



Durham Region **Bicycle Parking Guidelines**

**Appendix A: Background Review
and Existing Conditions**



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1 Current and best practices review

This report reviews current and best practice related to bicycle parking. It is divided into two sections: first, a **current practice review** outlines existing policies and practices for bicycle parking in Durham Region and its eight local area municipalities (LAMs). This is followed by a **best practice review**, which highlights innovations and best practices from industry agencies and jurisdictions in the provision of bicycle parking.

While this provides an in-depth review, the final guidelines only include the most salient and summarized takeaways for brevity.

All images were sourced by WSP unless otherwise noted.

1.1 Regional policy review

This section provides an overview of existing policies, guidelines, and practices related to bicycle parking across the Region and its eight LAMs. It examines the current approaches to short- and long-term bicycle parking, including the types of facilities provided, placement considerations, and other considerations such as provision of end-of-trip amenities.

The review identifies how bicycle parking is integrated and addressed in planning documents, zoning by-laws, and development standards at both the Regional and local level. This baseline understanding helps to identify strengths, gaps, and opportunities for enhancing bicycle parking practices in support of active transportation goals.

1.2 Region of Durham plans and policies

1.2.1 Durham Regional Official Plan (2024)

The Durham Regional Official Plan (ROP) provides policies and strategic directions that guide future growth, infrastructure and service delivery, land use planning and development-related matters to ensure an improved quality of life. The ROP includes policies related to supporting bicycle parking and electric vehicle charging infrastructure. Key policies include:

- 3.2.11 d) Encourage new developments to support active transportation by providing safe and sheltered bicycle parking and storage.
- 3.2.18 b) Encourage LAMs to include sustainable design elements, exterior sustainable design, landscaping, permeable paving materials, bicycle parking, bird-friendly design, electric vehicle charging and street furniture through the site plan approval process.



- 5.2.23 I, iii) Require area municipal official plans to include detailed policies for each Protected Major transit Station Area, which will include adequate and secure long-term and short-term bicycle parking and end-of-trip facilities.
- 8.2.8 c) Encourage LAMs to enhance active transportation environments, and to ensure that bicycle parking is incorporated into new developments and existing public facilities.

Please note that pursuant to Bill 23 (More Homes Built Faster Act, 2022), the ROP has now become the responsibility of the Region's eight LAMs. Each LAM will have responsibility for the ROP as it pertains to their municipality, until such time as policies of the ROP are reviewed, integrated or amended into the LAM official plan as part of a comprehensive municipal review process.

1.2.2 Durham Regional Cycling Plan (2021)

The Durham Regional Cycling Plan (RCP) aims to enhance cycling infrastructure and promote active transportation across all eight LAMs. Section 5.2 of the plan outlines a Bicycle Parking Strategy that will provide residents and visitors with a range of ample accessible, conveniently located bicycle parking options in areas of need throughout Durham Region. Currently, the Region provides bicycle parking on public lands, including the post-and-ring initiative which supports the implementation of short-term bicycle parking at various locations.

The development of Bicycle Parking Guidelines was a key action identified as part of the RCP to offer detailed guidance related to bicycle parking based on best practices. The RCP specifies that the recommended Bicycle Parking Guidelines are intended to support not only the selection of appropriate bicycle parking types but also to establish consistent processes and practices that can be applied across the Region.

It also includes actions for:

- Developing and adopting a data-driven approach to bicycle facility planning to determine where bicycle parking facilities are needed through special mapping tools, inventory of bicycle parking supply, bicycle shed analyses, and transportation survey data.
- Establishing funding mechanisms for bicycle parking to fund bicycle parking facility projects.
- Creating a more robust Regional Bicycle Parking Implementation Plan.

1.2.3 Durham Transportation Master Plan (2017)

The Durham Transportation Master Plan (TMP) acknowledges the role of bicycle parking in supporting active transportation and transit-oriented development. It encourages LAMs to incorporate bicycle parking as part of broader efforts to promote



walking and cycling to transit, and recommends aligning development regulations to require physical features, such as bicycle parking, that facilitate transit use and active mobility.

The TMP also highlights the importance of end-of-trip facilities, including short- and long-term bicycle parking, showers, and lockers, in enhancing connections between cycling and transit. A key action identified in the plan is collaboration with LAMs and Metrolinx to evaluate the feasibility of providing secure bicycle parking at major transit hubs and public bicycle share systems where there is demonstrated local interest.

1.2.4 Durham Transit-Oriented Development (TOD) Strategy (2024)

The Durham Region Transit-Oriented Development (TOD) Strategy is a guideline document that provides direction for growth related to higher-order transit throughout the region. It recognizes that areas near transit are crucial for supporting pedestrian and cyclist-friendly environments. Key recommendations related to bicycle parking include:

- Higher-order transit stations within TOD Places should have ample bicycle parking, including sheltered parking and enclosed lockers for bicycle commuters.
- Ensure the development of new buildings and uses within TOD places contributes to establishing a cycling-friendly district by integrating secure bicycle storage facilities, convenient bicycle parking and space for future bicycle share facilities as appropriate.
- High-quality bicycle stands should be incorporated into the streetscape design.
- The majority of amenities (like bicycle parking) should be placed on streets that lead to and from stop or station areas or between significant destinations.
- Transit station open spaces should emphasize the station as a 'place' and contribute to improving station functionality and user experience by incorporating supporting facilities such as seats, bicycle parking, structures that provide protection from weather, and signage.

1.2.5 Durham Scarborough Bus Rapid Transit (DSBRT) Study

The DSBRT Study proposes 36 kilometre of dedicated transit infrastructure, connecting Oshawa, Whitby, Ajax, Pickering and Scarborough. Enhancing transit along Highway 2, connecting Toronto and Durham Region, will strengthen regional links between communities, jobs, schools, and key destinations. The project also proposes 24 kilometre of improved cycling facilities along the corridor, supporting safe and convenient active transportation routes and encouraging walking and cycling for short trips and as a means of accessing transit stations.

1.2.6 Simcoe Street Rapid Transit Visioning Study



The Simcoe Street Rapid Transit project in Durham Region is a study aimed at transforming public transportation along the Simcoe Street corridor in Oshawa. Simcoe Street will be upgraded to deliver rapid transit, support walking and cycling, enhance the streetscape, and accommodate goods movement and private vehicles. Given this, the corridor will be an ideal candidate for enhanced bicycle parking.

Note: Pursuant to Bill 23 (More Homes Built Faster Act), as of January 1, 2025, the Region of Durham is defined by the province as an "upper-tier municipality without planning responsibilities." While this does not mean the elimination of the upper-tier planning function, Durham Region's eight LAMs have assumed approval authority for all Planning Act decisions, except as prescribed by the Ministry of Municipal Affairs and Housing. Envision Durham, the new Regional Official Plan (ROP), has now become part of the Area Municipal Official Plans of Durham's eight LAMs.

1.3 Local area municipality plans and policies

1.3.1 City of Oshawa

1.3.1.1 Oshawa Active Transportation Master Plan (ATMP) (2015)

The City of Oshawa includes bicycle parking recommendations and regulations primarily in its ATMP. Recommendation 6-14 of the City of Oshawa's ATMP identifies specific design considerations to support walkable and bicycle-friendly development. It states that the City should ensure developments are bicycle-friendly, including attention to such factors as bicycle parking.

As part of the ATMP update currently underway, opportunities are being explored to revise bicycle parking guidance and enhance alignment with Regional guidelines.

1.3.1.2 Oshawa Parking Study (2021)

The Oshawa Parking Study highlights the importance of providing adequate bicycle parking along with shower and change facilities to support cycling as a practical transportation option. To promote cycling, the study recommends establishing minimum requirements for both short-term and long-term bicycle parking. These standards are outlined in a table that differentiates by land use, parking type, and location (Intensification Areas vs. the rest of the city).

1.3.2 Town of Ajax

1.3.2.1 Bicycle Parking Design Guidelines (2023)

The Town of Ajax has its own Bicycle Parking Design Guidelines (2023) as part of the Town's Transportation Demand Management Plan. The Guidelines provide direction for



creating high-quality bicycle parking that supports everyday cycling for residents and visitors. (Refer to the Best Practices section for details on these Guidelines on page 9.)

1.3.2.2 Town of Ajax Integrated Transportation Master Plan (ITMP) (2019)

Section 4.2.3.6 – End of Trip Facilities in the Town’s ITMP emphasizes providing bicycle parking as part of supportive active transportation amenities at rest areas and key destination points. It recommends that bicycle parking be integrated with other end-of-trip facilities such as bicycle rooms, lockers, and repair stations to enhance user comfort and convenience, particularly at major transit hubs and community centers.

1.3.2.3 Town of Ajax Site Plan Review Technical Guidelines (2024)

Section 4.5.2 – Cyclist Connections and Amenities of the Town’s Site Plan Review Technical Guidelines, recognizes the importance of accommodating cyclists through improved site connectivity and supportive infrastructure. The Guidelines encourage applicants to enhance internal and external cyclist access by incorporating bicycle lanes, trails, or paths within or adjacent to driveways, as informed by the Town’s Integrated TMP.

In addition, secure and accessible bicycle parking is identified as a key end-of-trip facility that should be integrated into site designs. Other recommended amenities include bicycle repair stations, storage lockers, and, where appropriate, showers and change rooms.

1.3.2.4 Town of Ajax Transportation Demand Management (TDM) Plan (2023)

The 2023 TDM Plan includes a key action addressing bicycle parking under Action C2 - Bicycle Parking Implementation Plan. This action focuses on strengthening cycling in Ajax by expanding short and long-term bicycle parking that responds to community needs, and integrating consistent standards into development review. It’s key performance indicators (KPIs) include number of bicycle parking spaces added and bicycle rack utilization.

1.3.3 Municipality of Clarington

1.3.3.1 Zoning By-law 84-63

Clarington’s Zoning By-law 84-63 requires high-density residential developments Urban Residential Type R4-49 to provide bicycle parking minimums of 0.1 spaces/unit (short-term) and 0.5 per unit (long-term) and Type R4-45 to provide 0.5 spaces/unit, with 75 per cent indoors.

Clarington’s Site Plan Control process does not include bicycle parking specifically. However, it does require developers to address elements like parking facilities,



pedestrian access, and landscaping, which may include bicycle facilities depending on the context and staff review.

1.3.3.2 Clarington Transportation Master Plan (2016)

The Clarington TMP supports the provision of bicycle parking shelters and bicycle racks at bus stations and bus stops, and as a part of their overall TDM strategy through promotion of active transportation.

1.3.3.3 Active Transportation Master Plan (currently in development)

The Clarington ATMP will address local bicycle parking needs by including bicycle parking rates for new developments and guidance for the placement of public bicycle parking.

1.3.4 City of Pickering

1.3.4.1 Zoning By-law 8149/24

Under the new Zoning By-law 8149/24, bicycle parking requirements have been expanded city-wide, whereas they previously applied only to the Pickering City Centre. The by-law specifies the number of bicycle parking spaces that must be provided for new developments, as well as standards for their location and dimensions. They apply to multi-residential buildings like apartments and non-residential uses such as retail stores, restaurants and businesses that are large employers. Bicycle parking is permitted anywhere on a lot and may also be located off-site within 100 metres of the associated building. Up to 50 per cent of the required spaces may be vertical, while the remainder must be horizontal. For developments requiring more than 50 bicycle spaces, at least 25 per cent must be in secure areas such as inside buildings, supervised enclosures, or lockers. Additionally, apartment buildings must provide energized 120 volt outlets for at least 15 per cent of long-term spaces to accommodate e-bike charging.

The by-law also sets minimum space dimensions: horizontal spaces must be at least 1.8 metres long and 0.6 metres wide, while vertical spaces must be 1.5 metres long and 0.5 metres wide. Minimum parking rates vary by use:

- Apartment dwellings require 0.5 long-term and 0.1 short-term spaces per unit.
- Stacked townhouses require one long-term space per unit.
- Long-term care or retirement homes must provide at least five long-term spaces.

For non-residential uses, the greater of two long-term spaces or one per 1,000 m² of gross leasable floor area is required, along with at least one short-term bicycle rack.



1.3.4.2 City of Pickering Integrated Transportation Master Plan (2021)

The City's ITMP emphasizes the importance of aligning parking policies with sustainable transportation goals and creating walk- and bicycle-friendly destinations. Recommended Action #19 specifically calls for updates to the parking space requirements to identify a reduced parking rate for developments in proximity to higher-order transit and expand its minimum bicycle parking standards.

1.3.5 Town of Whitby

1.3.5.1 Town of Whitby Official Plan (2024)

The Town of Whitby Official Plan requires bicycle parking facilities be provided in non-residential, mixed-use, and multi-unit residential development and redevelopment sites (Section 6.2.3.14.6).

1.3.5.2 Town of Whitby Transportation and Pedestrian Safety Action Plan (2020)

The Town's Transportation and Pedestrian Safety Action Plan focuses on pedestrian safety and connectivity in Downtown Whitby and surrounding areas. It recommends better integration between the transit network and active transportation by providing bicycle parking along proposed higher-order transit routes and stations. It also calls for installing bicycle parking in select municipal parking lots during reconstruction or rehabilitation projects, as well as in other strategic locations where additional facilities could enhance cycling access.

1.3.5.3 Town of Whitby Site Plan Control By-law # 7430-18

The Town's Site Plan Approval process generally requires both short-term and long-term bicycle parking for high-density residential developments. However, these requirements are not currently reflected in the Town's zoning by-laws, though this is under review.

1.3.5.4 Whitby Green Standard (2020)

Bicycle parking is also addressed in the Whitby Green Standard by requiring bicycle parking for 2.5 per cent of peak visitors.

1.3.5.5 Whitby Active Transportation Plan (2021)

Whitby's Active Transportation Plan outlines a guiding principle to install bicycle parking at strategic, visible, and accessible locations to encourage cycling and active transportation. Key recommendations include partnering with businesses to identify high-impact sites for bicycle racks, developing a standardized bicycle parking ratio and design requirements for development applications, purchasing racks that align with the



town's branding, and creating promotional materials to inform residents about rack locations and usage. The plan also references successful programs, such as the Toronto District School Board Bicycle Rack Program and the Ingersoll Business Improvement Area (BIA) initiative, as examples to guide implementation.

1.3.6 Township of Uxbridge

1.3.6.1 Zoning By-law 81-19 and Site Plan Control By-law 2012-059

Uxbridge incorporates bicycle parking requirements into its Zoning By-law 81-19 and Site Plan Control By-law 2012-059 as part of the development approval process. These provisions require site plans to include sustainable design elements along any adjoining Township-managed roadway, such as bicycle parking facilities.

1.3.6.2 Township of Uxbridge Parking Strategy Study (2025)

The Township of Uxbridge Parking Strategy Study notes gaps in accessible bicycle parking and limited supply of public bicycle parking in the downtown area. Recommendations include implementing additional accessible bicycle parking in the Downtown, on Brock Street and considering new bicycle parking and facilities at Centennial Park as part of future redesigns.

1.3.6.3 Uxbridge Active Transportation Plan (2019)

The Uxbridge Active Transportation Plan (ATP) makes only limited reference to bicycle parking, noting that racks would be beneficial at trailhead locations. While it does not establish formal standards, the plan includes TDM-related actions such as seasonal bicycle corrals to support cycling during peak periods. Importantly, the ATP helped inform and recommend the subsequent Parking Strategy Study, which provides a more comprehensive approach to parking management.

1.3.7 Township of Scugog

1.3.7.1 Township of Scugog Official Plan (2011)

Section 8.4 of the Township of Scugog Official Plan requires developments within major employment lands exceeding a gross floor area of 560 square metres (m²) to install bicycle racks as a condition of site plan approval.

1.3.7.2 Township of Scugog Active Transportation and Transportation Master Plans (2021)

The Township of Scugog Active Transportation and Transportation Master Plans provides general guidance and recommendations pertaining to bicycle parking facilities including:



- Design considerations for secure and accessible bicycle parking facilities, such as ensuring racks or lockers are securely anchored and allow the bicycle frame to be locked, and accommodating accessibility by allowing at least 50 per cent of spaces to support horizontal parking.
- Placement considerations for both short-term and long-term bicycle parking should include dimensional criteria such as the bicycle footprint, a minimum spacing of 1.5 metres between racks, and aisles at least 1.2 metres wide between bicycle racks and adjacent pedestrian facilities.
- Specifications on the placement of bicycle parking, indicating that bicycle parking should be located within 30 metres of the trip destination or amenity, with short-term facilities placed closer.
- Recommending that facilities offer convenient and safe access to nearby bicycle routes and primary entry points. Racks should support the bicycle at two points and allow the frame to be securely locked.
- Identification of bicycle parking rate details, specifying that these should be based on land use for both short and long-term facilities, including for commercial, institutional, industrial, and residential uses.

The key recommendations include:

- Expand and inventory the supply of publicly available bicycle parking in Port Perry.
- Encourage property owners to provide short and long-term bicycle parking on site.
- Develop and implement guidelines for the provision and design of on-site bicycle parking in consultation with the Region, with implementation primarily through the development approval process.

1.3.8 Township of Brock

The Township of Brock currently does not address bicycle parking specifically in its publicly available by-laws or policy planning documents.

1.4 Best practice overview

The following presents a review of bicycle parking practices adopted by municipalities and agencies across Canada and internationally. The goal of the review is to highlight a range of approaches, policies, and design standards that inform the development of accessible, functional, and secure bicycle parking infrastructure. To minimize repetition, each review focuses on presenting new or previously unaddressed information, building cumulatively on information introduced in earlier examples covered in the Current Practices review. Where common practices exist across strategies, only key distinctions or innovative elements are emphasized.



