

Shift: Mobility

UNIVERSITY OF WATERLOO

2026



UNIVERSITY OF
WATERLOO

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INTRODUCTION

TERRITORIAL ACKNOWLEDGEMENT:

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is coordinated within the Office of Indigenous Relations.



OVERVIEW

Shift:Mobility is the University of Waterloo's inaugural sustainable transportation plan. The plan establishes key directions and a framework of action for how Waterloo can support and reduce barriers to sustainable transportation choices in the future. With the major shifts that have occurred on campus and in the community over the past decade, this is an important time for Waterloo to have a clear vision and direction for programs, services, infrastructure, policy, and engagement efforts to strengthen sustainable transportation options.

Influenced by major expansion of transit and active transportation services, community densification, future development of the hospital on North Campus, affordability concerns, and the continued impending climate and environmental crises, there are numerous external forces to which the campus must respond. Internally, creation of the [Environmental Sustainability Strategy](#), [Shift:Neutral climate action plan](#), the long-term vision of [Waterloo at 100](#), the renewed [Waterloo Values](#), changing enrollment and growth trajectories, and acute fiscal constraints all lead to an evolution needed in Waterloo's planning and coordination of campus transportation systems. *Shift:Mobility* aligns closely with the [Campus Plan](#), which maintains a strong focus on mobility. Further background on the need for a sustainable transportation plan is provided in **Appendix B**.

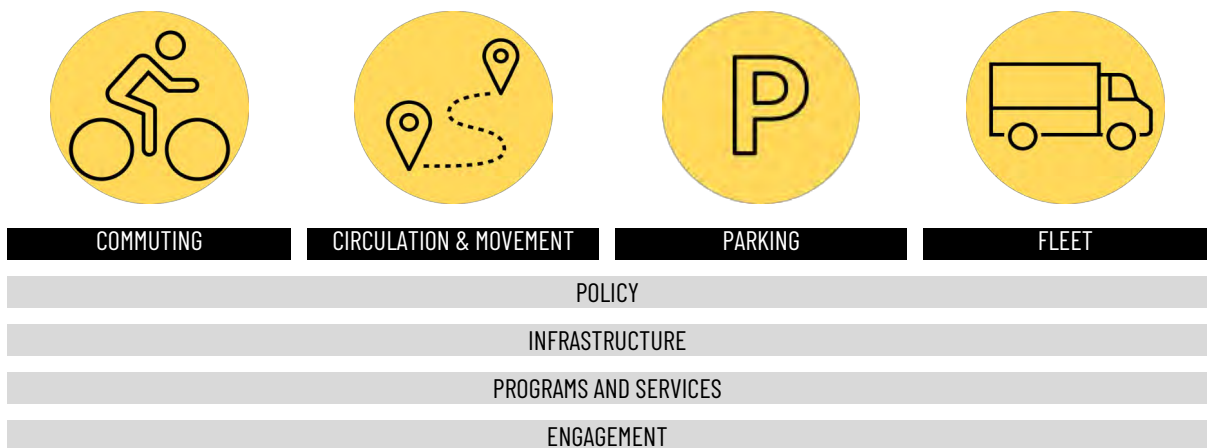
SCOPE AND TRANSPORTATION PILLARS

Shift: Mobility articulates the actions that can be initiated over various timeframes to advance targets, organized and scoped within four pillars of transportation: **Commuting, Circulation and Movement, Parking, and Fleet**. Within each of these pillars, actions can include policy, infrastructure, programs and services, and engagement as shown in **Figure 1**.

This plan focuses on advancing active and sustainable transportation modes, such as walking, cycling, transit, carpooling, avoided trips (remote work), and electric vehicles (EVs). Although significant in the campus context, the plan excludes University-related air travel, business travel, and movement or conveyance within buildings. The plan also does not directly focus on the Affiliated and Federated Institutions of Waterloo (AFIW), although there are many connected impacts.

This report uses several key definitions to distinguish between different areas of the institution in Waterloo. These campus areas are categorized separately due to their distinct transportation patterns and specific needs, as identified in the travel survey, which treated each as a unique campus. The **Inner/South Campus** refers to the traditional campus area, primarily located within Ring Road, and includes Fed Hall and the Village residences, and University of Waterloo Place residences. The **East Campus** is defined as the area situated east of the Laurel Trail and the train tracks. The **North Campus** encompasses the region north of Columbia Street, which includes facilities such as CIF, the School of Optometry, the RAC buildings, the Toby Jenkins building, and both CLV and CLV North residences. Collectively, the term **Waterloo Campuses** refers to the combined areas of the Inner/South, East, and North Campuses.

Figure 1: *Shift: Mobility Pillars of Transportation*





OUTCOMES

The University of Waterloo has developed *Shift:Mobility* through research, community engagements, and planning group efforts over an 18 month period. The plan establishes key directions and a framework of action for how Waterloo can support and reduce barriers to sustainable transportation choices over the short (next 5 years), medium (5-10 years), and long (10+ years) term across the University's Waterloo Campuses, as well as the satellite campuses of Stratford, Cambridge, and Kitchener.

Through implementation of *Shift:Mobility*, Waterloo is working toward five core outcomes to create a more vibrant and sustainable campus:



improve the quality of sustainable transportation options to enhance community members' wellness and satisfaction



optimize effective and efficient use of University assets including land and fleet



effectively deliver core operations and logistics



reduce greenhouse gas emissions and environmental impacts from transportation



strengthen safe and accessible use of campus for all users



TARGETS

Based on the desired outcomes, *Shift:Mobility* sets bold targets that guide its actions and should inform future planning decisions to ensure steady, coordinated progress:

- Over time, reduce dependence on single occupancy vehicle travel, and build a supportive ecosystem for more sustainable travel modes. The University’s policy and programs should aim to **support 90% of trips to campus by active and sustainable transportation modes such as walking, wheelchair, cycling, scooters, and transit, carpooling, and trip reductions**. This should include a minimum of 60% for employees and over 90% for students.
- Align planning directions such that, **by 2050, there are no direct GHG emissions from transportation**, for compatibility with the University’s climate targets. In addition to non-driving forms of travel, this will involve supportive strategies for uptake of EVs by commuters and within the campus fleet.
- Solidify the **active-transportation-focused development** of the campus by creating active-transportation-only zones along the Two Row Path and key east-west corridors, such as William Tutte Way, with exceptions for core logistics and accessibility needs.
- Ensure **users of all abilities will be able to utilize the transportation system equitably**. This includes, over time, improving pathways, circulation routes, and transportation services.
- **Improve transportation satisfaction** for employees and students for commuting and for inter-campus travel, including the satellite campuses.

Shift:Mobility will be updated every five years, with annual progress tracked through the University’s [Environmental Sustainability Report](#). Key Performance Indicators (KPIs) have been identified and are expected to evolve over time as conditions and data sources change (see **Appendix B** for details).



KEY ACTIONS

Shift: Mobility is shaped by extensive input and feedback from engagements across the institution and community (described in Appendix B and C), alongside best practices and actions of peer institutions, to establish 63 actions within the transportation pillars of Commuting, Circulation and Movement, Parking, and Fleet. These are listed in the plan within each section (e.g. C1, F3, etc.). These include actions that:

- Strengthen programs and services to support active and sustainable transportation modes such as walking, cycling, transit use, carpooling, and avoided trips
- Advance more flexible parking systems to enable efficient choices and improve lot utilization
- Look for opportunities to consolidate the amount of surface parking and repurpose land for other development uses
- Re-imagine Ring Road as a multi-modal “complete street,” with a more natural, humanized, and inviting perimeter of the Inner/South Campus
- Enhance connectivity between the Inner/South, East, and North campuses
- Improve inter-campus travel and expand commuter services and programs within the satellite campuses
- Decarbonize, modernize, and right-size the campus fleet

These actions will need to occur in the short, medium, and long term, recognizing funding and capacity constraints. Most of the short-term priorities focus on low or no-cost actions that can be implemented or scaled quickly; planning is laid out for higher-cost and longer-term actions that can be integrated where possible in many incremental decisions.

