POLICY

BOWEN ISLAND Municipality

Policy Adopted: December 9, 2019 **Policy #19-06**

Active Design Guidelines

POLICY OBJECTIVE: To help new development incorporate design elements that facilitate and encourage active living and contribute to the physical, mental and social wellbeing of the island.

REASON FOR POLICY: To establish the guidelines and their applicability in the development process.

SCOPE OF POLICY: The guidelines are intended to be used by developers, planners, and the general community to inform land development processes. Recognizing that some design features have environmental, financial or other constraints, not every guideline will be feasible or applicable to a given development project. Alternatively, there may be other options not presented in the guidelines that are appropriate for addressing key active design areas for the development.

DEFINITIONS:

Active Living refers to practices that integrate physical activity into daily routines, such as commuting, moving within and around buildings, spending time outside, and recreational activities.

Active Design is an approach for the design of places and infrastructure to support active living within communities.

GUIDELINES:

1. The Active Design Guidelines (ADG) are set out in Appendix A.
2. The ADG is to be publicly available in paper form at Municipal Hall and in digital form on the municipal website.
3. Planning staff is to provide the ADG to applicants or those interested in applying for a development approval, including a subdivision, rezoning, temporary use permit, development variance permit, development permit, and building permit.
4. Planning staff is to encourage developers to apply the ADG in their proposed development.
5. In considering applications for discretionary development approvals, such as rezonings and development variance permits, Council is to evaluate that all design areas in the ADG have been considered in the proposed development.

Policy adopted by Council at its regular Council Meeting held December 9, 2019

_____	_____
Gary Ander	Hope Dallas-Kerr
Mayor	Corporate Officer

Active Design Guidelines

2019

Designing communities for physical activity

BOWEN ISLAND Municipality

Contents

These guidelines are part of Policy #19-06, which was adopted by Council on December 9, 2019.

Constraints
Recognizing that some design features have environmental, financial or other constraints, not every guideline will be feasible or applicable to your development project. Alternatively, there may be other options not listed in this guide that are appropriate approaches for addressing the key active design areas for your specific development.

Use the checklist at the end of this guide to ensure that all the key design areas have been considered in your development.

Introduction

Physical activity is an important part of a healthy lifestyle, contributing to physical, mental and social well-being. Lack of physical activity can contribute to obesity, heart disease, stroke, diabetes and various cancers.

Key Concepts

ACTIVE LIVING

Canadians can incorporate small regular physical activities into their day to achieve healthier lifestyles. Active living refers to practices that integrate physical activity into our daily routines, such as commuting, moving in and around buildings, and spending time outside. Connecting with nature is an important part of physical and spiritual well-being. Fortunately, on Bowen Island, there are many opportunities to access nature!

ACTIVE TRANSPORTATION

A key component to active living is active transportation, which includes human-powered ways of getting to and from our daily destinations, such as walking, wheelchairing, riding a bike and rollerblading.[1]

INTEGRATING SUSTAINABILITY

Active living and sustainability go hand-in-hand. Healthy lifestyle choices contribute to fewer greenhouse gas emissions, less environmental impact, better air quality and promotion of environmental stewardship.

ACTIVE DESIGN

Where we live and how our communities are designed have a major impact on our lifestyles and daily habits.[2] How are we supposed to walk to work, for example, if there are no safe and connected pathways, or if the hills are too steep? Or if the pathway is simply unattractive?

Active design is an approach that considers these challenges. Planners, architects, designers and developers use active design to shape places and infrastructure in our communities that support our health and well-being.[3]

Although the concept originated in the urban context of New York City, active design principles have been adopted worldwide by communities of diverse geographic locations and scales.

Bowen Island, BC
Image source: Bowen Island Municipality

Bowen Islanders identified active transportation as a high priority in the development of the community's Transportation Plan 2018-2038.

1. Province of British Columbia. (2019). *Active Transportation Design Guide.*
2. Coalition Linking Action and Science for Prevention. (2015). *Active Transportation, Health and Community Design.*
3. City of New York. (2010). *Active Design Guidelines: Promoting Physical Activity and Health in Design.*

Guiding Principles

THE TRANSPORTATION VISION

Simple, seamless, sustainable transportation options for every Bowen Islander.

