NANAIMO PARKING REVIEW + BYLAW UPDATE

Parking Conditions Report

City of Nanaimo | November 29, 2024

URBAN SYSTEMS

CONTENTS

1.0 OVERVIEW

The City of Nanaimo is reviewing how it supplies, manages, and regulates parking. As Nanaimo faces dynamic transportation and land use changes, demand for curbside space and mode shift behaviours among residents and commuters are driving the need to ensure that the City's approach to parking management is appropriate for ongoing and emerging challenges and opportunities. Parking has a broad and profound impact on the community in terms of development feasibility, building form, travel behaviour, personal well-being and environmental sustainability.

Through the Parking Review + Bylaw Update process, the City is seeking to review its off-street parking regulations and public on-street parking management to better align with established policy directions around built form, multi-modal transportation, and parking management, as well as to proactively address parking challenges and limitations. Refreshed parking strategies, policies, regulations and management approaches will better reflect the City's goals and values, resulting in a formalized approach that provides more certainty and a greater level of confidence to staff, residents, land developers, and Council. The overall goal is to identify updates to the City's parking regulatory structure, including the *Off-Street Parking Regulations Bylaw, Traffic* and *Highway Regulation Bylaw,* and *Crossing Control Bylaw* to reflect changes to municipal policies and provincial legislative changes.

Relationship to Other City Initiatives

Recognizing the impact of various parking regulation options is critical in considering off-street parking regulations and curbside management. This project will also help to directly address goals and objectives outlined in City Plan: Nanaimo Reimagined (City Plan) and Integrated Action Plan, and the Complete Streets Design Guide, including:

- Managing the City's supply of on and off-street parking to support surrounding commercial and residential areas, manage the impact of external parking demand in neighbourhoods;
- Managing and prioritizing curb space according to its value and adjacent land uses;
- Increasing access and support for electric vehicles and e-mobility;
- Encouraging a diverse range of sustainable transportation options, such as active transportation, shared mobility and public transit;
- Removing and preventing barriers to people with disabilities through the availability and accessibility of mobility options; and
- Encourage the development of affordable and accessible housing.

1.1 PROJECT PROCESS

The Parking Review + Bylaw Update project has been structured with four (4) distinct phases, as follows:

Phase 1, Background Review and Issue Identification

This phase involved developing a deep understanding of the City's current policies and regulations related to parking management. Data collection, staff interviews, comparative reviews and best practice research were undertaken to gain insight into the state of parking in Nanaimo and to compare Nanaimo's approach to parking with comparable communities. Specific data received and analyzed in this phase included off-street parking demand data, and public parking conditions through the City's curbside inventory. A key deliverable of this phase is the Parking Conditions Report (this report), which recommends key changes to the City's *Off-Street Parking Regulations Bylaw* and curbside management strategies at a high level based on current conditions and best practices.

Phase 2, Engagement and Options Assessment

This phase involves working sessions with the City, information sharing through a project webpage, stakeholder conversations, and committee presentations. These conversations will seek to test potential directions for changes to off-street parking and curbside management in Nanaimo. Findings from this phase will influence the development of recommendations for subsequent regulatory changes and other supporting actions.

Phase 3, Recommendations Development

The specific recommendations for off-street parking and curbside management developed through this project will be presented in Phase 3. Responding to the understanding of current conditions and feedback received from the public and stakeholders, recommendations will be focused on identifying specific updates to relevant bylaws to align with desired directions and changes in the City's approach to off-street parking and curbside management.

Phase 4, Implementation

Given the many possible directions of the Parking Review + Bylaw Update project, the direction of implementation will rely on the findings of the technical and engagement tasks described in the first three phases. Possible updates could include undertaking the changes to bylaws identified in Phase 3, expanding on implementation needs (e.g., strategy prioritization, resources) for curbside management, or other actions that will support the City in pursuing the recommendations of this project.

1.2 WHY IS PARKING MANAGEMENT IMPORTANT?

Parking management is the integrated system of policies, regulations, enforcement, monitoring, and evaluation that address on and off-street parking, and a variety of other curb uses, whether in new development or public rights-of-way.

Through City Plan and other related initiatives, the City of Nanaimo has identified a series of objectives that overlap with how parking is managed, including growth management, affordability, mobility, accessibility, and environmental sustainability, discussed below.

The Parking Review + Bylaw Update process will help ensure that the City's regulations are aligned with these objectives, reflecting policy directions and desired outcomes.

Land Use + Urban Form

Land use and urban form are influenced by the quantity and configuration of parking. Greater parking supply and surface parking lots reduce opportunities to increase density, establish pedestrian connections, and create great public spaces.

Environmental Sustainability

On-road transportation is a key contributor to our overall community greenhouse gas (GHG) emissions. Managing parking to support a shift to active travel and transit helps reduce GHG emissions and support environmental sustainability objectives.

Affordability

Housing affordability can be impacted by parking supply, where costs associated with parking are generally passed on in the form of a higher rent or purchase price. Managing parking supply coupled with improvements to active transportation and public transit can help make our community more affordable.

Mobility + Road Safety

Convenient, readily accessible parking supports more people driving more often. More vehicles on the road leads to increased congestion and concerns over road safety. Through strategic parking management, shifts in mobility can be encouraged as more people engage in active transportation and use public transit.

Health + Well-Being

Active transportation (including walking to/from transit) presents the opportunity to engage in physical activity and social interaction. An inexpensive and plentiful supply of parking encourages people to drive more and facilitates a sedentary lifestyle without the social benefits of active transportation.

Economy

It is crucial that local businesses can efficiently reach their customers and suppliers through appropriate parking and loading management, both on- and off-street. Effective parking regulations and practices can support vibrant and diverse economies by creating appropriately managed access for the many economic functions of urban spaces.

2.0 SHAPING INFLUENCES

2.1 GEOGRAPHIC & LAND USE CONTEXT

As the second largest population centre on Vancouver Island, Nanaimo has experienced steady growth over the past 25 years. City Plan indicates that the City's population grew by more than 10% between 2016 and 2010, higher than the B.C. average of 7.6%. Projections predict that Nanaimo's population will grow to more than 141,000 by 2046, requiring an additional 15,000 to 21,000 housing units and almost 20,000 more jobs.

To support these growth and population projections, the City of Nanaimo is in a strong position to encourage land use change, infrastructure development, and other strategic initiatives to best achieve policy goals. While Nanaimo has a relatively low population density compared to peer municipalities on Vancouver Island due to its historically linear growth and district expansion, there is a significant opportunity for the City to fill its vast remaining residential land areas with higher-density development and infill projects. Projections indicate that there is enough land available to support higher-density residential growth; however, continuing a low-density trajectory may result in land scarcity.

Nanaimo's unique geography places it near key industrial lands and infrastructure such as the port and airport. City Plan projects that more than 650 hectares of industrial lands will be needed to accommodate anticipated growth. Moreover, more commercial land is currently available than needed for projected commercial activities over the next 25 years. The focus on commercial land development should be on infilling existing commercial areas to create self-sustaining areas, rather than building additional commercial lands. [1]

2.2 MOBILITY CONTEXT

2.2.1 MODE SHARE

Nanaimo has historically been and continues to be an auto-dependent community. Low-density growth trends have resulted in a transportation system reliant on single-occupancy vehicles, and where active transportation has proven difficult and inaccessible for many to access daily needs.

Data from the 2021 Census indicates that approximately 88% of Nanaimo residents use a personal vehicle as their main mode of commuting. City Plan, of which transportation statistics were adapted from the 2014 Transportation Master Plan (TMP), identifies a city-wide mode share target of doubling its sustainable mode share in 2041. This represents a 12% increase in walking, rolling, cycling and transit trips. As a result, Nanaimo's personal

[1] City Plan: Nanaimo Reimagined – Backgrounder. (2022). Accessed from: https://www.nanaimo.ca/docs/city-plan-documents/city-plan/city-plan---backgrounder---2022.06.23.pdf

vehicle mode share must decrease to 76% by 2041 compared to the current 88%. To achieve these ambitious active transportation targets, Nanaimo's transportation system and road network must support alternatives to single-occupancy vehicles. Key to supporting active transportation and transit use is on and off-street parking management, supported by policies such as transportation demand management, cash-in-lieu and shared parking. **Table 1** summarizes the mode shift changes required to meet City Plan targets in 2041.

TABLE 1. CITY OF NANAIMO CURRENT AND TARGETED MODE SHARE, 2021 CENSUS + TMP

Mode		Mode Share (2021)	Mode Share Target (2041)	Targeted Mode Shift (2021-2041)
	Personal Vehicle	88%	76%	12% ⇩
	Transit	3%	8%	5% ⇧
	Walking	5%	12%	7% ⇧
	Cycling	1%	4%	3% ⇧
	Other Mode	3%	-	-

2.2.2 VEHICLE OWNERSHIP

ICBC data indicates that Nanaimo has seen a more than 8% increase in the total personal vehicle population between 2019 and 2023. Nanaimo's total vehicle population in 2023 consisted of 67,274 total vehicles.

Key Stats – Nanaimo

1.46	personal vehicles per household
2.3%	of registered vehicles are electric
+300%	electric vehicles in Nanaimo since 2019

Personal Vehicles per Household in Peer Communities (2023)

1.02	Victoria
1.29	Kelowna
1.32	Kamloops

2.3 POLICY & REGULATORY CONTEXT

2.3.1 PLANS & POLICIES

In 2014, the City finalized its Transportation Master Plan (TMP) which provided the foundation to expand travel choices in Nanaimo over 25 years and to support sustainable growth. The TMP features pedestrians, bicycles and transit as priority travel modes alongside a series of recommendations. The TMP addresses parking as an area seeking to align with core plan concepts, which includes the following strategic direction: "To manage the City's supply of on and off-street parking to support surrounding commercial and residential areas, manage the impacts of external parking demand on neighbourhoods, and encourage the use of sustainable transportation alternatives." Some key recommendations related to parking include considering reduced parking requirements and cash in-lieu of parking, encouraging structured or underground parking in areas of high density, prioritizing parking for sustainable vehicle types, using parking pricing as a management tool, encouraging walking, cycling, rideshare and transit, exploring restrictions on local streets to balance needs of facility users and residents, and providing sufficient enforcement.

City Plan: Nanaimo Reimagined (City Plan), adopted in 2022, sets out a framework for achieving Nanaimo's vision through Five City Goals: A Green Nanaimo, A Connected Nanaimo, A Healthy Nanaimo, An Empowered Nanaimo and A Prosperous Nanaimo. As the City's Official Community Plan, it also integrates a comprehensive sustainability framework within its outcomes. The desired direction for parking management, regulation and design in Nanaimo are provided in several sections of the plan. Policies related to transportation, accessibility, and urban design detail how the City intends to generally manage mobility and parking, most notably throughout the Connected Nanaimo: equitable access and mobility goal. Some specific parking policies in City Plan are as follows:

- C2.1.7 – Manage parking city-wide with a focus on right sizing parking to continue fulfilling key needs including access, loading, and pick-up for businesses; accessible parking for people with mobility or family needs; and EV parking, while recognizing that an overabundance of cheap and convenient parking tends to increase vehicle use and reliance.
- C2.2.14 – Provide convenient and secure bicycle parking in Urban Centres, along Corridors, and at key destinations, including parks.
- C2.2.8 – Implement Transportation Demand Management programs to shift trips to non-automobile modes, reduce automobile trips and travel distances, and reduce parking demand.

Nanaimo's Integrated Action Plan outlines key actions to achieve goals set out in City Plan and implement policy directions as regulations.

CITY PLAN + PARKING MANAGEMENT

City Plan is Nanaimo's foundational document for future growth and land use. The plan introduces several updated land use designations, shown in **Figure 1** that are integral in shifting the City's approach to parking and curbside management by focusing regulatory change in specific areas of Nanaimo.

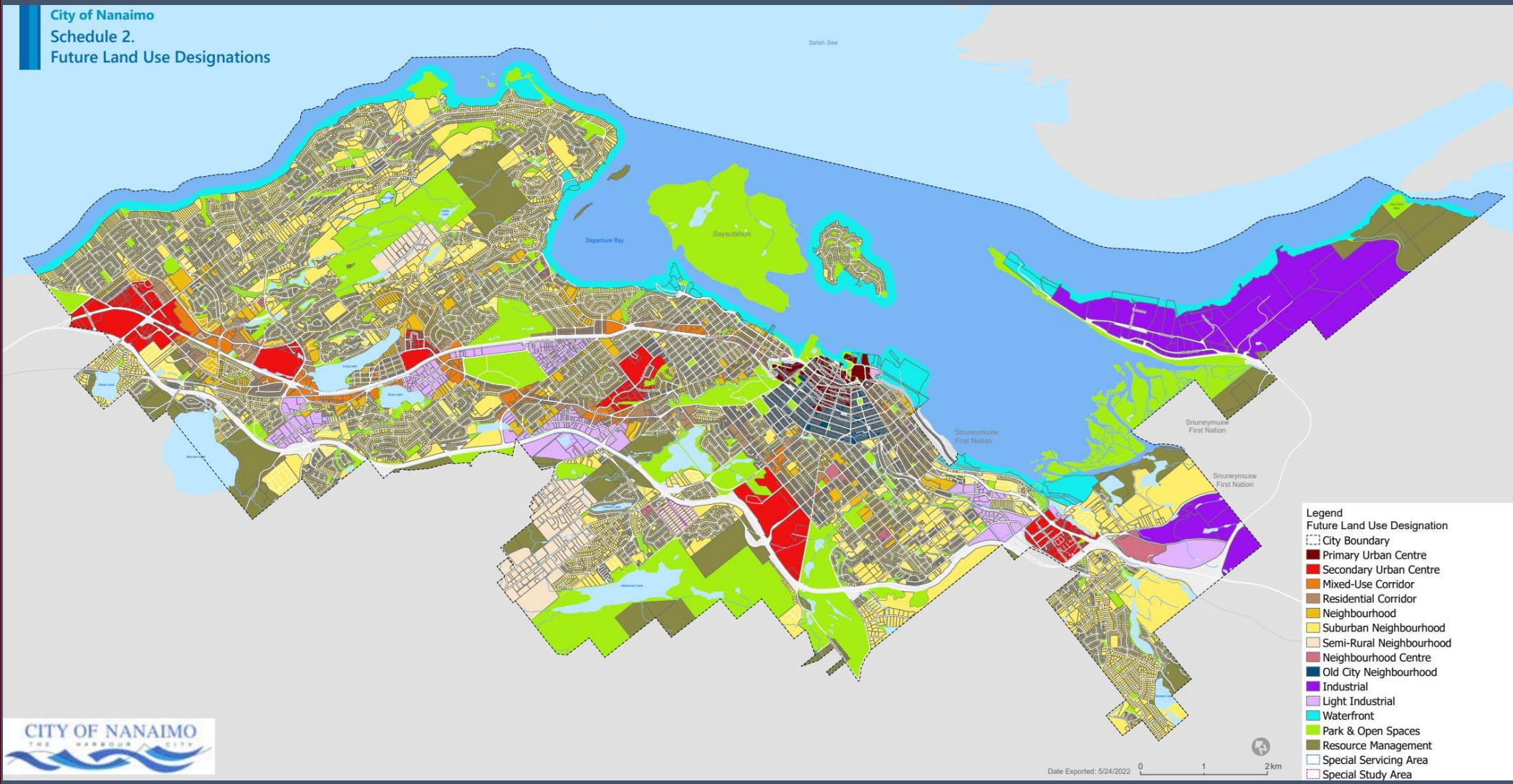
Nanaimo's current and future land use is already integrated into the City's approach to parking management through parking supply rate differentiation based on location for various development types through the city. Policy guidance from City Plan can be used to update this geographic approach to align with the plan's vision for Nanaimo.

Through City Plan, Nanaimo has established a land use priority for where improvements to transportation and mobility will be focused, shown to the right. This hierarchy suggests that Urban Centres, Corridors, and Neighbourhoods should have mobility-rich environments that support sustainable mobility. Off-street parking and curbside management should therefore support these objectives.

Specific directions for parking management are provided within the following land use designations:

Urban Centres • Primary • Secondary	• Discourage new large areas of surface parking, preference for less or underground parking. • Reduced or shared parking in Institutional uses. • Support removal of off-street parking minimums for all uses in the Downtown Urban Centre.
Corridors • Mixed-Use • Residential	• Discourage new large areas of surface parking, preference for less or underground parking.
Industrial Lands • Light Industrial	• Discourage new large areas of surface parking, preference for less or underground parking.

Figure 1 LAND USE DESIGNATIONS, CITY PLAN



An important policy for the purposes of parking management in Nanaimo is the *Policy for Consideration of a Parking Variance*. This policy outlines the items a developer must consider in a variance request for a development. If a variance request is confirmed through development rationale and specific location criteria being met, a parking study and/or car-share requirements may be required. The variance policy provides clarity to the development community on what the City will and will not accept as rationale for a parking variance, and provides the City with a clear approach to evaluating variances.

Other important plans, policies, and guidelines that may apply to this review include:

- Nanaimo Downtown Plan (2002)
- City of Nanaimo Community Sustainability Action Plan (2012)
- Strategic Plan (2019)
- Regional District of Nanaimo Regional Growth Strategy (2024)
- City of Nanaimo Complete Streets Design Guide (2020)
- City of Nanaimo Manual of Engineering Standards and Specifications (2022)

2.3.2 BYLAWS

Nanaimo's regulatory framework that supports multi-modal transportation is primarily found within three bylaws: the Off-*Street Parking Regulations Bylaw* 2018; *Traffic and Highway Regulation Bylaw* 1993; and *Crossing Control Bylaw* 1996. These bylaws must be updated to align with the City's broader policy directions expressed in the *City Plan*, *TMP*, and recent updates to provincial legislation. Each relevant bylaw is summarized below.

Off-Street Parking Regulations Bylaw 2018

The *Off-Street Parking Regulations Bylaw* regulates the provision, design and layout of off-street parking and loading in new developments within the City. The Bylaw was developed in 2018 to update Nanaimo's approach to off-street parking and separate its off-street parking regulations from the Zoning Bylaw. The bylaw is structured to require minimum off-street parking and loading supply for various land uses in the City. Since the 2018 update, the Bylaw has been further revised to introduce minimum requirements for electric vehicle parking supply as well as amendments to parking requirements in residential areas around Transit-Oriented Areas (Section 2.3.3).