CONTEXT

Transportation is an important part of any community’s fabric, affecting health and wellbeing, access to services and employment, accessibility, community building, and environmental, social, and economic outcomes. As a very broad trend, many communities, including all municipalities hosting University of Waterloo campuses, have developed strategies to create denser, more urban cityscapes with a greater emphasis on transit-oriented development and active transportation. In Waterloo Region, this has materialized through expansion of Grand River Transit (GRT)’s local bus services including the iXpress rapid bus system and the ION light rail system over the past decade, as well as through major improvements to multi-use trails and cycling lanes. Transportation makes up about half of all GHG emissions in the local community, and as such there remains continued effort to develop more sustainable transportation systems across many levels of government policy.

Peer institutions are investing in low-carbon, affordable travel options for students and employees. The *Shift:Mobility* team reviewed plans, policies, and/or services across the U15 institutions and other peers to help inform many of the actions in this plan.

The University of Waterloo is not starting from scratch. There is already a set of transportation policies, services, and infrastructure that covers all four transportation pillars of this plan. This has unfolded organically, through partnerships with area municipalities and community organizations, and through gradual development of on-campus initiatives.

Building on an understanding of current conditions and University goals, this plan presents bold actions to advance sustainable transportation and its broader impacts. These actions reflect not only technical analysis and best practices but also the voices and lived experiences of the campus community. Shaped through extensive engagement with the community, the actions represent a shared vision for a more sustainable, accessible, and connected University of Waterloo. Spanning short (0-5 years), medium (5-10 years), and long-term (10+ years) horizons, some actions can begin right away, while others will require deeper planning and coordination. Actions are presented in detail by pillar in the following sections, with a summary provided in **Appendix A**.






Our engagement process:



COMMUTING

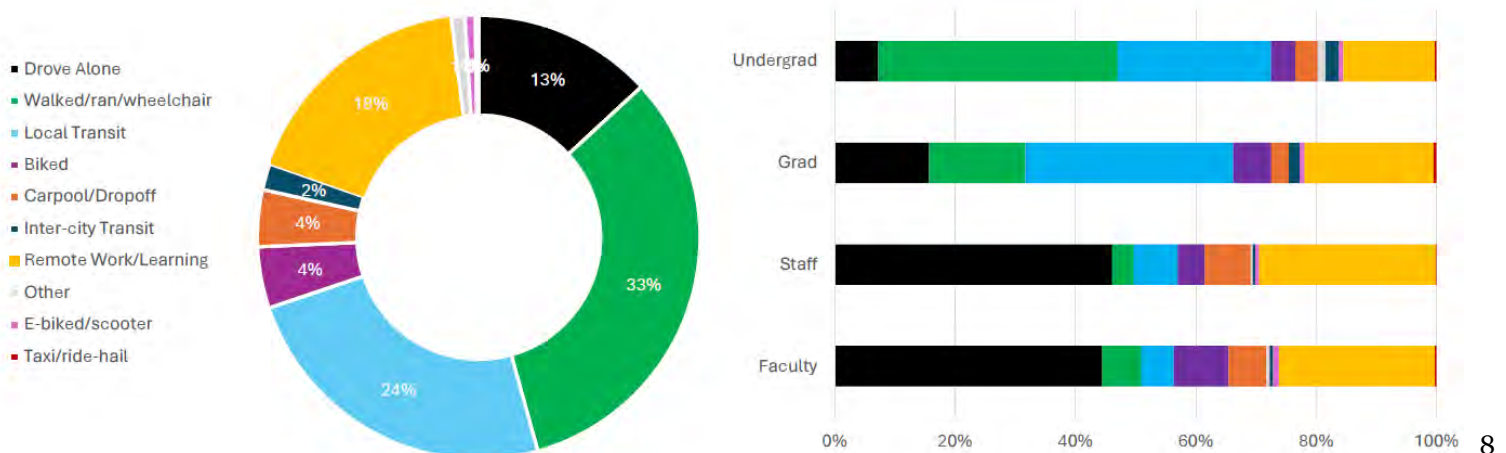
Sustainable commuting, such as active transportation, transit, carpooling, avoided trips (remote work), and the use of EVs, is key to building a sustainable, healthier, and more connected campus. Sustainable commuting reduces emissions, traffic, and land use for parking, while offering cost savings and boosting wellbeing. Waterloo has existing programs to support travel by these modes, as shown in **Figure 2**, which have been helpful for students and employees to travel to and from the campus. A full list of transportation programs is available on the [Sustainability website](#).

Figure 2: University of Waterloo Sustainable Transportation Programs and Supports

ACTIVE TRANSPORTATION		<ul style="list-style-type: none"> ✓ Proximity to community trails and multi-use pathways ✓ Walking distance to many neighborhoods ✓ Secure bike parking facilities ✓ Micromobility partnerships for scooters and bikes ✓ Bike repair stations and WUSA Bike Centre ✓ Proximity to expanded community bike lanes
PUBLIC TRANSIT		<ul style="list-style-type: none"> ✓ Extensive GRT and ION transit services on campuses in Waterloo Region ✓ Transit Terminal on East Campus ✓ Discounted GRT employee transit passes ✓ GRT U-Pass for undergraduate and graduate students
CARPPOOLING & CARSHARING		<ul style="list-style-type: none"> ✓ Carpool matching software for students and employees ✓ Dedicated preferential carpool parking spaces ✓ Parking for public community carsharing program
ELECTRIC VEHICLES		<ul style="list-style-type: none"> ✓ EV charging stations ✓ Dedicated Electric Vehicle parking spaces
POLICIES & SERVICES		<ul style="list-style-type: none"> ✓ TravelWise trip planning and tracking portal ✓ Emergency Ride Home program for employees ✓ Remote working for employees where appropriate ✓ Events and education sessions on sustainable commuting

These sustainable commuting options have become commonplace. There are over 10,000 transit rides to University of Waterloo every day, and an even greater number of walking trips. Waterloo’s modal split, calculated every two years through the campus travel survey, illustrates that, as of Fall 2024, 86% of trips to campus were using a sustainable mode of travel or avoided travel through remote work or learning, as shown in **Figure 3**. There are notable differences between employees and students, with higher automobile usage among employees, but at a rate that is consistently lower than the community-wide average.

Figure 3: Trips Over Past Week Modal Split (Weighted)





The travel survey has been conducted since 2012 for employees, and since 2018 for students. While there have been some small changes year-over-year, the largest shifts by far happened during the transition to remote working and learning during the pandemic, resulting in a substantial reduction in commuting trips to campus.

Among students and employees who drive, there has also been a notable increase in use of EVs, with employees and students reporting that 6% of all vehicles were electric in 2024. While still small, that is double the reported rate of usage in the 2022 travel survey, and an additional 6% of employees and students have a hybrid vehicle.

The historical changes in commuting patterns are available in **Appendix B**.

There are notable differences between campuses, with students and employees at the Kitchener and Waterloo Campuses most likely to use active transportation or public transit. In Cambridge and Stratford, there is a lower level of service and less access to local housing, leading to relatively higher rates of driving.

The University has established a strong foundation, yet important opportunities remain to improve, expand, and raise awareness of underutilized programs and services. Access to services also varies across and within campuses. The following **Commuting Actions** aim to increase the adoption of sustainable transportation options and enhance the overall commuting experience.

122 million
*kilometers travelled
to and from
University of
Waterloo in 2024*

16,000
*t CO₂-e of GHG emissions
from commuting per year
(about the same as 6,000
average Ontario homes)*

86%
*of trips to campus
(30,000 people per day)
taken by sustainable
transportation modes*

*“I love to hop on my bike and ride the wind
— it’s fast, fun, and eco-friendly. It’s the
perfect way to stay active and explore new
places on my way to campus.”*

- Bike Fair participant

Active Transportation (e.g. Cycling, Walking, Scooters, Wheelchairs)

C1: Advocate to municipalities to improve pedestrian crossings at key points.

Pedestrian environments must be safeguarded and strengthened through thoughtful urban design with measures such as improved signals and protective crossing infrastructure. The University will advocate to municipalities for such improvements, particularly in high pedestrian areas such as along Columbia Street by Campus Housing entrances and Hagey Boulevard to CIF.

C2: Construct or allow for expanded secure bike parking.

Bike theft is a major barrier to cycling. Expanding secure, covered bike parking — such as lockers, cages, and indoor spaces — can deter theft and support a more user-friendly cycling experience. The University will expand secure bike parking spaces.

C3: Improve positioning and organization of outdoor bike racks.

Bike racks are to be high-quality, meet design standards for stability and secure locking, and located near building entrances in visible, monitored or monitorable areas that comply with accessibility and Grounds requirements. Waterloo will formulate and implement a bike parking plan to meet these requirements.

