8.2 Mobility Objectives

The proposed University mobility framework is guided by a number of high-level mobility objectives, that may be studied further through future, detailed transportation studies.

An Attractive and Integrated Multi-Modal Hub

As an anchor within the larger City and County fabric, Trent University already offers connections to GO, City, and County transit routes that are utilized by students, staff, faculty, and visitors. As the campus evolves, the integration of a thoughtful and cohesive intermodal hub would strengthen the University's role within a larger regional transportation network, and provide convenient, safe, and effective mobility options to the campus and community.

Reduced Reliance on the Vehicle

The car is a convenient and conventional means of travel, but is not without environmental impacts. Across the world, high levels of pollution due to automobile emissions are leading to greenhouse gas effects and high levels of congestion. As the campus evolves and expands there is an opportunity to retrofit existing vehicular infrastructure where possible, and design future vehicular routes to prioritize alternate modes of transportation- transit, cycling, or walking- instead of the vehicle. In part, this requires identifying measures to reduce conflict points between modes to create seamless connections between transit, cyclists, pedestrians, and cars.

Shifting modal share away from the car and improving intermodal connections will mitigate environmental impacts, create a more attractive and convenient campus, and promote the health and wellbeing of the campus and community.

Celebrating Arrival to the Symons Campus

The main entrances to the University will indicate to students, staff, faculty, and visitors that they have arrived to the Symons Campus. The entrances will be located at key locations to clearly signal when one is crossing the threshold into the University's lands. These entrances will reflect the diverse offerings at Trent University in their material, scale, and integration - including learning and discovery at the Campus Core main entrance, environmental preservation and stewardship at the Wildlife Sanctuary Nature Area, innovation and research at Cleantech Commons and the Trent Farm, and community and inclusivity at the Seniors Village. The entrances also provide an opportunity to acknowledge the campus lands as traditional territory at a visible location through naming, public art, and placemaking elements.

A Connected Trail Network

The University Green Network invites students and visitors to observe wildlife with a combination of the lush forests, drumlins, streams, and open fields. The Symons Campus is abundant with both formal and informal nature trails, accessible from various points across campus, and owned and managed by various parties, including Trent, the City of Peterborough and Parks Canada. A key objective of the mobility framework is to improve connections to a formalized trail network, that finds opportunities to sensitively integrate trails, and interweave them throughout the Campus Core to create a truly interconnected and safe trail and pedestrian circulation network. The trail network and pedestrian connections throughout campus will become the common thread or tissue that binds the urban and the natural.

It is recommended that Trent University prepare a trails master plan to aid in managing trail use and safety and apply best practices in providing connections to key destinations, closing network gaps, and serving a wide range of users.

Improved Road Safety

As modes of travel on Trent's roads diversify and grow, so does the risk associated with proximity of pedestrians and vehicles. Improving road safety and designing new roads across Campus must consider these risks and work to mitigate them. The safety of cyclist, pedestrians,

and transit-users is paramount and may be reinforced by designing streets to slow down vehicular traffic across campus; provide ample lighting along primary routes during dark hours (along primary routes, where appropriate and avoids impact on adjacent natural features); integrate on-street parking and/or vegetated buffers between streets and boulevards; and introduce specialized paving treatments in special areas to signify a pedestrian-priority.

