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Navigating Accessibility

The Need for Uniform Guidelines

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For transportation engineering practitioners, a fundamental safety principle is uniformity. Guidelines and designs that are consistent encourage the application of standardized practices. This consistency helps practitioners become well-practiced and versed in implementing these designs, leading to a higher standard of quality and safety. Providing uniform designs is not only helpful for practitioners. It is also critically important for road users. It not only encourages predictable behaviours, but it also plays a pivotal role in reducing the risk of user errors.

This principle of uniformity becomes even more crucial when considering the diverse needs of all road users, particularly pedestrians with disabilities. For example, people who are blind or have low vision often rely on mental maps to navigate areas they frequently travel to and rely on assumptions about the built environment in areas that are new and unfamiliar. However, if tactile warning indicators and other design features are implemented inconsistently, it can increase the risk of people who are blind or have low vision becoming disoriented. It may hinder their ability to identify the presence of a conflict area. For people with intellectual or cognitive disabilities, consistency is likewise important. Processing and retaining information may be more difficult for these user groups. Knowing what to expect about navigating roadways increases safety and independence for all people, but especially people with disabilities.

A recent accessibility training offered by ITE Canada, conducted by experts from TNS and Left Turn Right Turn, highlighted a key theme—the lack of consistent guidelines on accessibility. There are federal guidelines for the design of accessible exterior elements such as sidewalks and intersection elements, and some municipalities and provincial governments have taken the initiative to develop their own accessibility standards and guidelines. However, these standards and guidelines often offer limited guidance for designing specific types of facilities, particularly at locations where interactions between pedestrians and other active transportation users occur, such as on shared facilities or at crossings of bicycle facilities. They may also differ between different jurisdictions, which can result in inconsistent application and implementation of accessible design features. This makes it difficult for practitioners to design and implement effective transportation infrastructure. It also makes it challenging for road users to navigate different communities as they live, work, and recreate across jurisdictions.

For many road design features, practitioners commonly consult the *Geometric Design Guide for Canadian Roads* ('Geometric Design Guide') published by the Transportation Association of Canada (TAC), or they use an equivalent guide at the provincial level. The situation is quite different when trying to determine the accessibility features to implement at a site. There may be some limited information in Chapter 6 of the Geometric Design Guide, which is related to Pedestrian Integrated Design. However, there are many other reference documents, some of which may be unfamiliar to transportation practitioners, such as the *Accessible Design for the Built Environment* standards from the Canadian Standards Association. Consequently, accessing new and emerging best practices in accessibility can be challenging for transportation practitioners. They must consult various guides, manuals, and research papers, each addressing different aspects of accessibility, from a wide range of transportation associations. It can be difficult for practitioners to determine which source to consult at which time and which standard or guideline takes precedence in each situation. This is, in part, due to the multidisciplinary nature of accessibility. Equally challenging and problematic is the fact that these standards and guidelines do not necessarily consider the needs, perspectives, and experiences of road users with disabilities in the given community being designed for.

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The pressing question is how we can provide transportation road designers, planners, and practitioners with easy access to the best practices in accessibility to ensure more inclusive designs are consistently implemented on our road network.

Addressing the Uniformity Challenge

A recent example of a sector successfully addressing a similar challenge is the railway industry. Transport Canada's adoption of the *Grade Crossing Regulations* in November 2014 consolidated design guidelines, and ensured uniformity in design, warning systems, and traffic control devices at at-grade railway crossings. Before these regulations, transportation engineers had to consult multiple manuals from different authorities, leading to a lack of consistency. The Grade Crossing Regulations streamlined the process for engineers and enhanced uniform safety measures across railway networks.

While this regulatory approach worked well for the railway industry, applying a similar framework to accessibility faces additional challenges. Accessibility is a dynamic field, constantly evolving with new design tools and facility types. Unlike the railway industry, where technologies and safety measures have remained relatively stable, designing for accessibility requires a more flexible approach.

Legislation, such as the *Accessibility for Ontarians with Disabilities Act (AODA)* and the Americans with Disabilities Act (ADA) in the United States, are a foundation but they have their challenges. Legislation is slow to change, and adapting to new accessibility features, technologies, or facility types can be cumbersome. For instance, the ADA's accessibility guidelines stayed in draft for over 10 years until taking effect on September 7, 2023. Notably, it still lacks standards for accessibility features in separated bicycle facilities.

Guidelines, particularly those developed by national associations, offer a more adaptable solution. As living documents, guidelines can be regularly updated to keep pace with technological advancements and changing needs. However, uniform guidelines alone are not the complete solution. It is equally crucial to ensure that measures for implementing accessible facilities are well-known across the industry. Recognizing the existing gaps in our accessibility knowledge, concerted efforts are needed to understand the benefits and challenges of different design measures for people with disabilities. Bridging this knowledge gap requires a dedicated and continuous commitment to improving our understanding of accessibility challenges and solutions.

Addressing the Knowledge Gap Challenge

Recent complaints filed with the British Columbia Human Rights Tribunal highlight a significant knowledge gap related to accessibility.