Bicycle parking facilities are typically categorized into two main types, based on duration of use and the needs of different user groups:

- **Short-term:** Intended to be used for short periods of time, typically two hours or less, by residents, visitors or employees to a business, residence, or establishment. These facilities prioritize convenience, visibility, and proximity to entrances.
- **Long-term:** Intended to be used all day and/or night. It primarily serves employees/commuters, residents, students, or travellers leaving their bicycles at their residences, work, school, inter-modal stations, or bus stops. These facilities generally offer a higher level of security and weather protection and are commonly located at workplaces, schools, residences, or transit hubs.

1.4.1 Best practice key takeaways

Table A1 highlights common characteristics and key takeaways identified across multiple municipal guidelines, reflecting best practices for bicycle parking design and placement.

Table A1: Key takeaways from the best practices review by design consideration

Theme	Description
General	<ul style="list-style-type: none"> • Bicycle parking should respond to the surrounding land uses and anticipated demand. • Bicycle parking facilities should accommodate a range of bicycle types, include larger bicycles, such as cargo, tandem, or bicycles with trailers. • Install a variety of racks to accommodate a variety of bicycles, such as cargo and adaptive bicycles.
Placement	<ul style="list-style-type: none"> • Racks should be spaced apart and away from walls, trees, or obstructions, and in locations that will not impact or disrupt regular road and sidewalk maintenance and care, such as street cleaning and snow removal. • Facilities should be positioned for maximum convenience, ideally near primary building entrances. • Bicycle parking should be provided at transit stations, based on the anticipated ridership. • Retrofitting buildings to provide adequate quantity and quality of bicycle parking is encouraged.
Design and materials	<ul style="list-style-type: none"> • Made from high quality, durable materials, resistant to cutting or tampering with common hand tools such as galvanized steel, powder coated steel, or other industrial grade materials.



Theme	Description
Accessibility and spacing	<ul style="list-style-type: none"> • Securely anchored and stable. • Bicycle parking should be intuitive to use, free of obstructions, easily detectable, and accessible to riders. • Bicycle parking should be clearly visible or signed with AODA-compliant signage. • Typical spacing: 0.6 metres between racks; 1.8 to 2.0 metres aisle width; one metre from walls or obstructions; 1.9 metres vertical clearance. • Wider clearances and maneuvering spaces for bicycles should be provided where possible. • Bicycle parking should be located at ground level or offer step-free access (e.g., ramps or elevators). • Bicycle rooms should have automatic doors and at least 1.8 metres wide aisles for maneuverability.
Security	<ul style="list-style-type: none"> • Use Crime Prevention Through Environmental Design (CPTED) principles, including placing facilities in high-traffic areas, well-lit areas, eyes on the street, and securing the racks to concrete. • Mount parking facilities on hard surface (not grass or soil) and ensure they are securely anchored. • Short-term parking should be placed in high-visibility areas where passive surveillance occurs to deter theft and vandalism. • Long term-parking should be located in access-controlled secure facilities (access via keys, smartcards, or apps) with surveillance cameras or security guards.
Short-term bicycle parking	<ul style="list-style-type: none"> • Preferred designs: Inverted-U racks, Post-and-Ring racks, and others that support at least two points of contact. • Discouraged designs: Wave, comb, spiral, wheel-bender, and coat hanger racks, and others that only support one wheel but not the frame. • Should prioritize convenience and accessibility. • On-street bicycle corrals are recommended in areas with limited space and high short-term bicycle parking demand. • Bicycle parking spaces should be no more than 30 metres (preferably 15 metres) from a pedestrian entrance to the building for most land uses.



Theme	Description
Long-term bicycle parking	<ul style="list-style-type: none"> • Preferred designs: Bicycle lockers, bicycle rooms and cages, and vertical/wall mounted racks. • Vertical/wall mounted, two-tier, and staggered wheel well secured racks are recommended for space efficiency. • Should prioritize security and weather protection. • Should provide at post-secondary educational institutions, transit stations, and dense commercial or residential buildings. • Charging outlets for e-bikes should be included to support emerging modes and styles of bicycles (10 to 20 per cent of spaces). • Long-term bicycle parking guidelines rarely specify distance from entrances; security and weather protection are the primary considerations.
Other considerations	<ul style="list-style-type: none"> • Bicycle parking should be integrated into zoning by-laws, site plan control, development approvals, and broader transportation and land-use policies. • Racks should be well-maintained and repaired or replaced promptly if damaged. • Non-residential developments are encouraged to have end-of-trip facilities like showers, washrooms, and changerooms to complement bicycle parking facilities.

1.5 Federal and Provincial practice

1.5.1 Transport Canada

1.5.1.1 Bicycle End-of-Trip Facilities: A Guide for Canadian Municipalities and Employers (2010)

Transport Canada's Bicycle End-of-Trip Facilities: A Guide for Canadian Municipalities and Employers, provides advice for municipalities in promoting cycling and for employers or developers seeking to develop bicycle parking and related facilities. Transport Canada's Guide outlines recommended dimensions, design considerations, and preferred facility types for both short- and long-term bicycle parking.

Design guidelines and spatial requirements

To ensure bicycle parking is functional, accessible, and space-efficient, Transport Canada's Guide recommends the following design standards:

- **Bicycle Parking Space Dimensions:**



- Each space should measure between 0.5 to 0.7 metres wide by 1.8 metres long by 1.25 metres high.
- **Rack placement and clearances:**
 - For a row of bicycle racks, a minimum of 0.4 metres (but preferably one metres) should be provided between the rack and wall, and 0.6 metres is recommended between each parking rack.
 - 1.75 metres perpendicular access aisle and a length of two metres or three metres for two partially overlapping bicycles.
 - Rows can be angled to allow for a narrower access aisle and only 1.4 metres length
 - Vertical/wall-hanging racks can also use the same separation.

Short-term bicycle parking

Short-term parking should prioritize visibility, convenience, and accessibility, and is best located close to building entrances. It should generally be located on private property, but can be in the public right-of-way, if necessary, as long as the sidewalk can remain at least three metres wide. If not, curbside parking lanes can be replaced. An air pumping station may be provided.

Recommended short-term designs: Single- bicycle racks: Inverted-U, swerve, post-and-ring, lightning bolt; Multiple- bicycle racks: Campus racks.

Discouraged Designs: Avoid comb racks or any design that supports only the wheel and not the bicycle frame.

Long-term bicycle parking

The Guide indicates that long-term parking is intended for extended use and should provide higher levels of security and protection from the elements. Long-term bicycle parking should be 30 to 50 metres walking distance from the destination and clearly signed if not immediately visible. Outdoor long-term parking should be close to entrances, while indoor facilities must offer direct and convenient access from outside. For high-capacity needs, bicycle sheds or cages are preferred over individual lockers. As long-term parking is accessed less frequently, tighter spacing between racks is acceptable.

Recommended long-term designs: Bicycle sheds, Bicycle cages, Bicycle lockers, Bicycle stations with two-tier racks. Bicycle stations, sheds or cages are preferred over individual lockers for areas with high demand.

Key considerations for long term facilities include:

- **Bicycle lockers:** a fully enclosed container large enough to fit a standard bicycle. They have a high degree of security and weather protection but can only be used by



one user at a time, making them not appropriate for high-capacity applications. However, they can store more than just bicycles, including belongings and helmets. Some cities have automatic storage systems that lowers them to be parked underground. These are high capacity.

- **Bicycle sheds:** also referred to as covered parking, these can be freestanding structures or can be awnings or berths attached to a building. They are not fully enclosed and usually do not have additional security features but may offer additional features like wayfinding and bus information.
- **Bicycle cages:** fenced or walled area enclosing parked bicycle and often access-controlled. If outdoors, they should have an impermeable canopy or roof. Indoors they can be placed in large spaces like garages.
- **Bicycle stations:** Bicycle stations are large, high-capacity parking facilities typically located near major transit hubs, post-secondary campuses, and high-density employment areas. Stations should include:
 - Two-tier racks with at least 2.7 metres of floor-to-ceiling clearance.
 - Gentle grade transitions between multiple levels, if necessary.
 - May restrict access to paying users.
 - Enhanced amenities, such as toilets, showers, and changerooms, day-use lockers, vending machines to supply items like bicycle parts, accessories, food, beverages, bicycle repair and service areas, air pumps, cycling maps, and wayfinding/information displays.

1.5.2 Ontario Ministry of Transportation (MTO)

1.5.2.1 Ontario Traffic Manual (OTM) Book 18: Cycling Facilities

OTM Book 18: Cycling Facilities includes a section on bicycle parking in Section 9.1. It provides an overview of general principles of preferred bicycle parking considerations, including:

- Selecting convenient locations as close to destinations as possible for improved accessibility.
- Provide lighting, passive surveillance and clear signage to enhance visibility and security.
- Ensure weather protection.
- Durable and low maintenance materials should be used.
- Providing adequate space and clearances for ease of use and improved access circulation.
- Provide a range of parking types to accommodate various bicycle types
- Aesthetic integration with surroundings.



OTM Book 18 classifies bicycle parking types into two categories of short-term parking and long-term parking considerations.

Short-term bicycle parking

OTM Book 18 indicates that short-term parking must be easy to use, close to destinations, and visible for passive surveillance. Racks should not obstruct pedestrian flow and may be installed near entrances, along sidewalks, or in repurposed on-street parking spaces. Racks should:

- Be securely anchored to a hard surface and constructed from durable, industrial-grade or galvanized steel.
- Support the bicycle frame upright at two points, and allow the frame and at least one wheel to be locked.
- Accommodate various U-lock sizes by avoiding tubing with cross-sections over 50 millimetres.
- Maximize space, enabling multiple bicycles to park compactly without cluttering or encroaching on pedestrian pathways.
- Racks installed on sidewalks or curbside should be placed within the furnishing zone, and away from areas where car doors open.
- Preferred placement of racks is parallel to the curb, with a minimum 0.6 metres clearance from the end of the bicycle to the curb edge, but can be perpendicular in wider areas.
- Inverted-U racks and post-and-ring racks mounted in a row should be placed at least 0.9 metres apart.

Recommended short-term designs: Inverted-U and post-and-ring racks due to the ability to secure frame and wheel while locking.

Discouraged short-term designs: Avoid wave racks, wheel-bender racks, toaster/grid racks, spiral racks and coat hanger racks due to lack of proper support, security or can be prone to being used incorrectly or cause damage to bicycle wheels.

Long-term bicycle parking

OTM Book 18 specifies that long-term bicycle parking should prioritize security and weather protection. It typically includes enclosed, access-controlled spaces or rooms and are typically located at transit hubs, workplaces, or residential buildings. Long-term parking facilities often aim to maximize density and work well in high-density settings to meet the needs of their users, often through providing two-tier, staggered, or vertical racks. A combination of these parking solutions is encouraged since vertical and two-tier racks are not always accessible to all users or bicycles.



When installing multiple bicycle racks, they should be spaced with aisles, similar to a vehicle parking lot. A minimum aisle width of 1.2 metres is recommended to ensure a person can comfortably walk through while maneuvering a bicycle.

It recommends that bicycle rooms should have automatic doors for hands free maneuvering and at least 1.8 metres wide to accommodate adapted cycles, and include designated accessible spaces with ample maneuvering room and ramps or elevators should be provided where stairs are present. Consideration should also be given to providing charging stations for e-bikes. **Figure A1** presents the minimum clearance for both indoor and outdoor bicycle parking suggested in OTM Book 18.

Maintenance

Key maintenance practices recommended by OTM Book 18 include the following:

- Conduct regular inspections and repairs to ensure usability.
- Remove abandoned or damaged bicycles to free up capacity.
- Plan for snow clearance, especially for uncovered racks.
- Use weather-resistant materials and coatings to reduce long-term upkeep.
- Consider maintenance needs for mechanical systems in high-density facilities.

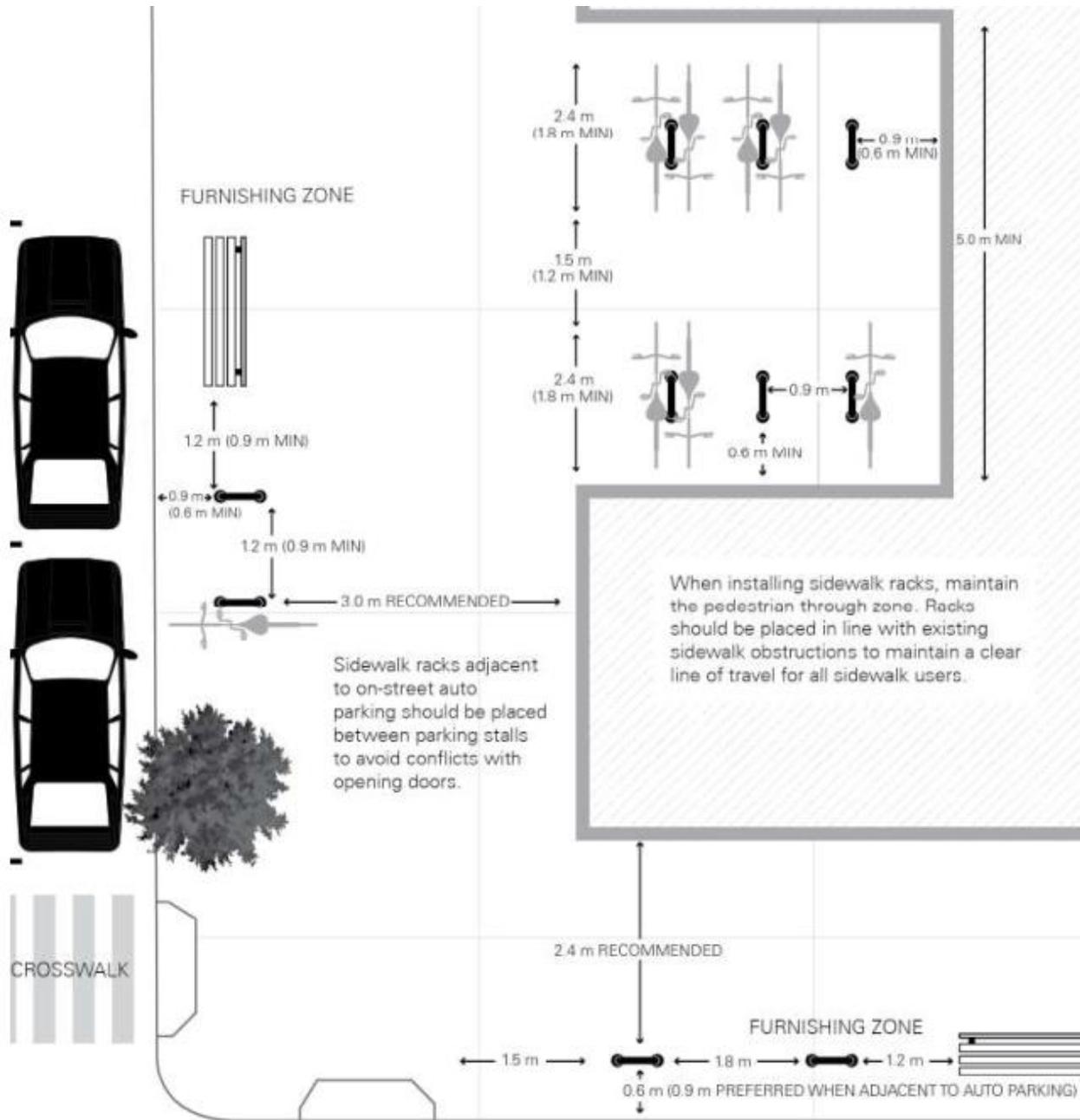


Figure A1: Clearances for both outdoor and indoor parking spaces (Source: OTM Book 18: Cycling Facilities)



1.5.3 British Columbia Ministry of Transportation and Infrastructure

1.5.3.1 Active Transportation Design Guide (2019)

The Province of British Columbia's Active Transportation Design Guide provides specifications for bicycle parking. This Guide reviews best practices in the planning and design of bicycle parking across the province and ensure it can be used by people of all ages and abilities.

Transport Canada's Guide identifies the following performance criteria to support practitioners in selecting appropriate bicycle racks:

- **Supportive:** Racks must support bicycles in an upright position, provide at least two points of contact with the frame and should be at least 0.8 metres tall and 0.45 metres wide.
- **Lockable:** Allow the frame and at least one wheel to be secured to the rack using a U-lock.
- **Flexible:** Should accommodate a variety of bicycle types and attachments by providing the necessary clearances.
- **Intuitive:** Should be simple to use and easy to recognize it is a bicycle rack. Users should not have to lift their bicycle to use the rack.
- **Secure:** Durable and context-appropriate materials and installation methods should be used.

Short-term bicycle parking

Recommended short-term designs: Single stands: inverted-U, post and ring, bicycle corrals, as well as half-height stands, ground fixings, or Copenhagenize bar (**Figure A2**) for non-standard bicycles. These are encouraged as they can support two bicycles per rack, installed alone or in a series, variety of designs, and can be easily located in the furniture zone.



Figure A2: Copenhagize bar by Cyclehoop (source: Cyclehoop)

Discouraged short-term design: Wave, spiral, coat hanger, schoolyard, wheelwell, bollard, and swing arm secured racks are discouraged due to performance concerns. These devices only support locking one part of bicycle, can require lifting the wheel to park the bicycle, generally have limited capacity, only accommodate standard bicycle designs, may be less durable and may present tripping hazards.

It specifies that short-term parking racks must support bicycles in an upright position and accommodate a variety of bicycles and attachments. Custom bicycle racks to enhance streetscape are also encouraged. Recommend placement dimensions on sidewalks can be seen in **Figure A3**.

