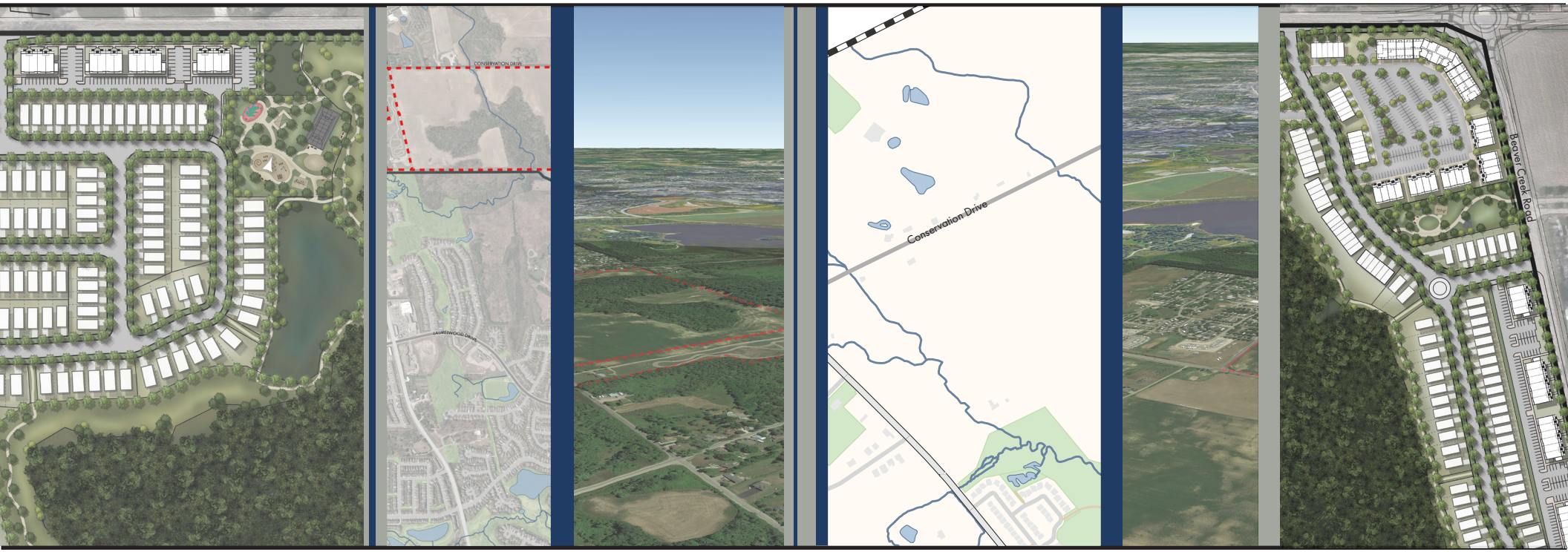
URBAN DESIGN GUIDELINES

NEIGHBOURHOODS 5, 6 & 7
BEAVER CREEK MEADOWS DISTRICT
(NORTHGATE & KARTWAY LANDS)

JULY 2020

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE



CONTENTS

PART ONE

1.0 INTRODUCTION 4
1.1 SUBJECT LANDS 6
1.2 SURROUNDING CONTEXT 7
1.3 COMMUNITY STRUCTURE 12

PART TWO

2.0 VISION AND DESIGN PRINCIPLES 21
2.1 NATURAL HERITAGE 24
2.2 MOBILITY/WALKABILITY 26
2.3 BUILT FORM & LANDSCAPE 30
2.4 SUSTAINABILITY 32
2.5 CHARACTER & STREETSCAPES 33

PART THREE

3.0 CITY OF WATERLOO OFFICIAL PLAN 39
3.1 BCMDP - URBAN DESIGN POLICIES 42
3.2 CITY OF WATERLOO URBAN DESIGN MANUAL 45

PART FOUR

4.0 GENERAL DESIGN GUIDELINES 56
4.1 STREET TOWNHOUSE DESIGN 62

PART FIVE

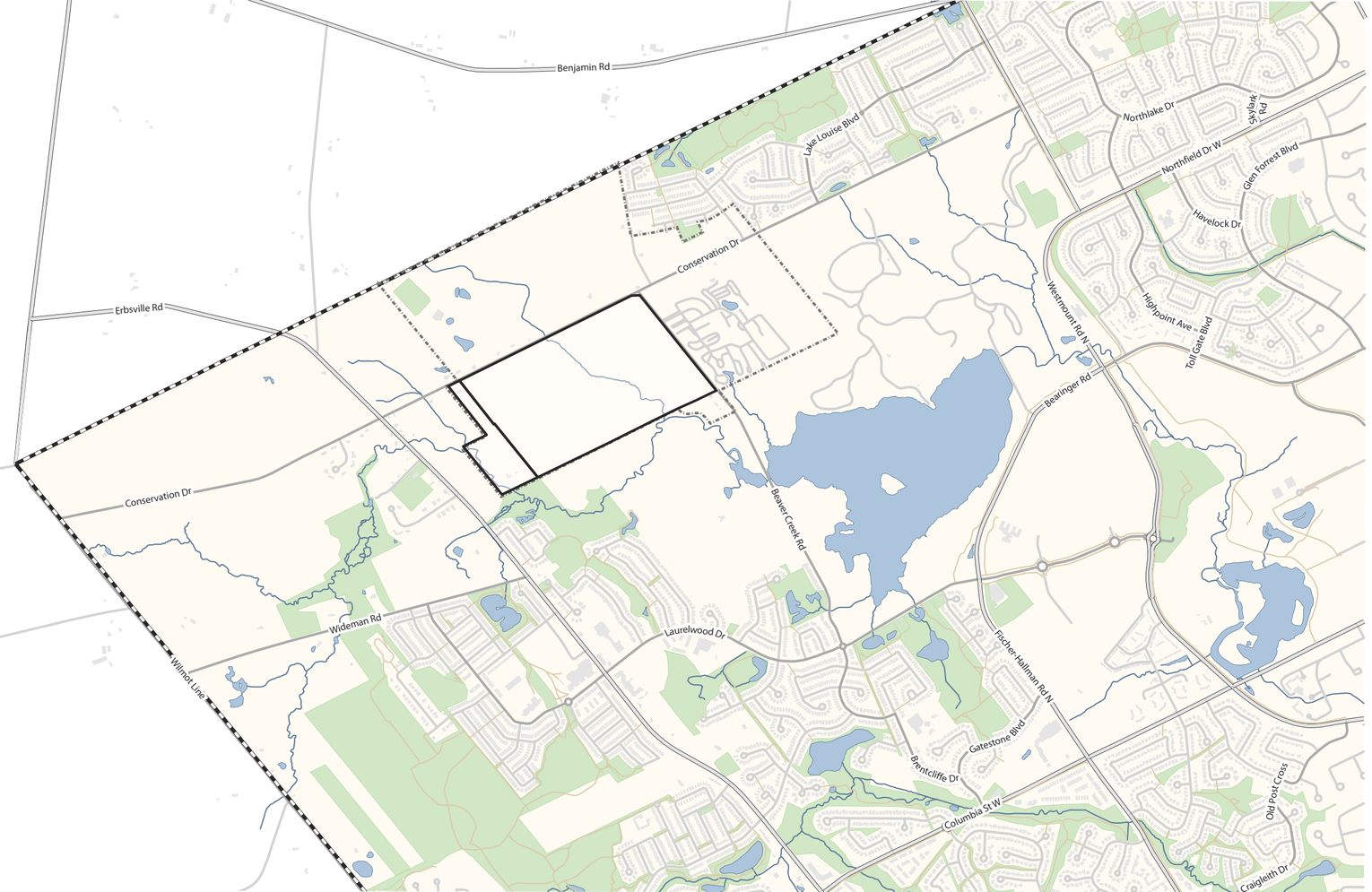
5.0 GUIDELINES FOR COMMUNITY FOCAL POINTS 66
5.1 GUIDELINES FOR MULTIPLE BLOCKS ALONG CONSERVATION DRIVE AND BEAVER CREEK ROAD 71
5.2 GUIDELINES FOR NEIGHBOURHOOD 7 73

PART SIX

6.0 PRIORITY LOTS/BLOCKS 77
6.1 GUIDELINES FOR PRIORITY LOTS /BLOCKS 79

PART SEVEN

7.0 IMPLEMENTATION OF DESIGN GUIDELINES 87



PART 1

Introduction, Context & Community Structure

MASTER PLAN



Note: All building placements and lot lines are for conceptual purposes only and will be finalized through subsequent processes.

1.0 INTRODUCTION

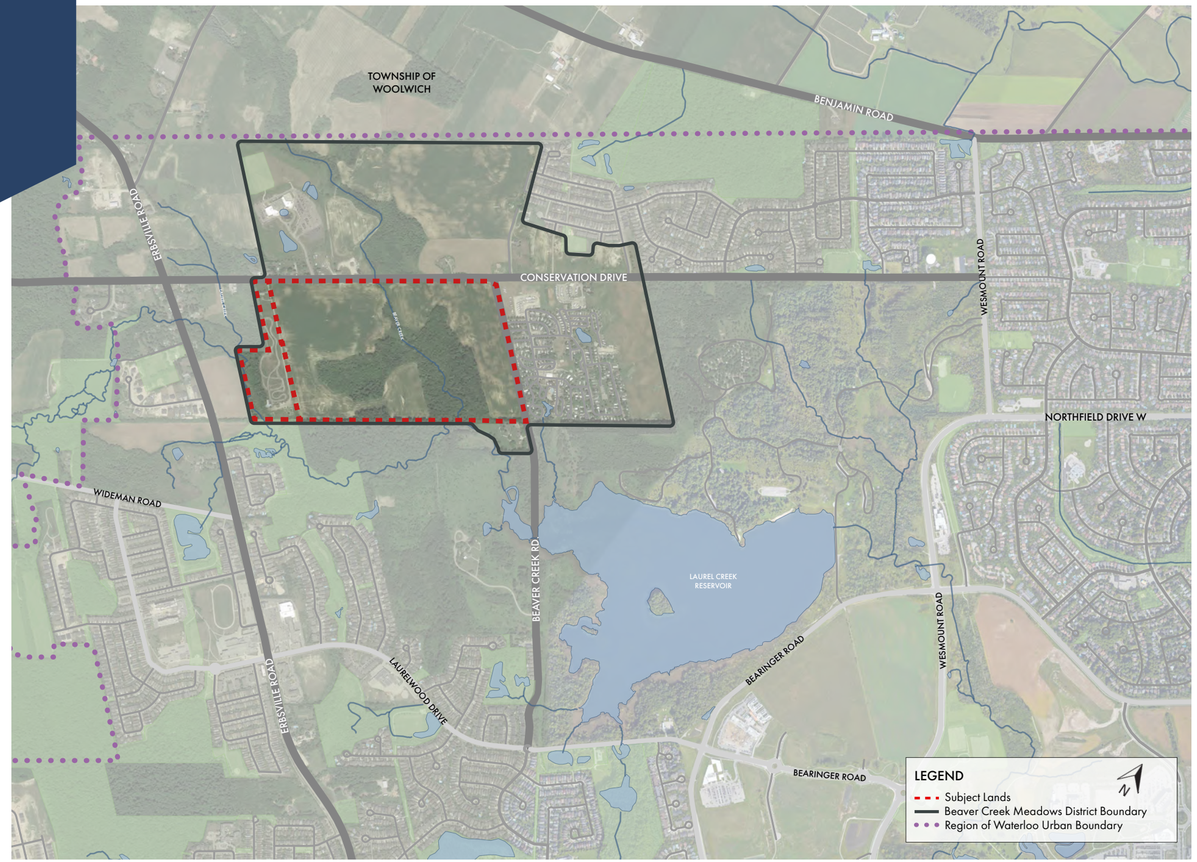
MacNaughton Hermsen Britton Clarkson Planning Limited ("MHBC Planning") has been retained by 1017081 Ontario Limited and Gabriella Elizabeth Groff ('Northgate') and 1455136 Ontario Ltd. ('Erbsville Kartway') to prepare an urban design brief and related guidelines in support of Plans of Subdivision, Plans of Vacant Land Condominium and Zoning By-law Amendment applications (File Nos. 30T-17401, 30T-17402, 30CDM-17409, 30CDM-17410, Z-17-14 and Z-17-15).

The planning applications relate to two parcels of land; including lands owned by Northgate and lands owned by Erbsville Kartway (referred to herein as the 'subject lands'). The subject lands are located within the City of Waterloo and more specifically within the Beaver Creek Meadows District. The original planning applications were submitted to the City of Waterloo and Region of Waterloo in July 2017. A Neighbourhood Design Summary formed part of the original submission. An updated Neighbourhood Design Summary was also submitted to the City of Waterloo in March 2019 to assist the city's understanding regarding the overriding design considerations and housing typologies/form of housing proposed.

The purpose of this document is to:

- Describe the subject lands and surrounding context;
- Build upon the preliminary design principles and design direction of the 2017 and 2019 Neighbourhood Design Summaries;
- Confirm the vision and design principles for the community;
- Respond to City of Waterloo design policies and guidelines; and
- Provide design guidelines that give direction to and provide for the implementation of the design principles outlined in this document.

This Design Brief and recommended design guidelines have been prepared have carefully considered the policies and design direction contained within the Beaver Creek Meadows District Plan, the City of Waterloo Official Plan, the City's Urban Design Manual as well as contemporary urban design considerations.



1.1 SUBJECT LANDS

The subject lands are located within a developing residential community ("Beaver Creek Meadows District") located in the northwestern portion of the City of Waterloo. The subject lands have an area of 40.513 hectares (100.10 acres) and are located south of Conservation Drive and west of Beaver Creek Road. The subject lands are legally described as Part of Lot 28, German Company Tract. The subject lands are currently used for interim agricultural and outdoor recreational purposes (Erbsville Kartway) pending development.

Core Environmental Features in the area include wetlands and woodlands associated with Beaver and Laurel Creeks which generally drain in a north to south direction and outlet to the Laurel Creek Reservoir located to the southeast. Privately owned lands and the Laurel Creek Conservation Area are located immediately to the south of the subject lands.

The Beaver Creek Meadows District is located in northwest Waterloo along Beaver Creek and Laurel Creek. The District is characterized by large tracts of interim agricultural land and natural heritage features. Existing land uses include the Creekside Church, limited low density residential development, an existing trailer park and auto repair garage. Significant portions of the District remain largely undeveloped.

The subject lands are situated between Conservation Drive to the north, Beaver Creek Road to the east, Laurel Creek Conservation Area to the south and Laurel Creek to the west.

1.2 SURROUNDING CONTEXT

The subject lands are well-connected to the arterial road network. Conservation Drive and Beaver Creek Road provide access to the northwest area of the City, as well as the Townships of Woolwich and Wilmot. Beaver Creek Road provides a direct connection to Laurelwood Drive to the south. Conservation Drive provides connections to Erbsville Road, Westmount Road North and Northfield Drive West which provides direct access to the Conestoga Parkway.

There are currently Grand River Transit routes to the east of the subject lands within existing developments. Future extension of transit services is contemplated by the approved District Plan.

The City's bikeway network will be accessible from the proposed subdivision. Multi-use trails are located within the Laurel Creek Conservation Area to the southeast. These trails provide opportunities for active transportation connections to various destinations within the City of Waterloo.

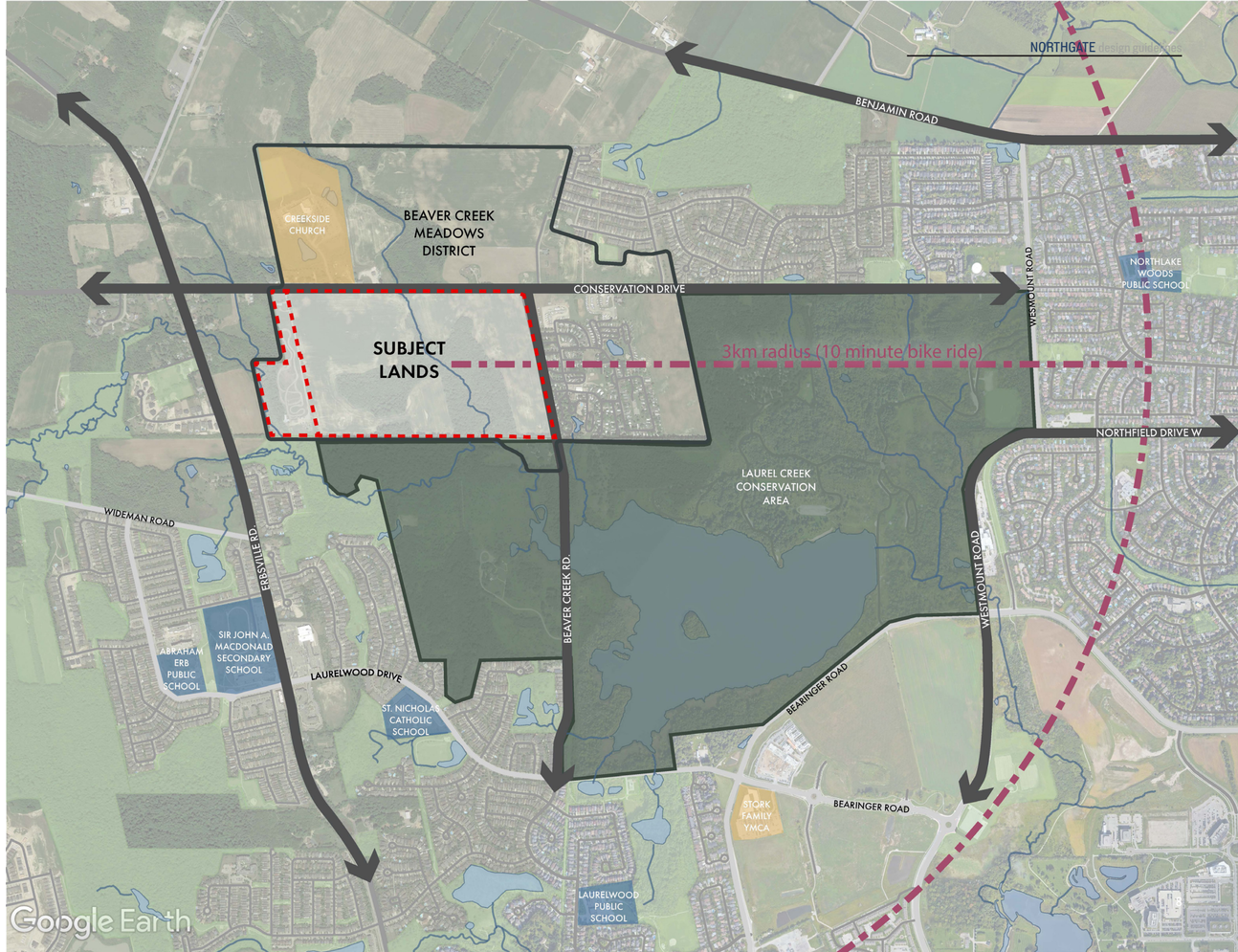
Existing land uses in the immediate surrounding area include:

