

Attachment 2 – Proposed Zoning Bylaw Amendments Schedule X

This attachment outlines the proposed amendments to the *Burnaby Zoning Bylaw, 1965* related to a new Schedule for off-street bicycle parking and end-of-trip facilities.

SCHEDULE NO. X OFF-STREET BICYCLE PARKING & END OF TRIP FACILITIES

1000. Subject to the provisions of Section 1000.1, when any development takes place on any lot, end-of-trip facilities and spaces for the off-street parking of bicycles shall be provided and maintained in accordance with this schedule.

1000.1 General Requirements:

- (1) Required bicycle parking spaces and end-of-trip facilities shall be provided for on the subject lot, except as otherwise permitted in section 1000.2 and 1000.10.
- (2) Off-street bicycle parking spaces and end-of-trip facilities existing on the effective date of this schedule shall not be reduced below the applicable requirements of this schedule.
- (3) Where bicycle parking spaces are provided in excess of the required amount, such bicycle parking spaces shall be provided in accordance with the requirements contained in this schedule.

1000.2 Requirement Exemptions:

- (1) The required number of Class B bicycle parking spaces may be located in the public street or sidewalk, subject to an encroachment agreement with the City, if permitted by the Director of Planning and Building. In such cases, the property owner shall be required to cover costs associated with installation, maintenance, and replacement of the required bicycle parking spaces.

1000.3 Uses not listed:

If a use is not listed in section 1000.5(1), the number of required bicycle parking spaces shall be calculated based on a similar use as determined by the Director of Planning and Building.

1000.4 Units of Measurement:

- (1) Where number of persons is used as a unit of measurement for the calculation of required bicycle parking spaces, it shall mean the greatest number of persons at work or study, at any time of the day or night in a particular building or for a particular use during any season of the year.
- (2) Where seating accommodation is used as a unit of measurement for the calculation of required bicycle parking spaces, and such accommodation consists of benches, pews, booths and the like, each 0.5 m (1.54 ft.) of width of such seating accommodation shall be counted as one seat.
- (3) Where the calculation of required bicycle parking spaces, Class A supplementary facilities, or end-of-trip facilities results in a fractional requirement, the fractional requirement shall be rounded up to the next whole number.

1000.5 Number of Required Bicycle Parking Spaces:

- (1) Bicycle parking spaces shall be required for any uses classified in the table below in accordance with the corresponding standards, or as determined by the Director of Planning and Building on account of exceptional site conditions.

Use	Minimum Required Bicycle Parking Spaces	
	Class A (long-term)	Class B (short-term)
(a) Multiple family dwelling	2 for each dwelling unit	The greater of 4 spaces and 1 for every 5 dwelling units
(b) Dormitory	1 for each unit	The greater of 4 spaces and 1 for every 5 units
(c) Seniors housing	1 for every 20 employees	The greater of 4 spaces and 1 for every 5 residents
(d) Retail	A minimum of 1 space for each 340 m ² (3,659.73 sq. ft.) of gross floor area	The greater of 2 spaces and 1 for each 500 m ² (5,381.96 sq. ft.) of gross floor area
(e) Office	A minimum of 1 space for each 170 m ² (1,829.86 sq. ft.) of gross floor area	The greater of 2 spaces and 1 for each 1000 m ² (10,763.90 sq. ft.) of gross floor area
(f) Hotel	1 for every 20 employees and 1 for every 30 sleeping units	The greater of 2 spaces and 1 for every 30 sleeping units
(g) Hospital	1 for every 20 employees	6 spaces at each public entrance
(h) School – Elementary or similar	1 for every 20 employees	The greater of 2 spaces and 1 for every 20 students
(i) School – Secondary or post-secondary	1 for every 20 employees and students	The greater of 2 spaces and 1 for every 20 students
(j) Community centre, library, or museum	1 for each 500 m ² (5,381.96 sq. ft.) of gross floor area	The greater of 2 spaces and 1 for each 250 m ² (2,690.98 sq. ft.) of gross floor area
(k) Theatre, auditorium, or stadium	1 for every 20 employees	The greater of 2 spaces and 1 for every 50 spectator seats
(l) Manufacturing & Warehousing	The greater of 1 for each 1,000 m ² of gross floor area and 1 for every 20 employees.	No requirement.

- (2) For multiple family dwellings, a minimum of 2 Class A bicycle parking spaces shall be allocated for the exclusive use of each and every dwelling unit.