Traffic and Highways Regulation Bylaw 1993

The *Traffic and Highways Regulation Bylaw* addresses traffic regulations throughout Nanaimo. Specific to parking, the bylaw identifies permitted curb uses and how the City can enforce these uses, through paid parking, time limitations, commercial loading restrictions, accessible use and other applications. Off-street parking in public facilities is also addressed. In 2022, Staff recommended that the Bylaw be maintained and enforced as needed until a City-Wide Parking Management Strategy was formalized. Various parking management approaches recommended later in this report are regulated through the *Traffic and Highways Regulation Bylaw*, some of which include management approaches for electric kick scooters, parking meters, off-street parking rates, and loading zones.

Crossing Control Bylaw 1996

The *Crossing Control Bylaw* regulates driveway access to and from municipal highways for adjacent parcels of lands and defines the crossing permitting process for applicants. As land use and mobility priorities change in Nanaimo, the provision of a Crossing Control Bylaw could influence the viability of certain types of development of transportation infrastructure and must be aligned with other policy and regulatory priorities.

Other bylaws that are relevant to the Parking Review + Bylaw Update include:

- Bylaw Notice Enforcement Bylaw
- Transit-Oriented Areas Designation Bylaw

2.3.3 PROVINCIAL LEGISLATION

On November 30, 2023, Bills 44 and 47 were ratified by the Government of British Columbia. These two pieces of legislation are recognized as critical steps by the Province to support increased housing production by allowing for higher density and relaxed parking minimums. Bill 16's ratification in 2024 supports the latter policies by allowing local governments to define and require transportation demand management (TDM) measures in new developments, which further supports off-street parking relaxation.

Bill 44

Bill 44 requires all local governments to update zoning bylaws to allow for increased density on lots currently zoned for single-family homes or duplexes by allowing for more small-scale multi-unit housing (SSMUH) types. It also requires governments in municipalities of over 5,000 people to allow for three to four units on lots zoned for single-family use, and six units on larger lots (more than 280 m^2) close to frequent transit stops.

The Province has mandated that the City eliminate minimum parking requirements for any small-scale residential lots over 280 m^2 that fall within 400 m of a frequent transit stop ("prescribed" bus stop). It is also recommended that a maximum of 0.5 spaces per dwelling unit be permitted for lots within 800 m of a prescribed bus stop and a maximum of one space per dwelling unit elsewhere, while acknowledging that other factors may warrant higher ratios. It should be noted that that transit service in Nanaimo does not currently meet the provincial definition of frequent transit service. However, as service improves to meet these standards, further changes to the *Zoning Bylaw* and *Off-Street Parking Regulations Bylaw* may be required to address these elements of Bill 44.

Bill 47

Bill 47 supports the creation of denser communities and transportation/land use integration by requiring municipalities to designate land within 800 metres of rapid transit stations and 400 metres of bus exchanges as "Transit Oriented Development Areas (TOAs)" by June 2024. Newly designated TOAs will prescribe greater density and height based on

proximity to the rapid transit station (through a tier system). Concerning Bill 44, parcels within TOA designations are exempt from SSMUH requirements.

Within TOAs, local governments must eliminate parking minimums from future residential developments. Instead, developers are expected to provide parking supply based on market demand, reducing construction costs and encouraging the use of surrounding transit. Nanaimo has adopted a *Transit-Oriented Areas Designation Bylaw* to comply with Bill 47. The Bylaw identifies three bus exchanges designated as TOAs: Woodgrove, Country Club and Vancouver Island University. Additionally, Nanaimo has amended the *Off-Street Parking Regulations Bylaw* to bring it in compliance with Bill 47's regulation that the City is prohibited from setting off-street parking minimums within residential uses in TOAs. When off-street vehicle parking supply is reduced or eliminated in TOAs, this will create pressure on the curb to provide parking that is otherwise not available off-street.

Bill 16

Bill 16 supports local governments in building more affordable and livable communities, while supporting tenants facing eviction for redevelopment. The legislation gives authority to require affordable and special needs housing units in new developments, including in TOAs. Alongside inclusionary zoning, it also establishes a framework for density bonusing which includes requirements for consultation and financial feasibility analysis. With this new legislation, local governments can also require TDM measures and active transportation infrastructure in new developments such as protected bike lanes, charging stations, end-of-trip facilities, and cash-in-lieu of TDM.

Implementing Legislative Changes

Bills 16, 44, and 47 each individually contribute to Nanaimo's off-street parking context and impact the City's approach going forward. Key outcomes of provincial legislation include:

- **Bill 44:** Eliminating minimum parking requirements for small-scale residential lots over 280 m^2 that fall within 400 m of a frequent transit stop when service meets provincially-prescribed levels. A maximum of 0.5 parking spaces per dwelling unit is recommended for lots within 800 m of a bus stop with frequent transit service.
- **Bill 47:** Removing requirements for off-street parking spaces for residential uses in prescribed Transit-Oriented Areas (Woodgrove, Country Club, and Vancouver Island University), which will impact on street parking demand in surrounding areas.
- **Bill 16:** The City has expanded authority to regulate TDM measures in development, which will further support reducing off-street parking minimums and encourage active transportation use. It will also dictate what additional curbside space is needed to accommodate car-share vehicles, bike parking, and transit vehicles.

The City has already completed the necessary short-term changes identified in Bills 44 and 47 through the *Transit-Oriented Areas Designation Bylaw*, which eliminate minimum parking supply requirements for residential uses in TOAs, and other regulatory responses to legislation. These changes are described in more detail in Section 3.0.

3.0 CURRENT STATE OF PARKING MANAGEMENT

This section introduces the background and context around several important components of Nanaimo's off-street parking and curbside management system. Each of the sub-sections reflect one of the many focus areas for the Parking Review + Bylaw Update, including the following:

- 3.1 – Off-Street Parking
- 3.2 – Accessibility
- 3.3 – Bicycle Parking
- 3.4 – Transportation Demand Management
- 3.5 – E-Mobility
- 3.6 – Off-Street Loading + Delivery
- 3.7 – Curbside Management
- 3.8 – Public Parking Facilities

For the topics above, relevant policies, regulations, and legislation are introduced along with the current conditions in each of these areas relative to regulatory and management approaches, supply and design requirements, and existing infrastructure. This is followed by discussion of emerging best practices and potential approaches to parking management for the City that are potential directions for the Parking Review + Bylaw Update. These potential directions are summarized in Section 4.0.

Note that the example communities outlined in this section are not always aligned with Nanaimo's geographic, land use, and mobility context given that many of these best practices highlighted are not necessarily applied in widespread contexts in Canada. Where possible, peer communities that are similar to Nanaimo are used to contextualize best practices and regulatory changes.

3.1 OFF-STREET PARKING

The approach to off-street parking regulation has significant impact on the location, form, type and nature of development that occurs. This has considerable influence over the City meeting it's housing and other land use objectives, while also affecting travel choices made by existing and future residents. The following section highlights many of the key components of the City's current approach to off-street parking regulation.

POLICY + REGULATORY STRUCTURE

Nanaimo's off-street parking regulations are contained within the *Off-Street Parking Regulations Bylaw*. They largely focus on off-street vehicle parking, loading supply and design requirements. It is a key piece of policy that supports the City's approach to parking management.

City Plan contains preferred directions for off-street vehicle parking management, some of which include:

- C2.1.7 – Manage parking city-wide with a focus on right sizing parking to continue fulfilling key needs including access, loading, and pick-up for businesses; accessible parking for people with mobility or family needs; and EV parking, while recognizing that an overabundance of cheap and convenient parking tends to increase vehicle use and reliance.
- C4.8.14 – Facilitate, support, and encourage offsite parking / shuttle opportunities, as well as transit, for large events and festivals in public spaces.
- D4.3.32 – Support removal of off-street parking minimums for all uses in the Downtown Urban Centre.
    - Consider reduced parking requirements and cash-in-lieu options within Downtown and mobility hubs. Use parking variances and cash-in-lieu funds to develop shared parking facilities or reduce parking demand.
    - Encourage development of structured or underground parking within mobility hubs and other areas of higher density.

As highlighted in Section 2.3.3, the ratification of Bills 44 and 47 have impacted the City's approach to off-street parking. The City has already eliminated off-street parking supply requirements for residential uses in prescribed Transit Oriented Areas. Further change may be needed to eliminate minimum parking requirements for some SSMUH-eligible residential lots that fall within 400 m of a frequent transit stop, when prescribed service levels are achieved.

CURRENT CONDITIONS

Off-Street Parking Supply

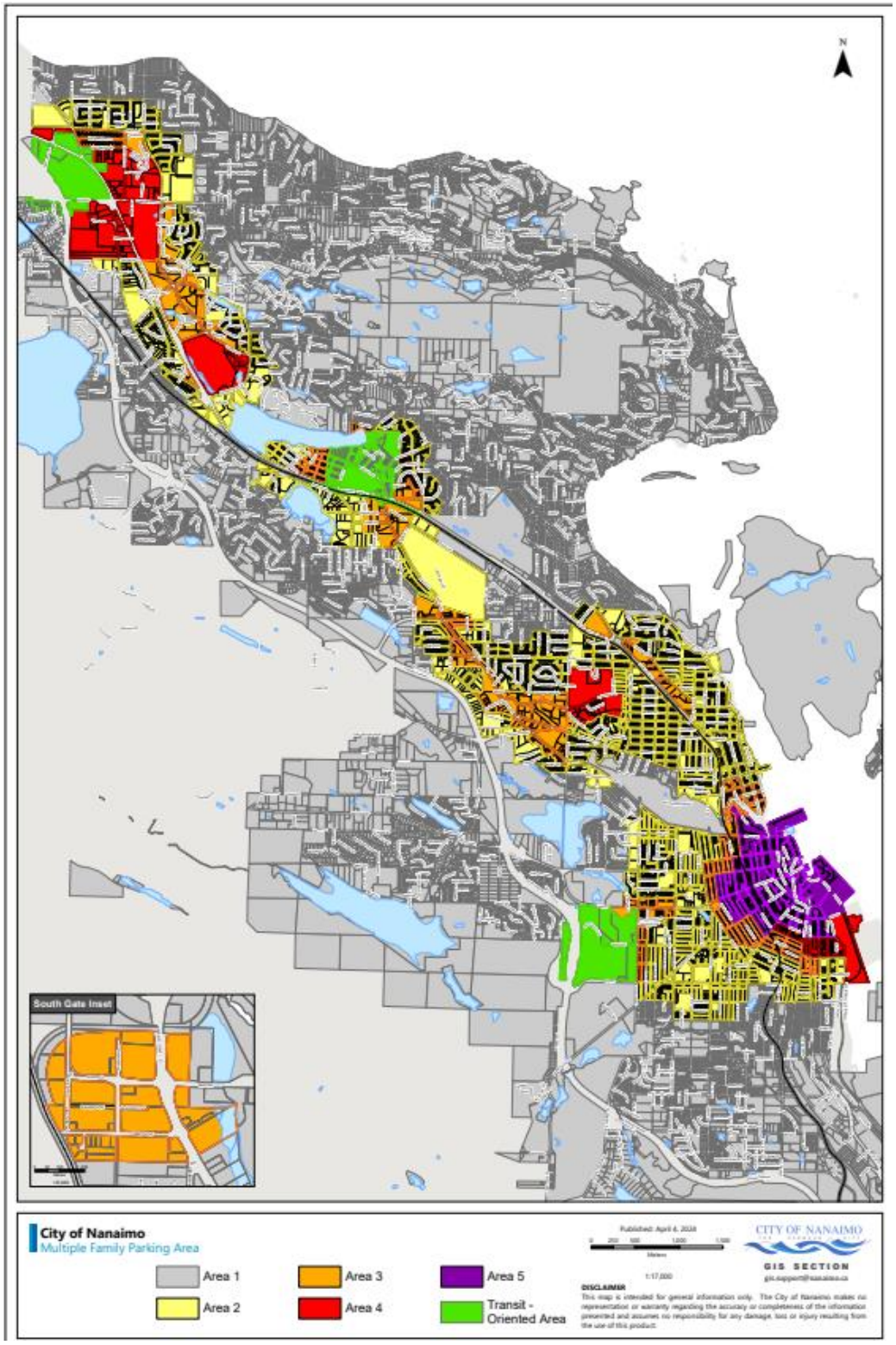
Residential Development

Off-street parking supply requirements in the bylaw are structured by minimums per land use, with specific rate requirements for multiple-family dwellings and separate rates for all other land uses. Parking rates for multiple-family dwelling units vary based on the number of bedrooms and location of the property within various geographic zones, as shown in Figure 2 with the zones displayed in Figure 3. Note that these minimum parking supply rates do not apply to designated Transit Oriented Areas.

FIGURE 2. MINIMUM VEHICLE PARKING SUPPLY REQUIREMENTS FOR MULTIPLE-FAMILY DWELLINGS, OFF-STREET PARKING REGULATIONS BYLAW

# of Bedrooms	Parking Requirement (m)				
	Area 1	*Area 2*	*Area 3*	*Area 4*	*Area 5*
3+	2.00	1.84	1.68	1.52	1.20
2	1.80	1.62	1.44	1.26	0.90
1	1.45	1.26	1.07	0.88	0.50
Studio/ Micro	1.20	1.05	0.90	0.75	0.45

FIGURE 3. MULTIPLE-FAMILY DWELLING GEOGRAPHIC AREAS (SCHEDULE A), OFF-STREET PARKING REGULATIONS BYLAW



Student Housing Parking Supply Rates

Required parking supply rates for student housing varies based on areas defined around Vancouver Island University, as defined in Schedule B of the *Off-Street Parking Regulations Bylaw*. Like with other residential uses in the designated TOA, no off-street parking is required for student housing, while Area 1 requires 0.2 spaces per bed, and Area 2 requires 0.4 spaces per bed. Lands outside of these areas requires 0.65 spaces per bed. The City may consider adjusting vehicle parking supply rates for student housing to align with the total number of bedrooms, rather than beds, to ensure a consistent approach with multiple-family residential dwellings.

Transit-Oriented Areas

Minimum vehicle parking supply requirements for multiple-family residential developments have been removed from the *Off-Street Parking Regulations Bylaw* in all designated transit-oriented areas in Nanaimo, as per Bill 47. These changes were included as part of regulatory updates brought forward through *Transit-Oriented Areas Designation Bylaw*. The three provincially designated TOAs in Nanaimo are Woodgrove, Country Club, and VIU, shown in green in **Figure 3** above.

Vehicle Parking Supply – Non-Residential Development

For other land uses, minimum parking supply rates are also applied across commercial, industrial, and institutional uses.

One potential challenge in applying these regulations are the inconsistent or non-standard units of measurement used to require off-street parking spaces. For example, vehicle parking supply for a boarding kennel/animal shelter is based on the number of dog enclosures. For commercial uses, some parking restrictions are designated by gross floor area while others are by net floor area. These inconsistencies could lead to challenges of interpretation and application, given that some of these elements in a development, such as seats or enclosures, could change significantly, thereby impacting vehicle parking supply requirements.

Like with residential vehicle parking supply requirements, some geographic considerations are also important for non-residential uses in the *Off-Street Parking Regulations Bylaw*. The Downtown Specified Area (DSA) applies to all non-residential uses within Downtown Nanaimo. In this area, off-street parking is not required for the first 100 parking spaces that would otherwise be required in the bylaw for buildings or structures located within the area shown on **Figure 4.** Given the potential for the City's approach to off-street parking within the Downtown, Urban Centres, and TOAs to influence future off-street parking policy and bylaw recommendations, integrating the DSA will be an important consideration. This could include revising the boundary of the DSA to align with the Downtown Primary Urban Centre, or eliminating this language to integrate the area with other geographic changes aligned with the directions contained in City Plan.

FIGURE 4. DOWNTOWN-SPECIFIED AREA (SCHEDULE C), OFF-STREET PARKING REGULATIONS BYLAW

Shared Parking

The City has a shared parking regulation in place that allows for reduced overall parking supply where two or more uses that experience peak parking demand at different times are contained on the same site. Not all uses are eligible for shared parking, only those shown in Figure 5. The factors shown in the same figure indicate the minimum percentage of off-street vehicle parking spaces that can be shared between the two uses, compared to their individual parking supply requirements.

Shared parking regulations are a best practice and something that allows parking provision to better match parking need (i.e., "right sized parking"). Most other communities do not have a shared parking regulation like the City's and where regulations are in place, they are generally not as detailed.

Consideration may be given to excluding Theatre uses from the shared parking regulation, particularly as parking demand can often overlap with uses such as Restaurant and Retail. A more detailed investigation of the reduction factors (%) achieved through shared parking may also be pursued, with consideration given to using time-of-day factors available in the ITE *Parking Generation Handbook*.

FIGURE 5. PERMITTED SHARED PARKING REDUCTIONS, OFF-STREET PARKING REGULATIONS BYLAW

				Hotel
			Theatre	90%
		Religious institution	85%	90%
	Multiple-Family Dwelling	90%	90%	90%
Office	80%	65%	75%	90%
Retail store	90%	85%	85%	85%
Commercial school	85%	85%	80%	90%
Retail trade and service centre	90%	85%	85%	85%
Restaurant / pub	90%	85%	90%	90%

Cash-in-lieu of Parking

Cash-in-lieu (CIL) is another parking tool that is available at an applicant's discretion as an alternative to building parking. The cash-in-lieu option in the *Off-Street Parking Regulations Bylaw* is only applicable in some areas of Nanaimo, shown in Schedule D of the Bylaw. It requires an applicant to pay $10,000 per vehicle space not provided, with funds collected and placed in a Reserve Fund. The City's Off-Street Parking Reserve Fund has been specified for transportation infrastructure that supports walking, bicycling, public

transit or alternative forms of transportation. Contributions are provided from cash-in-lieu payments from developers.

No more than 10% of required parking spaces in a development can be substituted for cash-in-lieu, nor is cash-in-lieu applicable in TOAs per the recent bylaw update. Compared to other BC communities, Nanaimo's CIL rate is quite low. The City may consider reviewing CIL rates to ensure that the value captured is appropriate based on current construction costs and updating the geographic applicability, where necessary.

CIL uptake since the adoption of the *Off-Street Parking Regulations Bylaw* is low, with only two developments using this tool to provide fewer vehicle parking spaces. Funds collected totalled $69,000. The lack of uptake of cash-in-lieu could suggest that this option is not needed to adhere to off-street vehicle parking supply requirements or that regulatory characteristics such as the rate or geographic application are not incentivizing CIL use.

