intensify over time.

A Beautiful and High-Quality Community

A Beautiful and Well-designed Community promotes a sense of pride as a place to live and a sense of stewardship in its long-term care and maintenance. Crucial to a beautiful and well-designed Community is the attention to the inter-play among built form, the public realm, and the natural environment.

A Healthy Community

A Healthy Community consciously seeks to improve the health of its citizens by putting public health high on the social and political agenda. Physical, social, and mental well-being are the necessary components of public health, including access to healthy food and clean air and water, as well as opportunities for residents to be physically active and socially engaged.

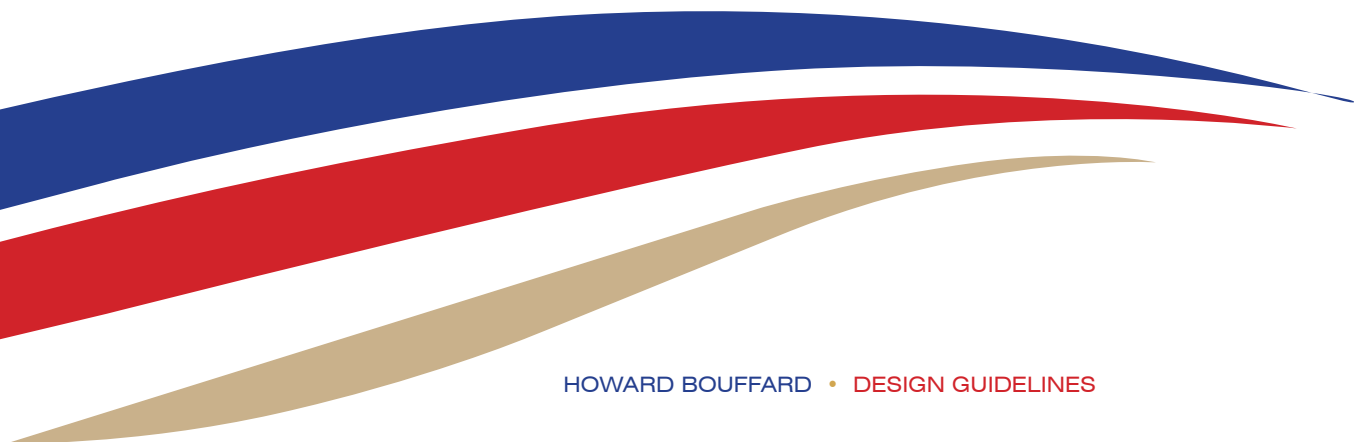
A Sustainable and Resilient Community

A Sustainable and Resilient Community will lead to safer, more active, healthier, and more financially prosperous and resource conscious communities. A Sustainable and Resilient Community will also meet the challenges of climate change, and other environmental issues through integrated solutions rather than through fragmented, incremental approaches that meet one objective at the expense of the others.





the public realm **2.0**



2. THE PUBLIC REALM



Parks offer a variety of experiences, including passive and active recreation activities.

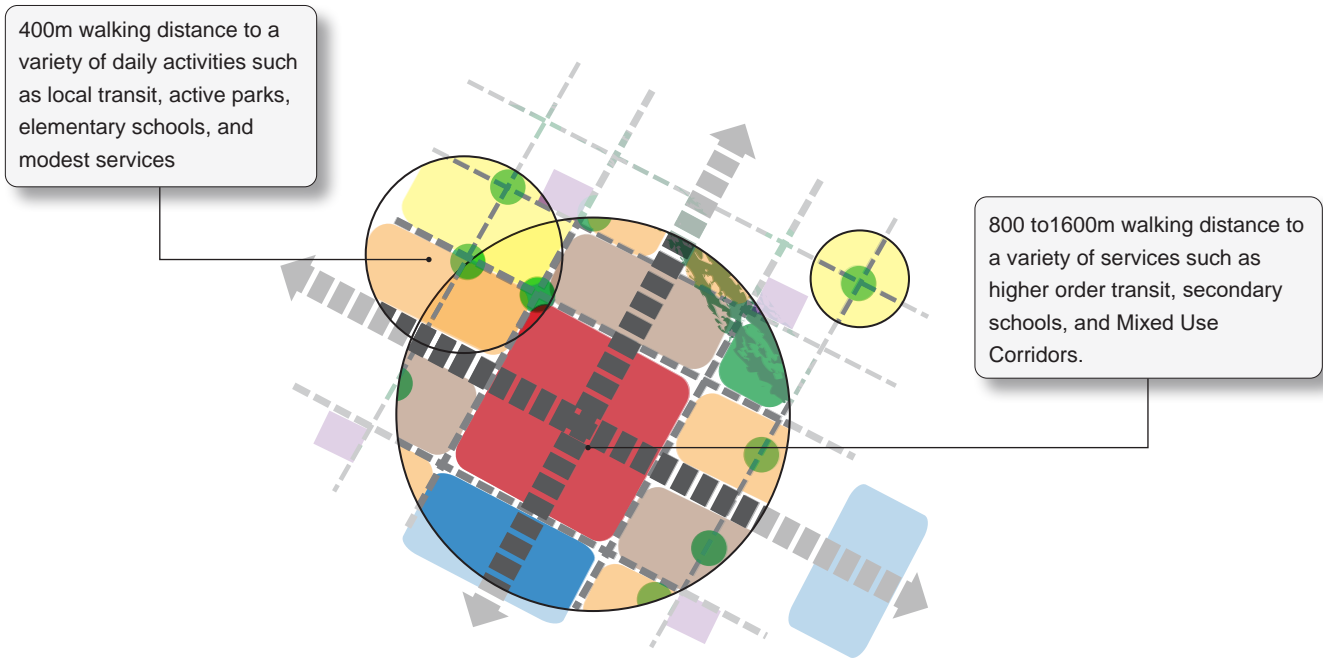
The design and organization of the public realm will contribute to place-making and to the framework and setting for development.

Guidelines for the public realm will address matters such as the arrangement of streets and blocks, ease of movement, streetscapes, parks and open spaces, views, natural heritage features, and stormwater management facilities. The successful design of the public realm relies on defining the community character and creating diverse, comfortable, welcoming, safe, and accessible spaces.

The guidelines will be considered when municipal initiatives or private development applications impact elements of the public realm.

2.1 General Guidelines

1. Promote internal connectivity and multiple connections to the community at large, taking into account the existing and proposed urban structure of adjacent and adjoining areas.
2. To ensure the effective continuity of the street pattern, and implementation of long range active transportation plans:
 - a. Gaps in the existing street network shall be completed by providing connecting streets through developments;
 - b. Adjoining streets shall be extended into developments and subdivisions; and,
 - c. Streets shall be extended to the boundaries of the development, as appropriate, to accommodate further extension of the street network and to create interconnections to adjacent neighbourhoods and uses.



Locating services and amenities within walking distance supports daily physical activity and reduces the reliance on the private automobile.

3. Encourage an interconnected network of sidewalks, bicycle routes, transit, and multi-use trails ensuring proper integration with surrounding neighbourhoods and a variety of destinations, allowing for continuous movement throughout the community.
4. Encourage a typical walking distance of 400 metres (5 minute walk) to daily activities, such as elementary schools, active parks, and modest services, or 800 to 1,600 metres (10 to 20 minute walk) to local transit, secondary schools, and the Mixed Use Corridors.
5. Provide continuous sidewalks, or equivalent provisions for walking, on both sides of the street.
6. Implement traffic calming measures such as on-street parking, reduced lane widths, public laneways, raised intersections, curb bulb-outs, and/or traffic circles to reduce vehicular traffic speeds and to ensure safe walking and cycling environments. See Section 2.4.8 for additional guidance.
7. Provide neighbourhood permeability by designing blocks to be generally no more than 200 metres in length to promote active transportation, discourage excessive driver speed, and disperse traffic movements.
8. Ensure access to green space through a variety of park spaces above and beyond requirements.

2.2 Universal Design

Designs for new developments shall ensure that all community members have access to services, social activities, and opportunities to move freely within Howard Bouffard. Project designs shall enhance people's comfort with features that fit well with the average person's physical capabilities and senses.

Universal Design seeks to ensure that products and environments are usable by people regardless of age, ability, or situation.

Key principles of Universal Design include:

- Equitable use (does not disadvantage, stigmatize or privilege any group of user);
- Flexibility in use (accommodates a wide range of individual preferences and abilities);
- Simple and intuitive (easy to understand regardless of user's experience, knowledge, or language skills);
- Low physical effort (can be used efficiently, comfortably and with minimal fatigue);
- Perceptible information (communicates all necessary information to all users regardless of ambient conditions or the users' abilities);
- Tolerance for error (minimizes hazards and adverse consequences of accidental or unintended actions);
- Size and space for approach and use (provides appropriate size and space for approach and use regardless of body size, posture or functional ability).

2.3 Guidelines for Roads

Throughout Howard Bouffard, roads shall be designed as complete streets which form a network to facilitate the movement for people and goods in an integrated, safe, comfortable, and accessible manner. The road network will prioritize connectivity and will allow for different users and modes of transportation, including pedestrians, cyclists, transit, and vehicles.

A typical cross section that identifies the boulevard and the roadway are provided in this section for each road type.

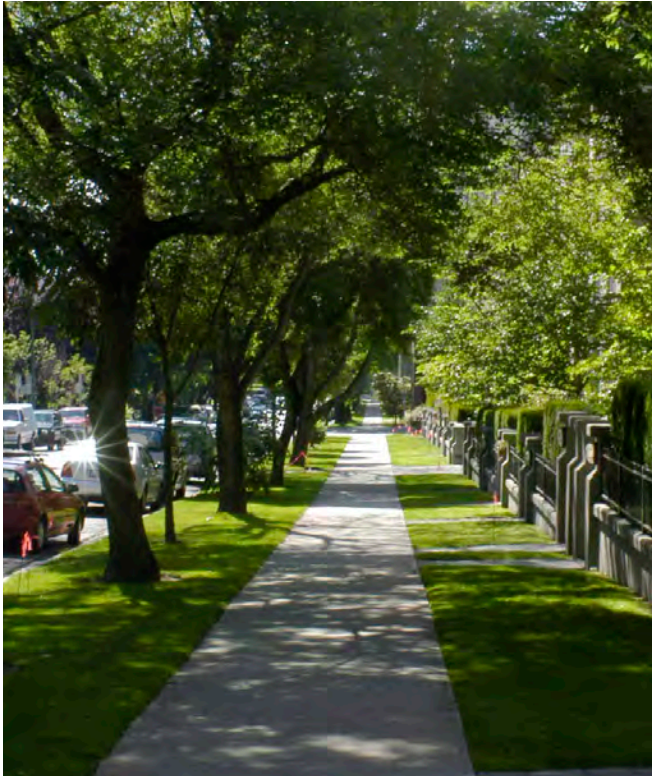
Boulevard: part of the public realm of streets and generally consists of a sidewalk, planting and furnishing zone, and bicycle path, where feasible.

Roadway: part of the public realm that is dedicated to the movement of transportation and includes travel lanes for vehicles; dedicated or shared bicycle lanes; and lanes for street parking.

The specific technical details of the road cross-sections (i.e., engineering standards) will be determined through the appropriate design review process. Refer to the **Town of LaSalle Transportation Master Plan and Development Manual** for typical road cross sections. County Roads are under the jurisdiction of Essex County and reference shall be made to those standards.

2.3.1 General Guidelines for Roads and Blocks

1. Design a permeable network of roads with strong links and route choices between mixed use corridors and neighbourhoods.
2. Avoid back-lotting or reverse lot frontages where feasible. This condition should not be considered unless demonstrated to be the only option
3. Terminate roads at public facilities or landmark buildings, parks, open spaces, or rural areas, where possible.



Large canopy trees provide shade over the sidewalk.



Local Road with a bioswale in the right-of-way to assist with run-off and infiltration.

4. Design the road and block pattern to emphasize connections, both internally and with surrounding neighbourhoods, through a grid or modified grid pattern.
5. Encourage the layout of roads to relate to natural areas, water courses, parks, and rural edges.
6. Design all roads to include defined and, wherever possible, continuous zones for plantings, street furnishings, utilities, pedestrian sidewalks, bicycle lanes, and vehicular pavements.
7. Construct all sidewalks to municipal standards and accommodate on all street types to facilitate pedestrian and bicycle circulation.
8. Transit facilities may be accommodated on all Arterial and Collector Roads. Arterial Roads will have priority transit services.
9. Plant street trees to create and enhance the urban tree canopy while providing shade over sidewalks. Provide a continuous row of canopy street trees on both sides of the road.
10. Consider green infrastructure, such as bioswales, within the public right-of-way to enhance ground water infiltration and improve water quality as part of a comprehensive water management plan.



Arterial Road with a roundabout and gateway feature.

2.3.2 Arterial Roads

Arterial Roads are primarily envisioned as providing key routes for transit, vehicles, pedestrians, and cyclists. Please refer to **Figure 1** for a cross-section and plan of Arterial Roads.

1. Roadway

- a. Arterial Roads are intended to accommodate large volumes of traffic and generally have a right-of-way-width of **30.5 - 33.0 metres**.
- b. Arterial Roads will be designed with limited access to individual properties to minimize disruptions to traffic flow and to maximize safety and the attractiveness of the road.
- c. On-street parking is not permitted on Arterial Roads.

2. Boulevard

- a. Arterial Roads have boulevards on both sides of the pavement with a grass verge with street trees.
- b. Provide a minimum 1.5 metre sidewalk on both sides of the road. A sidewalk width of 2.55 metres is recommended.
- c. Provide a separated Multi-use Pathway in the boulevard, where feasible. 3.5 metre wide in-boulevard facilities are recommended.

2.3.3 Collector Roads

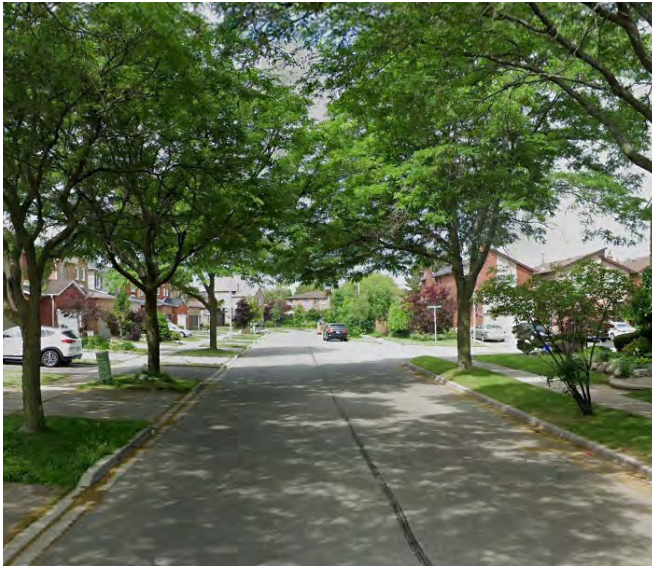
Collector Roads connect to Arterial Roads and provide primary connections to Local Roads. Please refer to **Figure 2** for a cross-section and plan of Collector Roads.

1. Roadway

- a. Collector Roads generally have a right-of-way width of **22.5 – 26.0 metres**.
- b. Limit direct driveway access to development sites.
- c. Provide dedicated space for cyclists with or without separation from traffic lanes where traffic volumes are low.

2. Boulevard

- a. Collector Roads have boulevards on both sides of the pavement and accommodate a grass verge with street trees and a minimum 1.5 metre sidewalk on one side.
- b. Provide a separated Multi-use Pathway in the boulevard, where feasible. 3.5 metre wide in-boulevard facilities are recommended. A sidewalk shall be provided on the opposite side.



A Local Road with street tree planting and sidewalks on both sides.

2.3.4 Local Roads

Local Roads provide the fine-grain transportation network for the community, connecting to Collector Roads and linking with public spaces. Please refer to **Figure 3** for a cross-section and plan of Local Roads.

1. Roadway

- a. Local Roads have maximum right-of-way width of 20.1 metres.
- b. Local Roads include on-street parking on at least one side of the road, that could alternate to both sides of the road.
- c. Consider bicycle movement a normal part of Local Road traffic movement; separated or shared facilities are permitted.

2. Boulevard

- a. Street trees and landscaping should be located continuously along Local Roads, where feasible.
- b. Provide a minimum 1.5 metre sidewalk on both sides of the road.



