

2018



SCHEDULE **BELL MCKINNON** LOCAL AREA PLAN

This page is intentionally blank.

50-YEAR VISION



KEY DIRECTIONS

1

Smart Growth

A mixed-use village where people can live, work, and play; and that can accommodate growth for future generations.

2

People-Friendly Streets

Existing streets will be improved to include sidewalks, bike paths, and landscaping.

3

Access to Nature

New parks and green spaces will be created so that all residents are within a 5-minute walk of natural areas.

4

Housing Choices

A mix of housing types to accommodate residents throughout each stage of life.

DEFINING POLICY

1. Municipality to acquire a network of new or improved streets as the neighbourhood redevelops, with an emphasis on pedestrian comfort and safety (see Section 5.3).

2. Municipality to acquire new parkland as the neighbourhood redevelops with the target of having all residents within a 5-minute walk of a green space (see Section 6.3).

3. Applicants to provide Community Amenity Contributions as part of all rezoning processes (see Section 4.2.3).

4. New buildings to be energy efficient; built with a minimum of Step 3 of the BC Energy Step Code (see Section 4.5.3).


5. All new development to have a maximum 10% effective impervious area (area that drains to conventional off-site infrastructure) in order to manage stormwater on-site and protect local ecosystems (see Section 4.5.2).

6. All new development to have a minimum 30-40% tree canopy coverage in order to create a new urban forest (see Section 4.5.1).

7. All new development to adhere to dark sky lighting principles and guidelines for exterior lighting in order to maintain a rural night sky and minimize impact on residents (Section 5.7.2).



TABLE OF CONTENTS

	1. PROJECT OVERVIEW	
	1.1 Introduction	8
	1.2 How to Use This Plan	9
	1.3 Area Context	10
	1.4 Existing Conditions	14
	1.5 Project Process	16
	2. PLANNING & DESIGN FOUNDATIONS	
	2.1 Overview	18
	2.2 Vision	19
	2.3 Goals	19
	2.4 Planning Principles	20
	2.5 Urban Design Principles	21
	3. NEIGHBOURHOOD CONCEPT	
	3.1 Overview	22
	3.2 Precedents	23
	3.3 Concept Plan	26
	4. LAND USE & BUILT FORM	
	4.1 Overview	32
	4.2 General Policies	33
	4.3 Land Use	36
	4.4 Built Form & Site Design	53
	4.5 Green Building & Site Design	60
	5. TRANSPORTATION: STREETSCAPE & MOBILITY	
	5.1 Overview	63
	5.2 General Policies	64
	5.3 Streets, Laneways & Greenways	65
	5.4 Goods Movement & Loading	78
	5.5 Public Transit	79
	5.6 Off-Street Parking	83
	5.7 Streetscape	84
	5.8 Design Directions Gallery	89

6. BLUE-GREEN SPACES: PARKS, BUFFERS, & STORMWATER	
6.1 Overview	91
6.2 General Policies	92
6.3 Blue-Green Network	93
6.4 Urban Forest	98
6.5 Stormwater Management	99
7. INFRASTRUCTURE	
7.1 Overview	105
7.2 Infrastructure Action Plan	106
8. IMPLEMENTATION	
8.1 Overview	111
8.2 Implementation Strategy	112
9. APPENDIX A	
A.1 Landscape Plan Requirements	117
A.2 Canopy Cover Credit Tree List	119

Prepared by:



Prepared for:



This document is best viewed in two-page or full spread mode.

PROJECT OVERVIEW

1.1 INTRODUCTION

The Bell McKinnon Local Area Plan (BMLAP) provides detailed policies and recommendations to guide future private and public investments in the Bell McKinnon area over the next 20+ years.

Bell McKinnon is a unique neighbourhood poised for transition. The BMLAP is a critical tool to prepare for and respond to anticipated regional growth and the new regional hospital on Bell McKinnon Road. Ultimately, the LAP aims to guide the Municipality and community in creating a compact, sustainable neighbourhood where people can live, work, and play.

The LAP takes direction from the Municipality's Official Community Plan (OCP) and other supporting documents, and provides a robust blueprint for planning and design at the neighbourhood scale. While consisting primarily of large rural lots and basic infrastructure, the area is designated as a Growth Centre in the OCP, meaning urban development is envisioned in the neighbourhood - providing housing, services, and amenities to the community.

In response to OCP direction and the proposed hospital, the Municipality began the LAP process to provide a future-oriented illustration and roadmap of a 21st century Growth Centre.

In early 2018, a team led by Barefoot Planning kicked off the LAP process. Community consultation was central to the process, with multiple opportunities for dialogue and

engagement throughout. Residents, landowners, employees, and other stakeholders provided feedback via a public survey, an interactive Ideas Fair, an intensive Stakeholder Workshop, and pop-up engagement booths at key community locations. Public preference was further refined at a drop-in Public Gallery and, finally, an Open House to review the draft of the Plan.

The resultant BMLAP is based on that input, as well as contemporary best practices, policy directions, and key planning principles. The enclosed policies and strategies are meant to strengthen the long-term vitality and resilience of the area while being consistent with community-based goals, values, and principles.

The key sections of this Plan include:

- Planning & Design Foundations
- Neighbourhood Concept
- Land Use & Built Form
- Transportation
- Blue-Green Spaces
- Infrastructure
- Implementation

1.2 HOW TO USE THIS PLAN

The BMLAP serves as a guide for future development within the Bell McKinnon neighbourhood. The Plan provides clear goals, guidelines, and policies to help achieve the vision for the neighbourhood.

What is a Local Area Plan?

Local Area Plans (LAPs) provide direction for how a particular area will grow and change over time. They typically include detailed guidelines and policies to direct the urban design, transportation (including cycling, walking, transit), land use, parks and open spaces, and other planning elements in the area.

An LAP further refines the high-level directions found in the Official Community Plan (OCP) and applies those refined policies to a specific neighbourhood; seeking to achieve the Policies, Goals and Objectives of the OCP, while also recognizing the specific opportunities and constraints of a defined neighbourhood area. The OCP is the Municipality's overarching bylaw for guiding and assessing new development in the community.

Who is the Plan for?

The BMLAP is intended to work as a guide for citizens, developers, and Municipal staff when contemplating development proposals and applications in the Plan Area. This Plan should be reviewed against private and public land development applications; capital works projects; and community improvement and development projects.

The Plan advances the implementation of OCP Goals and Objectives as well as municipal initiatives as Bell McKinnon grows and changes over the coming years. Finally, the Plan outlines the planning and design standards and expectations within the Bell McKinnon Plan Area to be considered by the Municipality to facilitate achieving the Plan vision.



1.3 AREA CONTEXT

1.3.1 Historical Context

The Municipality of North Cowichan is situated on the unceded indigenous territory of the historic Cowichan Nation and its modern day successors, including Cowichan Tribes. The Bell McKinnon Road corridor is located within the historical village lands of S'amuna (Somenos), which was utilized by the Coast Salish peoples for thousands of years. Today, Cowichan Tribes is the largest First Nations band in British Columbia and remains very active in the Cowichan Valley.

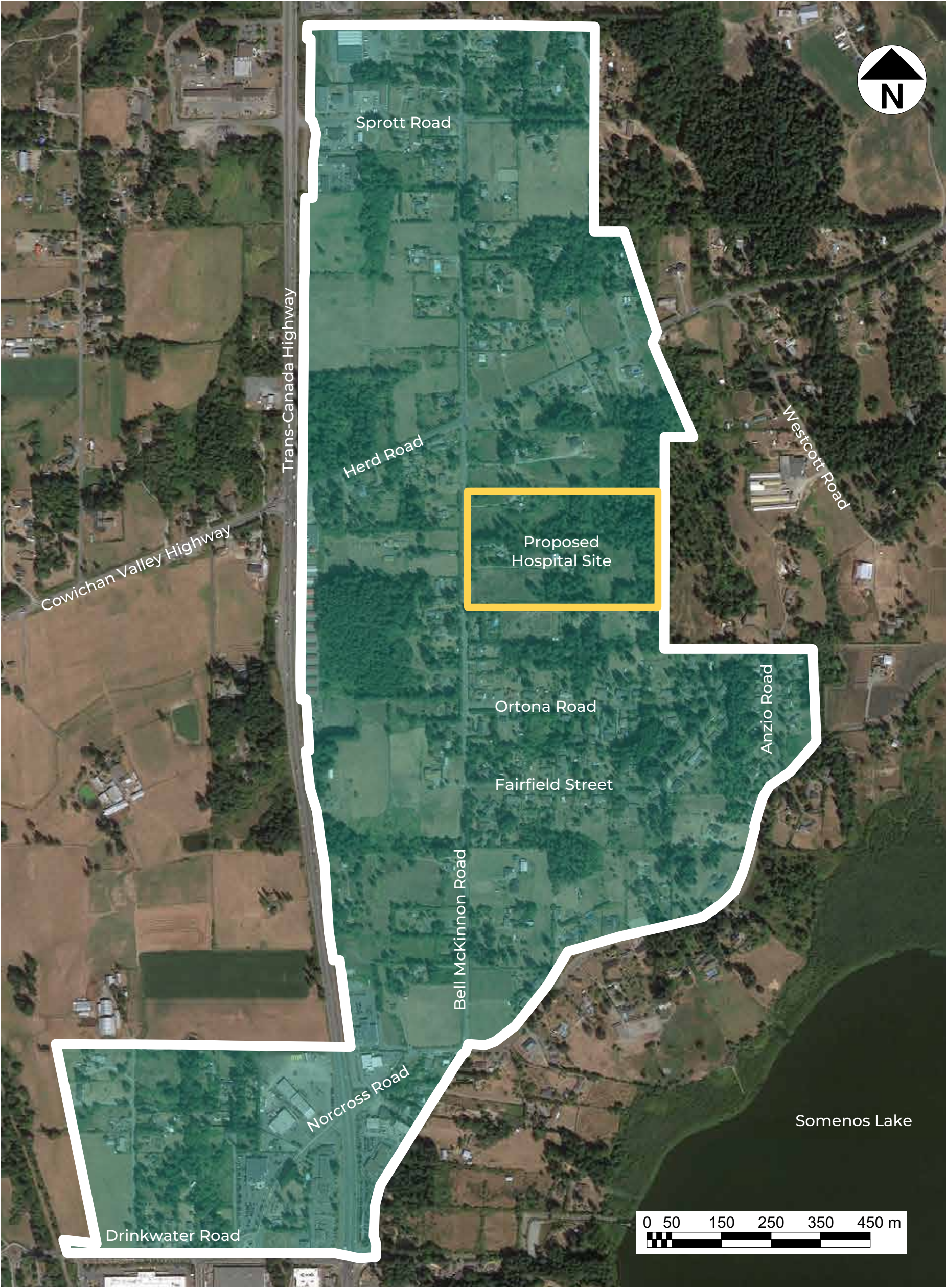
In the early years of European settlement, Bell McKinnon and the surrounding area became utilized for farming and homesteading purposes. The Municipality of North Cowichan later developed around traditional resource industries of agriculture, forestry, mining, and fishing.

Over time, poor growing conditions in the Bell McKinnon corridor led to its removal from the Agricultural Land Reserve (ALR). With the adoption of the current OCP, the area was included in the Urban Containment Boundary and identified as a Growth Centre.

More recently, the Cowichan Valley Regional Hospital District purchased 8.9 hectares in the Bell McKinnon Plan Area for replacement of the Cowichan District Hospital. The property was rezoned to accommodate the land use change, and a future hospital is forecast to be built in the next 5-10 years.



1.3.2 Plan Area



This page is intentionally blank.

1.3.3 Policy Context

The BMLAP sits within an existing policy and regulatory context in the Municipality. This page provides a brief review of this context and how it informs the development of the Plan.

Official Community Plan (OCP)

The OCP provides clear direction for developing the study area as a Growth Centre by adhering to the principles of Smart Growth and developing urban infrastructure. Further direction is provided through high level policy directions and objectives that support the development of a compact, mixed use area, including protecting farm land and natural areas, strong urban design and a people-friendly public realm, providing a variety of housing types, and encouraging a healthy and safe environment for children and youth.

Parks & Trails Master Plan (PTMP)

The PTMP is a strategic Plan that guides the development and management of parks and trails in the Municipality. Relevant recommendations include developing safe new multi-modal connections between communities; improved on- and off-road trail and pathway connectivity; physically connecting parks, trails, and neighbourhoods; and developing parks and recreational areas within walking distance of all residents.

Bike Network Implementation Guide

The Bike Network Implementation Guide provides a vision for developing and enhancing cycling infrastructure within the Municipality and beyond. The Guide details the delivery of select projects to maximize impact and move forward on established cycling-related policy goals from the PTMP and OCP, including the development of an on-road protected trail on Bell McKinnon Road and extensions to the Cowichan Valley Trail / Trans Canada Trail.

Climate Action & Energy Plan (CAEP)

The CAEP addresses climate change and energy consumption in the Municipality, providing an inventory of the community's energy use and greenhouse gas emissions and identifying future trends in energy use. The Plan also identifies strategies for reducing energy consumption and emissions through policy and other mechanisms – such as enforcing the Urban Containment Boundaries, discouraging rural sprawl, increasing housing density, and placing importance on active transportation.

1.4 EXISTING CONDITIONS

Today, the neighbourhood is generally characterized by large rural residential lots with a mix of service commercial uses adjacent to the Trans-Canada Highway. This image gallery provides a visual overview of existing conditions in the Plan Area.



Key intersection of Bell McKinnon Road and Herd Road



Commercial uses in south end of Bell McKinnon Road



Rural character further north on Bell McKinnon Road



Typical character of Ortona Road and Fairfield Road



Site of new regional hospital on Bell McKinnon Road



Typical rural landscape off of Bell McKinnon Road



Herd Road is a major link to the east



Existing development site at Herd Road and Trans-Canada Highway



Commercial activity and forms at Sprott Road



Agricultural lands beyond the corridor



Somenos Lake is a key ecological asset nearby



Despite road improvement in some locations, on-site pedestrian and cycling facilities are largely absent in the area



Indicative of car-oriented built forms in commercial areas



Unwelcoming architecture at nearby Cowichan Commons



Nearby development tends to be car-oriented and "big box" or highway-oriented in nature

1.5 PROJECT PROCESS



SITE ANALYSIS

January / Project Team

Technical analyses of existing conditions [a] identified challenges and opportunities and [b] outlined a policy framework to inform the project. Outcomes of the Site Analysis informed the content for the Ideas Fair.



IDEAS FAIR

January 31 / Public

An interactive engagement event harvested public feedback and generated high-level directions and big ideas for the future of the neighbourhood.



SURVEY & POP-UPS

February / Public

A public survey and online PlaceSpeak discussions, along with pop up events, extended the reach to the wider community. Directions from the public formed a base on which the stakeholder workshop was built.



WORKSHOP & INTERVIEWS

February-March / Stakeholders

Focus interviews provided greater detail on key plan components, and an intensive workshop refined high-level directions into possible scenarios and actions. Then, a set of key elements and plan scenarios were developed for public review at the Public Gallery.



PUBLIC GALLERY

April / Public

A second public event and online survey allowed residents to share feedback and comment on the scenarios and directions generated at the workshop, based on their initial input. The Project Team then synthesized the public input and developed a draft LAP.



DRAFT LAP OPEN HOUSE

May / Public

The Draft LAP was presented for public comment at an Open House and online. The Project Team finalized the LAP based on public and further staff input.

COUNCIL PRESENTATION

July / Public

The Final LAP was presented to Council at a public meeting.

1.5.1 SUMMARY

The project process was rooted in a collaborative project team, including staff and consultants, and a community-driven approach to developing the final Plan.

The adjacent timeline illustrates this process – the core of which was the community consultation. In addition to these steps, the Project Team worked collaboratively and iteratively with municipal staff to refine the project. This included internal department reviews (e.g., planning, engineering, parks) to ensure a practical and implementable Plan. Other key stakeholders were directly engaged to provide input, including Island Health, School District 79, Halalt First Nation, and Cowichan Tribes.

The final BMLAP was directly informed by the outcomes of the engagement process along with contemporary best practices, neighbourhood planning principles, consultant analyses, and staff input.

1.5.2 Consultation Outcomes



Participation at the kickoff Ideas Fair



Participation at the Ideas Fair



Example of an Ideas Fair display board



Pop-up booth at Duncan Farmer's Market



Mocking up ideas at the Stakeholder Workshop



A Community Gallery to review ideas, so far

Principles & Values:

- Conservation planning
- Sustainability by design
- Community-oriented

Needs Improvement:

- Active transportation network
- Housing diversity and options
- Streetscape design
- Infrastructure and amenities
- Accessibility

Prioritize Investment In:

- Active transportation connections within and to/from the neighbourhood

- Infrastructure improvements
- Stormwater management
- High quality community spaces
- Housing options

Vision for Bell McKinnon:

- Compact mixed use village
- Health precinct
- Urban amenities and infrastructure
- Social vibrancy
- Multiple active transportation options
- Integration of green infrastructure benefiting people and environment
- An integration of green space and natural sense of place

2

PLANNING & DESIGN FOUNDATIONS

2.1 OVERVIEW

Throughout the project process, the community provided input on the future vision of the neighbourhood, as well as the core values and principles that should guide that future.

Using this input from the community and stakeholders, and informed by best practices, the project team developed a framework of foundational elements on which the LAP is built.

As opposed to being purely abstract in nature, this framework directs the development of corresponding policies, which in turn translate these concepts into implementable requirements and guidelines.

Moreover, the presented neighbourhood concept draws directly from this project framework.

The framework is made up of the following hierarchical elements:

Vision – a verbal description of the desired future state of the area.

Project Goals – the primary objectives to be achieved in order to realize the vision statement.

Planning & Design Principles – the guiding rules to follow in order to achieve the project goals and vision.

2.2 VISION

A model Green Growth Centre in the Cowichan Valley that is a vibrant, walkable, urban village that facilitates healthy living in all stages of life.

2.3 GOALS

Live, Work, Play

A neighbourhood where residents can live, work, and play within a 5-minute radius.



8 to 80

A neighbourhood where people of all ages feel safe, comfortable and are welcomed.



Green, Not Grey

A neighbourhood built on a green network that supports a healthy community and ecosystem.



2.4 PLANNING PRINCIPLES

Streets for People

Create streets that are comfortable and safe for all users – including pedestrians and cyclists.



Smart Growth

Facilitate compact development that creates vibrant, walkable places that provide for long-term community growth, while avoiding urban sprawl and worsening impacts on the natural environment.



Housing Choices

Provide a range of housing types and tenures to serve local residents through all stages of life.



Blue-Green Infrastructure

Develop a comprehensive blue-green space network that enhances local ecologies and supports a healthy community.



2.5 URBAN DESIGN PRINCIPLES

Life Between Buildings

Layout buildings to define high quality “outdoor rooms”, such as private courtyards and public plazas, for people to gather in and enjoy.



First Floor Focus

Focus on the quality of architecture and the interface of public and private spaces at the pedestrian level in the creation of appealing storefronts, patios, yards, and entries.



Human Scale

Design buildings, streets, and other features to suit and function for pedestrian capacities, rather than vehicles or as monuments.



Ecological Design

Integrate natural systems, such as stormwater flows and ecology, into all landscape and building design.



3

NEIGHBOURHOOD CONCEPT

3.1 OVERVIEW

This section provides illustrations of the neighbourhood, based on a long-term, full build-out of the enclosed policies and directions.

The illustrations do not consider a multitude of factors that will affect the incremental growth of the neighbourhood. Instead, this section is merely intended to provide a visual representation of LAP Policies and Guidelines, including the maximum possible development density.

The Neighbourhood Concept helps to visualize the long-term design and planning directions for the area, including density of development, parks and green spaces, new streets, and other elements. It does not, however, provide a guide for detailed design and planning elements, such as architectural and park design character. In general, simplistic representations of these elements are used, which do not reflect the quality of design anticipated in the community.

Inside, you will find:

- A gallery of precedent images, illustrating the “types of things” envisioned in the future for the neighbourhood.
- A high-level concept plan of the entire BMLAP area, highlighting key features of the Plan.
- High-level “plan view” illustrations of the area, broken up by sub-area, identifying the general development patterns across the BMLAP.
- Streetscape illustrations of two key locations in the Plan Area – the Core Village and the higher density residential areas – and demonstrating how policy is expressed in the built form.

3.2 PRECEDENTS

This precedent image gallery provides conceptual and aspirational directions for the future of the neighbourhood, in terms of built form, character, and general features and amenities.



High density housing at a modest scale



Integration of multifamily housing and green space



Kid-friendly amenities and infrastructure



High quality landscaping



A new urban forest with tree canopy coverage



Hidden densification, like duplexes and triplexes



A high quality, central public plaza



Fine-grained pedestrian network



High quality cycling infrastructure for all ages



Multi-functional laneways



High quality build materials and architecture



Shared space streets for people



High quality courtyards and common spaces



Public space design for all ages and abilities



Strong street frontages and contextual design



Preservation of employment lands



Interconnected common spaces and trail network



Small lot and cluster housing

3.3 CONCEPT PLAN

3.3.1 Key Features

This Concept Plan illustration is indicative of a fully built out vision for the area according to the policies in this Plan. Development, however, is expected to happen incrementally and in a manner responsive to uncertain economic, social, and environmental changes over time. Specific features and layouts are indicative only.



1

Live, Work, Play

A mixed use village complements a mix of housing types to create a place where people can live, work, and play.

2

People-Friendly Streets

Existing streets will be improved to include sidewalks, bike paths, and landscaping, and all new streets will be “pedestrian priority”.

3

5-minute Parks

New parks and green spaces will be created so that all residents are within a 5-minute walk of a park, plaza, or playground.

4

Blue-Green Network

Trails, greenways, and naturalized areas will both provide access to nature and serve as multifunctional “green infrastructure”.

5

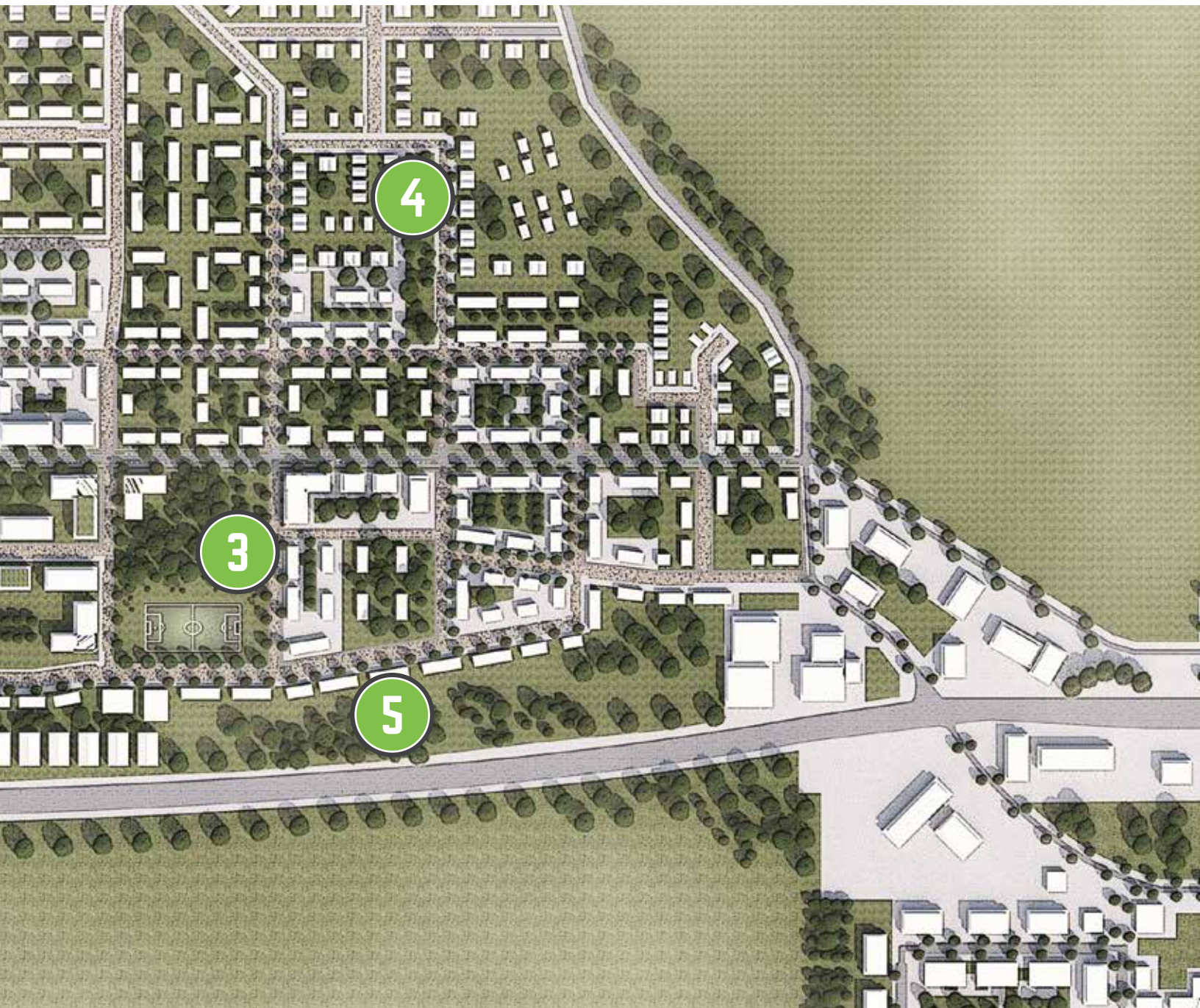
Highway Buffer

Natural areas and commercial buildings along the highway will buffer residential areas from vehicular noise and pollution.