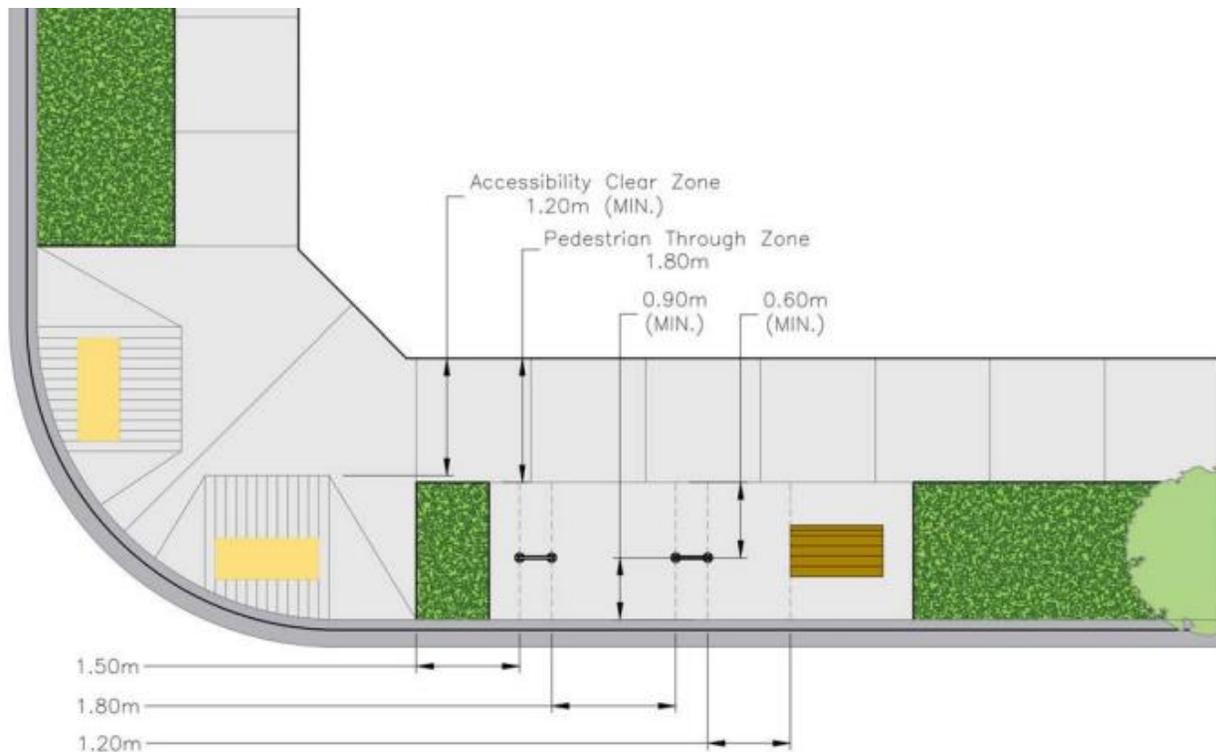


Figure A3: Recommend short-term bicycle rack placement on sidewalks (Source: BC Active Transportation Design Guide, 2019)

In areas with limited space in the furniture zone for bicycle racks and high demand for short-term bicycle parking, on-street bicycle corrals are recommended. BC's Guide also indicates that bicycle corrals can be very effective when installed next to protected bicycle lanes as the protected bicycle lane can offer a buffer to parked bicycles as shown in **Figure A4**. Bicycle corrals can also be protected from motor vehicles with physical barriers, or occupy car parking spaces or no parking zones near intersections. BC's Guide also emphasizes that winter maintenance requirements, driver visibility, and cyclist safety must be accounted for when implementing bicycle corrals. It encourages covered bicycle parking and temporary bicycle parking at events, like a bicycle valet service as recommended short-term options.

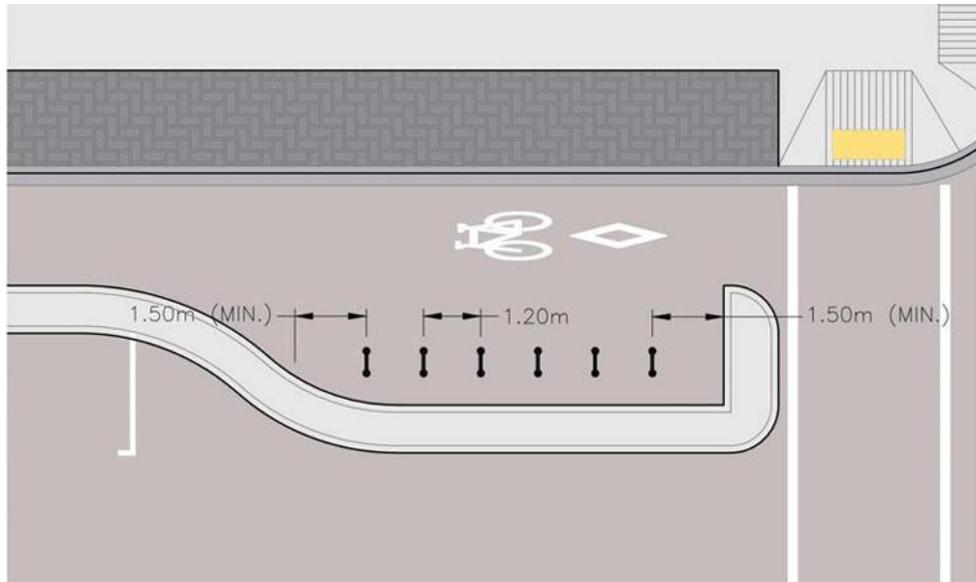


Figure A4: Example of bicycle corral placement adjacent to a bicycle lane (Source: British Columbia Active Transportation Design Guide, 2019)

Long-term bicycle parking

Recommended long-term designs: Bicycle lockers, bicycle rooms/cages/parkades with vertical, two tier, and staggered wheel well racks (dimensions and configurations are illustrated in **Figure A5** and **Figure A6**).

Recommendations for long-term parking include:

- Lockers should be at least 1.2 metres tall, 1.9 metres deep, and 0.8 metres wide with at least 1.8 metres spacing from an obstacle and 2.4 metres from pedestrian flow.
- Bicycle rooms, cages, and parkades are encouraged at post-secondary institutions, transit stations, and high-density commercial or residential buildings. They should be located no more than one level below grade and provide easy access via ramps, elevators, or stairways with bicycle channels, ideally separated from motor vehicle traffic.
- Entrances must be at least 1.6 metres wide to accommodate various bicycle types.
- Bicycle rooms should have solid opaque exterior walls from floor to ceiling, while bicycle cages should have an expanded metal mesh exterior structure from floor to ceiling.
- Access should be through security cards, non-duplicable keys, transit cards, or pass code.
- Break large amounts of parking into smaller sections for increased security.
- Parking should either be visible by other parking users or within 30 metres of an attendant.

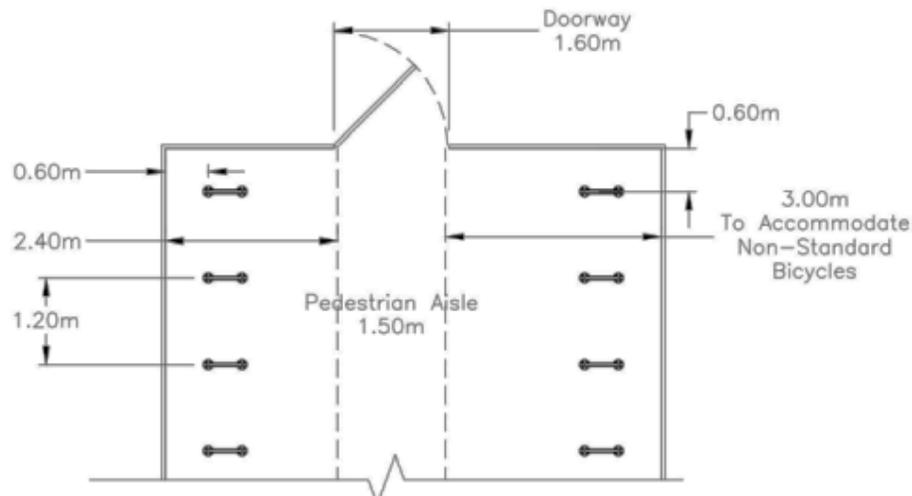


Figure A5: Key dimensions for bicycle rooms, cages, and parkades (Source: BC Active Transportation Design Guide, 2019)

Vertical



Two-Tier



Staggered

Wheelwell-secure



Figure A6: Example of high-density bicycle racks (Source: British Columbia Active Transportation Design Guide, 2019)



Retrofitting vehicle parking and off-street bicycle parking facilities

Retrofitting buildings, particularly commercial and multiple unit buildings, to include sufficient bicycle parking is encouraged. This can involve converting underused areas or vehicle parking spaces into bicycle rooms or cages or installing wall-mounted racks where removing vehicle spaces isn't feasible. Off-street bicycle facilities should also allocate a designated percentage of spaces for non-standard bicycles, such as cargo bicycles or bicycles with trailers. It is recommended that multiple unit residential buildings and schools provide the highest proportion of these larger spaces, followed by commercial and office buildings.

Bicycle integration at transit stops

BC's Guide includes details on bicycle parking integration at transit stops to support supporting first- and last-mile connections and promoting multi-modal transportation. It specifies that bicycle racks at transit stations should:

- Be located near entrances (ideally within 15 metres) to transit stations, near high-activity bus stops, transit exchanges, and park-and-ride/commuter lots.
- Be visible, well-lit, and preferably sheltered.
- Maintain 1.8 metres pedestrian clear zone and 0.5 metres clearance from bicycle lanes.
- Be located within the furnishing zone or floating transit stop zone.

It also suggests design considerations for circulation and vertical access including:

- Elevators should be sized for bicycles.
- Bicycle ramps should be provided alongside stairs.
- Inclined escalators should be provided for bicycle walking access.
- Doorways should include automatic sensors, pushbuttons, or FOB access.
- Doorways should have a minimum clearance width: 1.2 metres; desirable width: 1.6 metres.
- Doorways should be design to accommodate larger/adapted cycles and two-way flow.



1.6 Industry Associations

1.6.1 Association of Pedestrian and Bicycle Professionals (APBP)

1.6.1.1 Bicycle Parking Guidelines (2025)

The APBP Bicycle Parking Guidelines recognize that there is a connection between land use and the types of bicycles used. For example, grocery stores may attract cyclists that use cargo bicycles or bicycles with trailers, and schools often serve riders with child trailers or trail e-bikes. It recommends that bicycle parking design should reflect expected bicycle types for specific locations.

The following principles for bicycle parking site design should be included to ensure usability, accessibility, and comfort:

- **Spacing and clearance**
 - **Avoid crowding:** space racks to prevent handlebar or basket interference.
 - **Clearance:** allow a minimum of two feet (0.6 metres) around each rack and six feet (1.8 metres) aisle spacing.
- **Accessibility and maneuverability**
 - Maintain clear pedestrian routes: Racks should not block sidewalks or walkways.
 - Allow users to easily park and lock bicycles from both sides.
 - Use vertical staggering where necessary to avoid interference.
- **Accommodating non-standard bicycles**
 - Include space for larger bicycles like cargo bicycles, tandems, and those with trailers.
 - Anticipate imperfect parking by providing extra space to minimize conflicts.
- **Design quality**
 - Limit the number of moving parts for durability and simplicity.
 - Incorporate sheltered parking on sidewalks where feasible.
 - Plan for special event parking with flexible or temporary solutions.

Sheltered bicycle parking on sidewalks is encouraged. APBP's Guide also recognized that some situations require special designs, such as bicycle parking at events.

Equity considerations

APBP's guide provides guidance on how to incorporate equity into a bicycle parking program to serve a wide variety of users and address common disparities in bicycle parking. Common gaps identified include economic access and accessibility needs. Key considerations should be given to older residential and commercial buildings, smaller transit stops, sheltered parking, and providing wider racks or additional clearance around bicycle racks for greater accessibility.



Policy development

APBP's guide encourages municipalities to incorporate new or updating existing regulations, like zoning ordinances and development regulations, since these are already understood by local officials, a jurisdiction's staff, and the development community. Additional policy considerations can also include:

- Bicycle parking plans for neighbourhood commercial districts.
- Encourage bicycle parking through a locally sponsored bicycle rack grant program.
- Incorporate bicycle parking into bus shelter and parking space details and standards.
- Include bicycle parking as a separate capital improvement program.
- Repurpose on-street parking meter posts for bicycle parking.

Bicycle parking rates

APBP's guide provides sample bicycle parking rates for residential cultural/recreation, commercial, and industrial uses. It recommends using fixed measurable variables, like building square footage, occupancy, or units, for setting bicycle parking requirements over non-fixed, like number of employees, students, or patients since they can change.

Regardless of the land use, jurisdictions with large bicycle parking facilities should allocate at least 10 per cent of the available spaces for alternative bicycle types.

Short-term bicycle parking

Recommended long-term designs: Inverted-U, Post-and-ring, vertical, two-tier

Short-term parking is often unsheltered and typically located on the sidewalk outside a building or destination. The focus on convenience, utility, and security. They should be:

- Placed no more than 50 ft (15 metres) from the door.
- Located in high-traffic areas with passive surveillance.
- Align with bicyclists' natural paths (desire lines).
- Use existing structures or install shelters, when possible.

Long-term bicycle parking

Recommended long-term designs: Bicycle lockers, bicycle cages, bicycle racks in secured, sheltered and enclosed areas.

APBP's guide indicates that long-term facilities can be supervised and should always prevent non-users from accessing the bicycle parking area.

Additional considerations for long-term parking include:

- Clear wayfinding for easy access.



- Controlled access via keys, smartcards, or apps (lockers, cages, rooms).
- Adequate lighting and visible surveillance cameras or security guards.
- 24-hour customer service and responsive maintenance.

1.7 Regions and Municipalities

1.7.1 York Region

1.7.1.1 Pedestrian and Cycling Planning and Design Guidelines (2018)

The York Region's Pedestrian and Cycling Planning and Design Guidelines contain bicycle parking standards in section 9.4. York Region's Guidelines divides bicycle parking into on-street and off-street categories, to reflect the distinct contexts, design considerations, and user needs associated with each location.

On-street parking

The Guideline follows the principle that wherever public on-street automobile parking is available, on-street bicycle parking should also be provided in the right-of-way. It also recommends providing bicycle parking at transit stops.

On-street bicycle parking should be placed in the following areas:

- In a hardscaped area in a planting and furnishing zone.
- In the on-street parking zone (where on-street automobile parking has been provided).
- On curb extensions near intersections or midblock.

The recommended dimensions are provided in **Figure A7**.

York Region's Guideline recommends that bicycle parking in on-street parking spots should be perpendicular to or angled to the street. For angled configurations, there must be a one metre separation between racks (perpendicular to the axis of the racks) and that parked bicycles don't encroach into the door zone or lateral clearances for multi-use paths and cycle tracks.

Table A2 provides a summary of dimensions and clearance standards for on-street bicycle parking parallel and perpendicular to the street.

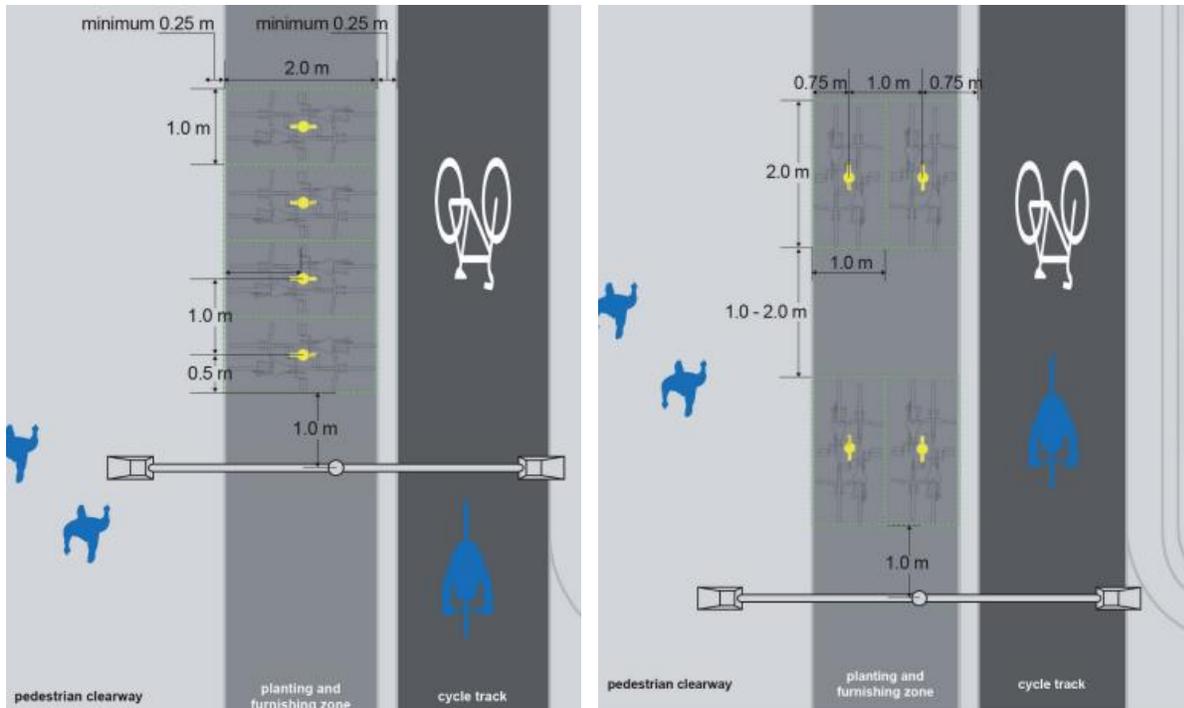


Figure A7: Left: Sample layout of bicycle parking parallel to the street; right: Sample layout of bicycle parking perpendicular to the street (Source: York Region Pedestrian and Cycling Planning and Design Guidelines, 2018).