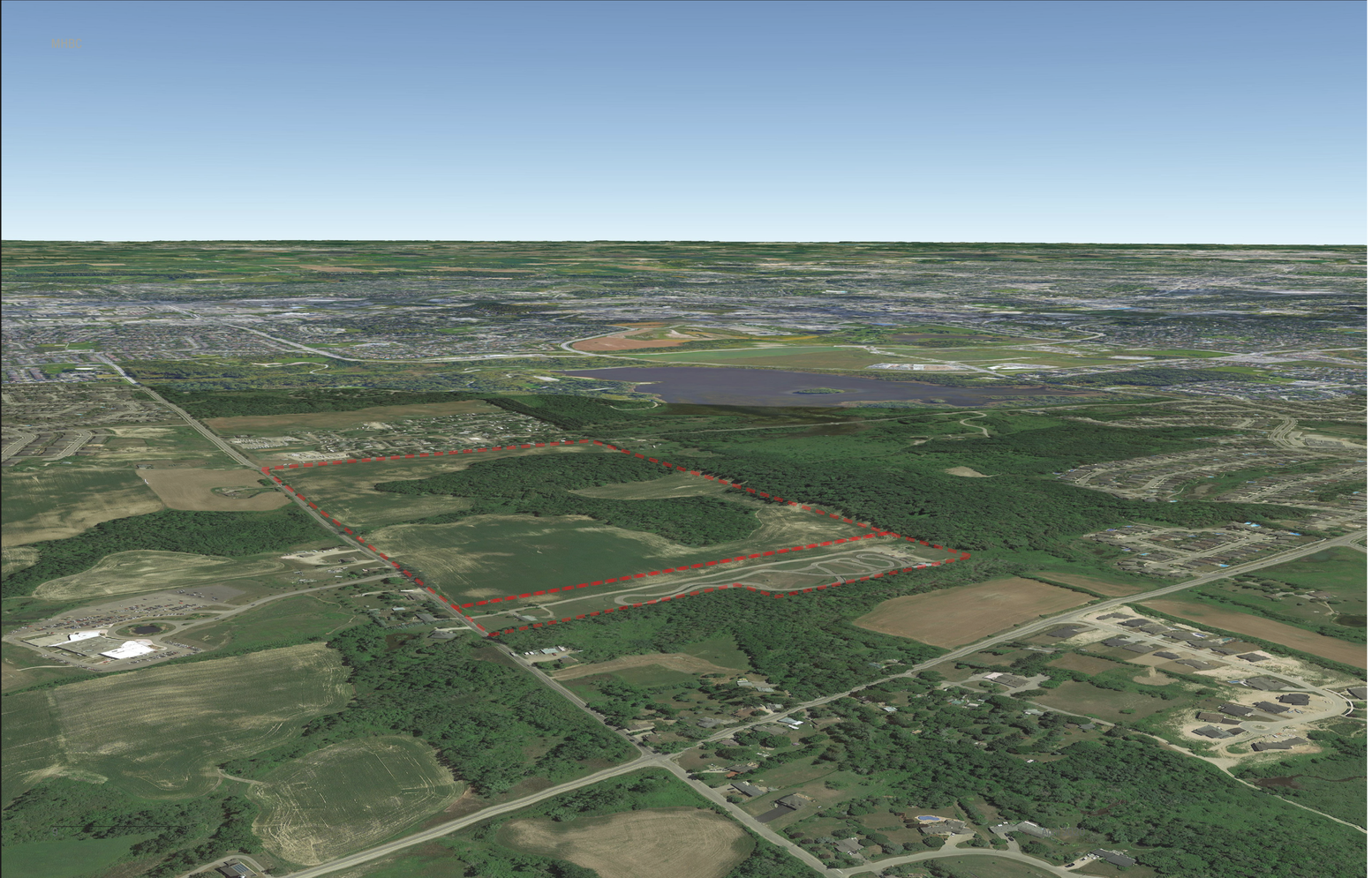
NORTH: Conservation Drive forms the northern boundary of the subject lands. Various single detached dwellings and Creekside Church are located on the north side of Conservation Drive. Interim agricultural lands and environmental features are also located to the north. A Draft Plan of Subdivision has been submitted for lands on the north side of Conservation Drive and on the west and east sides of Roy Schmidt Road.

EAST: Beaver Creek Road forms the eastern boundary of the Northgate lands. Green Acre Park, which is a recreational vehicle park, is located east of Beaver Creek Road.

WEST: Laurel Creek and a tributary of Laurel Creek are located to the west of the Kartway lands. Erbsville Road and existing residential are located further to the west.

SOUTH: Laurel Creek Conservation Area and a remnant portion of the 'Trillium' subdivision are adjacent to the southern boundary of the subject lands. There is an existing neighbourhood shopping centre located at Erbsville Road and Laurelwood Drive (less than a kilometre south of the subject lands) which includes a number of neighbourhood commercial uses.

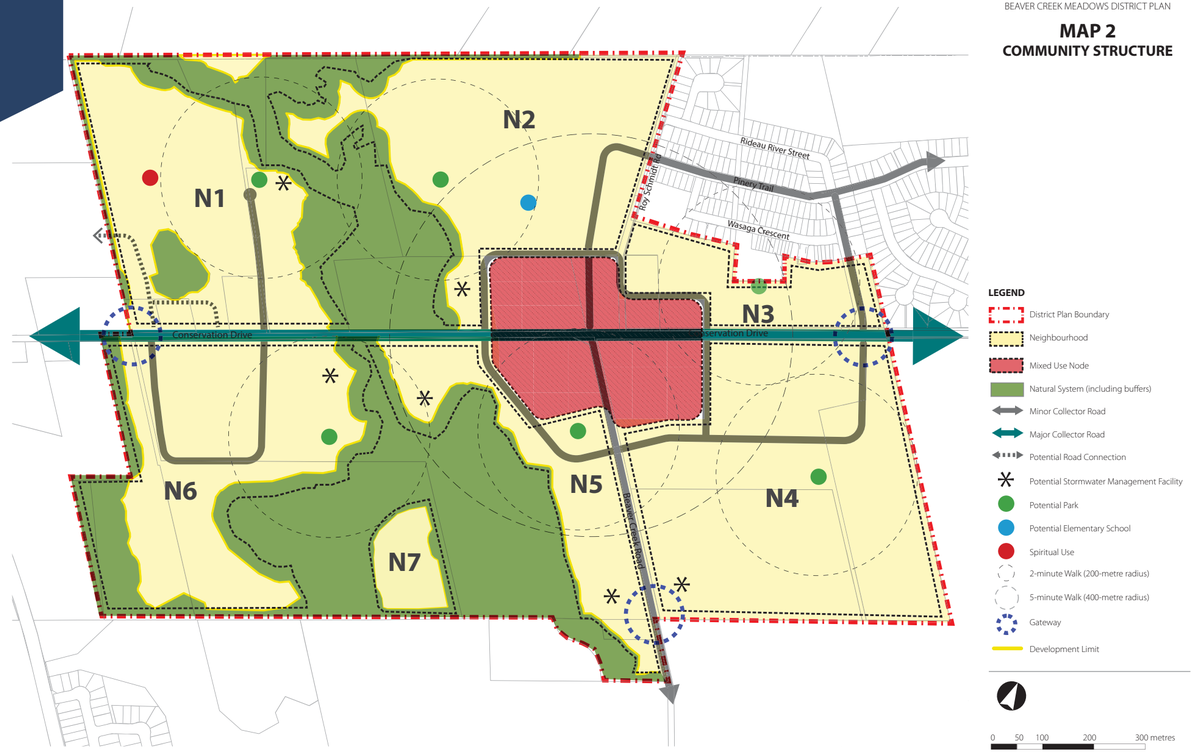








CLOCKWISE FROM LEFT
Aerial view looking East; Aerial view looking North; Aerial view looking South-West



1.3
COMMUNITY STRUCTURE

The Beaver Creek Meadows District Plan (BCMDP) was adopted by City Council resolution and is intended to complement the City's Official Plan. The District Plan provides additional detail and direction regarding the design and development of the Beaver Creek Meadows Community. The subject lands are located within Neighbourhoods 5, 6 and 7 of the Beaver Creek Meadows District.

The BCMDP establishes a community structure and related land uses. The community structure is comprised of natural features, a collector road network, neighbourhoods, parks, nodes, gateways, schools and the potential locations of stormwater management facilities. The community structure provides guidance to plans of subdivision with some inherent flexibility intended and in recognition of the scale at which the district plan was prepared.





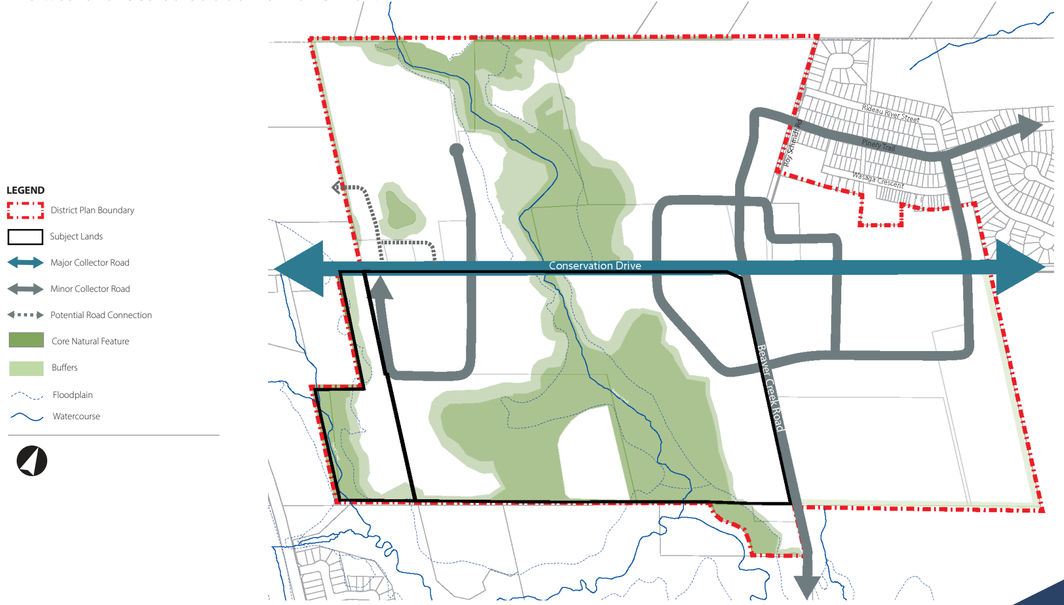
NATURAL SYSTEM

The District Plan includes a defined Natural System that bisects the District Plan Area. A trail system is contemplated and will facilitate connectivity within the Beaver Creek Meadows Community, as well as other Districts located outside of the District Plan Area. Map 2 of the District Plan identifies the Natural System and is reproduced below. The Natural Heritage System creates three distinct development areas (neighbourhoods) within the subject lands.



COLLECTOR ROAD SYSTEM

The Beaver Creek Meadows District is served by two collector roads (Conservation Drive and Beaver Creek Road). Conservation Drive, a Major Collector, runs in an east/west direction terminating at Wilmot Line to the west and Westmount Road to the east. Beaver Creek Road, a Minor Collector, generally runs in a north/south direction and currently terminates at Conservation Drive. The Community Structure Plan (Map 2 of the BCMDP) contemplates the expansion of the minor collector road system, including the extension of Beaver Creek Road north of Conservation Drive. The intersection of Conservation Drive and Beaver Creek Road provides the foundation for a node centered on this intersection. Conservation Drive has been identified as a potential transit corridor. Higher densities adjacent to Conservation Drive would provide support for the introduction of transit to the area. The District Plan recognizes the need to extend a road through the Creekside Church lands to accommodate the future development of lands to the west and located outside the District Plan.



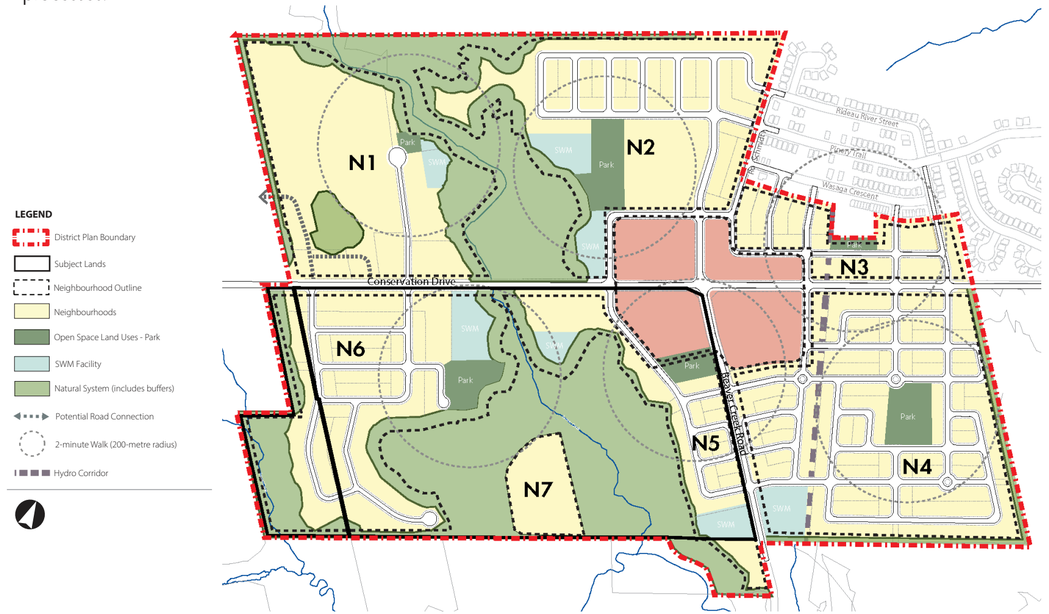
NODES AND GATEWAYS

Map 2 of the District Plan identifies one Mixed-Use Node and three gateways. A Mixed-Use Node (identified as a Minor Node in the City of Waterloo Official Plan) is located at the intersection of Conservation Drive and Beaver Creek Road. A portion of the Mixed-Use node is located within the northeast corner of the subject lands and provides an opportunity for mixed-use, live-work and/or medium density forms of housing. Gateway locations have been identified at the primary points of arrival in the Beaver Creek Meadows Community. District Plan policies limit direct driveway access to both Conservation Drive and Beaver Creek Road. Built form and site planning considerations should recognize and celebrate the identified gateways with building mass oriented to Conservation Drive and Beaver Creek Road, and enhanced building elevations and landscaping provided along these roads and at the intersection.