In the first legal case, *Belusic obo Canadian Federation of the Blind v. City of Victoria*, the Canadian Federation of the Blind alleged that floating bus stops discriminated against blind people. Here, a bidirectional bicycle facility replaced curbside bus stops with 'floating bus stops', separating boarding platforms from the sidewalk with a bicycle facility.

The decision brought attention to some intriguing points. Although the bicycle facility complied with the most recent design guidelines, these

guidelines did not account for the safety of blind and low vision persons who had a harder time detecting oncoming bicycles. Notably, British Columbia is among the few provinces with a comprehensive guide dedicated to active transportation design. Despite the court concluding that the new facility discriminated against blind people, it emphasized the lack of specific measures to 'fully guarantee protection'.

In the second legal case, *Kovacs v. City of Maple Ridge*, a crucial concern emerged regarding the location of a bus stop on a shared facility and potential conflicts with cyclists travelling in two directions. Regrettably, there is currently no clear guidance in the various manuals on how to effectively design such facilities or to ensure independent navigation for people who are blind or low vision.

The need for more research and collaboration with people with disabilities is evident. Road designers must work more closely with individuals with disabilities to comprehend their needs and understand the implications of specific designs and how they are navigated by all users.

An exemplary collaboration is evident in the research project conducted by the Canadian National Institute for the Blind (CNIB) on ***Island Platform Transit Stops, Cycling Infrastructure, and People with Sight Loss***. This initiative recruited participants to test various designs of floating bus stops, identifying challenges related to finding the bus stops, orienting, navigating to and from the island platform, and detecting approaching cyclists. The study report includes valuable guidance on the measures to implement at floating bus stops, with the potential for incorporation into design guides, such as the example shown below. The report is available for download here as part of the CNIB's *Clearing Our Path* resource. This website presents information to support the design of more accessible environments for people impacted by blindness.

While our knowledge continues to evolve, it should not impede the development of national guidelines. A conscious decision for increased collaboration between transportation practitioners and people with disabilities could significantly enhance the accessibility of our transportation network.

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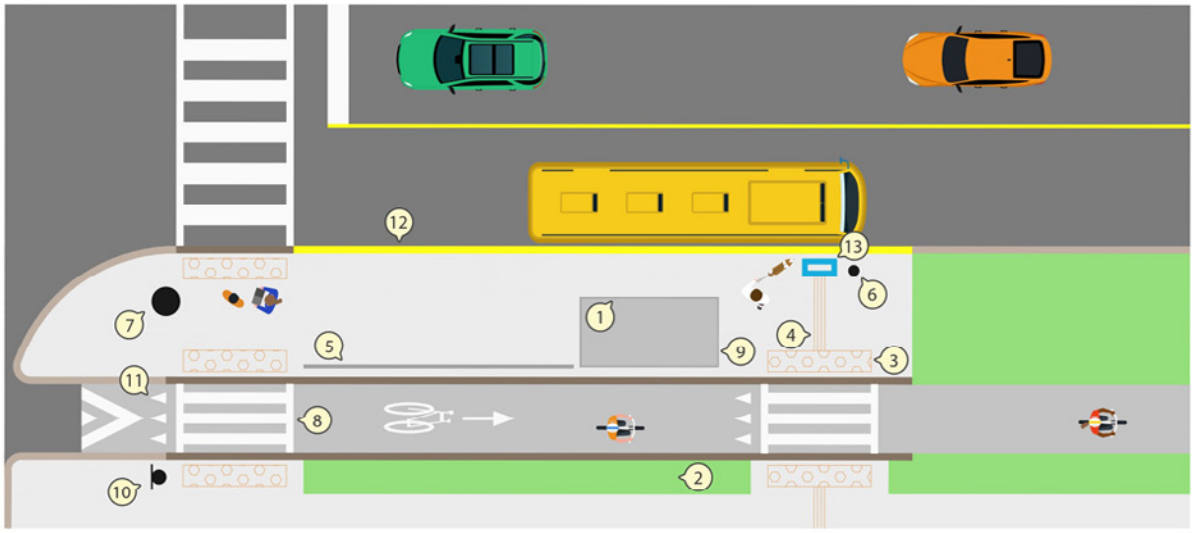

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An example of collaboratively developed recommendations for floating bus stops at far side of intersections. Download the study report from CNIB to learn more.

Conclusion

In the pursuit of creating inclusive and accessible transportation networks, the need for uniform guidelines is evident, not only as a means of fostering consistency and improving safety but also to facilitate access to best practices on accessibility. Striking a balance between uniformity and flexibility is crucial, and while federal or provincial legislation can provide a foundation, it is imperative to explore dynamic solutions that allow for timely updates, and which account for the immediate needs of people with disabilities. As the transportation industry embraces accessibility, a collaborative effort is needed to develop and implement guidelines that not only promote safety, independence, and inclusivity but also serve as a conduit for sharing and accessing the best practices in the ever-evolving field of accessibility. This collaborative approach ensures that the knowledge base remains current and accessible for all users, regardless of age or ability.

Grow your knowledge of the standards, guidelines, and best practices for accessibility in transportation by registering for **Removing Barriers: A Workshop on Achieving Accessibility in Transportation Systems** *at itecanada.org/training*.

AUTHOR BIOS

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