Off-Street Parking Design

Vehicle parking design regulations found in the *Off-Street Parking Regulations Bylaw* are typical among off-street parking regulations in British Columbia. This includes provisions for parking space and access dimensions, parking location, permitted surfacing materials, lighting, wheel stop placement, grading, and landscaping and screening.

Minimum parking dimensions within the City of Nanaimo are similar to those in peer communities, though higher than the City of Victoria's parking space length of 5.1 m, however there is no small car space option in Victoria. Parking space dimensions for standard vs small car spaces in Nanaimo are distinct:

- Typical parking space dimensions for a standard vehicle are 2.75 m in width by 5.80 m in length.
- Small car parking dimensions are typical, at 2.50 m in width by 4.60 m in length.
    - A maximum of 40% of off-street vehicle parking spaces may be reduced in size to accommodate small cars.

Additional design requirements for off-street parking spaces in the bylaw include location, curb stops, drainage, grading, lighting, driveways and signage. The City may consider reducing its standard parking space dimensions to 5.5 m, if warranted, to support more efficient parking area design.

Parking Variances

Approved off-street parking-related variances since the adoption of the *Off-Street Parking Regulations Bylaw* in 2018 were analyzed to understand trends in requested variances, the magnitude of variances, and the provision of TDM measures, in alignment with the *Policy for Consideration of a Parking Variance*. Communities across B.C. use the variance process to secure contributions that can offset the mobility implications of reduced parking supply in new development. Most often this takes the form of either in-kind or financial contributions to support TDM infrastructure or programs on-site or nearby.

A total of 54 variances were analyzed, including examples of multiple family residential development and other forms of development. This section summarizes some of the characteristics of the developments that received a parking variance, including the levels of reduction requested, geographic areas and development size, and what TDM strategies were offered in these developments receiving variances.

Of the 54 variances made between 2018 and 2021, 74% were made for multiple family dwellings and 13% were for mixed-use buildings. The remainder of variances included commercial, personal care facilities and seniors housing uses. Approximately 40% of variances included parking space supply reductions (22 total) and 31% were made for small car space supply changes. The remainder of variances were made for loading space supply and other design and bicycle parking dimension changes.

For the purposes of Nanaimo's Parking Review + Bylaw Update, this report focuses on parking space supply variances. Key findings from this analysis include:

- Most developments received a parking reduction of 50% or less (86%).
- There was generally no correlation between the level of parking supply reductions granted and the geographic area, use, or size of a development.
- The level or number of TDM strategies provided by a development generally did not correlate to the level of parking reduction approved.

Geographic Areas

Schedule A of the *Off-Street Parking Regulations Bylaw* establishes five areas for multiple-family residential parking supply. Understanding the level of parking reduction and the TDM options that may be used in these areas helps inform the extent to which geographic differentiation is consistent with current practices. While most parking space variances were in Area 2, there does not seem to be any correlation between the magnitude of a parking supply variance and location.

Of the parking supply variances, 68% were approved for multiple-family dwellings. Table 3 summarizes the locations across Nanaimo with parking reductions of more than 5 spaces. The average level of parking space reduction is 25%, the median reduction is 10%.

TABLE 3. VEHICLE PARKING SUPPLY VARIANCES

Address	Land Use	# reduction in parking spaces	% reduction in parking spaces
2595 Bowen Road	Commercial	62	12.9%
560 Third Street	Mixed Use	28	8.0%
1125 Seafield Crescent	Multi Family and Seniors Congregate Housing	11	41.6%
702 Nicol Street	Multi Family	5	4.9%
285 Prideaux Street	Personal Care	5	100%
65 Pryde Avenue	Multi Family	5	9.1%
4979 Wills Road	Seniors Congregate Housing	5	4.9%
19 Nicol Street	Mixed Use	5	100%

TDM Strategies

TDM strategies are commonly used in other communities to help offset the reduced parking supply sought where parking variances are granted. Of 22 parking space supply variances, only three (3) were supported by TDM measures. The TDM measures received by the City in parking space supply variances reductions are summarized in Table 4 below. Note that provided information also includes cash-in-lieu of parking contributions, which are generally not categorized alongside variance-related TDM, due to CIL being an as-of-right option through regulation in the *Off-Street Parking Regulations Bylaw*.

TABLE 4. SUMMARY OF PROPOSED VARIANCES WITH TDM STRATEGIES

Address	Use	TDM Measure
285 Rosehill Street	Personal Care Facility	Section 219 covenant containing an easement for reciprocal access and parking between properties
702 Nicol Street	Multiple-Family	Purchase a car-share vehicle to be located near the subject property $10,000 cash-in-lieu of one parking space for

		sustainable transportation initiatives
558 Medea Way	Multiple-Family	Monetary contribution to car share (Modo)

BEST PRACTICES + CASE STUDIES

Vehicle Parking Supply

There are several approaches to off-street parking supply requirements that may be applicable to Nanaimo's context. This section highlights three potential options for parking supply rates that dictate the number of parking spaces associated with various land uses – parking minimums, parking maximums, and market-driven.

Potential approaches to off-street parking supply are outlined below:

Option 1 - Parking Minimums

Minimum parking supply rates are the most common method of regulating off-street parking, including in Nanaimo, where virtually all communities have established specific rates for most key land uses to ensure each is accompanied by at least the prescribed minimum quantity of parking. While this approach has generally been effective in addressing concerns over new development contributing parking to established neighbourhoods, it has the potential to require parking at a rate above and beyond what is necessary to meet the needs of a particular site. This is especially true where minimum parking supply rates have been established to protect against a "worst case" scenario and/or do not reflect the factors known to influence parking demand (i.e., location, travel options, etc.).

Parking minimums have been shown to be closely connected to inefficient land use, autocentric development, housing unaffordability, and higher vehicle ownership. This clash with a local government's environmental, housing, and transportation objectives has prompted many jurisdictions to move away from parking minimums entirely or in specific areas that may be well-served by transit or have a mix of land uses, like downtowns.

Option 2 – Parking Maximums

Municipalities also have the option to establish a "parking maximum" that defines an upper limit for parking supply. This is an approach that only select communities have in-place and typically only for a small number of land uses. Maximums may accompany minimum supply rates to provide a limited range of possible parking supply, or may be pursued instead where minimums are removed, thereby protecting against over-supply. This approach is most often applied in defined areas such as downtown or other urban centre

where land is scarce, and therefore valuable, and the local government is seeking density and to protect against excessive parking supplies.

Option 3 – Market Driven Approach

With the challenges associated with off-street parking supply requirements becoming increasingly well-known, more communities are removing parking minimums in favour of market-driven supply. This approach allows the market, including actors like developers or homeowners, to dictate the appropriate level of off-street parking supply based on the development's characteristics and context. A market-driven approach does not mean that the City will be subsidizing development parking. Shifting to a market-driven approach would not mean that all off-street parking would be eliminated depending on the choices made by the developer, and other types of parking, such as accessible parking and perhaps visitor parking are typically still required. Parking maximums may also be used in this approach to safeguard against oversupply. Accompanying regulatory changes for the use of on-street parking (such as priced parking), would be required to ensure the effective implementation of a market-driven approach.

Example Communities

Many other Canadian local governments have adapted their approach to off-street parking provision, including removing some or all parking minimums. In B.C., the foremost example is the City of Vancouver, who eliminated parking minimums in the Downtown in 2019, and recently announced that residential parking minimums will be removed city-wide. Importantly, accessible and visitor parking are still required in these areas. Some other examples from across Canada are included below:

- The City of Edmonton removed off-street parking minimums for all uses in 2020, and feature parking maximums within the Downtown area.
- The City of Calgary removed parking minimums for non-residential uses in 2020.
- The City of Regina removed minimum off-street parking requirements city-wide in 2024, and now use previous minimum requirements as recommendations.
- The City of Saskatoon eliminated parking minimums city-wide in 2024.
- The City of Toronto removed parking minimums for nearly all uses, while also adding parking maximums.
- Halifax Regional Municipality uses a mix of minimum, maximum and market-driven requirements within the regional centre.

For many of these communities, the implications of these changes are not necessarily known given the time required to understand the long-term implications for development. However, these examples show some of the general trends in regulating off-street vehicle parking supply in Canada.

Economics of Vehicle Parking Supply

The implications of vehicle parking supply are important relative to numerous objectives shared by many communities across B.C. and Canada. These include shifting to more sustainable modes of transportation, increasing housing supply and affordability, making more types of development viable, making land use more efficient, and improving urban design, among many others. However, where these conversations connect to new development is often in the financial case for lowered or eliminated vehicle parking supply rates and the immediate financial benefits offered to the development community that can be passed on to residents, tenants, employees, and others. Simply put, it is perceived that building and maintaining off-street vehicle parking spaces is expensive and contrary to the visions and goals of many communities. This section briefly explores the economics of vehicle parking supply based on research conducted across Canada and provides an understanding of how similar factors could influence Nanaimo.

Construction Costs

A 2024 study produced by the Canada Mortgage and Housing Corporation (CMHC), developed and analyzed construction cost scenarios in Edmonton, Montréal, and Toronto, to understand how reduced parking requirements influence development economics.[2] Results showed that a 40% decrease in minimum parking supply requirements reduced overall construction costs by 9%.

Maintenance Costs

The same CMHC study also evaluated the maintenance costs of off-street parking needed to ensure that infrastructure remains viable over the long term. It was estimated that $575 per parking space is required annually, costs which could be passed on to residents or tenants. Other studies suggest that between land, construction, and maintenance, a parking space in Canada costs between $1,500 and $5,000 per year.[3]

Downstream Impacts

When considering how these costs are passed on to residential tenants or homeowners, research suggests that parking costs are significant. One estimate suggests that car-free low-income households in a community that requires one vehicle parking space per residential unit would overpay for parking between $150-$300 per month, estimated to be 5-10% of monthly income, given they do not need a parking space. For middle-income households, the same study suggests that one car households overpay between $200-400 per month, about 4-8% of their monthly income. Estimates in the City of Victoria suggest

[2] CMHC, Urban Analytics Institute (2024). Accessed from: https://assets.cmhc-schl.gc.ca/sf/project/archive/housing_organizations4/impact-of-parking-requirements-on-housing-affordability_final-report.pdf

[3] Victoria Transportation Policy Institute (2024). Accessed from: https://vtpi.org/park-hou.pdf

that dwelling units selling without a parking space typically cost approximately $50,000 less than those with a parking space.[4] The presence of similar trends in Nanaimo would need to be investigated further.

Despite these results, any savings to be passed on to the consumer, may depend on the developer choosing to do so. Therefore, the actual impacts on affordability of reducing or eliminating off-street parking supply are also directly related to the broader conditions within the housing market. Such a regulatory change, at minimum, provides the opportunity for some of the savings to be passed on to buyers and renters. This also does not consider the potential market shifts that could result from more residential developments becoming viable because of more flexible off-street parking requirements.

Municipal Operations

Where fewer off-street parking spaces are provided in new development, it is logical to suggest that some or all this demand will be shifted to different modes of travel or different parking locations, typically on-street. With the possibility of increased pressure on on-street parking, the City of Nanaimo would likely have to increase parking monitoring and enforcement operations to ensure that curbside management objectives are being met. Additional requirements for staffing, technology, and other expenses would impact municipal budgets for these activities that would also have to increase accordingly. Budgets could be funded through pay parking or citation revenue but could also include contributions from general taxation with corresponding changes to property taxes.

[4] Times Colonist. (2024). Victoria approves more housing with sharply reduced parking. Accessed from https://www.timescolonist.com/local-news/victoria-approves-more-housing-with-sharply-reduced-parking-9488679

Potential Approaches to Vehicle Parking Supply Rates

In Nanaimo, the options presented in the previous section present a few potential approaches to updating off-street vehicle parking supply requirements. Given the guidance presented in City Plan, these options are structured to align with the land use, mobility, and other supporting directions, to ensure vehicle parking supply is sensitive to Nanaimo's context and vision. While not an exhaustive list, the following options (or a combination thereof) should be considered moving forward:

1. Eliminate Parking Minimums in Select Areas

   If the City continues to eliminate parking minimums, City Plan guidance suggests the Downtown and other Urban Centres should the focus of these efforts.

2. Eliminate Parking Minimums in Select Areas and Reduce Minimums in Others

   This option presents a middle ground where parking minimums are eliminated in key Urban Centres (i.e., Downtown), with other Urban Centres having lower parking minimums with neighbourhood centres, villages, and mobility corridors comprising the next level up.

3. Implement Parking Maximums in Select Areas

   The City may choose to introduce maximums in areas where there is an oversupply of parking, such as in large commercial and retail areas with excess surface lots, or where there is a desire to see less parking implemented overall, such as in some or all Urban Centres or TOAs, to support housing supply, affordability, and mobility objectives.

4. Provide Specific Vehicle Parking Supply Regulations for Desired Development

   City Plan emphasizes Nanaimo's desire to encourage different forms and types of development, including purpose-built rental and affordable housing. Through regulations the City could consider reducing or removing minimum supply requirements for these types of development to incentivize their construction, either in select areas or city-wide.

With each of these options other factors will also need to be considered including:

- Providing adequate transit service and sustainable transportation infrastructure to influence mode shift.
- Ensuring appropriate curbside management.
- Supporting regulations for the enhancement of mobility options through TDM measures.

This is particularly important in areas where minimum parking requirements may be eliminated, and zero parking development scenarios are more readily achievable. Each of the options identified above, and others as required, will be evaluated as part of the Comprehensive Parking Study to appropriately adapt regulations to Nanaimo's vision and objectives.

Cash-in-lieu of Parking

The City's current approach to cash-in-lieu of parking is contained within the *Off-Street Parking Regulations Bylaw*. In lieu of providing off-street parking spaces, an owner or developer may pay the City $10,000 per required parking space, up to 10% of required parking spaces. Currently, the money received from CIL is funneled into a reserve fund to be used for active transportation improvements. Based on discussions in staff and supporting data, CIL is not functioning as intended in Nanaimo; since its inception in 2019, just over $69,000 has been funneled into the CIL parking reserve.

Given that CIL allows for a developer to save on the construction costs of a parking space, CIL regulations should be structured to be responsive to capturing an appropriate level of value to achieve City objectives and the purpose of CIL. The methodology of CIL implementation can be structured within the following framework, which captures three possible categories of potential "benefits" offered by CIL relative to the value of an off-street parking space:

- **Mobility Benefit** – Cash collected to invest in Local Government Act (LGA)-permitted transportation infrastructure.
- **Affordability Benefit** – Savings passed on to the consumer to support affordable housing.
- **Viability Benefit** – Savings retained to build economically viable housing supply.

This is reinforced by CIL practices in peer communities. In Vancouver, the payment in lieu of parking spaces rate is currently at $24,700. In Kelowna, the fee per off-street parking space is $33,000 in four different urban centres. In New Westminster, CIL is applicable city-wide and applies to all land classes, including commercial, residential, institutional and industrial, with rates of $8,000 for surface parking and $25,000 for structured parking.

For cash-in-lieu to be a viable tool, it is necessary that parking minimums be maintained in some or all areas to be able to leverage contributions. This option must also be developed alongside robust TDM regulations that ensure that developments with limited or no parking supply have access to mobility options. Given the different urban contexts in Nanaimo, this could potentially provide opportunities for differentiated cash in-lieu rates for areas with more mobility options where levels of investment and potential on-street parking implications may differ to areas which may be more auto-dependent and requiring more investment to achieve mobility targets.

The City of Nanaimo may consider increasing its CIL rate to more accurately capture the value of an unbuilt parking space, as well as expanding its geographic reach to include all Urban Centres, and other relevant areas within the City, as well as mobility hubs and other village centres. By expanding CIL more widely in conjunction with baseline TDM measures as referenced in Section 3.4, the City may see increased utilization of CIL and be able to utilize funds to specifically support projects that support mobility options and sustainable travel.

3.2 ACCESSIBILITY

Accessibility is a key outcome for the City of Nanaimo to prioritize equity in the built environment; empower people of all abilities, cultures, and identities; and ensure that Nanaimo is inclusive and welcoming. Accessible parking supply and design, both for on- and off-street vehicle spaces, is an important component of parking management to ensure that accessible parking is available for people with disabilities where it is needed.

POLICY + REGULATORY FRAMEWORK

City Plan guides Nanaimo's approach to accessibility, and identifies policies and actions, through the Integrated Action Plan that further the City's approach to these issues. Parking and curbside management are relevant in several of these policies, including the following that support improved accessibility standards and accessible parking supply:

- **C4.3.7** – Ensure that new City facilities and buildings, including major renovations, meet universal accessibility standards.
- **C4.3.8** – Include universal design principles in City plans, policies, designs, standards, programs, and services that consider the needs of all people, including those with physical, sensory, and cognitive disabilities.
- **C4.3.8** – Work to reduce transportation barriers to City owned facilities and City run programs.
- **C4.3.26** – Where possible, exceed minimum requirements for universal accessibility for parking access and design standards.

CURRENT CONDITIONS

Accessible parking supply requirements are structured within the *Off-Street Parking Regulations Bylaw* as a function of the number of required off-street parking spaces for a development. The current supply requirements are shown in **Table 6** relative to the total number of off-street vehicle parking spaces.

TABLE 6. ACCESSIBLE PARKING SPACE SUPPLY REQUIREMENTS

Number of Off-Street Vehicle Parking Spaces	Number of Required Accessible Parking Spaces
1-10	No requirement
11-32	1 space
33-100	1 space per 33 spaces
101-1000	3 spaces for the first 100 1 space per 50 spaces additional
1001+	21 spaces for the first 1000 1 space per 100 spaces additional

In addition to the supply requirements for all uses as indicated above, one accessible parking space shall be provided per 15 required parking spaces for any Seniors' Congregate Housing or Personal Care Facility uses.

Accessible parking space dimensions are mostly consistent with peer communities, at 3.70 m width by 5.60 m length. Spaces must be clearly identified, conveniently located near a building entrance, and no more than 5% grade. In locations where loading zones (access aisles) are shared with adjacent accessible parking spaces, a space may be 2.75 m wide provided the loading zone is a minimum of 1.2 m wide.

BEST PRACTICES + CASE STUDIES

Accessible Parking Supply

While a regulatory approach to off-street accessible parking exists and is generally in line with peer communities, changes to the broader regulatory structure may have impacts on minimum requirements for accessible parking that must be addressed through corresponding updates.

While the requirement for accessible parking spaces is commonly expressed based on the number of conventional parking spaces, consideration should be given to accessible parking rates as the City considers lowering or eliminating minimum parking supply rates for conventional vehicle parking spaces. Any such reduction would reduce the number of required accessible parking spaces.