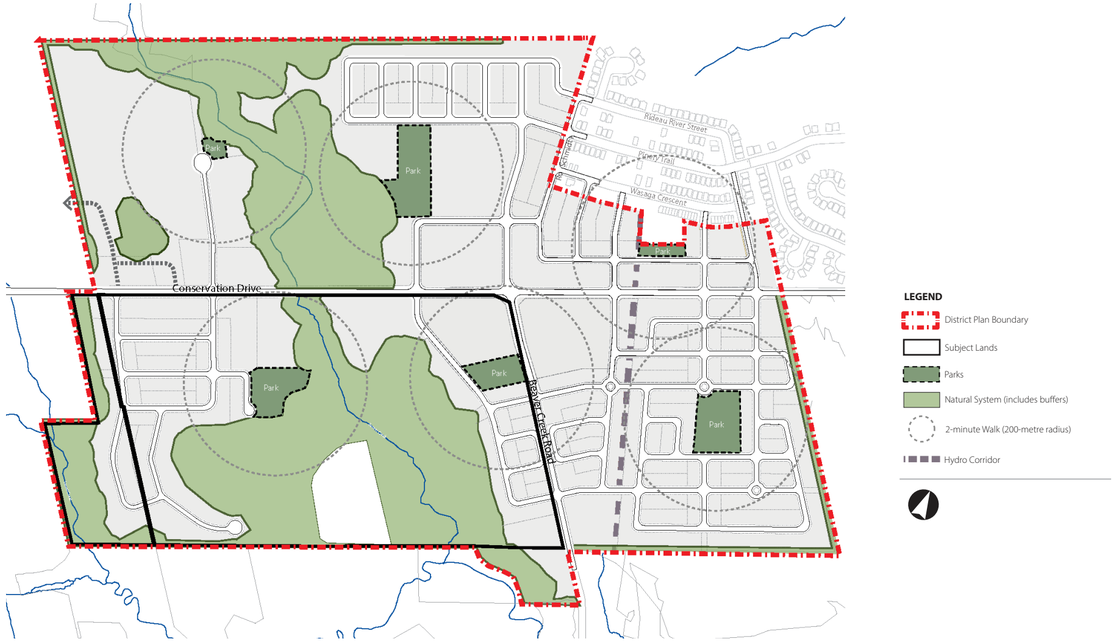
NEIGHBOURHOODS

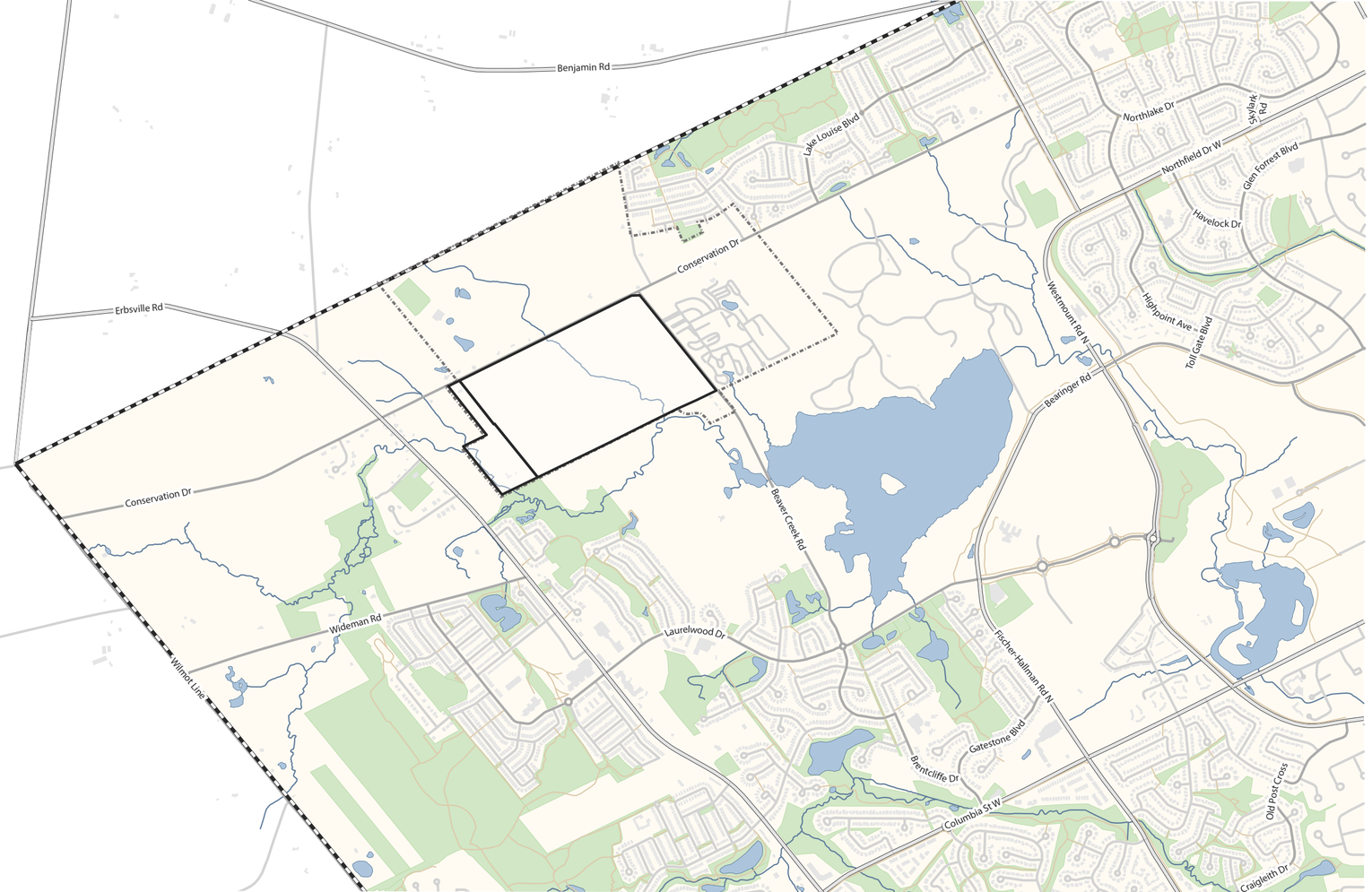
The District is comprised of seven residential neighbourhoods which are defined by natural features and the collector road system. Each neighbourhood is intended to provide a range and mix of housing types. Each of the Neighbourhoods are generally located within a 2 minute walk of the Natural System, a planned public park, or both. Three neighbourhoods have been identified within the subject lands (N5, N6 and N7). The District Plan identifies a modified grid pattern for the local streets with limited use of cul-de-sacs. Although the District Plan shows a local street pattern, district plan policies provide that the exact pattern of local streets will be finalized as the plan is implemented by plans of subdivision and other development processes.



PARKS

Potential Parks have been identified within each neighbourhood (with the exception of Neighbourhood 7). These parks have been planned to be within a 2 to 5 minute walking distance of most residents. Within the subject lands, there is an opportunity to connect the parks via future trails, multi-use pathways, walkways and sidewalks. The active transportation network can be planned to connect the subject lands to other neighbourhoods both within and external to the District Plan.


Rideau River Street
Conservation Drive
Park
Park
Park



PART 2

Overall Design Vision and Principles for the Subject Lands

2.0
VISION & DESIGN PRINCIPLES

The vision for the Subject Lands is:

Neighbourhoods 5,6 and 7 will contribute to a complete, vibrant and healthy community that is well designed, includes a mix and range of unit types, a mixed-use node and densities that support the introduction of transit. The significance of natural heritage features will be recognized through design and mitigation measures that provide for the enhancement and long-term protection of Beaver and Laurel Creeks and related environmental features.

The subject lands will be designed in a manner that:

- Is pedestrian-oriented;
- Provides densities that support transit within the Conservation Drive corridor;
- Contains a range and mix of residential unit types;
- Places emphasis on urban design particularly at gateways, highly visible locations and identified priority lots;
- Includes an active transportation network that links residents with planned parks and other neighbourhoods both within and beyond the district;
- Identifies and plans for the long-term protection of core natural heritage features;
- Considers low impact development and distributed infiltration and implements the targets of the Beaver Creek Sub-watershed Study;
- Considers alternative design and engineering standards with the objective of minimizing the impacts on natural heritage features

Design principles have considered the following general themes as set out in the Beaver Creek Meadows District Plan:

- Natural Heritage
- Mobility/Walkability
- Built Form
- Sustainability
- Character

The following sections summarize the overall guiding principles of the District Plan and specific design principles and measures that are proposed to implement these principles relative to the subject lands.



NATURAL HERITAGE



MOBILITY/WALKABILITY



BUILT FORM



SUSTAINABILITY

CHARACTER

NATURAL HERITAGE PRINCIPLES - BCMDP

- Ensure conservation and where feasible, enhancement of the existing natural features and functions, including the provision of appropriate buffers;
- Plan for natural heritage linkages and wildlife circulation; and
- Permit limited grading and appropriate complementary uses such as stormwater management facilities and parks within and/or adjacent to buffers.



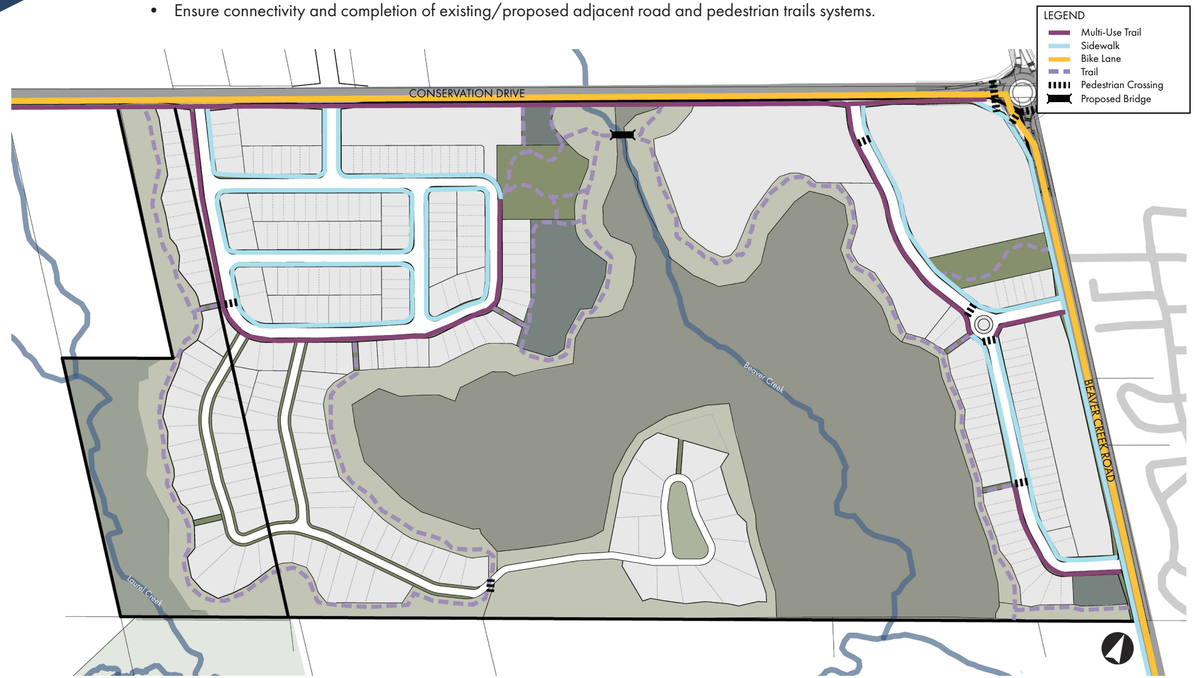
2.2 NATURAL HERITAGE

NEIGHBOURHOOD SPECIFIC DESIGN PRINCIPLES & DIRECTION

- Collaborate with review agencies in identifying and delineating core natural heritage features that are to be protected
- The limits of core natural heritage features are to be surveyed with the surveyed limits to be shown on draft plans as the basis to define limits of development and delineate appropriate zoning which is to provide for the protection of identified core natural heritage features.
- Enhance existing natural features within the subject lands through the identification and establishment of suitable buffers which are to be naturalized using native tree species.
- Collaborate with the City of Waterloo to identify linkages/connections to eco-passages that are to be constructed at such time as Beaver Creek Road and Conservation Drive are improved.
- Implement mitigation measures associated with Blanding's Turtle that have been endorsed by the province as conditions of draft plan approval and prior to the commencement of subdivision servicing.
- Coordinate mitigation measures associated with Blanding's Turtle together with improvements to Beaver Creek Road, Conservation Drive and other subdivisions within the Beaver Creek Meadows District.
- Meet and/or exceed infiltration targets established by the North Waterloo Scoped Sub-watershed Study. Infiltration techniques to include distributed infiltration with the objective of matching current conditions to the extent possible.
- Stabilize and protect the edges of the woodland with buffer enhancements that may include the planting of large caliper trees or smaller tree 'whips' and shrub plantings, all of which will create more closed and stable/resilient edges.
- Generally plan for a minimum 30m buffer from Provincially Significant Wetlands. Consideration may be given to reducing this buffer width in areas where Phragmites control and removal is recommended and in order to ensure other design and planning objectives. Any reduction in the 30m buffer is to be supported by enhanced buffer planting and analysis that confirms the long-term protection of core natural heritage features will not be compromised.
- Enhance the identified Blanding's Turtle Regulated Habitat area by seeding buffer areas to allow for natural regeneration. Within areas currently used for agriculture, the enhancements will provide a greater extent of naturalized Category 2 habitat than the current condition.
- Consider opportunities to increase the ecological width of the Beaver Creek corridor in the vicinity of Conservation Drive and the culvert improvement that is planned at this location.
- Coordinate Conservation Drive road improvements and related services (forcemain, storm, sanitary and water services) with the construction of the Conservation Drive culvert improvement/eco-passage would be objective of minimizing disturbance to the natural environment. To this end, the initial stage of road improvements should include Beaver Creek Road, the roundabout at the intersection of Beaver Creek Road and Conservation Drive and Conservation Drive to appoint approx. 100m westerly of the Conservation Drive culvert improvement/eco-passage.
- Orient parks and stormwater management facilities adjacent to open spaces and related buffers.
- Ensure that open spaces uses (pumping station, stormwater management and park blocks) are located outside of the floodplain.
- Generally locate trails outside of core natural features and within the outer 5m of buffers. Ensure appropriate signage to contain pedestrian movements to the trails that are to be constructed.
- Plan for the provision of a pedestrian crossing over Beaver Creek in proximity to Conservation Drive with the objective of linking the trails on the east and west sides of Beaver Creek. The precise location of the pedestrian crossing together with mitigation measures to be confirmed through detailed design.
- The trails in combination with the sidewalk and walkway system are to provide 'loops' and connect to other neighbourhoods both within and external to the community that are to be linked by a multi-use trail system to be constructed at the same time as Beaver Creek Road and Conservation Drive are improved.
- Recognize that there may be conflicts between optimum grades associated with trails and the protection of core natural heritage features. In such circumstances, consider alternative trail standards and ensure the sidewalk system is an alternative that achieves accessibility throughout the community and complies with AODA Standards. Ensure appropriate directional signage is provided in such circumstances.

MOBILITY PRINCIPLES - BCMDP

- Support pedestrian connectivity and access;
- Promote an active transportation system with key destination points to reduce car dependency;
- Plan for a diversity of mobility routes including pedestrians, bicycles, transit and automobiles;
- Provide a well-connected road system that is sensitive to the natural environment;
- Ensure that traffic calming measures are part of plan design and construction through streetscape design measures such as boulevard tree planting and elimination of long straight streets, with appropriate road curvature, axial views and appropriate on-street parking provisions.
- Enhance opportunities through the Natural System to provide connectivity to various neighbourhoods;
- Ensure connectivity and completion of existing/proposed adjacent road and pedestrian trails systems.



2.3 MOBILITY/WALKABILITY

NEIGHBOURHOOD SPECIFIC DESIGN PRINCIPLES & DIRECTION

- Recognize Conservation Drive and Beaver Creek Road are planned to function as 'complete streets'. Conservation Drive and Beaver Creek Road are proposed to be improved. The improvements include a multi-use pathway and bike lanes. A sidewalk is also proposed along the westerly side of Beaver Creek Road and adjacent to Neighbourhood 5. There is the potential that transit may be introduced within the Conservation Drive corridor and adjacent to the Neighbourhood node and the northerly limits of Neighbourhoods 5 and 6.
- Locate higher densities along Conservation Drive to support future transit along this corridor.
- Expand the system of 'complete streets' by providing multi-use pathways within select streets that link with Conservation Drive and Beaver Creek Road.
- Design the public realm and adjacent buildings at a pedestrian scale and incorporate design features that enhance the pedestrian experience.
- Complement multi-use pathways with an integrated and connected trail and sidewalk system.
- Provide sidewalks on both sides of all public streets.
- Design a modified grid street pattern within Neighbourhood 6 to accommodate the potential expansion of transit within this Neighbourhood. The street pattern will include a 'loop' that is designed to accommodate buses and maximizes pedestrian accessibility to future transit. The 'loop' road will have a 20m wide road allowance and will be designed with turning radii sufficient to accommodate buses.
- Design the multi-use pathway within Neighbourhoods 5 and 6 with connections to the broader trail system and the proposed park blocks.
- Provide a multi-use pathways within Neighbourhood 5 that connects with the bike lane planned along Beaver Creek Road.
- Strategically locate parks and other community focal points within short (five minute) walking distance from future residents.
- Coordinate pedestrian connections internal to multiple and mixed-use blocks with adjacent roads and parks through site plan design and related approvals.
- Connect pedestrian links within the node to pedestrian crossings associated with the Beaver Creek Road/Conservation Drive roundabout through site plan design and related approvals.
- Provide pedestrian connections to parks through a planned sidewalk and trail system including a potential pedestrian bridge over Beaver Creek to provide a pedestrian connection between Neighbourhoods 5 and 6.
- Design parks, multi-use pathways and sidewalks to be AODA compliant.
- The Neighbourhood 5 Park design should consider both passive and active recreation opportunities and provide a pedestrian connection(s) that links bike lanes and the sidewalk system planned for Beaver Creek Road with the interior of Neighbourhood 5 and the trail system planned along Beaver Creek.
- The Neighbourhood 6 Park should be designed to provide opportunities for active and passive recreation. The Neighbourhood Park should include a trail loop with connections to other lands to be owned by the City of Waterloo such as the SWM block, pumping station block and the broader trail system. The Neighbourhood 6 Park should be sized to accommodate a range of active uses including multi-use courts, a splash pad and playgrounds recognizing it is the City's responsibility to establish how the park is to be programmed.
- Proactively plan for traffic calming measures as part of road design for Neighbourhood 5. The traffic calming measures are to ensure consideration is given to safe pedestrian movements.

MOBILITY PRINCIPLES CONTINUED - BCMDP

- Ensure that amenities such as parks, schools and shopping areas are located within short and direct walking distances through road and trail systems (i.e. 2 minute walk to local parkette, 5 minute walk to active park, school or trail system, and 5-10 minute walk to shops, services and transit) for a majority of residents;









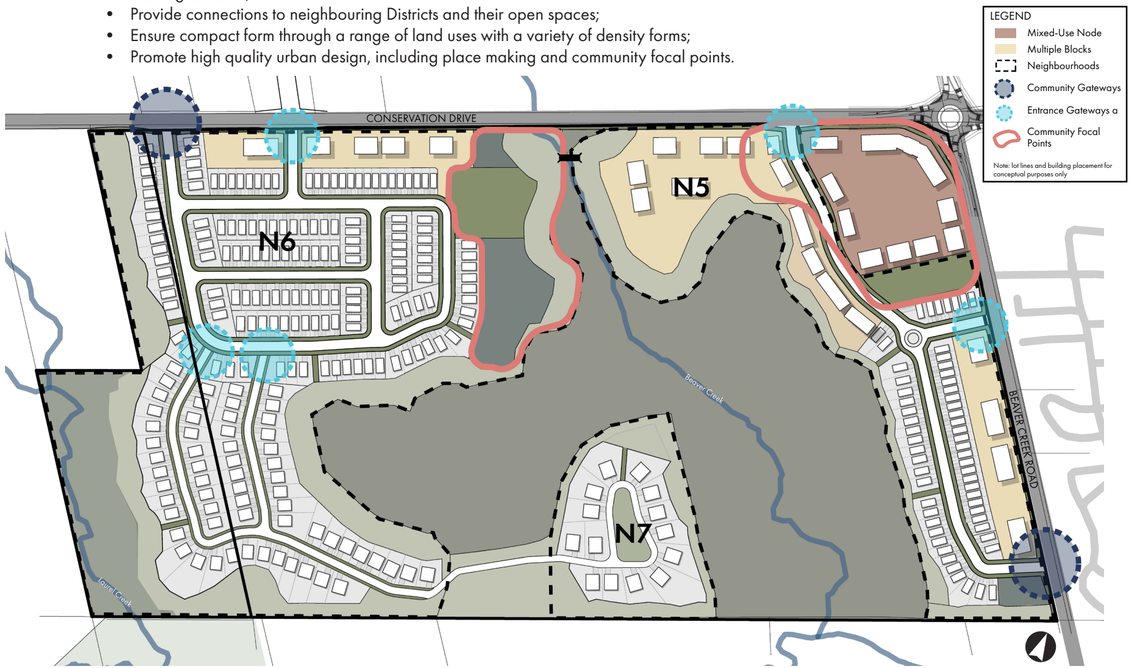






BUILT FORM PRINCIPLES - BCMDP

- Ensure diversity in housing forms and land uses, including affordability;
- Create a central hub, within the Mixed-Use Node, as a community focus to provide day-to-day retail/service/employment uses;
- Ensure built form reflects a human scale;
- Concentrate the highest densities along potential transit routes and in proximity to the Mixed-Use Node;
- Provide transitions to existing built form that includes the existing residential dwellings to the east of the District Plan Area;
- Preserve and enhance the existing open space system and introduce a connected active transportation network that is within a convenient walking distance;
- Provide connections to neighbouring Districts and their open spaces;
- Ensure compact form through a range of land uses with a variety of density forms;
- Promote high quality urban design, including place making and community focal points.