Table A2: Dimension and clearance standards for in-boulevard bicycle parking parallel and perpendicular to the street

Parallel to street	Perpendicular to street
<p>The centre of the rack should be:</p> <ul style="list-style-type: none"> ■ 1.0 metre from the roadway curb face (for 0.6 metres door zone clearance). ■ Preferably 1.0 metre (minimum 0.75 metres) from pedestrian clearways, bicycle lane, or multiuse paths (for preferred 0.5 metres and minimum 0.25 metres clearance respectively). ■ 2.0 metres lateral clearance from vertical objects (one metre minimum for furniture, trees, etc.). ■ One to 1.2 metres between racks, and 3.0 to 4.0 metres between rows 	<p>The centre of the rack should be:</p> <ul style="list-style-type: none"> ■ 1.6 metres from the curb (0.6 metres door zone clearance required). ■ Preferably 1.6 metres (minimum 1.25 metres) from the pedestrian clearway, bicycle lane, or multiuse path (for preferred 0.6 metres and minimum 0.25 metres clearance respectively). ■ 1.0 metre from the edge of a pedestrian clearway. ■ 1.0 metre from the curb face. ■ 1.5 metres medially from other vertical objects (1.0 metre minimum from



Parallel to street	Perpendicular to street
(allowing 1.0–2.0 metres between parked bicycles).	street furniture, lampposts, trees, first hydrants, etc.). <ul style="list-style-type: none"> ■ 1.0 metre between adjacent bicycle racks in the same row. ■ First and last rack in a row should each be at least 1.0 metre from the adjacent parking stall.

York Region's Guideline recommends bicycle racks that can securely accommodate bicycles of various shapes and sizes using a U-lock. This includes inverted-U style racks and post and ring style racks made of stainless steel. York Region also promotes adding parking hoops to existing signposts, lamp posts, and parking meters to legitimize their use as bicycle parking (**Figure A8**).



Figure A8: Bicycle parking hoop attached to a post (Source: Cyclehoop, as cited in the York Region Pedestrian and Cycling Planning and Design Guidelines, 2018)

Preferred rack types and materials

York Region's Guideline suggests that inverted-U racks, post-and-ring racks be used and that racks must support two points of contact and allow U-locking of the frame and wheel. The Guideline also recommends stainless steel be used for long-term durability and resistance to corrosion.



Off-street parking

Off-street bicycle parking typically supports longer-term use and can be more space-efficient due to lower turnover. York Region's Guideline notes that it should be thoughtfully designed for accessibility, circulation, and convenience. Off-street parking can be arranged more densely than on-street parking, with adjacent racks slightly closer together to maximize capacity. The following minimum clearances are illustrated in **Figure A9** and include:

- 0.75 to 1.0 metre between adjacent inverted-U or post-and-ring racks.
- 0.5 metres clearance from the end of a row of racks to a wall or other vertical object.
- 1.0 to 2.0 metres passageways between rows of racks.
- 1.0 metre clearance for gaps in a row of racks.

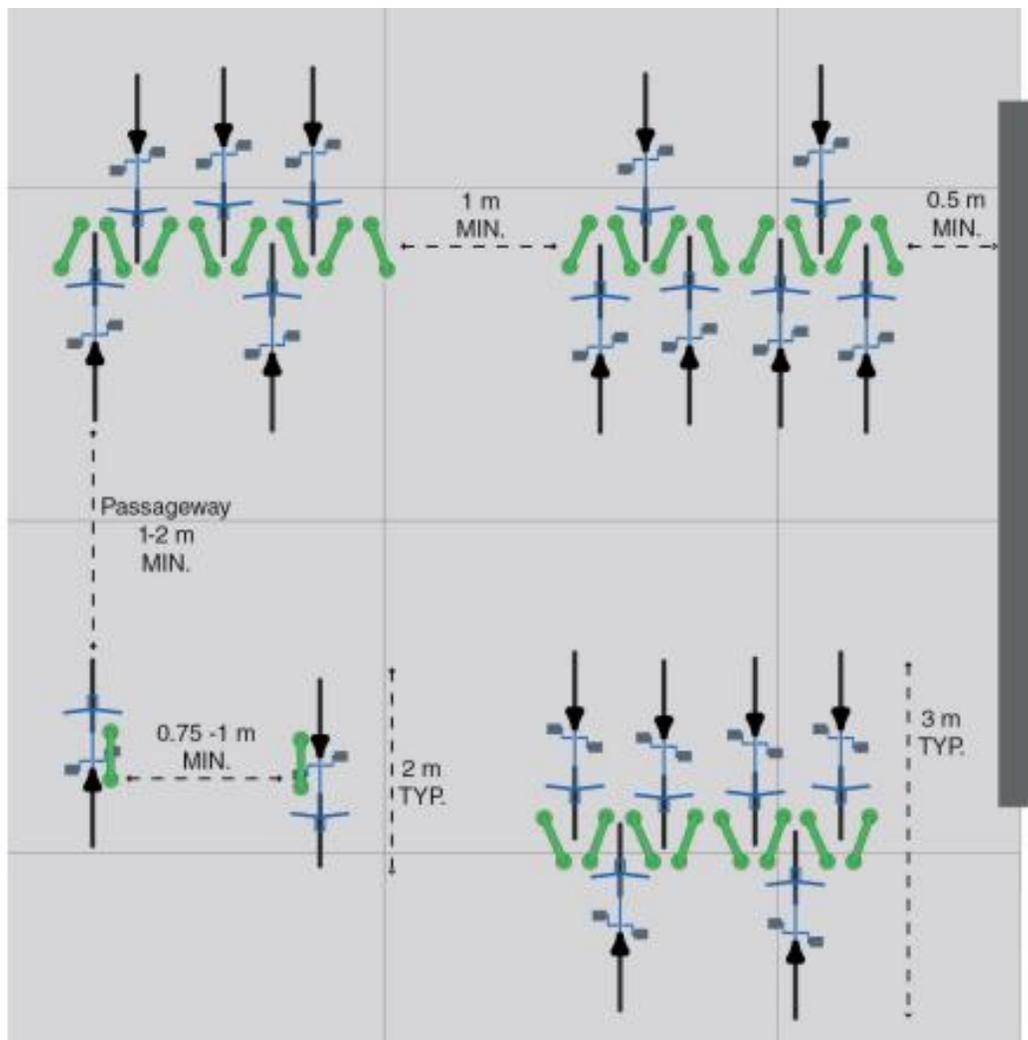


Figure A9: Recommended clearances for layout of off-street bicycle parking areas (Source: Adapted from Velo Quebec, taken from the York Region Pedestrian and Cycling Planning and Design Guidelines, 2018)



1.7.2 Town of Ajax

1.7.2.1 Bicycle Parking Design Guidelines (2023)

The Town of Ajax Bicycle Parking Design Guidelines (Appendix B of the Transportation Demand Management Plan) provide direction for creating high-quality bicycle parking that supports everyday cycling for residents and visitors.

Short-term bicycle parking

Recommended facilities: Post-and-ring, inverted-U racks, creative racks that double as public art.

Ajax's Guidelines discourage "wheel bender" or toaster racks (**Figure A10**) due to their lack of support and vulnerability to theft.



Figure A10: Wheel bender or toaster racks are discouraged (Source: Town of Ajax)

Short-term parking should be:

- Located in busy areas and close to bicycle-friendly routes.
- Within 35 metres of a building entrance.
- Level or accessible by ramps or elevator.
- Maintain a minimum clearance of 1.8 metres from pedestrian areas.

Racks should be spaced to allow easy access and maneuverability, with minimum horizontal spacing of 0.6 metres (single-sided) or 2.5 metres (double sided) between bicycles and provides additional clearances depending on orientation and proximity to obstacles (see **Figure A11**).

Ajax's Guidelines also account for cargo bicycles and other mobility devices, recommending specific spacing and turning diameters to accommodate scooters, tricycles, handcycles, and tandem bicycles.

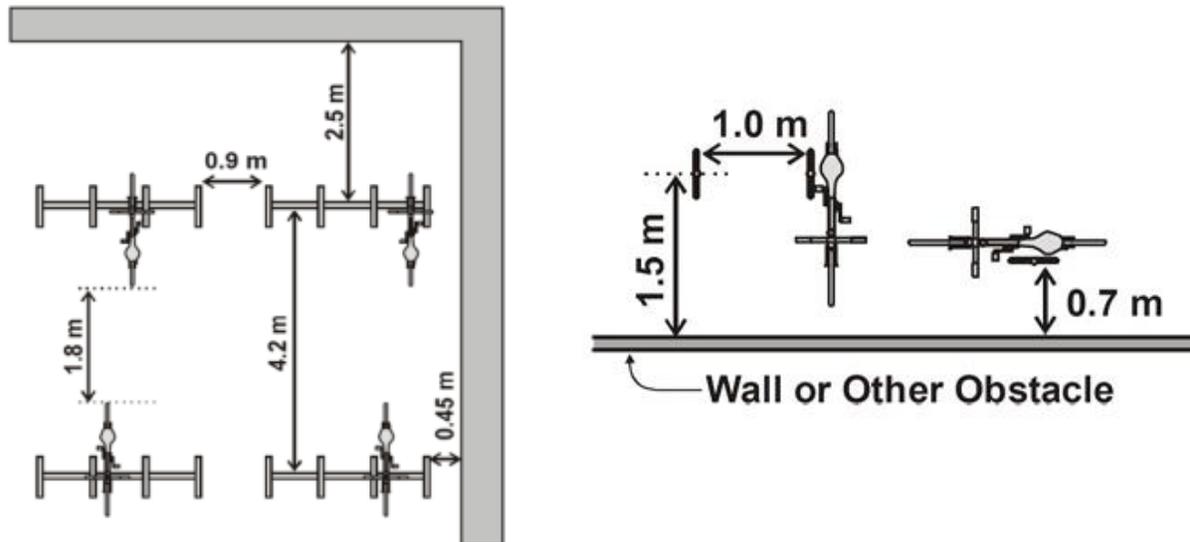


Figure A11: Recommended spacing and orientation of bicycle racks (Source: Town of Ajax)

Long-term bicycle parking

Recommended facilities: Enclosed bicycle racks, cages, and bicycle lockers.

Ajax's Guidelines specify that long-term bicycle parking facilities place greater emphasis on security and accessibility for non-standard bicycles and cyclists with disabilities. It recommends that bicycle lockers and cages be made of durable materials, have secure access, and be firmly anchored. Indoor bicycle parking on the first level of underground garages is encouraged, along with barrier-free changing rooms and showers in non-residential developments to support commuter cyclists.

The Guidelines also outline the number of required parking spaces based on land use, with commercial, industrial, and institutional developments requiring more short-term spaces than residential areas (as shown in **Figure A12**). Additional recommendations include incorporating stair channels, clear signage, and security strategies.



Land Use	Minimum Number of Bicycle Parking Spaces Required
Residential Uses	
All multi-residential uses that do not include a private garage for each unit	<p>Intensification Areas: 1.0 bicycle parking spaces per dwelling unit, except in a building having fewer than 10 dwelling units, where the minimum number of bicycle parking spaces required shall be zero.</p> <p>Other Areas: 0.75 bicycle parking spaces per dwelling unit, except in a building having fewer than 10 dwelling units, where the minimum number of bicycle parking spaces required shall be zero.</p> <p>Of the total number of bicycle parking spaces required, a minimum number of 10% of the required bicycle parking spaces required shall be designated as short-term bicycle parking spaces and a minimum of 70% as long-term bicycle parking spaces. Provide at least 5% of the long-term bicycle parking spaces as accessible, and no less than one.</p> <p>Ajax Green Standards for high-density residential buildings: long-term bicycle parking spaces are required for 30% or more of the building's units.</p>
Commercial Uses	
All Commercial uses excluding Office uses	<p>1.0 space per 1,000 m² of GFA up to 6,000 m², plus an additional 1.0 space per every 3,000 m² of GFA in excess of 6,000 m². Consider higher short-term bicycle parking for eating establishments, retails stores and personal service shops.</p> <p>Ajax Green Standards for non-residential and mixed-use buildings: long-term bicycle parking spaces for 10% of employees and short-term bicycle parking for 7.5% of peak visitors.</p>
Office Uses	
Business / Medical office	<p>1.5 spaces per 1,000 m² of GFA up to 4,000 m², plus an additional 1.0 space per every 2,000 m² of GFA in excess of 4,000 m²</p> <p>Ajax Green Standards for non-residential and mixed-use buildings: long-term bicycle parking spaces for 10% of employees and short-term bicycle parking for 7.5% of peak visitors.</p>
Industrial Uses	
All industrial uses	<p>1.0 space per 2,000 m² of GFA up to 12,000 m², plus an additional 1.0 space per every 6,000 m² of GFA in excess of 12,000 m²</p> <p>Ajax Green Standards for non-residential and mixed-use buildings: long-term bicycle parking spaces for 10% of employees and short-term bicycle parking for 7.5% of peak visitors.</p>
Institutional¹	
School, Elementary	3.0 per class
School, Secondary	6.0 per class
School, Post-Secondary	1.0 per 10 students / employees
Community Centre	2 spaces plus 1.0 for every 250m ² of GFA

- Under Section 3.4.1 of the Official Plan, Daycare can be provided in all schools as well as residential, mixed use, and employment designations. For daycare facilities, it recommended to consider providing at least one space suitable for cargo bicycles, trailers, or trailer bikes.

Figure A12: Summary of Ajax bicycle parking requirements by development type
(Source: Town of Ajax Bicycle Parking Design Guidelines)



1.7.3 City of Toronto

1.7.3.1 Guidelines for the Design and Management of Bicycle Parking Facilities (2024)

The City of Toronto's Guidelines for the Design and Management of Bicycle Parking Facilities provides a framework for developing high quality bicycle facilities. It emphasizes the importance of providing safe, accessible, convenient, and secure bicycle parking across all types of developments and public spaces. Toronto's Guidelines specify that bicycle parking should:

- Be space-efficient and considered on every street type.
- Be designed to complement site design or other amenities. However, functionality should take precedence over appearance.
- Be provided in higher amounts for schools, hospitals, places of assembly, and places of worship.
- Encourage businesses to provide economic incentives to encourage cycling.
- Be integrated into site plans, and retrofitting strategies are encouraged for existing buildings.

Rack design

- Ensure design is easily detectable, especially for visually impaired people.
- Locking bar should be 0.75 in (19 millimetres) thick.
- Bicycle parking spaces should be a minimum of 1.8 metres long, 0.6 metres wide, and 1.9 metres of vertical clearance (**Figure A13**).
- Vertical racks should have a minimum horizontal clearance of 1.2 metres from the wall, a minimum width of 0.6 metres, and a minimum vertical clearance of 1.9 metres. The 0.6 metres width requirement may be reduced if racks are angled or staggered to offset handlebars and pedals (**Figure A13**).
- Stacked bicycle parking should have a minimum vertical clearance of 1.2 metres for each bicycle parking space.

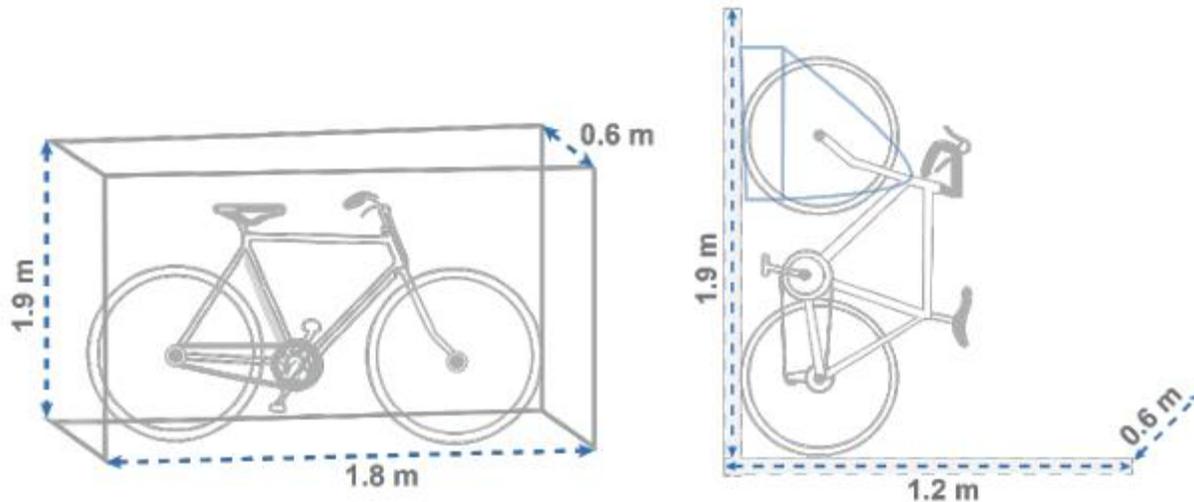


Figure A13: Minimum dimensions of horizontal and vertical bicycle parking spaces

Short-term bicycle parking

Toronto's Guidelines indicate that short-term parking may be covered or uncovered and should be designed for ease of access and informal surveillance. Parking spaces should be no more than 30 metres from a pedestrian entrance to the building for most land uses.

Long-term bicycle parking

Long-term parking should be located in secure, enclosed, and access-controlled areas such as bicycle lockers, cages, or indoor rooms. Adequate spacing between racks is necessary for maneuverability, and weather protection is encouraged, especially for long-term parking. Bicycle parking should be accessible from street level, and in some cases, second level or below ground accessible by ramp or elevator.

In large developments where many bicycle parking spaces are needed, dividing the parking into several smaller rooms with separate access controls can enhance security by limiting the number of users with access to each room. At least five per cent of long-term bicycle parking spaces should be oversized spaces and not be stacked or in a vertical position.

Emerging technologies

Toronto's Guidelines also address emerging bicycle types and technologies, such as cargo bicycles, adaptive bicycles, and electric bicycles. It recommends the inclusion of oversized parking spaces and encourages the provision of energized outlets and alternative locking mechanisms to accommodate these non-standard bicycles.