C4: Adopt online bike registry for theft deterrence and recovery.

The global online bike registry, [Project 529](#), deters theft and supports bike recovery efforts. This tool enhances campus security and helps return stolen bikes to their owners. The program is supported by local police in Stratford and now Waterloo Region. Waterloo will work with local police authorities to bring these programs to campus and facilitate participant registrations.

C5: Expand access to showers and changerooms.

Providing access to showers and changerooms is key to ensuring that active commuters can feel comfortable and maintain professionalism before work or class. Current options are limited by location and can involve an added cost for employees. Waterloo will integrate these facilities into new buildings and pursue opportunities to retrofit or enhance access to existing facilities.

C6: Improve access to bike racks during winter.

It is important to support year-round cycling. Waterloo will improve its planning and operations to ensure an appropriate number and placement of bike racks remain usable during winter with effective snow clearing to maintain access.

C7: Enhance Emergency Ride Home program awareness and usage.

The [Emergency Ride Home program](#), offered through TravelWise at the Region of Waterloo, reimburses travel costs for sustainable commuters facing unexpected situations. The University will collaborate with the Region to improve program visibility and ease-of-use.

C8: Advocate for improved quantity, quality, and winter maintenance of bike lanes, trails, and sidewalks in the community.

Community feedback highlights gaps in active transportation infrastructure and their winter maintenance. Waterloo will identify priority areas and advocate for direct, efficient, and accessible routes that align with Regional and City plans to support year-round active commuting.

C9: Create a maintenance and expansion plan for bike repair stations.

Bike repair stations support cycling but are currently limited to Inner/South Campus and Campus Housing sites. Waterloo will expand these to satellite campuses and include regular maintenance to address tool loss and damage.

C10: Improve campus connections and wayfinding to local municipal trails.

Waterloo is located near notable trails like the Trans-Canada and Laurel Trail. The University will work to improve connections in areas such as North Campus and Lot A through Waterloo Park, and to align campus infrastructure with municipal systems to support seamless, accessible trail navigation.

Transit

C11: Advocate for improved transit service, park-and-ride options, and clearer route naming.

Transit enhancements, such as increased frequency, extended service hours, and park-and-ride options for those living farther from transit routes can boost ridership and improve the commuter experience. The University will advocate to transit authorities and municipal partners for these improvements and encourage clearer bus route naming to reduce confusion for new or occasional riders.

C12: Increase promotion of the corporate transit pass to employees.

A [discounted transit pass](#) has long been available to employees through GRT. The University will strengthen promotional efforts to help ensure that more employees are aware of this sustainable commuting option and understand how to access it.

C13: Advocate for improved inter-city transit between University of Waterloo campus cities and beyond.

Many students and employees commute from across and beyond the local area for daily commuting or occasional study or work-related travel. Waterloo will advocate for enhanced inter-city transit, including two-way, all-day GO Transit rail service, and better connections to GRT and ION that would benefit all campuses.

C14: Explore options to improve employee transit pricing.

There is employee interest in using transit, but upfront cost remains a barrier, particularly as the current cost for a monthly corporate rate transit pass exceeds monthly parking permit fees. Waterloo will explore options within the institution and with Regional partners to improve transit affordability.

Electric Vehicles

C15: Expand the availability of EV charging stations across the Waterloo Campuses and satellite campuses.

Existing EV charging stations across the main and satellite campuses are heavily used, and demand is expected to grow. Waterloo will identify areas for targeted expansion, leveraging local, provincial, and federal funding and directions, to expand cost-efficient Level 2 chargers.

C16: Implement pay-for-use, tiered pricing for EV charging stations.

Paid charging for EVs is now widely accepted and supports cost recovery and user optimization. Waterloo will implement paid EV charging access, using a tiered model to encourage efficient use of infrastructure.





Carpooling

C17: Promote and enhance ride-matching platform.

The existing TravelWise ride-matching website is underutilized, despite demonstrated interest in ride-matching. Waterloo will increase promotions to raise awareness and build a user base for effective carpool matching, and advocate to TravelWise for platform enhancements that could improve flexibility and reduce commitment barriers.

C18: Explore revision of carpool permit eligibility criteria.

Although current eligibility rules for carpooling were designed to prevent people from bypassing waitlists for preferred parking lots, they may deter early adoption of carpooling and exclude those who cannot or choose not to drive. Waterloo will explore more flexible criteria, including student eligibility, to boost participation and increase satisfaction.

C19: Streamline the proof-of-carpool-permit process.

The current single-permit/transponder system can create access issues when the designated driver is unavailable. While day permits exist, the process may be considered inconvenient. Waterloo will explore digital verification options to improve flexibility while maintaining enforcement integrity.

C20: Expand incentives and flexibility for carpool participants.

To increase carpool participation, the University will strengthen incentives and enhance promotion efforts. Measures include maintaining preferential parking, offering a set number of free day passes for occasional solo trips (with safeguards against misuse), and introducing rewards such as prizes or recognition, as outlined in Action C22.

Carsharing

C21: Enhance partnerships with community carshare organizations to improve program options.

Carsharing has proven successful at peer institutions and can enhance sustainable commuting while offering flexible access to vehicles when needed. Waterloo will collaborate with service providers to expand options — such as on-campus vehicles, discounted memberships, or a corporate booking portal.

Other Commuting

C22: Provide education and engagement opportunities for sustainable commuting.

Building a culture of sustainable commuting requires both awareness and participation. Waterloo will seek to expand events and other formats to connect with the campus community to support sustainable commuting. This could include bike rides, competitions, and recognition programs, along with educational tools such as buddy systems, route planning support, and safety campaigns. Orientation Week and ongoing formats like lunch-and-learns and pop-up booths offer timely engagement opportunities.

C23: Include information on sustainable commuting options in hiring / onboarding.

Introducing sustainable commuting options — like the corporate transit pass and secure bike parking — during hiring and onboarding can help new employees form sustainable travel habits early. Waterloo will ensure this information is provided and tailored for all employee groups.

C24: Advocate to local municipalities for policies that support affordable housing near campuses.

Aligning housing and transportation planning can reduce commute distances and support equity, sustainability, and wellbeing. As campus land use evolves — such as through parking consolidation as identified in the Campus Plan — the University will engage municipal and internal partners to identify opportunities for mixed-use or residential development near campus.

C25: Explore the feasibility of staggering work/study start and end times.

Staggering start and end times for work and classes spreads travel demand and therefore can reduce peak-hour congestion and conflicts between vehicles and pedestrians, ease pressure on transit systems, and may delay costly infrastructure needs. Waterloo will explore opportunities for staggered starts, with an additional outcome of improving work-life balance and satisfaction for employees and students with non-traditional schedules.



CIRCULATION AND MOVEMENT



Students, employees, and visitors travel between many buildings and outdoor spaces across the Waterloo Campuses, as well as between the Waterloo, Kitchener, Cambridge, and Stratford campuses. In addition to personal travel, the University also facilitates transportation for internal and third-party deliveries, service vehicles, and waste management, among other critical logistical needs.