6

Equitable Mobility

Equitable mobility will be sought through high quality pedestrian/bicycle facilities and a future transit hub near the hospital.



3.3.2 Sub Areas



North

A mix of employment lands and lower density residential transitioning to medium and higher density residential approaching Herd Road.

Central

A mixed use area framed by higher density residential, with employment lands remaining adjacent to the highway, and the new hospital integrated within a core neighbourhood village.



South

A general progression from higher density to lower density residential, with employment lands and natural areas buffering the highway from residential uses.



Southwest

A mix of existing and new commercial lands with low to moderate density housing transitioning toward adjacent rural lands.

3.3.3 Streetscape Illustrations



Core Village

The Core Village land use along Bell McKinnon Road is envisioned as a 3-5 storey mixed use village with active retail and commercial frontages.

1

3-5 Storey Built Form

Mixed commercial and residential buildings between 3-5 storeys.

4

Protected Bike Lanes

Bike lanes that are physically-separated from vehicular traffic.

2

Pedestrian-Friendly

Wide sidewalks and corner “bulbouts” to increase pedestrian comfort and safety.

5

Active Frontages

All ground floors to be “active,” through design (e.g., glass) and use (e.g., retail).

3

Green Infrastructure

Stormwater swales and raingardens integrated throughout the street design.

6

People Spaces

Publicly-accessible plazas, parks, and patios incorporated throughout the Core Village.

Note that building character is purely conceptual and not meant to represent desired quality of materials or level of architectural detail.



High density residential on new local street

The Residential-High land use is envisioned as a mix of townhomes and multifamily buildings with significant amounts of common open spaces (e.g., courtyards, mid-block laneways) and parks integrated throughout. New local roads will be “shared space” streets with low traffic speeds and high quality, pedestrian-oriented design.

1

3-5 Storey Built Form

A mix of townhouses and multifamily buildings up to 5 storeys in height.

2

Shared Space

New local streets that prioritize pedestrians and cyclists over vehicular efficiency.

3

Functional Landscapes

Stormwater facilities, such as raingardens and swales, integrated throughout public and private spaces.

4

Courtyards & Laneways

Network of common open spaces throughout the neighbourhood.

5

Ground-Oriented Units

Ground-oriented units activate surrounding areas, providing built-in comfort and safety.

6

Green Urbanism

Three key green development requirements translate to energy efficient buildings and high tree canopy and greenspace coverage.

Note that building character is purely conceptual.

4 LAND USE & BUILT FORM

4.1 OVERVIEW

This section provides detailed land use and built form policies that serve to guide future decision-making regarding development in the Plan Area.

The subsections detail everything from the acquisition of new streets, parks, and trails; to land use designations and related policies; to built form guidelines; to green building and design requirements. In sum, these policies will shape the future built environment and uses in the neighbourhood, based on the Planning and Design Foundations found in Section 2.

Inside, you will find:

- General policies, including the acquisition of neighbourhood networks – infrastructure, parks and open spaces, streets and laneways –and Community Amenity Contributions.
- A Land Use Plan and detailed land use policies for each designation in the entire Plan Area.
- Built form and site design guidelines, including key urban design elements such as courtyards, active frontages, and semi-private front yards.
- Green building and site design requirements, including tree canopy coverage, effective impervious area, and green building (BC Energy Step Code).

4.2 GENERAL POLICIES

4.2.1 Administration

1. All bylaws, development or land use applications shall be consistent with the policies of the BMLAP.

Interpretation of Language

2. Where a descriptive section accompanies a policy, it is provided for information purposes only to enhance the understanding of the policy.
3. Where “shall” is used in a policy, the policy is considered mandatory.
4. Where “should” is used in a policy, the intent is that the policy is strongly encouraged, but can be varied where unique or unforeseen circumstances provide for courses of action that would satisfy the general intent of the policy.
5. Where a policy requires submission of studies, analysis, or other information, the Municipality shall determine the exact requirements and timing of the studies, analysis, or information.

Key Development Requirements

6. All new development must satisfy the conditions of the following key policies:
 - a. Minimum 30-40% tree canopy cover (see Section 4.5.1)
 - b. Maximum 10% effective impervious area (see Section 4.5.2)
 - c. Minimum Step 3 of the BC Energy Step Code (see Section 4.5.3)

Application Requirements

7. At the time of Zoning amendment and Development Permit application, applicants shall provide:
 - a. A detailed landscape plan prepared by a registered landscape architect.
 - See Appendix A and Section 4.5 Green Building & Site Design for required plan details and calculations.
 - b. A shadow analysis to outline any impacts on surrounding buildings and open spaces.

4.2.2 Acquisition of Neighbourhood Networks

Infrastructure

1. Existing infrastructure – including roads, sanitary sewer, and water – may be inadequate to service many developments anticipated by the LAP. The developer is responsible for providing the necessary upgrades resulting from a development or land use application in accordance with the policies of this Plan.

2. The Municipality shall incorporate the directions of this LAP into its infrastructure improvement plans (e.g., capital plans, development cost charges); additionally, infrastructure and servicing upgrades are expected to be funded by private development where latecomer or excess capacity agreements are applicable through legislation. See Section 7.2 Infrastructure Action Plan.

Parks and Open Spaces

3. Desired public park and trail network acquisitions are shown on figures 5.3.3 and 6.3.2 and shall be secured for public access through the development or land use application process in accordance with the policies of this Plan.

a. Additional public, semi-private and privately-owned public spaces, particularly internal courtyards and mid-block connections, shall also be secured through the development or land use application process, consistent with the policies of this Plan.

4. Desired blue-green network acquisitions, including buffer areas and stormwater amenities, are shown on figures 6.5.2 Stormwater Management Plan and 6.3.2 Blue-Green Network and shall be secured through land use or development application processes in accordance with the policies in this Plan.

Streets and Laneways

5. Desired street network acquisitions, including new local roads and laneways and upgrades to existing roads, are shown and detailed in Section 5 Transportation and shall be secured in favour of the Municipality through the development application process in accordance with the policies of this Plan.

a. Street network acquisitions shall be designed with strong consideration for figure 6.3.2 Blue-Green Network and related policies.



Example of infrastructure acquisition



Example of high quality public park acquisition



Example of high quality local street acquisition

4.2.3 Community Amenity Contributions (CAC)

1. At the development application stage (i.e., rezoning), the Municipality shall negotiate with all applicants for the provision of Community Amenity Contributions (“amenity contributions”) according to the below guidelines, the subsequent policies in this section, and any adopted Amenity Program:

- a. Amenity contributions shall be in the form of agreed upon physical amenities (e.g., public spaces or facilities), benefits (e.g., affordable housing), and/or cash-in-lieu contributions; physical amenities should be given preference over cash-in-lieu.
- b. Amenity contributions should be proportional to the development rights and value created through rezoning.
- c. Amenity contributions should be proportional across development sites to ensure fairness.

2. To facilitate street, laneway, park, trail, and stormwater facility acquisition, as illustrated in figures 5.3.3, 6.3.2, and 6.5.2 of this Plan, the Municipality shall consider increasing the permitted density and other incentives based on gross lot area, where such acquisitions result in diminished property rights beyond statutory requirements and proportional CAC negotiations.

3. The provision of semi-public open spaces and trails, mews, and plazas shall be considered an

amenity, only where a legal arrangement has been established on title to preserve public access.

4. The provision of parkland beyond the statutory requirement (5% dedication) during subdivision shall be considered an amenity, but only for developable land or lands identified in the Blue-Green Network policies (Section 6).

5. Parks, trails, and laneways provided beyond statutory requirements shall only be considered amenities where the following criteria are met, following neighbourhood and municipal staff consultation:

- a. Park designs and tender drawings have been prepared by a registered landscape architect at the cost of the developer;
- b. Developer has agreed to provide bonding for all aspects of park construction;
- c. Developer agrees to enter into a two year maintenance agreement with the Municipality from the time of substantial completion; and,
- d. Crime Prevention through Environmental Design (CPTED) principles have been considered in all open space design.

What are Community Amenity Contributions?

The purpose of Community Amenity Contributions (CACs) is to capture a proportion of the development value created by Council-approved density increases (i.e., rezoning) for the benefit of the community. CACs and associated policies facilitate the provision of amenities (e.g., parks, trails), benefits (e.g., affordable housing, green building), and cash-in-lieu payments that serve existing and new residents while mitigating negative impacts from densification.

CACs are used to achieve amenities and public benefits that are not achievable via other regulatory tools, such as Zoning, Development Cost Charges, requirements of subdivision, and taxation. Best practices suggest that CACs should be location-specific (near to the new development) and proportional to the density increase (and value created).

6. The provision of public art within plazas, squares, streetscapes, and bicycle networks shall be considered an acceptable component of an amenities package, with approval from the Municipality and a binding agreement that includes provisions to ensure the long-term maintenance or replacement of the artwork.

7. The provision of landscaped-based stormwater facilities (Section 6.5) shall be supported as acceptable amenities.

8. Other amenities that should be considered acceptable include but are not limited to functioning natural habitats, affordable housing units, and childcare facilities.

4.2.4 Housing

1. The Municipality shall support and facilitate the development of a range of housing types, sizes, and tenures in the study area. This should include the inclusion of family-sized units (e.g., 3+ bedroom) in multifamily buildings, housing options for seniors and those with special needs, and other forms of supportive housing.

4.3 LAND USE

4.3.1 Administration

1. The land use designations and accompanying policies of this section shall inform all development application decisions in the Plan Area. The boundaries, uses, and densities established may be varied to account for unique circumstances, adaptability over time, and flexibility of implementation, so long as the intent of the policy is achieved and is consistent with the policies, goals, and principles of this Plan.

2. The Municipality shall develop new Development Permit Areas and Zoning Bylaw zones consistent with this Plan. The policies and guidelines in this Plan shall function as Development Permit guidelines.

3. The Municipality should work with Cowichan Tribes to integrate Hul'qumi'num names and Cowichan art into the streetscape and public space planning and design process.

4. The Municipality shall develop a housing policy for the area which considers a requirement for family-sized units.

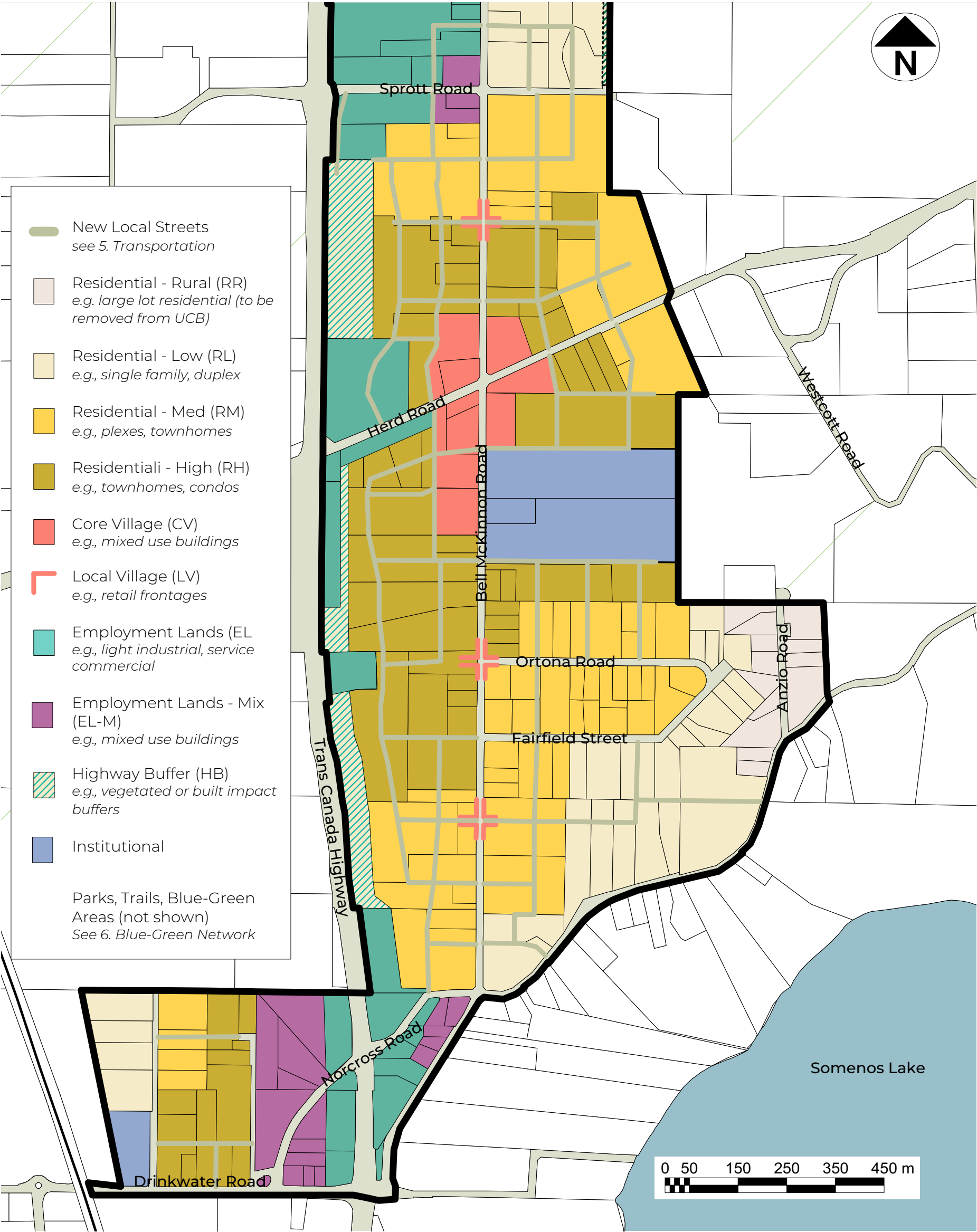


Example of linear public space as a CAC



Indigenous art integrated into a public space in Vancouver

4.3.2 Land Use Plan









This page is intentionally blank.

4.3.2 Land Use Summary Table (1 of 2)

	Land Use	Summary	Preferred Typologies
	Core Village (CV)	A 3-5 storey mixed use village area	
	Local Village (LV)	Permitted light retail in local village centres	
	Residential-High (RH)	3-5 storey multifamily residential	
	Residential-Med (RM)	2-3 storey townhouses and duplex/triplex	
	Residential-Low (RL)	Single family, small lot, and duplex/triplex	

4.3.2 Land Use Summary Table (2 of 2)

Land Use	Summary	Preferred Typologies
Residential-Rural (RR)	Large lot residential	
Employment Lands (EL)	1-2 storey service commercial and light industrial	
Employment Lands-Mixed (EL-M)	Permitted residential above employment uses	
Institutional (I)	Proposed hospital and police station locations	
Highway Buffer (HB)	Large vegetated or mixed (with buildings) buffer area	
Parks	Integrated throughout all areas (see Section 6 Blue-Green Network)	

4.3.3 Core Village (CV)

This area is intended to act as the village hub of amenities, services, and employment, with multifamily residential integrated throughout.

CV Preferred Land Uses

- » Community / Institutional
- » Health care, hi-tech, office, retail, gallery, restaurant, commercial, studio, live-work
- » Multifamily Residential (not on first floor of collector/arterial streets)
- » Public Open Space (e.g., plazas, parks)
- » Other Public Amenities (e.g., community centre)

CV Preferred Building Typologies

- » Mixed Use Commercial
- » Mixed Use Residential

Preferred Setbacks & Frontages

Consistent streetwall with active frontages with some variation for visual interest and publicly-accessible parks and plazas.

- » Min. front setback: 0m
- » Max. front setback: 3m
 - Exclusions for squares, plazas, park areas, and public amenities.

CV Key Guidelines

- » Active street frontages (see Section 4.4.1 Building Architecture)
- » Courtyards (see Section 4.4.3 Courtyards & Mid-Block Connections)
- » Family-sized Units (see Section 4.2.4 Housing)

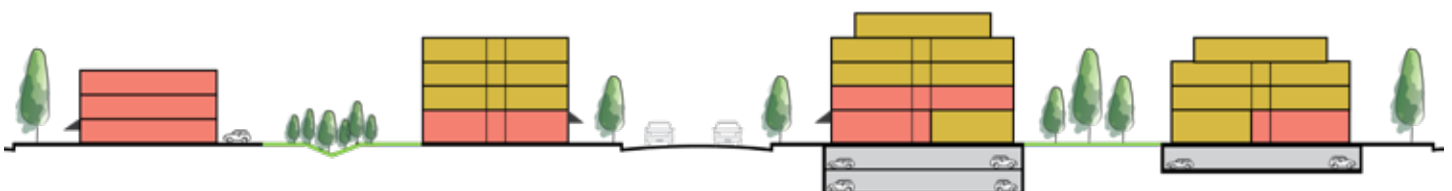


Example of a mixed use building with active ground floor uses and quality public spaces

CV Preferred Densities

- » Min-Max Height: 3 to 5* storeys
- » Min-Max Floor Area Ratio (FAR): 1.5:1 up to 2.5:1*

* Developments greater than 3 storeys and/or having FAR 1.5:1 or greater requires min. 70% underbuilding, or underground parking. Developments greater than 4 storeys and/or having FAR 2.0:1 or greater requires 100% underbuilding, or underground parking



4.3.4 Local Village (LV)

The local village frontage designation is intended to provide an opportunity to create a neighbourhood gathering place that provides local commercial, gathering, play, and sanctuary spaces at a walkable distance from residential areas. The preferred land uses, built forms, and density considerations are intended to be consistent with surrounding residential designations.

LV Preferred Land Uses

- » Community Facilities
- » Office, professional service, light retail, studio, gallery, live-work, restaurant
- » Multifamily Residential
- » Public Open Space (e.g., plazas, parks)
- » Other Public Amenities

LV Preferred Building Typologies

- » Mixed Use Commercial
- » Mixed Use Residential

LV Preferred Setbacks & Frontages

A consistent streetwall with active frontages is desirable with some variation for visual interest and publicly-accessible parks and/or plazas.

- » Min. front setback: 0m
- » Max. front setback: 3m
 - Exclusions for units fronting public open spaces and laneways

LV Key Guidelines

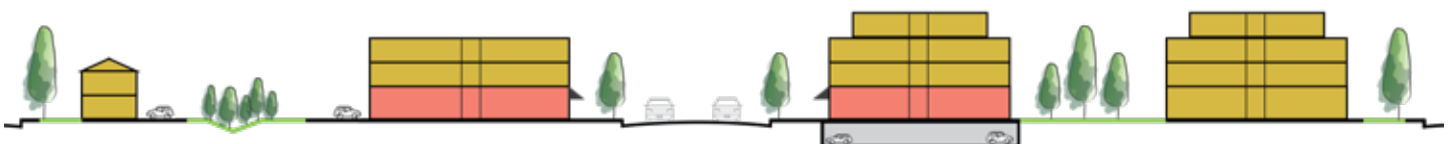
- » Active street frontages (see Section 4.4.1 Building Architecture)



Example of a neighbourhood-scale development with residential above light retail

LV Preferred Densities

- » Min-Max Height: 2 to 3 storeys
- » Min-Max Floor Area Ratio (FAR): 1:1 to 1.8:1



4.3.5 Residential-High (RH)

This designation provides higher density residential development areas with a mix of townhomes and multifamily residential with high quality public open space.

RH Preferred Land Uses

- » Apartments
- » Home-based business
- » Limited Accessory Uses (e.g., childcare)
- » Live-work
- » Multifamily Residential
- » Community Care
- » Public Open Space (e.g., parks)
- » Other Public Amenities

RH Preferred Building Typologies

- » 3-5 storey Multifamily Residential and/or Apartments

RH Preferred Setbacks & Frontages

Buildings should frame and address street frontages, internal common spaces, and public open spaces (e.g., parks) and utilize ground-oriented units wherever possible.

- » Min. front setback: 2m
- » Max. front setback: 4m
 - Setback and frontage exclusions for squares, plazas, park areas, and/or public amenities.



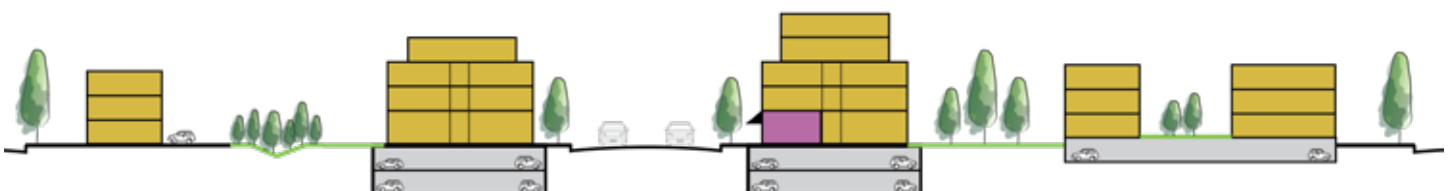
Example of multifamily residential with ground-oriented units and shared courtyard

RH Key Guidelines

- » Semi-private front yards (see Section 4.4.2 Yards & Setbacks)
- » Courtyards (see Section 4.4.3 Courtyards & Mid-block Connections)
- » Family-sized Units (see Section 4.2.4 Housing)

RH Preferred Densities

- » Min-Max Height: 3 up to 5* storeys



4.3.6 Residential-Medium (RM)

This designation provides moderate density residential development areas with a mix of townhomes and plexes with high quality public open space.

RM Preferred Land Uses

- » Apartments
- » Home-based Business
- » Limited Accessory Uses (e.g., childcare)
- » Live-work
- » Multifamily Residential
- » Public Open Space (e.g., parks)
- » Other Public Amenities

RM Preferred Building Typologies

- » 2-3 storey Multifamily Residential and/or Apartments

RM Preferred Setbacks & Frontages

Buildings should frame and address street frontages, internal common spaces, and public open spaces (e.g., parks) and utilize ground-oriented units wherever possible.

- » Min. front setback: 3m
- » Max. front setback: 5m
 - Setback and frontage exclusions for units fronting public open spaces and laneways.

RM Key Guidelines

- » Semi-private front yards (see Section 4.4.2 Yards & Setbacks)
- » Courtyards (see Section 4.4.3 Courtyards & Mid-block Connections)



Example of family-sized multifamily units with semi-private front yards

- » Family-sized Units (see Section 4.2.4 Housing)

RM Preferred Densities

- » Min-Max Height: 2 to 3* storeys
- » Min-Max Floor Area Ratio (FAR): 0.8:1 to 1.2:1*

* Development greater than 2 storeys and/or having FAR 0.8:1 or greater requires max 1 off-street parking stall per unit and parking at rear of building.