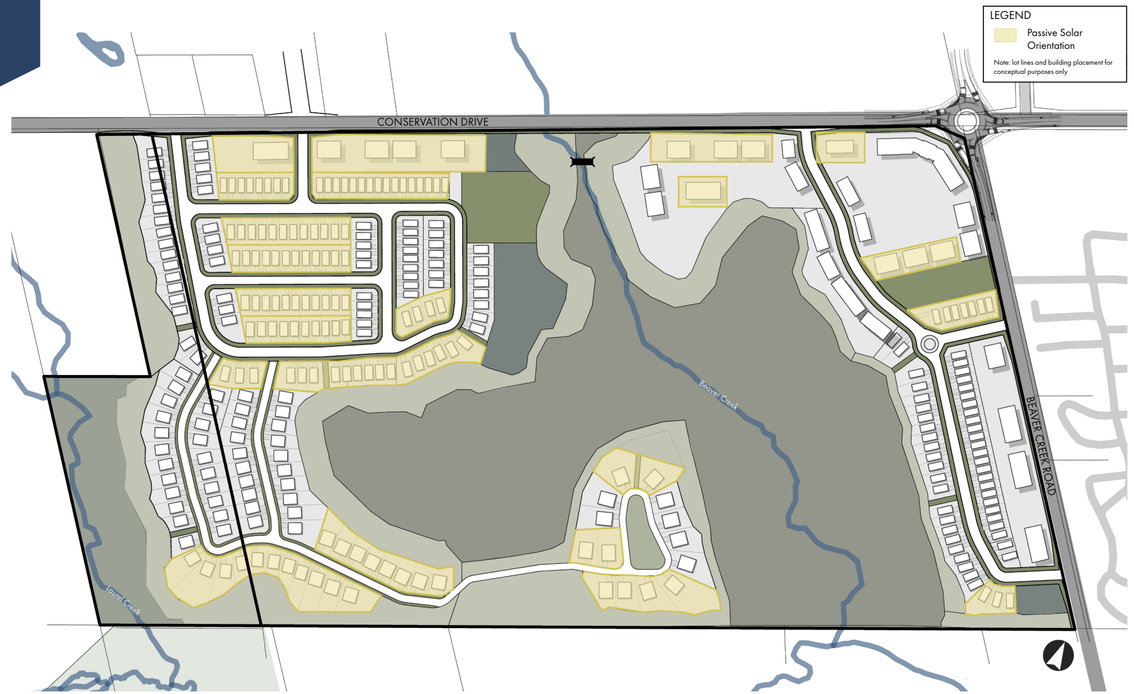
2.4
BUILT FORM & LANDSCAPE

NEIGHBOURHOOD SPECIFIC DESIGN PRINCIPLES & DIRECTION

- The design of subdivisions and proposed zoning to provide for a range of housing types and achieve the minimum density targets established for the Beaver Creek Meadows District Plan.
- Concentrate highest densities along Conservation Drive to support the introduction of future transit along this corridor.
- Landscape design along Conservation Drive to complement the conservation drive streetscape and to facilitate an enhanced pedestrian and transit experience.
- Create strong street edges along Conservation Drive and Beaver Creek Road through the careful design of adjacent residential and mixed-use blocks including building mass that is oriented towards the street.
- Pathways that lead to building entrances oriented to Conservation Drive and Beaver Creek road to connect to the sidewalk system where feasible and appropriate.
- Orient front building facades towards Conservation Drive and Beaver Creek Road where feasible and appropriate.
- Plan for enhanced building elevations that are oriented towards Conservation Drive and Beaver Creek Road.
- Minimize driveways that connect to Conservation Drive and Beaver Creek Road with the objective of reducing conflicts with pedestrian, bicycle and vehicular movements and maintaining the traffic carrying capacity of these roads.
- Design road intersections to minimize conflicts with other neighbourhoods within the district.
- Provide for mixed-use development opportunities and higher densities at the intersection of Conservation Drive and Beaver Creek Road. This will be achieved by zoning which: permits a range of non-residential uses that conform with the District Plan; requires a minimum ground floor ceiling height of 4.5m; and specifies a minimum and maximum building height that is to be achieved.
- Locate parking to be behind the front edge of or behind buildings to the extent practical and emphasize landscaping and pedestrian connections at the intersection of Conservation Drive and Beaver Creek Road.
- Locate parks in proximity to higher density residential uses and provide appropriate pedestrian connections.
- Consider enhanced building elevations that are oriented towards park amenities.
- Design development and built form to achieve ‘eyes on the park’.
- Work with the City of Waterloo and other land owners to coordinate and implement enhanced landscaping at the intersection of Conservation Drive and Beaver Creek Road.
- Coordinate and implement enhanced landscaping at enhanced entrances identified on the inset plan located on page 29.
- Identify priority lots in highly visible locations which are to be designed with enhanced facades in accordance with the priority lot guidelines contained herein.

SUSTAINABILITY PRINCIPLES - BCMDP

- Promote sustainable initiatives and practices throughout the District Plan Area.



Note: Within multiple residential blocks and the mixed use block, further opportunities for passive solar orientation will be explored during the site plan review process

2.5 SUSTAINABILITY

NEIGHBOURHOOD SPECIFIC DESIGN PRINCIPLES & DIRECTION

- Within the three neighbourhoods, promote sustainable design initiatives and practices including sustainable building and landscaping practices.
- Where possible, orient development blocks and built form to allow for south facing windows in order to achieve benefits of passive solar orientation.
- Implement an active transportation system internal to the neighbourhoods, including sidewalks, trails and cycling routes with connections to the broader District active transportation system to encourage alternative modes of transportation.
- Design multiple residential and mixed use blocks along the future Conservation Drive transit corridor to meet or exceed minimum bicycle parking standards of the City's Zoning By-law.
- Design the neighbourhoods and associated servicing strategy to meet or exceed infiltration targets of the North Waterloo Scoped Sub-watershed Study (NWSSS).
- Complete chloride management plans for all blocks requiring site plan approval as part of future site plan processes.
- Collaborate with the City of Waterloo to identify linkages/connections to eco-passages that are to be constructed as such time as Beaver Creek Road and Conservation Drive are improved.
- Provide reduced road allowances and/or private roads within Neighbourhoods 6 and 7 in order to minimize ongoing city maintenance obligations, provide tree saving opportunities, ensure acceptable impacts on core natural features and as an opportunity to incorporate LID construction measures.
- Consider the guidelines contained within Section 5.2 of this document in the design of Neighbourhood 7.
- Remove dead and/or diseased trees and develop an environmental management plan including replanting trees to strengthen the edge of core natural heritage features.
- Implement the following additional green initiatives for future development within the neighbourhoods:
  - » Water conservation features such as low-flow toilets and water-efficient appliances.
  - » Use of high quality windows to reduce thermal loss.
  - » Use of recycled materials, local materials and certified wood products.
  - » Use of low VOC-emitting materials.
  - » Use of energy efficient lighting such as LED for both interior and exterior lighting including street lights.
  - » Enhanced insulation for exterior walls, basements (particularly walkouts and partial walkout units), garages and exterior doors.
  - » Use of drought resistant and salt tolerant planning materials in landscaped areas.
  - » Implementation of green infrastructure and low-impact development strategies.
- A Sustainability Statement is to be included as part of a complete site plan application for those multiple residential and mixed use blocks requiring site plan approval. The sustainability statement should address matters such as: water conservation, energy conservation, waste reduction, waste management, groundwater infiltration and chloride management.

2.6
CHARACTER & STREETSCAPES

OVERALL GUIDING PRINCIPLES - BCMDP

- Integrate the Natural System into the fabric of the community, particularly the open space system;
- Enhance the presence of natural heritage by locating parks and community uses within proximity as well as design the street pattern to promote connectivity, views, access; and,
- Conserve and integrate cultural heritage features into the fabric of the new community.

NEIGHBOURHOOD SPECIFIC DESIGN PRINCIPLES & DIRECTION

- Integrate the Natural System into the fabric of the three neighbourhoods through the careful design of a connected trail system, including a pedestrian crossing over Beaver Creek to promote connectivity, views and access while still protecting the natural features for long term enjoyment.
- Within Neighbourhood 6, locate public uses, including the primary park and stormwater management facility adjacent to natural heritage features to provide views and a strong connection with nature.
- Design the street pattern in a manner that provides for terminating view opportunities relative to parks and adjacent natural heritage features.
- Within Neighbourhood 6, design sidewalks and walkways to connect the trail within the open space to the planned park.
- Prepare site specific zoning that will allow for a range of housing. A high standard of design will be required for all built form and a variety of styles will be supported.
- An overall streetscape plan is required for each stage of development to ensure a well coordinated and visually attractive streetscape. The streetscape plan is to include enhanced landscaping and streetscaping for key streets including Conservation Drive, Beaver Creek Road and other roads that have a road allowance width of 20m.
- The design of streetscape elements in the public realm, such as lighting, benches and signage are to be coordinated with emphasis given to transit stops if confirmed prior to the completion of the streetscape plan.
- Landscaping and entrance features related to multiple residential blocks should be visually coordinated with and complementary to the overall streetscape plan and community entrance features.
- Priority lots are subject to special design considerations and specific guidelines contained within Section 6 of this document.
- Minimized garage projections, front porches and pedestrian scaled lighting are encouraged throughout Neighbourhoods 5,6 and 7. Additional guidelines related to garages and front porches are contained within Section 4 of this document.

STREETSCAPES

The visual appeal of streetscapes is to be enhanced through the careful arrangement of dwellings with respect to model variety, massing, height, and rhythm within a street block. An attractive streetscape is also to be achieved by coordinating streetscape elements such as trees, signage, street lights and boulevard treatment.

The streetscape is to be landscaped with street trees of native/ indigenous, non-invasive species to be approved by the City of Waterloo. Streetscape planting is to be coordinated with open space features, such as stormwater management ponds. Larger caliper boulevard trees are to be directed to major roads including Conservation Drive, Beaver Creek Road and other roads that have a road allowance width of 20m. Street signage and lighting is to be stylized and coordinated with the architectural styling of multiple dwellings and mixed use buildings. Decorative streetlights and street signs are encouraged.

An active transportation masterplan is to be prepared and coordinated with street design. Public streets within the Neighbourhoods will satisfy City of Waterloo engineering design standards. Boulevard landscaping is to be coordinated together with street utilities, driveways and on-street parking. To this end, an on-street parking plan is to be required as a condition of development approval.

The design of public streetscapes within Neighbourhoods 5 and 6 will consider the placement and maintenance of all above and below-grade utilities within the right-of-way; a single line of deciduous canopy trees within the boulevard; placement of trees at intersections with regard to sight lines; crosswalks at major intersections to facilitate safe pedestrian movement; curb ramps to provide barrier-free transition where pedestrian crosswalks meet roadways, and traffic calming at identified locations.









The City of Waterloo's Urban Design Manual includes a list of preferred street tree species including those pictured above (Clockwise from top left: Amelanchier canadensis, Serviceberry; Ginko biloba, Ginko; Gleditisia triacanthos, Honeylocust; Quercus rubra, Red Oak).

GATEWAYS AND ENHANCED ENTRANCES

Community entry features will be located within gateways identified by the Beaver Creek Meadows District Plan. Entry features may include street trees and plantings along Conservation Drive and Beaver Creek Road, landscaped boulevard features at intersections (where access considerations permit) and landscaped entrance features on private development blocks located at intersections within gateways.

Although the roundabout at the intersection of Conservation Drive and Beaver Creek Road is not identified as a gateway, this location represents opportunities to: incorporate landscaping/landscape features within the roundabout circle; and coordinate landscaping on private blocks (under separate ownership) that are adjacent to the roundabout. Multiple residential and mixed use blocks adjacent to the roundabout should be developed with coordinated landscaped features that frame the intersection. Entrance features contained within privately owned land should be designed to complement the roundabout feature and/or landscaping. Priority should be given to locating features within the roundabout and within adjacent blocks.

Locations for enhanced entrances are identified on page 36 of this document. Enhanced entrances are proposed for Neighbourhoods 5,6 and 7. Design features associated within enhanced entrances should be coordinated with gateway features and streetscape plans and may include community entry features, landscaped boulevards at intersecting streets and landscaping/landscape features.

WAYFINDING

Wayfinding features are to be developed to demarcate walkways, trailheads and entrances to community trails. Final locations and the design of wayfinding signage will implemented through the detailed subdivision design. The design of Wayfinding features should be coordinated with gateway and enhanced entrance features.





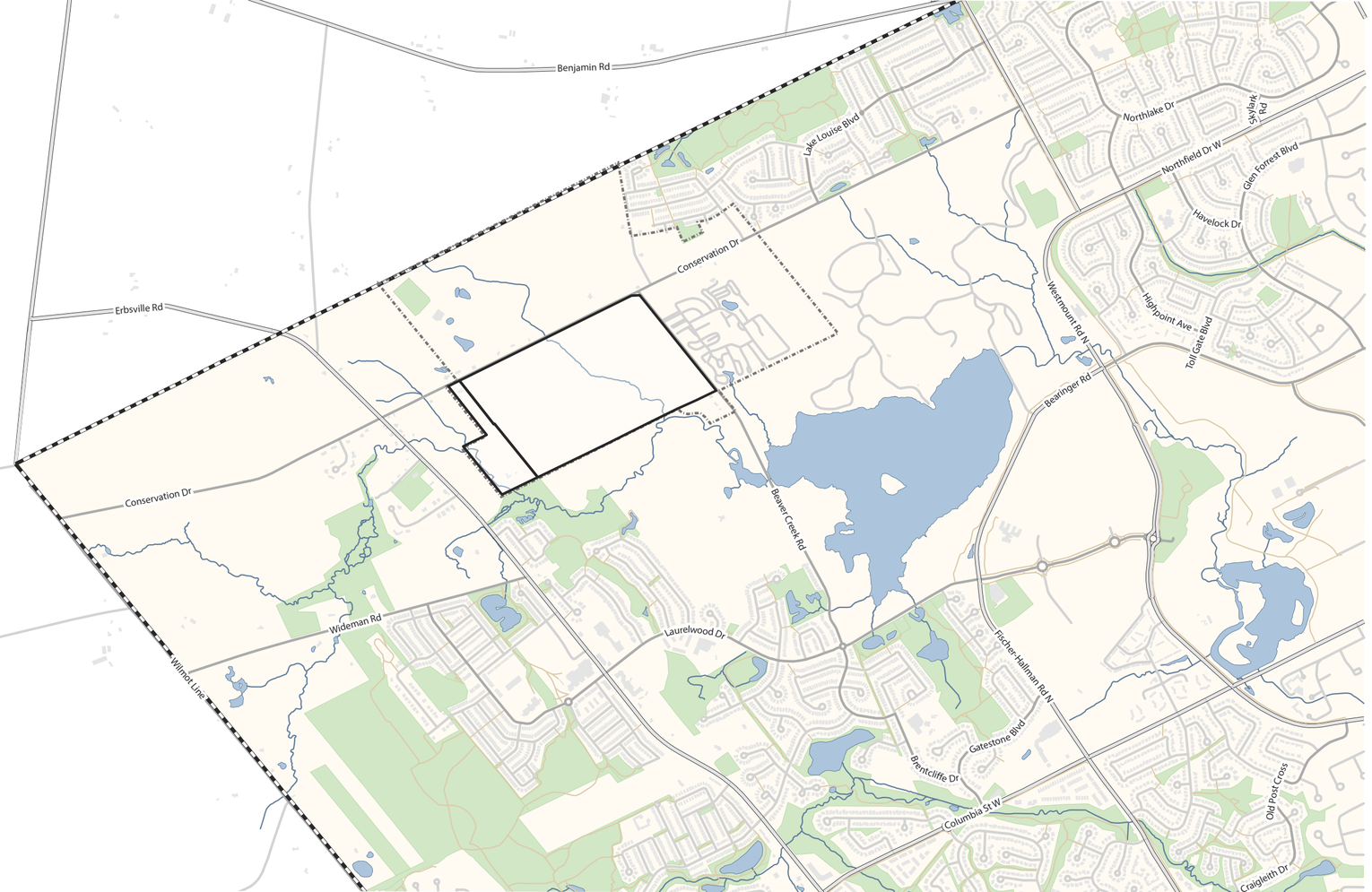


Examples of coordinated gateway, enhanced entrance and wayfinding features.

The final master plan concept considers the design principles of the Beaver Creek Meadows District Plan as well as the neighbourhood specific design principles described herein. The masterplan combined with the guidelines contained herein will ensure Neighbourhoods 5, 6 and 7 are developed with a high standard of design and character.



Note: All building placements and lot lines are for conceptual purposes only and will be further explored during the site plan process.