An emerging best practice is to differentiate supply rates based on land use where it is anticipated to have a higher demand for accessible parking. Examples could include medical offices and senior citizen apartments, as well as residential units specifically designed for universal access and likely to be inhabited by an individual(s) requiring accessible parking (i.e., accessible and adaptable units). Further, emerging policy is establishing the need for the one visitor parking space in multiple-family residential buildings to be accessible, as recently adopted by the City of Victoria.

Nanaimo's regulations do require accessible parking at a higher rate for some land uses when compared to other communities, however other communities seek a greater proportion of accessible spaces for other uses. For example, the City of Colwood requires for 15% of all parking spaces in seniors' housing, assisted living, and hospital uses to be accessible. Requirements for these types of uses with higher accessible parking demand in Nanaimo are equivalent to 7% of all vehicle parking spaces.

Van Accessible Parking Spaces

Van accessible parking accommodates people who rely on mobility assist devices. A mobility assist device generally includes a wheel mobility device, such as a wheelchair (manual or motorized) or mobility scooter. This group requires a wider parking space to

allow for maneuvering a mobility device in and out of a vehicle but does not necessarily require close proximity to the building entrance.

Alongside conventional accessible parking, minimum requirements for van-accessible parking spaces are becoming increasingly common. For example, the City of Victoria requires accessible and van accessible parking spaces. One accessible parking space is required per 6-25 parking spaces, with an additional accessible parking space for each additional 25 standard parking spaces. The first accessible parking space must be van accessible.

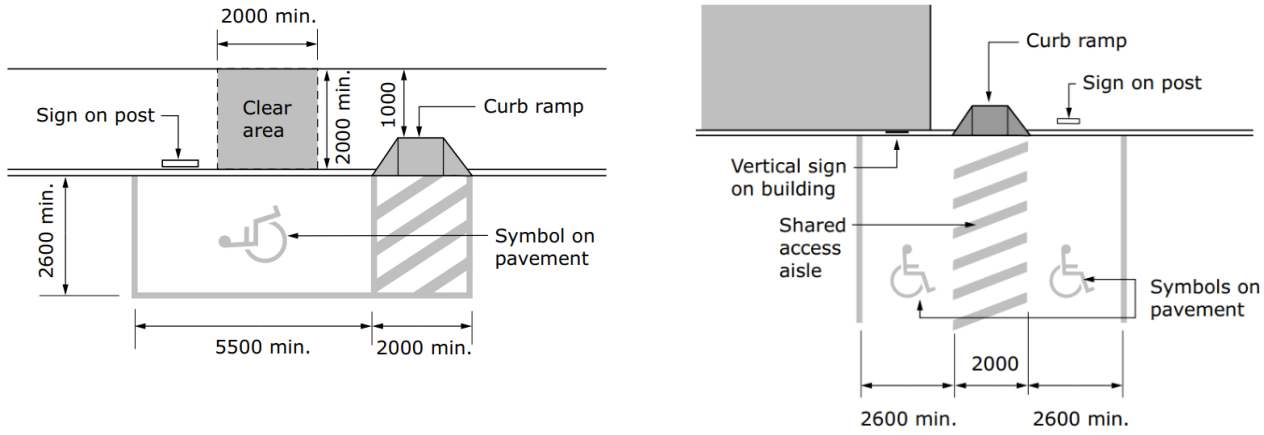
Accessible Parking Design

The *Off-Street Parking Regulations Bylaw* provides design requirements for accessible parking spaces that meet or exceed many of the current best practices as identified by Canadian Standards Association (CSA). CSA recommendations are described and depicted below in Figure 6.

A designated accessible parking space shall:

a) be at least 2.6 m wide;
b) have an adjacent side access aisle at least 2 m wide
c) have an adjacent rear access aisle at least 2 m long

FIGURE 6. ACCESSIBLE PARKING DESIGN STANDARDS, CANADIAN STANDARDS ASSOCIATION



Currently, the City's accessible parking design requirements are excessively wide (3.7 m), likely to allow for loading and unloading from a vehicle. Regulations could be shifted to be more aligned with conventional parking space dimensions, with an additional requirement for an access aisle (up to 2.0 m wide) that aligns with CSA guidance.

Similarly, van accessible parking design standards would need to be integrated into the *Off-Street Parking Regulations Bylaw*. Typically, van accessible parking spaces require greater width to allow for mobility devices to be loaded and unloaded from a vehicle. In

Victoria, van accessible parking spaces must have a minimum width of 3.4 m, with an access aisle of 1.5 m.

In addition to design dimensions, communities are also updating their paint and signage standards related to accessible parking to ensure consistency and awareness for users, to increase safety and to assist with issues related to compliance. These design features can include:

- Requiring a curb ramp to be aligned with the access aisle, per BC Building Code.
- Painting the curb of the accessible parking space blue
- Using hatching to clearly demarcate the rear and side access aisles
- Applying the Dynamic Symbol of Access on pavement markings and vertical signage, rather than the conventional symbol (shown in figure on previous page).

Mobility Scooter Parking

Mobility scooters are appearing in parking regulation to ensure people using mobility aids are considered for when planning for parking and charging needs. Mobility scooter requirements are typically being integrated with bicycle parking requirements as they have similar charging and maneuvering needs as oversized and/or electric bicycles.

Currently, the City does not regulate minimum supply or design requirements for mobility scooter parking. Some of the key considerations in establishing a mobility scooter requirement are as follows:

- **Supply Rate** – Establish a supply rate requirement that meets the need for mobility scooter parking.
- **Land Uses** – Consideration of the land uses where mobility scooter parking is desirable, with possible variation in supply rate requirements to reflect differing needs.
- **Design / Layout** – Establish appropriate mobility scooter space dimensions and access requirements, including integrating appropriate design considerations for different types of mobility scooters, which could also incorporate the accommodation of oversized bikes such as cargo bikes and bucket bikes to offer greater flexibility of use.
- **Charging** – Consider access to an electrified outlet capable of charging a mobility scooter while parked.

Several communities in British Columbia have integrated mobility scooter parking requirements in their land use regulations, including the following:

- Saanich's bylaw makes specific mention of providing parking for mobility scooters, stating that parking spaces are to "*have a minimum width of 1 m and length of 1.5 m*." Mobility scooter parking is also allowed to count towards long-term bicycle parking requirements for certain land uses, such as senior citizen housing.

- View Royal's regulations note that "Where parking spaces for mobility scooters are provided, they must be located adjacent to the entrance of the building or use and must not impede access to the entrance." The bylaw also specifies that mobility scooter parking should not impede or restrict pedestrian movements on the sidewalk.
- Colwood requires mobility scooter parking for some uses including seniors' housing and various commercial and institutional uses. Minimum scooter parking space dimensions are 1.0 m wide and 1.5 m long, spaces need to be secured, located within 2.0 m of an electrical outlet, and not be located where they may impede pedestrian access.
- North Vancouver notes that "Bicycle Compounds and Rooms may be used to park wheeled mobility aids with the limitations that; (a) such use shall not impose on access aisle; (b) bicycle racks shall be provided unless it is demonstrated with reasonable accuracy the proportion of people requiring wheeled mobility aids expected to use the site."

3.3 BICYCLE PARKING

Bicycle parking is a key component of Nanaimo's active transportation network and helps support mode shift away from private vehicles towards more sustainable modes. This section summarizes Nanaimo's current regulatory approach to bicycle parking and provides recommendations to update regulation based on best practices to support City-wide objectives.

POLICY + REGULATORY FRAMEWORK

City Plan includes policies that encourage development of convenient and secure bicycle parking on-street, in Urban Centres, along Corridors, and at key destinations:

- C2.2.12 – Implement and maintain safe, accessible, and comfortable infrastructure for bicycles
- C2.2.14 – Provide convenient and secure bicycle parking in Urban Centres, along Corridors, and at key destinations, including parks.
- C2.2.18 – Encourage retrofits within existing office, commercial, and medium / high density residential complexes to incorporate bicycle parking.

The Integrated Action Plan supports these directions from City Plan, with the following actions:

- Action 38 and Policy C2.2.6 – Develop bike parking/end of trip facilities for short and long-term bicycle parking around key trip generators such as urban centres, transit exchanges, and destination parks

Bicycle parking policies within the Transportation Master Plan include:

- C3A – Require bicycle parking in office, commercial, and medium-high density residential developments.
- C3B – Develop bicycle parking around key trip generators.
- C3F – Continue efforts to create a Bicycle Friendly Business District in Downtown Nanaimo
- C3G – Develop on-street bicycle parking within mobility hubs and other high activity streets.

CURRENT CONDITIONS

Off-Street Bicycle Parking Supply

Short-term and long-term bicycle parking supply rates are contained within the *Off-Street Parking Regulations Bylaw*, designating the number, size and location of bicycle parking spaces for various uses. Like with vehicle parking supply, requirements for bicycle parking are based on various units of measurement, including dwelling units, gross floor area, rooms/room types, and seats.

Land uses are consolidated from the vehicle parking supply table, and where no uses are listed, no bicycle parking spaces are required. The bylaw also requires all long-term bicycle parking storage areas to have an electrical outlet for electric bicycle charging.

Off-Street Bicycle Parking Design

Design requirements outlined in the *Off-Street Parking Regulations Bylaw* include the following:

- All short-term parking spaces must provide a minimum width of 0.3 m and a minimum aisle width of 1.2 m
- All long-term parking spaces must have a minimum vertical clearance of 1.9 m, a minimum width of 0.6 m and a minimum length of 1.8 m for ground-anchored racks or 1.0 m for wall-mounted (vertical) racks.
- All long-term bicycle parking areas are required to have one electrical outlet.

BEST PRACTICES + CASE STUDIES

Bicycle Parking Supply

Municipalities take varying approaches in terms of the number of land use designations described in their bicycle parking regulations. Colwood, Vancouver, and others take a detailed approach, assigning requirements to a long list of sub-categories. Other municipalities, including Victoria, use fewer categories (e.g., “all institutional uses” compared to defining requirements for each type of school). Compared to other

communities Nanaimo requires bicycle parking for fewer land uses, which should be explored in further detail to assess where opportunities exist to encourage bicycle trips to more destinations.

Similar to vehicle parking supply requirements, the City should also consider reviewing the units of measurement for bicycle parking to ensure consistent applications, adaptability to changing circumstances, and legibility of the bylaw.

For those land uses that do require short- and long-term bicycle parking, supply requirements for some key land uses in Nanaimo tend to be lower than in peer communities, including the examples below:

- Office – Nanaimo's long-term bicycle parking requirement is 1 per 286 m^2 of gross floor area, while Victoria and Vancouver require 1 space per 150 m^2 and 170 m^2, respectively.
- Multiple Dwelling – Nanaimo's requirement is 0.5 long-term bicycle parking spaces per dwelling unit outside of designated TOAs, in Kelowna it is 0.75 spaces per studio to two-bedroom unit and 1.0 spaces for three-bedroom or larger units. In Coquitlam, apartment uses are required to provide 1.25 spaces per dwelling unit.

Therefore, existing bicycle parking supply rates should be reviewed to ensure alignment with City objectives, along with adding new supply rates for land uses that are not currently included.

To remain consistent with directions for vehicle supply parking requirements, the City may also want to consider geographically differentiating bicycle parking supply requirements to align with applicable land use designations and changes to the broader vehicle parking supply approach.

Bicycle Parking Design

Bicycle parking should be convenient, safe, secure, functional, accessible, and where possible, aesthetically pleasing. Local governments play a key role in ensuring that high-quality bicycle parking is available in sufficient quantities in their communities. Where there is not enough bicycle parking, or the racks are low quality and poorly located, people are less likely to cycle. Additionally, there may be bicycle theft, sidewalk clutter, and damage to street furniture and property.

Bicycle Parking Dimensions

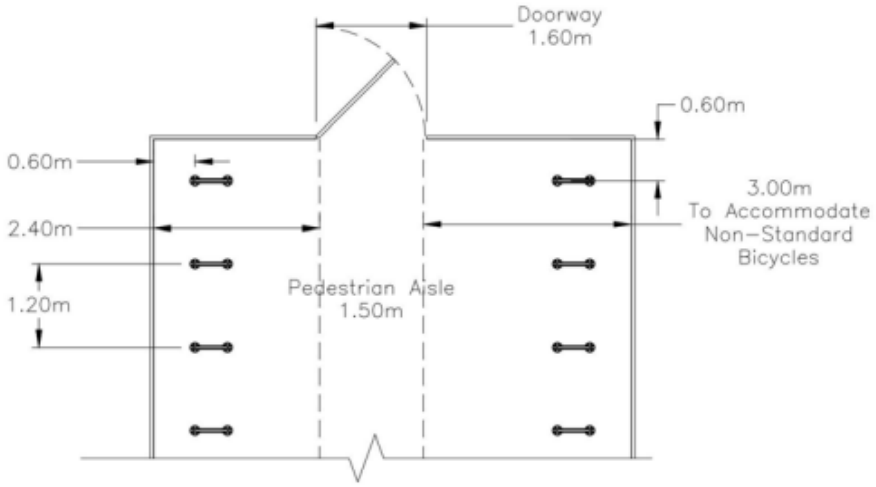
The minimum bicycle parking space depth, aisle width, and distance between adjacent racks, doorways, and walls should also be defined so that the racks are able to meet their advertised capacity. These dimensions can change depending on the installation angle of a bicycle rack as well as the type (ground anchored or wall mounted). The aisle width is important to ensure that sufficient space if provided for maneuvering while holding a

bicycle. The minimum door opening is also key, as this can be a limiting factor for larger bicycles, as are automatic doors, which allow for easier access to the bicycle parking area.

Wall-mounted (vertical) racks tend to have smaller minimum space depths compared to ground anchored racks, due to bicycles being mounted onto a wall upright. They are more space efficient and are often used for indoor, higher-density bicycle parking, However, vertical spaces are not typically easily used by all types of bicycles, such as e-bikes or oversized bicycles, and may not be accessible to all people due to the strength required to lift the bicycle into place.

The *British Columbia Active Transportation Design Guide* (BCAT) recommends short-term and long-term bicycle spaces to have a minimum of at least 0.6 m clearance if the rack has single-side access, or 2.5 m clearance for a rack with double-sided access, as shown in Figure 7. If a bicycle rack is located parallel to a wall, at least 0.6 m clearance should be provided. Bicycle racks should have at least 1.2 m of clear space between them. A clear space of at least 1.8 m should be maintained between bicycle racks that can hold two bicycles.

FIGURE 7. BCAT Long-Term Bicycle Parking Dimension Recommendations

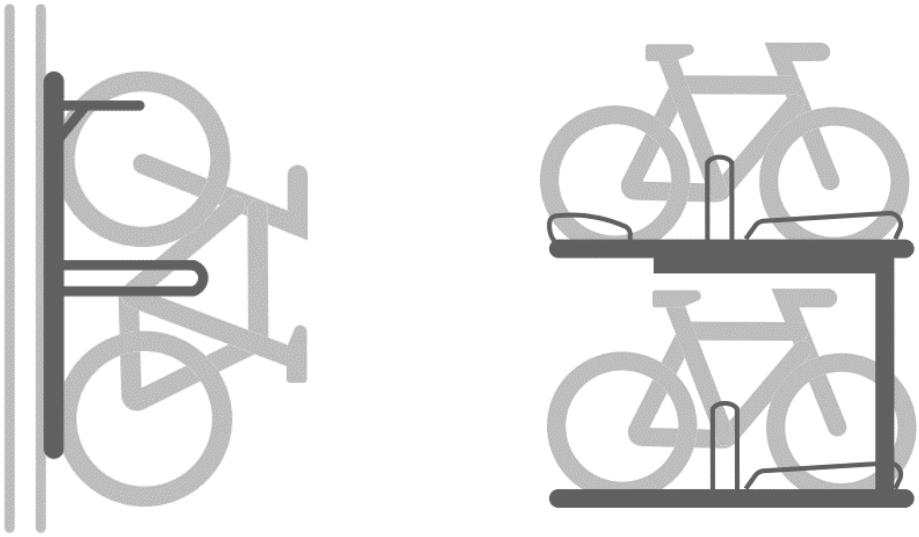


Nanaimo's existing long-term bicycle parking dimensions could be adjusted to meet BCAT guidance by increasing the pedestrian aisle width.

Bicycle Parking Configuration

Many communities provide options for long-term bicycle parking design to ensure that bicycle parking meets the diverse needs of cyclists, while also being adaptable for different contexts. Typically, these include ground-anchored, vertical, and stacked (or two-tiered) as shown in Figure 8. Integrating these bicycle parking configurations introduces other design considerations including rack design and security of off-street bicycle parking locations, of which regulation can be included in bylaw.

FIGURE 8. VERTICAL (LEFT) AND STACKED (RIGHT) LONG-TERM BICYCLE PARKING CONFIGURATIONS



Providing requirements for the configuration of long-term bicycle parking that are wall-mounted (vertical), two-tiered, and ground-anchored bicycle parking allows for adequate access and clearance to bicycle parking facilities, for overall convenience, safety and security. Restrictions on the amount of wall-mounted long-term bicycle parking ensures that individuals with heavier bicycles and/or who are physically unable to use vertical bicycle parking have other types of bicycle parking available to them. Adding two-tiered bicycle parking maintains space efficiency, while also improving accessibility relative to vertical configurations. However, two-tiered configurations require extra consideration when overlapping with requirements for oversized bicycles and electrification to ensure appropriate access. This could also include requiring two-tiered systems that are equipped with pneumatic lifts to support moving bicycles from the parking space to and from ground level.

BCAT recommends that a minimum of 50% of all bicycle parking spots in any off-street, long-term bicycle parking facility should be basic, on-ground bicycle racks that serve people of all ages and abilities, with high density bicycle racks providing additional capacity as needed.

Other communities in British Columbia regulate bicycle parking in this way, including the following examples, shown in **Table 7.** Typical maximums on wall-mounted configurations range are typically between 30-50% and up to 60% for two-tiered configurations.