Development greater than 3 storeys and/or having FAR 1.2:1 or greater shall be considered with the provision of underground parking and



4.3.7 Residential-Low (RL)

This designation provides lower density residential development areas with a mix of single family, small lot single family, duplex, and triplex units integrated within high quality public open space.

RL Preferred Land Uses

- » Home-based Business
- » Limited Accessory Uses (e.g., childcare)
- » Public Open Space (e.g., parks)
- » Other Public Amenities

RL Preferred Building Typologies

- » Coach Houses
- » Single Family Home
- » Duplex / Triplex
- » Secondary Suites



Example of small lot housing with well-designed semi-private front yards

RL Preferred Setbacks & Frontages

Buildings should address street frontages, internal common spaces, and/or public open spaces (e.g., parks).

- » Min. front building setback: 2m
- » Max. front building setback: 5m

RL Key Guidelines

- » Semi-private front yards (see Section 4.4.2 Yards & Setbacks)
- » Courtyards (see Section 4.4.3 Courtyards & Mid-block Connections)

RL Preferred Densities

- » Min-Max Height: 1 to 3*
- » Min-Max Floor Area Ratio (FAR): 0.4:1 to 0.8:1
- » Min. average net density of 15 units per hectare

*Development greater than 2 storeys permitted for duplex/triplex only and requires that parking be accessed from a laneway, where possible, and be located to the rear of the front plane of the development.



4.3.8 Employment Lands (EL)

This area is intended to maintain and expand existing service commercial and light industrial use areas, which provide important economic activity, employment, and generally act to buffer the wider neighbourhood from the impacts of the Trans-Canada Highway.

EL Preferred Land Uses

- » Non-retail Commercial
- » Service Commercial
- » Light Industrial
- » Studio / Workshop
- » Restaurants

EL Preferred Building Typologies

- » Adapted for use
- » Minimum ground floor to ceiling height of 5.5m to allow long-term adaptability/flexibility of use.
- » Minimize surface parking

EL Preferred Densities

- » Min-Max Height: 2 to 3 storeys
- » Min-Max Floor Area Ratio (FAR): 0.7:1 to 1:1.

EL Preferred Setbacks & Frontages

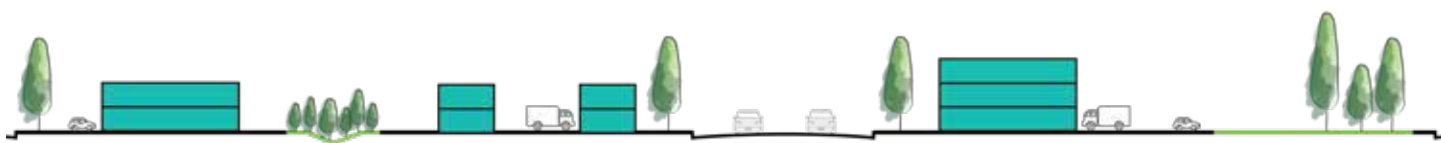
- » Adapted for use



Example of a light industrial building integrated into a predominantly residential area

EL Key Guidelines

- » High quality façade and landscaping
- » Parking permitted in front setback but should incorporate landscaping and stormwater management in accordance with development permit requirements.



4.3.9 Highway Buffer (HB)

This designation is intended to act as an impact buffer (e.g., noise, air pollution) between the Trans-Canada Highway and residential uses. Highway buffers may be [a] vegetated (only) or [b] a mix of vegetated and Employment Lands use.

HB Development Requirements

- i. Vegetated Impact Buffers shall be min. 60m wide south of and 100m wide north of Herd Road.
- ii. Mixed Impact Buffers shall be a min. of 40m wide south of and 60m wide north of Herd Road.
- iii. Mixed Impact Buffers shall include a min. of 10m vegetated buffer along eastern boundary.
- iv. In Mixed Impact Buffers, north-south gaps between buildings and between buildings and vegetated areas shall not exceed 10m;
- v. Where identified on 6.3.2 Blue-Green Network Plan, buffers areas should include publicly-accessible trails as per the policies of Section 6.3.



Example of a highway buffer incorporating stormwater management capacity

HB Preferred Land Uses

- » Vegetated green space
- » Publicly-accessible open spaces and trails
- » See Section 4.3.8 Employment Lands

HB Preferred Building Typologies

- » See Section 4.3.8 Employment Lands

HB Preferred Densities

- » See Section 4.3.8 Employment Lands

HB Preferred Setbacks & Frontages

- » See Section 4.3.8 Employment Lands

HB Key Guidelines

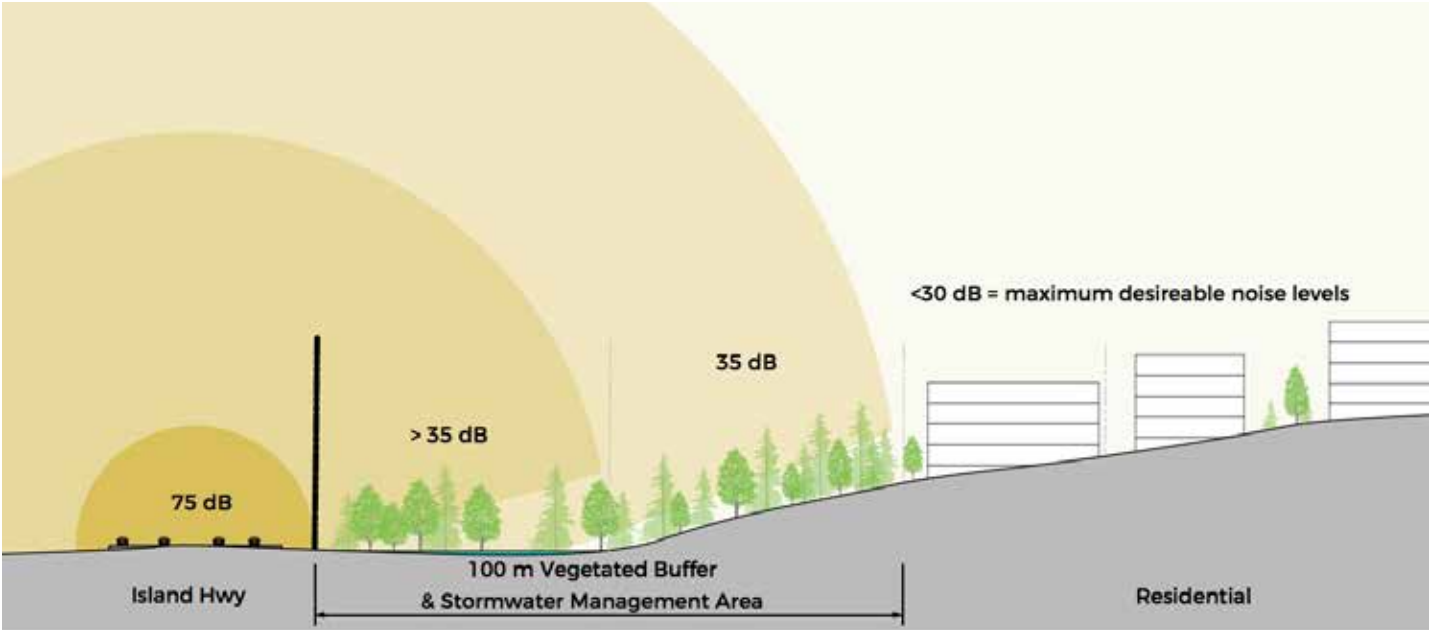
- » Impact buffers to be consistent with policies of this Plan
- » Impact buffers shall be dense with vegetation and heavily treed

Highway Buffering

The vehicular traffic on the Trans-Canada Highway produces noise and air pollution that can have significant negative impacts on nearby residents. Using evidence-based best practices, Murdoch de Greeff Landscape Architects analyzed the project area landscape to develop guidelines that inform the above policy. See the adjacent diagrams for further explanation and illustration.

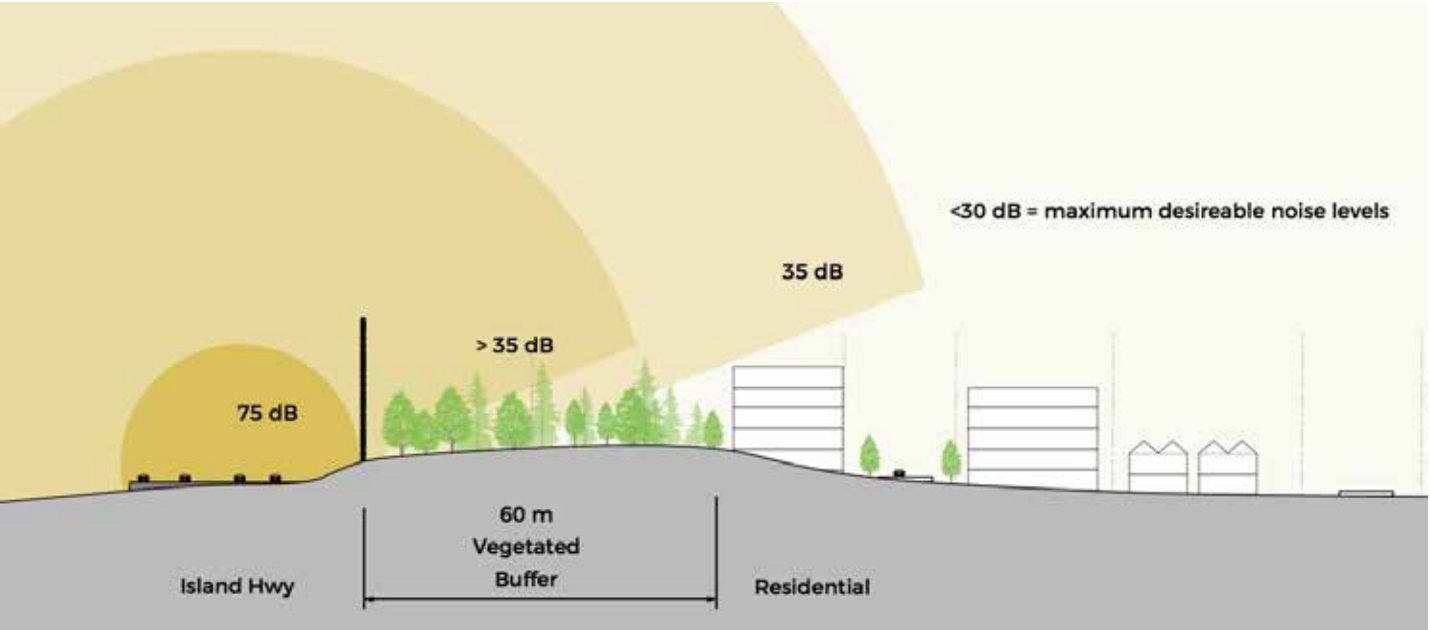
This page is intentionally blank.

Vegetated Impact Buffer North of Herd Road



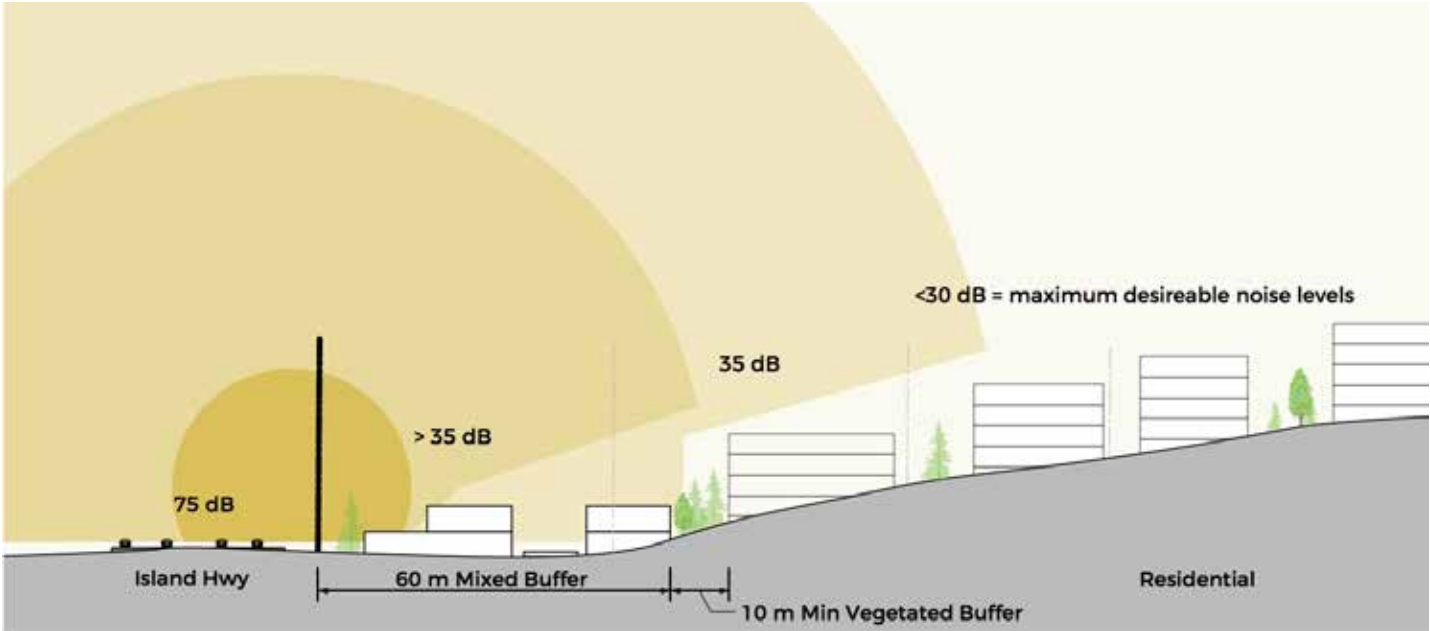
Vegetated Impact Buffer north of Herd Road requires minimum 100m distance between highway and residential uses.

Vegetated Impact Buffer South of Herd Road



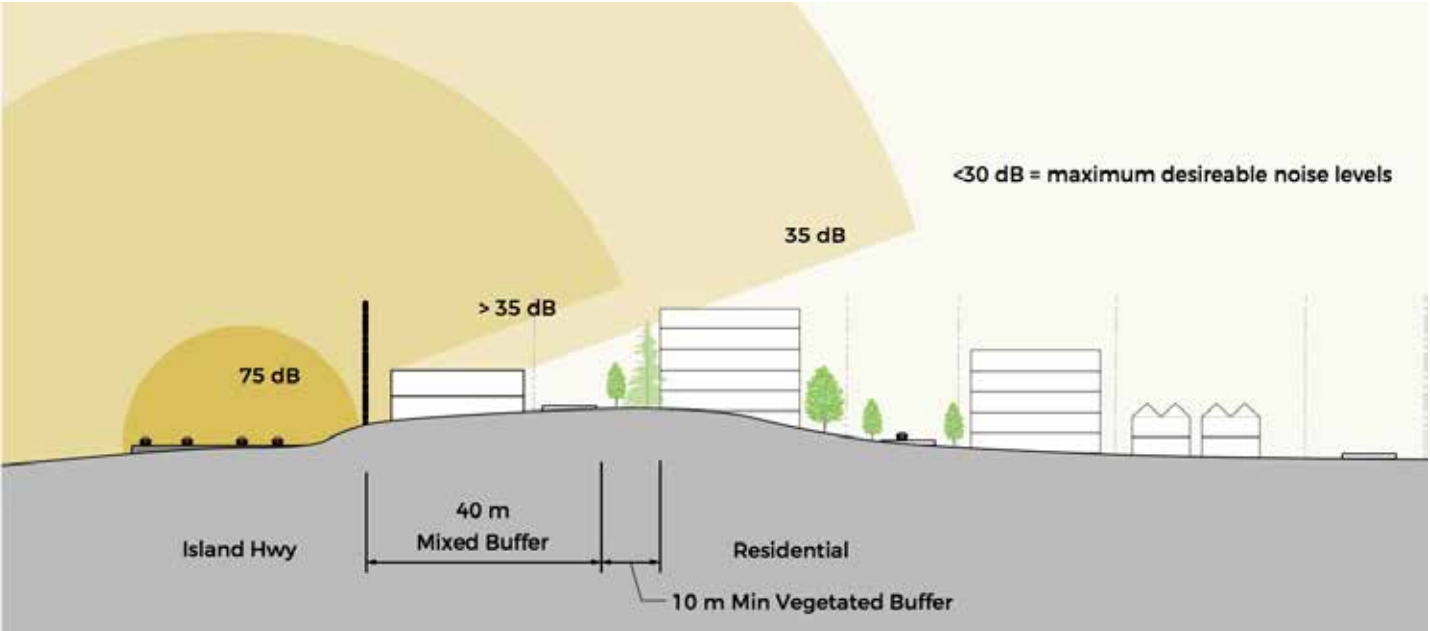
Vegetated Impact Buffer south of Herd Road requires a minimum 50m between highway and residential uses.

Mixed Impact Buffer North of Herd Road



Mixed Impact Buffer north of Herd Road requires a minimum 60m distance between highway and residential uses.

Mixed Impact Buffer South of Herd Road



Mixed Impact Buffer south of Herd Road requires a minimum 40m distance between highway and residential uses.

This page is intentionally blank.

4.3.10 Employment Lands-Mixed (EL-M)

This area is intended to provide employment lands with flexibility and intensity of use, including residential on the upper storeys, without permitting commercial/retail uses preferred in the Core Village.

EL-M Preferred Land Uses

- » Hi-tech
- » Light industrial
- » Live/work, studio
- » Multifamily Residential/Apartment (upper storeys only)
- » Office (upper storeys only)
- » Public Open Space (e.g., parks)
- » Restaurants

EL-M Preferred Building Typologies

- » Live/work units
- » Light Industrial Buildings
- » Mixed Use

EL-M Preferred Setbacks & Frontages

Adapted for use with preference for a consistent streetwall with active frontages with variation for visual interest and publicly-accessible parks and plazas. Outdoor storage and parking/loading areas should be screened from the street and public spaces by landscaping/screening.

- » Min. front setback: 0m
- » Max. front setback: 3m
- » > 50% of frontage at minimum setback
 - Setback and frontage exclusions for units fronting public open spaces and laneways.



Example of light industrial live/work building

EL-M Key Guidelines

- » Minimum ground floor height of 4.5m (floor to ceiling) to allow for long-term adaptability/flexibility of use

EL-M Preferred Densities

- » Min-Max Height: 2 to 4* storeys
- » Min-Max Floor Area Ratio (FAR): 1.0 to 2.0*

* Development greater than 3 storeys and/or having FAR 1.5:1 or greater requires min. 90% underbuilding or underground parking.



4.3.11 Residential Rural (RR)

This area is recommended to be removed from the Urban Containment Boundary. Through the implementation of policies in this Plan, infrastructure improvements may still be required and/or provided as part of the development process.

4.3.12 Institutional (I) Policies

- » Permitted uses, densities, and built form requirements to be determined by MNC staff on a project-by-project basis, informed by the OCP and guidelines of this Plan.
- » Street interface improvements to be informed by the OCP and guidelines of this Plan.



A typical rural residential property on Anzio Road

4.4 BUILT FORM & SITE DESIGN

4.4.1 Building Architecture

1. All buildings and multi-building developments should express a strong, cohesive architectural concept that:

- a. Creates interest by varying architectural design and facade treatments at key points.
- b. Articulates building footprints to reduce massing and to promote architectural definition.
- c. Introduces variety and creativity between buildings.
- d. Focuses on creating visual interest and human scale details at the pedestrian level.
- e. Uses authentic and high quality materials (e.g., wood, metal).
- f. Avoids thematic architectural styles associated with chain businesses.
- g. Incorporates overhangs for weather protection at entries and access points – and across entire frontages for retail uses where possible.
- h. Creates active street frontages and promotes public space vibrancy and safety through:

- i. Transparent commercial/retail street frontages.

- ii. Semi-private residential yards.

- iii. Residential balconies on all upper storey units facing streets or adjoining public open spaces.

2. The massing and siting of buildings should be arranged to:

- a. Minimize shadowing on residential floors of adjacent buildings as well as public and common open spaces such as sidewalks, plazas, and courtyards.
- b. Ensure that adjacent residential properties have sufficient visual privacy, as well as protection from site illumination and noise.
- c. Allow for sunlight onto the outdoor spaces of the majority of ground floor units during the winter solstice.
- d. Front public streets (including flanking stretch on corner sites) to create a defined street edge and to maximize the amount of private open space behind the building and separation from neighbours.



Building incorporating transparent frontage, semi-private patio, residential balconies, overhang for weather protection, and high quality materials

3. The Municipality shall consider aerial encroachments into the public right-of-way for building designs that include appropriate overhangs, weather protection, wind turbines, solar panels, and similar elements.

4. Commercial frontages should create a fine-grained development pattern at the ground floor. Regardless of the floor area of the units, frontages should be between 5m and 12m wide depending on location.

5. To optimize the viability of retail uses, a 4.5m floor to floor height for the first floor is a minimum.

6. To optimize the viability and adaptability of light industrial uses, a 4.5m-5.5m floor to floor height for the first floor in EL and EL-M designated areas is preferred, with consideration for a mezzanine level, loading bays, and proper separation, ventilation and power.

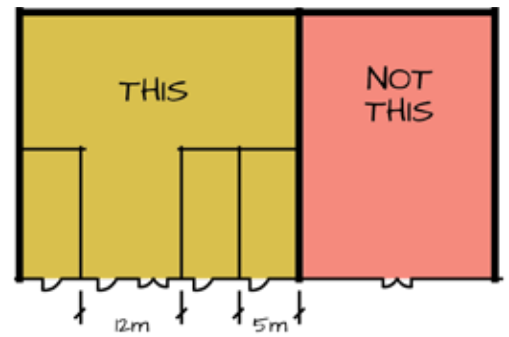
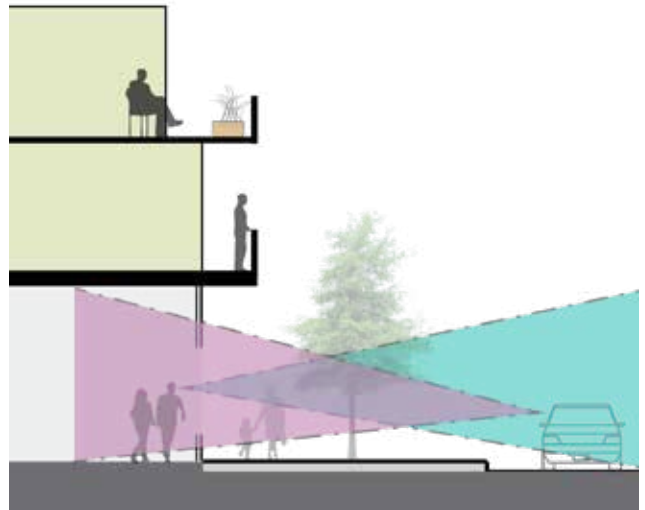


Diagram illustrating a fine-grained development pattern



Active frontages facilitate interaction between semi-private and public spaces.