PART 3

Design Response to City of Waterloo Policies & Guidelines

3.0
CITY OF WATERLOO OFFICIAL PLAN

The subject lands are designated Low Density Residential and Open Space by the City of Waterloo Official Plan. The Official Plan also symbolically identifies a Future Node (designated as 'Beaver Creek Node') at the intersection of Conservation Drive and Beaver Creek Road.

Section 3.1.4 of the Official Plan outlines the following City urban design objectives:

a. To promote a high standard of urban design that results in an attractive, human-scale city.
b. To respect site context and enhance sense of place that results in compatible development and fosters a sense of identity.
c. To promote connectivity and interaction that provides universal access for all citizens and emphasizes pedestrian accessibility, safety and comfort across the city.
d. To promote creativity and innovation that result in interesting streetscapes, building design and architecture, amenity spaces and landmarks in the city.
e. To promote sustainable design that results in more efficient use of resources and energy, reduces heat island effects and reduce the reliance on the automobile.

In response to these general urban design objectives, the guidelines contained within this document have been prepared to ensure a high standard of urban design and an attractive community. Design direction is provided in relation to building design, landscape design, the public realm, and gateways. The proposed active-transportation network promotes connectivity, pedestrian accessibility and universal access. Sustainability has been considered in the design of the subdivision with a further analysis of sustainable design contemplated through future site plan processes.

The City's urban design objectives are supplemented by a number of urban design policies contained within Section 3.11 of the Official Plan. The urban design policies apply to all development within the City. In response to the most applicable of these policies we confirm the following:

- Public uses, including a neighbourhood park and stormwater management facility are proposed adjacent to natural heritage features to provide views and a strong connection with nature. The careful design of a connected trail system, including a pedestrian crossing over Beaver Creek further promotes views while still protecting the natural features for long term enjoyment. The street pattern has been designed in a manner that provides for terminating view opportunities relative to parks and adjacent natural heritage features. (Policy 3.11.3)
- An overall streetscape plan is required for each stage of development to ensure well-coordinated and visually attractive streetscapes. The system of 'complete streets' is proposed to be expanded by providing multi-use pathways within select streets that link with Conservation Drive and Beaver Creek Road. Within Neighbourhood 6, a modified grid street pattern has been designed to accommodate the potential expansion of transit within this Neighbourhood. The street pattern will include a 'loop' that is designed to accommodate buses and maximizes pedestrian accessibility to future transit. (Policy 3.11.4)
- Existing natural heritage features will be retained and protected through the provision of the proposed buffers, tree protection measures and alternative stormwater management strategies. (Policy 3.11.5)
- An open space system which includes parks and community trails has been integrated into the subdivision design providing access to existing and planned open space systems within and outside of the Beaver Creek Meadows District. (Policy 3.11.7)
- The Beaver Creek Meadows District Plan contemplates two gateways within the subject lands. These areas will be designed with coordinated features and elements including a coordinated approach to landscaping. Enhanced entrances are also identified and will be further coordinated with the design of gateways. (Policy 3.11.8)
- The subdivision has been designed with consideration to safety and security. Sidewalks are proposed along all public streets. The park blocks have been designed and located to achieve natural surveillance from both the surrounding public streets and surrounding built form. CPTED strategies will be further reviewed through future site plan applications with consideration of natural surveillance, territorial reinforcement and access control. (Policy 3.11.10
- Site circulation will be reviewed through future site plan applications with priority given to pedestrian movements and barrier free access. (Policy 3.11.11
- The subdivision has been designed with the greatest densities located along the future transit route on Conservation Drive. Complete streets within the subdivision are proposed which will provide pedestrian and cyclist connections to future transit. (Policy 3.11.12)
- The proposed sidewalks and multi-use pathways will provide barrier-free access and will be AODA compliant. The further development of blocks through the site plan process will incorporate a number of universal design strategies including minimal changes to grade, curb cuts, flush curbing, ramps and contrasting elements. Barrier-free access will be encouraged from the public street, along pedestrian routes connecting directly to building entrances and other important destinations. (Policy 3.11.13)

- Through the future site plan process the multiple residential and mixed-use blocks will be designed with consideration to the City's urban design policies and guidelines, including guidelines related to parking, site servicing, lighting, and signage. Parking within multiple residential blocks will be designed to provide convenient and direct pedestrian access to buildings and any major pedestrian designations. Any loading or storage areas required for the mixed-use block will be screened and/or located away from public view. Lighting will be designed to create safe outdoor environments while minimizing impacts to night sky, public view and surrounding properties. Any signage will be designed to complement and enhance the building and site design. Signage will be in accordance with the City's Sign By-law and will consider any further requirements as outlined in the City's Urban Design Manual. (Policies 3.11.14 – 3.11.17).
- Site Plans for multiple residential and mixed-use blocks will also be designed with consideration to the City's urban design policies and guidelines related to site landscaping, site amenities and wayfinding. Landscape design will include a balanced distribution of hard and soft landscape elements that will be coordinated with the broader streetscape design and the design of gateway features. On-site amenities such as bicycle parking and trees/shade structures will be included to encourage active transportation and a comfortable pedestrian environment. Sites and buildings will be designed with clear signage, including addressing, that is fully visible from the surrounding public street. (Policies 3.11.22, 3.11.23 and 3.11.28)
- Implementation of the design guidelines contained within this report will ensure building design that contributes towards an attractive and coordinated streetscape character. Priority lot guidelines have been prepared to address highly visible building facades. The design of buildings within multiple blocks and the mixed-use block will be designed with well composed buildings and articulated facades. (Policy 3.11.20)
- The subdivision has been designed with consideration of sustainable design principles. This includes the orientation of blocks to achieve passive solar gains, the encouraged use of drought and salt tolerant vegetation, and the integration of alternative transportation choices. (Policy 3.11.24).



Within multiple residential blocks, on-site amenities such as bicycle parking will be provided to encourage active transportation.

3.1 BCMDP- URBAN DESIGN POLICIES

The purpose of the BCMDP Urban Design Policies is to promote an appropriate built form within the District Plan Area that achieves a community with well-designed and high quality public and private realms. The broader objective is that the District as a whole will be designed based on achieving a community that is diverse in use and population, is scaled to the pedestrian, includes all elements of Active Transportation and has a well-defined and high quality public realm.

Parts 1 and 2 of this document demonstrate how the community structure, vision statement and guiding principles of the BCMDP have been considered in the design of the draft plan of subdivision. The following is a summary of how the design of Neighbourhoods 5, 6 and 7 has considered the more specific design direction contained within Section 4 of the BCMDP.



SUSTAINABLE DESIGN

Policy 4.2.3 encourages:

a. All new buildings to include on-site renewable or alternative energy systems. Where on-site renewable or alternative energy systems are not feasible, consideration of purchasing grid-source renewable energy is encouraged;
b. The installation of rainwater harvesting and re-circulation/reuse systems on all new residential buildings for outdoor irrigation and outdoor water use; and,
c. The use of native, drought-tolerant plant species for landscaping.

It is recommended that a Sustainability Statement is to be included as part of a complete site plan application for those multiple residential and mixed use blocks requiring site plan approval. The sustainability statement should address matters such as: water conservation, energy conservation, waste reduction, waste management, groundwater infiltration and chloride management. The design of all future housing within the neighbourhoods is encouraged to include: water conservation features such as low-flow toilets and water-efficient appliances; the use of high quality windows to reduce thermal loss; the use of recycled materials, local materials and certified wood products, the use of low VOC-emitting materials; and the use of energy efficient lighting such as LED.

Use of drought resistant and salt tolerant planning materials in landscaped areas is strongly encouraged. These matters can be addressed through the Site Plan approval process.

Policy 4.2.4 encourages the use of porous or permeable pavement instead of standard asphalt and concrete for surfacing sidewalks, driveways, parking areas, and many types of road surfaces as a stormwater run-off management strategy, where appropriate based on water quality considerations to the satisfaction of the City. Within Neighbourhood 7, pervious pavement alternatives will be considered as a means to promote and maximize infiltration within this Neighbourhood.

THE PUBLIC REALM

Section 4.3 of the BCMDP includes design policies related to public streets and related streetscape design. It is recommended that a streetscape plan be required as a condition of draft plan approval. To ensure conformity with the policies of Section 4.3, the streetscape plan should include:

- Sidewalks or multi-use pathways on both sides of public streets.
- Boulevards with a grass verge and deciduous street trees provided on both sides of the street.
- Street trees that are generally planted across from each other on opposite sides of a street with locations to be coordinated with utilities and street lights.
- Street lights with illumination levels that comply with the City's guidelines, Lighting Policy Standards and CPTED principles.
- Consideration to on-street parking opportunities.
- The incorporation of traffic calming measures for long and straight sections of public streets.

Section 4.3.8 of the BCMDP provides design direction for gateways. Two gateways are identified within the subject lands. Future streetscape and landscape plans for the community shall consider the gateway design policies and will be designed to ensure the coordination of landscaping, built form and streetscape design. Lots/blocks within gateway locations have been identified as Priority Lots within this document to ensure high quality built form in gateway locations. Design features at identified gateway locations will include coordinated landscape elements (which may include community signage, low landscape walls, fencing and/or enhanced plantings) to frame the entry into the different neighbourhoods.

Section 4.3.9 of the BCMDP provides direction for the development and design of the off-road trail network identified conceptually on the Map 5 of the District Plan. An off-road trail network is proposed within the subject lands and is illustrated in Section 2.3 of this document. The trail network is augmented by the public sidewalk system and multi-use pathways and will change in character as it travels through various features depending on site conditions and land use. The trail network will also provide links to on-street bicycle lanes and the future transit route along Conservation Drive.

Detailed design of the trail network will include the following:

- Off-road trails located within buffers;
- A minimum width of 3.0 metres in width, with a 1.0 metre wide clearance on either side (where practical);
- Walkway Blocks/Connections at minimum width of 6.0 metres to facilitate trail connections;
- Appropriate grading, which shall be, where possible, a range of 5 to 8 percent, with cross slopes limited to 2 to 3 percent;
- Curb-cuts and crosswalk markings to be provided at specific road crossings identified in the Beaver Creek Area (Northgate) Transportation Network Study (Paradigm, June 2020) to improve safety and accessibility;
- Wayfinding signage incorporated throughout the trail network and walkway connections providing access to

THE PRIVATE REALM

The BCMDP also provides area and site specific design direction for lands that are immediately adjacent to the Erbsville Kartway lands and apply in the event that the adjacent lands proceed to develop in advance of the Kartway lands. Sections 4.4.2 and 4.4.3 address matters such as screening and physical distance separation. It is anticipated that the Kartway lands will develop concurrently with the balance of Neighbourhood 6 and as a result, it is unlikely that screening and physical distance separation measures will be required. Draft Plan conditions can address these matters.

3.3 CITY OF WATERLOO URBAN DESIGN MANUAL

The City's Urban Design Manual is a consolidated set of standards, guidelines and reference material that implements design objectives contained in the City's Official Plan. The manual is used in the review of specific types of development applications, including official plan amendments, zoning by-law amendments and site plan applications. The Manual includes extensive guidelines that apply to site, building and landscape design, all of which will be considered through future site plan applications for the multiple development and mixed-use blocks. Section 7.0 of this document confirms key sections of the City's Urban Design Manual that will be considered through the future site plan process(es).

The following is a brief summary of key design direction from the City's Design Manual that is to be considered/ implemented through the design of Neighbourhoods 5, 6 and 7.

PEDESTRIAN FRIENDLY DESIGN

- Design sites and buildings to contribute to animated streetscapes. Design buildings with articulated building facades facing public streets and publicly oriented spaces. Pedestrian interest is enhanced when windows and doors face the street. Avoid blank, flat walls along street frontages.
- Provide boulevard planting along all streets to promote pedestrian safety and safer walking environments, increased weather protection, improved air quality and reduced heat island effect. On streets with curb face sidewalks, provide sufficient building setback for soft landscape treatment including street trees, shrub planting and ground cover.
- Encourage front or side lotted development along street frontage with opportunity for convenient public access from building entrances to public streets. Discourage rear lotted development and barriers along streets.

In response to these guidelines draft plan conditions will require implementation of a Priority Lot Plan included on page 76 of this report. The design of Priority Lots will be subject to the Priority Lot guidelines contained within this document. A streetscape plan will also be required for each stage of development and will include boulevard planting details. Back-lotting along Conservation Drive and Beaver Creek Road is discouraged.

SAFETY & SECURITY

- Apply the basic concepts of Crime Prevention Through Environmental Design (CPTED) in all projects including:
  - » Promoting natural surveillance and activities;
  - » Incorporate access control;
  - » Define territory; and,
  - » Effective maintenance.
- Design sites, buildings and landscaping to avoid entrapment areas with emphasis on:
  - » Locating and designing buildings, structures and the site with clear sight-lines into building entrances, parking areas, amenity spaces and site servicing areas;
  - » Flanking open spaces with public roads to improve the safety of park use through casual surveillance;
  - » Providing low growing plant material in areas along pedestrian walkways and in areas of potential entrapment;
  - » Adequate lighting in areas of pedestrian activity and use; and,
  - » Avoiding recessed or narrow spaces which are not supported with natural surveillance and security lighting.
- Consider traffic calming features early in the design process with opportunities for curb extensions, raised surface treatments, chicanes, ribbed concrete, traffic circles and other traffic calming solutions.

In response to the above guidelines all multiple residential and mixed-used blocks will be subject to the site plan process. It is recommended that site plan applications be supported by the preparation of an urban design summary. The urban design summary will confirm how CPTED principles have been considered. Traffic calming has been considered in the Paradigm Report dated June 2020, and will be reflected on required streetscape plans.

TRANSIT ORIENTED DESIGN

- Design site(s) to locate higher density residential development and active uses in close proximity to transit routes and major transit stops with active uses at grade.
- Design sites and buildings to provide direct and convenient pedestrian access to transit routes and stops with priority given to the primary transit route.

In response to these guidelines, higher density residential development is oriented to the planned future transit route along Conservation Drive. The implementing zoning by-law will direct higher density forms of housing and development towards the potential transit route and will consider increased height and densities within the Mixed-Use Node in conformity with the City of Waterloo Official Plan. Through the site plan process multiple residential and mixed-use blocks will be designed to provide direct and convenient pedestrian access to transit routes and stops (where locations are known).

LANDSCAPE ORIENTED DESIGN

- Design sites to incorporate existing natural vegetation as focal points or for tree preservation opportunities.
- Provide sustainable and drought resistant planting with variation to improve disease tolerance and reduce urban heat island effect. Encourage indigenous plant species and prohibit invasive plant species.
- Design planting schemes that provide coherence and unity achieved through the coordination and repetition of landscape elements and patterns, and further, contributes to the surrounding neighbourhood character and sense of place.
- Incorporate landscape islands to reduce heat island effect in parking lots and to provide opportunity for infiltration and other storm water management functions.

In response to these guidelines, draft plan conditions that require the implementation and enhancement of buffers are recommended. Future streetscape and landscape plans will consider sustainable and drought resistant planting and the City's preferred landscape species. Within multiple residential and mixed-use blocks landscape islands should be incorporated to break up larger parking areas.

RESPECT EXISTING FEATURES & CONDITIONS

- Design roads and streets to avoid negative impacts to large trees and prominent vegetated areas.
- Retain prominent existing features through a variety of strategies including open space planning, tree saving measures, street alignment, building location and design.
- Design sites to avoid or minimize impacts to existing site features and vegetation. Provide adequate buffers and protection measures through the approvals and construction processes.

In response to these guidelines, specific design direction has been prepared to address the private road connecting Neighbourhoods 6 and 7 to avoid negative impacts to the core natural feature.

VIEWS & VISTAS

- Design sites, including the alignment of public and private streets to maintain, create or enhance prominent site views.
- Locate and design buildings with prominent architectural features at the end of terminating views and street corners. Emphasize through vertical articulation, interesting architectural features, glass features, alternative building materials, colour or other design strategies.

In response to these guidelines, priority lot guidelines have been prepared for all terminating view/vista lots. The road network has also been designed to create view and vista opportunities.

CHARACTER

- Design streetscapes with coordinated and unifying elements with emphasis on boulevard landscaping, facade articulation, and architectural detailing (material selection, colour and style).
- Encourage distinctive elements that add interest along the streetscape and building design. Promote innovative designs for landmark projects and focal points.

In response to these guidelines, a streetscape plan will be required for each stage of development and will be coordinated with gateways and enhanced entrances. Enhanced landscaping will be required within community focal points.

GATEWAYS

- Within gateways, provide coordinated or complementary design elements in both the public and private realm that contribute to a unified theme or character.

In response to these guidelines, specific design direction has been provided for gateways which will require a coordinated approach. It is recommended that gateway design will be implemented through the preparation of a streetscape plan and landscape plans required as part of a site plan application for abutting multiple residential blocks.



The BCMDP identifies gateways (illustrated on page 36 of this document) which will be designed with a coordinated approach.

NETWORKS

- Design park spaces and all open space linkages including trails to be part of the larger network of Open Space linked by trails, connecting new and old neighbourhoods.
- The design of parks should provide safe environments, framed by active public land uses and street frontages.
- Design sites and buildings to connect to the surrounding open space system including parks, trails, public streets and transit routes. Consider opportunities to provide multiple pedestrian or open space linkages to connect to the public realm, including mid-block linkages, trail linkages and open space connections. Ensure linkages are fully visible from public property and have clear sight lines across private development with opportunity for landscaping treatment.
- Maintain and expand the existing trail network system within and outside of the District. Consider special streetscape details and wayfinding features for new trails and heritage in urban locations. Develop consistent standards for specific types of trails to give users a sense of place and orientation.

In response to these guidelines, it is recommended that draft plan approval conditions require the preparation of a park plan for each park located within the subdivision. Draft plan conditions should also require the preparation of an active transportation plan that identifies and integrates the various components of the active transportation network including sidewalks, walkways, trails and multi-use pathways.







UNIVERSAL DESIGN

- Design sites for barrier-free access by: locating barrier-free parking close to building entrances; providing barrier-free access from public streets to building entrance(s); designing all pedestrian routes/walkways with curb cuts and include texture changes to identify change in slope and crossings.
- Ensure that slope transitions on the sidewalk are gradual and unobstructed, in accordance with municipal standards (where a sidewalk crosses an intersection).
- Locate street furniture, light poles, signage and other elements so as to not impede barrier free accessibility. Ensure driveway access does not conflict with barrier free routes.