In 20 years, Bowen Island transportation will epitomize island living. Getting around will be simple and relaxed. This means options that are efficient, healthy, safe and environmentally conscious.

New development on Bowen will contribute to the *Transportation Plan's* three strategic goals:

- **Connections:** Shorter trips, fewer trips
- **Choices:** When you want, how you want
- **Health:** Fewer emissions, better health

REGIONAL GOALS

The design considerations represented in this guide also relate to TransLink's *Regional Transportation Strategy* and *Regional Cycling Strategy*, which aim to:

- Facilitate sustainable transportation choices for residents
- Foster safe, healthy and complete communities
- Ensure that most trips are by transit, walking and cycling
- Reduce greenhouse gas emissions and protect the environment.

A complete road cross-section

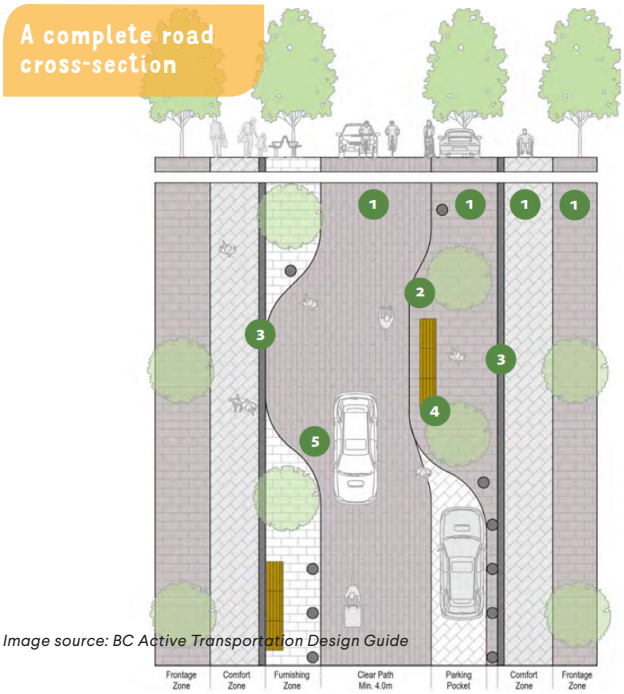


Image source: BC Active Transportation Design Guide

Who Is This Guide For?

This guide is for Bowen Island community members, developers and planners who are involved in the development and design of land use on Bowen Island. Consult this guide if you are a:

DEVELOPER to consider how to facilitate active living as you plan your building projects.

MUNICIPAL PLANNER to evaluate to how developers are incorporating active design elements into their development proposals.

COMMUNITY MEMBER to better understand how future residential, public space and commercial developments can incorporate active design principles.

These design guidelines will help future development integrate active and healthy living on Bowen Island.

Designing for All Ages and Abilities

Keep in mind the following concepts to ensure that elders, small children and people with different ranges of mobility are able to comfortably, conveniently and equitably access community features, regardless of their mode choice.

Universal Design

Universal design (UD) is an approach to design products, services and environments so that individuals of all ages and abilities can use them. Transportation networks and developments can apply UD principles[1] so that the design is simple and intuitive, requires minimal physical effort and is flexible enough to be used by different individuals with different levels of mobility.

Complete Roads

The words "road" or "street" are often used to refer to the space that only vehicles occupy. But roads are meant for all transportation users, including pedestrians and cyclists. Complete roads consider every mode of transportation and are designed with universal accessibility in mind. The elements of a complete road are determined by the role of the road in the transportation network as well as the surrounding land-use activities.

1 Centre for Excellence in Universal Design. (n.d.). Retrieved from http://universaldesign.ie/What-is-Universal-Design/The-7-Principles/

How to Use This Guide

The design guidelines are organized according to the following stages of development:

1. PLANNING

Locating conceptual land uses and circulation patterns. Examples: Community planning processes, rezonings, Official Community Plan amendments

2. SUBDIVISION

Establishing development patterns on the ground. Examples: Defining legal lot lines, easements and roads.

