9.4 BICYCLE PARKING

9.4.1 On-Street Parking

The provision of bicycle parking facilities is essential for encouraging cycling in York Region. The lack of adequate parking supply or type can deter many from considering using their bicycle as a basic mode of transportation. Bicycle parking should be provided in the public right-of-way wherever on-street automobile parking is provided. Bicycle parking is essential along streets with shops and services, especially where buildings are set close to the public right-of-way. It is also recommended to provide bicycle parking at transit stops to encourage bicycle-transit intermodality.

9.4.2 Layout

On-street bicycle parking is typically placed in the following areas:

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

On-street bicycle parking racks must be placed with care to allow unobstructed access while avoiding encroachment of parked bicycles into adjacent pedestrian and cyclist operating spaces.

Standard bicycles are typically 1.8 m long and 0.75 m wide at the handlebars. Two bicycles on either side of a post-and-ring or inverted-U bicycle rack, will occupy roughly a 1.0 m by 2.0 m space.

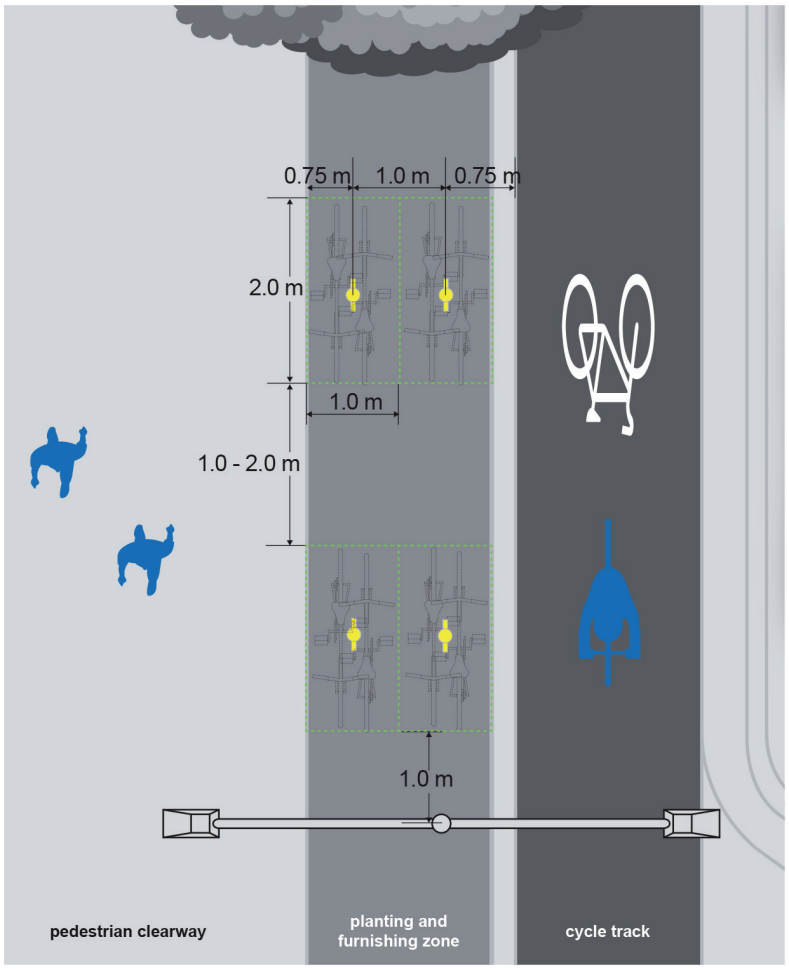
Source: IBI Group

For in-boulevard bicycle parking parallel to the street, the centre of the bicycle rack should be:

- 1.1 m from the roadway curb face (for 0.6 door zone clearance)
- Preferably 1.0 m and at minimum 0.75 m from the edge of a pedestrian clearway, cycling lane, or multiuse path (for preferred 0.5 m and minimum 0.25 m clearance respectively)
- 2.0 m laterally typically from other vertical objects (for 1.0 m clearance from street furniture, lampposts, trees, first hydrants, etc.; some elements may require wider clearances as specified by departmental standards)
- 1.0 m minimum – 1.2 m laterally between neighbouring bicycle racks
- 3.0 m to 4.0 m between rows of bicycle racks (for 1.0 m to 2.0 m gap between rows of parked bicycles)

A sample layout for bicycle parking oriented parallel to the street is illustrated schematically in Exhibit 9-10.