Transit integration

It provides additional details on integrating bicycle parking at transit stations, specifying that:

- **Capacity should reflect:**
 - Projected transit ridership.
 - Expected mode share for bicycle access.
- **Parking Types:**
 - Short-term parking is required at heavy rail stations.
 - Long-term parking is required at interchange or terminal stations.
- **Amenities:**
 - Bicycle maintenance facilities must be provided on-site.
- **Location:**
 - Bicycle parking should be located within 30 metres of the station entrance, or within 50 metres of the platform (where feasible).
 - Outdoor parking should be covered.
 - For stations with multiple entrances, bicycle parking is encouraged at each entrance.

Accessibility

To ensure accessibility, it recommends that indoor parking addresses:

- Bicycle-friendly alternatives to stairways, such as a ramp (no more than seven percent gradient) or elevator.
- Avoidance of steep vehicle ramps for cyclists.
- Stairway ramps, which should only be used as a last resort since they may not fit all bicycles.
- Ensuring that bicycle parking does not conflict with the movement of other modes, particularly pedestrian access.
- Minimizing blind spots and blocked sightlines caused by bicycle rooms and lockers.
- Consideration of installing convex mirrors.

1.7.4 City of Ottawa

1.7.4.1 Ottawa Public Bicycle Parking Strategy (2021)

The Ottawa Public Bicycle Parking Strategy provides guidance on the provision of public bicycle parking facilities to improve the availability, accessibility, and quality of bicycle parking across the City. It provides a comprehensive methodology to identify appropriate bicycle parking solutions tailored to the needs of specific communities. This



strategy focuses more on public-sector parking procurement than other municipal bicycle parking guidelines.

Ottawa's Strategy classifies bicycle parking into two categories: secured and unsecured bicycle parking and provides bicycle parking solutions for each category based on a continuum from low capacity to high capacity (**Figure A14**).

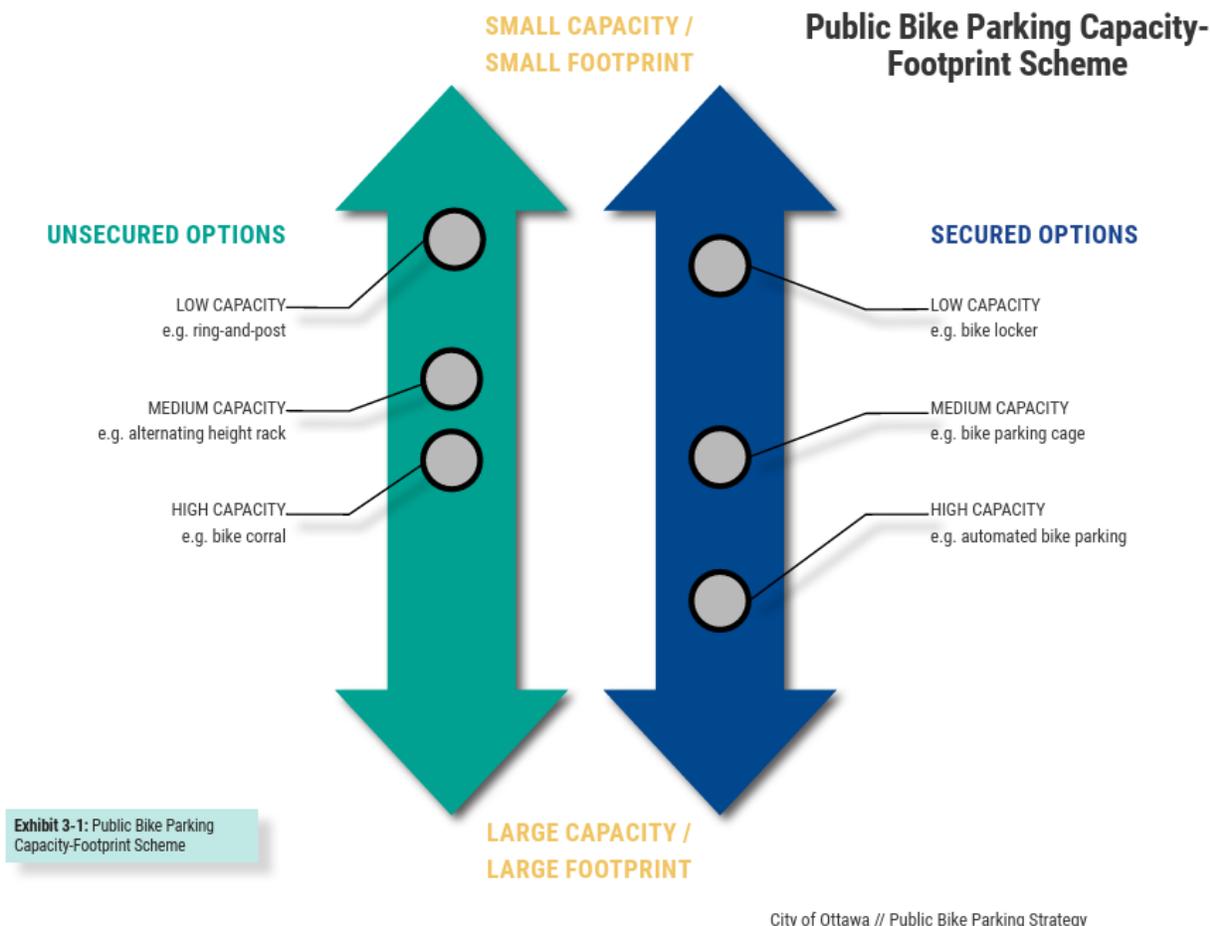


Figure A14: Examples of bicycle parking based on capacity footprint (Source: Ottawa Public Bicycle Parking Strategy, 2021)

Unsecured bicycle parking

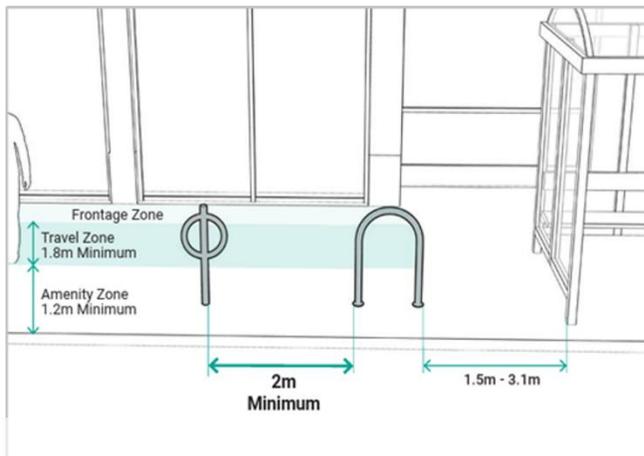
Unsecured (short-term) parking can be quickly implemented, is flexible, and requires a smaller footprint. It is valuable at short stop destinations, like shopping areas, as additional parking at venues, like restaurants, and as visitor parking at residential buildings where secure parking is available for occupants. Parking should be placed close to main entrances and in areas of high traffic, providing security through observation.



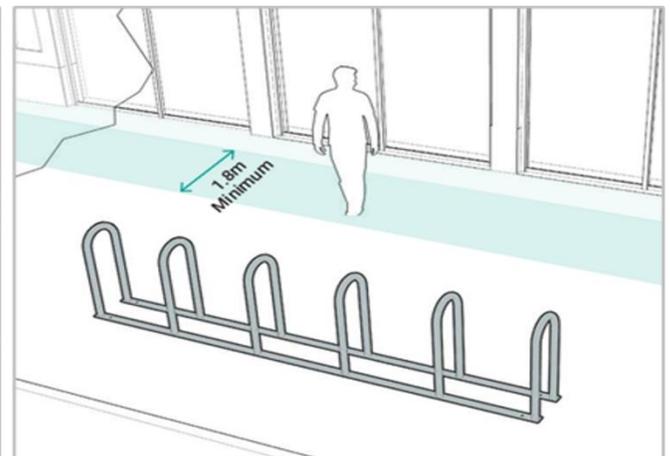
Ottawa's Strategy recommends that low-capacity options need to have two metres of parallel spacing and at least 1.2 metres of perpendicular space while keeping a 1.8 metres walkway. For higher capacity solutions that cannot be accommodated on the sidewalk while maintaining a 1.8 metres walkway, they should be placed on the street in a corral. **Figure A15** presents bicycle parking for low, medium, and high capacities.

Recommended facilities:

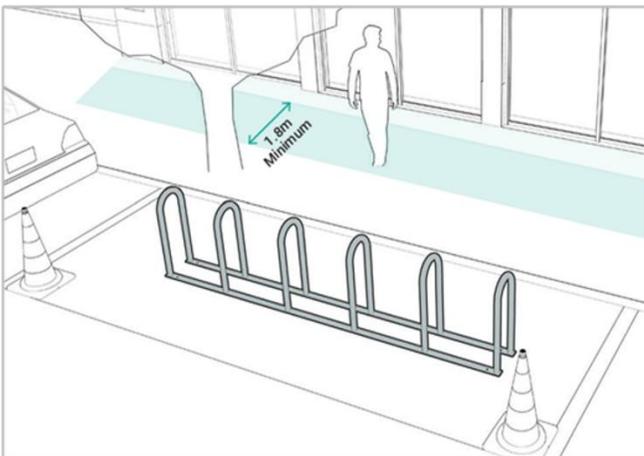
- **Low-capacity:** Post-and-ring or other simple bicycle racks.
- **High-capacity:** Inverted-U style multi-racks or corrals; shelters are preferred.



Low capacity – ring-and-post/ inverted-U bicycle rack



Medium capacity – multi-rack



High capacity – Bicycle corral

Figure A15: Examples of unsecure bicycle parking. (Source: City of Ottawa Bicycle Parking Guide)



Secured bicycle parking

Recommended facilities:

- **Low-capacity:** Bicycle lockers.
- **High-capacity:** Bicycle cage or other controlled room or structure containing multiple bicycle racks with controlled access.

Bicycle lockers are higher cost, but effective for areas with moderate long-term demand.

Within a bicycle cage, multi-racks should have 1.2 metres perpendicular spacing and 3.2 metres parallel spacing. Another, more expensive, high-capacity option is automated bicycle storage. This is suitable for urban environments with high-demand and space limitations.

Placement

Principles that should guide all bicycle parking placement include:

- **Security:** Use Crime Prevention Through Environmental Design (CPTED) principles, including locating facilities in high-traffic areas, having good lighting, having surveillance, and securing parking to concrete ground.
- **Convenience:** Locate bicycle parking within line-of-sight and 20 metres of a destination's entrance, close to cycling infrastructure, and locating high-capacity facilities near a "convergence of cycling facilities and neighbourhood destinations".
- **Winter maintenance:** Bicycle parking must not obstruct snow clearance vehicles. Low-profile racks should have vertical location indicators to avoid being struck, and pathways to bicycle parking should be cleared and maintained. Seasonal implementation of bicycle parking should also be considered, where appropriate.

Implementation

Ottawa's Strategy outlines a three-stage implementation process to guide bicycle parking investments in response to public requests and City-led initiatives. This process includes context, data, and solution as the framework to ensure decisions are evidence-based, equitable, and tailored to the specific needs and conditions of each location:

- **Context:** Starts with identifying and refining requests for new bicycle parking by confirming potential locations and assessing on-the-ground conditions.
- **Data:** Uses mapping tools and prioritization criteria to evaluate demand, identify gaps, and guide where investment is most needed.
- **Solution:** Recommends appropriate bicycle parking types and designs based on site conditions, demand, and cost-effectiveness.



Bicycle parking tools

Ottawa's Strategy identifies supportive tools, including a Bicycle Parking Index Tool to identifying where public bicycle parking is most needed across a city. It uses key variables such as land use mix, population and employment density, transit access, and the presence of cycling infrastructure to evaluate and compare demand across neighborhoods. By spatially analyzing multiple inputs, the tool highlights high-demand areas and supports more informed, equitable decision-making.

The tool is not intended to replace professional judgment but to complement it; ensuring that installations prioritize areas with the greatest cycling potential. This makes it a best practice by aligning infrastructure investment with actual and potential usage patterns, improving efficiency, accessibility, and impact.

1.7.5 City of Cambridge

1.7.5.1 Bicycle Parking Guide (no date)

The City of Cambridge's Bicycle Parking Guide provides guidance on the proper design and implementation of short-term bicycle parking, including single bicycle racks, multiple bicycle racks, and bicycle parking lots. It does not provide any guidance on long-term bicycle parking.

Short-term bicycle parking

It recommends all short-term bicycle parking should be located in well-lit, highly visible, and immediately adjacent to the entrance it serves and the guide specifies that covered parking types are preferred.

Recommended facilities:

- **Single/double bicycle facilities:** Inverted-U and post-and-ring style racks, artistic racks are also encouraged. Single bicycle racks are useful along city streets where space is limited and additional capacity unnecessary.
- **Multiple bicycles facilities:** A series of single stands or corrals. Multiple bicycle racks are useful for storing many bicycles in small space. These racks should also adhere to the design principles outlined above. An example of on-side entry multiple bicycle rack is shown in **Figure A16**.
- **Larger facilities:** Bicycle parking lots are larger facilities with single and/or multiple bicycle racks in a common area separated by aisles. Large bicycle parking lots with a high turnover should have more than one entry/exit should be provided. Protection from the elements is preferred. Adequate space should be provided for maneuvering in the lot. **Figure A17** illustrates example dimensions.

Discouraged facilities: Toaster, schoolyard, wheel-bender, and wave racks are not recommended, given they do not provide support for the bicycle frame, can cause damage to a wheel and are less secure than other styles.

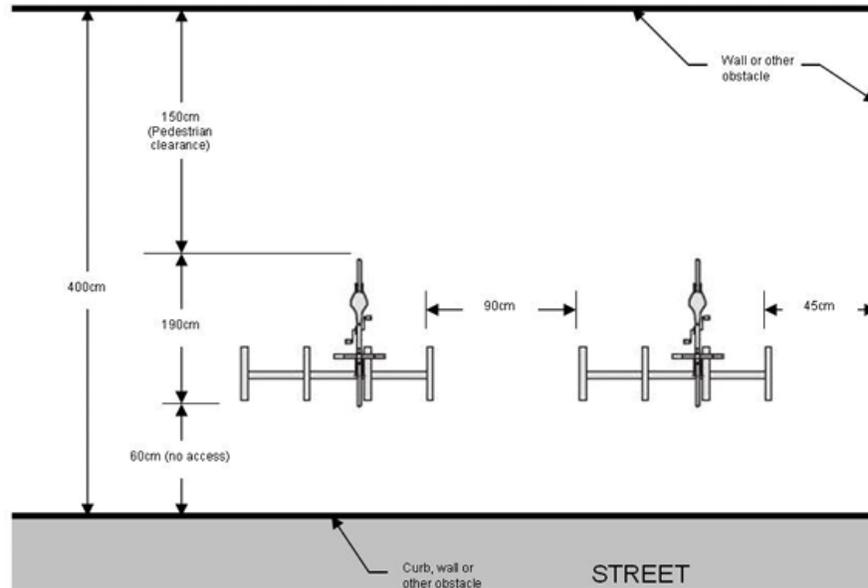


Figure A16: Example of one side entry multiple bicycle rack (Source: Cambridge Bicycle Parking Guide)

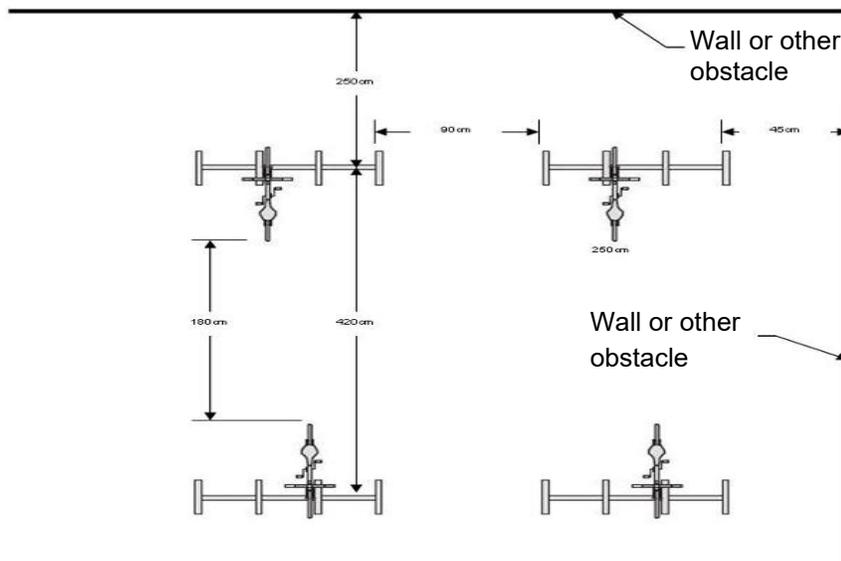


Figure A17: Bicycle parking lot with multiple bicycle racks (Source: Cambridge Bicycle Parking Guide)



The guidelines also provide guidance on installation to ensure:

- **Accessibility:** Racks must be easily detectable by partially sighted or blind individuals. Adding tactile features, such as a tapping rail along the bottom of inverted U-style racks, enhances detectability.
- **Security:** Racks must be securely anchored to prevent theft of both racks and bicycles. Exceptions apply only for racks that are too large and heavy to be moved easily.
- **Anchoring Methods:** Racks can be anchored using bolts into concrete foundations or by direct burial of posts. Bolting racks into concrete is preferred, as anchoring into interlock pavers risks the rack being lifted along with the paver.

These installation practices support inclusive access and ensure long-term durability of bicycle parking infrastructure.

1.7.6 City of Calgary

1.7.6.1 Bicycle Parking Handbook: A Developer's Guide (2008)

The City of Calgary's Bicycle Parking Handbook: A Developer's Guide provides information for developers on the proper design and placement of bicycle parking for both new bicycle parking and the improvement of existing bicycle parking.