3. BUILDING

Constructing the built environment within the subdivided framework. Examples: Building new homes, re-designing a driveway, constructing a retreat centre.

Refer to your stage of development to find applicable guidelines, which have been strategically developed according to the guiding principles to contribute toward specific desired outcomes.

KEY DESIGN AREAS

To be effective, active design should be considered in several key design areas for every stage of development:

Building & Site Design
Health and well-being within, and immediately surrounding, private and public buildings.

Development Patterns
Land use, community development and planning practices

Parks & Open Space
Parks, green spaces, waterways and other public spaces

Transportation & Mobility
Transportation networks, infrastructure and user needs.

Each design guideline will address one or more of these key design areas. Try to apply multiple guidelines in your development to address all four design areas.

Constraints
Recognizing that some design features have environmental, financial or other constraints, not every guideline will be feasible or applicable to your development project. Alternatively, there may be other options not listed in this guide that are appropriate approaches for addressing the key active design areas for your specific development.

Use the checklist at the end of this guide to ensure that all the key design areas have been considered in your development.

1. Planning *Locating conceptual land uses and circulation patterns*

Active living principles can be incorporated when conceptualizing land-use activities for future development. These principles are also integral to designing a complete transportation network for the community.

1.1. Bowen Island neighbourhoods have diverse land-use activities that are easy to access.

1.1.1 Density

As residential density increases, so should the types of land uses and number of route choices and connections.

1.1.2 Parks & recreation

Consider how developments connect to Bowen Island's parks and trails. Allocate space for recreation, social gathering and experiencing nature in areas where nearby access to existing parks and beaches may be challenging.

1.1.3 Social space[4]

Active transportation networks should connect to organic places for gathering. Such places include beaches, flat and sunny green spaces, trailheads, little libraries and other spaces where people socialize beyond home and work. Where possible, highlight existing natural features or landscapes.

4. From Ray Oldenburg's *The Great Good Place* (1998).

1.2. New development provides continuity and connection to Bowen Island's active transportation and recreational trail networks.

1.2.1 Continuous networks

Ensure development aligns with Bowen Island's transportation networks based on the following considerations from *Small Town and Rural Multimodal Networks*:

- **Cohesion**: Connect to a concentration of destinations and routes over land and water
- **Directness**: Provide direct and convenient access to destinations
- **Accessibility**: Accommodate travel for all ages, income levels and abilities
- **Alternatives**: Provide multiple route choices within the network
- **Safety and Security**: Design network to minimize risk of injury, danger and crime
- **Comfort**: Consider user amenities and appeal to a broad range of ages and ability levels

Also, consider connectivity of wildlife corridors throughout the development.

1.2.2 Direct walking routes

When designing neighbourhoods, consider features such as stairs and mid-block pass-throughs that shorten walking distances. Pathway connections, including trails, should be intuitive and provide the most direct and safest route possible between key destinations.

1.2.3 Connect car-free

Maintain dedicated walking, bicycle and equestrian paths on dead-end streets and cul-de-sacs to provide car-free through-access. Try to connect to the island trail network and create loop routes where possible.

Consider the role of each individual route within the transportation network as a whole.

1.1.1 Density

Bowen Island, BC
Image source: Bowen Island Municipality

1.1.2 Parks & recreation

Bowen Island, BC
Image source: Bowen Island Municipality

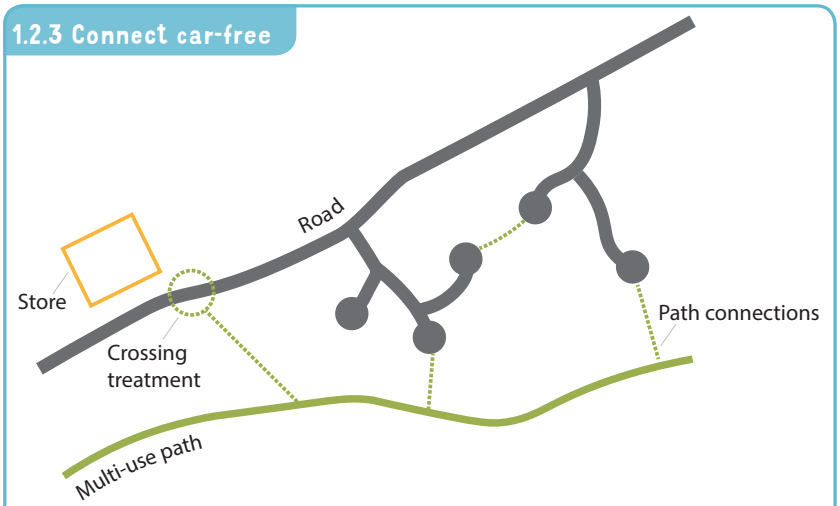
1.1.3 "Third places"