Window Road with street trees and a pathway in the boulevard adjacent a creek.

2.3.5 Window Roads

Window Roads are proposed in particular situations to avoid residential reverse lotting and frontages directly along Arterial Roads. Window Roads can be Collector or Local Roads that are typically single-loaded and are parallel to Arterial Roads.

Single-loaded Collector or Local Roads adjacent to natural features provide the opportunity to enhance the character of the community, as well as provide unobstructed views to the natural features. Where appropriate, accommodate a Multi-use Pathway along the edge of the street for active uses, such as walking and cycling. Please refer to **Figure 4** for a cross-section and plan of Window Roads.

1. Roadway

- a. Window Roads have one lane in each direction.
- b. Accommodate for on-street parking adjacent to the Arterial Road boulevard or natural feature.

2. Boulevard

- a. Provide a 1.5 metre wide sidewalk on the residential side of the street.
- b. A second sidewalk or, where feasible, a Multi-use Pathway should be integrated into the right-of-way of the adjoining Arterial Road or along the natural feature.



Private Roads facilitate access to multi-unit residential areas.

- c. The boulevard treatment shall consist of street trees on the dwelling side boulevard and trees with buffer planting and low decorative fencing within a grass boulevard adjacent to the Arterial Road boulevard.
- d. Design Window Road treatments to take into consideration noise attenuation, grading issues, the need for headlight screening, and safe pedestrian access into the neighbourhood.

2.3.6 Private Roads

The following guidelines apply to new roads which will not be owned or maintained by the Town and which facilitate access to new multi-unit residential, commercial or mixed-use developments on private properties. Please refer to **Figure 5** for a cross-section and plan of Private Roads.

1. Roadway

- a. Private Roads have a minimum right-of way width of 9.0 metres with a minimum paved surface width of 6.0 metres.

2. Boulevard

- a. Provide a minimum 1.5 metre landscaped utility corridor on either side of the Private Road.
- b. Sidewalks are required on at least one side of a Private Road, and may be located within the utility corridor.
- c. Consider the use of porous or permeable materials in areas where sufficient drainage exists.



An enhanced public realm with wider sidewalks, plantings, paving materials, patios, and retail display.

2.4 Streetscape Elements

2.4.1 Sidewalks

1. Ensure sidewalks are continuous throughout the secondary plan and constitute an integral part of the pedestrian system to promote active transportation. Design sidewalks as follows:

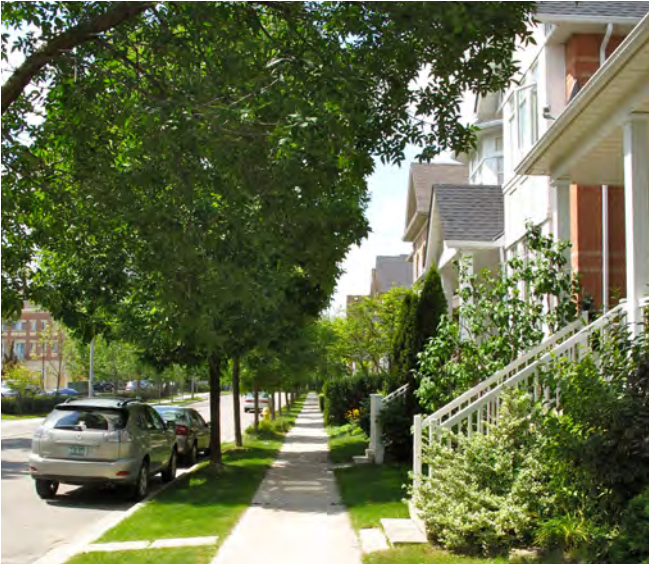
- 1.5 metres on Local Roads;
- 1.8 metres when the sidewalk abuts the curb;
- 1.5 to 2.55 metres on Collector and Arterial Roads; and
- 1.8 to 3.0 metres in high pedestrian areas along Mixed Use Corridors, particularly where retail is provided along the street.

In all cases, provide sufficient space for street furnishings, public utilities, lighting, tree plantings, and transit shelters.

3. Ensure the needs of persons with disabilities and the elderly are accommodated in the design sidewalks. Design sidewalks to municipal standards.

2.4.2 Street Lighting

1. Provide pedestrian-scaled street lighting to enhance safety and visibility on streets.
2. Consider sustainability and the impacts of light pollution in the design and location of lighting.
3. Provide downcast pedestrian-scale lighting in high traffic pedestrian areas.
4. Group street lighting with street furniture, waste receptacles, and landscaping elements to minimize disruptions to pedestrian circulation.
5. Ensure street lighting reflects the Town's standard palette and consider maintenance requirements.



Sidewalks with street trees to provide shade and increase tree canopy.

2.4.3 Street Trees and Planting

Street trees contribute to the urban tree canopy, act as a buffer to separate the pedestrian from moving vehicles, and create a canopy and shade over sidewalks to enhance pedestrian comfort.

1. Plant street trees along all roads and consider a diversity of native tree species to avoid a monoculture.
2. Encourage the delivery of alternative planting strategies along high-pedestrian areas such as soil cells, sufficient soil medium, continuous planting trenches, etc., to sustain long-term growth and healthier tree life.
3. Utilize a comprehensive planting and soils strategy based upon species diversity, resiliency, and urban tolerance.
4. Where appropriate, use low maintenance, drought resistant, and salt tolerant landscaping within medians and roundabouts.
5. Plant a double row of trees in key areas, such as adjacent to parks and where a wider boulevard exists.



Bicycle racks designed as an interesting design feature along the street.

2.4.4 Street Furniture

Street furniture is an essential component of comfortable, pedestrian supportive streetscapes. Street furniture includes seating, benches, bicycle racks, bollards, and raised planters, among others.

1. Concentrate street furniture in areas with the highest pedestrian traffic, such as along Mixed Use Corridors, key intersections, and parks.
2. Where possible, use street furniture manufactured from recycled material(s).
3. Ensure that street furniture does not obstruct pedestrian, cyclist, or vehicular circulation.
4. Where raised planters are used in the boulevard, they should be designed to function as alternative seating along the sidewalk edge.
5. Ensure the placement of bicycle racks within the pedestrian realm does not impede pedestrian movement.



Decorative paving and wider sidewalks.

2.4.5 Pedestrian Crossings

1. Provide formal pedestrian crossings at every intersection in high pedestrian areas in order to promote walkability and a pedestrian-focused environment.
2. Provide signalized pedestrian crosswalks at locations where important destinations or significant walking traffic is anticipated, such as near retail shops and schools.
3. Ensure pedestrian crossings have a minimum width of 3.0 metres, are continuous, and connect to adjacent sidewalks.
4. Utilize feature paving such as alternative paving markings or materials, or distinctive painted lines to minimize the conflict between vehicles and pedestrians and to enhance the visibility and quality of pedestrian crossings.
5. Define and enhance safe routes to schools to create a link along a route to a school. Provide pedestrian crossings, signage, and other pedestrian safety features and amenities as determined appropriate and effective by the Town.
6. Minimize the height of curb cuts to facilitate wheelchair and stroller usage in high pedestrian areas.
7. Utilize hard infrastructure that is designed to increase pedestrian safety and movement such as table top intersections, raised cross walks, and bump outs.

2.4.6 Community Mailboxes

1. Recommended that mailboxes are located either at parks or stormwater management facilities along the street edge, or along side yards between the sidewalk and the corner lot line.
2. Where appropriate, coordinate the location of community mailboxes, newspaper boxes, seating, and waste receptacles.
3. Access to mailboxes should be through pedestrian facilities. Lay-by parking is not permitted.



Curb extensions slow traffic and provide improved public safety.

2.4.7 Utilities

1. Wherever possible, utilities should be buried below grade. The use of a joint utility trench is encouraged for access and maintenance benefits to maximize available space for street trees.
2. Where below-grade utility design is not feasible, group at-grade utilities in single locations to minimize their aesthetic and access impacts on the public realm.
3. Encourage utility design that minimizes street clutter. Utilize products that incorporate street lighting and telecommunications facilities within the same utility pole.

2.4.8 Traffic Calming

1. Traffic calming designs shall be incorporated with the appropriate engineering standards and must be approved by the Town. Refer to the **Transportation Master Plan** for further information. Additional traffic calming designs to reduce vehicular traffic speeds and to ensure safe walking and cycling environments may include:
 - a. Pedestrian-priority streets-or home-zones (i.e., the speed limit is under 15 km/hr. and vehicles must yield to pedestrians and cyclists);

- b. Street design that discourages vehicle speeding through right-of-way curvature, speed humps/speed table, traffic circles, raised median islands, building proximity to the street, and boulevard street tree planting; and/or,
 - c. Minimum number of traffic lanes in the roadway.
2. Consider curb extensions as a traffic calming measure to provide improved pedestrian safety. These shall be designed to:
 - a. Reduce crossing distances and provide safe refuge for pedestrians waiting to cross the street;
 - b. Reduce vehicle speeds; and,
 - c. Include a combination of landscape and hard surface elements to improve aesthetics.
3. Sight triangles are required at all intersections between two Collector Roads and where any class of road intersects with an Arterial Road.



Bicycle racks at a transit stop supports active transportation.

2.4.9 Transit Support Guidelines

Transit supportive systems require densities and development patterns that connect people of all ages to homes, jobs, school, and other places linked to their lifestyles.

1. Complement and support the transit system through a network of on-road and off-road active transportation facilities, such as bicycle lanes, multi-use trails, and sidewalks to further promote inter-modal and first-mile and last mile connections (walking, cycling, transit).
2. Support bike use through the provision of bike racks and bike storage at transit stops and stations.

Arterial Roads - 33.0 metre ROW

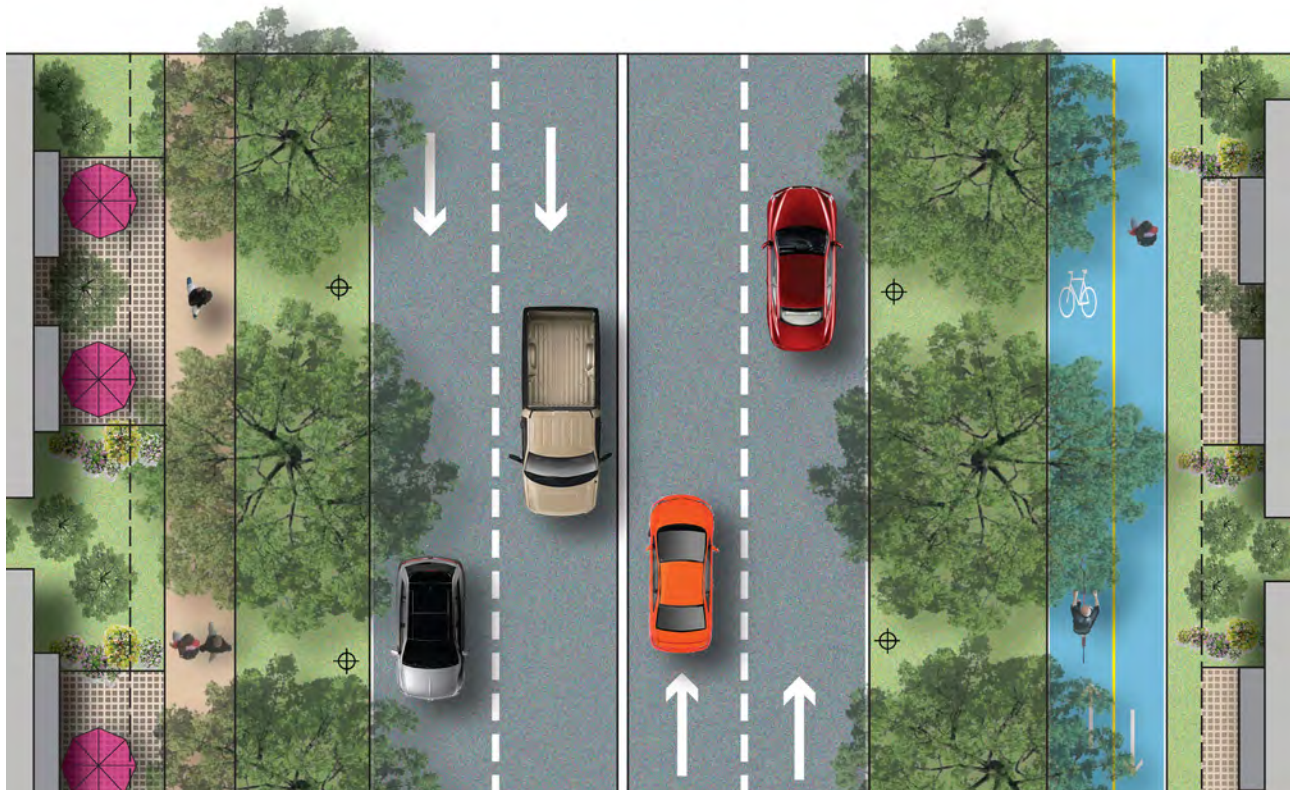
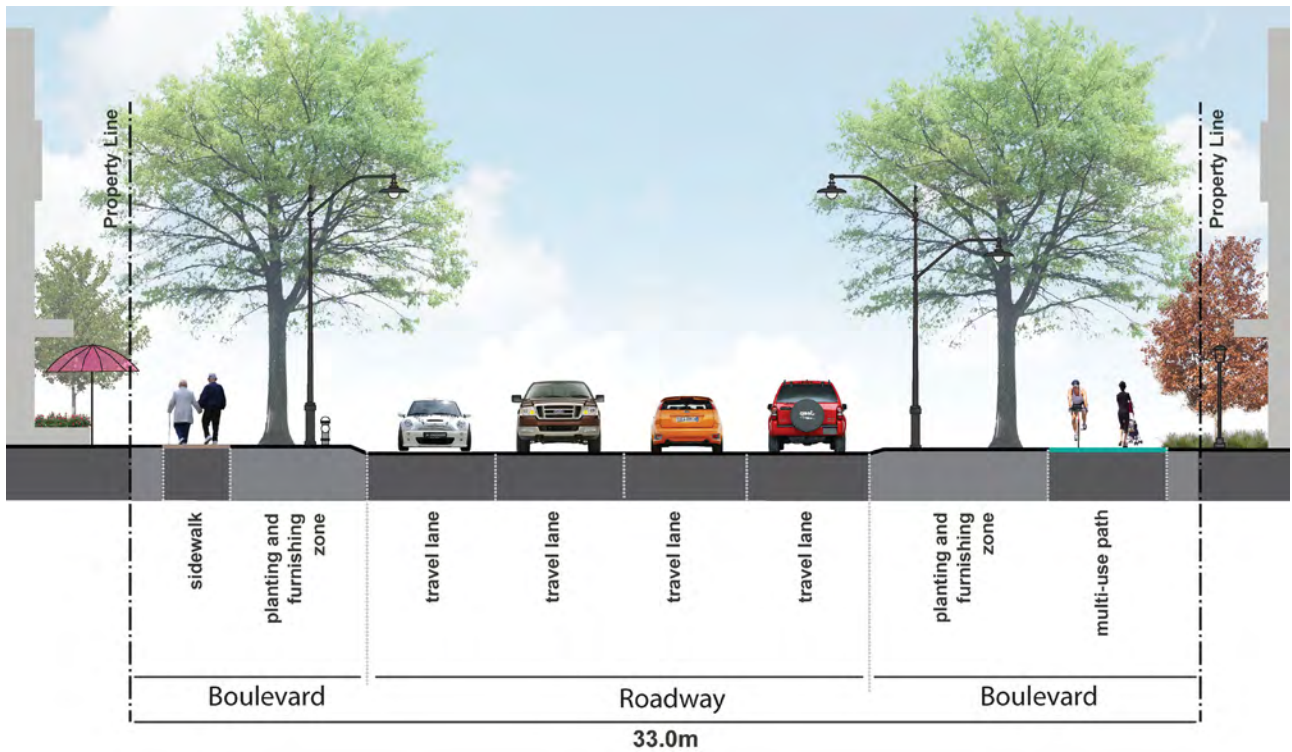