Long-term bicycle parking

Recommended facilities: Bicycle lockers, controlled access parking areas.

Controlled access parking areas may be more effective than bicycle lockers. They can be either indoors or fenced off outdoors and only accessible to bicycle owners. They should not be located deeper than one floor below grade in parking structure.

Short-term bicycle parking

Recommended facilities: U-racks with square tubing over circular tubing and secure bolted mounting in concrete.

The following spacing is recommended for U-racks, and illustrated in **Figure A18**:

- 1.0 metre parallel clearance and 0.6 metres perpendicular clearance from obstacles.
- 1.2 metres minimum pedestrian walkaway.
- 0.8 metres perpendicular spacing between U-racks.
- 2.0 metres parallel spacing between U-racks.

Calgary's Guide also recommends a portion of short-term bicycle parking spaces should be reserved specifically for couriers in the downtown area. These spaces must be



clearly marked to prevent long-term parking from occupying them and should be located within 10 metres of the main entrance used by couriers to ensure convenient access.

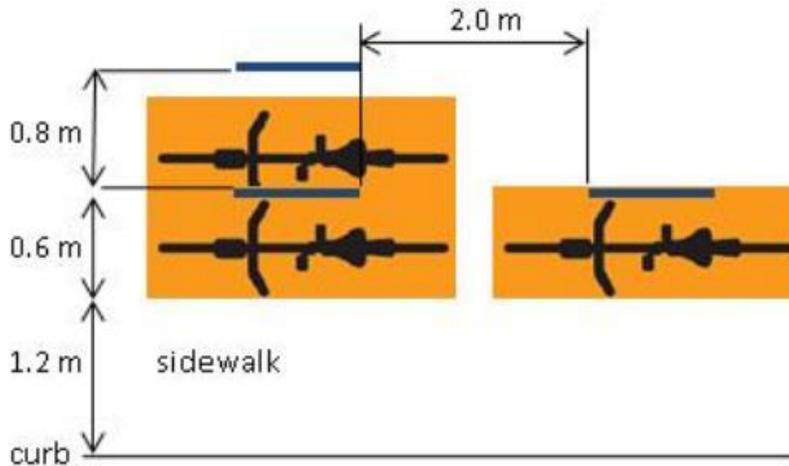


Figure A18: Recommended short-term multiple U-rack spacing (source: City of Calgary Bicycle Parking Handbook: A Developer's Guide, 2008)

Bicycle parking requirements

Calgary's Guide notes that bicycle parking can be required as a condition of development permit approval and references Land Use Bylaw 1P2007 (Division 6 – Requirements for Motor Vehicle Parking Stalls, Bicycle Parking Stalls, and Loading Stalls), which has been updated and amended since this Guide's publishing. The bylaw sets bicycle parking requirements based on land use and location within the city, distinguishing between Class 1 parking (secure or controlled areas) and Class 2 parking (unsecured or uncontrolled areas).

1.7.7 City of Coquitlam

1.7.7.1 Bicycle Parking Design Guidelines (2021)

The City of Coquitlam's Bicycle Parking Design Guidelines intend to improve the quality of bicycle parking secured through future developments. Coquitlam's guidelines address both short-term and long-term bicycle parking and are designed to accommodate different types of bicycles. It emphasize inclusive design to ensure that facilities are accessible to all users, including those with physical, sensory, or cognitive impairments.

Short-term bicycle parking

Recommended facilities: Inverted-U, post and ring, and oversized racks, and discourages coat hanger, wheel-bender, comb/toaster, wave, and spiral racks.



Long-term parking

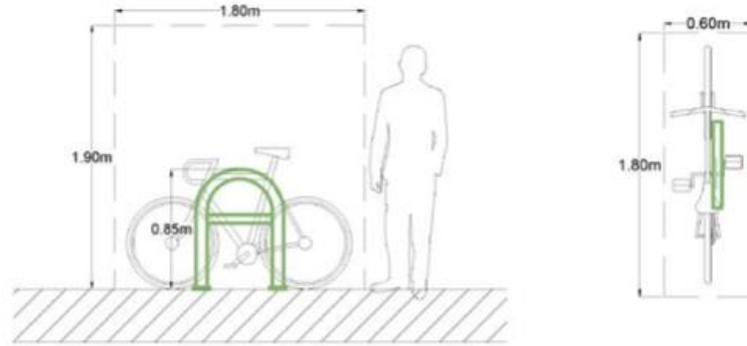
Recommended facilities: Inverted-U, post and ring, two-tier, vertical racks, and bicycle lockers. **Figure A19** and **Figure A20** illustrate bicycle rack dimensions and recommended spacing between racks of the same type. Coquitlam's Guidelines further specify that:

- No more than 10 per cent of spaces are vertical.
- No more than 60 per cent be stacked.
- At least 10 per cent accommodates oversized bicycles.
- At least 10 per cent should be lockers.

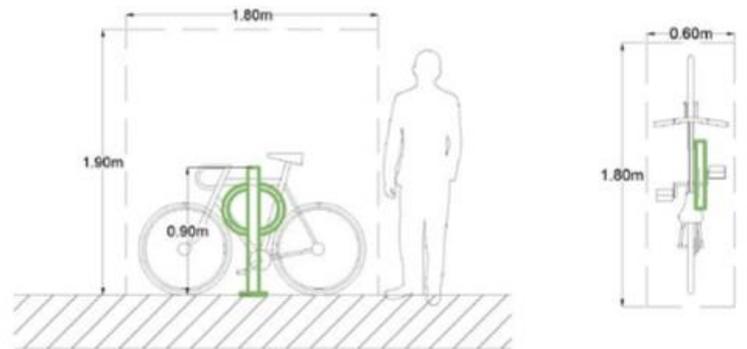
Additional requirements include:

- Bicycle rooms should include tamper-proof lighting, visible and accessible electrical outlets convex mirrors to minimize blind spots and HD video monitoring.
- For electric bicycles, a minimum of 10 per cent of spaces in a residential development and 20 per cent in non-residential should have 120 volt outlets for charging.
- Non-residential developments must provide end-of-trip facilities such as showers, change rooms, washrooms, and bicycle lockers, along with maintenance amenities including repair stands (both stand-alone and wall-mounted), a wash station, wheel chock, bottle fill station, air control panel, and a vending machine for bicycle parts and accessories.

Inverted-U



Post & Ring



Oversized

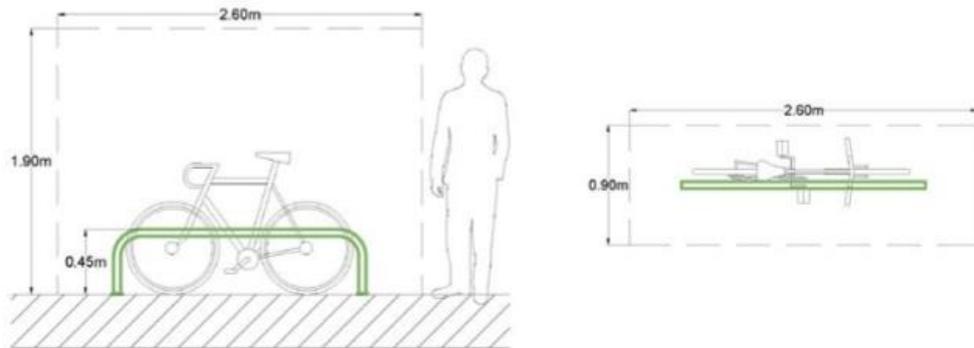
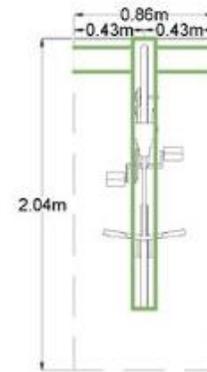
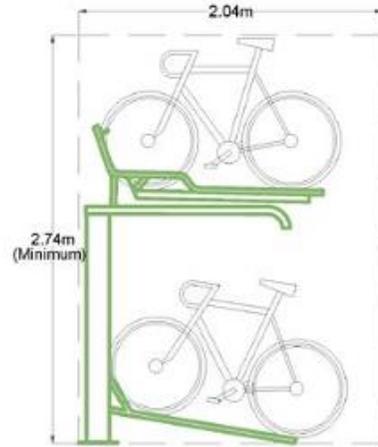
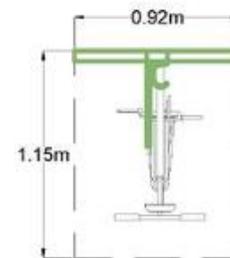
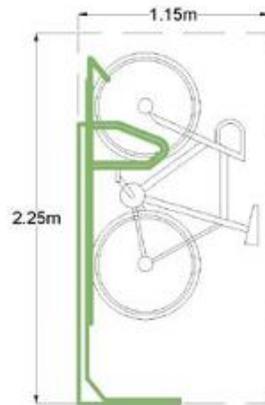


Figure A19: Example of long-term rack dimensions and recommending spacing between adjacent racks of the same type – inverted-U, post and ring, and oversized racks (Source: City of Coquitlam)

Two-Tier



Vertical



Lockers

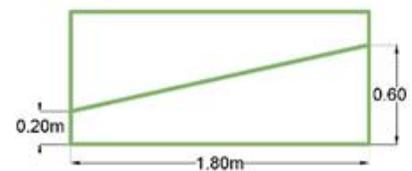
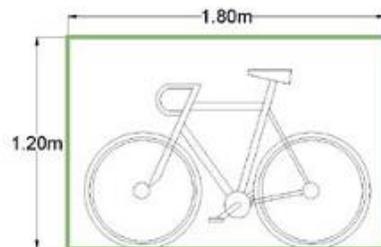


Figure A20: Example of long-term rack dimensions and recommending spacing between adjacent racks of the same type – two-tier racks, vertical racks, and lockers (Source: City of Coquitlam)



1.7.8 District of North Vancouver

1.7.8.1 Bicycle Parking and End-of-Trip Facilities Operational Policy (2019)

The District of North Vancouver's Bicycle Parking and End-of-Trip Facilities Operational Policy is intended to guide staff when processing rezoning or variance applications for new developments. It includes details on bicycle parking rates for different classes of bicycle parking including Class 1 (long-term) and Class 2 (short-term); the design and layout of long-term and short-term bicycle parking spaces and end of trip facilities for non-residential uses and outlines the procedure staff should follow to implement the policy.

Short-term bicycle parking

It does not specify which types or styles of racks to implement but does specify that bicycle racks should be within 15 metres of building entrance and not interfering with pedestrian flow, with at least 50 per cent of bicycle parking spaces being located on private property.

Long-term bicycle parking

- **Recommended facilities:** bicycle rooms, bicycle compounds, or bicycle lockers. **Figure A21** provides minimum dimensions and spacing for bicycle lockers and bicycle rooms.

Additional specifications for long-term bicycle parking include:

- Bicycle parking should be least two metres from car parking spaces and have at least one electrical outlet per four bicycle parking spaces.
- No more than 25 per cent of bicycle parking can be vertical.
- 5 per cent of spaces should be at least three metres long to accommodate non-standard bicycles

FIGURE B-1: Bicycle locker dimensions

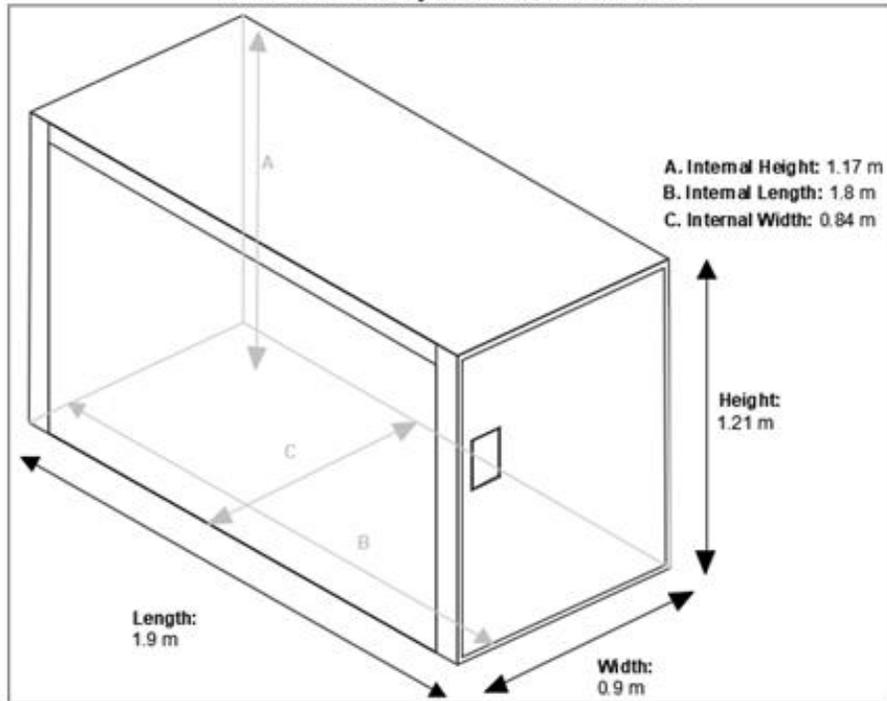


FIGURE B-2: Example of minimum spacing requirements in a bicycle room

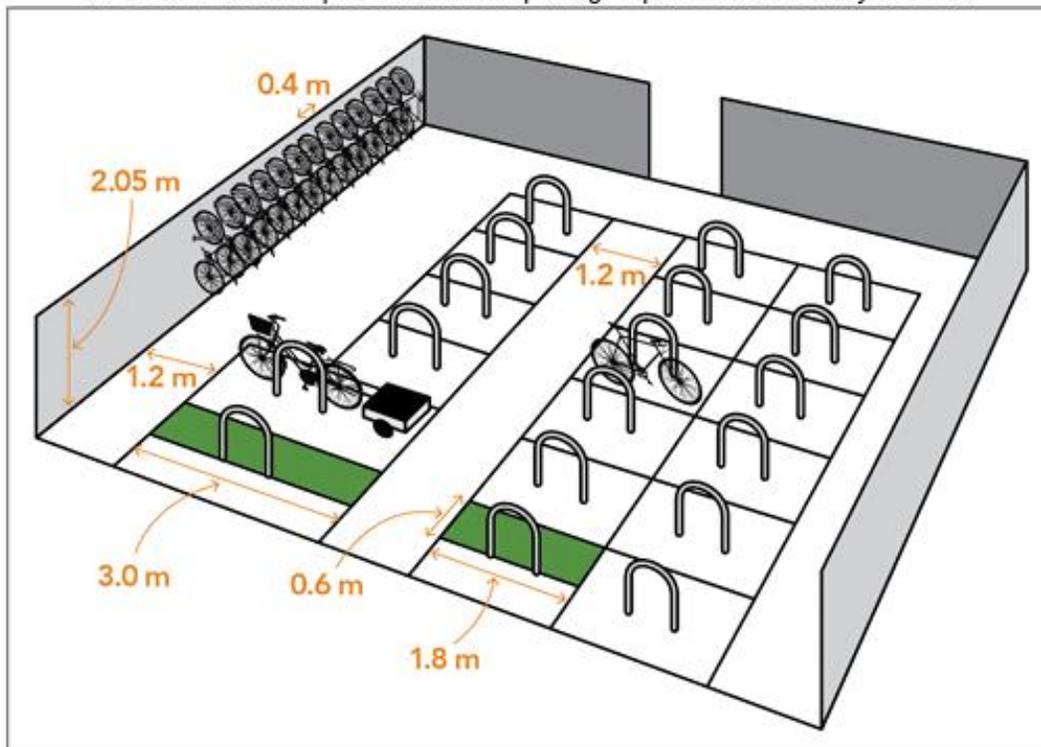


Figure A21: Minimum size and space requirements for bicycle lockers and bicycle rooms (District of North Vancouver)



2 Field site visit memorandum

This memorandum presents a review of the WSP team's site visit to Durham Region in July 2025 to assess the current existing conditions of bicycle parking.

All images were sourced by WSP staff.

2.1 Purpose of field visit

As part of the development of the Durham Region Bicycle Parking Guidelines, a field visit was conducted to assess existing bicycle parking conditions across a representative sample of 48 public-facing sites spanning communities across the Region. The site visit aims to use real world context to provide a sampling of user needs and showcase the diverse contexts of bicycle parking across the Region, their current demand and condition, and important considerations for the final guidelines.

2.2 Methodology

On Thursday, July 17, 2025, WSP conducted a site visit to a series of pre-selected locations in the Region that represent a broad representation of the Region's population centres. At each site, field data was collected in person using a Microsoft Form comprising thirty questions designed to assess the context, type, condition, and accessibility of bicycle parking facilities. A photograph of the bicycle parking at each location was also taken to provide visual documentation.

Sites were selected to reflect a range of land uses and geographies, including town halls, libraries, community centres, GO stations, conservation areas, shopping plazas, and post-secondary institutions. **Figure A22** presents the municipalities and the number of sites visited within each. **Figure A23** presented the types of sites surveyed. An accompanying map of these locations is provided in **Figure A24**.