Bowen Island, BC
Image source: Cocoa West

1.2.2 Direct walking routes

Mid-block pass-through. Bowen Island, BC
Image source: Bowen Island Municipality

1.2.3 Connect car-free



Improved network connections for car-free use.
Image adapted from Small Town and Rural Multimodal Networks

Recommended Resources for Planning

Bowen Island Municipality Official Community Plan (OCP)
Bowen Island Municipality Transportation Plan
Bowen Island Municipality Parks Plan
Small Town and Rural Multimodal Networks Guide
BC Active Transportation Design Guide
City of New York Active Design Guidelines

2. Subdivision *Establishing development patterns on the ground*

Active transportation should be considered when establishing physical development patterns. Configurations can be designed to facilitate a comfortable and encouraging walking environment for Bowen Islanders.

2.1. The route network connecting to and within a subdivision accounts for active transportation.

2.1.1 More choice

Subdivisions should provide a choice of routes and modes of travel, including over water, by having a mix of different activities within a walkable distance, and minimizing the number of lots served by only one route through the subdivision. Avoid lots that may only be accessed by vehicle.

2.1.2 Safer road space

Minimize the width of vehicle travel lanes to reduce traffic speeds and pedestrian crossing distances. Shorter crossings are especially beneficial to the elderly and those with mobility challenges, who may need more time to cross.

2.1.3 Balanced roads[5]

Allocate sufficient shoulder space for comfortable and safe walking and cycling. Consider contrasting colours and materials to clearly differentiate active transportation paths from driving areas. Preserve natural assets and incorporate green infrastructure where possible.

2.1.4 Connect car-free

Maintain dedicated walking, bicycling and equestrian paths on dead-end streets and cul-de-sacs to provide car-free through-access.

5. For comprehensive detailed examples of different road configurations, consult the Small Town and Rural Multimodal Networks Guidebook or the BC Active Transportation Design Guide.

2.2. Walking on Bowen Island is comfortable and encouraged.

2.2.1 Direct paths

Ensure that walking paths are direct and intuitive, with clear wayfinding. Avoid the need for pedestrians to double back or zig-zag. Consider paths on and off the road, including trails.

2.2.2 Attractive routes

Design walking paths to include interesting views, both near and far. Highlight existing natural features or landscapes. Landscaping and facades should be inviting at pedestrian scale. Include wayfinding to help orient users.

2.2.3 Shelter

Minimise exposure to rain and high heat by incorporating shelter, such as covered walkways or tree canopy, where possible.

2.2.4 Parks & recreation

Consider how walking routes, such as trails, connect to Bowen Island's established parks and beaches. Allocate space, especially existing natural features, for recreation, social gathering and experiencing nature. Consider loop routes if possible.

Recommended Resources for Subdivision

Bowen Island Municipality Subdivision & Development Servicing Bylaw
Bowen Island Municipality Age Friendly Community Project
Bowen Island Municipality Official Community Plan (OCP)
Bowen Island Municipality Transportation Plan
Bowen Island Municipality Parks Plan
BC Active Transportation Design Guide
Small Town and Rural Multimodal Networks Guide
Auckland Design Manual
Active Design Miami