Residential balconies on upper storey units



Building overhang providing weather protection

4.4.2 Yards and Setbacks

1. Wherever practical, buildings with ground-oriented residential units shall have shallow (3-4m) yards that function as semi-private spaces (e.g., landscaped yards, porches) or “soft edges”.
2. Where no front yard setback is required, ensure any setback enhances the streetscape by providing a high quality open space or maintaining an existing pattern of setbacks.
3. The ‘back to back’ distance (from rear elevation to rear elevation) between buildings should be used to maximize sunlight, privacy, and the amount of open space (e.g., courtyards, landscaping, stormwater amenities)
4. In residential and mixed use areas, exterior side yards on flanking streets should be treated as front yards – with entries, patios, etc. – and should have setbacks similar to the plane on the rest of the street frontage.
5. Buildings located adjacent to mid-block connections should provide a deeper front setback at the passage to improve their visibility and character – approximately 4m by 4m (see diagram on facing page)



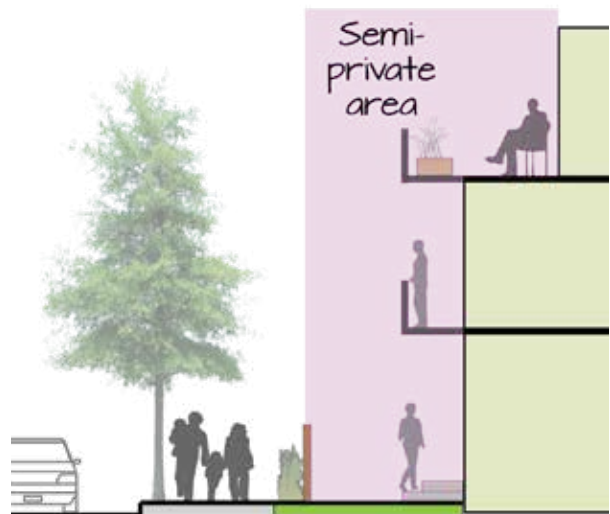
An extra front setback provides high quality and usable open space



Semi-private yards facilitate privacy and social interaction



A consistent streetwall provides a comfortable sense of enclosure



Semi-private areas provide a buffer between fully public and private areas

4.4.3 Courtyards & Mid-Block Connections

1. Courtyards between buildings or incorporated into individual buildings (e.g., L, C, E-shaped buildings) are encouraged and should have a minimum depth of 10m.
2. Massing that achieves a maximum amount of sunlight in the courtyard should be explored and encouraged.
3. Dwellings facing courtyards should be carefully designed with semi-private yards to mitigate privacy concerns and overlook.
4. Large massings should be broken up by private mews or public laneways (i.e., mid-block connections) which should be publicly-accessible wherever practical and function as a mid-block connection.
5. Ground floors adjacent to mid-block connections (private or public) should have an active edge with entrances and windows facing the path or lane, whether the interface is residential or retail in nature.
6. Lighting appropriate to the adjacent uses (i.e. commercial or residential) should be incorporated to provide a safe and enjoyable walking route through interior block courtyards and connections.

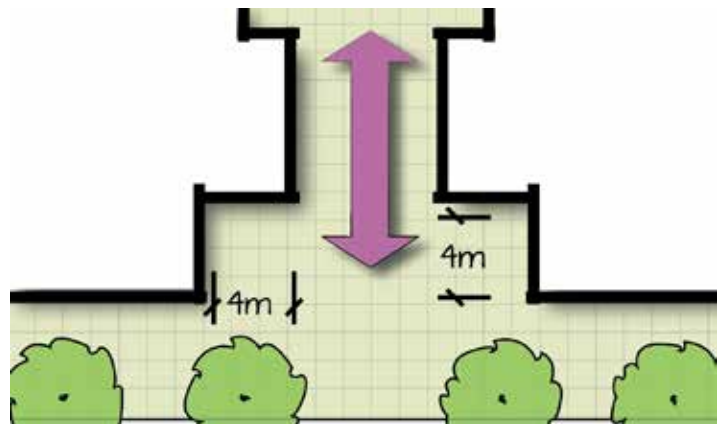


Diagram showing a mid-block connection with adjacent building setbacks

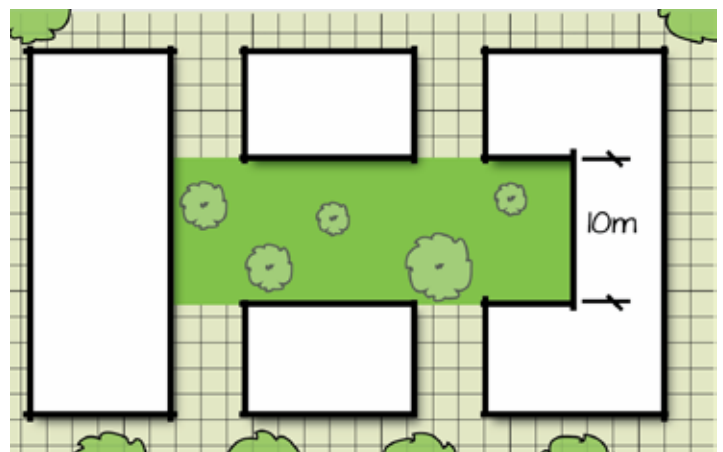


Diagram showing minimum width of an internal courtyard space



An interior courtyard with active edges



Developments organized around a public courtyard with mid-block connections

4.4.4 Privately-Owned Public Spaces

1. Privately-owned public spaces and commercial patios, plazas, and squares should:
 - a. Incorporate the principles of Crime Prevention through Environmental Design (CPTED – see Section 4.4.5)
 - b. Be designed with similar detailing materials (e.g., surfacing) and elements (e.g., street furniture, landscaping) to the adjacent streetscape in order to create a unified public realm experience.
 - c. Provide barrier-free access for all users.
2. Commercial Patios, plazas, and squares should provide barrier free access for all users.



A successful indoor privately-owned public space



Some cities require signage indicating public space on private property



A privately-owned mews (mid-block connection) with barrier-free public access

4.4.5 Crime Prevention Through Environmental Design (CPTED)

1. Development applications shall be reviewed with consideration of Crime Prevention through Environmental Design Principles (CPTED), including:

- a. Natural Surveillance: Increasing visibility of potential criminal acts through landscaping (i.e., enhance sitelines and reduce shadows), facilitating overlook (e.g., residential balconies with view of rear parking lot), and encouraging legitimate activity in key locations.
 - b. Natural Access Control: Guiding people entering and leaving a space through the placement of entrances, exits, fences,
- directional signage, landscaping, and lighting to deny criminals access to potential targets and creating a perception of risk for would-be offenders.
- c. Territorial Reinforcement: Promoting a sense of ownership or interest in a place and creating clear distinctions between private and public areas, so that would-be offenders have a harder time blending in.
 - d. Activity Support: Encouraging legitimate activities in public spaces to discourage criminal acts.



A mix of uses offers activity and surveillance throughout the day



Residential units facing public space increases natural surveillance

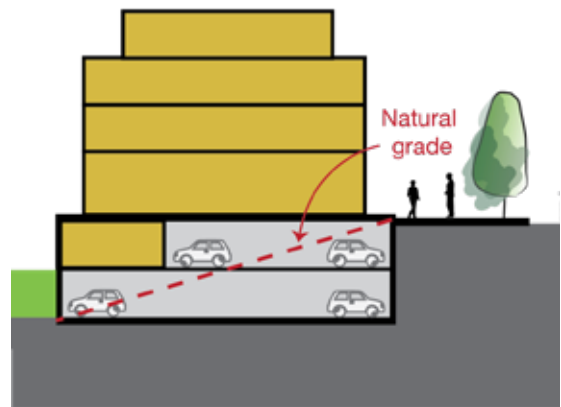
4.4.6 Relationship to Finished Grade

1. In residential areas, ground floor relationships may vary depending on the fronting street and dwelling unit type. The first floor may be raised above grade (max 1m) to provide a comfortable relationship with passing pedestrians and vehicles.

- a. If raised above grade, then careful attention shall be given to balance the need for privacy and the presence of blank walls on the street.

2. On sloping sites floor levels should step to follow natural grade and avoid the creation of blank walls

- a. Continuous parking structures should not be evident above the natural grade.
- b. Buildings should be designed for 'up-slope' and 'down-slope' conditions relative to the street by:
 - Carefully locating the building entry and car parking access to avoid impacts on street presence.
 - Incorporating terracing to create usable open spaces around the building.
 - Utilizing the slope for under-building parking wherever possible.
 - Designing buildings to access key views
 - Minimizing large retaining walls (retaining walls higher than 1m should be stepped and landscaped).



Sloped sites can be utilized to incorporate underbuilding parking



A well-designed raised ground floor maintaining an active frontage



Ground floor units above grade need to be carefully designed to avoid blank walls

4.5 GREEN BUILDING & SITE DESIGN

4.5.1 Tree Canopy Cover

Minimum 30-40% Tree Canopy Cover

1. All new on-site development in the Plan Area shall meet the following minimum on-site tree canopy cover targets:

- a. 30% in CV, LV, RH, EL, and EL-M areas
- b. 40% in RM, RL, and RR areas
- c. See Section 6.4 Urban Forest
- d. Targets apply to private land. Street trees and parks are subject to infrastructure and park development guidelines.

2. At the time of development application or development inquiry, applicants shall provide a survey of existing and proposed on-site canopy coverage.

- a. See Appendix A for required application details and Canopy Coverage formula



Trees integrated and featured in new building design



Mature trees integrated into landscaping of redeveloped site

Tree Canopy Cover

Why tree canopy coverage?

Trees provide many benefits, including beauty, privacy, habitat, shade, cooling, stormwater mitigation, and noise mitigation. People enjoy having trees in their neighbourhoods; trees boost property values, and areas with greater tree canopy cover tend to have lower rates of crime and traffic accidents.

How do you achieve it?

- Identify and maintain existing trees and canopy cover: Existing mature stands of trees provide habitat value and define the character of the landscape in ways that newly planted trees are not able to accomplish for many years.
- Increase tree canopy cover: Plant large-canopied, long lived trees along streets, in public spaces, and on private property.

4.5.2 On-site Water Management

Maximum 10% Effective Impervious Area

1. All new development in the plan area shall meet a maximum 10% Effective Impervious Area (EIA) target. Where not met, the Municipality may require cash in-lieu contributions to support acquisition of stormwater management facilities and detention areas.

a. See Section 6.5 Stormwater Management

2. At the time of the earlier of zoning amendment, subdivision and Development Permit application, applicants shall provide an estimate of the proposed EIA.

a. See Appendix A for required application details and EIA formula



Large landscape-based stormwater facility in a multifamily development



Permeable paving in a surface parking lot

Effective Impervious Area

What is it?

Effective impervious areas are connected to the conventional storm system along entirely impervious pathways – asphalt, concrete, pipes. Studies show that stream health becomes negatively impacted when effective impervious area of a watershed is higher than 10%. Above 30% can have drastic impacts on stream function and associated organisms.

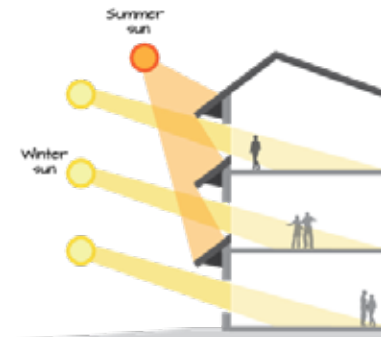
How do you implement it?

- Reduce impervious cover. Utilize low impact development strategies such as limiting road widths, limiting paved surfaces, and clustering development to minimize the amount of impervious surface.
- Mimic natural hydrologies. Use rainwater source control measures, such as rain gardens, swales, pervious paving, rain barrels, green roofs, trees, and vegetation to store and infiltrate rain water on site.

4.5.3 Green Building

1. Landscaping and building design should consider passive heating, cooling, and lighting design principles wherever practical, including solar gain on residential units and seasonal shade needs.

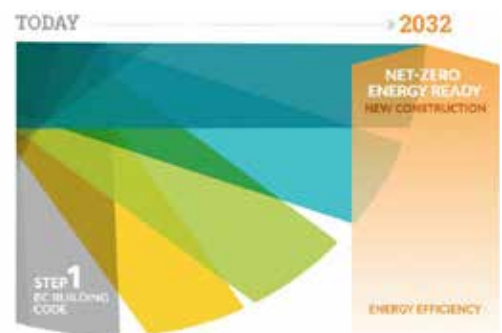
2. All buildings shall be designed and engineered to adapt to future sustainable technologies for solar thermal, district energy systems, and grey water reclamation fully aligned with the BC Building Code.



An illustration of passive design principles

Minimum Step 3 of the BC Energy Step Code

3. All new buildings in the Plan Area require a minimum Step 3 of the BC Energy Step Code (where Municipality has put enabling Step Code regulations in place), except non-residential uses in EL and EL-M areas.



A diagram of the BC Energy Step Code

BC Energy Step Code

What is it?

The Step Code provides a new provincial standard that establish progressive performance steps in energy efficiency for new buildings, from the current BC Building Code level to net zero energy ready buildings by 2032. The Step Code will apply to new residential and commercial buildings. To comply, builders must use energy modeling software and on-site air tightness testing to demonstrate that both their design and the constructed building meet the requirements of the Step Code.

Why use it?

- Provides clear, measurable targets for energy use reduction in new construction
- Reduces confusion by eliminating the “patchwork” of different green building certifications (e.g., Built Green, LEED) and focusing on performance.
- Because it is a Provincial code that local governments can opt into (either through building bylaw requirements or rezoning policies), it is a ‘ready made tool’ for municipalities to use.
- Using it in local area plans as part of a “high performance zone” can be an effective way to implement and/or trial before city-wide adoption.

5

TRANSPORTATION: STREETSCAPE & MOBILITY

5.1 OVERVIEW

The study area is currently characterized by rural roads with very limited pedestrian and cycling facilities. With future growth, existing roads will need to be improved and new streets will need to be developed to enhance safety, comfort, and efficiency for all users.

This section provides details for the creation of a new, integrated street, laneway, and trail network in the Plan Area as it develops – defined by pedestrian-priority local streets and high quality active transportation facilities.

This section should be interpreted with reference to the network maps found in Sections 4 (Land Use) and Section 6 (Blue-Green Spaces).

Inside, you will find:

- A Design Directions Gallery, providing guidance on the transportation design guidelines envisioned throughout the neighbourhood.
- Policies and a network plan to guide Streets, Laneways, and Greenway Development across the neighbourhood.
- Detailed Street Sections, providing direction to street improvements in the area.
- Policies and a network plan to guide a future Transit Network, serving the neighbourhood as it grows.
- Streetscape Design policies, providing further detailed urban design guidelines to inform street improvements – such as landscaping and furnishings.

5.2 GENERAL POLICIES

1. The Municipality shall develop detailed designs – consistent with the policies of this Plan – of proposed new streets and street improvements.
2. As per Section 5.6 Off-Street Parking, all new development in the Plan Area shall be exempted from minimum off-street parking requirements and, instead, require a parking and Transportation Demand Management (TDM) study as part of each development application process to determine the appropriate amount of on- and off-street vehicular and bicycle parking/facilities.
3. Over time, the Municipality should monitor the need and explore options for a parking structure in proximity to the Core Village that would provide secure, long-term parking, and market-priced stalls.
4. The Municipality shall require developers to complete a traffic impact assessment for all major developments at the earlier of the rezoning or development permit stage, within the Plan Area to the Municipality's satisfaction. All properties within 800m of the TCH will also require approval from MOTI.



Complete street design with wide sidewalk, separated bike lane, stormwater facilities, street trees, and on-street parking

5.3 STREETS, LANEWAYS, & GREENWAYS

5.3.1 Street, Laneway, & Greenway Network Development

Streets

1. New streets shall be dedicated as public road right of way.
2. See Section 4.2.2 regarding the acquisition of expanded and new rights of way.
3. All street improvements in the study area shall be consistent with the Street Typologies Plan and Details of this Plan (Section 5.3), and the Municipality will seek to dispose of roadway where it is supported by the Plan.
4. All pedestrian and cycling pathways and roadway crossings shall have adequate lighting (to meet current best practices and standards).
5. Because development sequencing will affect street/access phasing and locations, the following guidelines shall direct creation of new local streets:
 - a. Preferred North-South block length: min. 100m to max. 180m (target is 140m).
 - b. Preferred east-west block length: min. 80 to max. 120m (target is 100m).
 - c. Orient new streets to existing intersections (e.g., at Fairfield Road and Ortona Road).
 - d. Align new streets with site topography to reduce earthworks.
 - e. Route new streets to preserve existing habitats or create new green space.
6. New Local Shared Space Streets should incorporate:
 - a. Maximum design speed of 20 km/h, utilizing chicanes, T-intersections, and other traffic calming strategies.
 - b. Minimal traffic signage, including stop signs and speed limit to contribute to a lower design speed – except signage indicating that the street is for all users.
7. Driveway access from Bell McKinnon Road and Herd Road shall be restricted. Driveway access shall be from local or collector streets and laneways. Consolidated driveways are strongly encouraged.
8. Where new street connections to collectors/arterial roads are not created (i.e., with T-intersections, traffic diverters, cul-de-sacs) to reduce intersection density, trail or laneway connections shall be developed to maintain active transportation connectivity.
9. Existing accesses along the Trans-Canada Highway (TCH) shall be consolidated when opportunities arise, and new vehicle accesses shall not be permitted unless there are no other options (frontage road, laneway, shared access).



A traffic diverter maintains walking and cycling connectivity



Example signage on a shared space street

Laneways & Greenways

10. New public laneways should be developed according to the policies of this Plan.

11. Public laneways and mid-block connections shall be acquired in accordance with Section 5.3.2 Active Transportation Network.

12. Unless located in a park, greenways shall be dedicated as public road right of way.

13. Public laneways – as shown on 5.3.3 – shall take one of three general forms, depending on the development context and based on the policies of this Plan, as shown below.



a. Urban Laneway
(vehicular access)

These laneways provide parking and service access as well as pedestrian connections and potential for laneway-fronting development.



b. Laneway Connection
(limited vehicular)

These laneways provide mid-block pedestrian/cyclist connections and potential for laneway-fronting development.



c. Blue-Greenway
(non-vehicular)

These laneways are similar to Laneway Connection and include additional landscaping and stormwater features consistent with the Blue-Green Network.

5.3.2 Active Transportation Network

1. Work with Ministry of Transportation and Infrastructure to explore options for improving walking and cycling connections along and across the Trans-Canada Highway (TCH), including a grade-separated crossing at Norcross Road.
2. Provide cycling infrastructure that is comfortable and safe for all ages and abilities by:
 - a. Allocating bicycle facilities with varying levels of separation (to reduce user conflicts) from vehicle traffic including roadside trails, protected bike lanes, and multi-use trails (on- or off-road).
 - b. Adopting bicycle route signage to provide clear identification for all roadway users of where higher concentrations of cyclists are welcomed and expected.
 - c. Applying road design measures at intersections with bike lanes to raise awareness of potential conflicts with vehicles and to maximize cyclist safety.
 - d. See Section 5.7.4 Transportation Zone.
3. Develop and implement a wayfinding system to help residents and visitors navigate the area, locate key destinations, and utilize active transportation routes.
4. The Municipality should consider the use of low impact materials such as compacted gravel for greenways and roadside trails (see Rural Connectors typology) to increase permeability, reduce costs, and facilitate incremental network development.
5. Actively work with key partners, including MOTI, CVRD, City of Duncan, and Cowichan Tribes in the implementation of relevant active transportation plans and initiatives.



A raised separated bicycle facility



A physically separated bicycle facility



Intersection of separated bicycle facility



A raised pedestrian crossing



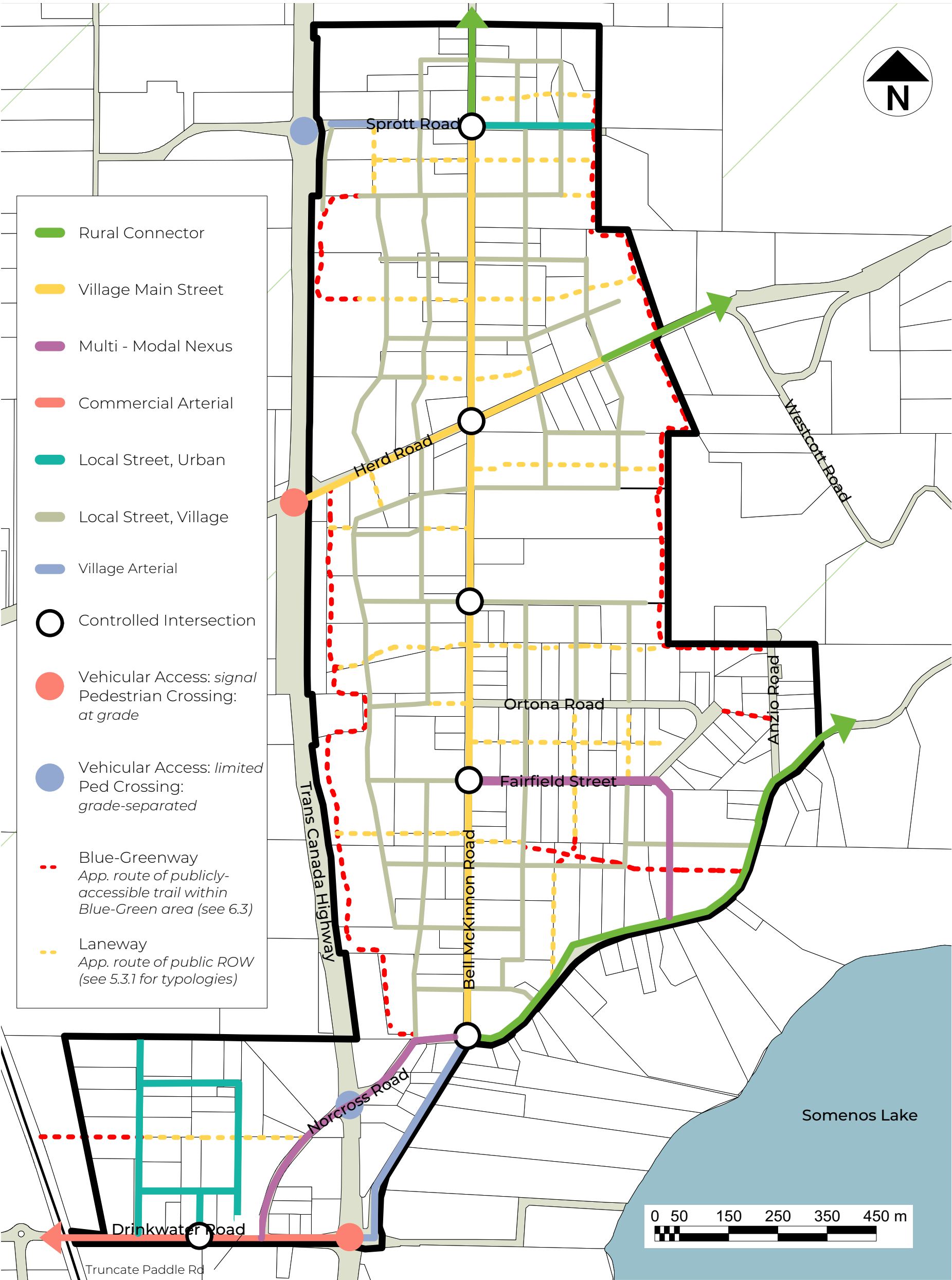
A slow speed shared space street



An off-road multi-use trail

This page is intentionally blank.