Figure 1 - Arterial Road cross-section and plan

Collector Roads - 26.0 metre ROW

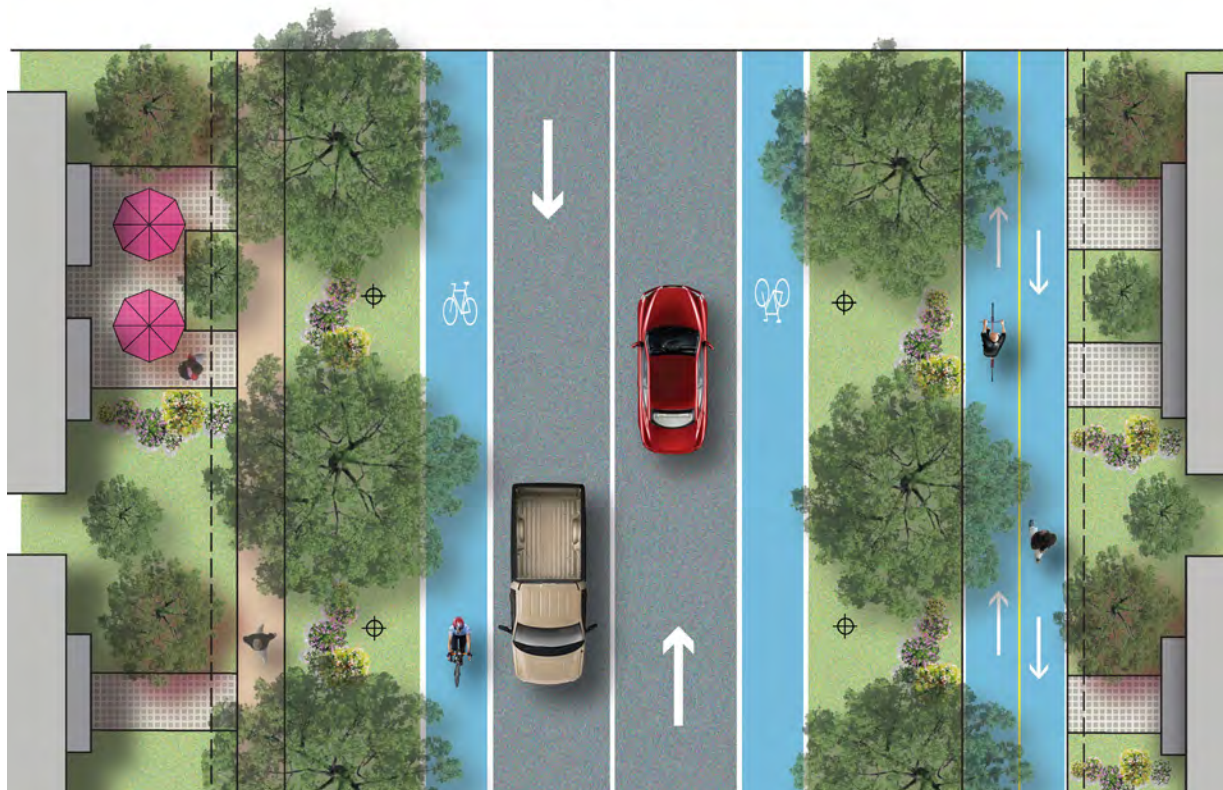
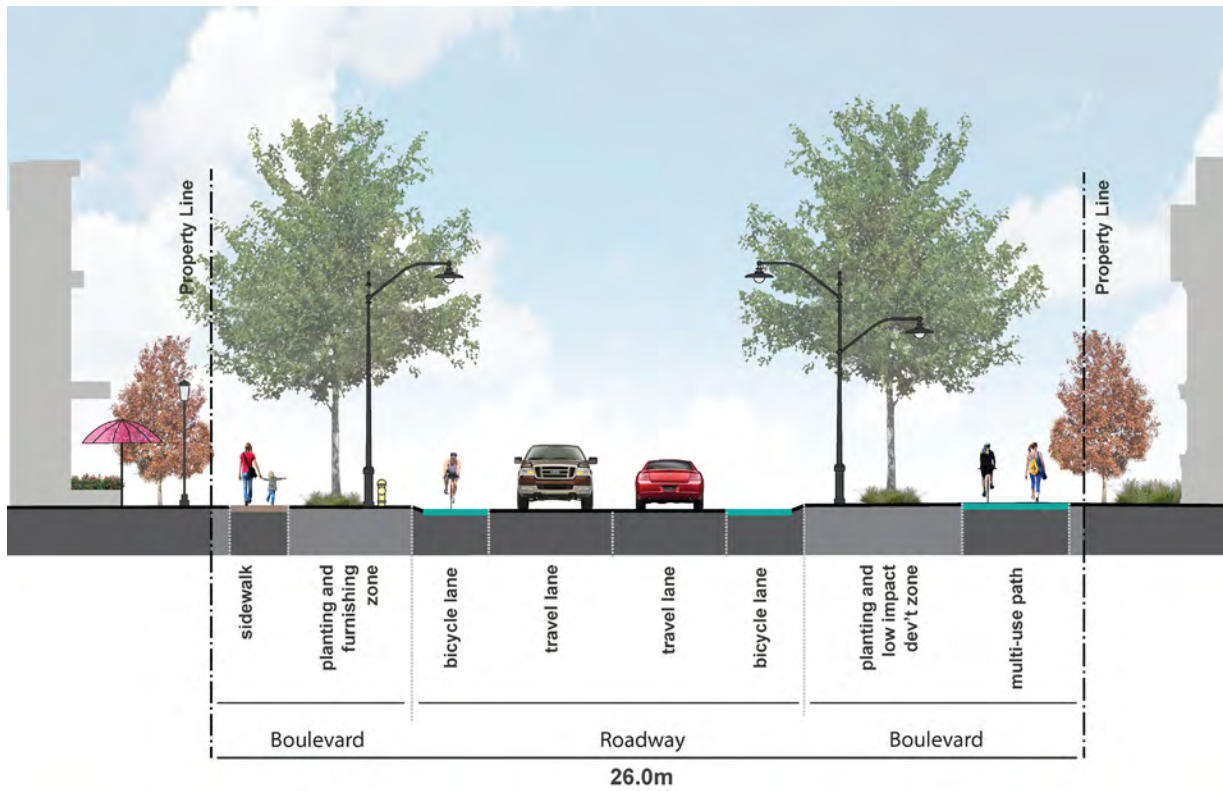


Figure 2 - Collector Road cross-section and plan

Local Roads - 20.0 metre ROW

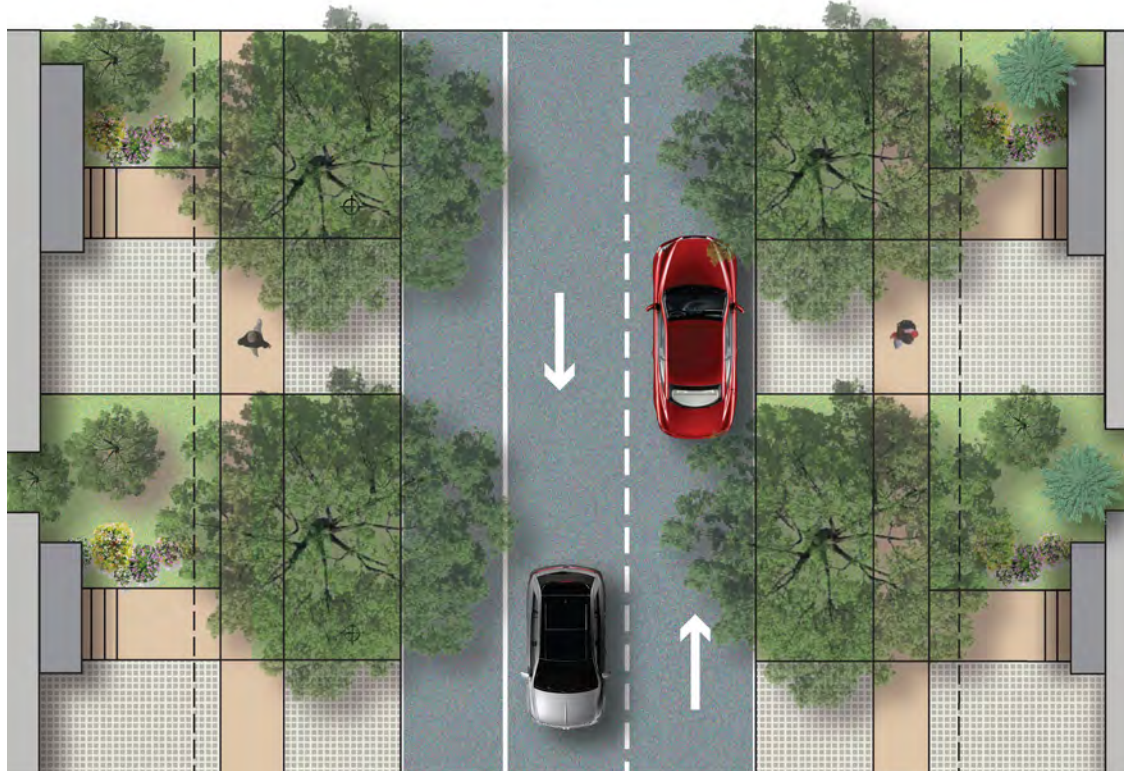
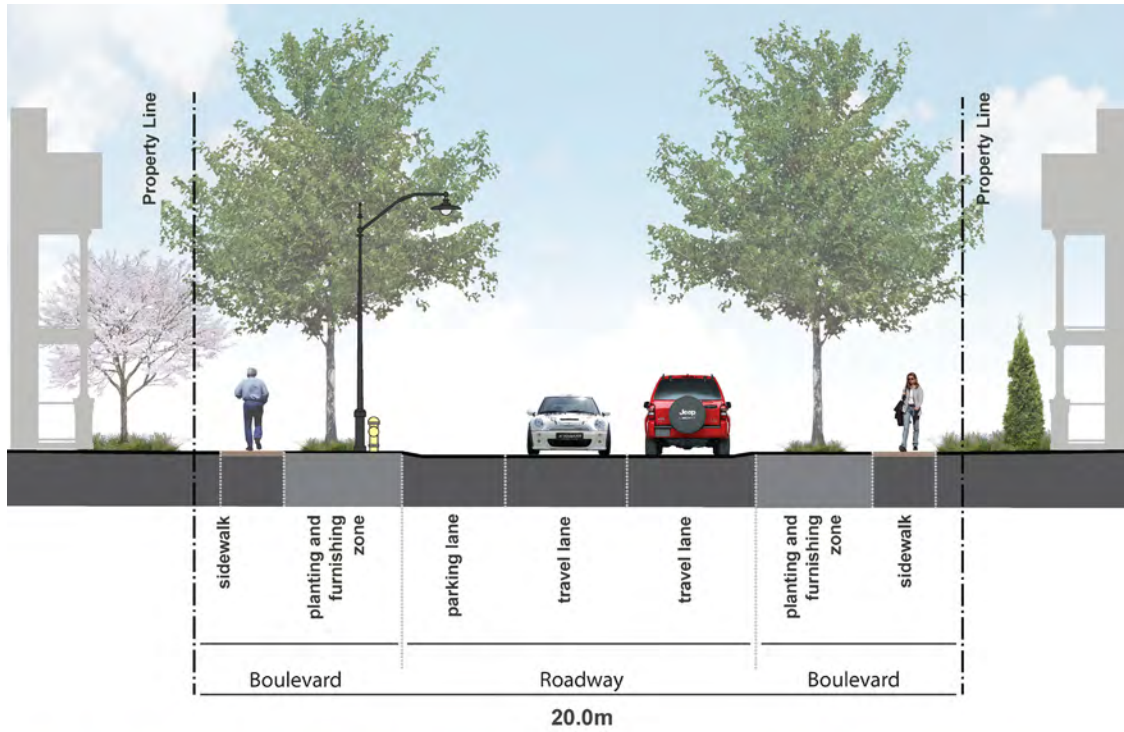