Exhibit 9-10. Bicycle parking parallel to the street

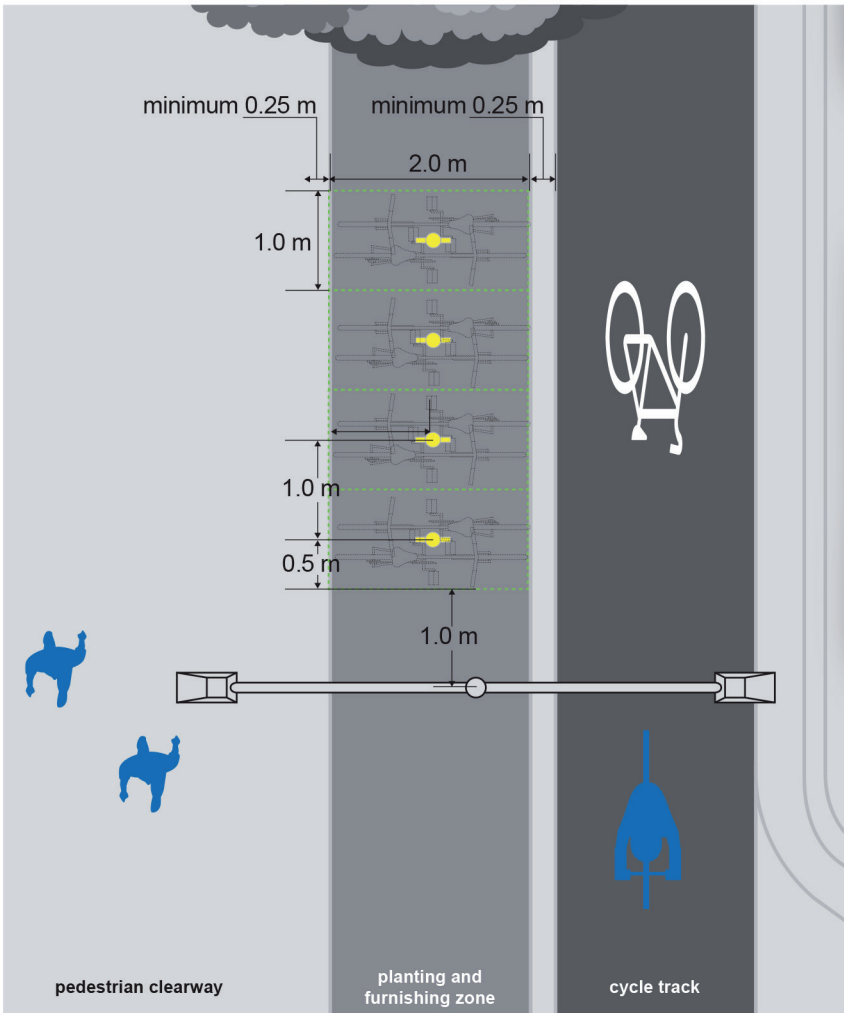


For in-boulevard parking perpendicular to the street, the centre of the bicycle rack should be:

- 1.6 m from the roadway curb face (0.6 m door zone clearance required)
- Preferably 1.6 m and at minimum 1.25 m from the edge of a pedestrian clearway, cycling lane, or multiuse path (for preferred 0.6 m and minimum 0.25 m clearance respectively)
- 1.0 m from the edge of a pedestrian clearway
- 1.5 m medially from other vertical objects (for 1.0 m clearance from street furniture, lampposts, trees, first hydrants, etc.; some elements may require wider clearances as specified by departmental standards)
- 1.0 m between neighbouring bicycle racks in the same row

A sample layout of bicycle parking oriented perpendicular to the street is illustrated schematically in Exhibit 9-11.

Exhibit 9-11. Bicycle parking perpendicular to the street



When bicycle parking is located in on-street car parking stalls, bicycle racks are typically oriented perpendicular to the street (Exhibit 9-12). The centre of the racks should be at least 1.0 m from the curb face. The first and last rack in a row should each be at least 1.0 m from the adjacent parking stall.

Exhibit 9-12. Car parking stall converted to 10 bicycle parking spaces

Source: Cyclehoop

Bicycle parking can also be angled with respect to the street. In this case, the designer must ensure that there is a 1.0 m 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.