5.3.3 Street, Laneway, & Greenway Network Plan



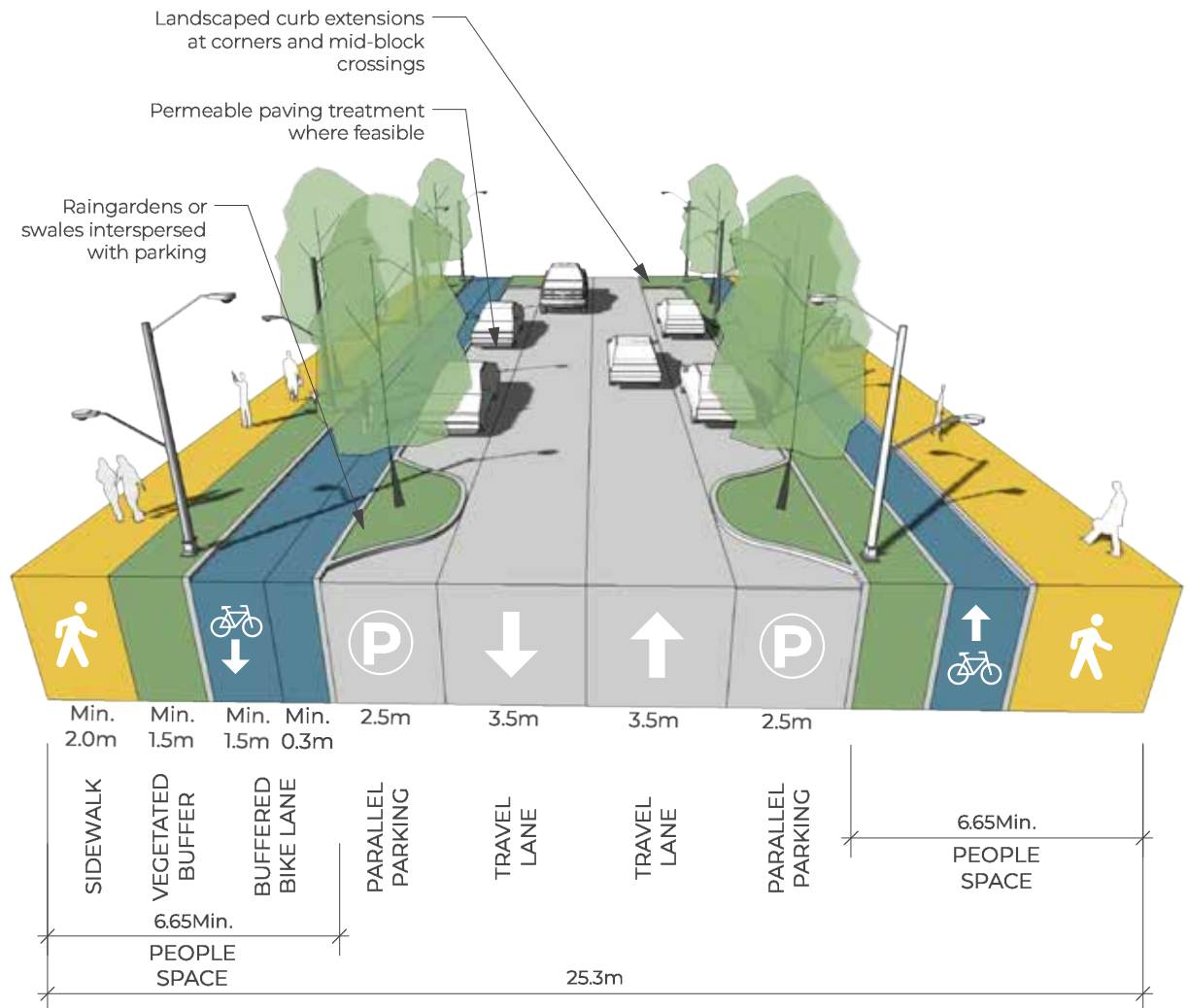
This page is intentionally blank.

5.3.4 Street Typology Details

Village Main Street

Applies to:

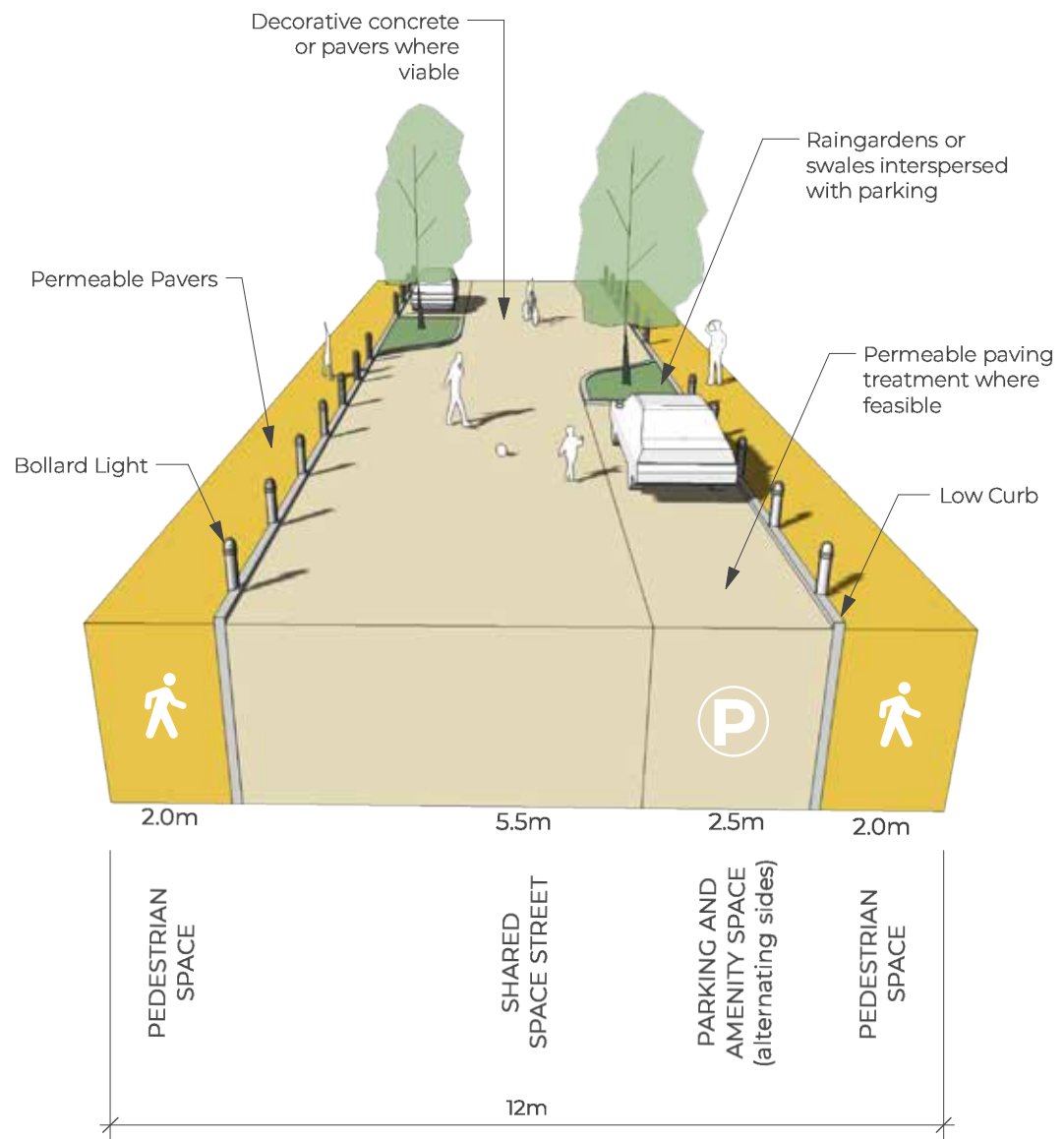
- » Bell McKinnon Road (Drinkwater Road to Sprott Road)
- » Herd Road



Local Street, Village

Applies to:

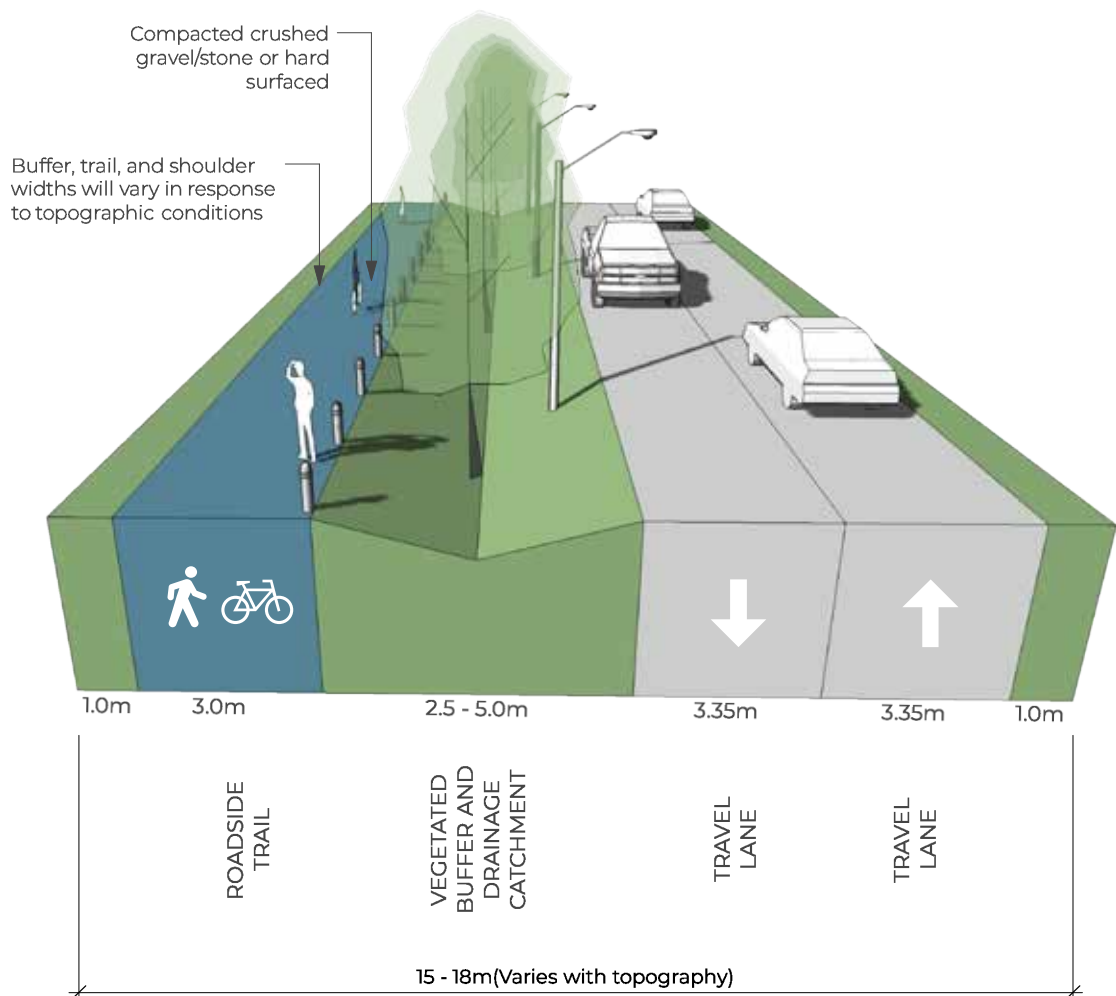
- » All new local streets that are not otherwise already designated



Rural Connectors

Applies to:

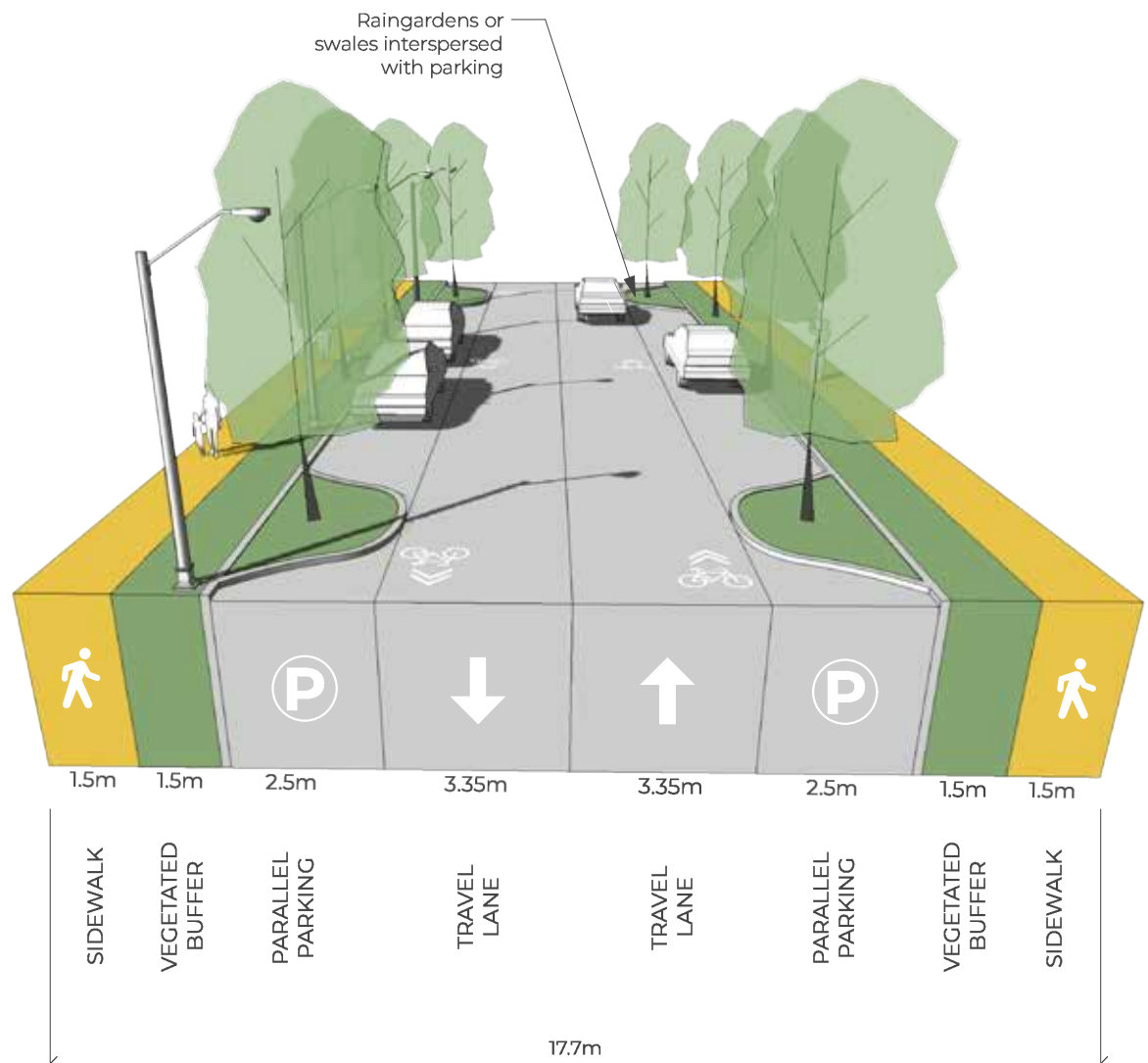
- » Norcross Road (Bell McKinnon Road to Herd Road)
- » Bell McKinnon Road (north of Sprott Road)
- » East end of Herd Road (as shown on 5.3.3)



Local Street, Urban

Applies to:

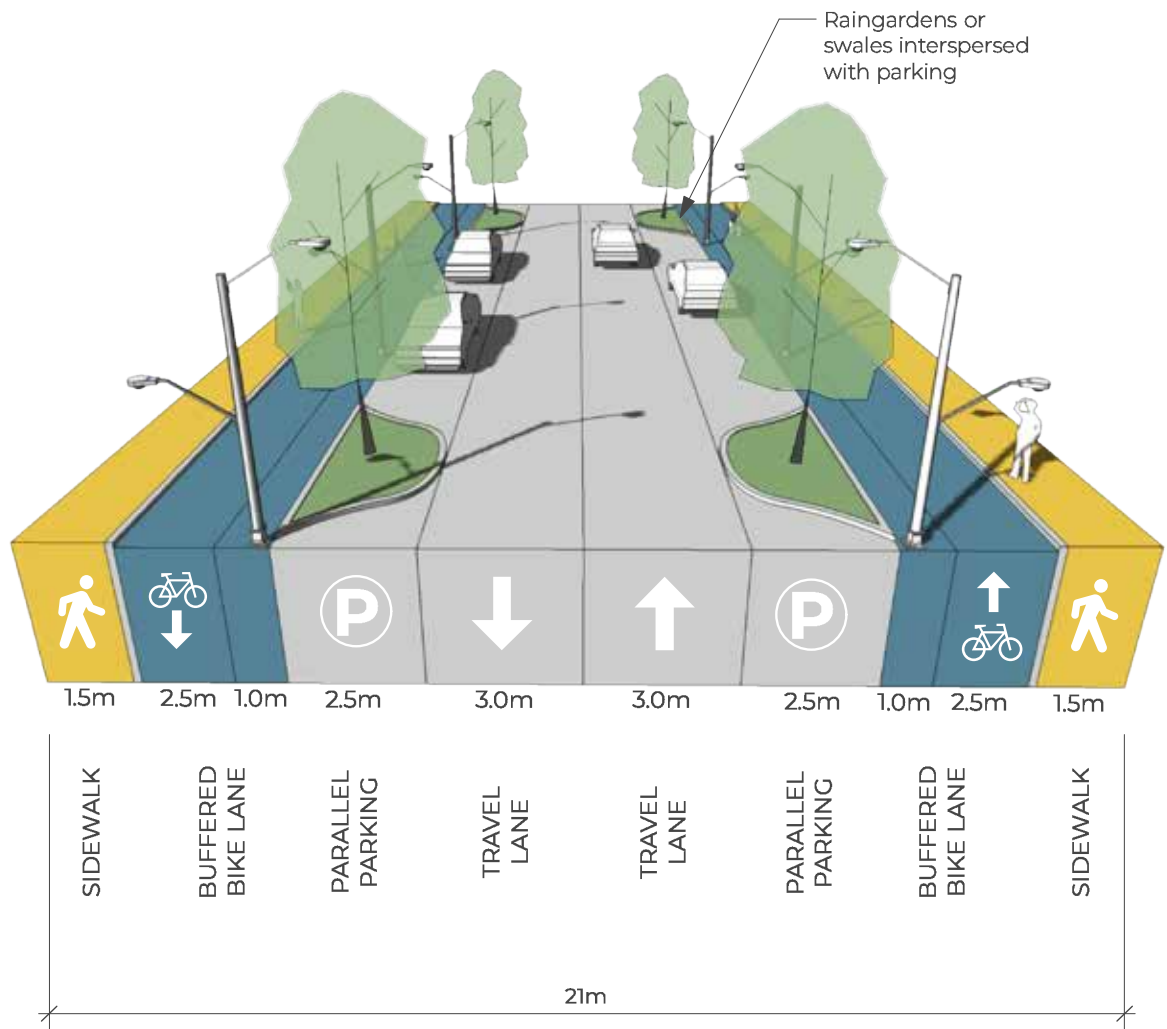
- » Paddle Road
- » Ford Road
- » Sprott Road east of Bell McKinnon Road
- » New local streets in southwest area



Multimodal Nexus

Applies to:

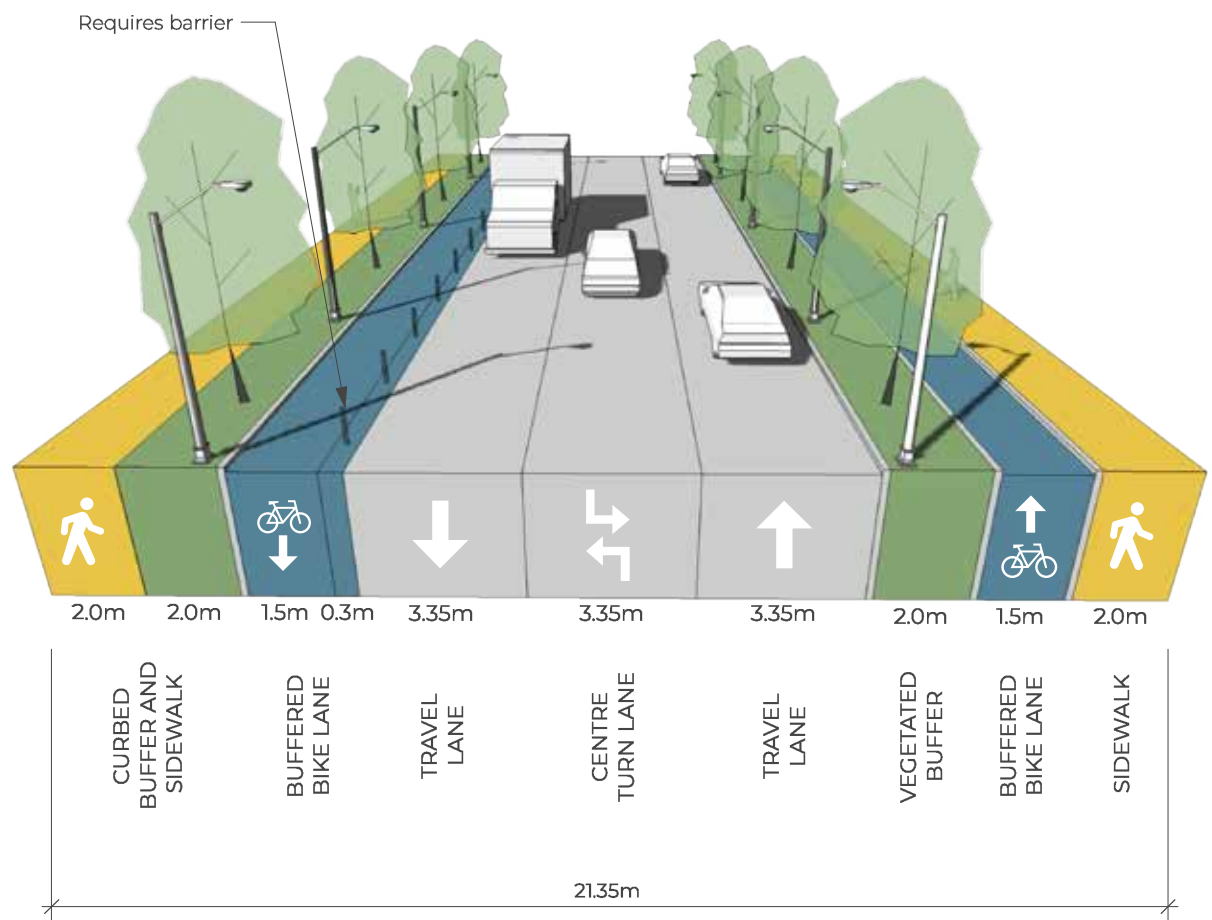
- » Norcross Road (Drinkwater Road to Bell McKinnon Road)
- » Fairfield Road (and future extension to Norcross Road)



Commercial Arterial

Applies to:

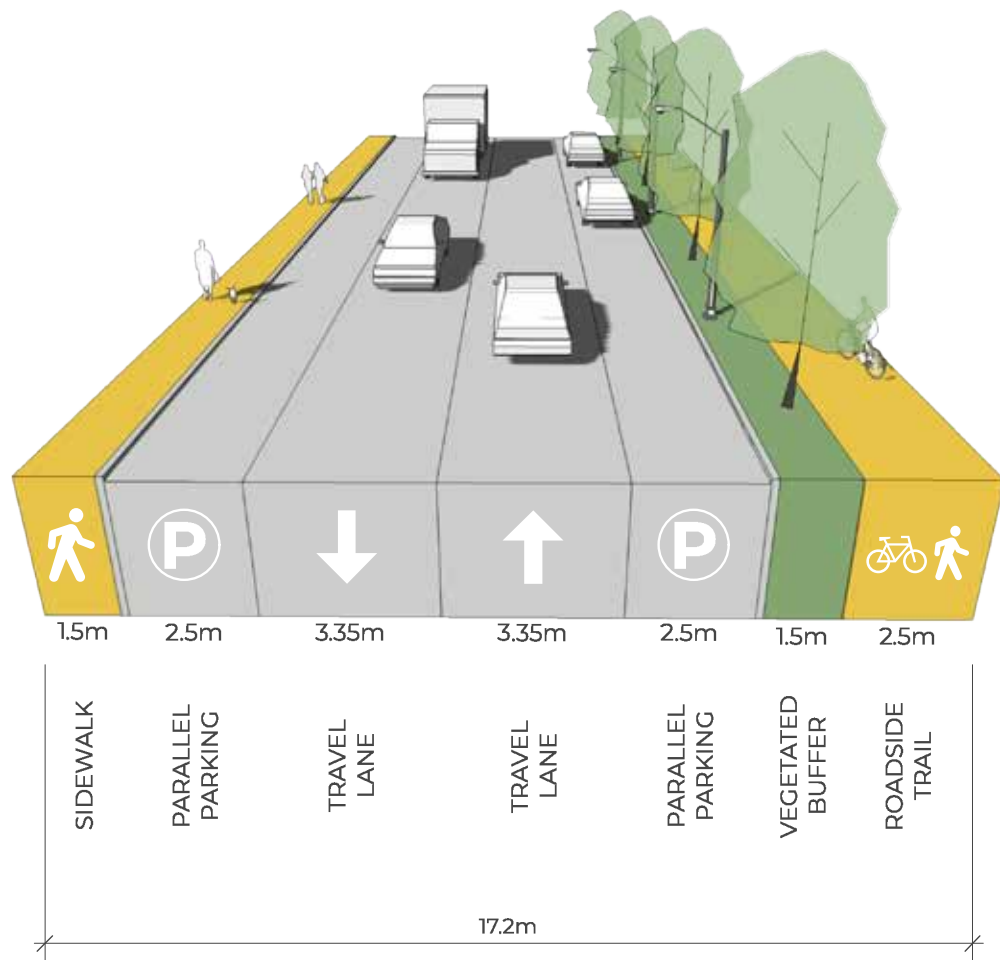
» Drinkwater Road



Village Arterial

Applies to:

- » Bell McKinnon Road (Norcross Road to Drinkwater Road)
- » Sprott Road (Bell McKinnon Road to Trans-Canada Highway)





Bell McKinnon Road, today, with no pedestrian or cycling facilities



A "complete street" with high quality pedestrian, cycling, and transit facilities

5.4 GOODS MOVEMENT AND LOADING

1. Develop a Trucks Route Bylaw to minimize the impacts of trucks servicing the new hospital and the Core Village on the neighbourhood, with a strong preference for servicing access to the hospital off of Herd Road.
2. Continue to support local businesses by planning for loading and deliveries and by ensuring potential customers have exposure and convenient access by all modes of travel.
3. Support economic activity through managing circulation and parking for trucks and larger commercial vehicles to enable efficient goods movement.
4. In undertaking local street improvements, give strong consideration to appropriate loading access for motorized and non-motorized light industrial and service commercial activities.