1000.6 Class A Bicycle Parking Spaces:

1000.6.1 Class A bicycle parking spaces shall:

- (1) for multiple family dwellings, be provided in:

- (a) single space or double space bicycle lockers in a bicycle room;
- (b) an automated facility; or
- (c) private garages;
- (2) for all uses other than multiple family dwellings, be provided in:
 - (a) a bicycle room within a building, private garage or parking garage;
 - (b) an automated facility; or
 - (c) single space bicycle lockers;
- (3) not require manual lifting of the bicycle to be placed in the bicycle space, except that wall mounted racks may be permitted at the discretion of the Director of Planning and Building on account of exceptional site conditions that limit the size and configuration of the parkade;
- (4) be located no more than one level below or above grade and shall have convenient access to outside where provided in a bicycle room or as bicycle lockers, except that a location more than one level below or above grade may be permitted at the discretion of the Director of Planning and Building on account of exceptional site conditions, development size, provision of voluntary bicycle parking spaces, or where a bicycle-appropriate elevator is supplied offering convenient access to outside; and
- (5) be independently accessible by means of an aisle of a minimum width of 1.2 m (3.94 ft.), and a minimum vertical clearance of 2.0 m (6.56 ft.), except when provided in an automated facility.

1000.6.2 Class A bicycle rooms shall:

- (1) provide required bicycle parking spaces in the form of bicycle racks or bicycle lockers;
- (2) not include Class B bicycle parking spaces;
- (3) have a solid opaque or chain-link (No. 7 gauge or heavier) walls extending from floor to ceiling;
- (4) have a steel or chain-link (No. 7 gauge or heavier) door that is no less than 0.9 m (2.95 ft.) in width, is automatically operated with a programmed entry system, and has tamper-proof hinges and a steel frame. Where a steel door is installed, a security window is preferred;
- (5) have motion-activated security lighting enclosed in tamper-proof housing, which uniformly provides light throughout the room; and
- (6) be designed to accommodate a maximum of 50 bicycle racks, except that a Class A bicycle room may be designed to accommodate more than 50 bicycle racks if the bicycle room is continuously monitored by security personnel during operational hours.

1000.6.3 Where Class A bicycle parking spaces are provided in an automated facility, the automated facility shall:

- (1) have an entrance that is located no more than one level below or above grade with convenient access to outside that is accessible by means of an aisle of a minimum width of 1.2 m (3.94 ft.), and a minimum vertical clearance of 2.0 m (6.56 ft.);
- (2) store and retrieve bicycles via a radio frequency identification tag and smart card system, or a comparable high security storage and retrieval system;
- (3) have a designated and preferably weather-protected loading zone;
- (4) be designed to accommodate a maximum of 100 bicycles; and

- (5) have motion-activated security lighting enclosed in tamper-proof housing, which uniformly provides light and is dark-sky compliant if located outside.

1000.6.4 Class A bicycle lockers shall:

- (1) be constructed of theft-resistant material with no exposed fittings of connectors;
- (2) be built with a lockable door which opens to the full width and height of the locker;
- (3) be individually numbered;
- (4) be weather-proof where exposed to the elements;
- (5) for a single space bicycle locker, have minimum dimensions of:
 - (a) 0.7 m (2.30 ft.) in width at the door end;
 - (b) 0.2 m (0.66 ft.) in width at the end opposite to the door;
 - (c) 1.8 m (5.91 ft.) in length; and
 - (d) 1.2 m (3.94 ft.) in height;
- (6) for a double space bicycle locker, have minimum dimensions of:
 - (a) 1.15 m (3.77 ft.) in width at the door end;
 - (b) 1.15 m (3.77 ft.) in width at the end opposite to the door;
 - (c) 1.8 m (5.91 ft.) in length; and
 - (d) 1.2 m (3.94 ft.) in height; and
- (7) be accessible only to residents of the one residential unit which the single or double bicycle locker is intended to serve.

1000.6.5 Class A bicycle racks shall:

- (1) be constructed of sturdy theft-resistant material with secure theft resistant anchoring to the floor or wall;
- (2) support the bicycle frame above the centre of gravity and enable the bicycle frame and front wheel to be locked to the rack with a U-style lock; and
- (3) have a minimum:
 - a. vertical clearance of 2.0 m (6.56 ft.);
 - b. width of 0.6 m (1.97 ft.) for each bicycle; and
 - c. length of 1.8 m (5.91 ft.).

1000.7 Class B Bicycle Parking Spaces:

1000.7.1 Class B bicycle parking spaces shall:

- (1) be provided in:
 - (a) bicycle racks;
 - (b) single space bicycle lockers;
 - (c) an automated facility; or
 - (d) subject to Section 1007.7.5, an attended facility only for uses provided for in Section 1000.5(1)(j) and (k);

- (2) have wayfinding signage where Class B bicycle parking spaces are not readily visible from the front of the site;
- (3) except where the Class B bicycle parking spaces are provided in an automated facility or an attended facility, not require manual lifting of the bicycle to be placed in the bicycle space;
- (4) not interfere with pedestrian or vehicular circulation; and
- (5) be independently accessible by means of an aisle of a minimum width of 1.2 m (3.94 ft.), and a minimum vertical clearance of 2.0 m (6.56 ft.), except when provided in an automated facility.

1000.7.2 Class B bicycle racks shall:

- (1) be located where feasible, near all main pedestrian entries, in an accessible, well-lit and weather-protected location, that allows for visual surveillance by occupants of the building or by building security;
- (2) be constructed of sturdy theft and weather-resistant material with secure theft-resistant anchoring to the floor or wall;
- (3) support the bicycle frame above the centre of gravity and enable the bicycle frame and front wheel to be locked to the rack with a U-style lock; and
- (4) have a minimum;
 - (a) vertical clearance of 2.0 m (6.56 ft.);
 - (b) width of 0.3 m (0.98 ft.) for each bicycle; and
 - (c) length of 1.8 m (5.91 ft.).