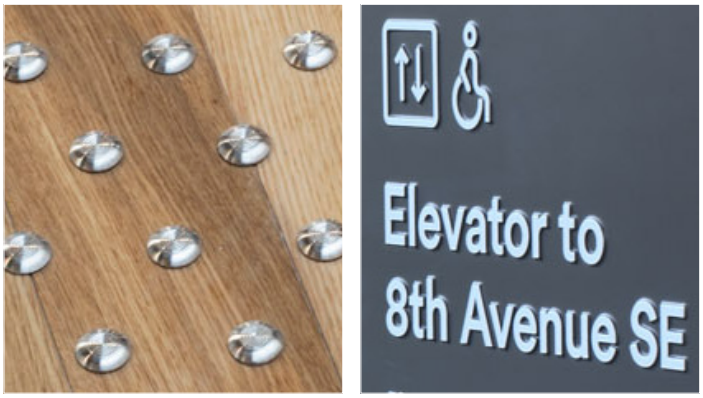
Universal Design and Accessibility

Universal design is the design and composition of an environment so that it can be accessed, understood, and used to the greatest extent possible by all people regardless of their age, size, ability, or disability. To create truly equitable campus green spaces and circulation networks, they must be designed with these users in mind. Examples of the application of universal design within the mobility network include sound signals for the visually impaired at intersections; tactile strips to mark crossings; gradual ramps to accompany staircases; and railings, among others.

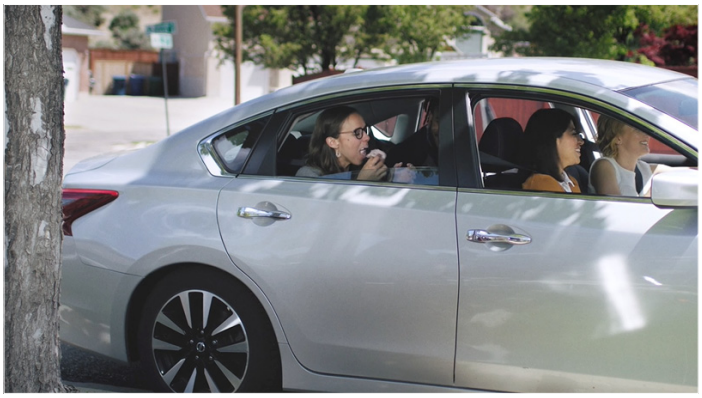
Changes in Transportation Patterns

Ride hailing platforms are just one example of a recent change in transportation patterns, made available for the general public due to increased access to the digital marketplace, providing immediate access to goods and services. On-demand transport is generally characterized by technologies that match and optimize routes, provide digital mapping with real-time road conditions, and integrate dynamic pricing algorithms that reflect changes in demand and supply.

These could offer an opportunity for Trent University to reduce the need for privately-owned vehicles. Where students, faculty, staff, and the community, can look to their phones or devices to find numerous green transportation options, including car-pooling and car-sharing platforms. The University is encouraged to provide priority infrastructure to support car-sharing modes, such as priority parking for car-pooling and permanent on-campus locations for car-shares.



Calgary Central Library coordinated its public realm and building design with established standards of care in terms of public accessibility. Source: Calgary Library



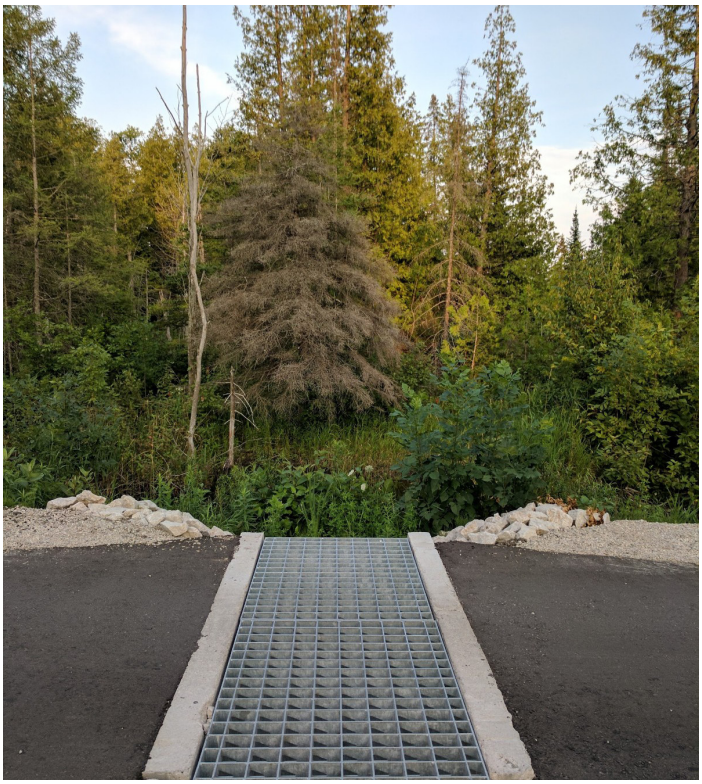
University of Waterloo partnered with the TravelWise program to access its carpool matching app and to track trips (e.g., cost by car, bike, or bus, calories burned, carbon spent, etc) Source: GotravelWise.ca