9.4.3 Racks

For on-street bicycle parking, simple racks that allow the attachment of bicycles of different shapes and sizes with U-lock are preferable. The most popular are inverted-U shaped racks or post-and-ring style racks. While these are available in various materials and finishes, the most durable option is stainless steel due to its superior scratch and corrosion resistance.

When multiple inverted-U racks are provided side-by-side, they can be welded to long rails to reduce the number of anchoring points. Rail-mounted racks are especially useful for temporary bicycle parking applications, where bicycle racks are required at an event site or outside a construction side. Rail-mounted racks are also commonly used for converting on-street car parking stalls to bicycle parking.

Signposts, lampposts, and parking meters posts can be used for bicycle parking when their placement respects required lateral clearances. Bicycle parking hoops can be added to legitimize their use as bicycle parking (Exhibit 9-13).

Exhibit 9-13. Bicycle parking hoop attached to a signpost

Source: Cyclehoop

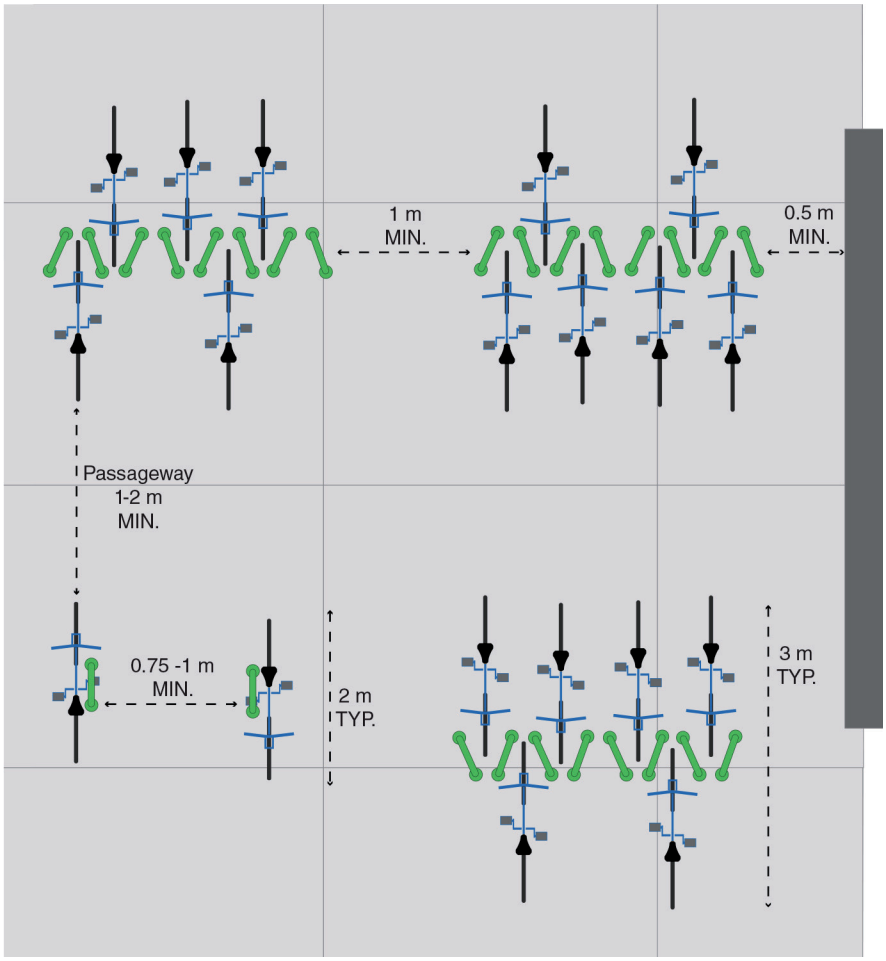
9.4.4 Off-street Parking

For ease of access, off-street bicycle areas must be carefully laid out. In areas where parking turnover is not very high, off-street parking can be arranged more densely than on-street parking, with neighbouring racks slightly closer together to maximize capacity. The following minimum clearances are suggested for the sake of convenience and ease of use:

- 0.75 to 1.0 m between neighbouring inverted-U or post-and-ring racks
- 0.5 m clearance from the end of a row of racks to a wall or other vertical object
- For ease of circulation:
  - 1.0 to 2.0 m passageways between rows of racks
  - 1.0 m clearance for gaps in a row of racks

These general principles are illustrated in Exhibit 9-14 below.

Exhibit 9-14. Recommended clearances for layout of bicycle parking areas



Adapted from Velo Quebec