In response to these guidelines, a streetscape plan will be required illustrating all sidewalks and multi-use pathways. Public sidewalks and multi-use pathways will be designed to be AODA compliant. The future design of multiple residential and mixed-use blocks shall consider universal design in the preparation of site plans and building designs.

ENGAGING SPACES

- Design outdoor spaces to be accessible by all users and to provide opportunities for rest, shade, socializing and weather protection.
- Design and locate neighbourhood parks outdoor spaces/amenity areas to be highly accessible and visible from public streets. Encourage central locations within master planned development or areas with high pedestrian activity.
- Locate windows and doors to face publicly accessible spaces with emphasis on the primary street frontage, park spaces and courtyards.

In response to these guidelines, parks should be located with frontage along public streets as illustrated throughout this document. Design direction is provided to ensure “eyes on the park” from both the surrounding public streets and surrounding built form.



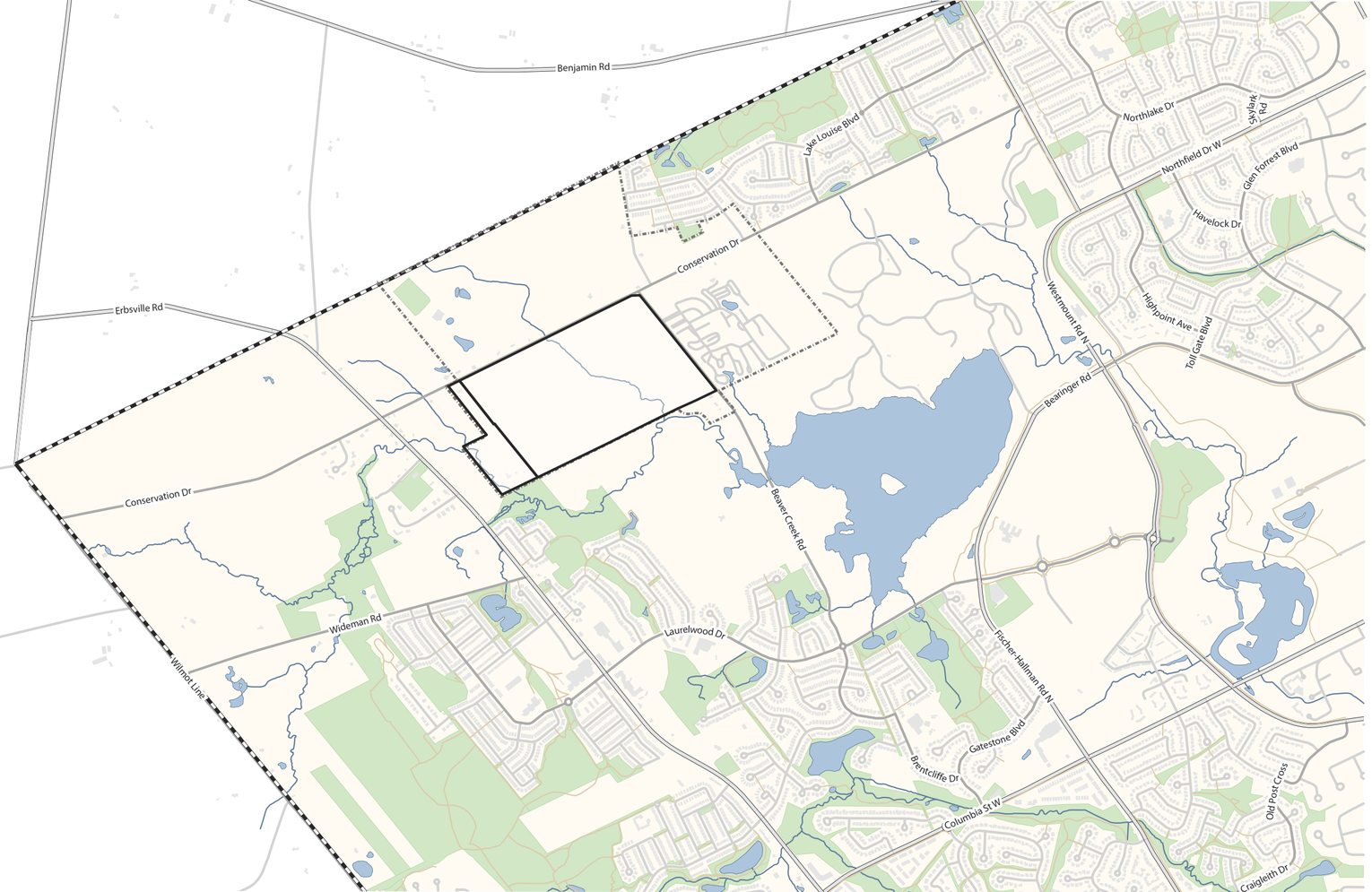
SUSTAINABLE DESIGN

- Encourage land uses and intensification that promote transit and alternative transportation choices. Encourage transit-oriented uses and densities along Conservation Drive and encourage long term and short term bike parking on site and in the public realm.
- Plan and design sites to reduce salt impact (ice control products) to natural environment and water system.
- Plant native and non-invasive plant species on private sites and within the public realm.
- Encourage low maintenance, salt tolerant and drought tolerant plant species. Discourage irrigation water systems.
- Encourage naturalized green spaces on site for storm water quantity and quality control. Encourage bio swales and other natural landscape solutions to retain water on-site. Where available, direct site drainage to vegetated swales.
- Encourage designs that allow for increased soil volumes for root growth and canopy space for future growth of large shade trees to promote an urban forest.
- Encourage multi-use trails in the City to promote recreational activities.
- Encourage innovative drainage systems that improve stormwater quality and quantity.
- Orient and design buildings for passive solar gain. Design living areas, including outdoor balcony space, facing solar noon and sleeping quarters on opposite side.

In response to these guidelines, sustainable design direction has been provided in Section 2.5 of this document. It is recommended that sustainability statements be prepared for each multiple residential and mixed-use block within the subdivision as a condition of site plan approval.



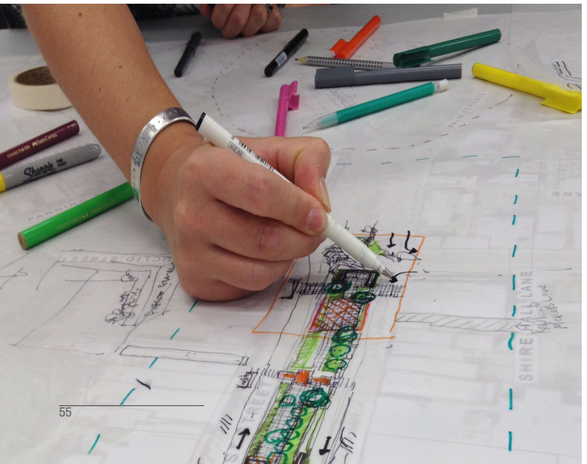
Encourage low maintenance, salt tolerant and drought tolerant plant species.



PART 4

General Design Guidelines







4.0
GENERAL DESIGN GUIDELINES

The following design guidelines have been established to ensure a high quality well designed community and apply to all lands within the three neighbourhoods.

UNIT MIX

- A variety of housing types and built form have been accommodated with density encouraged adjacent to the planned future transit route along Conservation Drive, the neighbourhood parks, and the Mixed-Use node at the intersection of Beaver Creek Road and Conservation Drive.
- The lands are to be developed with a mix of unit types including single-detached, semi-detached, multiple residential, apartment and mixed-use units.



COLOUR PALETTE AND MATERIALS

- Variations in building facades and materials are encouraged.
- A sufficient variety of exterior colour packages shall be offered by Builders to avoid monotony within the streetscape.
- Individual exterior colour packages should combine to create a visually harmonious streetscape appearance. In this respect, jarring colour contrasts will be discouraged.
- Natural or cultured stone or brick is required as the exterior cladding material on most of the facade facing the street.
- Siding or alternative may be used on rear and side elevations, however it should only be used as a secondary material, mixed with primary materials including brick and/or stone on the first floor.
- Siding or alternative may be used on front elevations as an accent material only.

FACADE VARIATION

- Variations in building facades and materials are encouraged.
- Within each townhouse block a cohesive design and colour palette should be applied. Facade variety should be applied between townhouse blocks to achieve variety along the streetscape.
- Street fronting townhouse blocks shall be designed with a maximum of 8 freehold townhouse units within each block to avoid long stretches of units with the same colour palette.
- Within residential blocks intended for single-detached development the following guidelines apply:
  - » Identical building elevations must be separated by at least three units;
  - » Builders are encouraged to provide more than one elevation style per model.
  - » Variety in colour packages shall be provided and identical colour packages should be separated by at least one unit.
  - » Identical units, including corner units, should not be sited across from each other on the same street unless it is demonstrated that the colour and material packages for each unit provides sufficient variety.



ROOF LINES

- Roof Lines (roof pitches) are encouraged to achieve a good transition between roof heights. Complementary roof lines are to be provided.
- Roof embellishments such as gables and dormers are encouraged especially on corner lots.
- Roof vents, stacks and flutes are encouraged to be located on the rear slope of the roof where feasible.

WINDOWS

- All windows should be low maintenance, thermally sealed, and double glazed.
- On front and flankage elevations windows for portions of the building that are located above grade should be consistently employed to suit the house style.
- Window proportions should reflect the architectural style of the building.
- Large ground floor windows are encouraged wherever feasible to promote "eyes on the street".
- Windows surrounding doors, or within doors are also encouraged. This includes sidelights and transom windows around front doors.
- Primary upper and lower story windows on street-facing elevations should be aligned in an organized manner to enhance the facade.
- Projecting bay windows are encouraged to give 3-dimensional interest to primary house faces









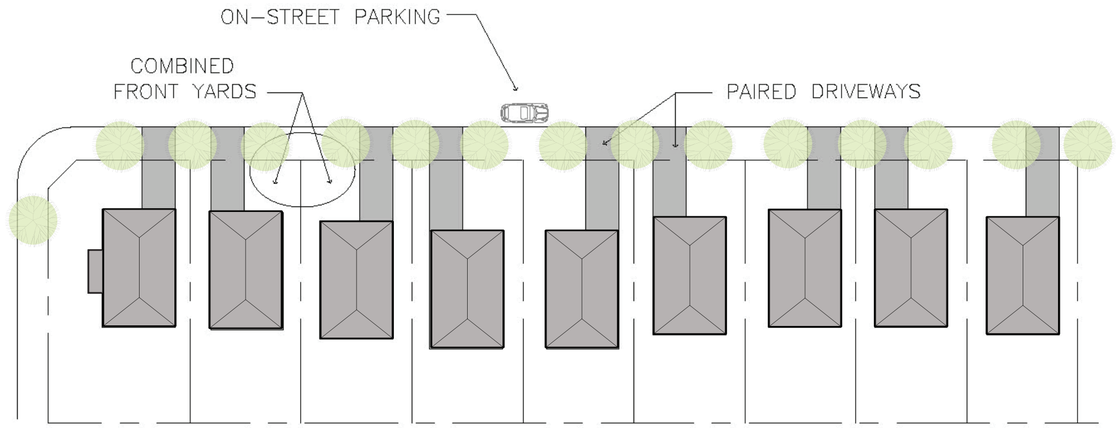
GARAGES

- The placement and design of garages is important to the overall streetscape. As such, garages will be setback behind, or flush with, the habitable space of the dwelling unit as required by the site specific zoning standards established for the neighbourhoods.
- Zoning regulations should permit a reduced front yard setback for the habitable portion of a dwelling than the setback required for the garage.
- Garage widths shall be in accordance with site specific zoning regulations and will be limited to a percentage of the front building facade length.
- Design treatment of garage doors is encouraged including sectional, paneled garage doors with glazed top panels.
- A variety of lintel treatments above the garage are encouraged.
- For double garages, two single doors are preferred over one large door.

DRIVEWAYS AND PLACEMENT

The following guidelines apply to driveways:

- Driveways for dwellings adjacent to intersections, public walkways, open space and parks should be located as far from the adjacent use as possible.
- Driveway slopes between garage and street should be minimized.
- Paired driveway locations are encouraged where feasible for smaller lots to maximize on-street parking opportunities.
- For larger lots, combined front yards (as illustrated) maximize on-street parking and landscaping opportunities.
- Driveways should be setback 6 metres from the intersection of two street lines.
- A maximum of one driveway with one access point connecting to a public street shall be permitted on a lot.
- An on-street parking plan is to be approved for each stage of development.
- Driveways will be in accordance with the approved parking plan.



PORCHES

- The generous use of front porches, veranda's or porticoes is encouraged to provide opportunities for 'eyes on the street' as well as social interaction among neighbours.
- Porch columns and hand railings should be consistent with the character of the house.
- Maintenance-free, pre-finished aluminum wrought iron railings or high quality composite railings are preferred.
- Porch depths should be sufficient enough to provide useful seating space. On corner/ priority lots, wrap-around porches are encouraged.
- Porch projections into required front and side yards shall be in accordance with site specific zoning regulations.



MAIN ENTRANCES

- The main entrance to the dwelling should convey its importance as both a focal point of the facade and the interface between the private realm of the dwelling and the public realm of the street.
- Weather protection at entries should be provided where possible through the use of covered porches, porticoes, overhangs or recesses.
- The front entry design and detail should be consistent with the architectural style of the dwelling.
- Enhancements to emphasize the entry are encouraged and may include pilasters, masonry surrounds, a variety of door styles, a variety of transom lights above the door, sidelights, etc.

ARCHITECTURAL STYLE

- A harmonious mix of architectural styles which incorporate both traditional and modern influences is encouraged over one specific style.
- The various building types and architectural styles throughout the Neighbourhoods will be linked through the use of distinctive, well-designed buildings and the use of quality building materials.
- Townhouse, multiple dwellings and mixed-use buildings within the neighbourhoods are to be designed with a high degree of architectural quality with emphasis given to building facades which face the public realm.

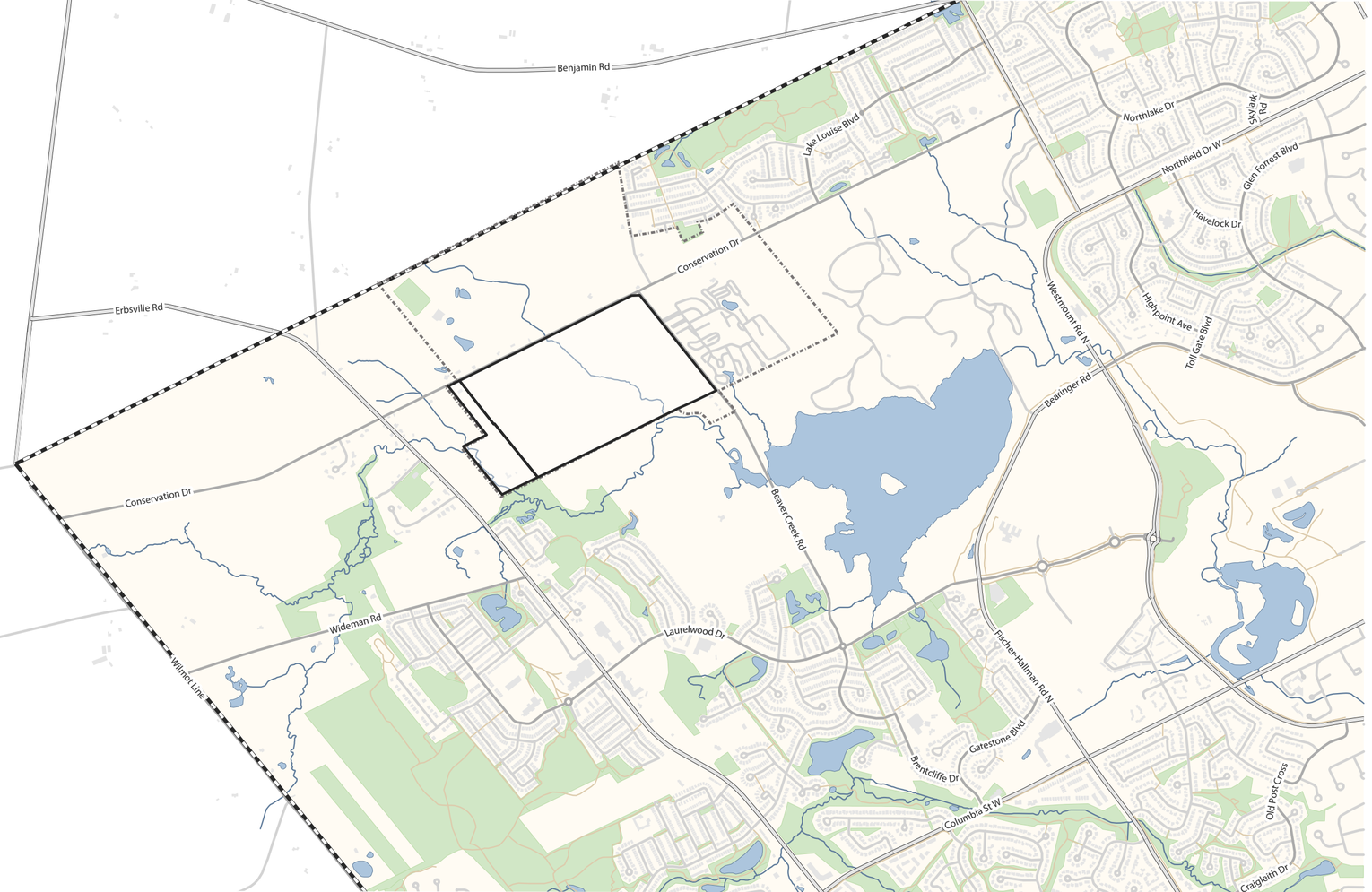


4.1 STREET TOWNHOUSE DESIGN

Townhouses are to be designed to integrate with other street fronting products (i.e. single detached and semi-detached lots). The following design guidelines shall apply to the design of street fronting townhouses:

- Street fronting townhouses are to be a maximum height of 10 metres. An increase in the maximum building height will be considered to accommodate superior design elevations and architectural features.
- The overall design merits of the entire building are to be considered rather than the individual units.
- Ideally townhouse blocks should include four to six units. A maximum of eight attached dwelling units will be permitted.
- Townhouse buildings which are side-by-side or within the same block are to be coordinated with each other in terms of colours, materials, and architectural styling, however variety in colours is encouraged.
- The main facade should be located parallel to the street.
- To maximize on-street parking opportunities, shared driveways are encouraged for interior townhouse units.
- End unit townhouses should have an enhanced side facade where adjacent to a public street.
- The architectural design guidelines set out in the previous sections, including colour palette and materials, roof lines, main entrances, windows, and garages also apply to the design of townhouses.