Figure 3 - Local Road cross-section and plan

Window Roads - 16.0 metre ROW

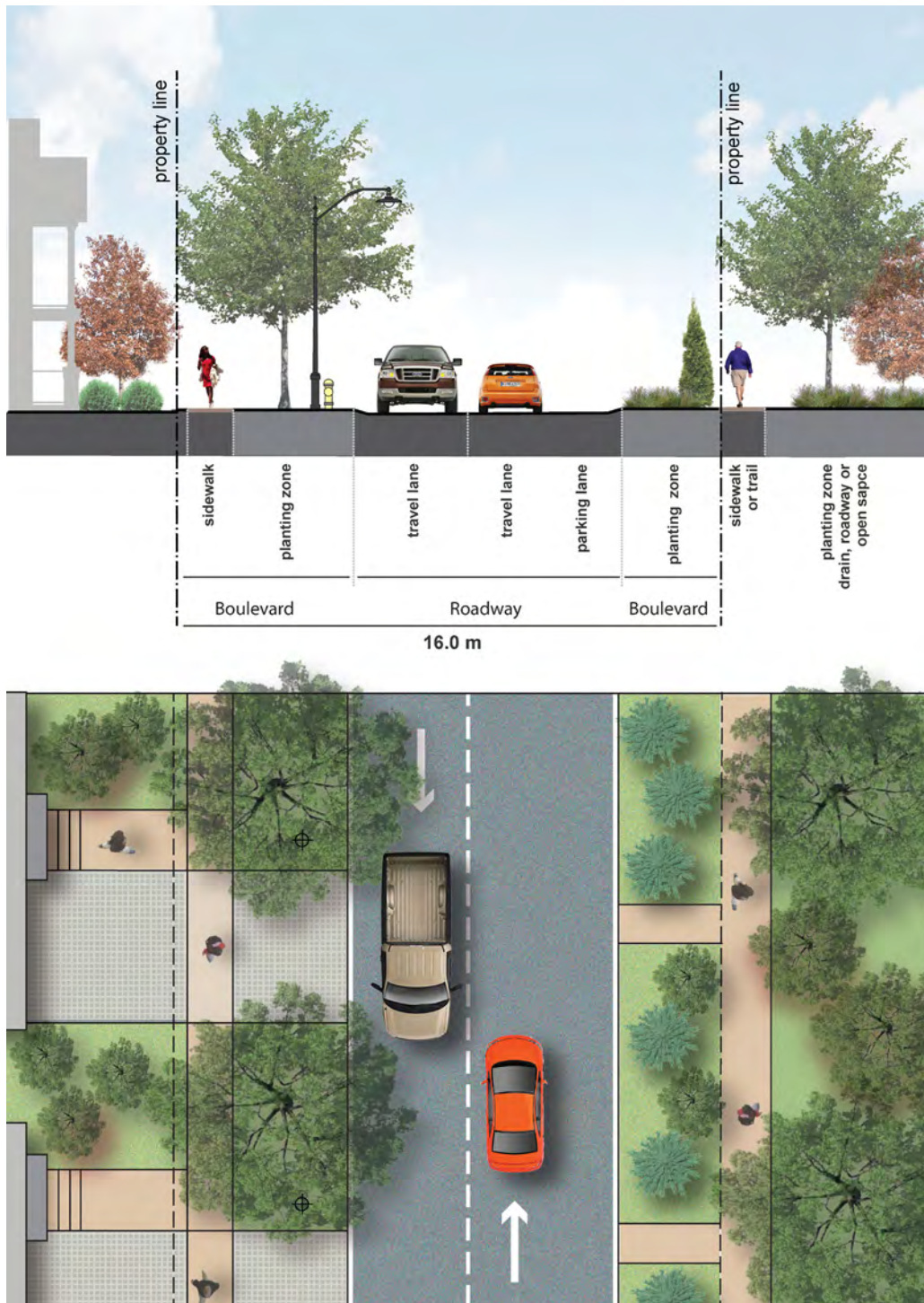


Figure 4 - Window Road cross-section and plan

Private Roads - 9.0 metre ROW

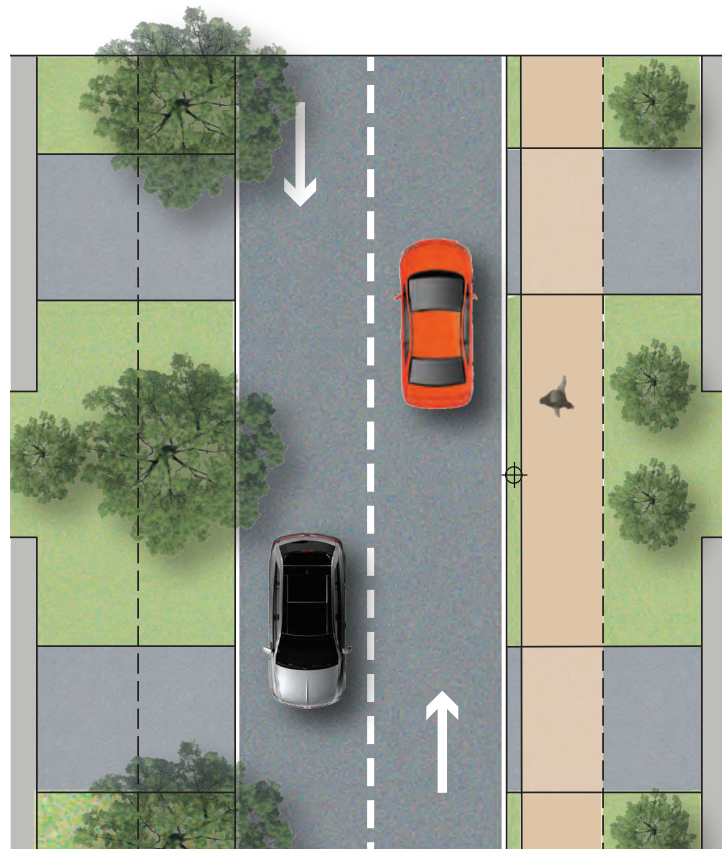
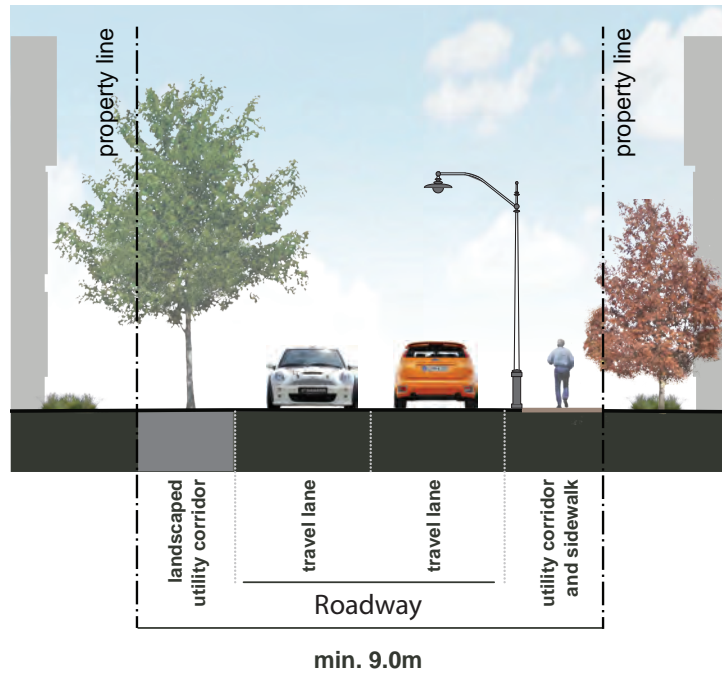


Figure 5 - Private Road cross-section and plan



Integrate the natural heritage system with the community, creating opportunities for access, where appropriate.

2.5 The Natural Heritage System, Parks and Open Spaces

The Natural Heritage System, Parks and Open Spaces are a functional, structural, and aesthetic component of Howard Bouffard. The natural environment, urban forest, parks, open spaces, and trail systems are essential components of a healthy, sustainable community ensuring residents have convenient access to a connected and diverse range of recreational opportunities.

2.5.1 Natural Heritage System

The Natural Heritage System contributes to the community's character and is a key structural element of Howard Bouffard. The following guidelines aim to protect, restore and enhance the Natural Heritage System, while mitigating any existing or potential negative impacts due to development.

2.5.1.1 General Guidelines

1. As opportunities arise, connect and integrate the Natural Heritage System with Parks and Open Spaces and the local and regional trail systems to buffer and expand natural heritage features and functions, ensuring ecological systems are not interrupted.

2. Integrate the Natural Heritage System as a key structural element in a neighbourhoods design by providing for a range of development interfaces that create opportunities for public vistas and connections to the Natural Heritage System (e.g. terminal views at the end of prominent streets).
3. Incorporate recreational opportunities such as trails within the Natural Heritage System to encourage physical activity, where negative impacts will not occur.
4. Provide frequent access points and significant street frontage along the Natural Heritage System to promote views, where appropriate.
5. Provide naturalization planting and restoration to enhance the urban ecology and function of natural heritage features and their adjacent lands.



Opportunities for walking trails through the natural heritage system.

2.5.1.2 Urban Forest

Trees provide ecological services that benefit human and environmental health, such as reducing heat island effect, sequestering greenhouse gases, providing shade in the summer, separating pedestrians from vehicular traffic, and contributing to more appealing sidewalks and streets.

1. Preserve and expand existing tree cover to connect and buffer protected woodlands and other natural areas.
2. Consider opportunities for naturalized plantings and landscape restoration to enhance local ecological features.
3. Prevent direct access from private properties backing onto woodlands.
4. Provide street trees on both sides of the road in the public right-of-way.
5. Provide a diversity of tree species along each road, native to the Town and County, non-invasive, drought and salt tolerant, and low maintenance.
6. Plant a double row of trees in key areas, such as adjacent to parks and where a wider boulevard exists.
7. Encourage the delivery of alternative planting strategies along high-pedestrian areas such as silva-cells, sufficient soil medium, continuous planting trenches, etc., to sustain long-term growth and healthier tree life.
8. The location of trail heads should have no long term impact to the existing vegetation and wildlife communities.
9. Preserve, protect, and incorporate existing healthy and mature trees into the site and landscape design.



Residential fronting onto a neighbourhood park, with areas for seating and shade.

2.5.1.3 Watercourses

1. Preserve and enhance existing drains and watercourses and maintain the habitat value and charm that the natural environment brings to residents and visitors by ensuring that all streams, creeks, and rivers remain open and uncovered, where possible.
2. Covered or buried natural water courses should be daylighted as part of new developments or redevelopments where practical. This involves uncovering and appropriately rehabilitating the watercourses.
3. Introduce and maintain natural vegetation and other suitable erosion control methods on the banks of watercourses.
4. Plant trees or install other buffer measures where appropriate to protect watercourse banks and enhance the ecological corridor role of watercourses.

2.5.2 Public Parks Network

A Public Parks Network provides for a variety of open spaces, parks, and recreation facilities to support opportunities for improved public health. Convenient access to these amenities encourages residents to walk and cycle, in addition to providing places for gathering, socializing, and active and passive recreation.

Refer to the Town's **Parks and Recreation Master Plan**, or as updated, for additional urban design recommendations.

1. Incorporate the following Crime Prevention through Environmental Design (CPTED) principles into the design of parks:
 - Facilitate visual permeability and clear sightlines by ensuring the ability to see what is ahead and around;
 - Provide strategic lighting to illuminate pathways, where appropriate;
 - Avoid landscaping that obstructs natural surveillance;
 - Orient buildings to overlook public spaces. Playgrounds should be highly visible to public streets and/or houses to enhance safety;
 - Ensure proper site design and signage for ease of access and egress; and,
 - Program parks with a mix of activities for constant use of the space.



Natural playground that incorporates the use of natural materials.



Public art serves as a defining feature for a public park.

2. New trees and landscaping within parks should be native plant materials, and where possible, salvaged from the site or the local area.
3. Consider public art as focal points in open spaces to reflect the cultural heritage of the location. Public art can include memorials, sculptures, water features, or individual installations at visually prominent sites.
4. Locate and design parks and open spaces to support, complement, and buffer the Natural Heritage System.
5. Provide bicycle parking in parks. Bike racks should be accessible and conveniently located adjacent to play areas and park entrances, with hard surfaces under the bike rack.
6. Consider natural parks and play spaces that predominantly use landscape features, landforms, natural materials, and plantings to achieve the intended uses. Design natural parks to harmonize with the surrounding landscape and incorporate the use of natural materials.
7. Design natural parks and play spaces to include the following:
 - a. Topographic changes in the form of berms, rockeries, and other similar features;
 - b. Interpretive signage describing the natural features and the unique characteristics of the natural play space;
 - c. Direct interaction with natural materials and the environment; and,
 - d. All season play with particular attention to plant materials that highlight seasonal changes.



Active recreation through the use of playgrounds.



Parks should include areas of shade and seating.

2.5.2.1 Neighbourhood Parks and Parkettes

Neighbourhood Parks and Parkettes are intended to primarily serve local residents within a 5 to 10 minute walk (approximately 400 to 800 metres) of the park space.

1. Neighbourhood Parks should act as focal points of neighbourhoods, preferably centrally located at the terminus of a major street or at the corner of a main intersection, and within walking distance of schools and other community amenities and destinations.
2. Street frontage on more than one public street is encouraged to support accessibility and visibility.
3. Avoid backing residential lots onto Neighbourhood Parks and Parkettes, where possible.
4. Consider a range of active and passive recreation opportunities in Neighbourhood Parks and Parkettes, such as playgrounds, water play, courts, walkways, seating, planting areas, and/or natural or cultural features.
5. Design for universal/barrier-free access and user safety.
6. Connect formalized paths within Neighbourhood Parks and Parkettes to pedestrian sidewalks and trails.



Multi-use path designed to accommodate a range of users.

2.6 Active Transportation

2.6.1 Pedestrian & Cycling Network

Encourage active transportation and support physical activity through the provision of a linked system of pedestrian and bicycle routes and trails that ensure residents have increased access and mobility options to local destinations for work and play.

1. Create a continuous and diverse active transportation network of inter-connected pedestrian and cycling routes, walkways, sidewalks, and bicycle lanes that link the community with surrounding neighbourhoods, integrate with existing and future public transit infrastructure, and connect to sidewalks and the open space system.
2. New development should incorporate a pedestrian path network that links the following uses:
 - Transit stops;
 - Sidewalks;
 - Trails;
 - Building entrances;
 - Public gathering areas,
 - Community mailboxes; and,
 - Parks and open spaces.
3. Pedestrian ways and connections should be designed to be convenient, comfortable, safe and easily navigable, continuous, and barrier-free. Pedestrian ways should be:
 - a. Clear of obstructions and maintaining a minimum 1.5 metre wide passageway;
 - b. Slip resistant;
 - c. Unobstructed and without unnecessary meanders around built obstacles such as mail boxes, street lights, utility poles, seating, and street furniture;
 - d. Hard surfaced; and,
 - e. Designed with appropriate accessibility components for persons with disabilities including ramps, sight assistance strips, and textured edges at grade transitions and street crossings.
4. Develop a cycling network that includes bike lanes and off-road cycling or a Multi-use Pathway that connect to existing bike lanes and trails.
5. Multi-use Pathways (shared off-street pedestrian and bicycle paths) should be designed based on the requirements of the route. Pedestrian and cycling lanes should be painted along Multi-use Pathways or clearly identified by other means to minimize pedestrian and cycling conflicts.



Clearly marked cycling lanes painted on the road.



Easement used as component of the trail system.

6. Design Multi-use Pathways to be a minimum 3.0 metres wide to facilitate two-way cyclist or pedestrian movement.
7. Ensure Multi-Use Pathways include adequate amenities including seating, waste receptacles, and signage. Amenities should be designed to reflect site-specific conditions.
8. Provide frequent access points along Multi-Use Pathways from adjacent streets, trails, open spaces, and nodes of activity.
9. Provide active transportation connections across water courses and open spaces for pedestrians and cyclists, where required. Design as functional multi-season connections.
10. Encourage safe routes to schools by providing a network of connected local streets with inherent traffic calming measures. To ensure safe use by young pedestrians and cyclists, such measures may include reduced lane widths, raised intersections, slower vehicle speeds, and crosswalks.

2.6.2 Trails

1. Provide for a continuous, linked, legible, and clearly marked system of trails throughout the community as part of the open space network.
2. For new developments link or maintain additional trails, connections, and public accesses between roads and trails to ensure connectivity through developments for pedestrians.
3. Avoid creating trails that cross roadways. Off-road connections are preferred, wherever possible.
4. Design trails to be barrier-free and to accommodate a range of users and abilities. Where possible, slopes should be under 5% with curb-cuts and other safety measures provided to improve access at road crossings.
5. Trails must be clearly signed identifying trail entry and access points, permitted uses, and speed. Provide wayfinding signage and trail markers throughout the trail network.
6. Incorporate interpretive signage on trails located in proximity to significant natural heritage features or adjacent to stormwater management facilities to educate and promote stewardship initiatives that will protect and enhance the features and functions of the natural landscape.



Ponds should blend with the natural landscape.

7. Consider special treatments at trail head entrances including features such as landscaping, benches, natural or built shade structures, decorative paving pattern, interpretive or directional signage, or wider pathway widths.
8. Design trails to minimize and mitigate impacts on natural heritage features.
9. To address accessibility and active transportation needs, asphalt surfaces may be incorporated into the trails system.
10. Use native, non-invasive species along trails abutting natural features to contribute to the urban tree canopy and provide shade for trails.

2.7 Stormwater Management Facilities

Stormwater management facilities should be developed in a manner that will yield the greatest environmental and amenity benefit to the neighbourhood, which can be achieved first through reducing stormwater run-off and flow to the ponds, and secondly, through the design and landscaping of the pond.

These facilities promote sustainability by providing habitat, enhancing ecosystem structure and resilience, and managing stormwater on site.

Refer to the Town's **Development Manual** for additional design requirements.

1. Design stormwater management facilities as major open space features that provide passive recreational and educational opportunities, while augmenting the extent of the community's open spaces and associated microclimatic benefits.
2. Enhance views and access to ponds by designing a portion of the pond to be bounded by either streets and/or open space.
3. Pond Design and Landscaping:
 - a. Locate ponds off line and as buffering to environmental features;



Formal hardscaped paths and seating are located around the perimeter of the pond.

- b. Landscape ponds to contribute to the urban tree canopy, add to the natural features of the community, and support wildlife habitat;
 - c. In addition to functional objectives related to flow moderation and water quality, design ponds as key focal/visual features within the community; and,
 - d. Design ponds as part of the overall pedestrian and trail system with view points and interpretive signage. Surround ponds with public walking or cycling trails and extend along stormwater channels.
4. Fencing of the entire perimeter of stormwater management ponds is discouraged, except where necessary along steep slopes, or the rear or flankage of residential property lines. Install 1.8 metre high black-vinyl-coated chain link fencing along the property line where the stormwater management facility block abuts private property. It should be continuous with no gates permitted.
 5. Fencing is not required along the property line where a stormwater management facility abuts a public park, open space, natural area, or road right-of-way.
 6. Consider on-site treatment of stormwater through the use of green infrastructure such as bioswales, at source infiltration, and permeable pavement.
 7. Design stormwater management facilities to blend with the natural landscape. Where feasible, conceal inlet and outlet structures using a combination of planting, grading, and natural stone.
 8. Overland flow locations must also blend into the natural landscape, while providing its intended purpose.
 9. Ensure the edges of ponds abutting natural heritage features remain naturalized.
 10. Install signage at prominent locations along the road frontage or in an appropriate location along the interface between the pond block and the adjacent open space to ensure it is highly visible to the public. The purpose of signage is to identify the site as a stormwater management facility and raise public awareness of the functional aspects and related potential hazards of the facility.
 11. Coordinate landscape components such as look-outs, seating areas, fountains, and gazebos to complement the overall character of the pond.

2.8 Drain Channel

Drainage in Howard Bouffard is to be conveyed through a north-south drain and a series of east-west branch drainage outlets.

As part of the Preferred Stormwater Management Solution, identified in the **Master Drainage Study Report**, open drain channels will provide opportunities for connections between stormwater management ponds and recreation in the form of trails along the edges. Please refer to **Figures 6 and 7** for typical cross sections for the drains.

The drains will serve the following functions:

1. Flood Management/Stormwater Management;
2. Recreational (i.e. trails); and,
3. Environmental (i.e. wildlife corridor, where feasible).