5.5 PUBLIC TRANSIT

5.5.1 Transit Network Policies

1. The Municipality will work with BC Transit and CVRD to do the following:
 - a. Extend local transit routes from Cowichan Commons to service new residents and employees in the Plan Area.
 - b. Schedule regional transit service through the Plan Area to provide service and improved connections to Lake Cowichan, Ladysmith, and other key destinations within Cowichan Valley.
 - c. Schedule regional transit service through the Plan Area to provide service and improved connections between Victoria and Nanaimo.
 - d. New and existing bus stops should be developed with high quality infrastructure including sidewalks, real time transit information, appropriate crossing siting and design, lighting, and accessible curb letdowns.
 - e. Create a multi-modal transit hub on Bell McKinnon Road, adjacent to the hospital site to support the long-term transit network. The hub should include the provision of secure short-term and long-term bicycle parking to facilitate cycling.
 - f. Expand handyDART to serve the new hospital location and ensure access to specialized health care services including



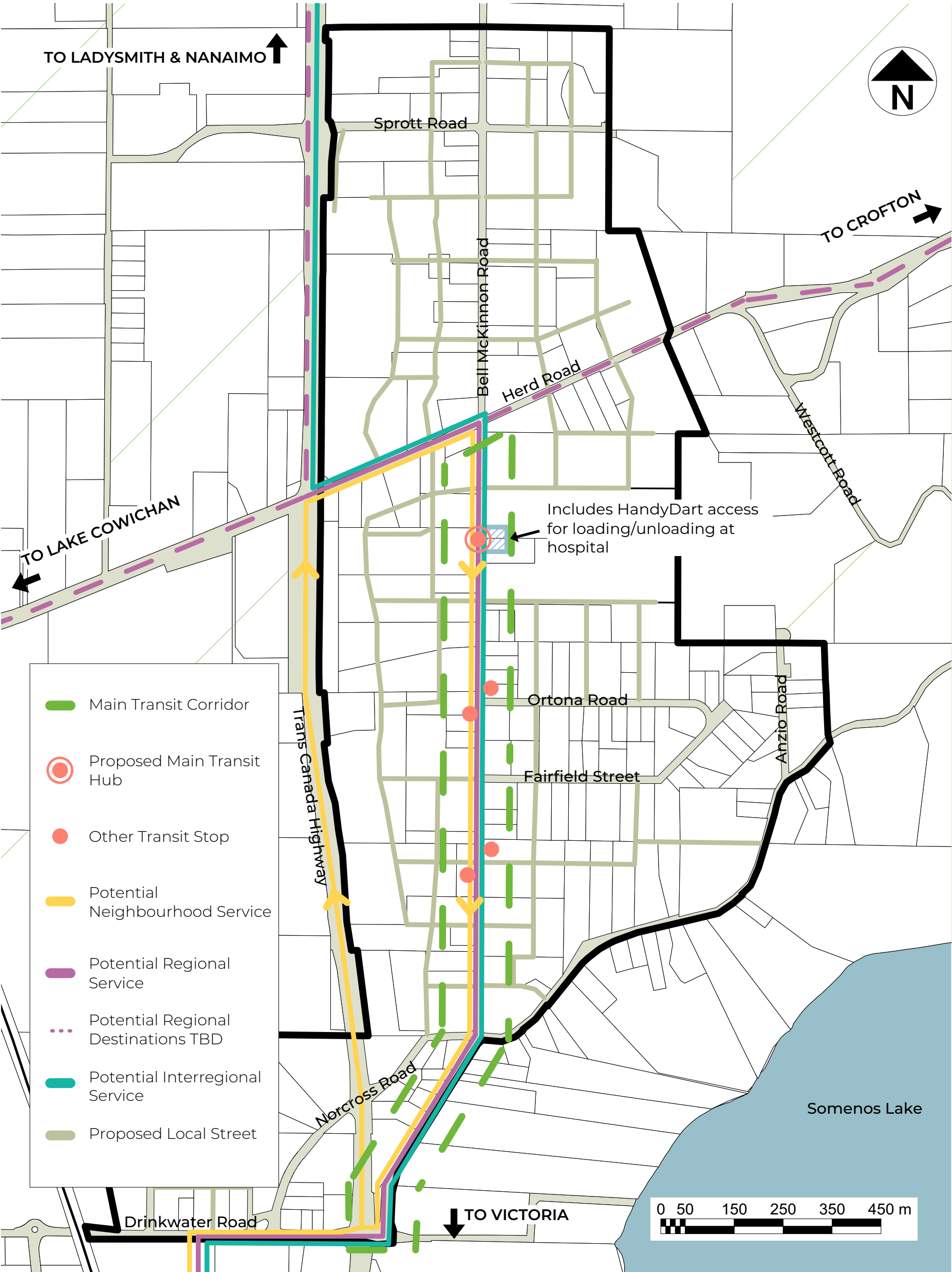
Integration of high quality transit stop and separated bicycle facility



High quality local bus stop

This page is intentionally blank.

5.5.2 Proposed Transit Network



This page is intentionally blank.

5.6 OFF-STREET PARKING

1. All new development in the Plan Area shall be exempted from minimum off-street parking requirements and instead require a parking and Transportation Demand Management (TDM) study as part of each development application process to determine the appropriate amount of on- and off-street vehicular and bicycle parking/facilities.
2. The Municipality should work with developers to identify TDM measures for their development to further reduce the supply of parking. TDM measures include, but are not limited to the provision of a car share vehicle and memberships, the provision of subsidized transit passes, long-term bicycle parking, and the provision of end of trip facilities.
3. The Municipality should work with developers to establish legal agreements to limit the amount of off-street parking provided in residential buildings.
4. The Municipality should work with car share enterprises to identify opportunities to expand car share services within the Plan Area.
5. The Municipality should give strong consideration to the unbundling of parking stalls and residential units, in order to market-price parking and lower unit prices for those requiring fewer or no parking stalls.
6. Over time, monitor the need and explore options for a parking structure in proximity to the Core Village that would provide secure, long-term parking, and market-priced stalls.
7. Electric Vehicle charging stations should be provided according to the following criteria:
 - a. 10% of parking stalls in all new residential construction, including single family homes, duplexes, townhomes, and multifamily buildings should feature an energized outlet capable of providing 240 volt charging or higher to the stall.
 - b. 10% of parking stalls in all new retail, mixed use, and commercial buildings greater than 1,000m² should feature an energized outlet capable of providing 240 volt charging or higher to the stall.



Electric Vehicular charging stations in an underground parking lot



Example of designated carshare parking stalls

5.7 STREETSCAPE

5.7.1 Streetscape Zones

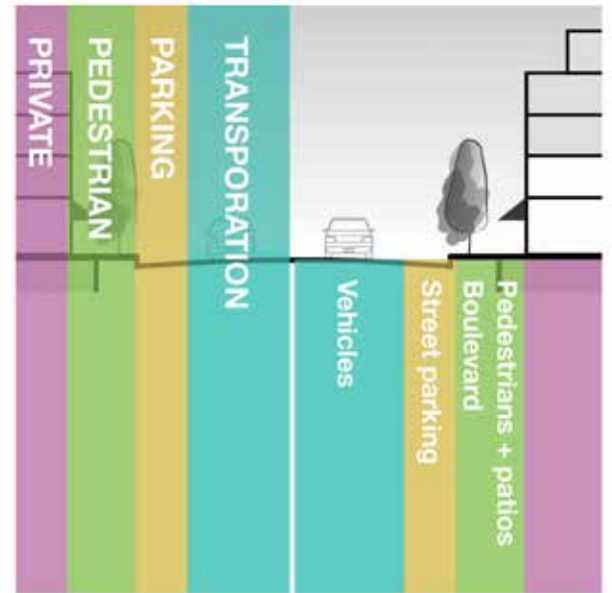
Streetscape Zones

For the purposes of this Plan, the public road right-of-way has been broken up into three streetscape zones: the pedestrian (and furnishing/boulevard) zone, the parking zone, and the transportation zone. Each zone consists of multiple elements, as described in the following subsections and shown in the adjacent diagram.

5.7.2 Pedestrian Zone

Sidewalks

1. Sidewalk location and width shall be consistent with Section 5.3.4 Street Typology Details.
2. Sidewalks shall include minimum 1.2m wide pedestrian “through zone” with uninterrupted barrier free access for all users
3. Tactile paving should be provided at intersections and crosswalks for pedestrians with visual challenges, while minimizing vibrations for those using wheelchairs, scooters, or strollers.
4. Road narrowing (e.g., curb bulbouts, chicanes) shall be considered for speed reduction, reduced pedestrian crossing distance, and improved pedestrian visibility.
5. Provisions for safe passage of bicycles and adequate turning movements for trucks are to be incorporated through or around bulb-outs and/or curb extensions.
6. Integrate public art and location identifiers into surface treatments at street corners to add visual interest and aid in wayfinding.



A diagram of streetscape zones



Sidewalk with wide pedestrian through zone and high quality street furniture



Highly visible mid-block crossing with landscaping and decorative lighting

Street Furnishings

7. Seating (e.g., benches) shall be provided at regular intervals along streets within the Plan Area, with increased frequency in the Core Village and Residential-High areas.

8. Benches positioned along the curb shall orient users toward the sidewalk and open spaces, except on new local roads (i.e. Shared Space Streets) where street-oriented benches may be appropriate.

9. Overhead utilities shall be located underground at the time of upgrades to existing streets.

10. The location of utility boxes shall be placed to reduce impacts on streetscape, including maintaining the pedestrian through zone and maximizing landscaping areas.

11. Street lighting shall be designed according to dark sky principles and the following guidelines:

- a. All fixtures shall be shielded or full cut-off with no up-lighting to preserve night sky viewing.
- b. In accordance with Section 5.3.4, new street lighting should be installed at the time of the streetscape improvements, with decorative luminaries within Core Village and Local Village areas and bollard or similar pedestrian-scale lighting along all new Shared Space Street.

12. Integrate public art and wayfinding elements wherever practical, particularly in Core Village, Local Village, and Blue-Green areas.



Chicanes calm traffic by narrowing vehicular lane widths and altering the street geometry



Corner curb extension calms traffic and shortens pedestrian crossings



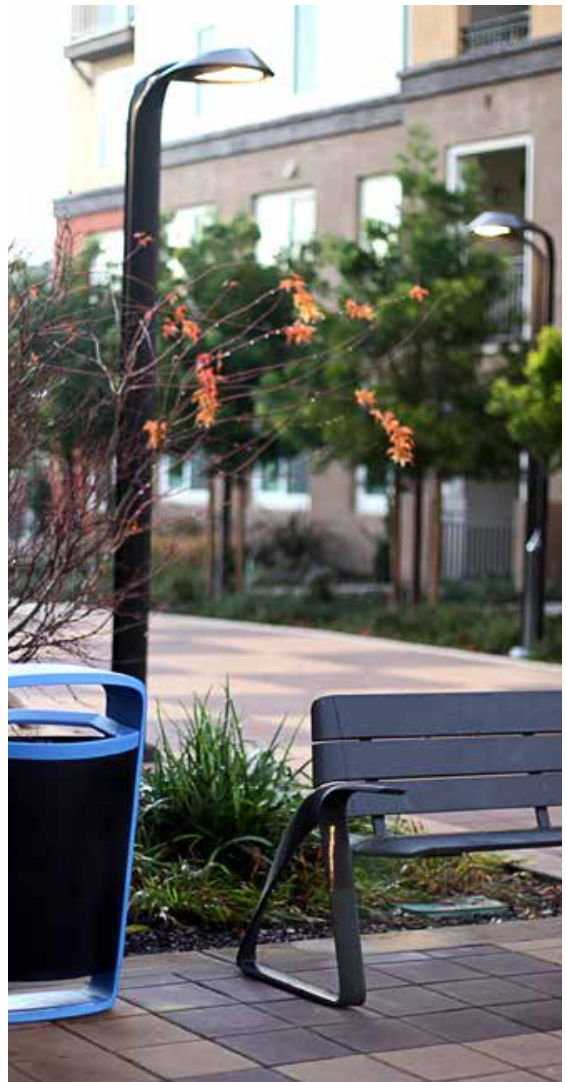
Public art integrated into the sidewalk aids in wayfinding



Sidewalk bulbout with seating and wayfinding signage



Dark Sky-compliant local street lights



High quality streetscape with underground utilities and dark sky lighting

Boulevards & Landscaping

13. Shrubs, grasses, and groundcover plantings shall be native or adaptive non-native species that mimic endemic flora.

14. New tree plantings shall be selected to provide a high canopy over the street, while remaining above commercial displays and signage (at maturity).

15. Large full canopy tree species shall be installed along the boulevard or within curb bulbouts where sufficient soil volumes and tree canopies can be accommodated.

16. Columnar and small ornamental trees should be installed within narrow boulevards where soil volumes are insufficient for full canopy trees.

17. A variety of street trees should be planted; tree species shall be selected to establish the landscape character for a given street.

18. The Municipality should consider leasing extended boulevard space to adjacent restaurants and cafés (i.e., for patio seating, parklets) to increase activity at the street level.

19. In accordance with Section 5.3.4 Street Typology Details and where there is sufficient width and area within boulevards and proposed curb bulbouts, rain gardens and stormwater swales should be considered as an alternative to conventional turf strips and planters.



Native and adaptive non-native streetscape landscaping



Additional sidewalk/boulevard width leased for commercial patio space



Boulevard area with native vegetation, stormwater capacity, and a mix of tree species

5.7.3 Parking Zone

1. On-street parking should be incorporated into streetscapes to alleviate the need for extensive off-street parking, and provide a physical barrier between vehicular traffic and the sidewalk, consistent with the policies of Section 5.3.4 Street Typology Details.
2. On-street parking stalls and lanes should be surfaced with a permeable paving treatment and/or interspersed with stormwater swales where infiltration techniques are feasible.
3. In the case of restrictive right of way widths, enhanced sidewalk widths shall be the priority over parking lanes.
4. Over time, the municipality shall develop a parking management strategy that encourages turn-over of high priority parking spaces adjacent to commercial and mixed land uses, and discourages employee parking in utilizing parking spaces adjacent residential land uses.
5. The municipality shall ensure sufficient short-term parking for goods loading and delivery, HandyDART, taxis, and other short-term users (e.g., through designated loading zones, designated passenger loading zones, or short-term parking).



Stormwater swale interspersed with on-street parkingW

5.7.4 Transportation Zone

Vehicle Lanes

1. In accordance with Section 5.3.4, vehicle travel lanes shall be reduced to the minimum width possible.
2. Alternative surface treatments should be used for travel lanes on new Local Shared Space Streets, such as permeable concrete pavers and scored concrete.

On-Street Bicycle Facilities Policies

3. In accordance with Section 5.3.4, bicycle facilities shall be provided along streets and include physical buffering (bollards, barriers, landscaping, etc), line painting, pavement markers, and signage.
4. In accordance with Section 5.3.4, cyclists shall be accommodated on dedicated facilities.
5. Bicycle racks should be provided within the street furnishings strip of the streetscape, with limited exceptions.
6. In the case of restrictive right of way widths, greater sidewalk widths shall be the priority over bike lanes.



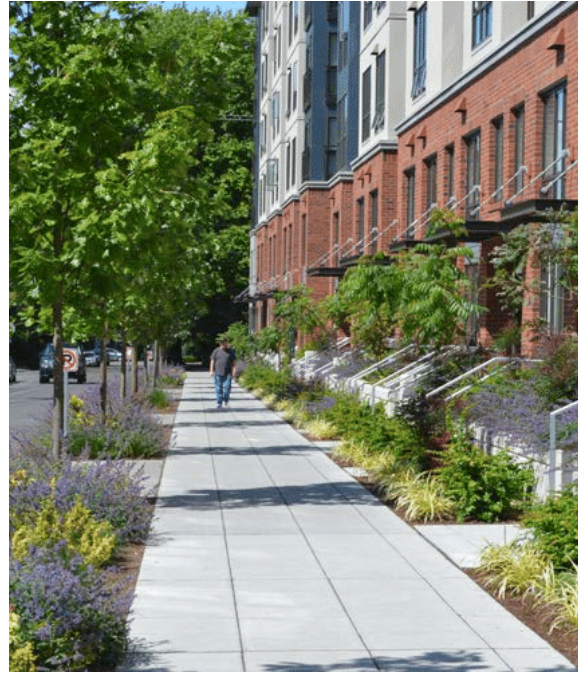
Shared space street with permeable paving and raingardens

5.8 DESIGN DIRECTIONS GALLERY

This image gallery provides design guidance for future streets, laneways, and trails in the neighbourhood.



Wide sidewalk with stormwater swale and seating



Wide sidewalk with drought-tolerant landscaping



Narrow winding street calms traffic



Multi-use trail with lighting and landscaping



Shared space street with textured paving



Shared space street with multi-functional landscaping



Physically-separated bike path in urban context



Pedestrian laneway as a mid-block connection

6

BLUE-GREEN SPACES: PARKS, BUFFERS & STORMWATER

6.1 OVERVIEW

This Plan proposes an innovative approach to open space planning that integrates natural systems (e.g., stormwater, habitat) into all public spaces to create a network of multifunctional blue-green infrastructure.

This network not only lessens the burden on and need for conventional “grey” infrastructure but also serves a variety of other functions, such as facilitating stormwater filtration and infiltration, providing habitat corridors, and connecting residents with the natural environment throughout their daily routines.

As a result, this section provides a plan for a new network of green spaces in the neighbourhood, including public parks, blue-green “buffer” areas (natural spaces on private property), and stormwater catchment areas. This network should be interpreted in tandem with 5.3.3 Streets, Laneways, and Greenways Network Plan, as the green spaces and transportation linkages are interconnected.

Inside, you will find:

- Policies detailing the Acquisition and Design of Open Spaces, providing direction for the location and types of blue-green areas throughout the neighbourhood.
- Urban Forest policies, which – along with the minimum tree canopy coverage – seek to establish a long-term urban forest in the neighbourhood.
- Detailed Stormwater Management strategies, providing detailed directions and requirements for effectively managing stormwater in the Plan Area.

6.2 GENERAL POLICIES

1. Desired [a] Public Parks, [b] Blue-Green Buffer Areas, and [c] Stormwater Detention and Water Quality Enhancement Areas are shown on 6.3.2 Blue-Green Network Plan and shall be acquired or legally secured through the development or land use application processes in accordance with the policies of this Plan.

- a. Parks shall be multi-functional, including passive and active recreational opportunities, and diverse in character (e.g., some more natural, some more programmed), consistent with the policies of Section 6.3.3 and needs of the community.
- b. Blue-green buffer areas shall serve to buffer neighbourhood development from adjacent agricultural lands or the Trans-Canada Highway, provide habitat corridors and stormwater capacity, and provide a natural setting for publicly-accessible trails throughout the neighbourhood.
- c. Detention and Water Quality Enhancement Areas shall be integrated within parks, blue-green buffer areas, and private land to maintain and enhance hydrological functioning in the Plan Area.



A landscape-based stormwater detention area



A trail through a blue-green buffer area



A programmed park with active recreation



A nature-based playground for children of all ages

6.3 BLUE-GREEN NETWORK

6.3.1 Blue-Green Network Acquisition

1. Public parks and Blue-Green buffer areas should be acquired in a manner generally consistent with the location and layout illustrated on the Blue-Green Network map and the following policies:

- a. Parks shall be acquired as parkland.
- b. Buffer areas and stormwater catchment areas shall be acquired through covenant, statutory right of way, transfer, or similar legal agreement (see Section 6.5 for further stormwater management details).
- c. Laneways and greenways shall be acquired as detailed in Section 5.3.1.

2. The Municipality shall work with relevant agencies to acquire a large park area on the east side of the hospital site and adjacent ALR lands (see

acquisition area F) where soil and land features are not supportive of agriculture.

3. The Municipality will work with School District 79 to establish policy and funding mechanisms to acquire an appropriate school site(s), with preference for joint school and public park development of approximately 5 acres.

4. Where pathways are obtained by dedication, they shall be dedicated as road (laneways). Where pathways are incorporated into park acquisition, the area of parks will be in addition to the sizes identified in the Park Acquisition Details Table.

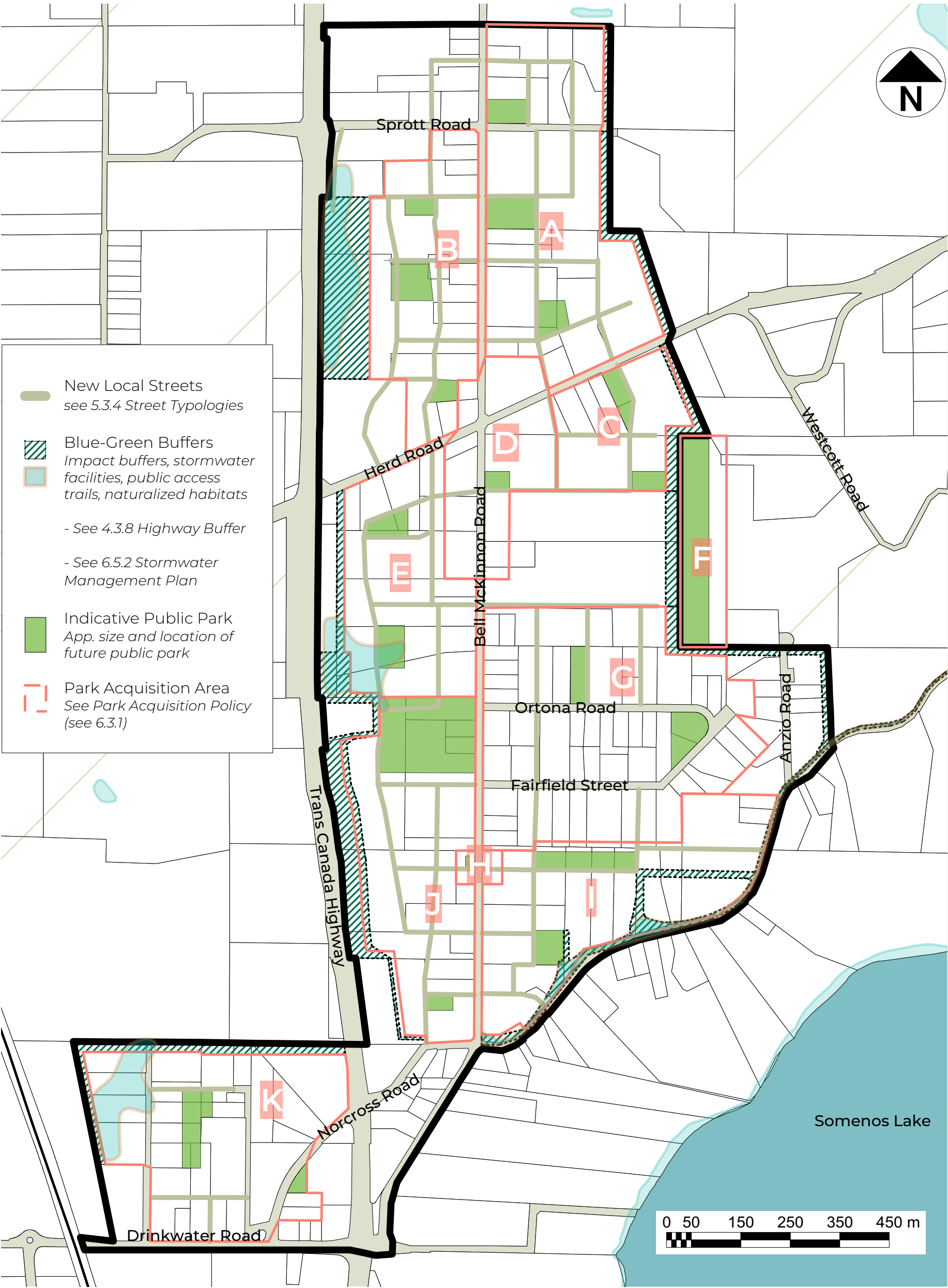
5. Blue-Green buffer areas shall be identified and acquired with the intent to improve connectivity of wildlife habitat corridors.