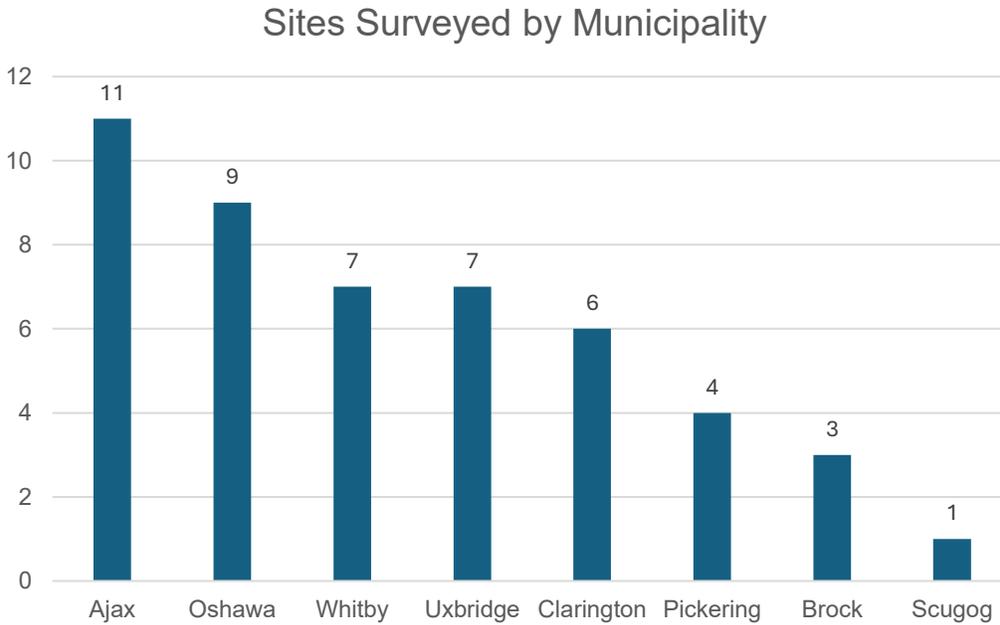


Figure A22: Number of sites visited across the Region

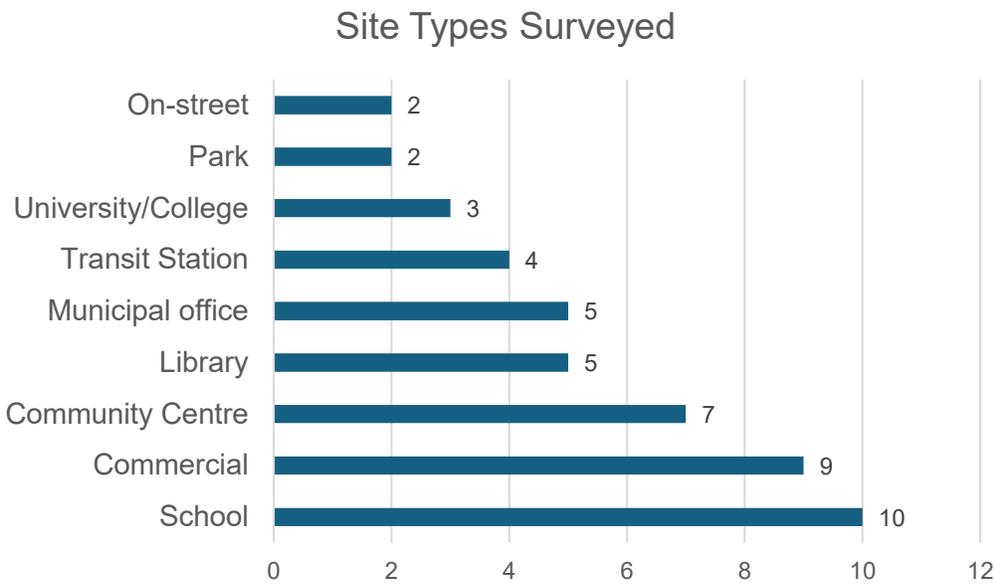


Figure A23: Types of sites surveyed



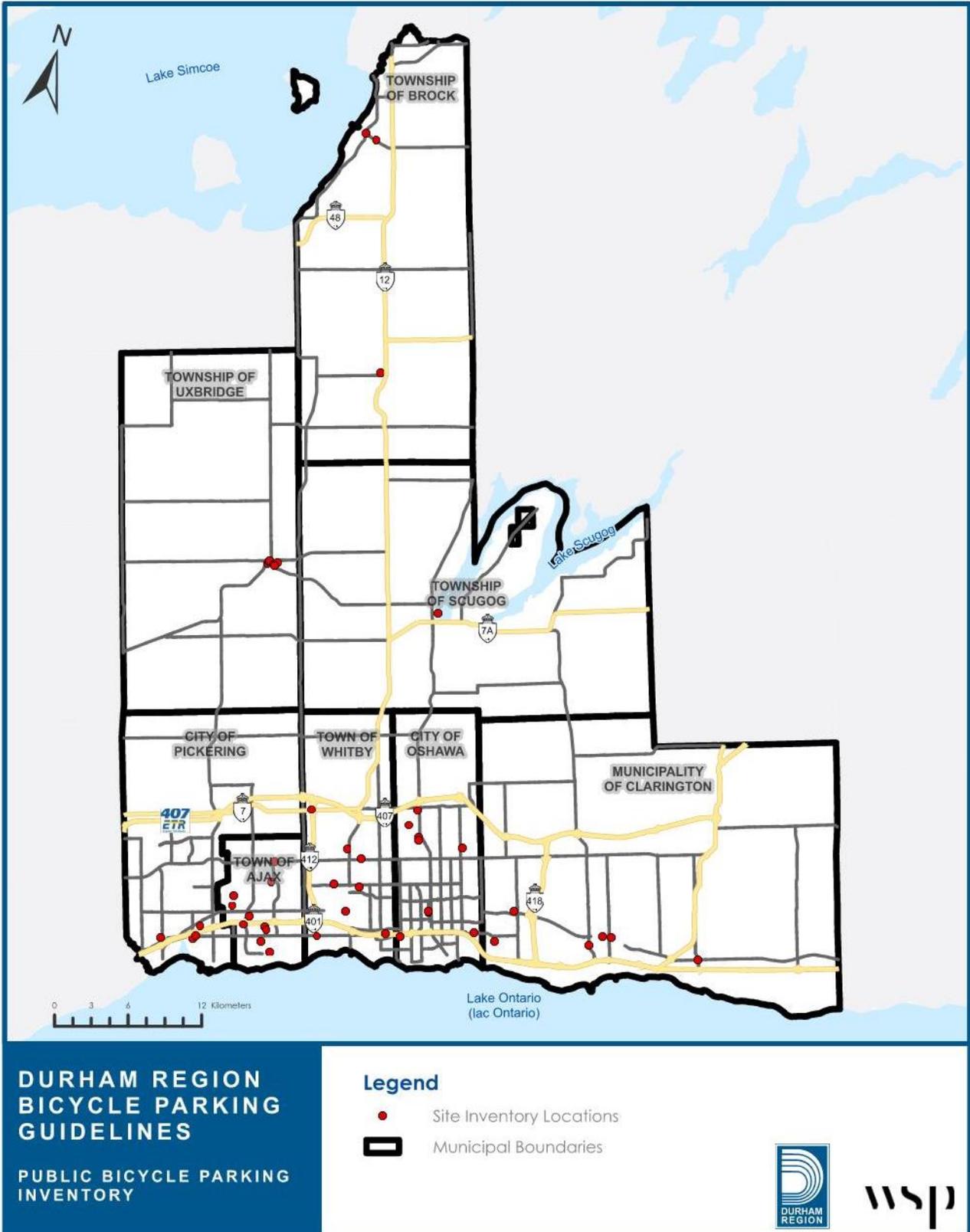


Figure A24: Map of Durham Region and bicycle parking locations visited





The most common land use adjacent to bicycle parking sites in Durham Region was commercial or mixed-use, accounting for 21 locations. This was followed by institutional (10 sites) and residential (eight sites) land uses. Other observed land uses included industrial (one site), park/open space (two sites), and rural/agricultural/forested areas (three sites).

2.3 Key findings

Throughout the site visit, key community destinations were typically well equipped with bicycle parking, though the availability of bicycle racks varied by location. Of the 47 sites visited, five had no bicycle parking, meaning that 88 per cent of locations featured some form of bicycle parking infrastructure. While this sample is not statistically representative of all sites in Durham Region, the findings suggest that a strong majority of key community destinations are equipped to support cycling, providing a solid foundation for promoting cycling as a viable mode of transportation.

Based on the information collected during the site visit, the following types of bicycle parking were observed across the Region:

Coat hanger rack

Number seen during field visit: 23 (including similar variations)



Figure A25: GO Station bicycle parking located under canopy cover and features many coat hanger racks.

Wave rack

Number seen during field visit: 8



Figure A26: Located at South Courtice Arena, a commonly seen form of bicycle rack is the wave racks.

Post and ring rack

Number seen during field visit: 7



Figure A27: Semi-covered post-and-ring racks outside of Ajax Memorial Outdoor Pool and Public Library

Toaster/grid rack

Number seen during field visit: 3



Figure A28: Toaster/grid rack at Courtice Community Complex



Wheel bender rack

Number seen during field visit: 2



Figure A29: Toaster bicycle racks located in a low visibility area at All Saints Catholic Secondary School in Whitby

Loop rack

Number seen during field visit: 3

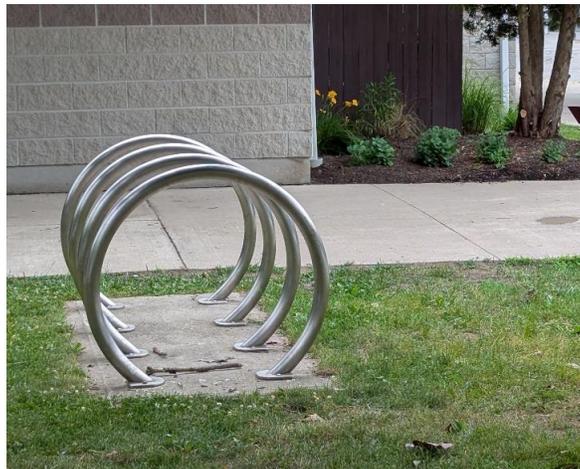


Figure A30: Loop rack at St. Andrews Community Garden in Ajax

During the site visit, the most common form of bicycle rack seen was a coat hanger rack at 47 per cent. The wave and post-and-ring rack were also quite common at 18 per cent and 16 per cent respectively. Other forms of bicycle parking within the region are more uncommon and are not frequently seen at trip destinations.

Certain rack designs used in Durham Region have usability limitations, an issue discussed further in Chapter 3. For example, some racks only allow the wheel to be locked, offering limited support and security for the frame. As a result of these limitations, cyclists sometimes resort to locking their bicycles to railings, signposts, or other informal structures (**Figure A31**).



Figure A31: Informal bicycle parking on a fence in Ajax, and a lamp post in Uxbridge.

Bicycle parking facilities had varying levels of accessibility, security, and consistency across municipalities, with limited accommodation for larger devices like cargo bicycles.

Most of the existing bicycle racks are generally installed in visible, well-lit areas close to the destinations they serve. Most are securely anchored and in good condition. A few locations also offer a roof or cover over bicycle parking (**Figure A32**).

Overall, the bicycle racks observed during the site visit were found to be in good condition. Of the locations with bicycle parking, 88 per cent of racks were securely affixed to the ground and not easily movable. The only exception was at the Uxbridge Youth Centre, where the rack was constructed from wood and easily movable, raising concerns about durability and security.



Figure A33: Bicycle parking placed under the building overhang at the Whitby Public Library with surveillance cameras and overhead lighting.

Regarding maintenance, only four sites (seven per cent of total sites visited) exhibited signs of rust. However, the rust observed was minor and did not significantly impact the functionality of the racks. This level of deterioration is expected over time due to exposure to the elements and does not currently pose a major concern.

One of the most notable findings was the general underutilization of bicycle parking facilities. At many sites, the number of available bicycle parking spaces exceeded the number of bicycles in use, meaning that these facilities are not being used to their full capacity. It is important to note that the site visits were conducted during the summer, in the middle of the day, and under overcast conditions, factors that may have contributed to lower observed usage. Utilization rates may be higher during peak commuting times or during the academic year when students are more likely to cycle to institutions.



Figure A34: Left: Bicycle parking provided at Durham College and Ontario Tech University in Oshawa, close to the entrance of the building. Right: bicycle parking located at St. Andrews Community Garden in Ajax.

Additionally, bicycle repair stations and pump facilities were relatively uncommon. Only two sites featured a bicycle repair station, and just one of these also included a bicycle pump. Given the role of GO stations as major transportation hubs, the inclusion of bicycle repair and pump stations at these locations could significantly enhance the cycling experience. Future guidelines should consider the strategic placement of such amenities to support and encourage cycling across the region.

The visibility of bicycle parking facilities plays a significant role in users' decisions to use them. Well-lit and easily visible locations contribute to a greater sense of safety and comfort, which can encourage more frequent use. The site visit revealed that 77 per cent of bicycle parking sites had good visibility, while 70 per cent appeared to be well lit. While these figures are promising, they also highlight opportunities for improvement. Future guidelines should emphasize the importance of visibility and lighting as key factors in security and user experience.

2.3.1 Summary

The site visit revealed several key themes that can inform future bicycle parking guidelines:

- **Proximity to destinations:** Most bicycle parking was located in close proximity to entrances, allowing for comfortable and convenient parking.
- **Bicycle rack types:** various bicycle rack designs found in Durham Region, such as toaster, wheel well, or coat hanger racks, are not recommended for future



implementation because they do not provide support for the bicycle frame and one wheel. Nevertheless, they still provide adequate function.

- **Visibility and lighting:** Prioritizing bicycle parking in well-lit, highly visible areas can significantly increase user comfort and perceived safety. Locations that are hidden, poorly lit, or distant from main entrances may deter use due to concerns about theft or personal safety, particularly outside daylight hours.
- **Infrastructure gaps:** Durham Region remains largely car-oriented, with limited cycling infrastructure in many areas. This was reflected in the low observed utilization of bicycle parking facilities. Many sites lacked nearby cycling routes or protected bicycle lanes, which may discourage potential users from cycling to these destinations.
- **Condition:** Bicycle parking facilities were generally in good condition, with all surveyed racks usable and most in excellent shape. Minor rusting was observed at a few sites (7 per cent), but it did not affect functionality.
- **Weather protection:** Over three quarters (79 per cent) of sites lacked any form of coverage, leaving bicycles exposed to the elements. Incorporating covered bicycle parking, especially at locations intended for longer-term use, would improve user experience and encourage more consistent use.
- **Good practices observed:** Several sites demonstrated features aligned with best practices, such as covered parking, proximity to building entrances, and integration with amenities like lighting and signage. These examples can serve as models for future installations.

2.3.2 Integration into final guidelines

Based on the site visit findings, the following recommendations are proposed for inclusion in Durham Region's future bicycle parking guidelines:

- **Proximity to entrances:** Locate bicycle parking close to main entrances to reduce walking distance and improve convenience.
- **Visibility and lighting:** Ensure parking areas are well-lit and clearly visible to enhance safety and encourage use.
- **Rack design:** Recommend durable, secure, and user-friendly rack types, such as post-and-ring and inverted-U racks that allow users to lock the frame securely.
- **Repair and pump stations:** Install bicycle repair stands and pump stations at high-traffic locations such as GO stations and educational institutions to support regular users.



- **Wayfinding and signage:** Improve signage and wayfinding to help users easily locate bicycle parking facilities.

Durham Region has a strong foundation of bicycle parking infrastructure, but there are clear opportunities to enhance its effectiveness. By improving visibility, lighting, coverage, and integration with cycling infrastructure and amenities, the Region of Durham can better support and encourage cycling as a sustainable mode of transportation.



3 Field visit inventory

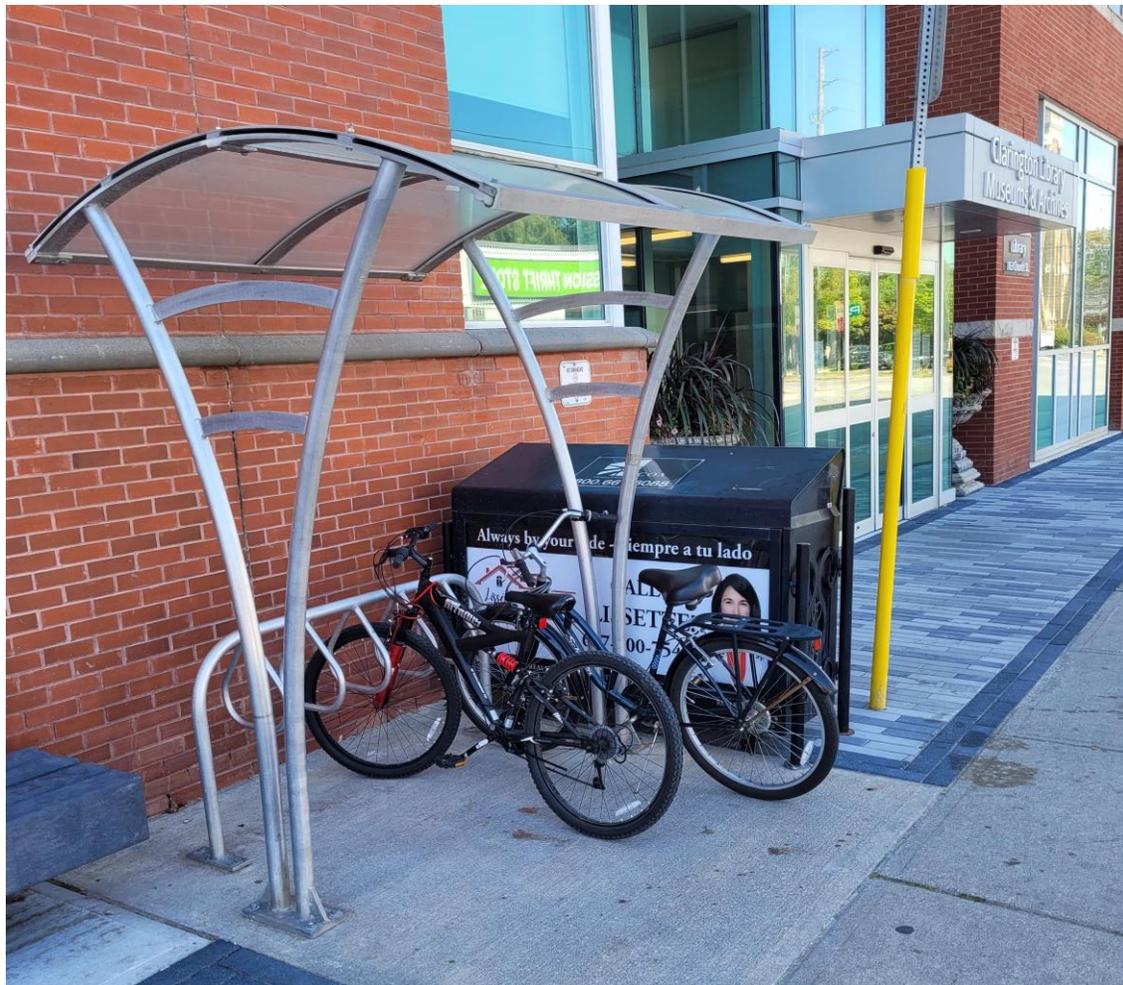
3.1 Overview

The following collection of photographs from across the Region, taken during a site visit, provide an inventory of different bicycle racks found at various public and private facilities. These images were selected to highlight common themes, examples of good and poor bicycle parking practices, and unique installations observed across the region. Each image is accompanied by a brief description to provide some context for each site.