Key guidelines include the following:

- a. The north-south drain channel should be developed to incorporate a 6.0 metre maintenance corridor on either side of the drain which will also serve as recreational trails.
- b. The recreational trails will provide for pedestrian and cycling connections throughout Howard Bouffard with opportunities to connect to the existing and proposed Town trail system. Refer to Section 2.6.2 for additional guidelines for Trails.
- c. Preserve and expand the existing tree cover in the setback area, where feasible. Utilize a diversity of tree species that are native to the Town and County, non-invasive, drought tolerant, and low maintenance.

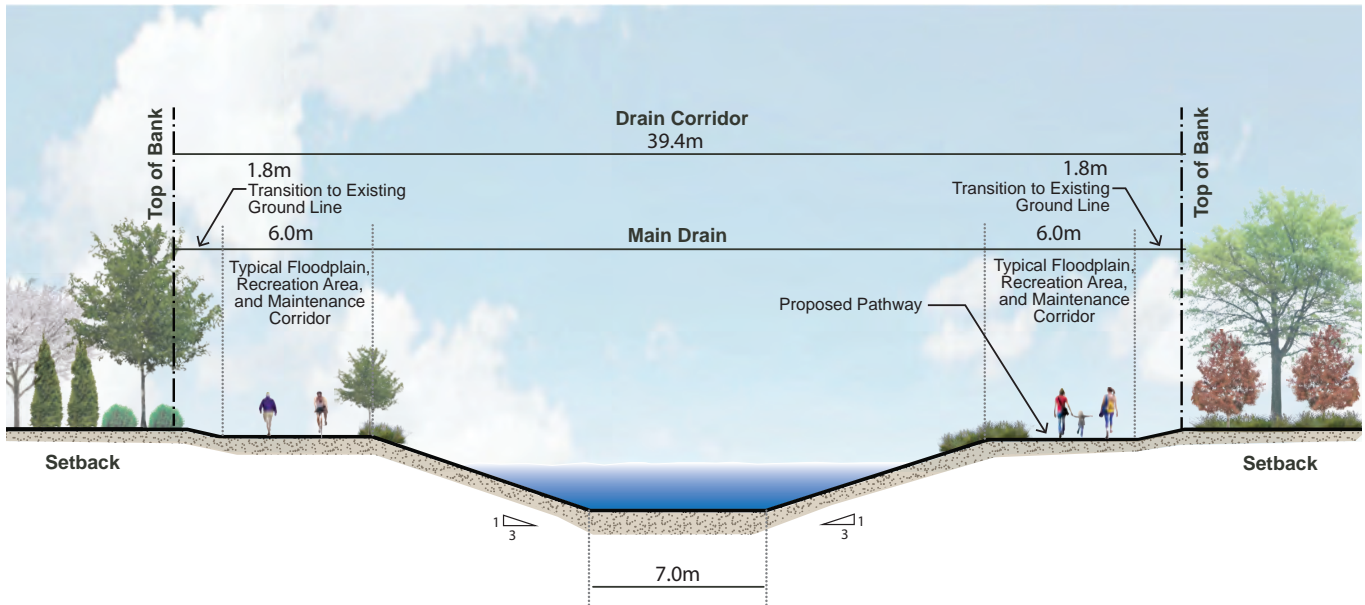


Figure 6 - Typical north-south drain cross section as proposed in the Master Drainage Study Report - Howard/Bouffard Planning Area.

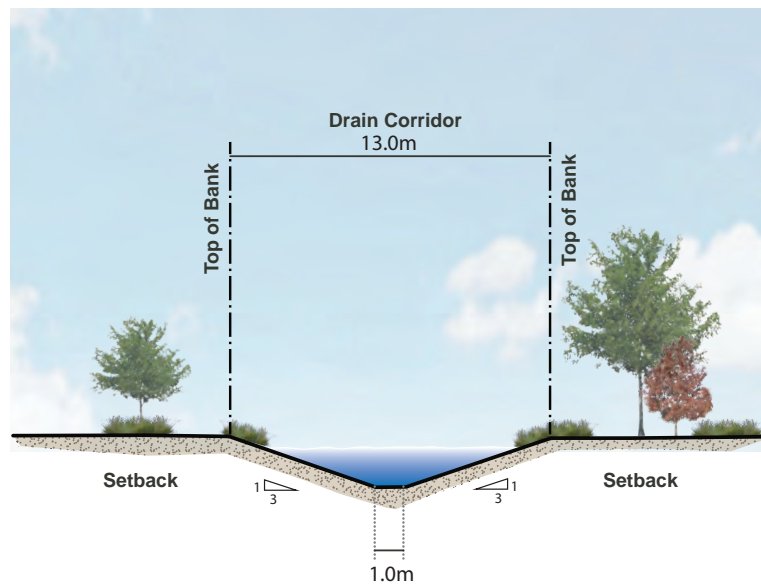
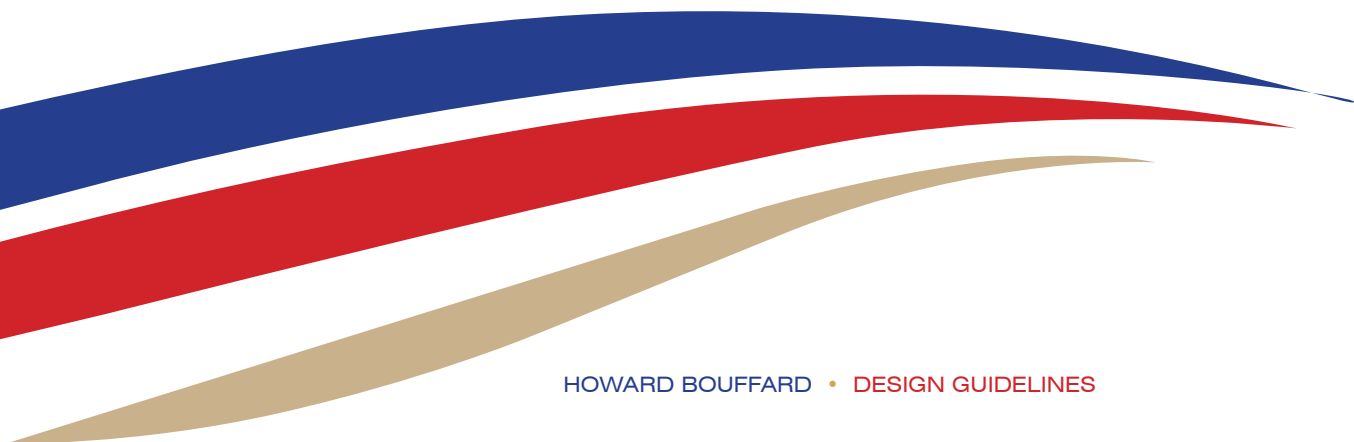


Figure 7 - Typical east-west branch cross section as proposed in the Master Drainage Study Report - Howard/Bouffard Planning Area.



the private realm **3.0**



3. THE PRIVATE REALM



Mix and range of housing types.

The private realm within Howard Bouffard is comprised of the built form and site design within development blocks and their relationship to adjacent open spaces and roads. The residential, institutional, commercial, mixed-use, and employment buildings within a community contribute to its character and can assist in further defining and complementing the public realm.

The Design Guidelines promote high quality urban design within the private realm that is based upon the quality, scale, and character of the surrounding existing and emerging contexts to reinforce ‘human scaled’ environments and promote a sense of place.

Good urban design practices will promote excellence in the design of the private realm. While the specifics of each development proposal may vary, the overall objectives will remain the same throughout Howard Bouffard. These objectives include:

- Creating distinctive, appealing, and pedestrian friendly streetscapes through attention to building design and detailing;
- Ensuring appropriate massing, building siting, and design compatibility; and,
- Identifying enhanced design requirements for priority lots having highly visible elevations; and,
- Ensuring that new development is compatible with the surrounding existing neighbourhoods.

The guidelines will be considered and implemented through the review of development applications within the private realm which are visible from the public realm.



Multi-storey mixed use buildings with activity at ground level.

3.1 General Guidelines for all Development

All development shall strive for excellence in design, be designed to achieve a high degree of environmental sustainability, and demonstrate high quality architectural detailing, in accordance with the following guidelines.

3.1.1 Mixed-Use Corridors

Mixed-Use Corridors are the connective spines of Howard Bouffard and are envisioned to develop as mixed use and transit supportive corridors. Mixed-Use Corridors should accommodate a full range of residential, office, recreational, cultural, and community uses and facilities over time.

1. Mixed-use development of residential and mixed uses ranging from Low-Rise to High-Rise built form should be focused along Laurier Parkway and Malden Road to create areas of community focus.
2. Development blocks should be permeable to provide access and frontage between buildings within the Mixed-Use Corridors.
3. Parking lots should be designed with planting strips and landscaped traffic islands, medians, or bump-outs to break up the expanse of hard surface areas.
4. Buildings should be compatible with, and sensitively integrated with the surrounding land uses and built forms. Provide appropriate transition to adjacent uses and built forms through reduced building heights, angular planes, increased building setbacks, step-backs, and/or enhanced landscaped buffer strips.



Single detached dwellings with front porches



Construction of an employment office building.

3.1.2 The Residential District

The Residential District will include a range and mix of housing types and centrally located parks and community facilities. Development will be in Low-Rise Mid-Rise, and High-Rise built forms.

1. Neighbourhoods should be designed to ensure residents are in proximity to amenities that will meet their daily needs including convenience commercial, office and personal services, institutional, and recreational uses.
2. Provide a mix of housing types, densities, sizes, and tenures, including special needs housing in new residential development.
3. Residential development should be well-designed to:
 - a. Reduce the prominence of garages in the front elevation;
 - b. Promote pedestrian activity;
 - c. Create functional and visual diversity;
 - d. Develop multi-unit residential forms that fit within the community; and,
 - e. Guide the creation of architecturally varied, and context appropriate, residential streetscapes.
4. New residential blocks should contain a mix of dwelling types with a variety of elevations to provide a diverse housing stock and to avoid a homogeneous streetscape.

5. Appropriate transitions in terms of height and massing between buildings of different densities, is encouraged, particularly if they belong in the same block.

3.1.3 Business Park District

Business Park Districts should accommodate primarily employment opportunities with a focus on light industrial, business park opportunities, and office uses.

1. Consider designing business parks to incorporate a campus design to ensure that all development components are recognizable as part of an integrated complex. Campus design format consists of one or more individual buildings or multiple tenancy buildings having shared parking, loading, and access facilities.
2. Buildings should have high-quality design features including built form, architectural detail, landscaping, and signage.
3. Orient buildings adjacent to an Arterial or Collector Road to face the road to provide good visibility.
4. Adequate parking, loading, and garbage collection/storage facilities should be provided on-site and screened from view. Shared access and parking among various properties is encouraged.



Single detached dwelling with upgraded side elevation.



An upgraded elevation with variety in roof lines, materials, and a front porch.

3.2 Low-Rise Buildings

The following guidelines should be considered for Low-Rise Residential Buildings up to 3 storeys in height.

3.2.1 General Guidelines

1. Orient dwelling units and townhouse blocks to face the public realm, and particularly any adjacent streetscape, pedestrian connection or open space, to promote a high level of comfort and create a safe environment.
2. All low-rise buildings should demonstrate design excellence and compatibility with the surrounding context. Architectural detailing, landscape treatments, colour, and building materials should be of the highest quality possible.
3. Ensure the height difference between adjacent low-rise buildings on the same block does not vary by more than 1 storey to maintain a consistent street wall.
4. Upgrade the side and rear elevations of units that are exposed and visible from a public space or public right-of-way to ensure they are consistent and continuous in design, quality, and material as the front elevation.
5. The following elements may be permitted to encroach into front, rear, and exterior side yards, when appropriate:
 - Bay windows;
 - Balconies or decks; and
 - Porches of up to 1 storey.
6. In order to minimize the visual impact of long blocks, the lots located on the end should be turned 90-degrees to face the flanking road. Consider a variety of lot facing conditions, in addition to flankage lots, along long stretches of road.
7. Locate built form to minimize the need for noise attenuation walls.
8. Where noise attenuation fences or walls are used ensure the fencing provides pedestrian connections and integrates with the design of the surroundings. Coordination in the design, colour, texture, and plantings is encouraged.
9. Provide mid-block pedestrian connections for development blocks over 200 metres in length to support pedestrian movement.



Example of a single detached dwelling with an enhanced facade.



Example of a triplex dwelling.

3.2.2 Typologies

3.2.2.1 Single Detached, Semi Detached, and Duplex Dwellings

1. Design dwellings to frame the street edge with a consistent setback. Ensure front doors, windows, and entry features face the road to create a consistent street wall.
2. Design the front elevation of the dwelling so that its front entrance and architectural elements reduce the visual dominance of the garage.
3. Porches, stairs, canopies, and other entrance features may encroach into the required setbacks in conformity with the Town's Zoning By-law.
4. Pair the garages of semi-detached and duplex dwellings with a front facing garage and driveway to maximize the extent of continuous green planting area.

3.2.2.2 Triplex and Fourplex Dwellings

1. Triplexes and fourplexes are intended to be designed as a small townhouse grouping.
2. Each unit should have an easily identifiable access to the fronting street.
3. Exterior stairs should be avoided; where necessary they should be limited to rear or interior side yards.
4. Each unit should have access to private on-site, outdoor amenity space via balconies, porches, or a yard.



Example of a detached additional residential unit.

3.2.2.3 Detached Additional Residential Units

1. An additional residential unit is permitted in a detached accessory building or structure on a lot that includes a primary single detached, semi-detached and/or townhouse building. Ensure the detached building:
 - a. Is created and used in accordance with the Implementing Zoning By-law;
 - b. Is built in accordance with all relevant regulations of both the Building Code and Fire Code;
 - c. Is connected to full municipal sanitary sewer and water services to the satisfaction of the Town;
 - d. Is designed to complement the architecture of the main building; and,
 - e. Has a direct pedestrian access from a public street through an unobstructed walkway.
2. Provide an additional parking space on the lot for the additional residential unit.



Example of front drive townhouses.

3.2.2.4 Townhouses

1. Coordinate the siting, massing, and facade design of townhouse units on a block-by-block basis.
2. Articulate the elevation of the townhouse block to provide variation between units.
3. Utilize variety in the design of roofs through the use of traditional gables and dormers, or more contemporary designs that include cantilevers and parapet details, to break up the massing of units within a block. The main roof should appear as one roof where possible.
4. Limit blocks of street townhouses to a maximum of 6 units. The length of townhouse blocks should not exceed 52 metres, unless it is essential to the architectural style of the townhouse block.
5. Orient the main front entry of interior units to the front lot line or higher order street. Orient the entry of the end unit to the exterior lot line when on a corner lot. Where a dwelling unit flanks a private street the main entrance shall face the front lot line.
6. Orient blocks of attached townhouse units to the street with integrated front garages accessed from the street.



Garages flush with the main dwelling do not dominate the facade.

3.2.3 Garages and Driveways

The design of garages can have a major impact on the visual character of the individual dwelling and the collective streetscape. A cohesive streetscape where garages compliment instead of dominate the streetscape is intended.

The visual presence of garages should be minimized by prohibiting garages from projecting beyond the front wall of the house face. A variety of parking strategies should be explored for Low-Rise Residential housing, including attached garages, attached recessed side yard garages, and rear yard garages.

3.2.3.1 Front Garages

In order to minimize the presence of the garage, consider the following guidelines for attached and detached garages accessed from the front yard.

1. Ensure garages are a natural extension of the design, massing, and materials of the main dwelling.
2. Ensure garages are set behind or flush with the main building face and do not project beyond the main wall of the dwelling.
3. Design attached garages as follows:
 - a. De-emphasize their presence on the streetscape by recessing garages 0.5 to 1.5 metres from the main wall of the dwelling;
 - b. Accommodate a maximum of 2 garage doors for garages fronting the road, with a maximum width 50% of the dwelling width. Three garage doors may be permitted for single detached dwellings on a large lot but is not encouraged;
 - c. Include two single garage doors separated by a masonry pier for double garages;
 - d. Setback a second storey built over the garage a maximum of 2.0 metres;
 - e. Consider glazed top panels or transom lights for all garage doors, especially for traditional style dwellings; and
 - f. Utilize a consistent garage door throughout a townhouse block.
4. Detached garages are only permitted in the rear yard and interior side yard.



Detached garage located in the rear yard.



A block of townhouse units with a variety of elevations and colours.