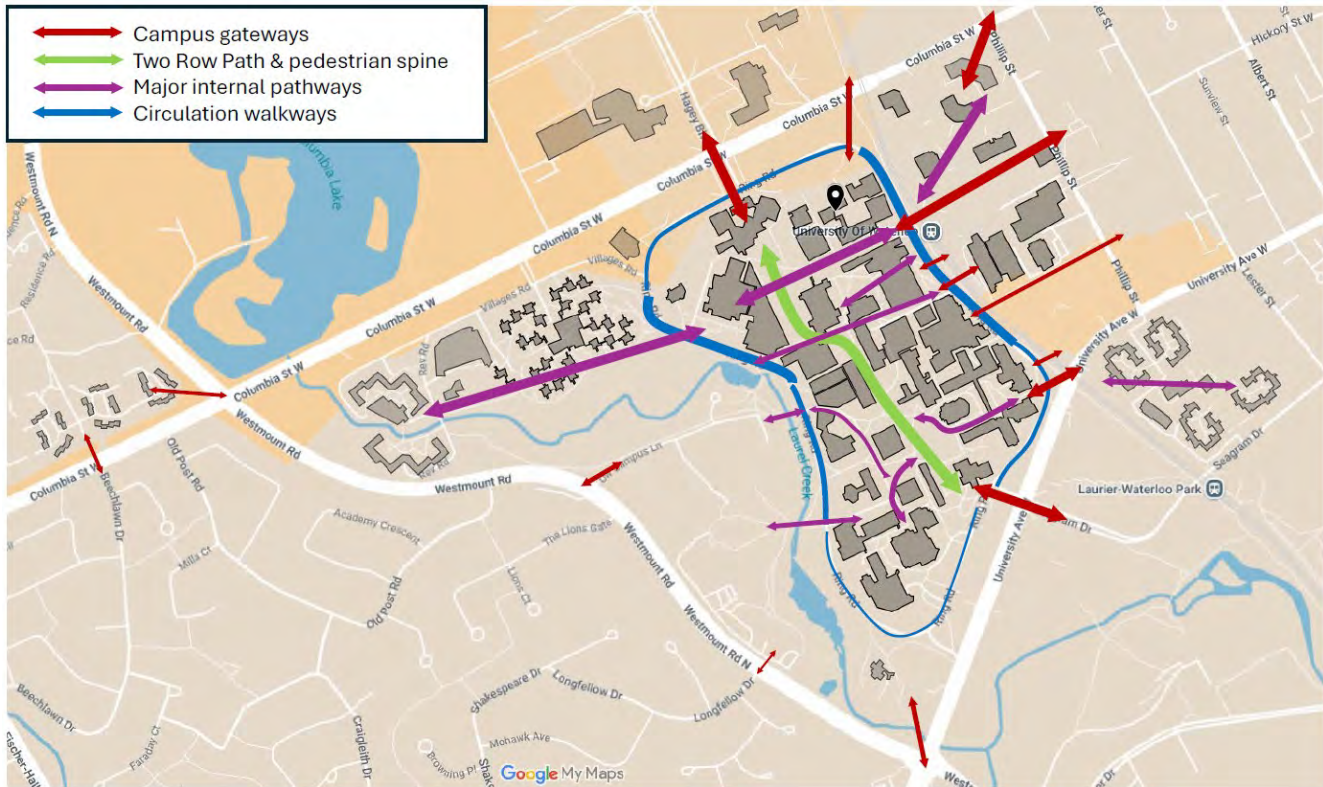
Most inter-campus travel takes place between the Waterloo Campuses and the satellite campuses, with limited direct travel between the satellites. Travel needs for employees and students vary from occasional meetings to regular commutes for split course loads, research, or administrative activities and accessing services. There are limited transportation services to connect the four campuses. As a result, most employees rely on personal vehicles, while students face affordability and access challenges. Current transportation services and key issues include:

- The Kitchener Campus benefits from ION and core GRT routes, supporting a much larger portion of inter-campus trips using local transit.
- The Stratford Campus is served by a chartered shuttle funded by the Faculty of Arts and managed by the staff at the Stratford campus. While the bus travels three times per day between the Waterloo and Stratford campuses, it is unable to meet the consistently high demand. Additionally, the bus comes at a significant cost to both the University and students.
- The Cambridge campus is connected to GRT, but the trip by transit to Waterloo is very lengthy and generally not practical. There is no dedicated shuttle service.
- North Campus (R+T Park), though part of the campuses in Waterloo, also presents travel challenges. It is a base for a group of employees and graduate students who are required to travel regularly to Inner/South Campus, but the distance creates logistical difficulties. An on-demand taxi program is provided at considerable cost to the University.

The Waterloo Campuses host the vast majority of students, employees, and visitors. The campus has a pedestrian-focused design, with work in recent years to improve wayfinding and safety improvements at pedestrian crossings and key areas of Ring Road.

Key gateways, as shown in **Figure 4**, continue to include University Avenue and Seagram Drive (south) and the Columbia Street and Hagey Boulevard (north). However, East Campus has emerged in the last five years as a far more focal gateway — particularly for active transportation users — due to the ION station and transit terminal on East Campus, as well as a surge in privately developed housing. Unfortunately, the development of supportive safety infrastructure and amenities has not kept pace. Pedestrian corridors through parking lots are limited, and the funneling effect of ION crossings create points of conflict between pedestrians, trains, buses, bikes, and vehicles where they meet at the intersection of the GRT transit terminal service road and Ring Road.

Figure 4: Major Active Transportation Gateways and Pathways at the Waterloo Campuses



The redefining of gateway entrances into the University has shifted internal active transportation travel. Within Inner/South Campus, the Two Row Path remains the primary active transportation spine. East-west connections like Tutte Way and the E3 service road now play larger roles but lack supporting infrastructure. Construction over the past decade, including the SLC/PAC expansion and BMH expansion, have created barriers on major pedestrian routes. While some improvements have been made, routing remains less convenient and intuitive.

Safety, comfort, and accessibility concerns were prominent throughout engagement sessions. Many active transportation corridors lack proper lighting, shade, and conflict-free routing, such as those near service areas (e.g. around E3 and EIT, and the corridor between STC, LIB, and ML). Accessibility barriers like uneven or damaged pathways, missing curb cuts, and stairwells create limited or inconvenient alternative routes. Key areas that require attention, while certainly not exhaustive, include:

- Connections between Inner/South and East Campuses, with stairway at the front of E5.
- Pedestrian route between E2/RCH/DWE, with staircases on either side of RCH.
- South campus gateway, with south steps to SCH and inadequate/inconvenient side ramp.
- Inconvenient accessible building entrances, located away from primary pedestrian routes.
- Parking lots with no connecting pathways or which have stair entries/exits that force people to walk or wheel on the roadway or trek over hills, grass, and snow.



Many University service vehicles and third-party contractor vehicles — including for construction and waste management — travel through the interior of campus, which detracts from the active transportation experience and raises safety concerns. The University has made important efforts to centralize most deliveries through Central Stores in an effort to reduce the amount of third-party traffic on Ring Road and optimize routes through the campus. There have also been strategic efforts to try to schedule large vehicles such as waste hauling to access the campus before classes start to reduce safety, noise, and aesthetic concerns. Still, high-volume delivery areas (e.g. SLC/PAC, SCH, William Tutte Way) face congestion and direct pedestrian conflicts.

Within this context, the following **Circulation and Movement Actions** will enhance movement within and between campuses to foster a safe, accessible, and inclusive multi-campus environment¹. Active transportation modes will be supported, in the spirit of Waterloo’s commitment to wellbeing via the [Okanagan Charter](#), while service vehicle routing will be thoughtfully planned to minimize conflicts and ensure safety while providing core operations.

>2,500
*average daily vehicle
traffic on Ring Road*

>9,000
*average daily pedestrian
crossings from East Cam-
pus across Ring Road to
William Tutte Way*

“I love how walking across campus feels like exploring — finding shortcuts and sometimes landing right in the middle of something fun.”

- Campus Life Fair participant

¹ Pedestrian tunnels and overpasses are valued circulation elements, but outside the scope of this report.

People Movement

M1: Explore additional options for efficient shuttle or transportation services between Stratford and Waterloo Campuses.

The current shuttle, funded by the Faculty of Arts and managed by the staff at the Stratford campus, requires significant coordination. Students pay for termly passes, and limited availability of passes creates barriers, while personal vehicle use raises safety and environmental concerns. Waterloo will explore improved transportation options that would support student mobility and enable access to shared experiences and essential services at the Inner/South Campus.

M2: Explore options to improve transportation connectivity between Cambridge and Waterloo Campuses.

Limited transit service results in long commutes when travel is needed, making it difficult for Cambridge students to access services and opportunities at the Inner/South Campus. The University will explore extended transportation options that could reduce these barriers and foster a stronger sense of belonging within the University community, while also potentially offering employees a flexible alternative for inter-campus travel that could reduce parking demand and environmental impact.

M3: Explore options to limit vehicle traffic on Ring Road and within the core.

Reducing non-essential vehicle access supports campus goals for safety and active transportation. Currently, many vehicles use Ring Road and pedestrian pathways inappropriately, creating safety risks. While access for essential purposes — such as service, deliveries, and accessibility — is critical, the University will explore infrastructure changes, re-designs, and enforcement strategies to discourage unnecessary traffic, in alignment with the Campus Plan.

M4: Re-imagine Ring Road into a complete street and expand connectivity to the surrounding community.