Park Acquisition Details

Area Number & App. Size of Parks	
A	2 x 1 acre, 1 x 1.5-2 acres
B	2 x 1 acre, 1 x 1.5-2 acres
C	2 x 0.5 acre, 1 x 1.5-2 acres
D	2 x 0.5 acre, 1-2 x public plaza (size TBD)
E	2 x 1 acre
F	1 x 6-10 acres
G	1 x 1 acre, 2 x 1.5 acres
H	1 x public plaza (size TBD)
I	1 x 1 acres, 1 x 2 acres
J	1 x 0.5 acres, 1 x 3-6 acres (including possible integrated public school site)
K	2 x 0.5 acres, 1 x 2 acres

This page is intentionally blank.

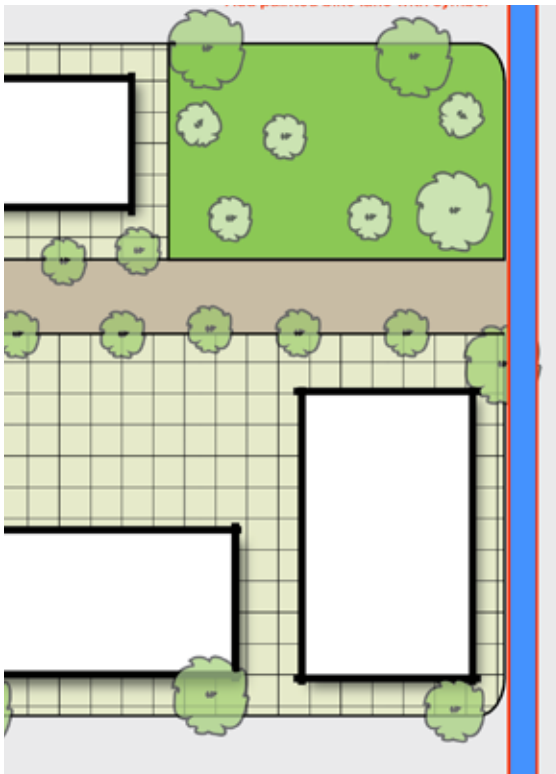
6.3.2 Blue-Green Network Plan



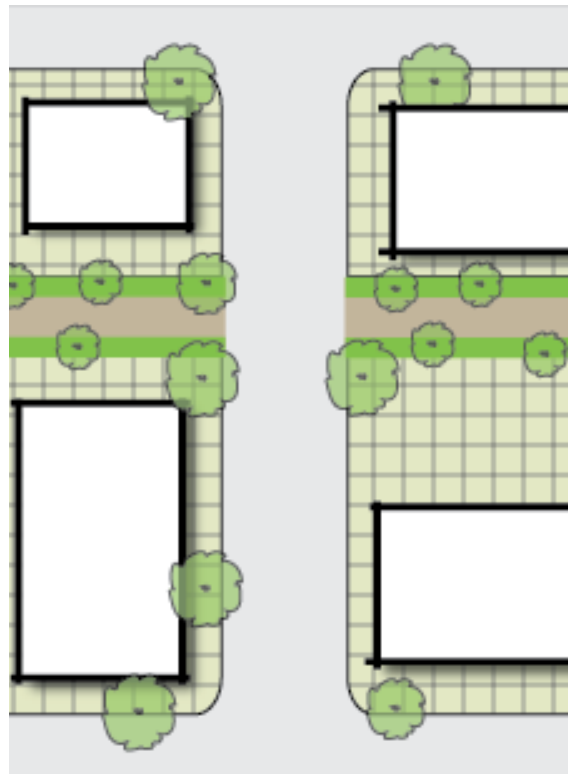
This page is intentionally blank.

6.3.3 Open Space Design and Function

1. As a whole, the Blue-Green network will seek to serve all ages and abilities and includes recreational amenities for children, youth, seniors, and persons with mobility challenges, such as ball fields, playgrounds, pathways, and seating areas.
2. All parks shall support wildlife habitat, green stormwater management, and urban forest principles by incorporating related best management practices and placing a high priority on ecological integrity in landscaping and vegetation management.
3. Parks should be located in strategic locations, prioritizing areas of high density of residents, along key walking and cycling routes, and consistent with the criteria established in the Parks and Trails Master Plan.
4. Blue-Green Buffer areas shall be “natural” in character, include publicly accessible trails where practical, and prioritize habitat creation and stormwater management.
5. Parks and Blue-Green Buffer spaces should be designed and maintained with a focus on removing invasive plant species and planting native and adaptive non-native plant species.
6. Improve access and create a more enjoyable walking and cycling experience to neighbourhood parks and open spaces through the addition of pedestrian crossings and other public realm improvements (e.g., additional landscaping, seating, bike racks, lighting and wayfinding).
7. Use interpretive signage in parks and open spaces for educational opportunities and connecting people to the history and natural ecology of the community.
8. Parks shall be developed in consideration of the CPTED principles identified in Section 4.4.5.



Park location at the junction of pedestrian, cycling, and vehicular routes



Connecting urban habitat from one block to the next

6.4 URBAN FOREST

1. The Municipality shall seek to achieve a 40% tree canopy cover for the neighbourhood (private and public land) by:
 - a. Enforcing the on-site tree canopy target policy for all new private development (see Section 4.2.1).
 - b. Discouraging payment in-lieu for tree canopy development targets.
 - c. Prioritizing budgets to plant and maintain trees in public spaces (e.g., parks, streets).
 - d. Encouraging plantings on private property and boulevards.
 - e. Municipality and community partners may seek ways to incentivize the preservation of tree canopy cover on private land.

What is an Urban Forest?

It is the sum of all trees in the city, including trees in streets, parks, and on private property.

Why an Urban Forest?

Trees provide many benefits, including beauty, privacy, habitat, shade, cooling, stormwater mitigation, air pollution mitigation, and noise mitigation. People enjoy having trees in their neighbourhoods; trees boost property values, and areas with greater tree canopy cover tend to have lower rates of crime and traffic accidents.



A mature urban forest with significant tree canopy coverage

6.5 STORMWATER MANAGEMENT

6.5.1 Stormwater Management Strategy

1. The Municipality shall carry out a Stormwater Management Strategy for the area based on the following key guidelines.

Maintain Watershed Drainage Patterns

2. Retain discharge point distribution and contributing areas by not altering the existing watershed boundaries and discharge locations leaving the neighbourhood.
- The Municipality shall maintain existing stormwater discharge locations, as illustrated on 6.5.2 and limit works that would significantly alter the existing drainage patterns.
 - Why? The receiving environments around the Bell McKinnon Local Area consist of a distributed network of fish-bearing streams. The planning area is divided up into distinct drainage areas that feed these streams and keep them vital. Altering discharge patterns can lead to overwhelming some streams while starving others of runoff water, thereby damaging in-stream habitat.

Manage Water Quality On-Site

3. Manage rain water runoff from buildings and roads for water quality, using source control best management practices, with a strong preference for landscape-based facilities and avoiding underground water management systems.
- Why? The ground conditions in the area are quite impervious and support slow (limited) infiltration and moderate surface flows. Managing runoff on-site for quality does not require large detention facilities and results in clean water delivered to receiving environments.



An urban stormwater swale with street trees



An on-site raingarden receiving parking lot run-off



A suburban stormwater swale

Figure 1

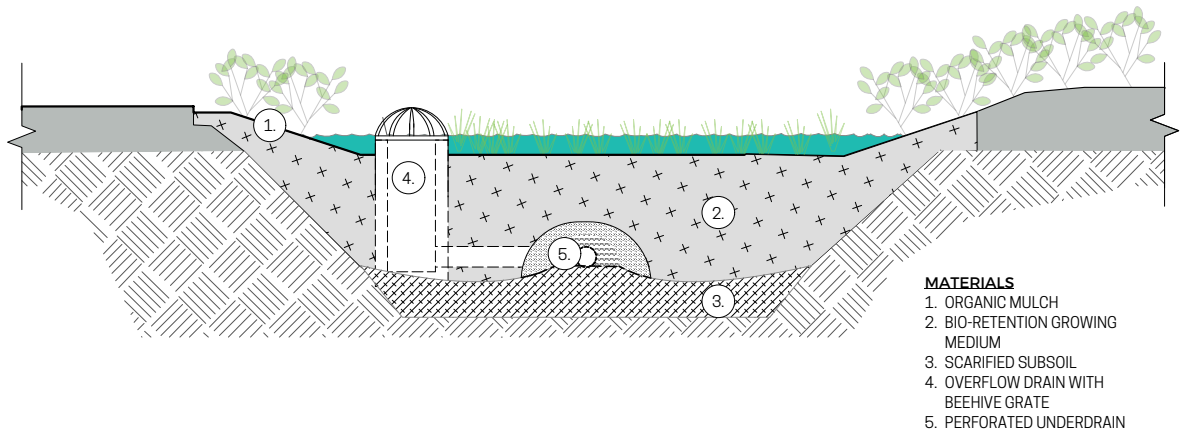
- a. See Section 4.5.2 On-Site Water Management
- b. All streets will integrate green stormwater facilities as per Section 5.3.4 Street Typologies.

5. Identify and designate open space areas at low points in each drainage catchment areas for water detention/retention facilities.

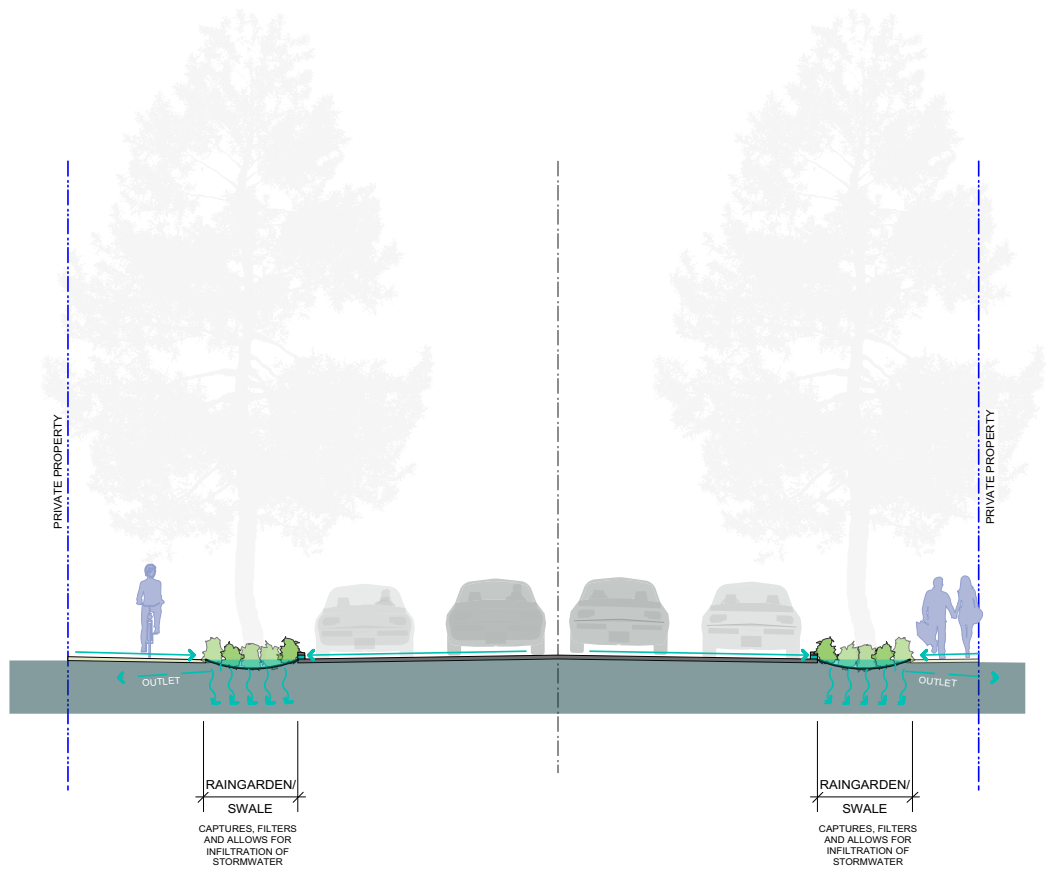
- b. The Municipality should consider working with Cowichan Tribes when developing stormwater management facilities and assessing potential impacts/ benefits.



Stormwater flow path into on-street raingarden



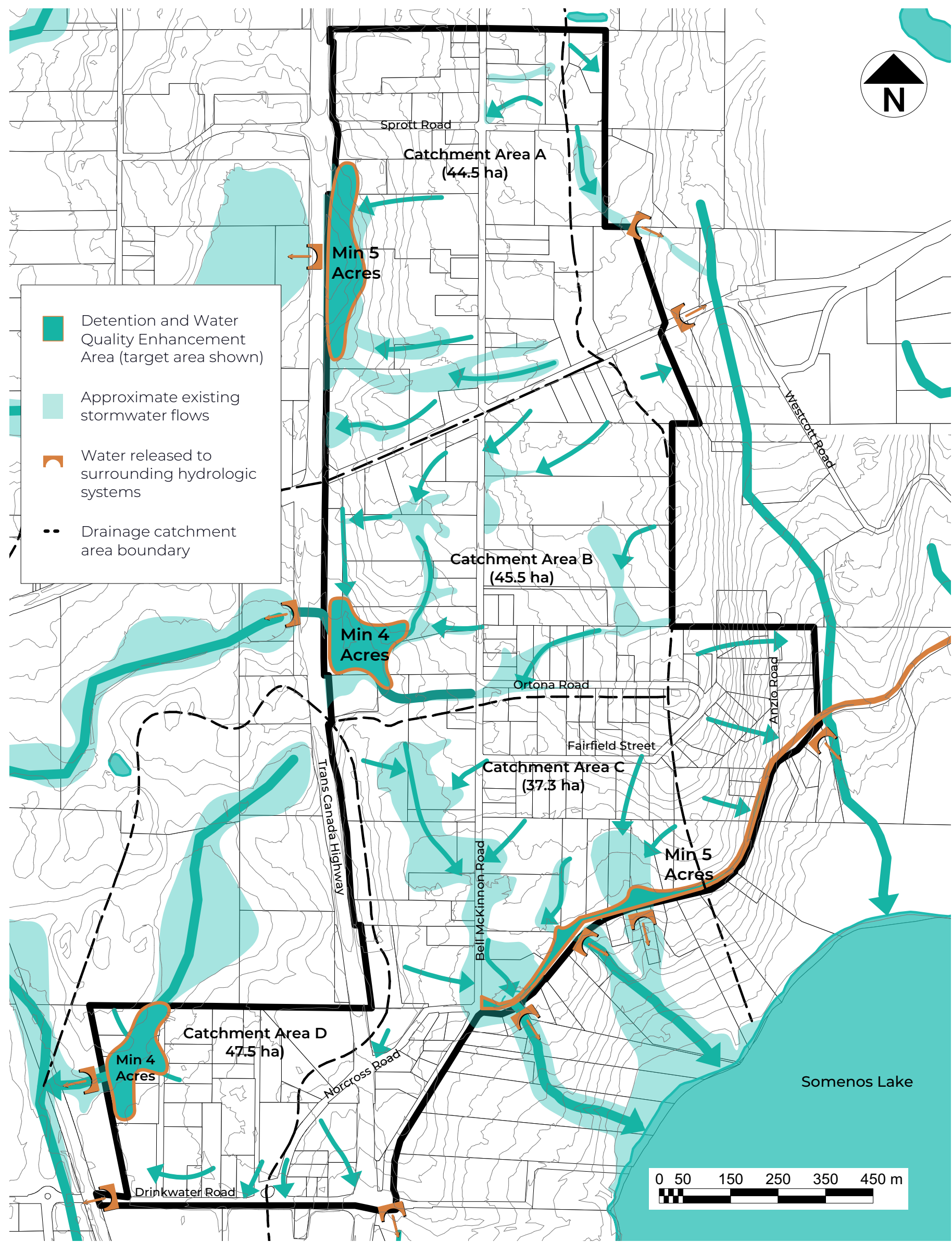
Typical stormwater swale section



Typical on-street stormwater strategy

This page is intentionally blank.

6.5.2 Stormwater Management Plan



This page is intentionally blank.

7

INFRASTRUCTURE

7.1 OVERVIEW

Insufficient infrastructure is a major limiting factor of growth in the area. Redevelopment facilitated by the policies of this Plan and the proposed new regional hospital will both require upgraded sewer and water service.

Infrastructure improvements (e.g., sewer, water, streets) are anticipated as part of the new regional hospital, which would be an ideal way to catalyze development in the neighbourhood. However, the timeline for the hospital and related improvements are uncertain. As a result, this Plan does not recommend pre-servicing land but, instead, facilitating servicing upgrades via development – including the hospital.

Inside this section, you will find:

- An infrastructure action plan including policies to guide Water Service Upgrades and Sewer Service Upgrades.
- A Conceptual Water Improvement Plan and a Conceptual Sewer Improvement Plan, illustrating desired improvements.

7.2 INFRASTRUCTURE ACTION PLAN

7.2.1 General

1. The Municipality will not pre-service land.
2. Proponents and land developers shall be responsible for providing the necessary upgrades resulting from a development or land use application in accordance with the policies of this Plan.
3. The Municipality should facilitate infrastructure and servicing upgrades through latecomer or excess capacity agreements where applicable through legislation.
4. The Municipality will not support individual or community water/sewer systems (e.g., no septic or wells) in the Plan Area.
5. The Municipality will accept reduced statutory right-of-way widths where qualified professionals demonstrate that design widths can accommodate standard municipal practices.

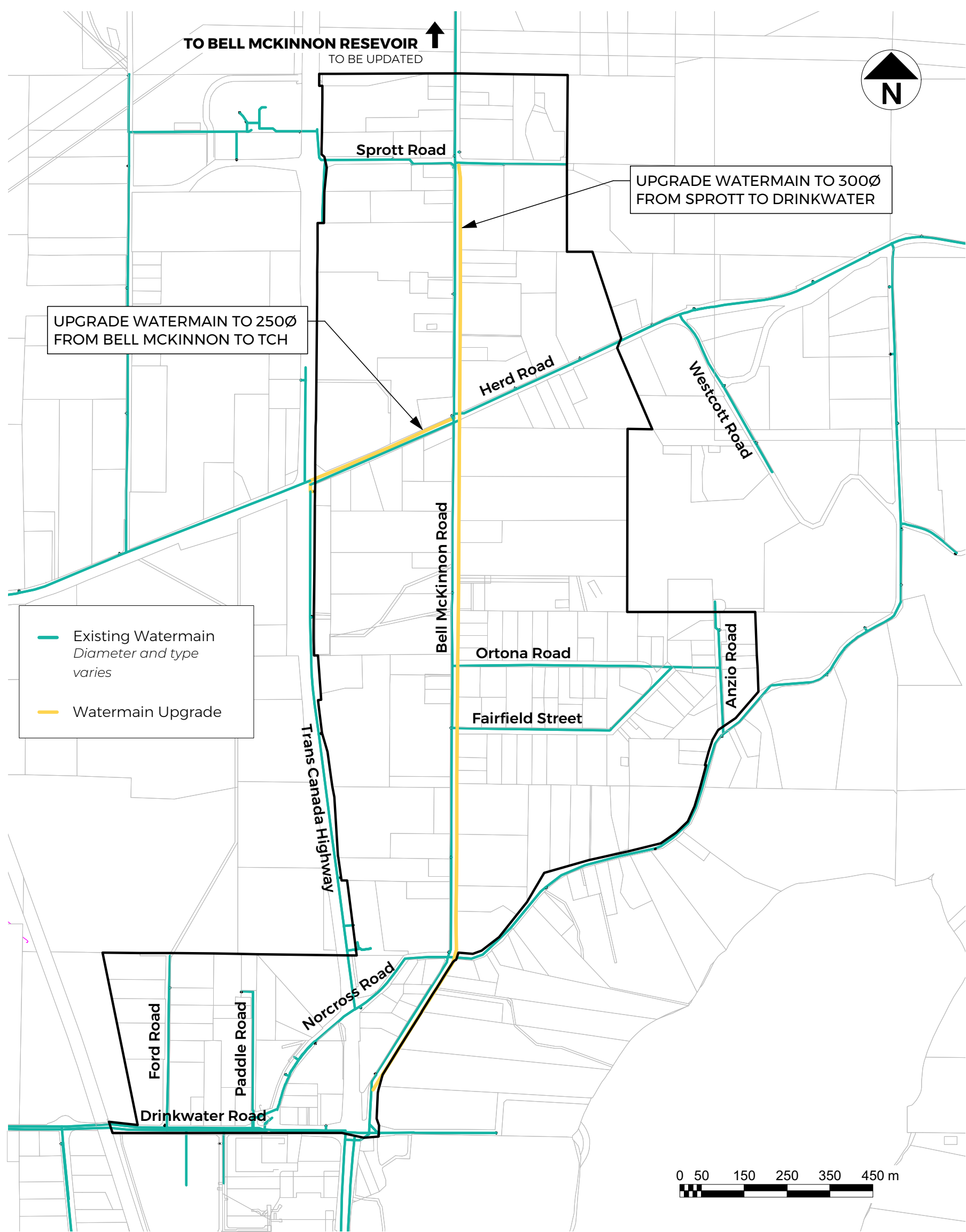
7.2.2 Water Service Upgrades

1. The following upgrades are expected to be required in order to provide adequate fire protection and domestic water supply:
 - a. Install a new watermain, 300mm in diameter, in Bell McKinnon Road from Sprott Road to Drinkwater Road.
 - b. Install new watermain (typically 200mm diameter) in all new roads or roads where redevelopment is occurring.
 - c. Install new watermain, 250mm in diameter, in Herd Road from Bell McKinnon Road to the Trans Canada Highway.
2. The schematic representation of existing and future water facilities is shown in 7.2.4.