TABLE 7. ALLOWABLE LONG-TERM BICYCLE PARKING CONFIGURATIONS IN BC COMMUNITIES

	Maximum Allowable Proportion of Long-Term Bicycle Parking Supply	
	Wall-Mounted	Two-tiered
City of Vancouver	30%	60%
City of Coquitlam	10%	60%
Township of Esquimalt (draft)	30%	50%
City of North Vancouver	35%	N/A
City of Richmond	33%	N/A
City of Kelowna	50%	N/A

Non-Standard Bicycle Parking

Accommodating "non-standard" bicycles such as cargo bicycles, recumbent bicycles, adult tricycles, bicycles with trailers, and adaptive bicycles for people with mobility impairments is an increasingly important consideration for short- and long-term bicycle parking. These bicycle types are becoming increasingly common, as they help to make cycling accessible to a larger number of people and trip purposes (e.g., grocery shopping, taking children to school, etc.). Many non-standard bicycles are longer, wider, and heavier than a typical bicycle, making them challenging to park using conventional bicycle racks and extremely difficult (if not impossible) to park with vertical racks

BCAT recommends that for both short- and long-term bicycle parking facilities, a minimum of 20% of all bicycle parking spaces should be able to accommodate larger, non-standard bicycles such as cargo bicycles and bicycles with trailers. Some communities, such as Courtenay, Colwood, Coquitlam, and Vancouver, have adopted regulations or guidelines for non-standard bicycle parking. Typically, these communities have required a minimum of 10% of long-term bicycle parking to be designed for oversized bicycles.

BCAT recommends non-standard bicycle parking dimensions have a space length of at least 3.0 m. In long-term bicycle parking areas, BCAT also recommends a wider doorway of 1.6 m along with greater typical space depth of 2.4 m for non-standard bicycle parking spaces. These spaces may be marked with a sign or pavement markings identifying their purpose as a spot for non-standard bicycles, to encourage compliance.

Requiring that some bicycle parking be amenable to non-standard and electric bicycle parking is important both for their increasing popularity and the potential to displace automobile ownership, thereby supporting overall mode shift. Studies have shown that e-

bike users typically reduce the number and distance of automobile trips.[5] The greater distances and weight that can be managed by electric bicycles and/or non-standard bicycles are shifting sustainable transportation, which should be anticipated in off-street parking requirements. Discussion of charging infrastructure e-bikes is included in Section 3.5.

End-of-trip Facilities

Introducing supply and design requirements for cycling end-of-trip facilities should be considered to continue to make cycling (and other active modes) more convenient and comfortable, particularly for commuting, and thereby encourage modal shift. End-of-trip amenities include any amenity provided in a development that makes cycling easier, more convenient, and more comfortable, particularly at land uses where a commuter cyclist may end their trip. Desired end-of-trip amenities may include:

- Change Rooms
- Showers
- Sink / Wash Basin
- Storage Lockers
- Bicycle Repair Equipment (tools, tire pump, workbench or stand)

Beyond bicycle parking, a requirement for cycling end-of-trip facilities is not commonly found in off-street parking regulations in other communities. Where it is found, it is typically provided as a ratio of the number of required long-term bicycle parking spaces. The following are examples:

- North Vancouver requires one shower and wash basin if 3-10 long-term bicycle parking spaces are required, and the shower and wash basin requirements increase by one for each increase of 10 parking spaces. Toilets are not required unless 30 or more long-term bicycle parking spaces are required.
- North Vancouver bylaw also includes an equitable access to facilities clause, stating that facilities shall be equally divided by gender (or can be gender neutral if a smaller facility) and must include a minimum of one wash basin, grooming station, shower, and locker that is accessible to a user in a wheelchair of each gender.
- Vancouver has separate requirements for office/retail/service uses and for other uses. Both Vancouver and North Vancouver mandate grooming stations (with requirements for counter space and electrical outlets). North Vancouver includes requirements for the supply and size of personal clothing lockers.
- Esquimalt's draft bylaw uses end-of-trip facilities as a direct TDM measure, listing showers and change rooms (along with short- and long-term bicycle parking and

[5] https://www.sciencedirect.com/science/article/pii/S0965856415301865

proximity to regional transit) as criteria for being able to reduce motor vehicle parking requirements.

3.4 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management is a tool cities use to encourage a mobility-rich environment to support reduced vehicle parking supply rates and behavioural shift to sustainable transportation. In Nanaimo's context, transportation demand management includes the bicycle parking and electric vehicle regulations discussed in other sections.

POLICY + REGULATORY FRAMEWORK

In 2024, City of Nanaimo adopted the *Transit-Oriented Areas Designation Bylaw* and made amendments to the *Off-Street Parking Regulations Bylaw* to comply with the Province's Bill 47 – Housing Statutes (Transit Oriented Areas) Amendment Act and Transit-Oriented Areas Regulation 674. The regulations require that local governments enact a *Transit-Oriented Areas Designation Bylaw* around prescribed transit stations.

Additionally, Bill 16 includes language that permits municipalities to require site-specific TDM infrastructure and services for new developments. This may include car share vehicles and/or memberships, transit passes, end-of-trip facilities, electric vehicle or bicycle charging stations.

City Plan and the Transportation Master Plan contain the following policies which support implementing TDM measures in Nanaimo as part of the City mobility objectives:

- C2.2.8 – Implement Transportation Demand Management programs to shift trips to non-automobile modes, reduce automobile trips and travel distances, and reduce parking demand.
- R4A – Develop and promote Transportation Demand Management programs designed to encourage combining vehicle trips, making shorter trips, shifting travel to less congested time periods, buying more efficient vehicles, carpooling and using more sustainable travel modes.

CURRENT CONDITIONS

Nanaimo's *Policy for the Consideration of a Parking Variance* allows for a variance to parking requirements based on the inclusion of a car share vehicle or membership primarily within Mobility Hub designated areas within the TMP and urban centres within City Plan.

While car share TDM is included as a tertiary step in the policy per approval of a variance and parking study, very few variance requests resulting in a parking variance include TDM in their proposals. As mentioned in Section 3.1.1 only three (3) parking variances between 2018 and 2023 resulted in TDM measures, out of 54 approved parking variances.

Besides car share, no other TDM measures are required nor recommended in City policy and regulation.

BEST PRACTICES + CASE STUDIES

Two basic approaches for the provision of TDM are commonly used by communities in B.C. and across Canada:

- Baseline TDM Requirements
  Regulations that require the inclusion of one or many TDM infrastructure or program options in new development in some or all geographic areas. Typically, baseline TDM requirements focus on creating a mobility-rich environment to encourage sustainable mobility and offset vehicle parking reductions.
- TDM-Based Vehicle Parking Supply Reductions
  Regulations that allow for developments to reduce the minimum number of vehicle parking spaces in exchange for providing certain TDM infrastructure or programs, typically up to a maximum reduction in overall vehicle parking supply.

Both approaches are discussed in more detail in this section. Given their different applications it could be that the City chooses to adopt one or a combination of both of these TDM approaches. The direction for these types of regulations are closely linked to how Nanaimo chooses to approach overall vehicle parking supply rates, which can then be supplemented with TDM regulations.

Baseline TDM Requirements

The City of Nanaimo has expressed interest in pursuing baseline TDM requirements to ensure that development in the City is providing a mobility-rich environment to support reduced vehicle parking supply rates and behavioural shift to sustainable transportation by making these modes more available and appealing. The City of Vancouver and other peer communities have pursued TDM to provide alternative active transportation mode shift in areas where minimum parking supply requirements have been reduced or eliminated.

The City of Vancouver adopted a Transportation Demand Management for Developments bulletin in 2019, which provides guidance on submission requirements for TDM plans required by the *Parking Bylaw*. An applicant developing within the Downtown, Broadway Plan Area of TOAs is required to submit a proposal for one of four TDM plans, or bundles, which includes a mix of TDM strategies, including transit, bicycle parking, end-of-trip facilities, and car share vehicles, among others, as shown in Figure 9 below:

Figure 9. City of Vancouver TDM Packages[6]

TDM Plan A Transit Passes	TDM Plan B Mobility Infrastructure Package		TDM Plan C Shared Mobility Package	TDM Plan D Unbundled Parking Pilot Program
	Residential Uses	Non-Residential Uses		
Monthly one-zone transit passes for 3 years	30% additional Class A bicycle parking spaces	30% additional Class A bicycle parking spaces; or a minimum of 3 spaces, whichever is greater	Car share vehicles and spaces Commitment from an operator for 3 years, and SRW to the City for the life of the building	Participate in a pilot program to provide parking spaces for lease only, not to purchase. Applicable only to applications with strata components.
	20% of the total number Class A spaces to be lockers	20% of the total number Class A spaces to be lockers; or a minimum of 1 locker, whichever is greater	Mobi All Access Passes for 3 years	
	10% of the total number Class A spaces to be oversized spaces	10% of the total number Class A spaces to be oversized spaces; or a minimum of 1 oversized space, whichever is greater	Monthly one-zone transit passes for 1 year	
	Weather-protected Class B bicycle parking spaces	Weather-protected Class B bicycle parking spaces		

A baseline TDM program, where required under regulation, permits developers to exercise independent selection of whichever TDM package best fits their site-specific context.

The City of Nanaimo may consider adopting a baseline TDM package program, like the City of Vancouver, as a requirement for some development types and/or locations. For example, in Vancouver, TDM plans are only required within specific plan areas and designated TOAs.

If selected as the preferred approach, baseline TDM requirements should be integrated as new regulations that would require developers to select a TDM package, eliminating any ambiguity for developers and the City. Some of the potential TDM programs and infrastructure could include the following options identified in Table 8.

[6] https://guidelines.vancouver.ca/bulletins/bulletin-transportation-demand-management-for-developments.pdf

TABLE 8. POTENTIAL TDM INFRASTRUCTURE AND PROGRAMS

	Infrastructure	Programs
Bicycle TDM	Enhanced or expanded bicycle parking (short- and/or long-term) End-of-trip facilities Shared bicycles	Shared bicycle membership
Transit TDM	Transit stop improvements	Transit pass subsidies
Carshare TDM	Carshare vehicles Dedicated carshare parking	Carshare memberships and/or subsidies
Parking TDM	Shared parking	Unbundled parking Parking cash out
Other TDM	Wayfinding signage	Employee or resident shuttle service TDM awareness packages TDM monitoring fund

TDM-Based Vehicle Parking Supply Reductions

Another option for TDM regulation frequently used is to offer reductions to minimum parking supply requirements where identified TDM strategies or site characteristics are met by the developer. This approach is like cash-in-lieu by capturing some of the value of an unbuilt parking space, while increasing opportunities for on-site mobility infrastructure or programs that can support travel behaviour changes.

Like with a baseline TDM requirements regulation, vehicle parking supply reductions could be offered for different TDM strategies, including carshare, bicycle parking, end-of-trip facilities, transit proximity, and/or transit pass provision. Vehicle parking supply reductions are offered in exchange for TDM provision in several communities in B.C, with some examples offered below:

- Victoria – 100% reduction for providing transit passes for 5 years to all units (max. 1 per unit) in a Missing Middle housing development.
- Kelowna – 5 space reduction per car share vehicle and space (up to 20%) for developments in core areas and urban centres. The car share vehicle must be located within 100 m of the property.
- New Westminster – 5% reduction in required parking spaces for the provision of end of trip facilities for non-residential uses and 5 parking space reduction per carshare car & space (up to 10% of total vehicle parking supply).

Vehicle parking supply reductions in exchange for TDM provision could be considered by the City in tandem with the baseline requirements discussed in the previous section.

3.5 E-MOBILITY

Supporting the shift to e-mobility helps meet city-wide sustainability goals and is a critical component to parking management. This section summarizes Nanaimo's current regulations around e-mobility, which includes electric vehicle parking supply and design and outlines best practices for electric vehicle charging and e-bike charging.

POLICY + REGULATORY FRAMEWORK

City Plan aims for all trips in Nanaimo to be zero carbon-emitting by 2050. Policies in support of e-mobility include:

- **C2.1.6** – Prioritize the placement of high quality "first kilometre / last kilometre" (start or end of trip) amenities to encourage active and sustainable modes of travel, including transit, walking, cycling, electric vehicles, carshare, and other options.

The Transportation Master Plan also includes the following policies related to e-mobility:

- **R4C –** Support of the use of low and zero emissions vehicles (e.g. providing electric vehicle charging stations, priority parking).

CURRENT CONDITIONS

Nanaimo's *Off-Street Parking Regulations Bylaw* provides requirements for electric vehicle charging stations spaces and electric bicycle charging, by land use:

- **Multiple family residential, seniors housing and student housing** – 25% of spaces are required to have shared access to an EV charger, while the remaining 75% must have access to a circuit capable of supplying electricity to support the installation Level 2 chargers.
- **Single residential or multiple-family dwelling** – 100% of spaces that do not have access to a charger are required to have access to an energized outlet capable of supporting Level 1 EV charging.
- **Retail trade and services** - 5% of spaces are required to have access to an EV charger.

Electric vehicle charging infrastructure requirements were recently updated as part of broader updates of the bylaw to respond to recent legislative changes.

In addition to support for electric vehicles, all long-term bicycle parking storage areas are required to have at least one electric outlet for electric bicycle charging.

BEST PRACTICES + CASE STUDIES

Electric Vehicle Charging

Based on recent updates to the *Off-Street Parking Regulations Bylaw*, the City of Nanaimo is generally meeting or exceeding best practices for electric vehicle charging. As such, no changes are recommended to be included

Electric Bicycle Charging

Given the rapid uptake of electric bicycles, access to charging infrastructure is a critical consideration for new development and retrofits of existing buildings. Currently, Nanaimo requires all long-term bicycle parking areas to have one electrical outlet for bicycle charging and there is no charging requirement for short-term bicycle parking spaces. Accommodating electric bicycles in short- and long-term bicycle parking requirements is becoming common practice. Due to their motors, e-bikes tend to be larger and heavier than standard bicycles, making it challenging to park them on vertical racks. Additionally, they require access to electrical outlets for charging.

BCAT recommends that 50% of long-term and 10% of short-term bicycle parking be designed to accommodate e-bikes by providing an electrical outlet. The Capital Regional District's *Capital Region Local Government Electric Vehicle (EV) + Electric Bicycle (E-Bike) Infrastructure Planning Guide* also recommends electrifying 50% of all long-term spaces.[7]

Many communities are starting to introduce or increase the number of off-street bicycle parking spaces, particularly long-term spaces, that are required to have access to electrical outlets. Vancouver and Colwood's requirements that 50% of long-term spaces be electrified match the recommendations from the CRD and BCAT, while Courtenay requires all long-term spaces to have access to an outlet. Nanaimo's long-term requirements are more ambiguous, stating that all parking areas shall have an outlet (but not specifying how many outlets per storage area).

Generally, requirements for short-term bicycle parking to have electrical charging infrastructure are less important, given the duration of most stays and the potential availability of charging infrastructure in other bicycle parking areas. Colwood and Courtenay have electrification requirements for short-term bicycle parking spaces, with a minimum of 20% of all short-term spaces requiring an electrical outlet.

[7] https://bicycleinfrastructuremanuals.com/manuals7/WATT-Consulting-Group-Capital-Region-Local-Government-Electric-Vehicle-and-Electric-Bike-Infrastructure-Planning-Guide-2018.pdf

3.6 OFF-STREET LOADING + DELIVERY

As passenger and commercial delivery and loading activities become more commonplace in communities, so is the need to manage the curb to ensure the efficient movement of goods and ensure infrastructure is supplied and designed to meet the needs of anticipated vehicle types and their users. This section outlines current conditions and recommends improvements to City loading regulation to help manage the increase in loading and delivery activities across the City.

POLICY + REGULATORY FRAMEWORK

The City of Nanaimo is supporting a vibrant and growing economy through policy guidance in City Plan. In the context of loading and delivery, these policies intersect with goods movement, urban design, and broader economic development. Some of the relevant policy directions identified in City Plan include the following:

- C2.1.7 – Manage parking city-wide with a focus on right sizing parking to continue fulfilling key needs including access, loading, and pick-up for businesses.
- C2.1.8 – Ensure the efficient movement of commercial goods and services.
- C2.5.4 – Ensure access for all travel modes through the development process, prioritizing walking, cycling, transit, and goods movement.
- C5.1.7 – Support becoming the transportation, cargo, and logistics hub of Vancouver Island. Expand, enhance, and maintain physical transportation links that connect businesses to their markets; enable the efficient movement of people, goods, and services; and can adapt to emerging transportation trends.

CURRENT CONDITIONS

The *Off-Street Parking Regulations Bylaw* requires dedicated loading space for specific uses. Requirements vary by gross floor area for commercial, industrial, and institutional land uses, with no requirements for residential uses.

For retail, retail trade, services centre or shopping centre, industrial, warehouse or other similar uses, the minimum number of off-street loading spaces is as follows:

Total Gross Floor Area of Building(s) and Structures	Spaces Required
Less than $465m^2$	1
$465m^2$ to $2,325m^2$	2
$2,325m^2$ to $4,650m^2$	3
Each additional $4,650m^2$ or fraction thereof in excess of $2,325m^2$	1 additional loading space

For other uses including offices, place of public assembly, hospital, personal care facility, seniors' congregate housing, student housing, and hotels, among others, the minimum number of off-street loading spaces are shown below. These requirements are lower when compared to those for commercial and industrial uses presented above.

Total Gross Floor Area of Buildings(s)	Spaces Required
Less than $2,800m^2$	1
$2,800m^2$ to $5,600m^2$	2
Each additional $5,600m^2$ or fraction thereof in excess of $2,800m^2$	1 additional loading space

Loading space design requirements outlined in the bylaw are as follows:

- Loading space dimensions must be no less than 10 m long x 3 m wide.
- Minimum over-height clearance must be no less than 4.2 m.
- All spaces must be clearly marked with signage.

BEST PRACTICES + CASE STUDIES

Off-Street Loading Design

Defining the minimum dimensions of an off-street loading space will ensure that this infrastructure is designed to meet the needs of anticipated vehicle types and their users. As previously discussed, there are many different types of loading anticipated in Nanaimo as the city grows and changes. To respond to these different demands, largely based on land use, the City could explore defining a second off-street loading space type, as follows:

- **Class A** – Loading spaces intended for the use of smaller vehicles, such as deliveries and passenger pick-up/drop-off. Minimum dimensions will be closer to those of a standard parking space.

- **Class B** – Loading spaces tailored to the delivery of commercial goods, and therefore suitable for larger trucks or other commercial vehicles. Minimum dimensions will be larger than a standard vehicle parking spaces, closer to those currently required in the *Off-Street Parking Regulations Bylaw*.

This approach mirrors that of other communities in B.C. and elsewhere in Canada, such as Vancouver, Richmond, Esquimalt, and Halifax, NS, who are responding to the evolving need for loading space in different land uses. Minimum dimension requirements for Class A and B off-street loading spaces are shown in Table 9.