Ring Road currently supports vehicle circulation, but limits walkability and separates the Inner/South Campus from the surrounding community. Through the Campus Plan, Waterloo will investigate a reconfiguration of Ring Road that would free up space to better support multi-modal travel, with design changes like raised pedestrian crossings, bike lanes, accessible and short-term parking (as per Action P7), and green space. This could improve safety, accessibility, and integration with surrounding areas. Access for service vehicles, emergency responders, GRT buses, and other partners will still be maintained.

M5: Reduce speed limits on Ring Road and within campus to 30 km/hr.

Average vehicle speeds on Ring Road are within the current 40 km/h limit, but outliers pose safety risks, especially given the high volume of pedestrians crossing. Waterloo will take action to lower the speed limit to allow for improved safety while supporting a more human-scale environment for active transportation users.

M6: Create more robust crossings for key active transportation corridors.

This aligns with the broader Ring Road re-design called for in Action M4, with a specific focus on improving crossings where active transportation volumes are high (e.g. the east side of campus). Waterloo will work to create improvements to crossings in the nearer term that would align with potential future Ring Road re-design, while strengthening campus-community connectivity.

M7: Explore a re-design of East Campus parking lots with active transportation pathways.

The layout and dominance of surface parking in East Campus raise safety and aesthetic concerns. Waterloo will introduce active transportation corridors in the medium term that would enhance safety and user experience, while longer-term transformations are developed in the Campus Plan.

M8: Create design standards for sustainable, accessible transportation facilities.

Campus walkways and infrastructure vary widely in quality and design (e.g. uneven pavement, inconsistent curb cuts or audial signals), affecting safety and accessibility. Waterloo will develop a University-wide design standard covering materials, lighting, furniture, and accessibility features to guide consistent upgrades and support sustainable, inclusive mobility across campus.

M9: Update pathway maintenance practices into a defined standard, including snow and ice removal and surface repairs.

Some campus pathways have deteriorated due to construction, change in use, and climate impacts. Linked to Action M8, Waterloo will develop a maintenance standard and identify adequate resourcing needed to preserve accessibility, reduce snow and ice buildup and ensure timely winter clearing, and minimize salt use.

M10: Enhance wayfinding tools for the campus, particularly maps and apps for indoor routes and accessible paths.

Waterloo will expand the campus wayfinding project to include transportation-related information such as accessible indoor and outdoor routes, as well as transit and active transportation amenities, in order to improve the mobility experience for all users. Crowd-sourced data could help address gaps and support a more effective and user-friendly system.

M11: Expand and improve micro-mobility share programs on campus.

Neuron Mobility is the municipally approved provider for shared micro-mobility. The University will collaborate with Neuron and local governments to expand services — such as adding stations, extending the riding season, offering student and employee passes, and launching promotional initiatives — to enhance ridership and overall user experience.

M12: Improve building entrance accessibility to align with key circulation routes, and review class transition times.

A connected, accessible circulation network is essential for an inclusive campus. Once Action M8's University-wide accessibility standard is established, Waterloo will ensure accessible entrances are located along major pedestrian routes, with nearby accessible parking and drop-off zones (per Action P11). Additionally, in concert with broader accessibility planning, Waterloo will explore extending class transition times to better support students with mobility challenges.

M13: Leverage transit and/or expand shuttle service around Waterloo Campuses.

Given the campus' large size and frequent feedback on connectivity challenges, Waterloo will explore options to enhance mobility around Ring Road, North Campus, and distant areas of the Waterloo Campuses. Options may include leveraging GRT service (e.g. Route 30) or implementing a unified internal shuttle to improve campus mobility for all users, including those with accessibility needs, whether for commuting or moving around campus during their work or study day.

M14: Increase shaded and wind-protected areas on campus.

Some parts of campus, including Ring Road, the Villages pathway, and East Campus lack adequate shade and wind protection, leaving active transportation users exposed to heat and cold. Waterloo will add trees, canopies, and windbreaks in key areas to improve comfort and usability year-round.

M15: Support departmental GRT fare cards for inter-campus and intra-campus employee travel.

Employees often need to travel within and between campuses. Waterloo will support transit use for inter-campus and intra-campus travel in order to reduce reliance on personal vehicles, lower emissions, and ease fleet demand. GRT offers regional coverage particularly strong with ION light rail for Waterloo and Kitchener campuses, making transit a practical and inclusive option for employee mobility.

Goods, Services, and Contractor Movement

M16: Maintain and enhance Central Stores as the core delivery group.

With frequent deliveries required across campus, Central Stores helps reduce third-party traffic, congestion, and emissions by consolidating shipments and using efficient vehicles. Waterloo will strengthen Central Stores' role to support cleaner, safer, and more streamlined campus logistics.

M17: Schedule third-party vendor deliveries and waste hauling to non-peak hours.

Direct building delivery access is required for some services such as Food Services and waste hauling, but shifting these to non-peak times can ease traffic, improve safety, and reduce emissions from idling vehicles. The University will explore scheduling these services to non-peak hours, while being mindful of potential added costs to operating units.





PARKING

Parking is a key component of campus transportation, influencing traffic flow, accessibility, and the campus experience for students, employees, and visitors. Parking operations, planning, and policy connect tightly to circulation and movement and broader commuting choices.

Campus parking serves a range of uses, including permit, accessible, short-term, contractor, service vehicle, EV charging, carpooling, and visitor parking for daycares, medical clinics, athletics, theatrical facilities, and events. There are few formally designated areas for pick-up and drop-off, leading to frequent illegal short-term parking, idling, and congestion as people seek convenient access near buildings.

Parking permits are currently offered in two main categories: monthly permits and daily payments for visitors and individuals who only occasionally need parking. Permits are assigned to specific lots, and are generally not transferable, with the exception of individuals traveling inter-campus from a satellite campus. Waterloo has explored shifting away from assigned parking to a first-come-first-served model to improve lot utilization, but due to concerns around required technology (high cost) and potential impacts on user groups the project was paused. This project will be revisited as changes to flexible work are established.

Parking prices were raised in May 2024 for the first time in over a decade, again in May 2025, and will be increased regularly going forward to support operational costs. There are permit fees for Inner/South and Kitchener campuses, with no cost at present for Cambridge and Stratford; however, paid parking will be implemented in Cambridge and Stratford. The University's fees remain below market rates. Daily rates and hourly rates (in specific areas) are available for visitors and occasional users. While daily rates now exceed comparable transit costs, monthly permits remain priced below a monthly corporate rate employee transit pass.

The University offers several parking programs and policies that support sustainable transportation choices, including EV charging, priority parking spaces for EVs, and dedicated carpooling parking spaces. The summer parking suspension program is also popular, as it allows users to suspend their permit to walk, bike, or use transit during summer months, and they are able to return to the same lots after the suspension.

In general, since remote working and learning became prevalent during and in the years since the pandemic, parking lots have been noted and assessed in preliminary utilization studies to be underutilized, at a maximum of 48% fullness². Across all engagement activities, participants frequently expressed frustration about having to park farther from their destinations, despite the presence of numerous vacant spaces in closer lots.

As patterns of on-campus attendance and associated commuting impacts become clearer in the coming years, it will be important to explore how parking management will need to evolve to support flexibility and optimization.

The majority of the University's ~7700 parking spaces are located on the Inner/South Campus, typically at the periphery of the property. This placement creates both aesthetic and navigational barriers, and the Campus Plan aims to create more permeable entrances to campus to feel more connected to the community. This layout also results in challenges for the high volume of active transportation users — particularly those arriving through the east side and coming from Laurel Trail and Waterloo Park to the south — as lots often do not have continuous routes through them or features such as pedestrian cutouts or refuge islands.

Surface parking lots occupy a significant space footprint that could otherwise support academic buildings, green or community spaces, student housing, or mixed-use developments that contribute to economic vitality.

The physical lots are, themselves, typical surface parking, in various states of repair. Waterloo has not integrated green infrastructure — such as bioswales and stormwater buffers — into lot design. With high-precipitation events becoming more frequent, parking lots present an opportunity to implement adaptation measures that support climate resilience as well maintaining the University's compliance with the Region's Sourcewater Protection Plan focused on salt reduction strategies, snow stacking, and surface permeability. Campus lots currently do not have any covered solar PV systems, but this has been identified as a major opportunity for integration with the University's energy systems within the University's *Shift*: Neutral climate action plan.