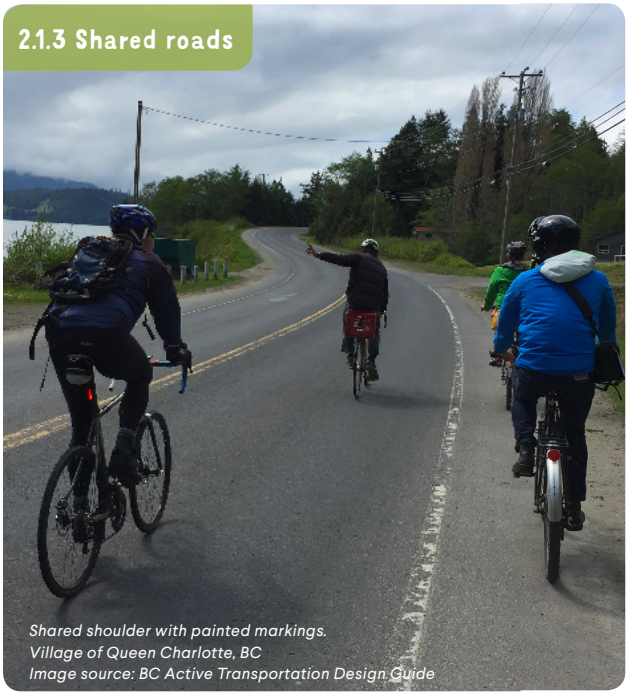
2.1.1 More choice

Bike ramps on stairs allow people of all ages and abilities to choose between walking and cycling on steep grades.
Image source: Seattle Department of Transportation

2.1.2 Reduced car space

Minimzed vehicular space on road to accommodate paved shoulder. Capay, CA
Image source: Small Town and Rural Multimodal Networks

2.1.3 Shared roads



Shared shoulder with painted markings.
Village of Queen Charlotte, BC
Image source: BC Active Transportation Design Guide

2.2.1 Direct paths

Short-cut stairs. Bowen Island, BC
Image source: Bowen Island Municipality

2.2.2 Attractive routes

Bowen Island, BC
Image source: Bowen Island Municipality

2.2.3 Shelter

Bowen Island, BC
Image source: Bowen Island Municipality

People are more encouraged to walk if there are attractive surroundings for them to experience.

3. Building

Constructing the built environment within the subdivided framework

Active design is all in the details. Developments should connect to active transportation networks and facilitate active living on-site. There are many ways to achieve this across single-detached, multi-family, commercial and public developments.

Single-House Development

3.1. Across the island, there are strong linkages between residential properties and active transportation networks.

3.1.1 Path to door

Position dwelling entrances and pathways towards footpaths, multi-use paths, trails, transit stops and bike parking areas. Consider direct connections to a walking path. Avoid orientating main entrances toward vehicle areas or traffic.

3.1.2 Attractive entrances

Highlight entrances with high-quality, inviting, and visually appealing materials. Provide places to pause, look onto outdoor areas and interact with neighbours.

3.1.3 Outside lighting

Provide adequate exterior lighting that will illuminate entrances to homes and pathways to increase sense of safety and visibility for people on foot or riding a bike. Ensure lighting complies with the Bowen Island Municipality Night Sky Bylaw to minimize impact on the environment and neighbours.

3.2. Residents have usable outdoor space on their property for active and healthy living.

3.2.1 Gardening

Provide on-site gardening features to increase access to local healthy food and to reduce greenhouse gas emissions. Some examples include raised beds, storage areas, greenhouses and multiple hose/water connections.

3.2.2 Versatile space

Design outdoor spaces for a variety of uses. Consider dividing the space so that some areas are covered while others are left open to allow for use of the space in different weather conditions. Try to retain existing natural landscape in the design.

3.2.3 Child's play

Ensure children's outdoor play areas are in open spaces, secured from driveways and roads. The play area should be visible from the central living areas of the home.

3.2.4 Fun in the sun

Design outdoor space to maximize sun exposure and provide wind protection. Ensure the area is conveniently connected to the main living area of the house.

