4.3 CYCLING FACILITIES

Four types of cycling facilities, in addition to multi-use paths (see Chapter 4.4), are generally expected to apply to Regional roads.

Cyclist on a paved shoulder on a Regional road

Bicycles lanes on Regional roads

Paved shoulders function to support the pavement structure of the adjacent roadway and prevent erosion, accommodate stopped and emergency vehicles, can be used by pedestrians when there are no other pedestrian facilities present, and bicycles are permitted to be operated on the shoulder. A buffer can be provided between the paved shoulder and the adjacent travel lane increasing the comfort of cyclists particularly on rural roads with truck traffic that operate above 70 km/h. Trucks create a lateral thrust from air turbulence when passing cyclists. Rumble strips that create noise to alert motorists that they have driven into the buffer / shoulder can also be provided in the buffer if designed with cyclists in mind. Where desired, rumble strips should be carefully designed as they can be uncomfortable for cyclists to ride on, can restrict their movement around debris in the shoulder, or may even cause a fall if they are too deep and wide. In addition to shifting the rumble strips into the buffer, rumble strips should incorporate certain measures such as intermittent gaps to allow cyclists to safely move between the shoulder and travel lanes as necessary, as well as reducing the size and depth of the rumble strip in case a cyclist is forced to ride over one.

Bicycle lanes (with or without a buffer) are a portion of the roadway designated by signs supplemented by pavement markings for the exclusive use by cyclists. They typically operate in the general direction of travel on the right side of the roadway. A painted buffer can be provided to separate the bicycle lane from the adjacent travel lane increasing the comfort of cyclists somewhat, or between the bicycle lane and parking lane marking the door-opening zone. Bi-directional bicycle lanes can be implemented on streets that operate one-way or generally have few intersections or driveways on that side. Conditions that support bi-directional bicycle lanes are generally not found on Regional roads.

Many regional roads currently have bicycle lanes, and they will be considered for retrofit projects. However, moving forward, separated facilities are generally preferred given the context of Regional roads (high speed, high volume roadways).

Raised cycle track in the City of Toronto

In-boulevard cycle tracks provide comfort and safety for cyclists

Raised cycle tracks are immediately adjacent to the roadway separated by a curb or concrete median. They provide improved separation from traffic than bicycle lanes, increasing the comfort and safety of cyclists. They also provide better visibility between motorists and cyclists at driveways and intersections compared to facilities farther in the boulevard, so are preferred when driveway and intersection spacing is typically less than 300 m. Generally cycle tracks are designed to operate in the general direction of travel, with one on each side of the street.

In-boulevard cycle tracks are located between the pedestrian clearway or sidewalk and the planting zone. Comfort and safety of cyclists is increased significantly by being offset farther from traffic, however, special treatment of driveways and intersections is recommended to address poor visibility between motorists and cyclists as they approach the conflict area. Cycle tracks are typically designed to operate in the general direction of travel, with one track on each side of the street.

Shared roadways or shared lanes are generally not recommended for Regional roads. The volume and speed of traffic are too high to support cyclists sharing the travel lane with motorists. They may be considered only under exceptional circumstances when motorists' operating speeds can be lowered to 40 km/h or less. Planners and designers should carefully consider the design recommendations in Ontario Traffic Manual Book 18: Cycling Facilities (December 2013) when developing shared roadway projects. Although the Region does have some existing shared routes, these are considered interim applications.

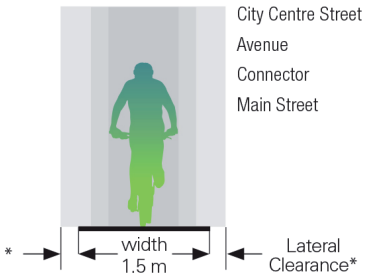
Minimum and preferred cycling facility widths are summarized in Exhibit 4-5 for new roads or road reconstruction (Designing Great Streets) and in Exhibit 4-6 for retrofit corridors. All facility widths are for uni-directional facilities.

DESIGNING GREAT STREETS – NEW ROADS OR RECONSTRUCTION

Exhibit 4-5. Minimum & Preferred Cycling Facility Widths

CYCLE TRACKS (IN-BOULEVARD OR RAISED)

MINIMUM



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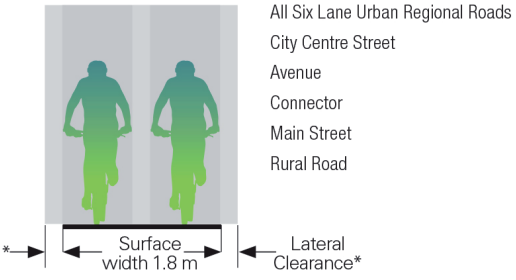
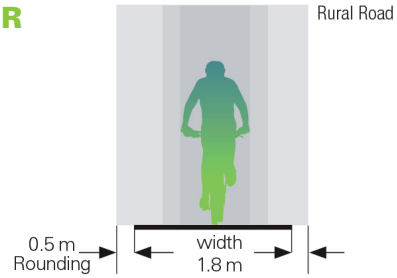


PAVED SHOULDER

MINIMUM



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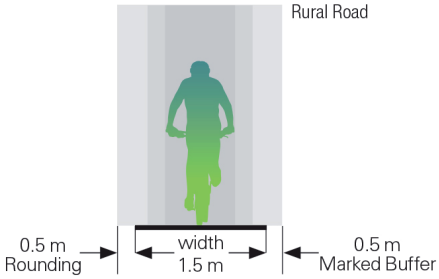
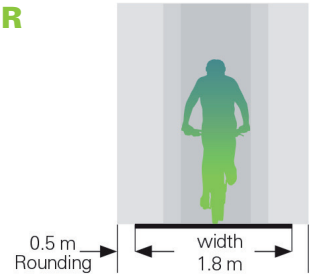


RETROFIT

Exhibit 4-6. Minimum & Preferred Cycling Facility Widths (Retrofit)

PAVED SHOULDER

MINIMUM



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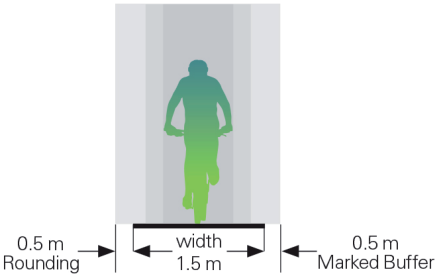
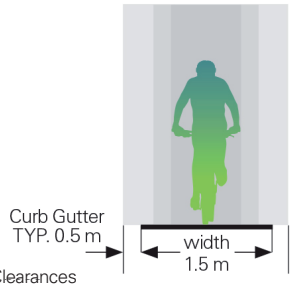


BIKE LANE

MINIMUM



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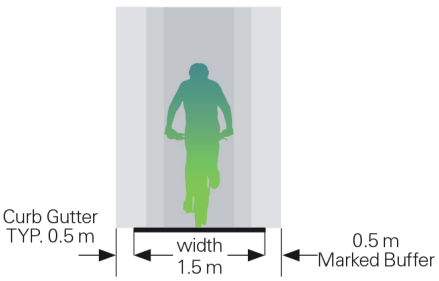

*See Chapter 4.5 Clearances