Loading spaces for larger vehicles (often referred to as Class C) could be considered as well, however specifically defining this level of regulation may not be necessary given loading needs in Nanaimo and minimum requirements for Class B loading does not preclude designing for larger vehicles.

TABLE 9. MINIMUM OFF-STREET LOADING SPACE DIMENSIONS IN OTHER COMMUNITIES

	Class A			Class B		
	Length	Width	Height	Length	Width	Height
City of Vancouver	5.5 m	2.7 m	2.3 m	10.2 m	3.4 m	3.8 m
City of Toronto	6.0 m	3.5 m	3.0 m	11.0 m	3.5 m	4.0 m
City of Richmond	5.5 m	2.7 m	3.8 m	9.1 m	3.0 m	3.8 m

Off-Street Loading Supply

Nanaimo's practice for off-street loading supply is consistent across most peer communities where supply requirements are organized by land use. Land use classes are often consolidated to acknowledge shared loading needs between similar land uses and simplify regulations for clarity and consistency.

Should the City decide that differentiated loading spaces are appropriate, loading supply requirements will need to be adapted to capture these new space types and their relationship to relevant land uses. Three examples of B.C. communities that apply this approach are noted below:

- **Vancouver** – specifies three classes of loading spaces to support different loading needs (Class A, B, and C), and allocates space requirements into twelve land use categories including dwelling, institutional, office, retail, and manufacturing, among others. The number of required loading spaces increases with development size.

- **Richmond** – Generalizes supply requirements into residential and non-residential uses. Class A loading spaces are only required for residential sites, along with Class B spaces in larger sites.
- **Esquimalt** – The draft Off-Street Parking Bylaw provides simplified loading space supply requirements for all multiple-family residential, commercial, industrial, and institutional land uses. Class A loading spaces are only required for residential uses. Like in Vancouver, minimum requirements are tied to development size.

Section 3.7 highlights how the needs for off-street loading are linked to the City's approach to on-street loading at the curb. Depending on the desired approach to curbside management, and more specifically on-street loading and delivery, the City of Nanaimo may choose to adjust off-street loading requirements and to appropriately balance on- and off-street loading.

3.7 CURBSIDE MANAGEMENT

Traditionally used for parking, curbside space is increasingly being rethought as public space that may be managed to support a range of uses and activities. Given the competing needs for space, many communities are developing curbside management strategies to identify curbside priorities and ensure efficient and adaptable use of this important public resource that aligns with desired outcomes for mobility, urban design, economic development, and environmental sustainability, among others. This commonly includes parking and related activities, but also takes in sustainable transportation, shared mobility, greening and public space, among others.

POLICY + REGULATORY FRAMEWORK

The *Traffic and Highways Regulation Bylaw* is an integral component to the City's approach to on-street parking management. It provides regulations to on-street parking by providing specific restrictions and enforcement penalties for parking at various street locations.

Other on-street parking regulations and policies are contained within City Plan, Integrated Action Plan, and Transportation Master Plan. Some of these policies include:

- C2.1.7 – Manage parking city-wide with a focus on right sizing parking to continue fulfilling key needs including access, loading, and pick-up for businesses; accessible parking for people with mobility or family needs; and EV parking, while recognizing that an overabundance of cheap and convenient parking tends to increase vehicle use and reliance.
- L2E – Consider varying parking requirements within mobility hubs; reducing general parking while increasing shared and bicycle parking and providing better pedestrian access and transit amenities. Support development of on- street parking where possible and support park once and walk concept.
- P2B – Explore parking restrictions on local streets adjacent to VIU, NRGH and other large parking generators that balance the needs of facility users and residents.

CURRENT CONDITIONS

Curbside Inventory

To better understand the extent of existing curb regulations the City of Nanaimo developed a GIS-based curb inventory. The various restrictions implemented through the *Traffic and Highways Regulation Bylaw* were digitized to their locations along Nanaimo's street network. Data collected through the inventory process will support decision-making on implementing new curb restrictions to support broader parking, mobility, and land use objectives by tracking changes in restrictions and identifying areas to test curbside management solutions.

The curbside inventory emphasizes that most of Nanaimo's curbs are currently unrestricted. The most complex regulatory environments are found in areas with more diverse land use contexts, such as Downtown Nanaimo, which features 15 different curb restrictions. Many of the other designated Urban Centres do not currently feature the same level of curbside management due to their existing land use and development patterns, where pressure on on-street parking and other curbside uses may be low at present.

On-Street Pay Parking

On-street metered parking in Nanaimo is found in the downtown, and more recently the area around Nanaimo Regional General Hospital. The 95 metered parking spaces around the downtown are enforced Monday to Friday from 8 am to 5 pm and is free on evenings and weekends. Similar criteria apply around the Hospital, with restrictions also applying on Saturdays. On-street parking fees are consistent across the city, as shown below.

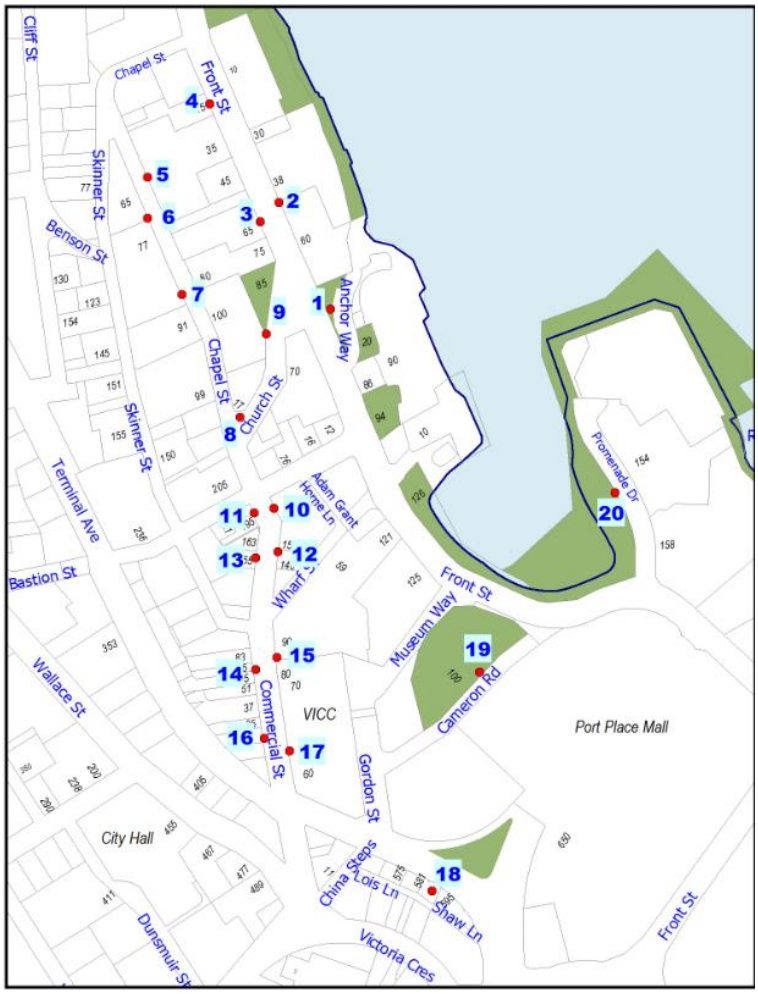
Minutes	Cost
12 minutes	$0.25
1 hour	$1.25
2 hours	$2.50
Evenings & Weekends	Free

There are twenty (20) pay stations, indicated in Figure 10 located around Downtown Nanaimo which process cash and credit transactions for pay parking spaces. Nanaimo's pay parking system does not tie a vehicle to a specific parking space but is based on the pay parking area and vehicle license plate number.

This system is also supported by the HONK application, which allows users to extend their stay without returning to their vehicle or a pay station. Payment for on-street parking near the hospital is being processed through the HotSpot Parking application, which exclusively

allows for digital and credit card transactions. Plans are currently in place to expand the HotSpot Parking application Downtown.

Figure 10. On-Street Pay Parking Meters, Downtown Nanaimo



On-street pay parking revenue between 2018 and 2024 totalled approximately $1.35M. This amounts to approximately $200,000 each year, with $205,130 collected in 2023. In 2018, parking meters outside the Downtown Core were removed and replaced with 2-hour parking, thereby decreasing parking revenue in 2019. While on-street revenue has increased since 2021 following the Covid-19 pandemic, revenue has not yet reached pre-pandemic levels. This trend may be related to increased work from home opportunities and/or increased uptake of e-commerce, including food deliveries.

Time-Limited Parking

Time-limited parking is found throughout Downtown Nanaimo, as shown in Figure 11, which is predominantly 2-hour parking. Like with priced parking, time limited zones

encourage shorter-stay parking in priority locations, and shift longer-stay vehicles to more peripheral locations.

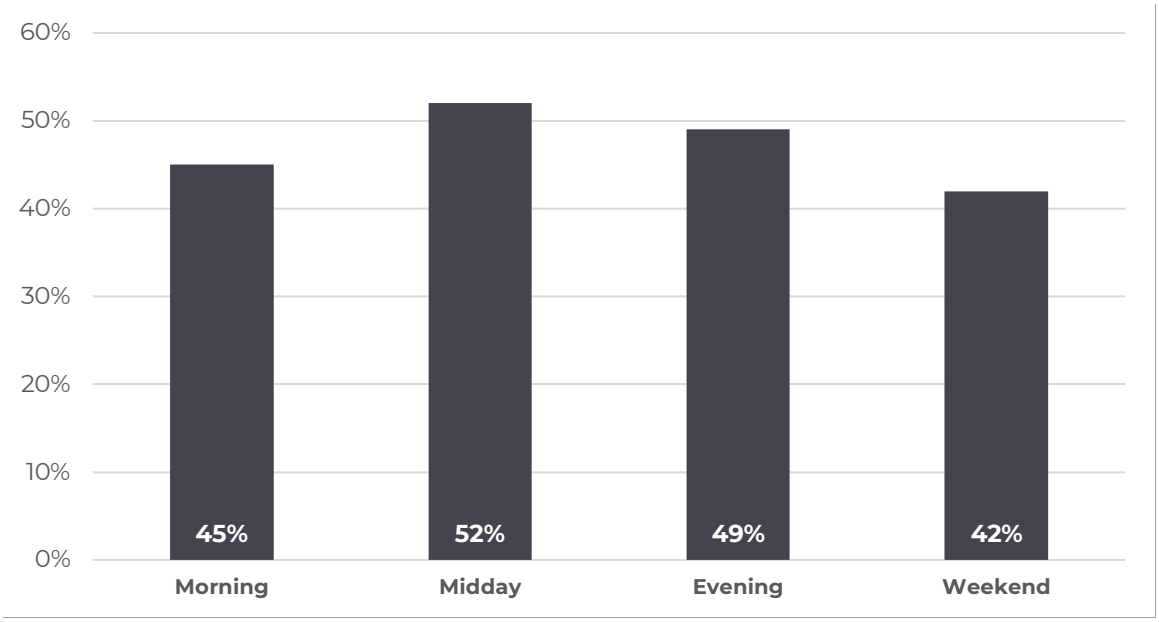
There are instances when a vehicle requires parking on-street for an extended period. In these circumstances a Temporary On-Street Parking Pass can be purchased for the duration and location needed. Passes are $10 per day, per space.

Figure 11. Time-limited Parking Zones

On-Street Parking Occupancy

An on-street parking occupancy audit was conducted in Downtown Nanaimo in early February 2023 for morning, midday, and afternoon periods on Tuesday and Thursday, as well as 11 am to 1 pm on Saturday. As shown in Figure 12, overall parking utilization was highest during the midday hours of 11 am to 1 pm on weekdays (52%), followed by the afternoon weekday hours of 3-5 pm (49%). Parked vehicle occupancy was lowest on the weekend (42%).

Figure 12. ON-STREET PARKING OCCUPANCY, FEBRUARY 2023



Of the blocks with ten or more parking spaces, 20 blocks had peak parking occupancy 85% or greater. While these locations were functionally full (85%+) during at least one observation, this represents only 36% of the total blocks surveyed with more than ten spaces.

This data, if still consistent with occupancy trends today, shows that on-street parking is generally underutilized in Downtown Nanaimo. When analyzing utilization on blocks with pay parking, Front Street saw an 86% utilization rate on the weekend period between 11am and 1pm, and Commercial Street saw a 96% utilization rate between 11am and 1pm on weekdays. While these utilization rates are significant, non-pay parking spaces experienced similar utilization rates both in the morning, afternoon, evening and weekend periods. Therefore, there does not appear to be a clear correlation between on-street paid parking vs non-paid parking spaces and overall utilization rates in the Downtown.

These trends could show that either on-street parking restrictions (including pricing) are influencing driver behaviours and/or that overall demand for on-street parking is low relative to supply in Downtown. As such, there may be opportunities for the City to repurpose curb space for other high demand uses or to adjust on-street parking

management approaches to seek out optimal performance by implementing restrictions that concentrate on-street parking demand. This could include expanding pay parking beyond existing blocks, utilizing other restrictions discussed in this section, and/or increasing enforcement activities, among other options.

Residential Parking

The City administers a residential parking pass program on 33 blocks throughout Nanaimo. These passes allow residents to park for 24 hours in otherwise time restricted blocks. Signage indicates the presence of a resident exempt parking areas on that block. The majority of resident parking zones are focused around the periphery of Downtown and Nanaimo Regional General Hospital, where demand for on-street parking is high relative to other areas.

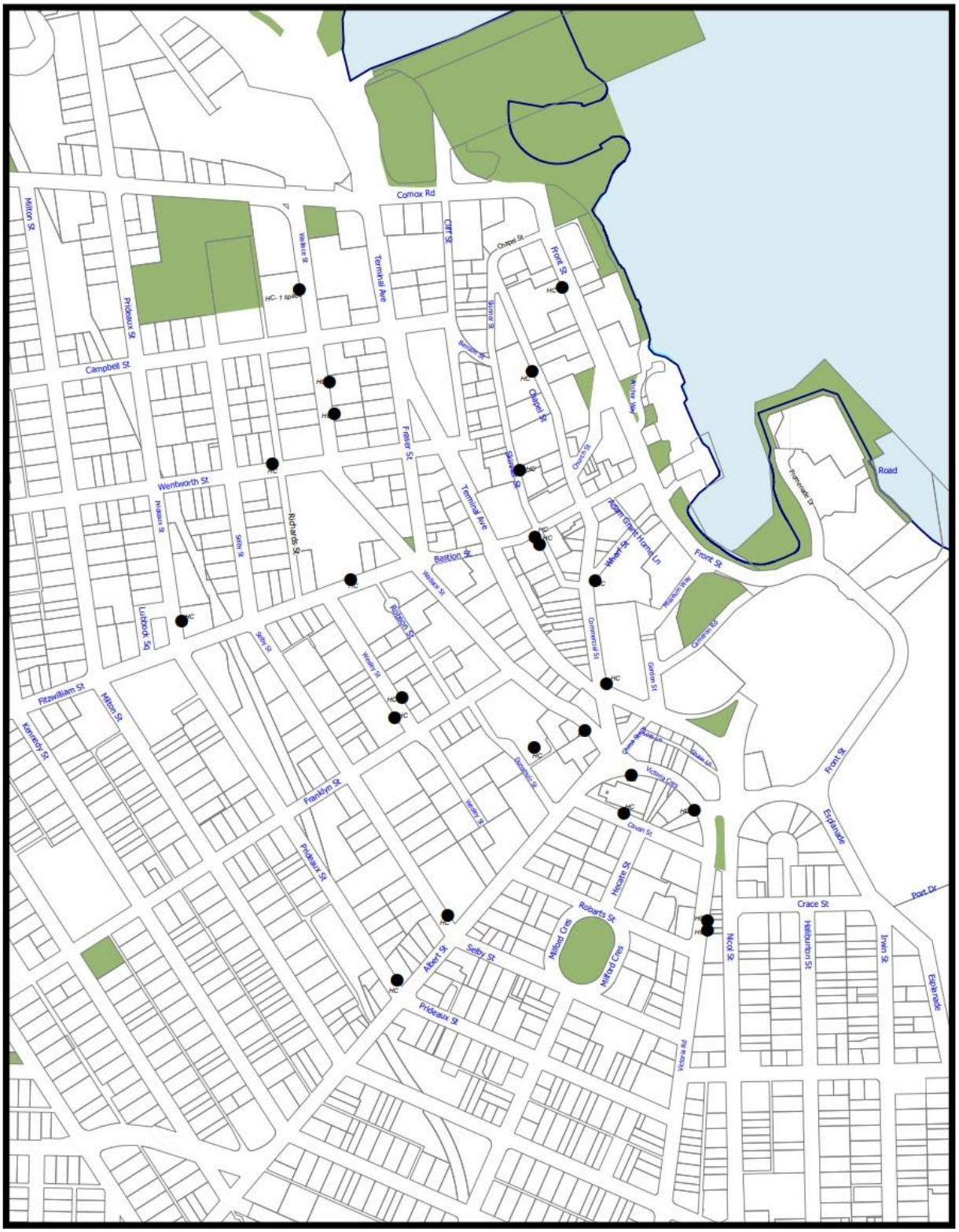
Residents must apply for a residential parking pass online by selecting their parking zone and proving residency and vehicle ownership and there is currently no fee for residential parking passes.

Accessible Parking

Drivers displaying a valid accessible parking tag, issued by the Nanaimo Disability Resource Centre or the Social and Planning Resource Council of B.C. (SPARC), are eligible to park in any of the designated disabled parking spaces on-street or off-street. Should there be no available disabled parking spaces, tag holders may park for free in any public space or lot that is not reserved, for the designated time displayed in the area. It should be noted that the City has had issues with cars posting an accessible placard staying in parkades indefinitely.

Publicly accessible parking spaces in Downtown Nanaimo are located in the areas shown in Figure 13 The City may consider increasing the number of accessible parking spaces and areas where on-street accessible parking spaces are located to not just within Downtown, but other key destinations such as the other Urban Centres and TOAs across the City. This will likely become more prevalent as competition for curb space in these areas increases due to new development, and dedicating curb access for people with accessibility needs will be an important consideration.

FIGURE 13. ON-STREET ACCESSIBLE PARKING SPACES, DOWNTOWN NANAIMO



Micromobility

In 2024, the City launched its pilot for an e-bike sharing program through Evolve. The pilot includes 100 dockless e-bikes spread throughout Nanaimo. All bicycles must be returned to one of the parking zones which are found around Downtown, and other destinations areas such as Vancouver Island University and Nanaimo Regional General Hospital. E-bike users are charged by the minute ($0.35) or hour ($12.99), which can be lowered to $0.10 per minute with the purchase of a monthly subscription ($9.99).