5. Detached garages should complement the architecture of the main building as follows:
 - a. Provide access from the street by a driveway;
 - b. Provide main cladding materials consistent with those of the exterior of the main dwelling;
 - c. Create staggering garage door depths and planes, and varying roof styles and details;
 - d. Ensure a minimum setback of 2.0 metres from the dwelling;
 - e. Ensure a minimum setback of 1.2 metres from the side lot line; and,
 - f. Ensure a maximum height of 2 storeys.

3.2.3.2 Driveways

1. Driveway widths should be no larger than the interior width of the garage. A maximum driveway width of 3.0 metres is permitted for single car garages and a maximum driveway width of 6.0 metres is permitted for double car garages.
2. Locate driveways as far as possible from parks, open space features, public walkways, schools, and intersections.
3. Consider light-coloured paving material for driveways to reduce the urban heat island effect.
4. Consider porous or permeable pavement for surfacing driveways and parking areas instead of asphalt and concrete to reduce stormwater run-off.

3.2.4 Building Design

3.2.4.1 Massing & Elevation Articulation

1. Ensure a generally consistent height and massing along a street.
2. Provide appropriate transitions between all unit types to avoid drastic changes in height and/or massing.
3. Ensure appropriate design compatibility where different unit types are located adjacent to each other.
4. Design dwellings to have articulated elevations, especially those exposed to streets and open spaces. Articulated elevations might include changes in plane, projections, enhanced fenestration, highlighted entrances, complementary materials, among other architectural elements.
5. Upgrade the façade treatment for side and rear elevations visible from public areas.



Front porch highlights the dwelling entrance and addresses the street.



Example of a mix of building materials on the facade of a dwelling.

3.2.4.2 Entry Features

1. Ensure the main entrance faces the street, with the door in a prominent position. The front door should be clearly visible and approachable from the street.
2. Articulate front elevations by highlighting front entries with features like porches, verandahs, arches, generous overhangs, and massing elements such as a cantilevered or recessed upper storeys.
3. Ensure steps from a front porch are not located closer than 1 metre from a property line.
4. To ensure porches and verandahs are useable they should be a minimum of 1.8 metres in depth.

3.2.4.3 Materials

The variety of building materials contributes to the interest along the street and to the varied architectural character of the neighbourhood.

1. Ensure building materials reflect and complement the existing materials in the area and are high quality, durable, and easily maintained.
2. Ensure the materials selected are consistent for a building's facade and any walls that are publicly visible.
3. Recommended building materials include brick masonry, stone masonry, wood, or stucco; one or two of these materials should be selected as base

materials and may be complemented by a wider range of accent materials.

4. Ensure rear and side walls exposed to public view are of a similar composition to the front wall.

3.2.4.4 Utility Meters and Mechanical Equipment

1. Where possible, locate utilities and meters in interior side yards, away from public view.
2. Locate utility and service meters away and/or screened from public view; design opportunities include:
 - a. Integrating into the design of the building;
 - b. Screening through landscaping;
 - c. Recessing or enclosing in the porch entry or landing;
 - d. Installing below porch slabs and porch steps; and,
 - e. Grouping in one location in a wall recess, enclosure or, where appropriate, a small roof overhang.
3. Locate dryer vents, exhaust fans, furnaces, and hot water tanks on rear elevations.
4. Locate air conditioning units in the rear yard or interior side yard.



Four storey apartment building with an articulated facade.



Five storey mid-rise building with retail on the ground floor.

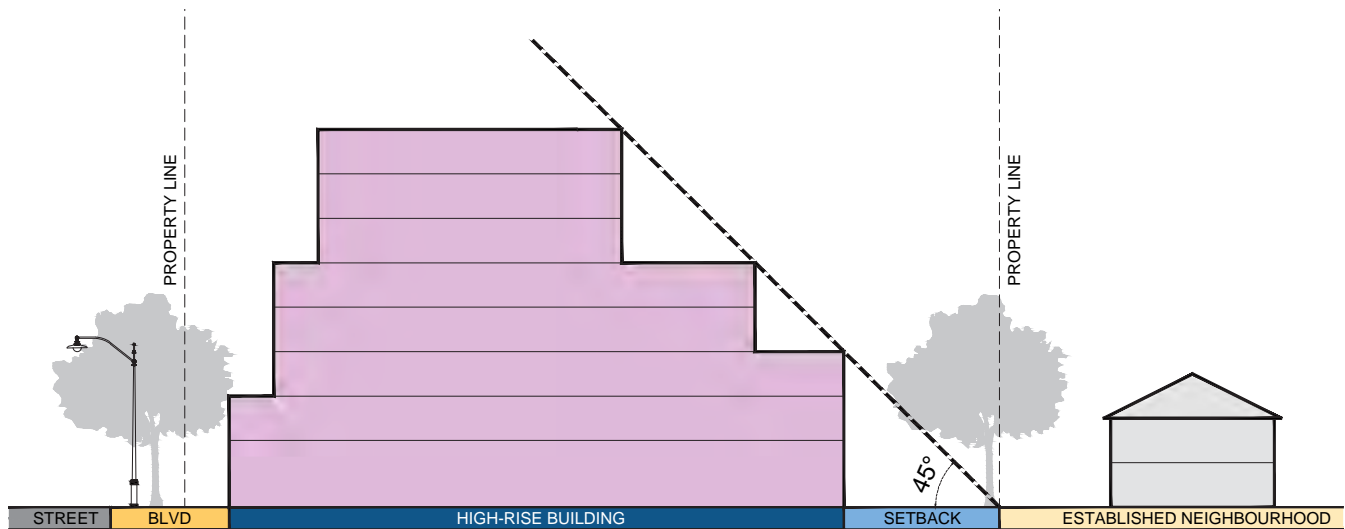
3.3 Mid-Rise and High-Rise Buildings

The following guidelines apply to mid- and high-rise built form. Mid- and High-Rise buildings provide opportunities for framing and defining the public realm, while allowing for increased densities that more efficiently use land and infrastructure. They support mixed use communities, promote active transportation, and if done properly, generate livable pedestrian experiences.

Mid-Rise buildings are generally between 3 and 5 storeys in height. High-Rise buildings are over 6 storeys.

3.3.1 General Guidelines

1. Concentrate the greatest heights and massing along the frontage of an Arterial or Collector Road.
2. Ensure the scale of mid-rise buildings is compatible and sensitively integrated with surrounding residential uses in terms of building mass, height, setbacks, orientation, privacy, landscaping, shadow casting, accessibility, and visual impact.
3. To demonstrate mitigation of potential shadow or wind impacts on existing or proposed pedestrian routes, public spaces, and adjacent development technical studies may be required such as a wind study and/or sun/shadow study.
4. Development transition requirements may be met using a combination of the following:
 - a. Separate mid- and high rise buildings from low-rise buildings with a Local Road;
 - b. Locate less dense and lower scale buildings in locations adjacent to existing low-rise neighbourhoods;
 - c. Require a minimum 7.5 metre rear yard setback where mid- and high-rise development abuts low-rise properties;



Angular plane diagram - 45 degree angular plane measured from property line.

- d. Provide rear and side step-backs for upper storeys to provide contextually appropriate transitions from the mid-rise buildings to the surrounding low-rise neighbourhoods; and,
 - e. Provide high quality landscape treatment such as decorative fencing, trees, shrubs, grassed areas, and berming.
5. Angular planes can be used as a tool to evaluate the massing and height transitions of proposed developments to ensure appropriate skyview, light, and separation. Development along the Mixed-Use Corridors should apply a minimum 45 degree rear yard angular plane measured from the abutting property line where a building transitions to an adjacent low-rise residential area.
 6. Ensure new development is compatible with adjacent and neighbouring development by siting and massing new buildings to avoid undue adverse impacts on adjacent properties particularly in regard to adequate privacy conditions for residential buildings and their outdoor amenity areas.
 7. Orient primary building entrances to public roads and design the entrances to be visible and accessible to the public.



Use of step-backs to provide appropriate transition to adjacent uses.

8. Consider landscaped buffers which are linear green open spaces to provide an appealing and 'soft' transitional interface between new development areas and the backyards of exiting established areas. Landscaped buffers should be comprised of lush landscaping, such as evergreens, that retain their foliage in all seasons to provide a visual barrier, as well as some sound attenuation.



Example of variation between the units of a townhouse block.

3.3.2 Typologies

3.3.2.1 Block Townhouses

Block townhouses are typically a 3 to 4 storey building of attached units which share side walls with neighbouring units and the front yard and main entrance about a private road.

1. Articulate the elevation of the townhouse block in a manner that provides variation between units and reinforces common characteristics that visually unites the block.
2. Use continuous and consistent architectural details and materials for the entirety of the building.
3. Limit townhouse buildings from 3 to 8 units per block and the length of the townhouse block should not exceed 52 metres, unless it is essential to the architectural style of the building.
4. Locate and orient windows, decks, and balconies to limit overlook into nearby windows and amenity spaces of adjacent properties while enabling “eyes on the street” for common public areas.
5. Locate attached garages at the rear of the building to be accessed from a shared private drive.
7. Provide prominent, well-designed and integrated building entrances such as porches, porticos, or canopies along the building frontage.
8. On corner sites, locate building fronts and entrances facing both streets. Buildings on corner sites require additional attention to detail to enhance the corner.



Low-rise building with inset balconies and entrances along the street.



Example of a 5 storey residential building.

3.3.2.2 Low-Rise Apartment Buildings

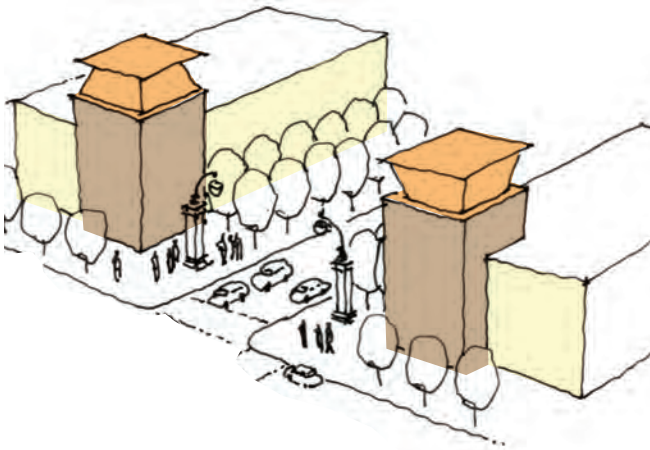
Low-Rise apartment buildings are 4 storeys or less and share interior corridors, vertical circulation and entrances, and have multiple units stacked vertically. Units may be organized on one or both sides of a shared corridor.

1. Design the building and the site layout to consider overall form, massing and proportions, and rhythm of major repetitive building elements to create a streetscape that supports a pedestrian scale.
2. Ensure the majority of the main building facade fronts the abutting street.
3. Locate and orient primary building entrances to public roads and design to be visible and accessible to the public.
4. Locate visitor parking, loading, and service areas in areas of low public visibility in side or rear yards and set back from the building.
5. Screen tenant and visitor parking from street view through the use of landscaping or fencing, or a combination of both.

3.3.2.3 Mid-Rise and High-Rise Buildings

These buildings are multi-storey structures that contribute to complete communities, provide a mix of housing and activity, and are built at densities that improve the viability of transit.

1. Mid- and high-rise buildings may include commercial and office uses at grade and multi-unit residential above or behind. Design ground floors to be appealing to pedestrians and include uses that are more active in terms of pedestrian traffic, such as commercial/retail, personal service, and restaurant type uses on the ground floor.
2. Ground floor retail and service commercial uses on the ground floors of buildings should have a minimum 4.25 metre floor-to-ceiling height.
3. Ensure residential entrances are clearly distinguished from the commercial entrances through building design and locate at the front or side of the building.
4. Balconies on all storeys above grade are encouraged.
5. Locate visitor drop off areas at the side or rear of buildings with lane or private drive access.



Paired corner buildings to emphasize a sense of entry.



Corner building as a gateway feature.

3.3.3 Siting and Setbacks

1. Buildings should be located close to the street edge to frame and animate the public realm. Where it supports a high quality public realm, new development should generally maintain and reinforce existing setbacks by aligning the base with adjacent building bases, or by placing it at the average distance between those of adjacent properties.
2. Provide mid-block pedestrian connections and multiple access-points to enhance visual and pedestrian permeability.
3. Include the provision of a minimum separation distance of 25 metres between high-rise buildings on the same site and a minimum tower setback of 12.5 metres from side and rear property lines. This will maximize sky views and natural sunlight, provide proper privacy, and minimize wind and shade impacts on surrounding areas.
4. Allow balconies to encroach on the 25 metre separation between buildings, while not contributing excessively to the building massing.
5. Use prominent built form to address gateways and other key locations within the community. On larger sites, create 'paired' corner buildings on either side of a street to emphasize a sense of entry or to distinguish one street district from another.



Parking lot with smaller courts, plantings, and decorative paving.



Underground parking garage access screened by decorative door.

3.3.4 Access, Parking and Servicing

1. Provide access to parking, servicing, and loading from the rear of the building, where possible. On corner sites, provide access from secondary streets provided the entrance facilities are well integrated into the rest of the frontage.
2. Encourage underground parking. Where not feasible, at grade and structured parking above grade may be permitted at the back of the building, preferably lined with active uses along all public frontages.
3. Locate and screen parking, loading, utilities, and servicing areas away from the public view through a combination of soft and hard landscaping, as well as other integrated architectural elements such as walls and pergolas.
4. Facilities for handling, storing, and separating waste and recycling should be integrated into the building design and screened from public view through landscaping and architectural elements.
5. Where it is only possible to provide parking at grade, split the surface parking into small courtyards by using walkways, bicycle parking, public art, or landscaped strips.
6. Consolidate vehicular entrances to serve multiple buildings in order to minimize the number of interruptions to the street wall and sidewalk network. Limit the number of accesses from the same street to two.
7. Design underground/above ground parking ramps and service entrances as part of the building façade.
8. Provide long-term bicycle storage inside the building and short-term bicycle parking areas and racks close to entrances and external to the building.

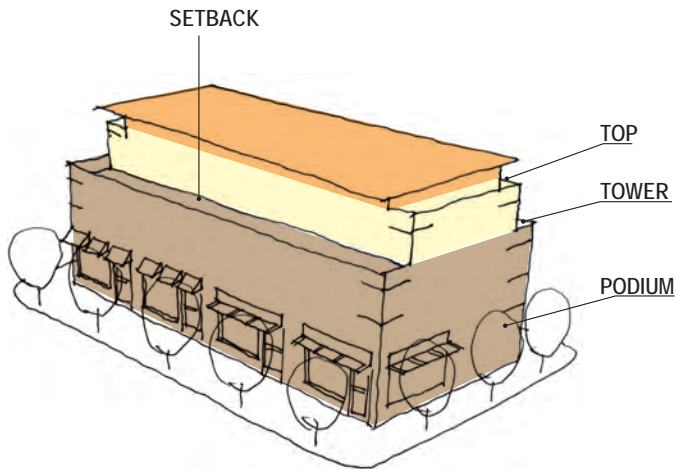


Diagram illustrating the building components of podium, tower and top.



The height of the podium on the mid-rise building should match the adjacent dwellings.

3.3.5 Building Design

3.3.5.1 Height and Massing

Mid-Rise and High-Rise buildings are generally comprised of a podium, tower, and top.

1. The height of the podium, and the tower step-backs above, should generally reflect the established streetwall. Ensure the height of the podium matches existing adjacent structures to reinforce the pedestrian scale of the streetscape.
2. Where no established streetwall exists, the minimum height of the podium should be 3 storeys to frame the streetscape.
3. For mid- and high-rise buildings with retail or other active uses at grade, provide a minimum ground floor height of 4.25 m. Residential ground floors should be a minimum of 4.0 m in height.
4. The tower should step-back a minimum of 3 metres from the podium to differentiate between the building podium and tower and to ensure usable outdoor amenity space.
5. Consider an additional step-back for buildings taller than 8 storeys in height.
6. Design the top of buildings to include a variety of elements, such as step-backs, material variations, lighting, and other architectural elements to reinforce a strong presence at the top of the building.
7. Where possible, include outdoor amenity space within the top of the building, including balconies, patios, terraces, and rooftop gardens.
8. All mechanical penthouses should be designed and clad with materials that complement the main building façades.
9. Locate mechanical rooms to the centre of the building rooftop and integrate into the rooftop design so they are not visible from the public realm.
10. Avoid blank or long expansive elevations which are exposed to the public view. Where unavoidable, consider art or special wall treatments (i.e., screens, living walls, metallic or wooden textures).
11. For developments with more than one building, provide a range of heights and establish a height hierarchy related to site conditions and context.