PART 5

Area Specific Guidelines

5.0
GUIDELINES FOR COMMUNITY FOCAL POINTS

Neighbourhoods 5 and 6 have been designed with two Community Focal Points. These focal points will function as central activity hubs within the broader District and will provide a mix and range of uses and amenities to directly serve the local community. The Community Focal Points will ultimately be served by public transit and will be easily accessible within the community through the proposed active transportation network. Each Community Focal Point will be supported by multiple residential development planned at higher densities. Pedestrian and cycling routes connect the Community Focal Points with the surrounding residential neighbourhoods.

Community Focal Point 1 is located within Neighbourhood 5 near the intersection of Conservation Drive and Beaver Creek Road. Community Focal Point 1 is centered on the mixed use node and includes a mixed use block and a Neighbourhood park. This area will have higher residential densities and will be zoned to include a broad range of uses including non-residential uses in mixed-use buildings.

Community Focal Point 2, located within Neighbourhood 6, is centered around the neighbourhood park and other public uses and will have a recreation and pedestrian focus.

Guidelines for the two Community Focal Points are provided in the following sections.



GUIDELINES FOR COMMUNITY FOCAL POINT ONE

When considering future site plans for the Multiple Residential/ Mixed Use block within Community Focal Point 1 the following guidelines shall be considered:

- Built form and/or landscaping within the Multiple Residential/ Mixed-Use block should address the street in a manner that supports an active streetscape for pedestrians. Consideration should be given to orienting primary building entrances towards Conservation Drive and/or Beaver Creek Road.
- In accordance with the District Plan, the ground floor of buildings located along Conservation Drive and Beaver Creek Road shall be planned and designed with convertible frontages. This includes floor plans that are flexible in layout, have a minimum floor to ceiling height of 4.5m, and have larger entrances and larger front windows that allow for ease of conversion from residential to mixed commercial uses in the future.
- Uses which encourage social interaction and support the community (including but not limited to cafés, child care centres, medical clinics, and personal services shops) should be supported within the Mixed-Use block and permitted through the zoning of these lands.
- Within the Mixed-Use block increased height (up to six storeys) is appropriate to visually reinforce the intersection and the broader Mixed-Use block.
- Built form within the Mixed-Use block should be oriented to frame the intersection. Alternatively landscaping and landscape features can be used to frame the intersection.
- The architectural treatment of visible flanking facades shall be coordinated and consistent with the front facade.
- The design of the block should implement Crime Prevention Through Environmental Design (CPTED) principles including natural surveillance, access control, and maintenance.
- Windows shall be provided where building facades overlook streets or open space, including the adjacent neighbourhood park to increase opportunities for natural surveillance.
- Site layout shall incorporate pedestrian walkways and connections to encourage and enhance walkability and access throughout the Mixed-Use block.
- Barrier-free pedestrian connections on-site should be designed to connect directly with public sidewalks along Conservation Drive and Beaver Creek Road.
- Site design that includes pedestrian connection(s) from the building(s) to the intersection of Beaver Creek Road and Conservation Drive is encouraged to provide for convenient and direct access to the broader Mixed Use Node outside the limits of Neighbourhood 5.
- Garbage facilities, parking, loading and service areas should be designed and oriented such that they are separated and/or screened from the public realm.
- Placement of outdoor lighting within the block will be designed in accordance with City standards and to minimize impacts on the night sky and adjacent properties. The impact of lighting will be reviewed through the future site plan approval process.
- Where transit stop locations are known, efforts should be made to locate building entrances and/or pedestrian connections near transit stops.
- Site plan design should coordinate movements and minimize conflicts between pedestrians and vehicles.
- Locate parking areas (particularly barrier free parking spaces) in close proximity to building entrances.
- Landscaping should be used to break up surface parking lots associated with future Mixed Use or multiple residential developments and to facilitate stormwater infiltration.
- Landscaping should be coordinated with building and site design to enhance the streetscape and define the street edge, and provide thermal comfort for pedestrians.
- The use of native, drought-tolerant plant species for landscaping is strongly encouraged.
- The internal turn circle adjacent to the neighbourhood park provides a landscape and terminating view opportunity. Differential pavement should be used to define pedestrian crossings at this intersection.





GUIDELINES FOR COMMUNITY FOCAL POINT TWO

Community Focal Point 2 is located in Neighbourhood 6 and centered around a neighbourhood park and includes other lands to be conveyed for public ownership including the pumping station and the stormwater management block. The following guidelines shall be considered in the design of this area:

- The overall active transportation system should be designed to connect the surrounding residential areas to Community Focal Point 2.
- The neighbourhood park should be designed to provide opportunities for passive and active recreation, trail connections, rest areas, and places for gathering in accordance with the City's programming needs.
- Park design should meet the recreational needs of children in the neighbourhood (ranging in age from preschoolers to adolescents), and be accessible (AODA compliant).
- Park design should include play elements for children of all ages, seating/gathering areas, shade structures, large canopy trees, pedestrian lights, pathways, open lawn areas and naturalized planting.
- The park should generally be designed with grades not exceeding 5% across the site. However, landscape berms are permitted and may be graded to a maximum of 20%.
- Clearly defined pedestrian access and an appealing park presence should be provided along the street through landscaping that includes plantings and architectural elements that also allow for views into the park.
- Plantings and architectural elements at the park entrance should be coordinated with gateway entrance and wayfinding features found elsewhere in the community.
- Consider enhanced building elevations for residential blocks that face Community Focal Point 2.
- Front, side and rear elevations exposed to active public spaces including parks, stormwater management facilities, trails, and pedestrian walkways shall be highly articulated. A combination of fenestration, bay windows, material changes and dormers may be used to achieve the objective
- The design of the neighbourhood park design should implement Crime Prevention Through Environmental Design (CPTED) principles including natural surveillance, access control, and maintenance.
- Development design for the opportunity to provide for a pedestrian bridge to link Neighbourhoods 5 and 6.
- A conceptual trail is shown that connects all public uses within Community Focal Point 2 including the pumping station, stormwater management block and neighbourhood park. These trail connections are subject to refinement in conjunction with detailed area grading and park design.
- Provide high-branching, large canopy trees within the park, and in particular, along the edges of the park.
- The use of native, drought-tolerant plant species for landscaping is strongly encouraged.
- Enhance micro-climate opportunities (i.e. mitigate northerly winds, create shade from afternoon sun, select and plant trees based on micro-climatic conditions, as well as soils conditions).





Example of neighbourhood park.



Example of neighbourhood pedestrian bridge.

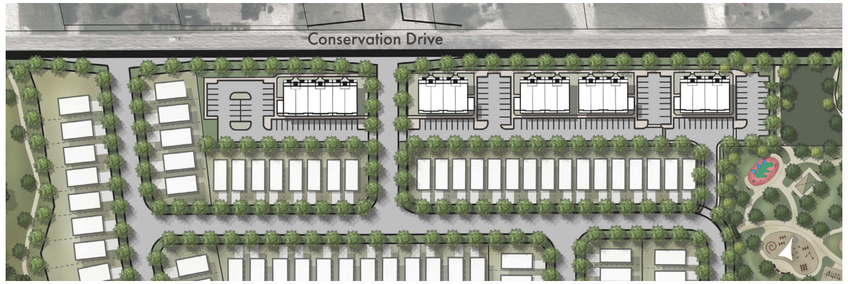
5.1 GUIDELINES FOR MULTIPLE BLOCKS ALONG CONSERVATION DRIVE AND BEAVER CREEK ROAD

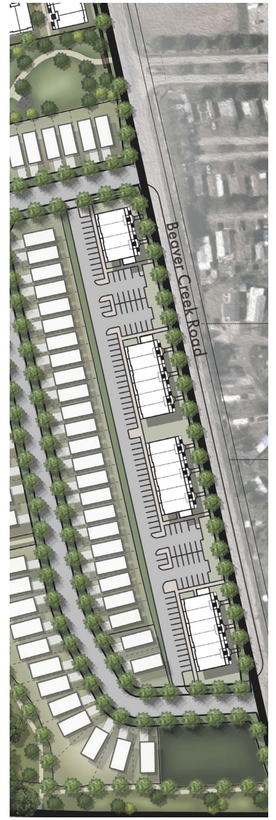
Multiple Residential Blocks are generally oriented along Conservation Drive and Beaver Creek Road. Multiple Residential Blocks will be subject to future site plan application processes. The following guidelines shall be considered when preparing and reviewing site plans for these blocks:

- For multiple blocks located directly along Conservation Drive and Beaver Creek Road, building mass should be directed to the front (along Conservation Drive/Beaver Creek Road) with driveways to the rear. Individual driveways connecting units to Conservation Drive/ Beaver Creek Road are discouraged. Back-lotting along these collector roads is also discouraged.
- Building faces with public exposure from Conservation Drive and Beaver Creek Road shall be designed with enhanced facade design including high quality building materials and landscaping.
- Multiple Residential Blocks framing entrances to Neighbourhoods 5 and 6 should be designed as gateway blocks with enhanced facades along the frontage of abutting internal streets.
- Parking is to be oriented to the rear of proposed buildings (i.e. away from Conservation Drive and Beaver Creek Road) where feasible.
- Multiple Residential blocks should be designed with pedestrian connections to the surrounding sidewalk and active transportation network. Pedestrian connections to Conservation Drive should consider the location of transit stops (if known).
- Enhanced landscaping and/or entrance features are encouraged at the entrance(s) to multiple blocks.
- Site layouts that include units backing onto public streets should incorporate enhanced landscaping and/ or enhanced rear building facade design to ensure an attractive streetscape.
- Placement of outdoor lighting within multiple residential blocks will complement the building design and prevent or minimize impacts on the night sky and adjacent properties. The impact of lighting will be reviewed through the City's site plan approval process.









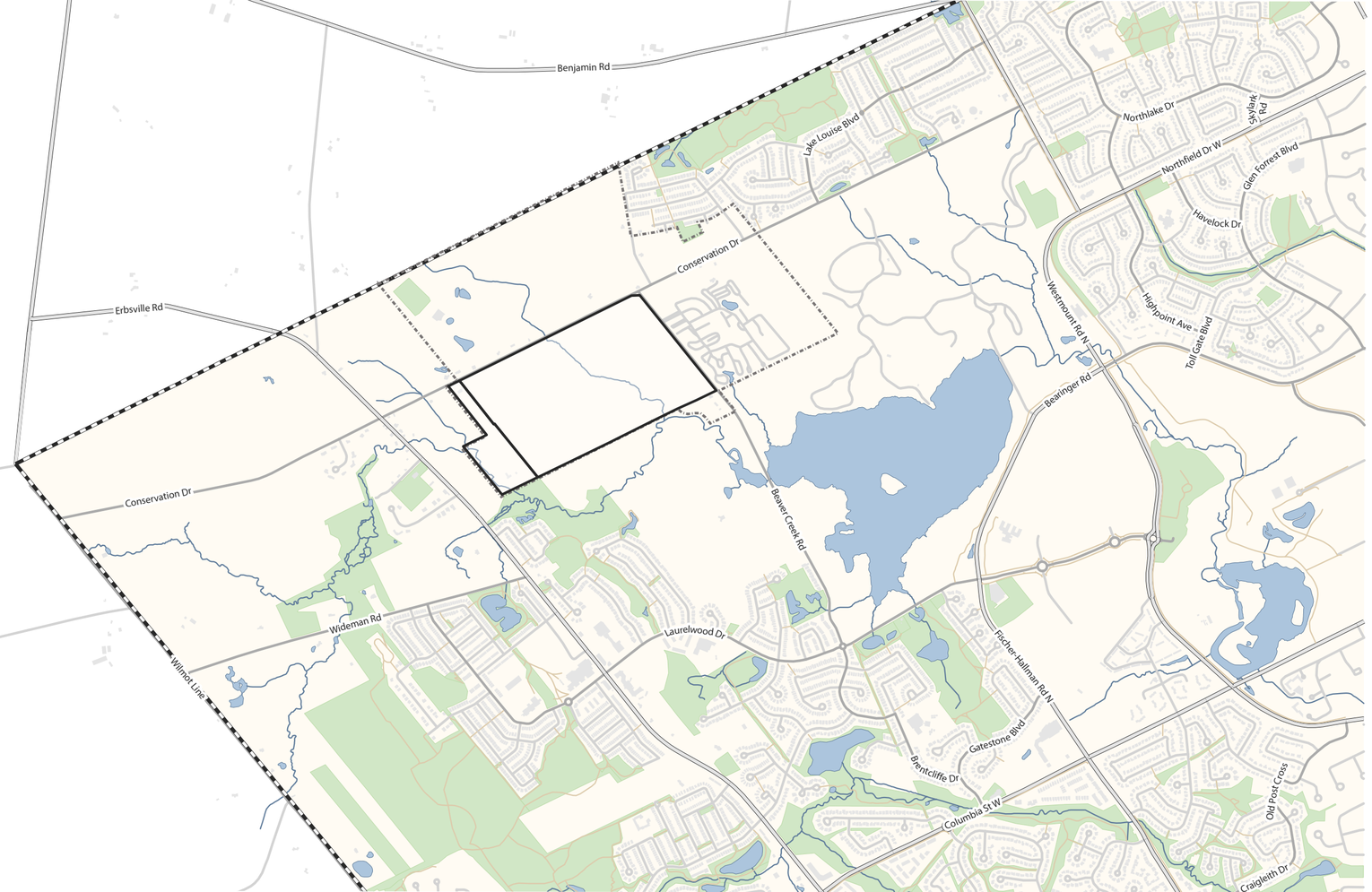
- Multiple Residential Blocks will have privacy fencing constructed along the property line shared with abutting single-detached lots to screen parking.
- The use of native, drought-tolerant plant species for landscaping is strongly encouraged.
- The design of Multiple Residential blocks should implement Crime Prevention Through Environmental Design (CPTED) principles including natural surveillance, access control, and maintenance. A summary of how these principles have been considered should be included as part of any future site plan application.

5.2 GUIDELINES FOR NEIGHBOURHOOD 7

The following design guidelines relate to the vacant land condominium proposed for Neighbourhood 7 including the proposed road connecting with Neighbourhood 6.

- Neighbourhood 7 is to be developed with a private road with a reduced road width which is to be maintained as a common element.
- Ensure the plan and profile of the private road is designed with an eco-passage to assist in the north/south movement of wildlife.
- Design the private road to minimize grading within identified buffers.
- Consider implementation of a winter by-pass to minimize chloride contributions to ground water.
- Maintenance of the private road is to be subject to approval and implementation of a chloride management plan. The chloride management plan is to also address the maintenance of driveways for all units within Neighbourhood 7.
- Provide for enhanced planting within buffers adjacent to the private road, proposed units and adjacent core natural features.
- Plan for large units within Neighbourhood 7 to maximize landscaped areas and rear yards adjacent to buffers.
- Ensure all units within Neighbourhood 7 are designed to accommodate at source infiltration measures with the design and implementation of same to be overseen by a qualified professional engineer.
- Plan to naturalize the stormwater management facility and related buffer areas within Neighbourhood 7 particularly along the north edge.
- Plan for movement structures such that wildlife is directed to eco-passages within Neighbourhood 7.
- Include the adjacent core natural features within the limits of the vacant land condominium and ensure appropriate conditions of condominium approval provide for the long term protection, maintenance, and management of natural features.
- Require a conservation easement to be conveyed and a related management plan to be prepared for core natural features included as part of the condominium plan which are to be identified as a common element.
- Plan community trails such that pedestrian movement is directed away from core natural features that are adjacent to Neighbourhood 7 as generally shown on the Master Plan (Pages 3 & 91).
- Ensure appropriate access control/restrictions to adjacent lands owned by GRCA.
- Require the preparation of a homeowner brochure to ensure an awareness and appreciation of natural heritage features included as part of the condominium.
- Require appropriate markers/fencing and signage to ensure an awareness of the limits of the natural heritage features.





PART 6

Priority Lot Guidelines

6.0
PRIORITY LOTS/BLOCKS

Priority Lots are those lots (or portions of Blocks) with the most visual prominence within a community, including a higher degree of visibility within the public realm. As such, special design consideration is required for the publicly exposed elevations of these dwellings. Priority lots contribute largely to the character of a neighbourhood so a higher level of architectural design is expected for buildings on those lots. Development on priority lots should be designed and oriented to contribute to the public realm and pedestrian environment, provide definition at these key locations, and contribute to a distinctive community image.

The location of priority lots/blocks are illustrated on the adjacent plan. The following types of lots/blocks have been deemed 'priority':

GATEWAY BLOCKS

Gateway blocks are located within the identified community and entrance gateways and establish a first impression of the neighbourhood. Their design should address the high level of exposure and reflect the character of the community.

CORNER LOTS

Corner Lot Dwellings are located at the intersection of two streets and have two facades fully exposed to the public realm.

TERMINATING VIEW LOTS (T-INTERSECTIONS AND ELBOW STREETS)

T-Intersection lots occur at the top of an intersection, where one road terminates at a right angle (or close to a right angle) to the other. Elbow Streets occur at a bend on the road, with more than one unit at the end of the street view.

LOTS ABUTTING WALKWAYS/TRAIL SYSTEMS

Lots that have elevations that are publicly exposed from abutting walkways or abutting trails in areas anticipated to have high volumes of pedestrian traffic.