3.1.1 Path-to-door

Site connects directly to public path, Bowen Island, BC
Image source: Bowen Island Municipality

3.1.2 Attractive entrances

Cove Commons, Bowen Island, BC
Image source: Len Gilday

3.1.3 Outdoor lighting

Dark Sky friendly lighting
Image source: www.darksky.org

3.2.1 Gardening

Organic vegetables in raised beds
Image source: Local Food Initiative

3.2.2 Versatile space

Langley, WA
Image source: Poppy Talk/NWMLS

3.2.3 Child's play

Play area secure from traffic
Image source: www.pixabay.com

3.2.4 Fun in the sun

Auckland, NZ
Image source: Auckland Design Manual

3.3 The living spaces are more prominent than the vehicle spaces.

3.3.1 Driveway safety

Use low landscaping, adequate lighting and see-through fencing to ensure good visibility for drivers, pedestrians and cyclists. Include low-speed design features and clear, open space for maneuverability.

3.3.2 Garage design

Consider using two staggered single-car garage doors instead of one double garage door, which can visually dominate the property. Staggering garages can also help with wind protection.

3.3.3 Shared driveways

Consider shared driveways between neighbouring dwellings to reduce the number of road-driveway intersections. This will minimize conflict between cars and pedestrians/cyclists, as well as reduce paved areas, which may have negative environmental impacts.

3.3.4 Flexible garage space

Parking facilities can be used for more than just storing cars. Consider designing the garage or driveway as a flexible area that is part of, and linked to, the outdoor spaces around the house to encourage more usability and circulation between indoor and outdoor spaces.

3.3.5 Downplay parking

Where possible locate driveways and garages on shaded areas of the site, reserving sunny areas for outdoor spaces and habitable rooms of the house. Avoid placing the parking area in the front of the property.

Sites are often designed to prioritize the vehicle over the dwelling. This can discourage people from wanting to walk in the neighbourhood.

3.4. Homes are suitable for all ages and abilities.

3.4.1 Accessible exterior

Where possible, make pathways level with the house. If the topography is too varied, integrate universal design features such as wheelchair ramps into the landscaping. If the grade is too steep for a ramp, consider wide, shallow stairs with a handrail.

3.4.2 Age-friendly housing

Build a wide range of homes with varying sizes, number of bedrooms and architectural features within a development that integrates universal design principles so that island living is accessible to as many individuals and families as possible.

3.4.3 Accessible interior

Consider aging-in-place design elements for residential homes. Some examples include:

- One-storey, open floor plan with ample natural lighting
- No-step thresholds, wide doorway entrances and hallways for wheelchair and stroller access
- Modular elements such as foldable counter surfaces at wheelchair/high-chair height in kitchens and bathrooms
- Appropriate level of cabinets, laundry facilities and outlets that minimize the need to crouch or hunch over

3.3.1 Driveway safety

Low fencing, separated access for pedestrians and vehicles
Image source: Auckland Design Manual

3.3.2 Garage design

Staggered garage doors in the shade.
Camano Island, WA
Image source: Designs Northwest Architects

3.3.3 Shared driveways

Driveway shared between two houses
Image source: www.geograph.org.uk

3.3.4 Flex garages

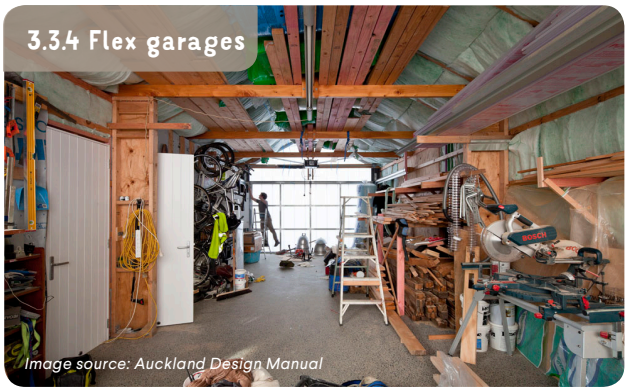


Image source: Auckland Design Manual

3.3.5 Downplay parking

Prominent street-facing entrance. Parking is on less prominent side-street. Auckland, NZ
Image source: Auckland Design Manual

3.4.1 Accessible exterior

Level surfaces and minimal grade. Port Townsend, WA.
Image source: FabCab

3.4.2 Age-friendly housing

Seattle, WA.
Image source: Northwest Universal Design Council

3.4.3 Accessible interior

Spacious kitchen with accessible appliances.
Port Townsend, WA
Image source: FabCab