The following **Parking Actions** aim to enhance campus accessibility and convenience while supporting sustainable transportation choices, improved communication, efficient lot use, and land optimization.

~7,700
*parking spaces within
40+ parking lots across
all University of
Waterloo campuses*

13%
*of the land area at the
Waterloo campus is
dedicated to surface
parking*

*"I appreciate the University
offering preferential carpool
parking spaces. It's a great way
to support different types of
sustainable travel."*

- Travel Survey respondent

² Data reflects Winter 2025 term. Utilization is expected to be higher in the busier Fall term, though underutilization remains a general trend across all lots.



Land Use for Parking Infrastructure

P1: Conduct parking lot utilization assessments to inform future land use decisions.

With a significant amount of land dedicated to surface parking, regular utilization assessments of parking lots can help determine opportunities to reduce their overall footprint. Waterloo will conduct regular assessments and use findings to guide decisions regarding repurposing space for academic, housing, or mixed-use development, while maintaining the necessary parking inventory to serve the community.

General Parking

P2: Strengthen communication about parking availability and changes.

Waterloo will enhance the parking experience through continued timely updates via email notifications, updates to the Sustainable Transportation website, optimizing use of parking apps, and leveraging digital signage and other campus communication channels.

P3: Provide pick-up and drop-off areas for general use, ride-hailing services, buses, and specialized needs.

Safe, accessible zones for ride-hailing, buses, and events — especially near PAC and CIF — can support athletes, youth programs, and event attendees, while reducing misuse of accessible parking areas. Waterloo will incorporate this work in alignment with Action M4 Ring Road re-design, and the Campus Plan.

P4: Continue efforts to align parking amenities and rates for consistency across campuses.

While each campus has unique needs, a consistent parking experience — through aligned fees and amenities like bike, carpool, and EV parking — can support institutional goals. Waterloo will implement a coordinated approach that will reflect consistency, not uniformity, allowing flexibility for local context while expanding commuting options.

Parking Flexibility

P5: Revisit First-Come-First-Served parking model in response to parking demand.

A First-Come-First-Served (FCFS) parking model was previously explored, then paused. As parking demand evolves, Waterloo will revisit this approach — with appropriate technology, infrastructure, and stakeholder input — as a means to offer greater flexibility and improve lot utilization.

P6: Provide more flexible occasional permits to bridge daily and monthly permits.

Current parking options do not always meet occasional needs. Waterloo will offer more flexible models, such as day-specific permits or permit sharing, as appropriate, to better distribute parking demand, improve space efficiency, and support diverse transportation choices.

Pricing Models

P7: Offer expanded short-term parking options.

Some areas of campus — especially near key destinations and public-facing departments — lack convenient short-term parking. The University will expand these options and integrate mobile payment to improve access and user experience. Fair pricing should support operations and encourage turnover without being punitive, aligning with potential site or Ring Road re-designs (see Action M4).

P8: Ensure parking pricing supports all parking infrastructure and transit choice.

Waterloo will ensure that parking rates support operational costs, infrastructure renewal, and potential initiatives like FCFS (per Action P5) and parking lot design standards (per Action P14), with transparency around how parking fees are used. At the same time, pricing will consider transit competitiveness; currently, a monthly parking permit costs notably less than the monthly corporate rate transit pass, making transit appear less attractive. This Action also includes exploring ways to reduce employee transit costs, as outlined in Action C14.

P9: Enable flexible pricing models for varied schedules.

Similar to and linked to Action P6, Waterloo will identify permit structures that accommodate varied schedules and actual usage patterns, such as for part-time employees and students. This would improve affordability and equity, while helping to avoid “locking up” parking during unused times. While potentially enabled through Action P6, this remains a valuable standalone action if broader progress is limited.

P10: Explore varied pricing depending on personal circumstance.

Parking fees can support equity and inclusion when tailored to individual circumstances. Uniform pricing may disadvantage those with financial need, limited commuting options, or accessibility requirements. Waterloo will explore varied pricing, ensuring measures to safeguard personal privacy and ensure transparency.

Accessible Parking

P11: Increase the number and improve the placement of accessible parking spaces for proximity to more buildings.

Consistent feedback highlighted the need for improved accessible parking for individuals with disabilities. Waterloo will improve accessible parking to support equitable access, ensuring comfort, dignity, and convenience. Efforts should go beyond strict compliance, using the AODA as a guide to inform thoughtful expansion and placement.

P12: Design and communicate accessible pick-up and drop-off areas.

Individuals with mobility needs and service providers, such as GRT Mobility Plus, face challenges locating safe, accessible pick-up and drop-off zones near buildings. To address this — building on Actions P3 and M4 and aligned with the Campus Plan — Waterloo will undertake infrastructure improvements that would include designated, well-marked areas with curb cuts, proximity to accessible entrances, and locations outside traffic lanes. These improvements would be supported by enhanced wayfinding tools, such as updated maps and digital platforms.

Parking Lot Design and Maintenance

P13: Evaluate opportunities to install solar carports on parking lots.

Solar carports offer renewable energy generation, cost savings, and improved user experience through shade and weather protection, while minimizing pavement wear and reducing winter maintenance needs. Waterloo will adopt a phased implementation aligned with lot resurfacing and the Campus Plan in order to optimize investment. This initiative supports goals outlined in the University's *Shift*: Neutral climate action plan.

P14: Develop a parking lot design and operations standard.

The University will set sustainable design and maintenance standards — such as green infrastructure and reduced salt use — to mitigate parking lots impacts like heat islands, flooding, and pollution, while supporting compliance with the Region's Sourcewater Protection Plan. This standard will inform site-specific strategies and integrate with initiatives like solar carports.



FLEET

As a large institution with dynamic logistical needs, the University of Waterloo owns and maintains a fleet of vehicles to support maintenance, safety and security, research, and movement of people, goods, and equipment. The fleet includes a range of light, heavy, and utility vehicles, with two-thirds being vans and trucks.

Over the past five years, internal incentives, government grants, and more cost-competitive EV options have increased the share of EVs in the fleet. Combined with right-sizing and replacing inefficient vehicles, this has reduced fleet emissions by over 20% since 2015, from over 500 tCO₂-e annually to less than 400. New additions like electric cargo bikes can also help reduce costs and emissions.

The fleet is aging rapidly, with an average vehicle age of 8.9 years and a greater proportion of these vehicles in the older age range than in the newer. This presents maintenance challenges but also renewal opportunities. A new WatProcure process for vehicle procurement now supports vehicle selection based on specific needs.

From 2022-23, the University piloted a telematics study on 30 fleet vehicles to better understand opportunities for electrification, fuel efficiency, driver behaviours, and usage. Findings included:

- **EV readiness:** All studied vehicles could be replaced with electric models without impacting function.
- **Lifecycle costs:** In many cases, an electric replacement would be cost-comparable or have a lower cost over a 10-year lifecycle, especially with higher utilization.
- **Utilization:** Many vehicles were underutilized, suggesting potential to right-size fleets both around the size of the vehicle and the number of vehicles.
- **Driver behaviours:** Reducing inefficient habits such as idling and hard acceleration/deceleration) could improve fuel efficiency and safety, though most drivers operated vehicles appropriately.

Though campus fleet emissions account for less than one percent of Waterloo's total direct emissions, the fleet is highly visible. The following **Fleet Actions** focus on down-sizing, right-sizing, and transitioning to EVs, to support the target of eliminating direct GHG emissions from transportation by 2050, while reducing overall environmental impact, using resources efficiently, and maintaining core operations. Many actions could be advanced through an institution-wide Fleet Standard, establishing consistent practices for vehicle use, maintenance, procurement, compliance, and reporting.

170

vehicles make up the campus fleet, including cars, trucks, vans, carts, and heavy equipment

10%

of fleet vehicles are electric or hybrid

“Moving to an EV has been a game-changer for W Print and W Store. It's quiet, efficient, and environmentally friendly. It's exciting for us to be able to play a small part in reducing our carbon footprint on campus.”

- Print + Retail Solutions staff

Down-Sizing and Right-Sizing

F1: Explore fleet sharing within and across departments.

Underused vehicles present an opportunity to reduce fleet size by sharing similar types across departments, where feasible. While some specialized vehicles are essential and not suitable for sharing, Waterloo will explore where coordinated planning and vehicle reservation software could be implemented to help optimize use of general-purpose vehicles, following models from peer institutions and municipalities.