6.1 GUIDELINES FOR PRIORITY LOTS/BLOCKS

GATEWAY LOTS/BLOCKS

Gateway lots/blocks are generally located at the entry to the each of the neighbourhoods from the external road system. For the subject lands community and entrance gateway areas have generally been identified at the entrances to Neighbourhood 5 from Beaver Creek Road, at the entrances to Neighbourhood 6 from Conservation Drive and at the entrances to the proposed condominium development that connects Neighbourhoods 6 and 7 (gateway areas are conceptually identified on the map on page 36 of this document).



Example of a gateway feature





Examples of an enhanced flankage elevation

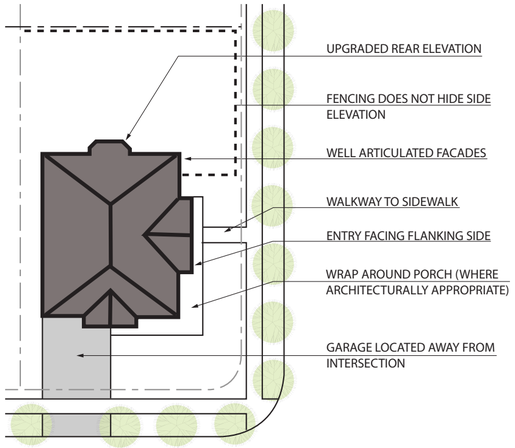
For Gateway lots/blocks, the following guidelines shall be considered:

- Distinctive design forms including prominent building form and landscaping will be required within gateway blocks.
- Building faces with public exposure from internal public streets at community entrances shall be designed with enhanced facade design including high quality building materials and landscaping.
- Entry elements and porches are encouraged to produce interest in the facade as well as to help define the entrances to the neighbourhoods.
- For blocks at the internal turning circle in Neighbourhood 5, building materials and/or colours should be complementary to any adjacent community entry feature.
- Flankage elevations visible from the street shall have high levels of building design and detail with attention given to massing, height, roof lines, materials, and details.
- Building detailing should include, well-proportioned windows, masonry detailing, and a mix of coordinated building materials.
- Large, blank facades along the face of a road shall be avoided.
- Similar setbacks should be employed where possible for each block to create a strong edge condition within gateways.
- Building mass and/or landscaping within multiple blocks should be oriented toward Conservation Drive and Beaver Creek Road where possible.



CORNER LOTS

Corner lots play a significant role in setting the character and quality of a street. Corner lots, especially those on higher order streets (such as the potential future transit corridor within Neighbourhood 6) , act as informal landmarks within a community and therefore should be carefully designed. Units on corner lots shall be designed with the following guidelines in mind:



Example of corner lot design with the main entry located on the long elevation facing the flanking street

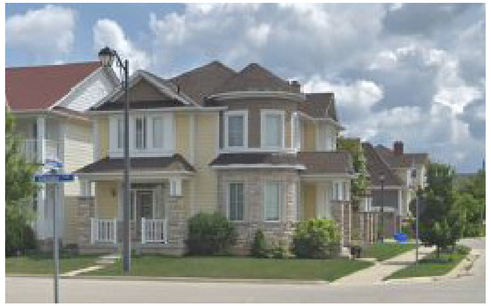


Examples of corner lot design elements





- Consideration should be given to providing special model designs specifically for corner lot conditions.
- Flankage elevations visible from the street shall have consistent materials and details as the front elevation.
- Where possible, the main entry to the dwelling should be located on the long elevation facing the flanking street.
- Main entries facing the front lot line or shorter side of the lot may be permitted provided the design of the flanking face will include a secondary entry, projecting bay or other appropriate architectural feature.
- Unit designs are encouraged to provide an architectural feature at the corner. This could include, but is not limited to, wrap around porches.
- Both street frontages for corner lot dwellings shall have high levels of architectural design and detail with attention given to massing, height, roof lines, materials, and details.
- In cases where a townhouse is situated on a corner lot, the end units flanking a public street are to have articulated end walls.
- Where possible, utility meters shall be located on the interior side elevation of detached units.



- Identical elevations on abutting or directly opposite corner lots are discouraged. However, building designs which have compatible architectural style, massing, elements and details are encouraged on abutting or directly opposite corner lots to provide both harmony and variety to the streetscape.
- The following architectural elements are encouraged for corner lots:
  - » A prominent wrap-around porch.
  - » Sufficient fenestration on front and flanking elevations displaying balanced proportions.
  - » Well-articulated flanking elevations to avoid flat, blank, uninteresting facades.
  - » Architectural treatment of garage door openings including sectional, paneled garage doors with glazed top panels.
  - » Architectural features that differentiate the corner lot from internal lots and provide emphasis to the corner of the structure are encouraged and may include: turrets, corner bay windows, boxed-out windows on the front and side elevations, entrance porticoes and wrap-around porches.

TERMINATING VIEW LOTS (T-INTERSECTION AND ELBOW STREETS)

Lots that occur at the terminus of T-intersections, and lots along elbow streets have been identified as 'Terminating View Lots'. As such, the following design consideration should be given to homes at the end of the T intersection street view and homes at a bend on the road:

- Dwellings should be designed to provide a visually attractive terminus from the intersecting street.
- Front elevations of homes that terminate the street should include a number of enhanced architectural features which could include a porch, projecting windows and decorative elements.
- House design for lots at the end of T-intersections shall have facade designs that utilize elements such as coordinated fenestration, masonry detailing, and entry elements.
- Driveways are encouraged to be located to the periphery of the view corridor to increase landscaping opportunities and reduce the prominence of the garage where possible.
- On elbow streets, driveway locations are to be carefully considered to avoid (as much as possible) driveways on adjoining lots merging at the street line.
- Where side elevations on elbow streets are partially visible from the street, materials should be coordinated with those of the front elevation.
- Where the driveway and garage are located at the visual terminus of the street design enhancements such as decorative garage door openings should be incorporated to contribute to an attractive streetscape.

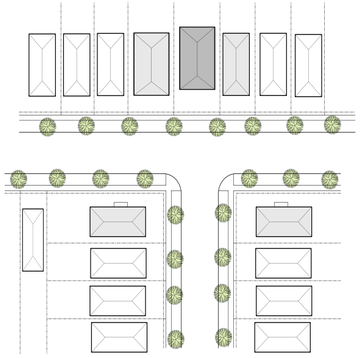


Diagram of a lot at the terminus of a T-Intersection.

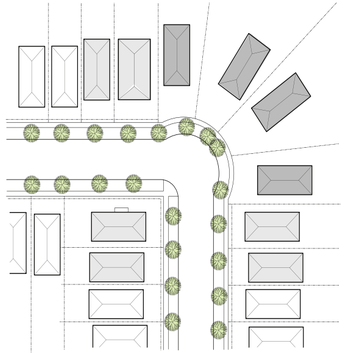


Diagram of a lots along elbow streets.

LOTS ABUTTING WALKWAYS/TRAIL SYSTEMS

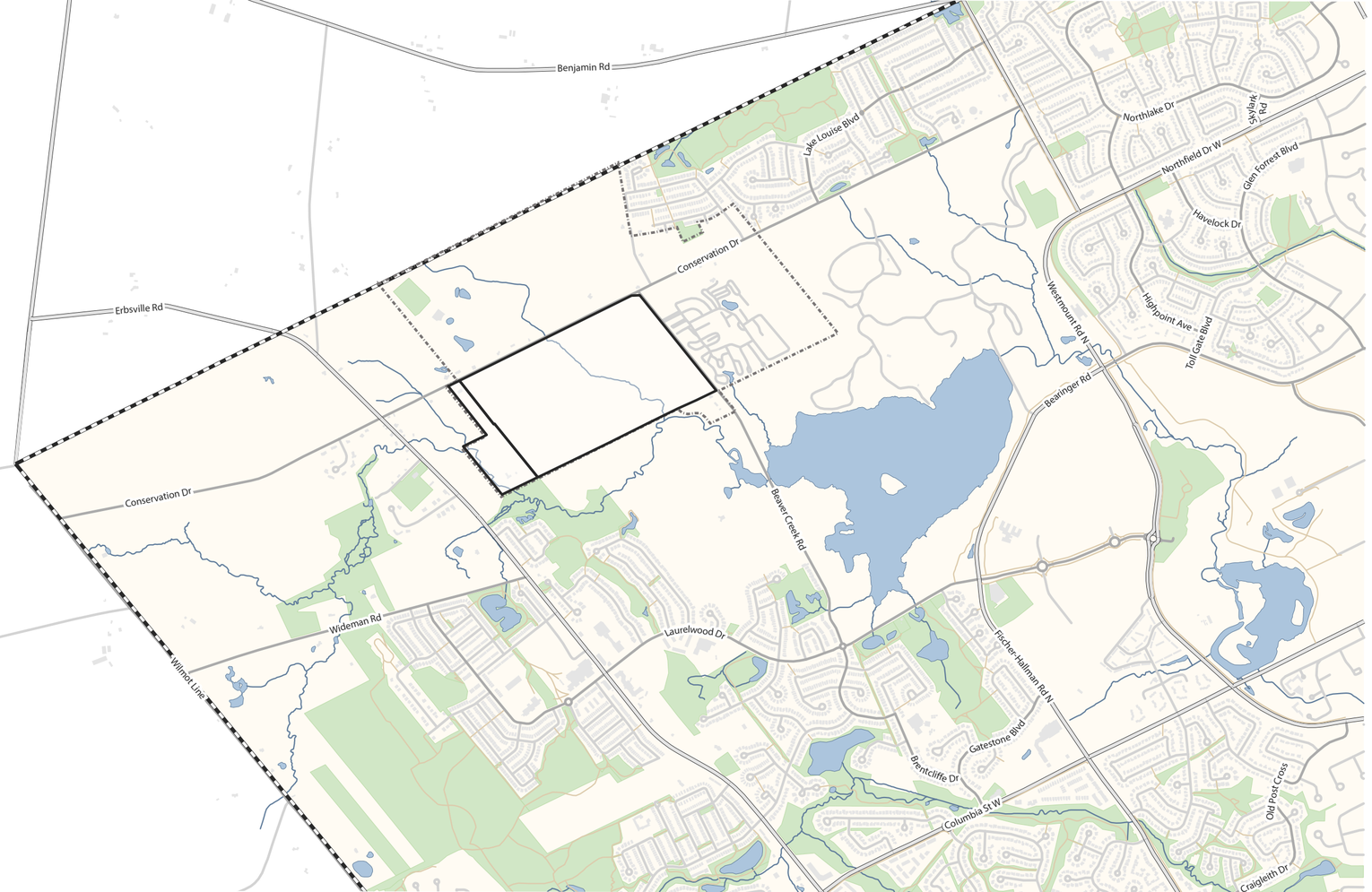
Priority Lots have been identified for lots that abut pedestrian walkways. These lots are subject to the following design guidelines:

- Front, side and rear elevations exposed to primary pedestrian walkways (including trails), shall be articulated. A combination of fenestration, bay windows, material changes and dormers may be used to achieve this objective.
- Enhanced design treatment should be considered where a dwelling's side or rear elevations are highly visible from the public realm, having detail and quality consistent with the street facing elevation.
- Side elevations facing primary walkways should incorporate architectural elements to provide visual impact.
- Driveways of homes adjacent to walkways should be located on the opposite side of the walkway to allow for landscaping opportunities adjacent to the walkway.





Diagram of lots adjacent to walkway.



PART 7

Implementation

7.0 IMPLEMENTATION

DRAFT PLAN OF SUBDIVISION CONDITIONS

Draft Plan approval conditions should :

a. Implement buffers as recommended in the report entitled: Environmental Impact Study, July 2020.

b. Ensure the implementation of buffer enhancement plans to be prepared as a condition of final approval for each stage of development.

c. Require the preparation and approval of a streetscape plan (required for each stage of development) to ensure a well-coordinated and visually attractive streetscape. The streetscape plan is to include enhanced landscaping and streetscaping for key streets including Conservation Drive, Beaver Creek Road and other roads that have a road allowance width of 20m;

d. Require the preparation and approval of an on-street parking plan for each stage of the development to be coordinated with streetscape plans and utility planning;

e. Require the developer to implement traffic calming measures with the details to be incorporated on final engineering plans to be approved by the City of Waterloo;

f. Implement the Priority Lot Plan included on page 76 of this report. Priority Lots are to be subject to the Priority Lot guidelines contained within this document. The subdivider is to retain a qualified design professional who shall certify compliance with the Priority Lot Guidelines in support of building permit applications;

g. Require the developer to prepare and implement design features for identified gateway and enhanced entrance locations;

h. Require the developer to implement wayfinding measures the design of which is to be shown on the plan to be approved by the City of Waterloo prior to final subdivision approval;

i. Require the developer to prepare a conceptual park plan for each park located within the subdivision. The conceptual park plan(s) are to be approved by the City of Waterloo prior to final subdivision approval for the stage of development that includes a park;

j. Require the developer to prepare an active transportation plan that identifies and integrates the various components of the active transportation network including sidewalks, walkways, trails and multi-use pathways;

k. Ensure the developer's engineer is responsible for the design and inspection of lot level infiltration facilities for all single detached, semi-detached and duplex dwellings within the subdivision;

l. Require the preparation of a chloride management plan for each multiple residential and mixed-used block within the subdivision as a condition of site plan approval.

m. Require the preparation of building elevations in accordance with applicable guidelines of this document for each multiple residential and mixed-use block within the subdivision as a condition of site plan approval.

n. Require the preparation of sustainability statements for each multiple residential and mixed-use block within the subdivision as a condition of site plan approval.

DRAFT PLAN OF CONDOMINIUM CONDITIONS - NEIGHBOURHOOD 7 AND RELATED CONDOMINIUM ROAD

Draft Plan conditions should :

a. Require the private condominium road to be designed in a manner that:

   i. Ensures acceptable impacts on core natural heritage features;

   ii. Provides an eco-passage that connects core natural heritage features to the north and south;

   iii. Directs wildlife movement to the required eco-passage;

   iv. Provides enhanced planting within identified buffers;

   v. Directs pedestrian movement away from core natural heritage features;

   vi. Incorporate a winter by-pass in the engineering design to minimize chloride impacts on groundwater.

   vii. Minimizes grading within the buffers.

b. Provide for enhanced planting at the northern end of the proposed stormwater management facility and within all buffers that are adjacent to proposed lots.

c. Ensure the developer's engineer is responsible for the design and inspection of lot level infiltration facilities for all lots within the condominium.

d. Ensure stream erosion thresholds are not exceeded.

e. Ensure enhanced erosion and siltation control measures are in place prior to the commencement of area grading and inspection occurs on a regular basis.

f. Require the preparation of a chloride management plan for each lot and the private road within the condominium as a condition of condominium approval.

g. Require implementation of fencing to restrict access to adjacent lands owned by GRCA.

h. Require a conservation easement to be conveyed and a related management plan to be prepared for core natural features included as part of the condominium plan which are to be identified as a common element.

i. Require a trail design that directs pedestrian movement away from core natural features generally shown on the Master Plan (Pages 3 & 91).

j. Ensure appropriate access control/restrictions to adjacent lands owned by GRCA.

k. Require the preparation of a homeowner brochure to ensure an awareness and appreciation of natural heritage features included as part of the condominium.

l. Require appropriate markers/fencing and signage to ensure an awareness of the limits of natural heritage features.

ZONING BY-LAW PROVISIONS

2. The implementing zoning by-law should :
    a. Provide for a mix and range of housing types;
    b. Direct higher density forms of housing and development towards the potential transit route on Conservation Drive;
    c. Permit a range of non-residential uses within the Mixed-Use Node and require minimum ground floor height of 4.5 metres within the node to allow for the option for non-residential uses.
    d. Permit increased height and densities within the Mixed-Use Node in conformity with the City of Waterloo Official Plan.
    e. Include zoning provisions that regulate garage projections, the maximum width of driveways and garages, require a minimum landscaped area between driveways and adjacent lots/blocks.
    f. Restrict street fronting townhouses to a maximum of 8 units per building block.
    g. Direct the location of parking to be set back behind the building line to ensure an attractive streetscape along Conservation Drive and Beaver Creek Road.
    j. Ensure structure parking is screened from Conservation Drive and Beaver Creek Road.
    k. Within the node, provide for higher density housing types that will support transit.





SITE PLAN SUBMISSIONS

Future site plan applications for all Multiple Residential and Mixed-Use Blocks will consider the guidelines contained herein, including specific design direction and guidelines related to these blocks. Draft plan conditions to require site plan applications to be supported by the preparation of an urban design summary. The urban design summary will confirm how applicable guidelines of this document have been considered. The design of Multiple Residential and Mixed-Use blocks will also consider the City's Urban Design Manual and in particular guidelines related to: Pedestrian Friendly Design (2.1.1); Human-Scale Development (2.1.2); Safety and Security (2.1.4); Transit-Oriented Design (2.1.5); Building Design (2.1.6); Amenity Areas (2.1.7); Landscape Design (2.1.8); Lighting (2.1.9); Site Circulation (2.3.2); Universal Design (2.3.3) and Sustainable Design (2.5).

DESIGN DIRECTION - CITY OF WATERLOO INFRASTRUCTURE AND PUBLIC REALM

The City of Waterloo to consider the following opportunities in designing City of Waterloo Infrastructure and coordinating landscape design adjacent to the public realm:

1. Consider enhanced architectural design for SSPS No.1 recognizing this facility will be located at the southern entrance to the community.
2. Consider coordinating the architectural design of SSPS No.1 with SSPS No.2.
3. Recognize the roundabout at the intersection of Conservation Drive and Beaver Creek Road as an opportunity to implement enhanced landscaping and landscape features.
4. Recognize there is an opportunity to coordinate design features on private property adjacent to the Conservation Drive and Beaver Creek Road roundabout as well as within the Conservation Drive and Beaver Creek road corridors.

MASTER PLAN

In summary, Neighbourhoods 5,6 and 7 will contribute to a complete, vibrant and healthy community that is well designed, includes a mix and range of unit types, a mixed-use node and densities that support the introduction of transit. The significance of natural heritage features will be recognized through design and mitigation measures that provide for the enhancement and long-term protection of Beaver and Laurel Creeks and related environmental features.

Note: All building placements and lot lines are for conceptual purposes only and will be finalized through subsequent processes.