500m multi-use path improves cycling and pedestrian accessibility, Genk, Belgium
Source: erwinvanamstel.com

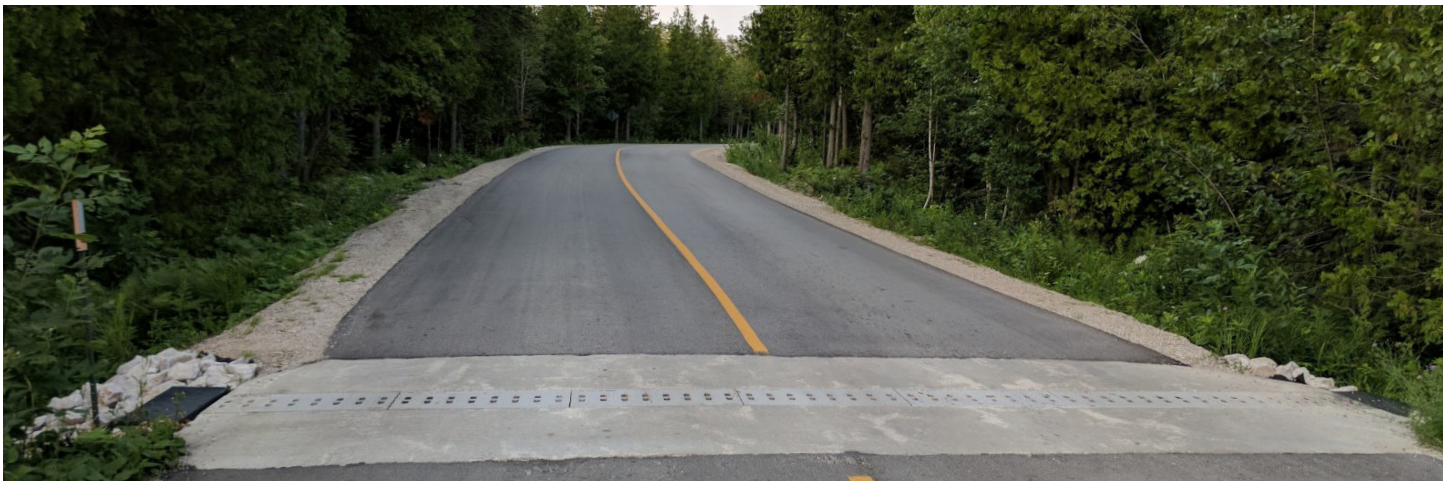
Mitigating Impacts of Roads on Wildlife

Fragmentation of wildlife habitat by roads is a known source of impact on the landscape. It creates indirect impacts by altering wildlife movement patterns and behaviour, and direct impacts through road mortality. Collisions with wildlife are also potentially hazardous for people (e.g., collisions with deer). Opportunities to address these impacts through mitigation on the existing transportation network (roads, trails) and bringing road ecology principles and practices into the planning and design of new portions of the network will support Trent's commitment to proactive environmental management and support a net benefit to the system by addressing existing issues.

Mitigation opportunities may include signage, road markings, wildlife warning reflectors, wildlife fencing, or crossing structures. Trent will work with the appropriate agencies (e.g., the City of Peterborough) to explore mitigation options and opportunities.



Wildlife mitigation 'daylighted' crossing structure, Ontario



Wildlife mitigation 'daylighted' crossing structure, Ontario. Source: NSE