Changes in exterior materials lessen the visual impact of the building.



Windows and balconies included on all elevations of the building.

3.3.5.2 Articulation and Architectural Features

1. Mitigate the actual and perceived impacts of mid- and high-rise buildings by breaking up the mass both vertically and horizontally through the creative incorporation of changes in materials, balcony and floor plate design, architectural features, and amenity locations.
2. Incorporate windows and balconies on all elevations, especially if exposed to public view.
3. Provide a high level of glazing at ground level, especially for those areas related to lobbies, common/amenity areas, and non-residential uses (i.e. commercial uses).
4. Encourage weather protective design at grade and at the podium level through canopies, arcades, and cantilevers. Canopies located on the ground floor should be at least 1.5 metres deep.

3.3.5.3 Exterior Materials

1. Ensure high quality and durable materials are used on all elements and elevations of the development.
2. Select materials to complement the architecture, character, size, and style of the building, as well as the streetscape.
3. Use reflective, low intensity colours on rooftops to reduce the urban heat island effect and HVAC loads. Refer to Section 4.1 for cool roofing material and solar reflectance guidelines.
4. Minimize danger to migratory birds by:
 - a. Avoiding untreated reflective glass or clear glass that reflects trees and the sky;
 - b. Ensuring glass has visual markers and is not reflective within the first 12 metres of building height; and,
 - c. Locating and managing lighting to reduce reflections that might confuse migratory birds.

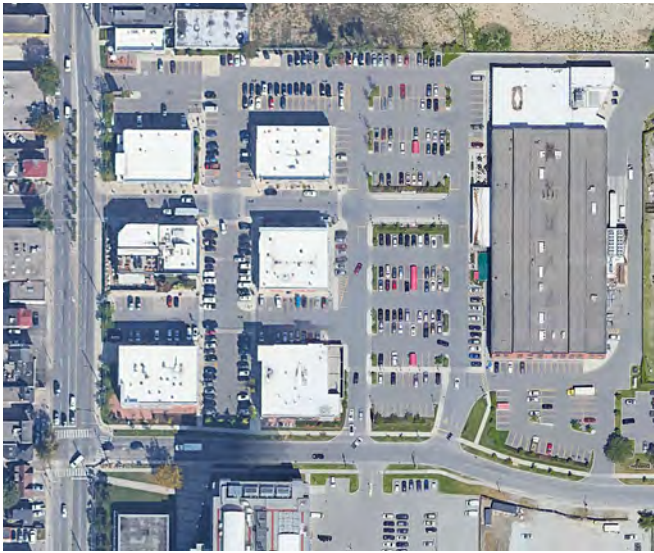


Generous and well-designed landscaped areas to offer privacy, screening, and an attractive interface with the public realm.

3.3.6 Private Outdoor Amenity Space

Private outdoor amenity spaces can be provided in a variety of forms including front verandas on buildings where the podium is designed to incorporate townhouse units, raised terraces, roof-top decks, balconies, or a design with similar intent. Private outdoor amenity spaces should have access to sunlight, be comfortable, and designed to afford a level of privacy.

1. Provide shared space for both indoor and outdoor amenities in new multi-unit residential development.
2. Design private outdoor amenity spaces to:
 - a. Have direct access to sunlight and sky view;
 - b. Mitigate impacts on the public realm and neighbours through increased facing distances between buildings;
 - c. Provide generous and well-designed landscaped areas to offer privacy, screening, and an attractive interface with the public realm; and,
 - d. Include railing designs to increase privacy, screen items from view, and reduce risk of bird strikes.
3. Raised terraces provide an entrance to only one unit. Provide privacy with planting and architectural elements and translucent or solid railings.
4. Design roof top private amenity spaces to limit overlook into the adjacent neighbourhood:
5. Inset balconies or partially inset to offer greater privacy and shelter from wind, reduce the building bulk, and minimize the impact of shadow on other



A pedestrian-scaled, permeable and connected internal layout



Corner buildings address both sides of the street with windows, signage, lighting, and a continuation of public walkways.

3.4 Commercial and Mixed-Use Buildings

In Howard Bouffard, commercial and mixed-use development is directed to the Mixed Use Corridors along Laurier Parkway, Malden Road, and Sixth Concession Road.

New and redeveloped commercial and mixed-use buildings should be designed to frame the street edge, provide clear pedestrian access, and create gathering spaces such as patios, in order to foster a greater sense of place.

Mixed-use buildings contain retail or office at ground level and residential and/or office above. These buildings contribute to a vibrant, pedestrian friendly streetscape with active uses at grade.

3.4.1 Building Design

3.4.1.1 Building Placement and Orientation

Building placement refers to the location of the building in relation to the street. The orientation and placement of buildings along the street can help to reinforce the public realm by enhancing the pedestrian environment and creating a sense of enclosure. Key guidelines for the orientation and placement of buildings include:

1. Use mixed-use buildings and smaller scale retail and commercial stores to frame the street with a consistent building setback.
2. The siting and massing of buildings should provide a consistent relationship, continuity, and enclosure to adjacent public roads. A pedestrian-scaled, permeable, and connected internal layout (block and street pattern) creates comfortable and protected pedestrian spaces that have a sense of enclosure.
3. Buildings located adjacent to, or at the edge of parks or urban greens should provide opportunities for overlook into the public space with windows and doors.



Primary entrances located along the street frontage.



Articulation of the facade with a variety of materials and offsets.

4. Primary entrances to buildings should be clearly visible, illuminated, and have minimum changes in grade. Secondary doors, such as those that face the parking area, emergency exits, and service doors should be designed to blend in with the building façade.
5. No parking or driveways should be located between the buildings and the street. Exceptions may be granted for large buildings on large sites with multiple buildings where the larger buildings are be situated to the interior of the block with smaller buildings facing the street.
6. Consider patios along primary streets in areas that maximize sun exposure and effectively animate the public realm.
7. Provide accessible and secure bicycle racks and parking at retail, commercial, and employment developments, as well as at other key locations to support active transportation.

3.4.1.2 Building Articulation, Massing, and Architecture

The aesthetic qualities of the building, its façade, roof line, windows, and access points are all vital factors in how the public perceive a building and how that building impacts their experience of the street.

1. Divide building frontages that exceed 12 metres in width into functionally and visually smaller units through the use of façade articulation, internal courtyards, and networks of connected walkways and landscaping.
2. For stand-alone commercial uses, minimize the building footprint by providing a multi-storey building in order to deliver compact form and conserve land.
3. A high level of architectural quality should be used for the façade of buildings located at corner sites along Arterial and Collector Roads.
4. Design sites with multiple buildings to reflect a consistent architectural theme. Similar building elements could include colours, materials, and signage. -



Awnings, canopies, and signage provide shade and weather protection for pedestrians.

5. Ensure consistent high quality building design and architectural elements on all building elevations, particularly on façades in public view or backing onto residential properties.
6. Incorporate architectural elements to enhance the pedestrian environment such as canopies, overhangs, awnings, projecting display windows, architectural arcades, and colonnades. These elements should be designed as integral parts of the building in terms of form, style, material, and colour.
7. Incorporate garbage and recycling storage bins that can be accessed for pick up into the principal building design. Food waste should always be stored in climate controlled rooms.

3.4.1.3 Drive-Throughs

Drive through facilities must contribute to an attractive streetscape and demonstrate that they do not adversely affect the character of the existing and planned streetscape, do not impact views and sightlines, or compromise the safe and efficient movement of pedestrians and cyclists.

1. Design drive through sites and buildings to:
 - a. Locate buildings close to or at the streetline to define and support the street edge and facilitate pedestrian activity and access;
 - b. Align new buildings with the front façades of existing buildings;
 - c. Ensure an appropriate transition in setback from existing and adjacent buildings along the street;
 - d. Locate the main entrance directly off the public sidewalk;
 - e. Ensure walls visible from the street are transparent with windows, doors, and other forms of transparent building materials to maximize views in and out of the building enhancing the relationship between interior and exterior to support and animate the public street and sidewalk;



Patios along the ground floor animate the streetscape.

- f. Provide vehicular access and stacking lanes along the side or the rear of the building away from adjacent residential uses, streetscapes, and open spaces. Do not locate stacking lanes or driveways between the building and the street;
- g. Provide parking adjacent to the secondary entrance to the facility so it is not necessary for pedestrians who arrive by car to cross driveways or stacking lanes to enter the building;
- h. Locate utilities and service components such as transformers, loading, and garbage pick up at the rear or flank of the building out of view from the street and other public areas; and,
- i. Provide sufficient signage where necessary to indicate direction of vehicular travel, stop signs, or no entrance areas.

3.4.1.4 Storefronts

1. Provide retail and service commercial uses on the ground floors of mixed-use buildings to bring animation to the street and encourage pedestrian activity. The floor-to-ceiling height of ground floors for all new buildings shall be a minimum of 4.25 metres.
2. Locate entrances to stores and the ground floor of units at grade and design to be universally accessible, highly visible, and clearly articulated.
3. Where retail uses are provided at-grade, ensure a significant amount of the building frontage on the ground floor and at building base levels is glass to allow views of the indoor uses and create visual interest for pedestrians. Clear glass is preferred to promote the highest level of visibility.
4. Provide awnings or canopies above windows and doors for weather protection.



Lighting is directed at the sign and complements the design of the building.



Hanging signs encroach over the streetline.



Lowered parking surfaces and landscaped buffers help screen parking areas from street view.

3.4.1.5 Signage

1. Integrate signage in the building design and ensure it complements the building's elevation, animates the ground level, and enhances the streetscape.
2. Design signage to be consistent with respect to materials, size, location (on a building), lettering and lighting, while also allowing some flexibility for tenant branding.
3. Ensure signage lighting design complements the design of the building.
4. Direct signage lighting to limit light trespass to surrounding properties and to prevent light pollution.
5. Projecting or hanging signs should be permitted to encroach over the streetline provided that they do not project more than 1.0 metre from the building. There should be a minimum 2.4 metre clearance between the bottom of the sign and grade.

3.4.2 Parking

1. Provide a variety of parking options, including on-street parking, above or below grade parking structures, where feasible, and screened at-rear parking courtyards. Avoid the use of large surface parking areas, where possible.
2. Locate parking areas away from the street frontage, at the rear or sides of the principal building.
3. Screen surface parking lots from roads, open spaces, and adjacent residential areas with the use of buildings, low fencing, architectural features, landscaping, berms, or other mitigating design measures, such as lowered parking surfaces with landscaped buffers.
4. Design surface parking to minimize environmental impacts by reducing the parking area size, considering shared parking facilities with adjacent buildings, and providing preferential parking for hybrid or electric vehicles.
5. Break large parking areas into smaller courts by providing walkways flanking a lane or between two parking rows. Design walkways with a minimum width of 1.8 metres



Landscaped islands, pedestrian walkways with distinct paving, lighting, and plantings provide safe crossing through the parking lot.

6. Where walkways cross drive aisles, they should be differentiated from the driving surface through the use of surface materials and colour.
7. Consider using landscaping to break up parking areas and to assist with reducing the urban heat island effect. Landscaped islands should have a minimum width of 2.5 metres.

3.4.3 Servicing, Storage + Loading

Servicing, utility, storage, and loading are necessary components of all building sites. These areas need to be functional and easily accessible and their visual impact minimized through location and screening.

1. Coordinate, consolidate, and integrate loading docks, service areas, and storage within the building envelope, where possible.
2. Fully screen and locate loading, service, and storage areas away from public view. These facilities should be located in the rear or side yards away from residential uses, major roads, and open space areas. Where possible, integrate these functions within buildings.
3. Ensure that waste collection vehicles have ample room to maneuver to ensure that these functions do not spill over into either the public right-of-way or public spaces.
4. Provide access to servicing and loading areas from secondary streets or rear laneways. Include design treatments to minimize impact and improve safety for pedestrians and cyclists crossing these areas.
5. Locate all utilities underground. Where components of utilities must be located above ground, utility providers are encouraged to consider innovative methods of containing utility services on or within streetscape features.
6. For all restaurant uses, cooking ventilation systems, incorporate ecologizer, water wash, ultraviolet, or other equivalent odour extraction mechanisms that are sufficient to ensure that the resulting exhaust is substantially odour free and will not affect surrounding residents.
7. Integrate facilities for the handling, storing, and separating of waste and recycling in the building design.
8. Ensure waste facilities within an external structure are consistent in design, colour, and materials to the main building and are not in a prominent location.



Example of a parking lot that incorporates planting strips for as a stormwater management strategy.

3.5 Business Park District

The Business Park District may include a wide variety of uses, including offices, research and development, warehouses, and manufacturing uses. Industrial buildings should be sited to define the street edge, limit nuisance effects from industrial operations, employ a high quality of design, and facilitate active transportation and public transit access.

1. Gateway sites are highly visible sites within the Business Park District. Design the gateway site at Laurier Parkway and Howard Avenue with entry features and identifiable architectural features, such as enhanced elevation treatments, unique massing or roofing lines, a multi-storey presence, or other prominent architectural forms to help identify this area as a business park.
2. If there are multiple buildings on one site, provide a coordinated architectural treatment to develop overall site harmony. Provide differentiating characteristics, particularly at building entrances.
3. Avoid long stretches of monotonous building façades or 'blank walls'. Building articulation and material and colour changes should be the primary means to create interest on long expanses of walls.
4. Industrial uses may provide less decorative façade materials for non-street frontages, such as concrete and metal siding; provided the front façade material does not transition at the corner, and is wrapped around to the sides.
5. For accessory buildings, provide compatible and complimentary design, colour, and materials to the main building.
6. Provide outdoor amenity areas, such as courtyards, patios, and seating areas in desirable areas, such as facing public streets or natural heritage features, and define with building façades, architectural features, fencing, and/or landscaping.
7. Parking lots should be configured, designed, and landscaped as well defined areas linked to a particular building with safe and convenient pedestrian walkways.
8. Integrate stormwater facilities for large parking lots into the parking area and design as aesthetic landscape features such as planting strips between parking rows, where feasible.



Use of vegetated screening as a visual buffer.



Bicycle parking in employment areas to support active transportation.

9. Provide pedestrian walkways to connect buildings to on-site parking areas and amenity areas, to public sidewalks and transit stops, and to adjacent sites with convenient destinations (e.g., ancillary commercial uses).
10. Where permitted, ensure that outdoor storage only occurs within physically-defined areas, is screened with appropriate fencing, walls, or landscaping, and that all materials in an outside storage area are stored on an impermeable surface to prevent adverse impact on site drainage and stormwater management facilities.
11. Where practical, vehicular access to parking areas between adjacent properties should be shared, to reduce the extent of interruption along the sidewalk and the streetscape.
12. Provide specifically designated areas for uses such as service entrances, delivery and sorting, temporary storage, garbage and recycling, outdoor storage, outdoor work areas, and other similar uses. These shall be:
 - a. Located behind buildings;
 - b. Appropriately sized for the intended use; and,
 - c. Screened from public areas and residential uses to reduce visual, or sound impacts on adjacent uses.
13. Ensure that service areas have adequate space for maneuvering and allow for efficient operation. Vehicle movements in and around service areas should not conflict with adjacent parking areas.
14. Ensure truck maneuvering, circulation, and queuing lanes are signed, and marked accordingly on the pavement.
15. Provide sufficient on site truck queuing areas as necessary for the expected number of trucks. Locate behind buildings and screen, as practical.
16. Ensure loading and delivery areas are not located in a required setback area.
17. Construct waste and recycling enclosures to be compatible with the project architecture and materials, built to house sufficiently sized bins for the intended use, and designed with a wall height that is sufficient to completely conceal bins.
18. Use berms in landscape strips to minimize views/noise from adjacent uses, parking, loading, and service areas.
19. Provide accessible and secure bike racks and parking at business park developments to promote purposeful cycling.



Example of the use of architectural features to denote landmark community facilities.

3.6 Institutional Uses

Institutional buildings provide important opportunities for place-making and landmarking. With distinct architecture and high quality public spaces, and the potential to co-locate and share facilities, these sites can become hubs of activity and focal points for social interaction, gathering, and civic events.