F2: Right-size vehicles for departmental tasks.

The University will ensure that its golf carts, bikes, or other small vehicles are available and utilized for short campus trips, with the benefits of reducing emissions, improving access to full-size vehicles for heavier tasks, and lowering fleet costs.

Electrification

F3: Expand electric or hybrid vehicles within the campus fleet.

Growing the campus EV and hybrid fleet supports long-term decarbonization while reducing operating costs. Building on successful pilots, Waterloo will expand these vehicle types in the fleet with support through internal funding, updated procurement policies that favours EVs, and bulk purchasing for cost efficiency.

F4: Install additional fleet-dedicated EV charging stations.

As the EV fleet expands, Waterloo will provide dedicated charging stations, set charger standards, support departmental installations, and consider enclosed options for winter use.

Vehicle Operation

F5: Deploy telematics software and data-logging tools on vehicles.

Waterloo will deploy telematics tools that can enhance fleet efficiency, support deployment of EVs, provide safety analysis, and monitoring and analytics for maintenance requirements and driver training. Successful pilots and peer examples show strong potential for campus-wide benefits.

F6: Provide additional training for vehicle operators on safe and efficient vehicle use or travel options.

Vehicle operators play a key role in campus sustainability and safety. Waterloo will enhance driver training during onboarding to include anti-idling practices, smooth driving techniques, safety and compliance measures, as well as travel options such as GRT and guidance on selecting the most appropriate vehicle for each task.

F7: Introduce stronger anti-idling rules and enforcement for campus fleet vehicles.

The University will formalize anti-idling guidelines and support them with training and monitoring, to help reduce unnecessary idling and improve fuel efficiency.



FUNDING AND FINANCIAL NEEDS AND OPPORTUNITIES

Shift:Mobility balances a range of cost levels, from no-cost and cost-saving actions to those requiring significant investment. In response to current financial constraints, this plan emphasizes low-cost and no-cost measures in the nearer term, while generally aligning higher-cost infrastructure and service upgrades to the medium and long term. While each initiative will need funding to be developed on a case-by-case basis, the following are potential funding sources and strategies:

- **Parking revenue:** Parking revenue from permits and visitor parking can help fund long-term parking infrastructure upgrades, including structured parking and technology improvements. Strong lifecycle planning and evaluation of total cost of ownership can ensure parking fees adequately cover renewal and modernization needs.
- **Operating budget:** There is a small budget within the Sustainable Transportation office to support low-cost and some low to medium-cost items on a year-over-year basis.
- **User fees:** Many services would benefit from user fees to manage utilization and demand, as well as to create a revenue stream to support operating and capital costs. This has been recommended for EV charging and secure bike parking, for example.
- **Central funding:** Requests for one-time funding will be required over time, particularly for larger capital projects, generally planned for the medium to long term. This allows time for further design, costing, and budget approvals on a project-by-project basis.
- **External grants:** From time to time, various levels of government offer grants for sustainable transportation support. These grants can help offset the cost of infrastructure such as for trails and EV charging, or promotional and training campaigns.
- **Internal grants:** Waterloo currently supports the Revolving Fund and [Sustainability Action Fund \(SAF\)](#) as internal mechanisms to fund small to medium projects that advance campus sustainability.
- **Financing models:** Waterloo can explore third-party financing for energy and EV infrastructure, such as solar carports, or can explore charging-as-a-service to help scale EV charging infrastructure.
- **Parking reductions:** Implementing actions to streamline and increase utilization of existing parking assets could lead to oversupply. At minimum, this would reduce operating costs by shrinking the amount of infrastructure to manage, and at best, enable land to be re-developed, unlocking financial and non-financial value.
- **Departmental budgets:** There may be instances where departments may help fund actions tied to their specific needs, such as integrating design elements into projects, acquiring fleet vehicles or charging stations, and supporting internal communications and training.
- **Aligning with renewal:** Lastly, a key tool to manage costs would be aligning with asset renewal timelines and utilizing more stringent design standards aligned with *Shift*:Mobility. Scheduling upgrades during major changes or end-of-life cycles for infrastructure like roads, pathways, and parking can support gradual, cost-effective improvements.

Gaps will remain for some of the larger potential infrastructure projects. Re-development of Ring Road, and major improvements to trails, for example, are not typically high priority amidst the overall University funding gap. Financial support for these projects will need to be gradually expanded over time, as overall institutional fiscal situations allow.



CONCLUSION

This inaugural sustainable transportation plan, *Shift:Mobility*, outlines an ambitious series of initiatives for the University of Waterloo, developed with feedback from extensive engagements, peer scans, external research, and internal planning discussions. While campus transportation systems have evolved organically over time, and the University already supports a wide range of programs, services, and infrastructure for sustainable, multi-modal access to its campuses, this plan brings a cohesive and intentional vision to make low-carbon options more attractive and accessible. This vision is shaped by 63 specific actions to advance in the short, medium, and long term. It attempts to shift decisions and systems to support sustainable choices that will arise in moments of opportunity over time. Several of these actions are critical, with major influence on other actions, including:

- Parking flexibility
- Reduction in surface parking
- Ring Road re-design
- East Campus re-development
- Stronger active transportation and transit connections to the community

Shift:Mobility actions support transformative shifts that advance the campus vision outlined in Waterloo at 100, while aligning with the University of Waterloo's commitments to climate action, accessibility, and wellbeing. These efforts will improve mobility and comfort for the campus community, reduce greenhouse gas emissions and other environmental impacts, and optimize the use of physical assets such as parking, vehicles, and pathways. The plan centres the need for design that supports all members of the campus community to have safe and accessible use of the University for their studies, research, work, play, and living.

APPENDIX A – IMPLEMENTATION PLAN

These actions will require coordination, funding, and capacity across many different units on campus. This section summarizes all actions within each transportation pillar of *Shift:Mobility* and provides a tentative timeline for implementation. The timelines reflect best understanding today, but are meant to be flexible — adapting as conditions, policies, and opportunities evolve.

Commuting

#	ACTION	OWNERS	COST	APPROXIMATE TIMELINE (YEAR)											
				26	27	28	29	30	31	32	33	34	35	36+	
C1	Advocate to municipalities to improve pedestrian crossings at key points	ST, SUS, GR	NO												
C2	Construct or allow for expanded secure bike parking	ST, SO	HIGH												
C3	Improve outdoor bike rack positioning	ST, SCS, PO-G	NO												
C4	Adopt online bike registry for theft deterrence and recovery	ST, SCS	LOW												
C5	Expand shower and changeroom access	ST, PO-D, SUS	MED												
C6	Improve access to bike racks during winter	ST, PO-G	NO												
C7	Enhance Emergency Ride Home program awareness and usage	ST, SUS	NO												
C8	Advocate for improved bike facilities and sidewalks in community, and their winter maintenance	ST, SUS, GR	NO	Ongoing											
C9	Create a maintenance and expansion plan for bike repair stations	ST	LOW												
C10	Improve campus connections and wayfinding to local municipal trails	ST, PO	MED												
C11	Advocate for improved transit, park-and-ride lots, and clearer route naming	ST, SUS, GR	LOW	Ongoing											
C12	Increase promotion of the corporate transit pass to employees	ST, SUS, COM	NO												
C13	Advocate for improved inter-city transit between campus cities and beyond	ST, SUS, GR	LOW	Ongoing											
C14	Explore options to improve employee transit pricing	ST, SUS, GR	LOW												
C15	Expand EV charging stations on Waterloo and satellite campuses	ST, SUS, PO-D	MED												
C16	Implement pay-for-use, tiered pricing for EV charging stations	ST	NEG												
C17	Promote and enhance the carpool ride-matching platform	ST, SUS, COM	LOW												
C18	Explore revision of carpool eligibility criteria	ST	NO												
C19	Streamline the proof-of-carpool-permit process	ST	NO												
C20	Expand incentives and flexibility for carpool participants	ST	LOW												
C21	Enhance partnerships with community carshare organizations	ST	LOW												
C22	Provide education and engagement opportunities for sustainable commuting	ST, SUS	LOW	Ongoing											
C23	Include information on sustainable commuting in hiring/onboarding	ST, SUS, HR	NO												
C24	Advocate to local municipalities for policies that support affordable housing near campuses	GR, SA	NO	Ongoing											
C25	Explore the feasibility of staggering work/study start and end times	ST, REG, HR	LOW	Ongoing											