Multi-Family, Commercial & Public Development

3.5. Active transportation networks include final destination design considerations.

3.5.1 Cycling amenities

Consider end-of-trip needs for people riding bikes at key commercial, public and recreational destinations on the island. Some options include:

- Sufficient bike parking that is prominently located, highlighted with clear signage and ideally covered to protect against rainfall
- Automatic or hold-open doors and stair ramps for wheeling bikes around the site
- Utility area for bicycle tools and repairs
- Change facilities with storage options
- Charging infrastructure for e-bikes

3.5.2 Path-to-door

Orient main entrances of schools and community buildings toward walking/cycling/trail networks rather than parking lots to improve safety and active network connections. Consider creating circulation pathways that directly connect the site to public paths and natural spaces.

3.5.3 Multimodal access

Minimize vehicle parking areas. Include parking facilities for cyclists and clear pathways for pedestrians to increase safety and facilitate all mobility options.

3.6. Common spaces in multi-family or mixed-use developments facilitate active and healthy living.

3.6.1 Attractive stairs

Make stairs inviting and visually appealing. Locate stairs in a prominent part of the building or site, close to main entrances. Incorporate features such as wide landings, user-friendly railings and attractive landscaping to improve user experience.

3.6.2 Accessible entrances

Design entrances that are inviting, unobstructed and wide enough to accommodate wheelchair access. Consider providing wide-open adjacent spaces for socializing.

3.6.3 Community gardening

Provide on-site gardening features to increase access to local healthy food and to reduce greenhouse gas emissions. Include open space for social events, picnic tables and gardening amenities such as raised beds, storage, green houses and multiple hose/water connections.

3.7. Public spaces increase safety, comfort and the likelihood of walking.

3.7.1 Public amenities

Provide amenities such as seating, drinking fountains and restrooms that encourage people to walk more often and for longer durations.

3.7.2 Gathering places

Locate open spaces or small gathering places along popular walking routes. Apply universal design principles to ensure that open spaces are easily visible and accessible. Highlight existing natural features and landscapes.

Recommended Resources for Building

Bowen Island Municipality Age Friendly Community Project Report to Council
Auckland Design Manual
Active Design Miami
City of New York Active Design Guidelines
Universal Design (website)
Residential Design for Aging in Place (book)
City of North Vancouver Active Design Guidelines
BC Active Transportation Design Guide

3.5.1 Cycling amenities

Bike Repair Stand located at library. Ottawa, ON
Image source: Ottawa Public Library

3.5.2 Path-to-door

Pathway connecting directly to municipal office. Bowen Island, BC
Image source: Bowen Island Municipality

3.5.3 Multimodal access

Covered bike parking area outside of grocery store. Portland, OR
Image source: Jonathan Maus/Bike Portland

3.6.1 Attractive stairs

Stairs to Village Square, Bowen Island, BC
Image source: Bowen Island Municipality

3.6.3 Community gardening

Raised beds and gathering area. Calgary, AB
Image source: Banff Trail Community Association

3.6.2 Accessible entrances

Public library. Whistler, BC
Image Source: HCMA

3.7.1 Public amenities

Drinking fountain with dog fountain attachment
Image source: BC Active Transportation Design Guide

Pedestrian networks that alternate walkways and small open spaces can make walking distances seem shorter.

3.7.2 Gathering places

Small gathering area. Bowen Island, BC
Image source: Bowen Island Municipality

Design Checklist

Use this checklist to show how you have considered the 4 key design areas in your development project.

✔	DESIGN AREA	Design guidelines applied (eg. 3.1.3, 3.2.4)	Other design elements applied	If design area not considered, please explain why
☐	 **Development Patterns** Land use, community development and planning practices			
☐	 **Parks & Open Space** Parks, green spaces, waterways, and other public spaces			
☐	 **Transportation & Mobility** Transportation networks, infrastructure and user needs			
☐	 **Building & Site Design** Health and well-being within, and immediately surrounding, private and public buildings			

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