Careful attention must be paid to the design of these structures to ensure they reflect the built quality and scale of the surrounding neighbourhood.

3.6.1 General Guidelines

1. Site institutional buildings prominently and where possible, to terminate views. Ensure buildings are sited to specifically differ from the surrounding urban fabric in order to emphasize their importance as landmarks.
2. Institutional buildings should be located in community hubs to promote cost-effectiveness and facilitate service integration and access to transit.
3. Ensure Institutional buildings should have direct access from the surrounding community through a comprehensive and connected active transportation network with linked trails and parks.
4. Locate vehicular parking at the side or rear of the building. Parking for cyclists should be located near building entrances and where visual surveillance can be maximized.
5. Provide drop-off areas for buses and cars in the public right-of-way where possible, but when located on site they should be at the side, and not the front of the building.
6. Institutional buildings should contribute to the creation of compact neighbourhoods through multi-storey buildings in order to maximize the site and services and minimize building footprint.



The building is located close to the road to frame the street edge.

3.6.2 Building Design

1. Design institutional buildings as special landmark buildings with high quality architectural design, materials, and finishes.
2. Locate the most active portions of the buildings facing higher order streets. Locate large portions of buildings such as gymnasiums or auditoriums to the sides, rear, or interior of buildings.
3. Incorporate architectural elements such as massing and special features to terminate important views and vistas.
4. For buildings located at corners, design elevations to equally address the two street frontages. Additionally, use prominent massing, height, architectural elements and detailing to emphasize these locations.
5. Provide integrated weather protection elements at main entrances and ensure they complement the building's design.
6. Provide a sufficiently sized gathering space designed as an outdoor amenity space for institutional buildings where significant numbers of people are expected to gather or wait outside the main entrance.
7. The front door of all institutional buildings should be connected by a walkway to the sidewalk and have direct access to transit stops.
8. Provide a high level of visual transparency and permeability at eye level for lobbies by using windows and prominent entrances.
9. Utilize daylighting strategies, such as building orientation, uniform windows across the façade, or skylights to capture natural light and reduce the need for electric lights during the day.
10. Where flat roofs are used, incorporate cool roofs and/or green roofs in the design of the building to minimize surface runoff, reduce the urban heat island effect, provide noise insulation, and improve local air quality. See Guidelines under Section 4.1.
11. Integrate signage within the building design and ensure it complements the building's elevation, animates the ground level, and enhances the streetscape.
12. Direct signage lighting to limit light trespass to surrounding properties and downcast to prevent light pollution.



Green roofs reduce surface run-off on buildings.

13. Ensure signage provides a high level of clarity, visibility, and visual interest, and should aid pedestrians and drivers in navigating the area, especially at night.

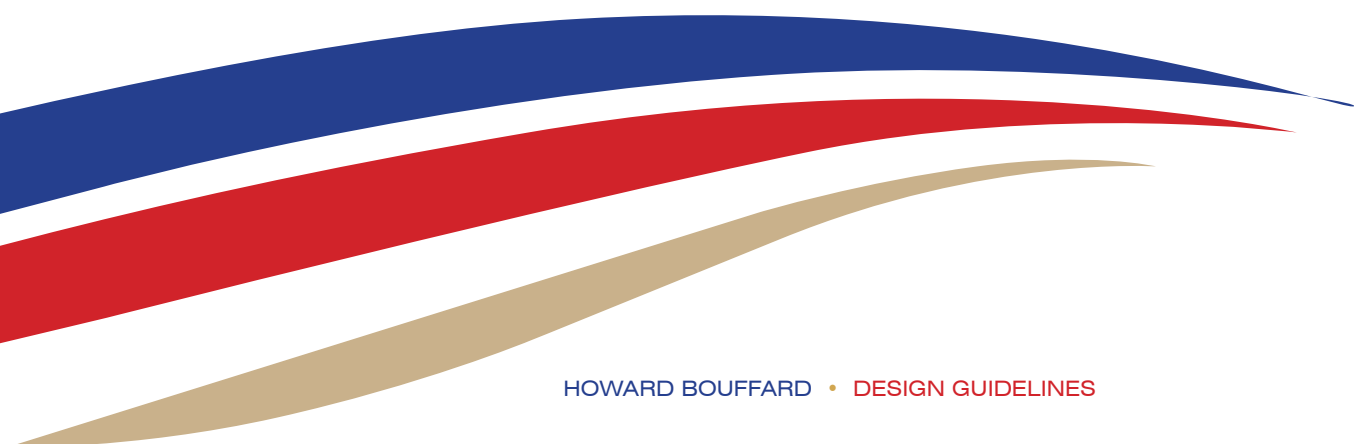
3.6.3 School Sites

1. Minimize the land area required for school sites in order to promote compact development and conserve land. School Boards are encouraged to build more compact facilities including two or three storey elementary schools.
2. Where possible, locate elementary school sites adjacent to a neighbourhood park to allow for the sharing of playfields to promote compact development and minimize land area requirements. Explore the use of appropriate and innovative engineered turf material to increase the durability of the playfields and minimize maintenance requirements.
3. Consider shared parking lots for elementary school sites with neighbourhood parks, in order to reduce the number of parking requirements. Locate and site the shared parking lot to facilitate easy and safe access by students.
4. Consider maximizing the opportunity for using the natural heritage system for passive open space uses, such as trails and trail heads, for school sites located adjacent to the natural heritage system.
5. Provide direct pedestrian and cycling routes to school sites from all parts of the surrounding community that are linked with the active transportation network.
6. Design school sites to ensure safe pedestrian crossing and cycling practices. Whenever possible, ensure students are able to easily reach building entrances without crossing bus zones, parking entrances, and student drop-off areas.
7. Design school sites to provide for visitor parking and bus pick-up and drop-off for automobiles and buses on site. For smaller sites, consider demarcated bays in the adjacent Collector Road right of way.
8. Locate parking at the rear or to the side of the principal building. Circulation in front yards should be limited to drop-off zones, and clear sight lines should be preserved to the street.

3.6.4 Places of Worship

1. Locate Places of Worship on Arterial or Collector Roads along public transit routes in order to maximize transit ridership.
2. Consider the joint use of parking areas with adjacent uses in order to reduce land requirements and promote compact development, especially in mixed use areas.
3. Ensure the massing and scale of the building is compatible with the character of adjacent development, especially within low-rise areas through the use of similar setbacks, material selection, and the use of architectural elements.
4. Provide buffering, including visual screening, planting and/or fencing, between the place of worship use and any adjacent residential uses.

4.0 sustainable buildings + infrastructure



4. SUSTAINABLE BUILDINGS + INFRASTRUCTURE



Small wind turbines on the roof of an office building.



Solar canopies in surface parking lots.

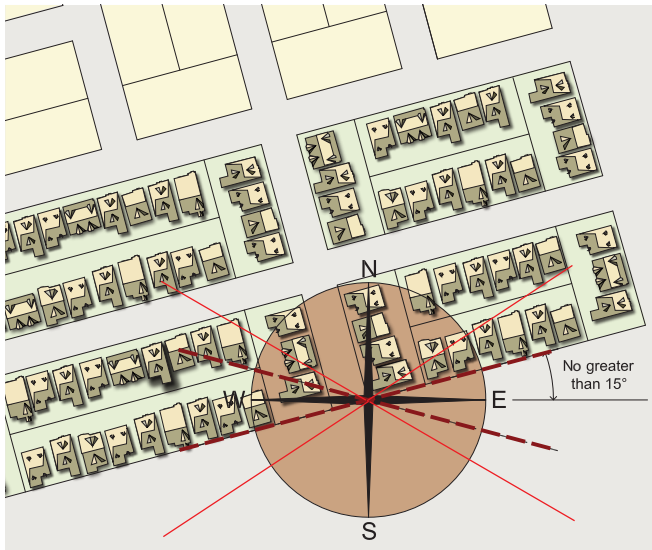
While sustainability is an overarching objective throughout the Design Guidelines, this section provides guidance on green infrastructure and building practices and helps achieve the broad sustainability principles of the Official Plan.

Development in Howard Bouffard should incorporate sustainable design to:

- Protect and enhance local and regional ecosystems and biological diversity.
- Promote the responsible use of resources to ensure long-term sustainability, reduce greenhouse gas emissions, and reduce demands for energy, water, and waste systems.
- Demonstrate leadership in sustainable forms of green building design and technology, including the incorporation of renewable and alternative energy sources.

- Promote innovative building designs that contribute to energy reduction and natural resource conservation, green roofs, synergies between buildings, and site management practices.
- Protect the urban forest and the tree canopy and identify objectives for how it can be enhanced and expanded.
- Support opportunities for best management practices for stormwater to protect against flooding and erosion while improving water quality.

As part of the strategy to support a high level of sustainability within Howard Bouffard, the Sustainable Buildings + Infrastructure guidelines apply to both the private and public realms.



To maximize passive solar orientation the street and block alignment should be designed within 15 degrees of geographic east-west.

4.1 Energy Conservation

Energy conservation refers to minimizing energy consumption by generating or using less energy. It can also play a significant role of lessening climate change by replacing non-renewable resources with renewable energy.

1. Where feasible, consider alternative community energy systems such as district energy, geo-exchange, sewer heat recovery, and/or inter-seasonal thermal energy.
2. Consider reducing demand for energy from the grid and encourage renewable energy production. Renewable energy sources that could be employed may include the use of solar thermal and photovoltaic equipment or wind power. Proposed alternative energy sources could be used in combination with energy from the grid.
3. Encourage passive solar building orientation to permit enhanced energy efficiencies by creating optimum conditions for the use of passive and active solar strategies. The integration of passive building systems is enhanced with buildings oriented to maximize the potential for sunlight and natural ventilation.
4. Where feasible, implement street and block alignment within 15 degrees of geographic east-west to maximize passive solar orientation of buildings front and rear windows.
5. Consider constructing buildings to be Solar Ready. Being Solar Ready means built with all the necessary piping and equipment that would be needed to install a rooftop solar power system.
6. Reduce heat absorption through the use of cool roofs that are designed to reflect more sunlight and absorb less heat than a standard roof. Cool roofs can be made of a highly reflective type of paint, a sheet covering, or highly reflective tiles or shingles. Consider cool roofing material with a minimum initial solar reflectance of 0.65 and minimum thermal emittance of 0.90.
7. For a low sloped roof, typical of commercial and institutional buildings, the cool roof Solar Reflectance Index (SRI) value should be 64 and for steep sloped roofs, typical of residential, the SRI value should be 15.



Solar panels on the roof of low-rise development.



Light coloured pavers assist with the reduction of the urban heat island effect.



Charging stations for electric vehicles powered by the sun.

8. Green roofs are encouraged for high-rise residential, office, employment, and public institutional buildings to minimize surface runoff, reduce the urban heat island effect, provide noise insulation, and improve local air quality.
9. Provide green roofs for 80% of all high-rise development. In high-rise residential buildings, design roofs as amenity areas.
10. Encourage community and public buildings to install green roofs with 50% coverage with the remainder of the roof covered with light coloured material.
11. Mitigate the urban heat island effect through the installation of light-coloured paving materials including white concrete, grey concrete, open pavers, and any material with a solar reflectance index of at least 28. Consider light-colored material for development with hardscape or paved surfaces in the Mixed-Use Corridors, including parking areas and pedestrian walkways.
12. Consider paving driveways for grade related residential dwellings with light-coloured material to assist with reducing the urban heat island effect.
13. Implement the strategic use of deciduous trees or preserve existing trees to help with evapotranspiration and the shading of sidewalks and hard surface areas in the summer and solar access in the winter.
14. Charging stations that would supply electricity for electric vehicles are encouraged. Provide charging stations in parking areas of mixed-use, office, institutional, or employment uses, or within underground garages for multi-unit residential buildings, where feasible.



Example of an innovative stormwater management facility.



Bioretention planters assist with street greening and have stormwater management benefit.

4.2 Water Use and Management

1. In order to promote water conservation, all new developments are encouraged to:
 - a. Limit the use of potable water for outdoor watering;
 - b. Consider the use of water efficient and drought resistant plant materials in parks, along streetscapes, and in public and private landscaping;
 - c. Avoid use of turf grass areas, and when required, install drought resistant sod;
 - d. Increase topsoil depths;
 - e. Utilize native species; and
 - f. Reduce the impact caused by new development on the natural hydrological cycle by installing permeable or porous driveway and parking lot surfaces.
2. Consider the implementation of Low Impact Development standards that emphasize the use of bioswales, innovative stormwater practices, constructed wetlands, at-source infiltration, greywater re-use systems, and alternative filtration systems such as treatment trains.
3. Consider the following strategies for stormwater retention and run-off:
 - a. Retain stormwater on-site through rainwater harvesting, on-site infiltration, and evapotranspiration;
 - b. Direct flow to landscaped areas and minimize the use of hard surfaces in order to reduce the volume of run-off into the storm drainage system;
 - c. Store snow piles away from drainage courses, storm drain inlets, and planted areas; and
 - d. Use infiltration trenches, dry swales and naturalized bioswales adjacent to parking areas to improve on-site infiltration.
4. Stormwater management quality control devices which require frequent operation or maintenance such as Oil Grit Separators are discouraged within the public right-of-way.
5. Introduce green infrastructure, such as bioswales or bio-retention planters, within the public right-of-way to enhance ground water infiltration and improve water quality as part of a comprehensive water management plan.



Landscaped island with a bioswale to filter run-off from the parking lot.



Collect, store, and distribute rainwater in underground storage tanks.

6. Consider the use of permeable or porous pavement instead of standard asphalt and concrete for surfacing sidewalks, driveways, parking areas, and road surfaces, as a stormwater run-off management strategy.
7. Implement a rainwater harvesting program to provide the passive irrigation of public and private greenspace, including absorbent landscaping, cisterns, rain barrels, underground storage tanks, infiltration trenches, etc.
8. Consider the installation of subsurface basins below parking lots to enable stormwater to be stored and absorbed slowly into surrounding soils.
9. Where feasible, implement curb cuts along sidewalks and driveways to allow water to flow onto planted zones or infiltration basins.
10. Implement xeriscaping using native, drought-tolerant plants as a cost-effective landscape method to conserve water and other resources on a residential and community-wide level.

4.3 Material Resources and Solid Waste

1. Consider the use of recycled/reclaimed materials for new infrastructure including roadways, parking lots, sidewalks, unit pavings, curbs, water retention tanks and vaults, stormwater management facilities, sanitary sewers, and/or water pipes.
2. Reduce waste volumes through the provision of recycling/reuse stations, drop-off points for potentially hazardous waste, and centralized composting stations.
3. In large buildings, such as multi-unit residential buildings and institutional or public buildings, provide on-site recycling facilities for handling, storing, and separating of recyclables.
4. Recycle and/or salvage at least 50% of nonhazardous construction and demolition debris and locate a designated area for recyclable materials on site during construction.
5. Where possible, source materials from certified local businesses.



Urban agriculture supports sustainable local food production.

4.4 Urban Agriculture

Urban agriculture provides the opportunity for an alternative use of green space and as a transition in land uses such as community gardens and traditional farm areas at community peripheries.

1. Promote initiatives such as sustainable food production practices as a component of a new development. Development plans and building designs should incorporate opportunities for local food production through:
 - Community gardens;
 - Edible landscapes;
 - Small scale food processing, such as community kitchens, food co-ops, and community food centres;
 - Food-related home occupations/industries;
 - Small and medium scaled food retailers; and,
 - Local market space (i.e., a farmer's market).
2. Incorporate urban agriculture as part of a neighbourhoods character and open space system, while also providing a transitional use between the natural and built environments. Measures to protect natural features must be considered.

4.5 Stewardship and Education

For new development in Howard Bouffard the following should be considered to support homeowner education and stewardship.

1. Create a Homebuyer's Environmental Instruction Guide that explains the unique environmental aspects of the development and special maintenance considerations.
2. Include an owner/tenant education package at the time of purchase or rental regarding activities to improve energy and water efficiency, access to transit, location of recycling station, etc. Coordinate with existing Town and County information.
3. Include environmental builder specifications in all subcontracts.
4. Produce detailed sales and promotion materials that feature the conservation aspects of the development.
5. Develop subdivision covenants that establish ground rules for the maintenance of shared open lands and individual lots.