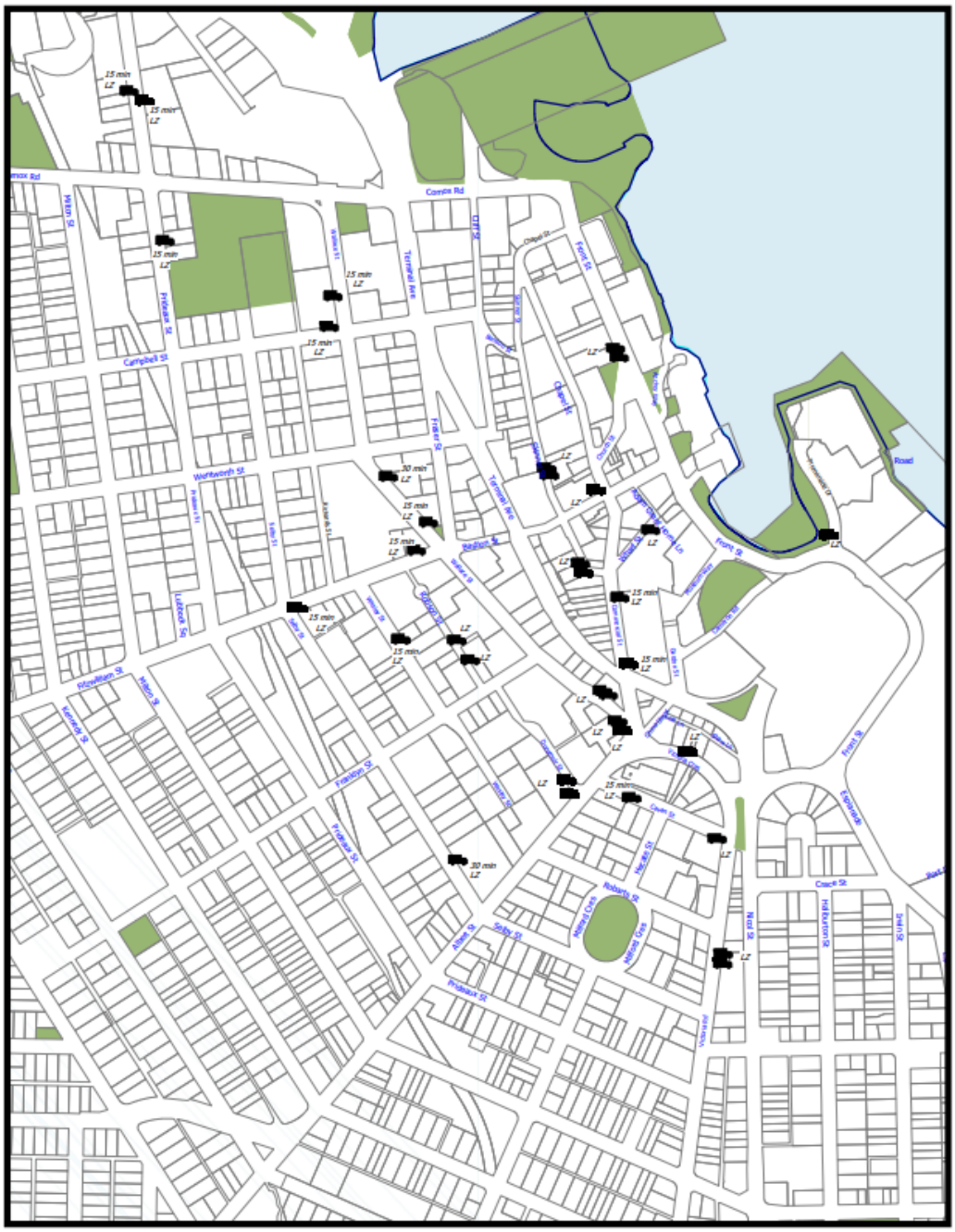
Additionally, the City was included as part of the Province's three-year e-kick scooter pilot project in 2021. Since then, the program has been extended and the City has chosen to regulate and allow e-scooters through the *Traffic and Highways Regulation Bylaw*.

On-Street Loading

The *Traffic and Highways Regulation Bylaw* regulates commercial and hotel loading zones in Nanaimo. Commercial loading zones are located at various locations throughout Downtown Nanaimo. Vehicles can be parked for no more than 15 minutes and must display a commercial vehicle license decal to be able to temporarily park in these zones. Hotel loading zones are exclusively for hotel use and follow similar restrictions as commercial loading zones.

Figure 14 shows the on-street commercial loading zones currently available in Downtown Nanaimo.

FIGURE 14. ON-STREET COMMERCIAL LOADING ZONES, DOWNTOWN NANAIMO



Commercial loading has become a contentious issue in Nanaimo due to community frustration with large delivery vehicles stopping in non-loading zones for extended periods. As there are no designated delivery and loading zones in residential areas of the City, residents often cannot access their properties when large vehicles are parked on narrow streets and often block driveways, bike lanes and parkade entrances.

Unlike other communities, the City does not currently require commercial vehicles to acquire a permit, decal, or license to access commercial loading zones. This means that the value of curb space used for loading zones is not being directly captured by the City.

There is an opportunity for the City to evaluate current loading approaches and consider how the provision of off-street loading spaces impacts availability of on-street loading spaces. As the elimination of parking minimums in TOAs and potential of reduced parking minimums in Downtown and urban centres progresses, there will be a greater need for on-street loading zones to accommodate the increase in delivery vehicles.

BEST PRACTICES + CASE STUDIES

Curbside Management

Traditionally used for parking, curbsides are transforming into valuable space for people and businesses for many different uses, such as transit, food trucks, seasonal and year-round patios, parklets, electric vehicle charging, events, commercial loading zones, accessible parking zones, active transportation and more. Given the competing needs for space, many communities are developing curbside management strategies to identify curbside priorities and ensure efficient and adaptable use of this important public resource that aligns with desired outcomes for mobility, urban design, economic development, community building, and environmental sustainability, among others. While the mix of curb uses differs across communities and corridor contexts, an approach to curbside management that prioritizes transit, active travel, and business uses through on-street parking reductions has become increasingly common across North American cities alongside a growing recognition that the traditional approach to curbs should change.

Curbside management policies will be needed to facilitate this increased demand, particularly as it relates to the impacts of changing off-street parking regulations, if fewer developments are required to provide vehicle parking. In many cases, on-street parking pressures can require new management approaches be reallocated without negatively impacting drivers or businesses.

Many communities have started their process of curbside management through the development of “curb management frameworks” that helps to identify the policies, plans, fees, and regulations required for city staff, developers, operators, businesses, and the public. The framework could guide the details on how to apply for a passenger loading zone, show a business how to get a permit for a parklet or provide bicycle parking, and tell staff how departments can modify or remove curb regulations to support the diverse functions of the curb.

Creating a framework helps to prioritize the various functions of the curb, which are summarized at a high-level on the following page.

Typical Curbside Functions

Function		Uses
Mobility	The movement of people and goods, including sidewalks, bicycle lanes and protected bikeways, dedicated bus or light rail/streetcar lanes, and general-purpose vehicular travel lanes	• Sidewalks • Bike lanes • General purpose travel lanes - includes freight • Right-or left-turn only lanes • Bus lanes
Access for People	People arriving at their destination or transferring between different modes of transportation. This includes transit stops, passenger loading/unloading zones, taxi zones, short-term parking, bicycle parking, and curb extensions.	• Bus stops • Bike parking • Ride-hailing • Passenger load zones • Short-term parking • Taxi zones
Access for Commerce	Goods and services reaching their customers and markets primarily through commercial vehicle or truck loading zones.	• Commercial vehicle loading • Truck load zone • Delivery / courier
Activation	Provision of vibrant social spaces that encourage people to interact and congregate. Uses that drive activation include food trucks, restaurant patios or sidewalk cafes, parklets, public art installations, seating, and street festivals (including farmers markets).	• Seating • Patios, parklets • Food trucks • Public art • Street festivals, temporary events
Greening	Enhancements to aesthetics as well as environmental health via planted boulevard strips, streets trees, planter boxes, rain gardens, and bio-swales.	• Boulevards, curb extensions • Street trees • Planter boxes • Rain gardens / bio-swales
Storage	Provision of storage for vehicles and equipment, including bus layover spaces, reserved spaces for specific uses such as police or government vehicles, short-term vehicle and bicycle parking, longer-term on-street parking, and construction vehicles.	• Bus layover • Long-term parking • Reserved spaces • Construction

Seattle, WA and Atlanta, GA are two communities that have been leaders in creating and executing curbside management plans.

The City of Atlanta developed a *Curbside Management Action Plan* for their Downtown and Midtown.[8] The Action Plan aims to better organize and optimize the curb for mobility, safety, and equity by establishing curb typologies to guide curb allocation by prioritizing specific uses by corridor type. Corridor types vary by context within the city, with curb use activities prioritized differently for each curb type. Curb use activities have generally been categorized as People / Green Space, Mobility Space, Passenger Access Space, Delivery Access Space, and Storage Space, each with a listing of the specific activities that may be carried out within those spaces. For example, the Commercial Mobility typology prioritizes mobility for all modes over other right-of-way functions, due to the lack of ground-floor retail requiring on-street parking and loading or activated spaces for people. This typology allows for transit-priority infrastructure and bicycle lanes to be accommodated alongside vehicle travel lanes.

The City of Seattle has implemented "Flex Zones," which are curb areas that allow for multiple uses including commercial deliveries, parklets, taxi zones and on street parking at various times of the day or seasons.[9] Critical uses (such as transit stops, bikeways) are assigned, followed by other supportive uses (bike share stations, commercial loading); then, the remainder of curb space can be allocated to public space uses. The hierarchy of flex zone functions are prioritized based on surrounding land uses.

For example, on commercial streets, the City first accommodates key infrastructure followed by freight and passenger loading over metered parking. Long-term commute parking is generally not supported.

Flex zone priorities are set so that Seattle streets can safely and efficiently connect and move people and goods to their destinations while creating inviting spaces within the right-of-way.

Residential Parking

Reviewing residential parking requirements is another way the City of Nanaimo can manage on-street parking supply. Two Canadian examples where residential permit programs have been successfully rolled out include Ottawa, Ontario and St. John's, Newfoundland. Here, residents must demonstrate that they have no access to off-street parking to qualify for a residential parking permit. Still, the City can retain the right to not issue a resident parking permit in certain areas and circumstances.

In Toronto, a priority ranking system classifies applications for residential parking permits into one of three levels, depending on each resident's degree of actual need for an on-

[8] https://www.atlantadowntown.com/cap/areas-of-focus/transportation/curbside-management

[9] https://www.seattle.gov/transportation/projects-and-programs/programs/parking-program/parking-regulations/flex-zone/curb-use-priorities-in-seattle

street parking space. The higher the need for an on-street parking space, the lower the cost of the permit.

The City of Calgary has developed a Residential Parking Permit (RPP) Program where Calgarians can request in busy residential areas where parking is in high demand due to a nearby parking-generating use. Residential parking restrictions are implemented by resident request once 80% of a block supports the restriction. The City of Calgary established different types of permits and regulations for different building types:

- Standard Residential Permit for residential houses and low-profile multiple-residential buildings;
- Large multiple-residential buildings built before 1945 or small multiple-residential buildings (less than four stories or 20 or fewer dwelling units);
- Large multiple-residential buildings built after 1945.

Permit fees vary based on building type, number of permits needed, location in Calgary, and income status.

Table 10 below indicates the cost of residential parking permits annually in comparative communities:

TABLE 10. RESIDENTIAL PARKING PERMIT FEES IN COMPARATIVE COMMUNITIES

Community	Permit Cost (annual)
City of Toronto	$22.19 - $89.74 (monthly)
City of Ottawa	$750 (option for seasonal permits)
City of St. John's	$27.50
City of Vancouver	$66-$132.03 (with exception of West End neighbourhood at $449.34)
City of Calgary	$30 - $105

Communities recognize the affordability, and equity impacts that residential parking fees can impose on residents. In response to affordability concerns, the City of Vancouver has developed criteria for low-income households to apply for a permit at the non-market exempt rate if they meet any of the following criteria:

- Enrolled in an eligible income assistance program.
- Considered low income with a net family income of $45,000 (individual) or $60,000 (combined).
- Have a child (17 years or below) who identifies as having a disability.

An RPP zone has more drawbacks for residents compared to a Resident Permit Only (RPO) zone. For instance, guest parking is not currently permitted. It does allow for simpler enforcement, particularly with new technology such as license plate reading cameras. With

the development of clearer criteria and rationale to allow a street to qualify for RPP status, and potential increases in the costs of permits to sufficiently value and manage the curb space and discourage misuse, this program could be more widely extended into other residential areas of the city.

On-Street Pay Parking

Parking pricing is perhaps the most effective approach to managing parking behaviours. Compared with unpriced parking, cost-recovery parking typically reduces affected parking demand and vehicle trips by 10-30%, and sometimes more if implemented in conjunction with alternative mode improvements (walking, bicycling, ridesharing, and public transport).[10]

Prices can be structured to achieve various objectives, including recovering infrastructure costs, managing travel demand, and generating revenue. **Table 11** below compares public parking pricing in similar communities, demonstrating that Nanaimo's hourly rates ($1.25 per hour) are low relative to mid-sized communities such as Halifax and Kelowna, and more so against larger centres like Calgary and Vancouver.

TABLE 11. COST OF PUBLIC PARKING IN COMPARATIVE COMMUNITIES

Community	Cost of Public Parking (Hourly)
Nanaimo	$1.25
Victoria	$1.50 - $3.50
Vancouver	$1.00 - $6.00
Calgary	$1.50 - $4.75
Kelowna	$1.50 - $4.00
Toronto	$1.00 - $5.00
Halifax	$1.25 - $3.75

Expanding Pay Parking Zones

Given that on-street parking is found in a limited area of Downtown Nanaimo and recently around the hospital, an important consideration moving forward will be how to evaluate the need to expand priced on-street parking as the city grows and changes.

- **Surrounding Land Use** – Priced parking is typically most effective in commercial or mixed-use areas where available parking spaces are valuable for customers and visitors. In residential areas, other tools can be used to price and restrict on-street parking such as residential parking permits.

[10] Litman, L (2023). *Parking Pricing Implementation Guidelines.* Victoria Transport Policy Institute.

- **Parking Utilization and Turnover** – Since priced parking seeks out to make on-street parking available to people when and where they need it, it is important to first understand if charging for parking is necessary. If parking occupancy consistently exceed 85% or higher on a particular street or defined area, additional restrictions should be considered.
- **Existing Parking Restrictions** – Identifying what restrictions have been imposed on on-street parking in the areas being considered for priced parking and understanding their effectiveness in achieving the desired outcomes. If time limitations have already been reduced to one (1) hour or less, and utilization and turnover objectives have not been met, priced parking is likely to support improved outcomes.
- **Compliance** – Monitoring the number of tickets or complaints in the subject area to identify the effectiveness of existing restrictions.

Typically, on-street parking restrictions would progress from unrestricted to different time limited restrictions, before introducing pay parking. This allows for a logical progression that is easy to communicate to the public, local businesses, and other stakeholders, while also showing a clear methodology relative to parking occupancy.

Pricing Systems

Dynamic pricing is a pricing strategy used to adjust parking rates based on customer demand. Dynamic pricing in parking can be approached in two ways:

- Rates are fixed during a specific time period and/or day, with the rates raised during peak occupancy and lowered during downtimes.
- Rates are fully dynamic, fluctuating in real time based on supply and demand. This approach requires using technology such as sensors or integration with app-based solutions.

Dynamic pricing presents an opportunity for the City of Nanaimo to increase parking revenue by charging higher parking prices for the same number of parking spaces. Additional revenue can be reinvested into local infrastructure. Dynamic pricing also maximizes space utilization. By adjusting the price based on real-time information, the City can create behaviour change by motivating drivers to use other modes of transportation. This would require significant investment in new technologies and staffing to be able to support dynamic pricing through real-time information. Alternatively, the City could consider variable pricing that reflects known trends in demand throughout a day, week, or season, which does not require the same level of resources as truly dynamic pricing.

On-Street Loading

The rise in deliveries has impacted urban logistics and created competition for curbside space. Modern approaches to accommodate and adapt to demands for commercial loading space are identified below.

Using technology and existing infrastructure, the City could explore the implementation of a smart parking reservation system to allow trucks, passenger vehicles, on-demand delivery, or ride-hailing vehicles to find and reserve available parking spaces to save time and reduce emissions related to cruising and dwell time.

An example of using technology to support efficient loading was found in the City of Seattle where they studied the use of real-time curb availability technology by providing delivery drivers with a mobile app. The data collected showed that when curb availability information was provided to drivers, their cruising for parking time significantly decreased by 28%, and their cruising distance decreased by 12%. These results demonstrate the potential for implementing intelligent parking systems to improve the efficiency of urban logistics systems.[11]

Research in several communities in the U.S., including Seattle, Columbus, and Austin, has demonstrated that when providing commercial drivers with technology that shows real-time parking availability, they will use this information, which contributes to reduced congestion and dwell time.

Further, by providing incentives or creating requirements through the *Traffic and Highways Regulation Bylaw*, the City could encourage off-peak delivery to ease peak demand on the curb and redistribute freight demand throughout the day. Off-peak delivery has the potential to alleviate peak period congestion, improve efficiency of deliveries and reduce emissions but is often not implemented due to concerns about noise for residents living near the businesses.

During the 2010 Vancouver Olympics, the City of Vancouver reduced truck volume in the downtown area by 37% by instituting off-peak deliveries. Further, off-peak delivery pilots in New York City and Stockholm found that the speed at which deliveries were able to be made at night meant that trucks were available for additional deliveries, thereby reducing the need for a larger fleet.[12]

[11] Dalla Chiara G, Krutein KF, Ranjbari A, Goodchild A. Providing curb availability information to delivery drivers reduces cruising for parking. Sci Rep. 2022 Nov 11;12(1):19355. doi: 10.1038/s41598-022-23987-z. PMID: 36369268; PMCID: PMC9652335.