3.2 Bicycle parking images

Clarington Library Museum and Archives, Clarington

Bicycle shelters installed over racks are common at multiple locations across the Region, providing simple weather protection and enhancing the cycling experience. This rack is positioned near the entrance, providing convenient access for riders.



South Courtice Arena, Clarington

A commonly used wave-style rack is located near the entrance and positioned in a visible area, making it easy for surrounding individuals to see. This placement supports convenience and passive security for cyclists.





Courtice Community Complex, Clarington

Toaster/grid rack designs are seen throughout Durham Region. Despite many visitors to this community centre, the bicycle parking remains relatively unused, is a common trend across the Region. The surrounding environment is highly car-centric, which likely contributes to the low cycling uptake.



Bowmanville High School, Clarington

A group of wave racks is provided at this location. Like many educational institutions in the Region, the school offers a substantial amount of bicycle parking, which sees moderate use during the summer months. However, this image does not reflect fall and spring conditions, when students frequently use these racks on a daily basis.





Bowmanville GO Park and Ride, Clarington

This design, commonly found at GO Stations and carpool lots, features a bicycle parking shelter located within a parking area. The shelter provides protection from the elements while remaining open on two or three sides for visibility. However, the lack of dedicated lighting inside the shelter may compromise the sense of safety, as it relies solely on ambient parking lot lighting.





Riocan Windfields Commercial Centre, Oshawa

This bicycle parking is located in a “big box” commercial area/shopping plaza, but is positioned farther from the major store entrances than recommended. Placing racks closer to entrances with higher foot traffic would improve convenience and deter theft. The racks also offer no protection from the elements. They are, however, aesthetically pleasing and provide adequate support for bicycles.





Oshawa GO Station

This bicycle parking is located under the building's overhang, providing protection from adverse weather and adequate lighting. The area is clearly designated with a bicycle parking sign on a post. Positioned near the station entrance and in front of a glass window, combined with the high pedestrian volumes typical of a GO Train station, the location benefits from strong natural surveillance.





Oshawa City Hall and Public Library, Oshawa

Bicycle parking at Oshawa City Hall is situated at the back of the lot, away from the main entrance and closer to another community centre building. Relocating racks closer to the entrance and increasing the number of bicycle parking spaces at municipal facilities would greatly improve accessibility and encourage cycling as a mode of transportation.





Campus Recreation and Wellness Centre, Durham College and Ontario Tech University, Oshawa

Durham College's and Ontario Tech University's shared Recreation and Wellness Centre offers bicycle parking directly outside the main building entrance and includes a repair station.



Ontario Tech University, Oshawa

Ontario Tech University provides a large number of bicycle racks, which are more heavily utilized than at many other locations in the region. Although not visible in this photo, the racks benefit from street lighting and are positioned close to the entrance, enhancing safety and convenience.



Near Whitby Public Library, Whitby (Adjacent to Laneway Entrance)

An example of a cargo bicycle parked against a post rather than using the designated rack at this location. This may indicate an accessibility issue, particularly for bicycles designed to carry large loads, which often cannot fit into more constrained rack designs. Improving rack configurations to accommodate these larger bicycles could help address this challenge.



Whitby Public Library (Southeast Corner), Whitby

This location is an excellent example of well-situated bicycle parking. The racks are positioned near the entrance, adjacent to a large window, and benefit from the building's overhang for weather protection. Additional features include surveillance cameras for security and deterrence, as well as overhead lighting to maintain visibility and safety.





Whitby Public Library (adjacent to walkway), Whitby

Whitby Public Library does a good job at creating a welcoming public space and providing bicycle parking near the building entrance. However, it's important to consider nighttime conditions, as the current location may feel less comfortable after dark without adequate lighting or passive surveillance.





Durham College, Whitby Campus, Whitby

Durham College has multiple campuses, some with bicycle parking and others where it is difficult to find. The emergency station also provides greater security, especially for those leaving in the evening. This particular site is the W. Galen Weston Centre for Food, with the bicycle rack adjacent to a parking lot but with bicycle parking near the entrance. Other buildings at the Whitby Campus and at the main campus in Oshawa have bicycle parking generally located a considerable distance from most entrances. Installing racks closer to building entrances would significantly improve convenience and encourage greater cycling mode share at the College.



Region of Durham Headquarters Building Grounds, Whitby

This bicycle rack that is adjacent to the south parking lot and greenspace at the Regional Headquarters building in Whitby is well located for daytime use but lacks adequate visibility at night. Adding lighting would improve safety and usability during evening hours.



All Saints Catholic Secondary School, Whitby

Located within the parking lot of a high school, these wheel-bender bicycle racks are in a low-visibility area, hidden by landscaping and a brick wall. Relocating the racks closer to the school entrance and in a more visible area would improve safety and accessibility.





Lynde Shores Conservation Area, Whitby

Lynde Shores Conservation Area provides bicycle parking in two locations using the same green wave-style rack. Both racks are positioned at the entrance of the conservation area, with one located near the washrooms. This placement is ideal because it offers high visibility, convenience for visitors arriving by bike, and proximity to key amenities, making it both secure and practical for short-term use.



Ajax Town Hall, Ajax

Bicycle parking at Ajax Town Hall features post-and-ring racks under a shelter, providing a good number of spaces and some weather protection. The location is adjacent to the parking lot with plenty of visibility. However, improved lighting would enhance safety and usability during nighttime hours.





St. Andrews Community Garden, Ajax

A loop-style bicycle parking rack has been installed at the community garden to encourage cycling by providing convenient and accessible parking. The racks are mounted on a concrete pad set within the grass, ensuring secure anchoring and improved accessibility.





Ajax Community Centre, Ajax

This location features a bicycle shelter along with a repair station. While repair stations were rarely observed across the Region, they provide significant benefits and added convenience for riders, supporting maintenance and encouraging cycling as a reliable mode of transportation.



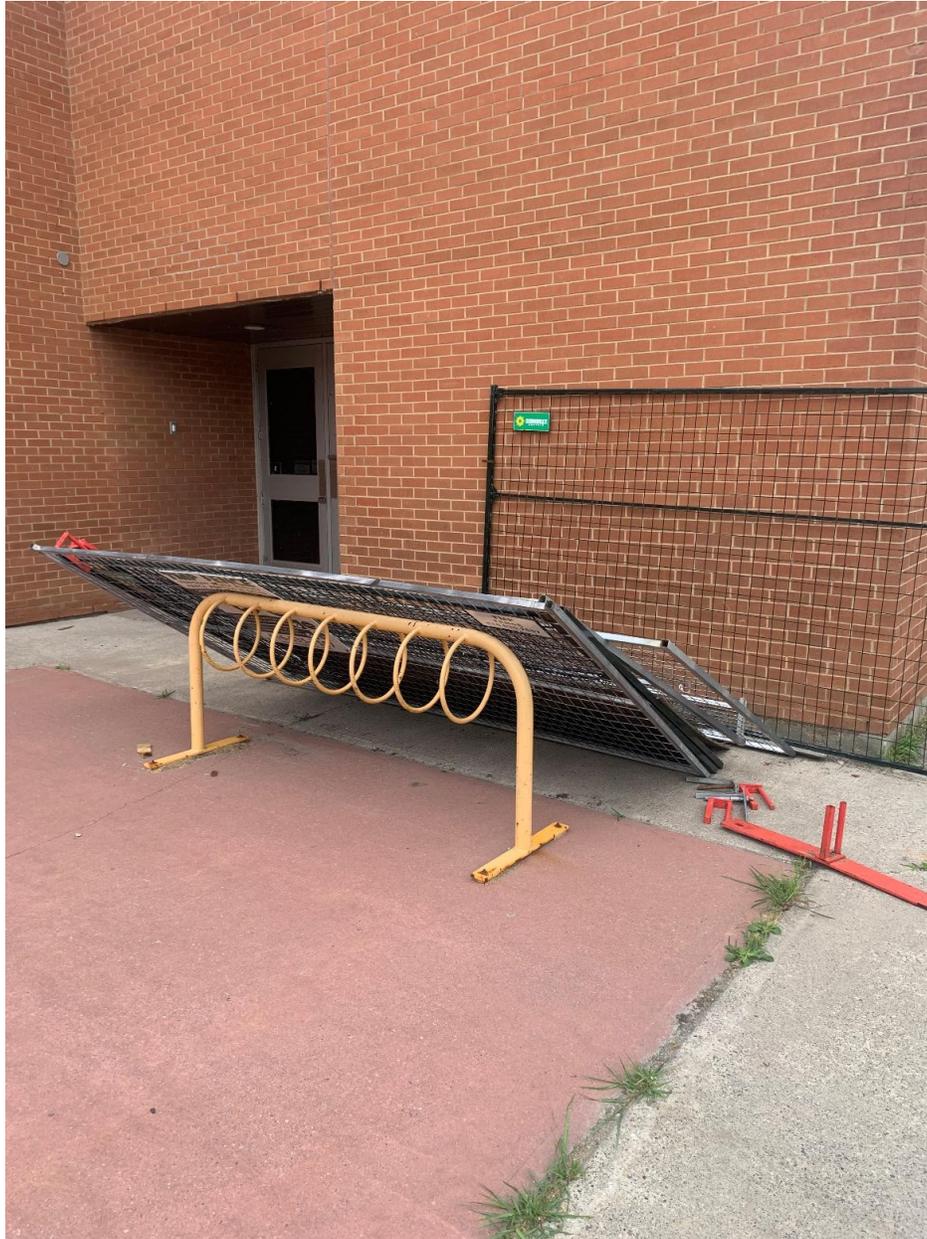
Southwood Park Public School, Ajax (front view)

The front entrance of Southwood Park Public School features a number of bicycle racks, similar to other institutions in the Region, and they are clearly visible from the entrance. While some racks show signs of rust, most bicycle parking facilities within the Region remain in good condition.



Southwood Park Public School, Ajax (side view)

The bicycle racks were positioned near the side entrance but became unusable due to fallen fencing obstructing access. Even during summer when school was out, it remains important to ensure racks are accessible year-round. Potential obstructions and safety hazards should always be considered when selecting locations for bicycle racks. Aside from this issue, the placement is otherwise optimal, close to the entrance and highly visible. However, the chosen variation of the coat hanger rack design is less effective, as it only supports a single wheel rather than the bicycle frame.



Roland Michener Public School, Ajax

The bicycle parking is located near the school field but is partially obscured by a shed and a tree. Relocating the racks closer to the school entrance or to an area with street lighting would improve visibility and enhance safety.



Roland Michener Public School, Ajax

Although this high school provides some bicycle parking, informal parking methods were observed, such as locking a bicycle to a signpost. This is common in locations where bicycle parking is insufficient or poorly placed.



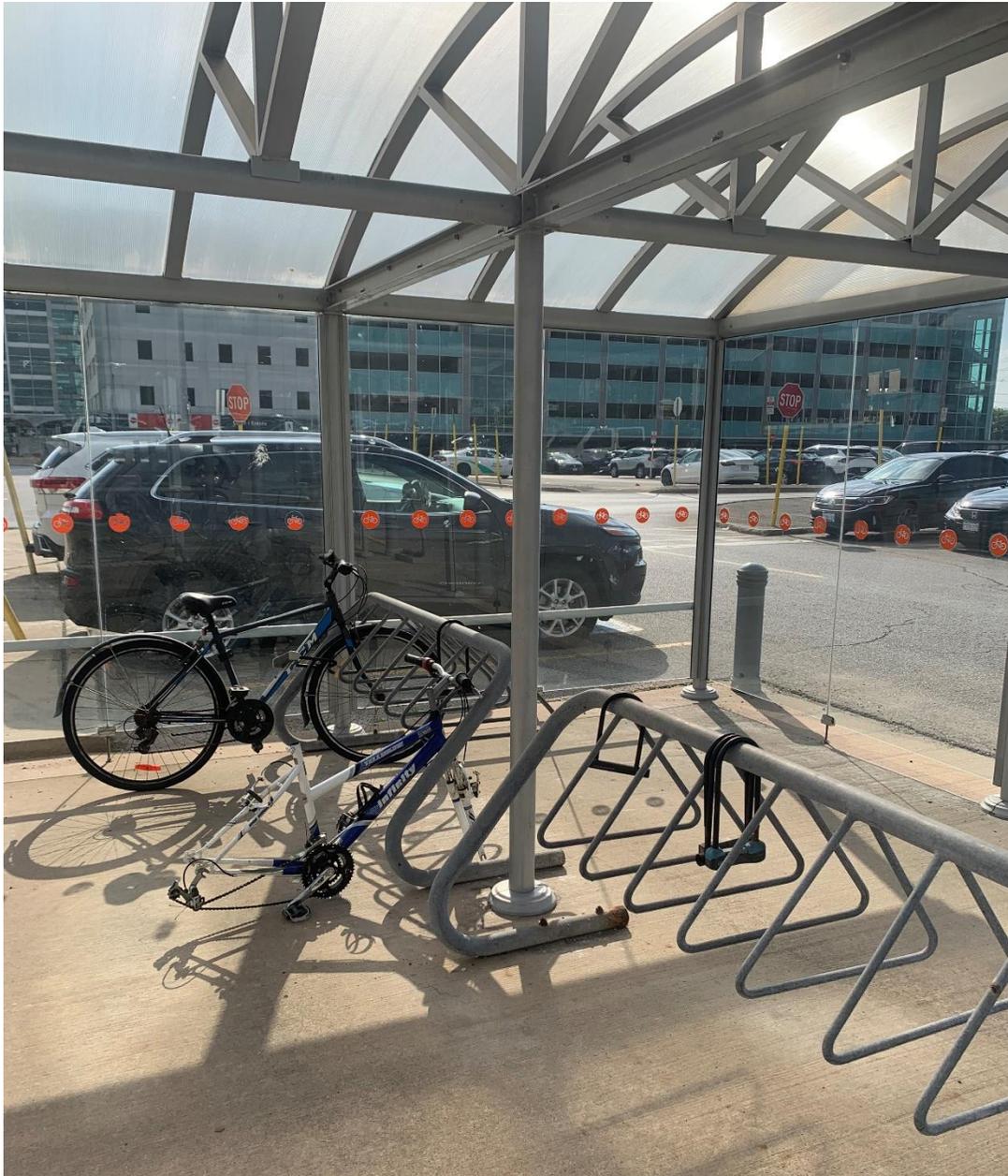
Informal parking, Ajax

Due to the generally car-centric environment of the region, bicycle parking locations can be few and far between. Therefore, cyclists use railings and posts for parking. This was commonly observed throughout the Region.



Pickering GO Station, Pickering

This GO Station includes a sheltered bicycle parking area located next to the pedestrian walkway and near the entrance. While the shelter offers good visibility, the absence of lighting at night reduces theft deterrence. As shown in the photo, a derelict bicycle highlights the lack of security and visibility. Relocating the shelter closer to the entrance and adding proper lighting and other security measures would significantly improve safety and usability.





Pickering Public Library, Pickering

This bicycle rack is located near the entrance and benefits from surveillance and clear signage above the rack, serving as a theft deterrent. However, its placement behind a pillar is not ideal; positioning the rack in an open, visible area would better prevent theft. The rack design, a variation of the coat-hanger style, is a very common type in Pickering.





Dunbarton High School, Pickering

Bicycle parking at this high school consists of a limited number of racks, and the rack design they had is not ideal for secure locking as it only supports one wheel. Despite these drawbacks, the racks are well-positioned near the school entrance and offer good visibility, an important factor for safety.



Pickering High School, Pickering

These bicycle racks are plentiful and located near the school's main entrance. The wavy U-bar design is positioned away from tree canopies, which helps maintain lighting and reduces the risk of unsafe conditions for cyclists.



Scugog Memorial Public Library, Scugog

The Scugog Memorial Public Library in Port Perry has a common rack style to accommodate several bicycles. It is well located near the entrance, next to an accessible pathway, on a stable concrete surface, and very visible.



Cyclehoop Bike Port, Brock Street, Uxbridge

Brock St. in Uxbridge has a large, colourful bicycle parking rack (known as a Bike port from manufacturer Cyclehoop) installed in a single car parking space of a parking lot, adjacent to the main commercial area. This design is both visually appealing and practical, providing convenient and accessible parking for visitors and employees.





Uxbridge Youth and Seniors Centre, Uxbridge

The Youth and Senior Centre in Uxbridge provides two types of short-term bicycle parking directly outside its main entrance. Both rack designs allow for locking the frame and at least one wheel. The racks are installed on concrete pads within the grassy area near the entrance, providing stability and proper anchoring. The inverted-U racks also include an artistic design, promoting the local municipality.