7.2.3 Sewer Service Upgrades

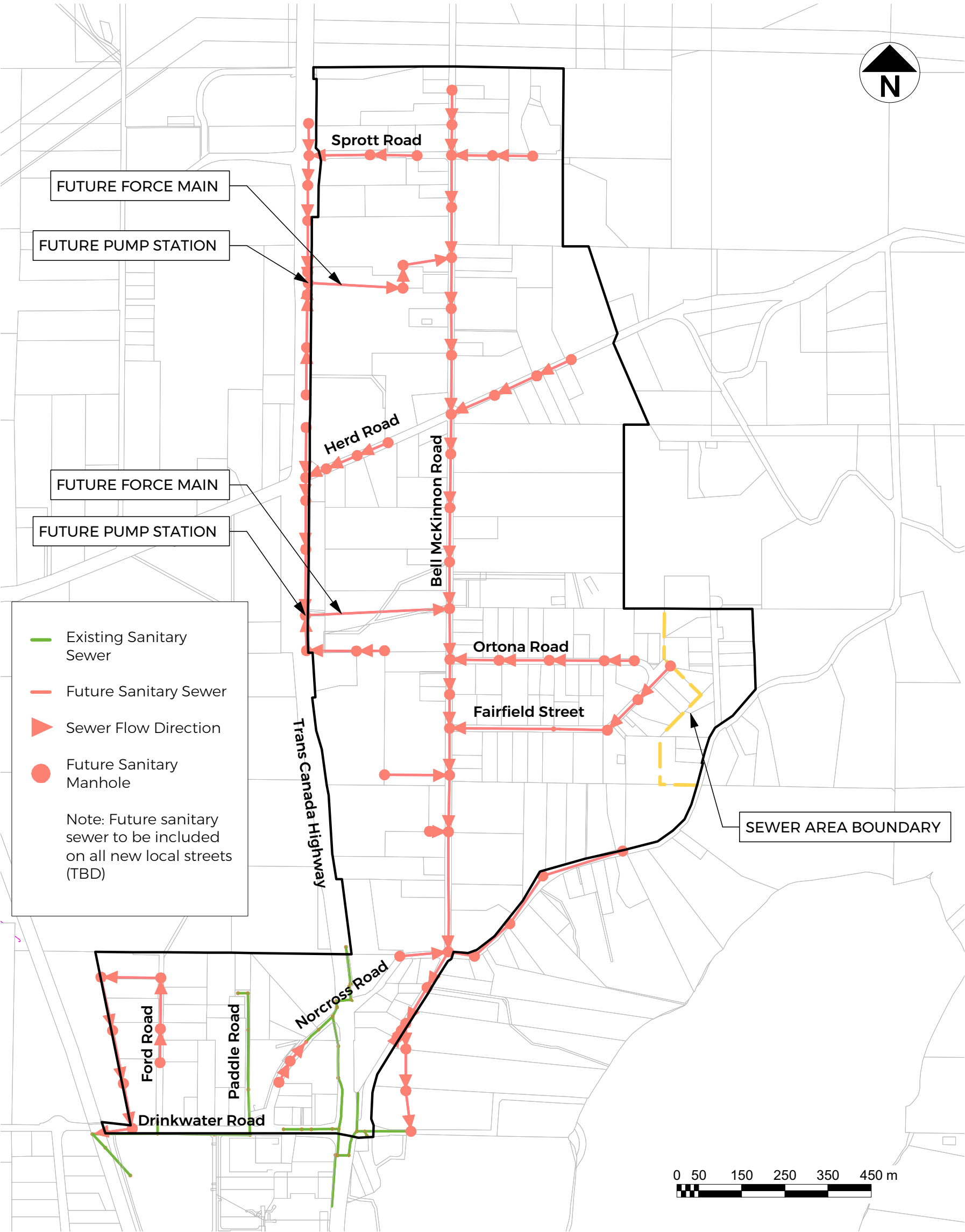
1. The following upgrades are expected to be required as the main features of a sewer system in the area:
 - a. A trunk sewer down Bell McKinnon Road and connecting to the existing sewer system near Drinkwater Road. Pipe sizes of the trunk will vary from 250mm to 375mm in diameter.
 - b. Two planned pump stations near the Trans-Canada Highway to facilitate development of properties which are of lower elevation than Bell McKinnon Road.
 - c. Local laterals as required, typical size 200mm diameter.
2. The area around Anzio Road is challenging to service due to topography and has limited potential for additional development. It should therefore be excluded from the planned sewer service area.
3. The schematic representation of existing and future sewer facilities is shown in 7.2.5.

7.2.4 Conceptual Water Improvement Plan



This page is intentionally blank.

7.2.5 Conceptual Sewer Improvement Plan



This page is intentionally blank.

8

IMPLEMENTATION

8.1 OVERVIEW

While this Plan provides a policy framework to guide future growth in the area, key actions and next steps are necessary to fully realize the vision and concepts presented in this Plan.

This section provides an implementation strategy for on-going, short-term, and medium- to long-term actions – and links next steps with key policies found in this Plan.

The actions outlined in this section acts as a guide to the Municipality and its partners in undertaking key planning priorities in the creation of a complete community in the Plan Area.

Inside, you will find:

- An overview of the Implementation Strategy, providing direction to the implementation of this Plan.
- An implementation table of On-going, Short-term, and Medium- to Long-term Actions, providing a list of next steps and related details.

8.2 IMPLEMENTATION STRATEGY

8.2.1 Overview

While Bell McKinnon is – at present – a relatively uncomplicated neighbourhood, this Plan presents a bold vision for a model green Growth Centre with new directions for land use, transportation, parks, and green and grey infrastructure.

To realize this vision for generations to come, the Municipality requires:

- a. A flexible yet coordinated approach to facilitating complimentary development typologies and acquisition of transportation and blue-green networks that will support long-term livability and community well-being;
- b. An interdepartmental willingness to go “outside the box” to create public spaces (e.g., streets, parks, laneways) that speak directly to the objectives and principles of this Plan – not a watered-down version;
- c. Collaboration with key partners – including the City of Duncan, Cowichan Valley Regional District, BC Transit, and Cowichan Tribes – to leverage win-win opportunities within and in proximity to the neighbourhood; and,

- d. Strong leadership to follow through on adoption of this Plan by allowing its policies to guide staff and Council decision-making with regard to development applications.

The comprehensive directions, policies, and recommendations in this Plan are grounded in strong consensus among stakeholders, staff, Council, and the wider community.

The result is a well-defined and actionable list of initiatives and next steps that the Municipality can undertake over the next 5-15 years. As the neighbourhood evolves, this Plan – and specifically this section – should be revisited to reflect changing needs and priorities.

8.2.2 On-going Actions

Action	Description	Policy	Roles
1 New Public Spaces – streets, parks, trails, and laneways	Work with developers (including CVRHD) to develop and acquire new streets, laneways, trails, parks, buffers, and other open space in accordance with the policies of this Plan.	4.2.2 Acquisition of Neighbourhood Networks	Lead: MNC Partners: CVRHD, developers, others
2 New Infrastructure & Blue-Green Network	Work with developers (including CVRHD) to upgrade existing infrastructure, including sewer and water, and establish a robust green infrastructure network with a focus on stormwater management.	6.5 Stormwater Management and 7.2 Infrastructure Action Plan	Lead: MNC Partners: CVRHD, developers, others

8.2.3 Short-term Actions

Action	Description	Policy	Roles
1 Detailed Local Street Layout Study	Undertake a detailed study of the new local street network to inform street development.	5.3.4 Street Typology Details	Lead: MNC
2 Cycling & Trail Network	[a] Support the CVRD initiative to complete the Cowichan Valley Trail / Trans-Canada Trail. [b] Prioritize cycling improvements for the following routes in the short-term: Bell McKinnon Road, Herd Road, and Norcross Road.	5.3.2 Active Transportation Network and 5.3.3 Street, Laneway, & Greenway Network Duncan Area Active Transportation Plan and Cowichan Tribes Transportation and Mobility Plan	Lead [a]: CVRD Partner [a]: MNC, Cowichan Tribes Lead [b]: MNC Partner [b]: developers, CVRHD, others

Short-term Actions continued

Action	Description	Policy	Roles
3 Amenity Policy	Develop and adopt a new amenity policy to inform Community Amenity Contributions and related policies (e.g., density bonusing).	4.2.3 Community Amenity Contributions	Lead: MNC
4 Street Trees & Boulevard Landscaping Policy	Develop and adopt a policy that outlines specific plantings for stormwater management, street tree separation, wildlife protection and conflict prevention, and environmental stewardship.	5.7.2 Pedestrian Zone and 6.4 Urban Forest	Lead: MNC
5 Green Development Policies	Develop detailed policies to inform the Maximum Effective Impervious Area and Minimum Tree Canopy Cover development requirements.	4.5.1 Tree Canopy Cover and 4.5.2 On-site Stormwater Management	Lead: MNC
6 Step Code	Finalize the development and adoption of the BC Energy Step Code policy and regulations.	4.5.3 Green Building	Lead: MNC
7 Traffic Impact Assessment	Require developers to complete a traffic impact assessment for major developments within the LAP area to the Municipality's satisfaction. All properties within 800m of the TCH will also require approval from MOTI.	5.2 General Policies (Transportation)	Lead: MNC Partners: developers, MOTI
8 Updated Engineering Standards	Review and update engineering specifications and standards for servicing, easements, and rights-of-way to be consistent with best practices.	N/A	Lead: MNC

8.3 MEDIUM- AND LONG-TERM ACTIONS

Action	Description	Policy	Roles
1 Large Neighbourhood Park	Work with relevant agencies and property owners to acquire a large park area with a trail network on the east side of the hospital site and adjacent ALR lands.	6.3.1 Blue-Green Network Acquisition and 6.3.2 Blue Green Network Plan	Lead: MNC Partners: CVRHD, property owners, ALC
2 Trail Network	Work with developers, CVRHD, and others to create an off-street trail network that enhances connectivity and promotes recreation within the neighbourhood.	6.3.2 Blue-Green Network Plan and 5.3.3 Street, Laneway, & Greenway Network	Lead: MNC Partners: developers, property owners, CVRHD
3 Truck Routes Bylaw	Develop a Truck Routes Bylaw to minimize the impacts of trucks servicing the new hospital and the Core Village on the neighbourhood, with a strong preference for servicing access to the hospital off of Herd Road.	5.4 Goods Movement & Loading	Lead: MNC
4 New School Site	Work with SD 79 to acquire a school site, with preference for a joint school and public park development of approximately 5 acres located south of Ortona Road and West of Bell McKinnon Road.	6.3.1 Blue-Green Network Acquisition and 6.3.2 Blue-Green Network Plan	Lead: School District 79 Partners: MNC, property owners
4 Car Share	Work with car share enterprises to identify opportunities to expand car share services in the area.	5.6 Off-Street Parking	Partners: MNC, developers, car share (e.g., Modo)

MEDIUM- AND LONG-TERM ACTIONS continued

Action	Description	Policy	Roles
5 Improved Transit	Work with BC Transit to extend and schedule existing services or create new services (local, regional, interregional, and handyDART) through the LAP area with strong consideration to linkages with other areas.	5.5.1 Transit Network Policies and 5.5.2 Transit Network Plan	Lead: BC Transit Partners: MNC, CVRHD, Cowichan Tribes
5 Transit Hub	Create a multi-modal transit hub on Bell McKinnon Road, adjacent to the hospital site.	5.5.1 Transit Network Policies and 5.5.2 Transit Network Plan	Lead: BC Transit Partners: MNC, CVRHD
6 Parking Strategy	Develop a parking strategy that implements time-limited parking in select areas (e.g., Core Village), as the neighbourhood develops.	5.2. General Policies (Transportation)	Lead: MNC
7 Parking Structure	Monitor the need and explore options for a parking structure in proximity to the Core Village that would provide secure, long-term parking, and market-priced stalls.	5.2. General Policies (Transportation) 5.6 Off-Street Parking	Lead: MNC

A APPENDIX

A.1 LANDSCAPE PLAN REQUIREMENTS

At the time of rezoning and Development Permit application, applicants shall provide a detailed landscape plan prepared by a Registered Landscape Architect that provides the following.

40% Tree Canopy Coverage

1. Show proposed tree planting locations and indicate the amount of growing medium volume that will be provided for each tree.
2. Provide a survey of the proposed canopy coverage using the following formula:
 - a.
$$L \times 75 + M \times 50 + S \times 25 / TSA = \text{_____}\%$$

(L = # large trees, M = # medium trees, S = # small trees, and tsa = total site area)

 - i. Tree cover measurements are in m².
 - ii. A bonus of 10m² per large tree and 5m² per medium tree is applied for preferred tree species identified as preferred in Section A.2.
 - iii. A bonus of 5m² per tree is applied to street trees in metal tree grates.
 - iv. To obtain full credit, project must provide adequate soil volume to support tree size, and a landscape performance security will be required for all plantings.
 - v. The Tree List on the following page summarizes acceptable tree species for consideration of the calculation of canopy coverage.

10% Effective Impervious Area

3. Show [a] impervious surfaces, coloured by drainage basin area, [b] all rain water source control measures, linked to drainage basins, [c] sizing criteria for each source control measure, and [d] construction details for source control measures.
4. Provide an estimate of the proposed Effective Impervious Area, using the following formula:
 - a. Impervious surface area draining directly to municipal storm drain system (m²) / total site area (m²);
 - b. As a rule of thumb, rain water management source controls generally cover 5% of a development site;
 - c. Landscaped areas should be used to manage rain water, where grades facilitate;
 - d. Green Roofs are considered pervious surfaces;
 - e. Landscaped areas are considered pervious, provided growing medium depth >300mm.

This page is intentionally blank.

A.2 CANOPY COVER CREDIT TREE LIST

Large-Canopied Trees: 75m² Credit
Soil Volume Required: 30-45m³

Common Name	Botanical Name
Grand fir	<i>Abies grandis</i>
Big leaf maple	<i>Acer macrophyllum</i>
Pacific madrone/arbutus	<i>Arbutus menziesii</i>
Douglas fir	<i>Pseudotsuga menziesii</i>
Garry oak	<i>Quercus garryana</i>
Western redcedar	<i>Thuja plicata</i>
Western hemlock	<i>Tsuga heterophylla</i>
Field Maple	<i>Acer campestre</i>
Caucasian maple	<i>Acer cappadocicum</i>
Sycamore maple	<i>Acer pseudoplatanus</i>
Red maple	<i>Acer rubrum</i>
Sugar maple	<i>Acer saccharum</i>
Shantung maple	<i>Acer truncatum</i>
Freeman maple	<i>Acer x freemanii</i>
Yellow buckeye	<i>Aesculus flava</i>
Common horsechestnut	<i>Aesculus hippocastanum</i>
Ruby red horsechestnut	<i>Aesculus x carnea</i>
Red alder	<i>Alnus rubra</i>
European hornbeam	<i>Carpinus betulus</i>
Chinese chestnut	<i>Castanea mollissima</i>
Spanish chestnut	<i>Castanea sativa</i>
Common catalpa	<i>Catalpa bignonioides</i>
Western catalpa	<i>Catalpa speciosa</i>
Atlas cedar	<i>Cedrus atlantica</i>
Deodar cedar	<i>Cedrus deodara</i>
Kastura	<i>Cercidiphyllum japonicum</i>
Yellowwood	<i>Cladrastis kentukea</i>
Handkerchief tree	<i>Davidia involucrata</i>
Snow gum	<i>Eucalyptus pauciflora</i>
European beech	<i>Fagus sylvatica</i>
American ash	<i>Fraxinus americana</i>
European ash	<i>Fraxinus excelsior</i>
Manna ash	<i>Fraxinus ornus</i>
Ginkgo	<i>Ginkgo biloba</i>
Kentucky coffeetree	<i>Gymnocladus dioicus</i>
Arizona walnut	<i>Juglans major</i>
Black walnut	<i>Juglans nigra</i>
English walnut	<i>Juglans regia</i>
Sweet gum	<i>Liquidambar styraciflua</i>
Tulip tree	<i>Liriodendron tulipifera</i>
Southern magnolia	<i>Magnolia grandiflora</i>
Kobus magnolia	<i>Magnolia kobus</i>
Siberian crabapple	<i>Malus baccata</i>
Dawn redwood	<i>Metasequoia glyptostroboides</i>
European hop hornbeam	<i>Ostrya carpinifolia</i>
Persian ironwood	<i>Parrotia persica</i>
Empress tree	<i>Paulownia tomentosa</i>
Amur cork tree	<i>Phellodendron amurense</i>
Norway spruce	<i>Picea abies</i>
Sitka spruce	<i>Picea sitchensis</i>
Scotch pine	<i>Pinus sylvestris</i>
Giant redwood	<i>Sequoiadendron giganteum</i>
Japanese pagoda tree	<i>Sophora japonica</i>
False arborvitae	<i>Thujopsis dolabrata</i>
Little-leaf linden	<i>Tilia cordata</i>
Large leaf linden	<i>Tilia platyphyllos</i>
Silver linden	<i>Tilia tomentosa</i>
Caucasian lime	<i>Tilia x euchlora</i>
American elm	<i>Ulmus americana</i>
Japanese elm	<i>Ulmus davidiana</i>
Scotch elm	<i>Ulmus glabra</i>
Siberian elm	<i>Ulmus pumila</i>
Japanese zelkova	<i>Zelkova serrata</i>

Medium-Canopied Trees: 50m² Credit
Soil Volume Required: 15-30m³

Common Name	Botanical Name
Pacific dogwood	<i>Cornus nuttallii</i>
Shore pine	<i>Pinus contorta</i> var. <i>contorta</i>
Silk tree	<i>Albizia julibrissin</i>
Paper birch	<i>Betula papyrifera</i>
California incense cedar	<i>Calocedrus decurrens</i>
American hornbeam	<i>Carpinus caroliniana</i>
Japanese hornbeam	<i>Carpinus japonica</i>
Hinoki false cypress	<i>Chamaecyparis obtusa</i>
Sawara false cypress	<i>Chamaecyparis pisifera</i>
Giant dogwood	<i>Cornus controversa</i>
Turkish hazel	<i>Corylus colurna</i>
Hardy rubber tree	<i>Eucommia ulmoides</i>
Honey locust	<i>Gleditsia triacanthos</i>
Chinese flame tree	<i>Koelreuteria bipinnata</i>
Golden rain tree	<i>Koelreuteria paniculata</i>
European larch	<i>Larix decidua</i>
Sweetbay magnolia	<i>Magnolia virginiana</i>
Red lotus	<i>Manglietia insignis</i>
Tupelo	<i>Nyssa sylvatica</i>
American hop hornbeam	<i>Ostrya virginiana</i>
White spruce	<i>Picea glauca</i>
Serbian spruce	<i>Picea omorika</i>
Colorado blue spruce	<i>Picea pungens</i>
Limber pine	<i>Pinus flexilis</i>
Austrian pine	<i>Pinus nigra</i>
Ponderosa pine	<i>Pinus ponderosa</i>
Chinese pistacio	<i>Pistacia chinensis</i>
Trembling aspen	<i>Populus tremuloides</i>
Bitter cherry	<i>Prunus emarginata</i>
Sargents cherry	<i>Prunus sargentii</i>
Yoshino cherry	<i>Prunus X yedoensis</i>
Callery pear	<i>Pyrus calleryana</i>
Willow oak	<i>Quercus phellos</i>
Korean mountain ash	<i>Sorbus alnifolia</i>
Whitebeam	<i>Sorbus aria</i>
Bald cypress	<i>Taxodium distichum</i>
Nootka cypress	<i>Xanthocyparis nootkatensis</i>

Highlight designates preferred species.

Small-Canopied Trees: 25m² Credit
Soil Volume Required: 8-15m³

Common Name	Botanical Name
Vine maple	<i>Acer circinatum</i>
Paperbark maple	<i>Acer griseum</i>
Japanese maple	<i>Acer palmatum</i>
Amur maple	<i>Acer tartaricum</i> ssp. <i>ginnala</i>
Autumn Brilliance Serviceberry	<i>Amelanchier x grandiflora</i>
Eastern redbud	<i>Cercis canadensis</i>
Chinese redbud	<i>Cercis chinensis</i>
Judas tree	<i>Cercis siliquastrum</i>
Kousa dogwood	<i>Cornus kousa</i>
Black hawthorn*	<i>Crataegus douglasii</i>
Lavallei hybrid hawthorn	<i>Crataegus x lavellei</i>
Toba hawthorn	<i>Crataegus x mordensis</i>
Star magnolia	<i>Magnolia stellata</i>
Saucer magnolia	<i>Magnolia x soulangeana</i>
Japanese flowering crabapple	<i>Malus floribunda</i>
Southern beech	<i>Nothofagus antarctica</i>
Tanoak	<i>Notholithocarpus densiflorus</i>
Cherryplum	<i>Prunus cerasifera</i>
Japanese cherry	<i>Prunus serrulata</i>
Japanese stewartia	<i>Stewartia pseudocamellia</i>
Japanese snowbell	<i>Styrax japonicus</i>
Fragrant snowbell	<i>Styrax obassia</i>
Tree lilac	<i>Syringa reticulata</i>
Western yew	<i>Taxus brevifolia</i>
All columnar varieties, regardless of species	

*Invasive varities not accepted.

Specifically Excluded from Credit

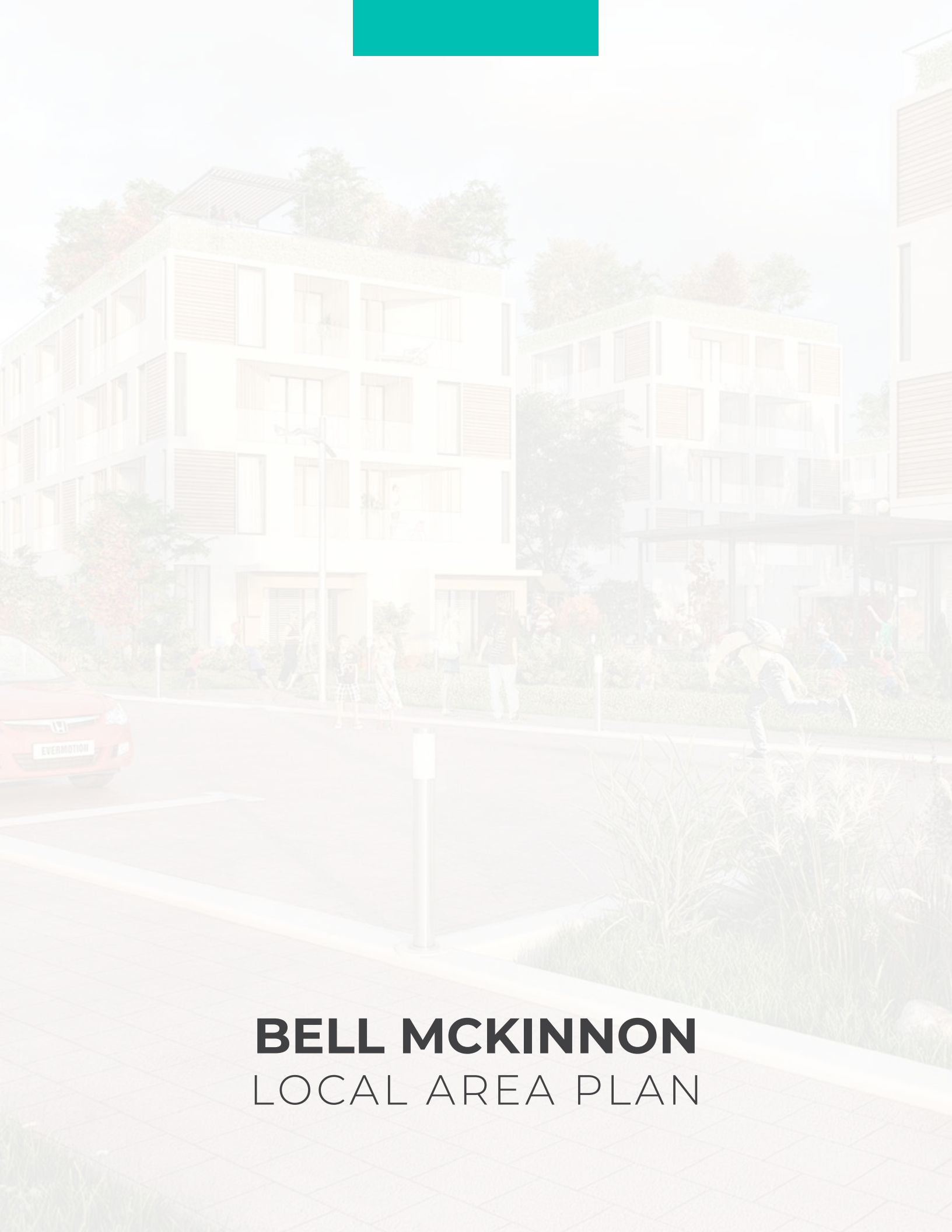
Common Name	Botanical Name
Monkey puzzle	<i>Araucaria araucana</i>
Fan palm	<i>Trachycarpus fortunei</i>
Holly species	<i>Ilex</i> spp.
Black locust	<i>Robinia pseudoacacia</i>

Note: In order to obtain full credit, project must provide adequate soil volume to support tree size.

Tree List Adapted from Oak Bay Urban Forest Management Strategy, 2017

This page is intentionally blank.

This page is intentionally blank.



BELL MCKINNON

LOCAL AREA PLAN