[12] H.K. Truck Center. The Benefits of Off-Peak Delivery. https://hktruck.com/benefits-of-off-peak-delivery/

Accessible Parking

Ensuring an appropriate supply of accessible parking is critical to ensuring that appropriately designed parking spaces are available on-street for people with accessibility needs, where they need them. Based on the inventory of curb restrictions, approximately 2.5% of the total curb space in Downtown Nanaimo is dedicated to accessible parking, excluding areas that do not permit stopping or parking.

Best practice suggests that maintaining approximately 4% of all on-street parking spaces as accessible parking spaces is recommended.[13] Further investigation is required into the distribution of accessible parking, however initial analysis would suggest that a greater supply may be required downtown. Similar standards should be considered in other areas, where feasible, particularly as demand for curb space increases in high growth centres, and pressure on conventional and accessible parking spaces increases.

Design specifications for accessible parking spaces that meet or exceed current best practice as identified in the Canadian Standards Association (CSA) are outlined in Section 3.2. Similar design standards for access, pavement markings, signage, and other characteristics should also apply to public on-street accessible parking and should be referenced as a design guide for these spaces in Nanaimo.

Figures 15-18 show a sample of existing on-street accessible parking spaces in Downtown Nanaimo. These examples show a mix of design elements that partially align with best practice. Most spaces either have a dedicated curb ramp or are located near a corner to provide access to a nearby curb ramp. Only two of the four examples shown have been updated with the Dynamic Symbol of Access on both signage posts and additionally, none of the spaces contain the Dynamic Symbol of Access on the pavement. The City should consider updating the remainder of its public on-street accessible parking spaces to:

- Indicate the Dynamic Symbol of Access on pavement
- Using hatching to clearly demarcate the rear and side access aisles
- Paint the curb space blue

[13] Americans with Disabilities Act (ADA). Retrieved from https://www.ada.gov/topics/parking/

FIGURE 15. ON-STREET ACCESSIBLE PARKING SPACE, WHARF STREET AND COMMERCIAL STREET

FIGURE 16. ON-STREET ACCESSIBLE PARKING SPACE, ALBERT STREET AND SELBY STREET

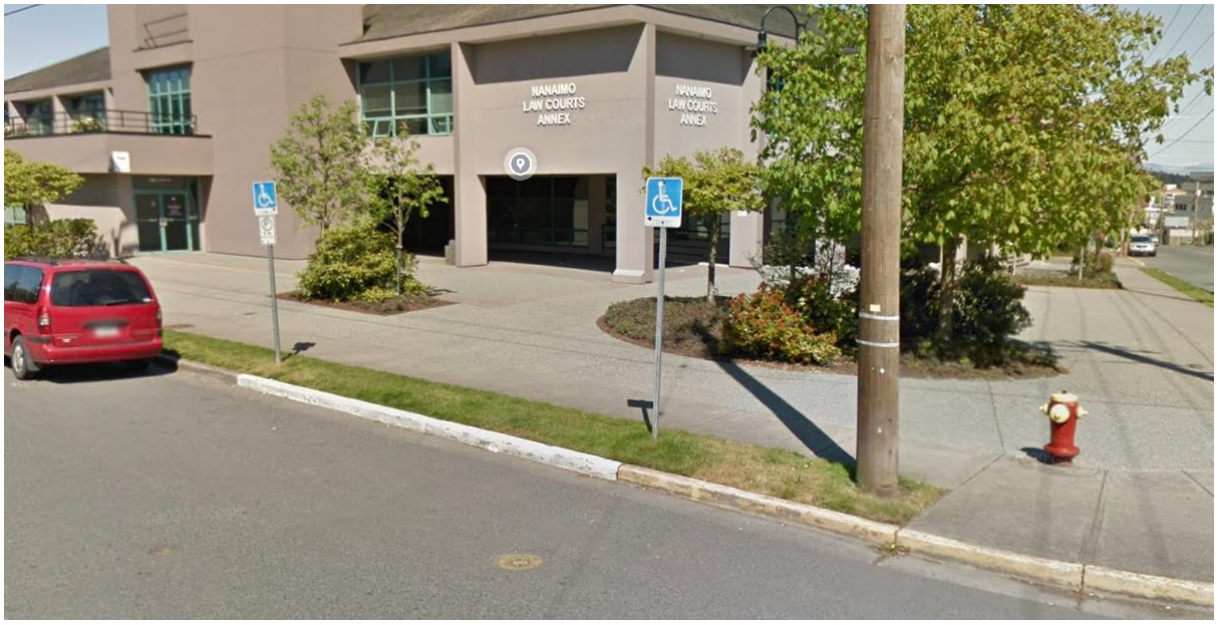


FIGURE 17. ON-STREET ACCESSIBLE PARKING SPACE, BASTION STREET AND SKINNER STREET

FIGURE 18. ON-STREET ACCESSIBLE PARKING SPACE, CAVAN STREET AND HECATE STREET

3.8 PUBLIC PARKING FACILITIES

This section focuses on public parking facilities which refers to city-owned facilities and lots, rather than traditional on-street parking spaces. It summarizes Nanaimo's supply of public parking assets and revenue as well as compares existing parkade features and amenities to those in peer communities across British Columbia.

POLICY + REGULATORY FRAMEWORK

The only City policy support for updating loading space requirements is the following *City Plan* policy:

- C2.1.7 – Manage parking city-wide with a focus on right sizing parking to continue fulfilling key needs including access, loading, and pick-up for businesses.

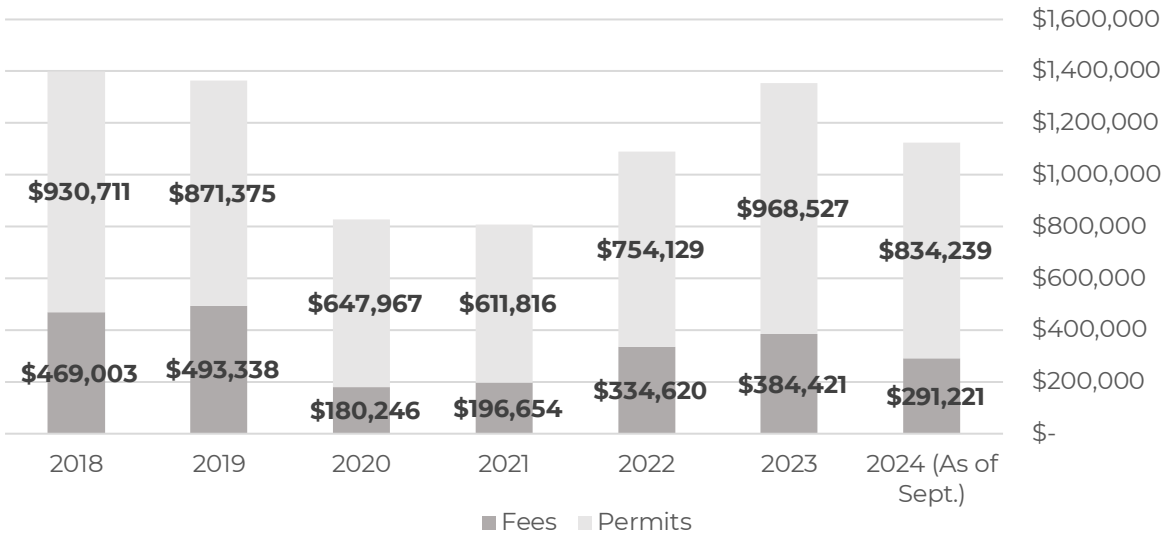
CURRENT CONDITIONS

The City of Nanaimo currently manages several off-street public parking assets around Downtown Nanaimo. This includes three major parkades with a combined 901 total parking spaces, along with four public parking lots that feature 202 parking spaces.

Most of these public parking facilities (except for the Prideaux Street Lots) require a daily fee or the purchase of a monthly pass. Long-term monthly permits eliminate the need to choose each day how the individual will travel and instead encourages driving to reduce the per day cost of the permit. Payment in City parkades can be processed for both cash and credit, and the Honk mobile application also functions to extend stays in public parking facilities, like it does for on-street parking.

Total revenues from these facilities between 2018 and 2024 (September) was approximately $7.97M, of which 71% is from monthly permit revenue. Year-over-year revenue trends are shown in Figure 19 below. The impact of the COVID-19 pandemic on off-street parking demand, and therefore revenue is evidenced by a 40% decrease in revenue between 2019 and 2020.

Figure 19. PUBLIC PARKING FACILITY REVENUE, 2018-2024 (YTD)



When looking more closely at the individual parkades and lots in Table 12, the average revenue per space between 2018 and 2024 is relatively consistent. The Harbour Front parkade is an outlier, with revenue per space approximately 2.5 times greater than any other facility. In 2023, both the Harbour Front and Vancouver Island Conference Centre met their capacity for monthly parking permits, which cost $110 per month in each location. Monthly permits in off-street lots are less expensive, currently $60 per month.

Table 12. SUMMARY OF PUBLIC PARKING FACILITIES & REVENUE GENERATION

Public Parking Facility	Number of Parking Spaces	Total Revenue (2018-2024)	Revenue Per Parking Space
Parkades			
Vancouver Island Conference Centre	308	$1,625,702	$5,401
Harbour Front	301	$4,044,339	$13,131
Bastion Street	292	$1,404,001	$4,808
Parking Lots			
Wallace and Wentworth Lot	59	$328,666	$5,571
Cavan Street Lots	82	$442,602	$5,398
Selby Street Lot	24	$122,957	$5,123
Prideaux Street Lots	37	No fees	No fees

Hourly fees for all parkades and off-street lots are consistent, with the first hour being across Nanaimo's public parking facilities free before pricing takes effect, except in the Prideaux Street Lots, which are free all day. There is some increase in hourly rates depending on the amount of time parking in a parkade or lot, beyond which flat rates for extended stays are triggered:

- Second hour - $0.75 per hour
- 3-8 hours – $1.25 per hour
- 9-12 hours – $7.00 flat rate
- 13-24 hours - $9.00 flat rate

Compared to on-street pay parking, which costs $1.25 for one hour and $2.50 for two hours, parkades cost only $0.75 for the first two hours of parking. This offers a financial incentive for drivers to use off-street public parking facilities compared to on-street pay parking. Depending on the City's desired approach to curbside management, this may continue to be sustainable, however this relationship to overarching priorities and non-priced on-street parking should also be integrated in the conversation.

Public Electric Vehicle Charging

The City owns and maintains public Level 2 EV chargers at City parks and parkades. These stations are located at the Oliver Woods Community Centre, Beban Park, Bowen Park, Maffeo Sutton Park, Merle Logan Field and Nanaimo City Hall. Two additional Level 2 charging spaces are found within Harbourfront Parkade and Port of Nanaimo Centre Parkade. As of June 1, 2024, the City implemented new fees associated with active charging at public facilities between 6am and 10pm. Connection fees are now $0.025 per minute for the first 120 minutes, and $0.07 per minute for each subsequent minute.

Accessible Parking

Like with on-street parking, vehicles displaying a valid accessible parking permit are allowed to park without time restrictions in off-street parking facilities in Nanaimo. Potential issues have also been noted on the permitted duration of parking for tag holders, with instances of vehicles being parked indefinitely in City facilities. This could lead to challenges of managing the overall public off-street parking supply when vehicles are not moved from time to time to allow for general turnover, facility maintenance, and other important considerations.

BEST PRACTICES + CASE STUDIES

This section highlights practices in peer communities in B.C., to understand what infrastructure, space use limitations, and pricing is being applied elsewhere.

City of Victoria

The City of Victoria's public parkades offer more than 1,800 individual parking spaces. Some of the key characteristics of Victoria's off-street public parking facilities are the following:

- Parking Pricing – Hourly pricing for parkades is $2.50 an hour.
- Time Limitations – Some parking spaces in public parkades are time-limited to promote turnover in these spaces, while also offering available parking for local businesses. In all parkades, some spaces are free for one hour, while others permit a maximum of 3 hours in that space.
- Accessible Parking – Accessible parking spaces are available at each parkade.
- EV Charging – EV charging stations are available at all City parkades. Charging is permitted up to three hours, with fees charged for the amount of power used in addition to any additional parking fees. Long-stay (Level 1) charging is also permitted on the upper floors of several facilities.
- Shared Vehicle Parking – Car share operators in Victoria (Evo and Modo) have access to parking spaces in public parkades. For Modo, this includes reserved parking spaces for vehicle pick-up and return, while Evo vehicles can be dropped off in any parking space free of charge.
- Bicycle Parking – Free long-term covered bicycle parking is offered in all parkades, typically with basic design including a fenced-in bicycle enclosure with ground-anchored racks.
- Real-time Occupancy Monitoring – Real-time information on the availability of public parkade spaces is available through the City of Victoria website. This includes a parkade-by-parkade breakdown and occupancy for specific spaces such as accessible parking and time-limited parking.

City of Kelowna

In Kelowna, public parkades and off-street lots provide short- and long-term parking options, along with event parking.

- Parking Pricing – Pricing applies from 9 a.m. to 5 p.m., Monday to Friday, except during special events where parking is free. Hourly rates in parkades are $1.25 and the daily rate is $7.00. In short-term lots, the hourly rate is $1.50.
- Monthly Permits – Like in Nanaimo, Kelowna allows for monthly permit purchases. Random monthly permits cost $96.50 per month and do not reserve a specific

space for the user. Reserved parking permits are more expensive, $179.50 per month, to guarantee the same parking space.

- EV Charging – Level 2 EV chargers are available at all public parkades, with a rate of $1.25 per hour. While most parkades have Level 2 chargers available, the Museum Parking Lot offers two Level 3 chargers at $0.26 per minute of charging.
- Accessible Parking – Accessible parking permit holders may park at no charge in City-owned parking lots or in on-street accessible parking spaces. Posted time restrictions (two hours max) don't apply to permit holders.
- Bicycle Parking – Secure bicycle rental lockers are available in two parkades. Bike lockers cost $15 per month to reserve.

4.0 CLOSING

4.1 SUMMARY OF POTENTIAL DIRECTIONS

The following are preliminary regulatory and best practice recommendations for consideration. These recommendations will be evaluated and discussed further in the next phase of the project and addressed through the Key Directions Report.

Off-Street Parking

- Evaluate different approaches to off-street vehicle parking supply rates that integrate land use, mobility, and other directions provided in City Plan.
    - Most notably, this may include consideration of parking supply requirements for Urban Centres that are unique from the rest of the City, including potential to eliminate minimum parking requirements in Urban Centres, similar to recent changes in Transit Oriented Areas (TOAs) resulting from Provincial legislation.
    - Consideration is also to be given to public parking management approaches necessary to address any spillover impacts where significant decrease or elimination of off-street parking minimums is contemplated.
- Review the units used to measure vehicle parking supply requirements to ensure they are consistent and implementable as regulation.
- Consider updates to the shared parking regulation, including review of supply reduction (%) that may be achieved through shared parking and possible removal of select land use from consideration for shared parking.
- Review cash-in-lieu of parking regulations to better align rates with the value of unbuilt parking spaces and geographically expanded more broadly through the community.
    - Consideration is to be given to cash-in-lieu relative to any significant change in off-street parking supply requirements, as well as how cash-in-lieu is to be pursued relative to the City's approach to parking variances.
- Assess the need to update standard parking space dimension requirements, particularly space length, to encourage efficient parking area design and parking layouts in Urban Centres that support density and housing objectives.

Accessibility

- Review the overarching approach to off-street accessible parking supply requirements to respond to changes to off-street vehicle parking supply rate requirements and maintain an appropriate level of accessible parking provision.

- Align off-street accessible parking design requirements to *Canadian Standards Association* guidance.
- Integrate van-accessible parking design standards into the *Off-Street Parking Regulations Bylaw*.
- Include mobility scooter supply and design requirements in the *Off-Street Parking Regulations Bylaw*.

Bicycle Parking

- Explore opportunities to require short- and/or long-term bicycle parking in more land uses to support increased cycling mode share.
- Increase bicycle parking supply rates for select land uses, with reference to supply rates in other communities and the City's desired cycling mode share target.
- Pursue unique bicycle parking supply requirements for areas without minimum parking requirements to ensure increased bicycle parking supply to match anticipated reliance on non-vehicular travel options.
- Adopt regulations or guidelines for non-standard (oversized) bicycle parking.
- Adjust long-term bicycle parking dimensions to meet BCAT guidance by increasing aisle width.
- Allow for two-tiered (stacked) bicycle parking configurations in long-term bicycle parking areas and a maximum proportion of long-term bicycle parking spaces that can be wall-mounted.
- Introduce supply and design requirements for cycling end-of-trip facilities in commute land uses (i.e., showers, changeroom, lockers).

Transportation Demand Management

- Expand TDM requirements in addition to bicycle parking requirements.
    - Consider baseline TDM requirements in areas with significantly reduced or eliminated minimum parking supply requirements (i.e., TDM required regardless of proposal).
    - Consider incentive-based TDM approach in other areas (i.e., parking supply reduction achieved where TDM provided).

E-Mobility

- Increase requirements for charging infrastructure in long-term bicycle parking to support e-bike charging.

Off-Street Loading + Delivery

- Pursue requirements for conventional vehicle sized loading spaces to support short-term parking and retail delivery in select uses (i.e., meal delivery, online retail delivery, etc.).
- Consider off- and on-street loading approaches, with corresponding adjustments to off-street loading supply rates.

Curbside Management

- Establish a curbside space allocation framework and policy to guide operational decisions about how curbside space is allocated.
    - The focus for curbside management should be on areas that are subject to significantly reduced or eliminated off-street parking supply requirements (i.e., TOAs, Urban Centres).
    - Curbside management approaches may also be considered in residential areas of high demand and/or where off-street parking spillover occurs.
- Explore dynamic parking management approaches to paid parking and time limitations that reflect demand patterns.
- Complete a fulsome review of existing on-street accessible parking spaces to determine where retrofit is required to align with design best practice, and accessible parking supply should be increased.
- Pursue a more formalized approach to on-street loading activities, including consideration of how off-street loading provision impacts on-street loading needs.

Public Parking Facilities

- Review off-street public parking to complement on-street parking management practices.
    - Consider on- and off-street public parking pricing to encourage use of off-street parking.
    - Consider hourly and daily parking in-place of monthly parking permits to encourage sustainable travel options.
- Evaluate opportunities to expand the availability of supporting infrastructure and amenities in public parking facilities, such as bicycle parking and EV charging.

4.2 NEXT STEPS

Next steps in the Parking Review + Bylaw Update process include further analysis and conversation leading to the preparation of the Key Directions Report. This document will include a series of recommended changes to the City's parking regulatory environment, including a full account of options and the implications associated with key changes.

URBAN SYSTEMS