1000.7.3 Class B bicycle lockers shall:

- (1) where feasible, be located near all main pedestrian entries, in an accessible, well-lit and weather-protected location, that allows for visual surveillance by occupants of the building or by building security;
- (2) be constructed of theft-resistant material with no exposed fittings of connectors;
- (3) be built with a lockable door which opens to the full width and height of the locker;
- (4) be weather-proof where exposed to the elements; and
- (5) have minimum dimensions of;
 - a. 0.7 m (2.30 ft.) in width at the door end;
 - b. 0.2 m (0.66 ft.) in width at the end opposite to the door;
 - c. 1.8 m (6.23 ft.) in length; and
 - d. 1.2 m (3.94 ft.) in height.

1000.7.4 Where Class B bicycle parking spaces are provided in an automated facility, the automated facility shall:

- (1) store and retrieve bicycles via a radio frequency identification tag and smart card system, or a comparable high security storage and retrieval system;
- (2) have a designated and preferably weather-protected loading zone;
- (3) be designed to accommodate a maximum of 100 bicycles; and

(4) have motion-activated security lighting enclosed in tamper-proof housing, which uniformly provides light and is dark-sky compliant if located outside.

1000.7.5 Up to 90% of the required Class B bicycle parking spaces for the uses provided in Section 1000.5(1)(j) and (k) may be provided in the form of an attended facility which has a drop off and pick up area that is located no more than one level below or above grade and has convenient access to the outside.

1000.8 Bicycle Repair Station:

(1) Where 10 or more Class A bicycle parking spaces are required, there shall be no less than 1 bicycle repair station for every 400 Class A bicycle parking spaces, and each station shall provide:

- a. a bicycle stand that supports the bicycle off the floor;
- b. a tire pump; and
- c. a bicycle appropriate toolkit secured to the bicycle stand or wall.

1000.9 End-of-trip Facilities:

(1) Where 4 or more Class A bicycle parking spaces are required to be provided under this bylaw for non-residential uses, end-of-trip facilities shall be provided in accordance with the following, or as determined by the Director of Planning and Building on account of exceptional site conditions:

(a) the minimum number of toilets, sinks, and showers required is:

Required Number of Class A Bicycle Parking Spaces	Minimum Number of		
	Toilets	Sinks	Showers
4-20	2	2	2
21-40	2	4	4
41-60	4	6	6
For each additional 15 or part thereof	1 additional	1 additional	1 additional

- (b) the minimum number of change spaces required is 2 for each shower provided, with no less than 1 private change space for each shower;
- (c) the minimum number of grooming stations required is 1 for each shower provided;
- (d) the minimum number of clothing lockers required is 1.5 for each Class A bicycle parking space provided;
- (e) the minimum number of drying hooks, or equivalent, is 1 for each Class A bicycle parking space provided; and
- (f) if facilities are to be separated by gender, the number of spaces allocated to each gender shall be distributed equally, unless otherwise demonstrated to the satisfaction of the Director of Planning & Building.

- (2) End-of-trip facilities shall be securely located, well-lit and accessed via an interior entry door.
- (3) End-of-trip facilities shall be designed to the following standards:
 - (a) All required showers shall be provided for in private stalls and shall include a shelf for staging toiletries, and a hook to hang a towel;
 - (b) Private change spaces shall be provided for in opaque stalls, and each stall shall be accessed separately from the shower, and contain a bench or similar with dimensions no less than 0.6 m (1.97 ft.) in length, 0.3 m (0.98 ft.) in depth and 0.4 m (1.31 ft.) in height;
 - (c) Each grooming station shall be equipped with a mirror, electrical outlet, and a counter top; and
 - (d) Each clothing locker shall be a minimum of 0.45 m (1.48 ft.) in depth, 0.3 m (0.98 ft.) in width and 0.9 m (2.95 ft.) in height and have built-in hooks and perforations to allow for adequate ventilation.

1000.10 Shared Facilities:

- (1) Bicycle parking spaces may be provided and used collectively by two or more buildings or uses, provided that:
 - (a) Class A bicycle parking spaces required for residential uses are not shared with non-residential uses;
 - (b) the operating hours for such uses do not overlap significantly;
 - (c) the shared spaces are not located more than 122 m (400.26 ft.) from the building or uses to be served; and
 - (d) the shared spaces are not permanently assigned to a specific use or building and are available at all times of the day and week.
- (2) End-of-trip facilities may be provided and used collectively by two or more buildings or uses, provided that:
 - (a) the operating hours for such uses do not overlap significantly;
 - (b) the shared spaces are not located more than 122 m (400.26 ft.) from the building or uses to be served; and
 - (c) the shared facilities are not permanently assigned to a specific use or building and are available at all times of the day and week.