

Innovative Municipal Norms Conducive to Safe Active Transportation: Introduction to a Series of Briefing Notes

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Active modes of transportation, such as walking and cycling, were an important part of everyday travel in the early 20th century, especially in urban areas of Canada. Over the last 70-80 years, they have gradually been relegated to the status of “alternatives” to the automobile, if not understood solely as recreational activities. In fact, the expression “alternative modes of transportation” that is commonly found in policies, strategies and mobility plans is now used to refer not only to collective modes of transportation such as trains, subways, streetcars and buses, but also to active modes of transportation.

It is not surprising, therefore, to observe that in 2011, according to the most recent data available, only 7% of commutes between home and work¹ in Canada were made primarily by active modes of transportation, namely 1.3% by cycling and 5.7% by walking. Since commuting by public transit generally includes making a substantial portion of the trip on foot, the 12% share represented by public transit should also be added to this picture of commuting. In major urban centres such as Montréal, Vancouver, Toronto and Ottawa, the proportion of trips made primarily using active modes of transportation tends to be slightly higher than the average (e.g., 8.5% in Vancouver), while it tends to be more limited in smaller municipalities. The proportion of trips made by public transit follows the same trend, but the differences are often more pronounced (Statistics Canada, 2014).

The public measures that have contributed to marginalizing active and collective modes of transportation to the benefit of the automobile are plentiful, and some of these measures were put forward explicitly for the benefit of motorized traffic. Municipal authorities, for instance, have gone to great lengths to increase the capacity and traffic flow of street networks under their jurisdictions, that is to say local, collector and arterial streets.² These efforts include implementing higher speed limits, synchronizing traffic lights in favour of motorized traffic and adding traffic or turning lanes by narrowing sidewalks and raised medians. These types of changes to the built environment are often inspired by federal and provincial guides, such as the guides for geometric road design³ that were initially developed by the federal and provincial authorities to standardize the design of roads under their jurisdictions. These guides were focused specifically on highways, regional roads and main roads, which are designed for the primary, if not the sole purpose, of carrying heavy

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¹ Although commuting makes up a significant proportion of utilitarian trips, it does not reflect the complete picture. To our knowledge, the most recent data covering all trips in major urban centres in Canada dates back to 1995, when only 12% of trips were made by walking (10%) or cycling (2%) (Pucher & Dijkstra, 2003).

² Not all municipalities use exactly the same classification criteria. For example, some municipalities make a distinction between principal and secondary arterial streets. However, most municipalities have designated certain streets as “local streets.” The primary function of these streets is to provide access to homes with low expected traffic volumes. Although most have no explicit norms in this respect, some municipalities have set the acceptable traffic volume for these types of streets at 800 vehicles per day (veh/d). Other streets are designated as “collectors.” These streets have a dual purpose: to provide access and to distribute traffic toward arterials, and traffic volumes are expected to be slightly higher than on local streets. Finally, other streets are designated as “arterials”: their primary purpose is to sustain relatively high flows of through traffic. To a large extent, this classification determines the relative importance given to different types of street users, and to their safety and comfort, in the street design process.

³ At the federal level, the reference point is the *Geometric Design Guide for Canadian Roads* published by the Transportation Association of Canada (TAC, 2007). One example at the provincial level would be the first volume (*Tome 1*) in the series of road building norms (*Normes – Ouvrages routiers*), issued by ministère des Transports du Québec (MTQ-Québec’s ministry of transport), entitled *Conception routière* (MTQ, 2013).



volumes of motorized traffic travelling at high speeds. Applying similar design norms to streets in municipal networks⁴ is likely to contribute to an increase in motorized traffic capacity and flow. These gains, however, often come at the expense of user-friendliness and safety for active transportation. Figure 1 illustrates the typical evolution of an urban boulevard to facilitate motorized vehicle traffic.

Other public measures may not have been developed explicitly to promote motorized traffic, but contributed to doing so all the same by taking automobile use for granted and, as such, perpetuating the automobile as the normal mode of transportation. Closures of “neighbourhood” schools and hospitals in favour of larger institutions located near major highway infrastructure but poorly served by active transportation and public transit are good examples of this kind of measure.

For a number of years, many diverse actors have been working to reverse this trend and bring active and collective modes of transportation back to the forefront in many parts of Canada. This movement is particularly apparent in urban environments due to concerns about health, quality of life, sustainable development and even efficient use of public space.

In support of these efforts, the National Collaborating Centre for Healthy Public Policy is developing an evolving series of briefing notes. Our goal is to document innovative municipal norms with the potential to help create environments that are more conducive to safe active transportation by redesigning or reconfiguring public street networks. “Municipal norms” should be interpreted in the broad sense of all of the criteria, principles and rules that are used to guide municipal authorities in analyzing problems and developing solutions. These norms may be of a regulatory nature, but may also be codified in guidelines for practice (such as guides for



Figure 1 Typical evolution of an urban boulevard

The photo above shows Boulevard Pie-IX between Sherbrooke Street and Rosemont Boulevard in Montréal in 1958. There are two traffic lanes in each direction, separated by a wide landscaped median.

Source: Archival Fonds, City of Montréal [VM105-Y-1_410].

The photo below shows the same section of Boulevard Pie-IX in 2013. The median has been significantly narrowed and vegetation has been removed to add a traffic lane in each direction.

Photo credit: François Gagnon.

⁴ These guides have generally been revised over the years to include more flexible design norms specifically for urban environments. This is the case for Canada’s federal guide, for instance, which added an urban supplement in 1995 (TAC, 2007). The supplement calls for engineers to select design values (e.g., for traffic lane widths) within a given range, while recommending the use of maximum widths close to the proposed values for highways. Although these guides have no regulatory status binding municipalities and their engineers, they are often considered as such, and the maximum recommended values are frequently adopted as default values.

geometric road design, for instance) or other types of documents, or may even be implied through municipal practices and policies. The purpose of these briefing notes is to enable public health actors to propose changes to municipal authorities' policies and practices, and to encourage them to draw inspiration from innovative practices adopted by other municipalities from across Canada and abroad.

In each briefing note we will offer a “model” formulation of the norm, followed by an “alternative” version (for cases in which it may not be possible to apply the initial formulation for one reason or another). We will also set out to:

- Explain how the proposed norm relates to the existing normative context;
- Describe the anticipated benefits and potential drawbacks—including, where possible, strategies to avoid or at the very least minimize these;
- Set out the context in which the norm would apply, in addition to outlining precedents and political factors that may facilitate or hinder its adoption;
- Identify a certain number of closely related norms that will be discussed in other sheets; and
- Weigh up some of the implications of the issues examined in the briefing note for the benefit of public health practitioners who want to influence the transformation of the built environment.

Towards these goals, we hope that these documents prove useful and interesting. We welcome your suggestions and ideas for norms to add to this series.

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