COSTS: NEG = Direct Lifecycle Cost Savings | NO = No Cost | LOW = <\$10,000 | MED = \$10,000-\$100,000 | HIGH = >\$100,000

OWNERS: ST = Sustainable Transportation | SUS = Sustainability Office | SCS = Special Constable Service | PO = Plant Operations (D/G/EI/VS – Design and Construction/ Grounds/Energy and Infrastructure/Vehicle Shop) | HR = Human Resources | GR = Government Relations | COM = University Communications | CS = Central Stores | SO = Safety Office | FS = Food Services | SA = Senior Administration | ARC = School of Architecture (Cambridge) | PRO = Office of the Provost | STR = Stratford School of Interaction Design and Business | ACS = Campus Accessibility | ATH = Athletics | DFO = Departmental fleet owners | WUSA = Waterloo Undergraduate Student Association

Circulation and Movement

#	ACTION	OWNERS	COST	APPROXIMATE TIMELINE (YEAR)												
				26	27	28	29	30	31	32	33	34	35	36+		
M1	Explore additional options for efficient shuttle or transportation services between Stratford and Waterloo Campuses	STR, PRO, ST	HIGH													
M2	Explore options to improve transportation connectivity between Cambridge and Waterloo Campuses	ARC, PRO, ST	HIGH													
M3	Explore options to limit vehicle traffic on Ring Road and within the core	ST, SUS, PO, SCS, SA	HIGH													
M4	Re-imagine Ring Road into a complete street with higher connectivity	PO, ST, SUS, SCS, ACS, SA	HIGH													
M5	Reduce speed limits on Ring Road and within campus to 30 km/h	ST, SCS, PO	LOW													
M6	Create more robust crossings for key active transportation corridors	ST, PO-D, SCS	HIGH													
M7	Explore a re-design of East Campus parking lots with active transportation pathways	ST, PO-D	MED													
M8	Create design standards for sustainable, accessible transportation facilities	ST, PO-G, PO-D, ACS	LOW	Ongoing												
M9	Update pathway maintenance practices into a defined standard, including snow and ice removal and surface repairs	ST, PO-G, ACS	LOW													
M10	Enhance wayfinding tools for the campus	ST, COM, ACS	LOW	Ongoing												
M11	Expand and improve micro-mobility share programs on campus	ST, SUS	LOW	Ongoing												
M12	Improve building entrance accessibility to align with key circulation routes and review class transition times	ACS, PO-D	MED	Ongoing												
M13	Leverage transit and/or expand shuttle service around Waterloo Campuses	ST, SUS	MED													
M14	Increase shaded and wind-protected areas on campus	ST, PO-G	MED													
M15	Support departmental GRT cards for employee work travel	ST, other dept/unit	LOW													
M16	Maintain and enhance Central Stores as the core delivery group	CS	MED													
M17	Schedule third-party vendor deliveries and waste hauling to non-peak hours	CS, FS, WUSA, ST, PO-G	LOW													

COSTS: NEG = Direct Lifecycle Cost Savings | NO = No Cost | LOW = <\$10,000 | MED = \$10,000-\$100,000 | HIGH = >\$100,000
OWNERS: ST = Sustainable Transportation | SUS = Sustainability Office | SCS = Special Constable Service | PO = Plant Operations (D/G/EI/VS – Design and Construction/ Grounds/Energy and Infrastructure/Vehicle Shop) | HR = Human Resources | GR = Government Relations | COM = University Communications | CS = Central Stores | SO = Safety Office | FS = Food Services | SA = Senior Administration | ARC = School of Architecture (Cambridge) | PRO = Office of the Provost | STR = Stratford School of Interaction Design and Business | ACS = Campus Accessibility | ATH = Athletics | DFO = Departmental fleet owners | WUSA = Waterloo Undergraduate Student Association

Parking

#	ACTION	OWNERS	COST	APPROXIMATE TIMELINE (YEAR)											
				26	27	28	29	30	31	32	33	34	35	36+	
P1	Conduct parking lot utilization assessments to inform future land use decisions	ST, SA, SUS	HIGH	Ongoing											
P2	Strengthen communication about parking availability and changes	ST, COM	LOW												
P3	Provide pick-up and drop-off areas for dedicated uses	ST, PO-D, ATH, CS	HIGH												
P4	Continue efforts to align parking amenities and rates for consistency across campuses	ST	LOW												
P5	Revisit First-Come-First-Served parking model	ST, SUS	HIGH												
P6	Provide more flexible occasional permits to bridge daily and monthly permits	ST	LOW												
P7	Offer expanded short-term parking options	ST, PO	MED												
P8	Ensure parking pricing supports all parking infrastructure and transit choice	ST, SUS	NO												
P9	Enable flexible pricing models for varied schedules	ST	LOW												
P10	Explore varied pricing depending on personal circumstance	ST, ACS, HR	LOW												
P11	Increase the number and improve placement of accessible parking spaces	ST, ACS, PO	MED												
P12	Design and communicate accessible pick-up and drop-off areas	ST, PO-D, ACS	MED												
P13	Evaluate opportunities for solar carports	ST, SUS, PO-EI	NEG												
P14	Develop a parking lot design and operations standard	ST, SUS, PO-D	LOW												

Fleet

#	ACTION	OWNERS	COST	APPROXIMATE TIMELINE (YEAR)											
				26	27	28	29	30	31	32	33	34	35	36+	
F1	Explore fleet sharing options within and across departments	ST, PO-VS, SUS, DFO	NEG												
F2	Right-size vehicles for department tasks	PO-VS, DFO, ST	NEG	Ongoing with fleet rollover											
F3	Expand electric and hybrid vehicles within the campus fleet	PO-VS, SUS, DFO	NEG	Ongoing with fleet rollover											
F4	Install additional fleet-dedicated EV charging stations	ST, SUS, PO-EI, DFO	MED												
F5	Deploy telematics software across the vehicle fleet	SUS, PO-VS, DFO	LOW												
F6	Provide additional training on efficiency and safety to vehicle operators	PO-VS, SO	LOW												
F7	Introduce stronger anti-idling rules and enforcement for fleet vehicles	ST, PO-VS, SCS	NEG												

COSTS: NEG = Direct Lifecycle Cost Savings | NO = No Cost | LOW = <\$10,000 | MED = \$10,000-\$100,000 | HIGH = >\$100,000

OWNERS: ST = Sustainable Transportation | SUS = Sustainability Office | SCS = Special Constable Service | PO = Plant Operations (D/G/EI/VS – Design and Construction/ Grounds/Energy and Infrastructure/Vehicle Shop) | HR = Human Resources | GR = Government Relations | COM = University Communications | CS = Central Stores | SO = Safety Office | FS = Food Services | SA = Senior Administration | ARC = School of Architecture (Cambridge) | PRO = Office of the Provost | STR = Stratford School of Interaction Design and Business | ACS = Campus Accessibility | ATH = Athletics | DFO = Departmental fleet owners | WUSA = Waterloo Undergraduate Student Association

APPENDIX B — SUPPLEMENTARY INFORMATION

Background

The University of Waterloo is at an inflection point in its development. Originally established in the 1960s on farmland at the city's edge, the campus was designed for car access and rapid expansion. Today, it has grown into a large, multi-campus, research-intensive institution situated within an increasingly urban environment, where demand for active and public transportation continues to rise.

Over the past decade, transportation at Waterloo has been shaped by significant shifts. Municipal investments have expanded infrastructure for walking, cycling, and transit, including the ION light rail and the East Campus transit terminal. The pandemic transformed commuting patterns, accelerating remote work and digital integration. At the same time, policy changes have strained university budgets, while expectations around accessibility, health, and sustainability have increased. Rapid regional growth and rising living costs — especially housing affordability — are also influencing how people travel to and from campus.

The University's transportation planning is informed by global climate goals such as the United Nations Sustainable Development Goals (SDGs), national and provincial mobility strategies, and local initiatives like [TransformWR](#), which targets an 80% reduction in greenhouse gas (GHG) emissions by 2050. The transportation sector remains the largest source of GHGs in Waterloo Region. At the University of Waterloo, of all transportation emissions, the most come from commuting, generating over 16,000 tCO_{2e} annually. Therefore, there is an opportunity for a sustainable transportation system to have a sizable impact. As a major institution with a substantial campus presence and travel demand, the University has a clear responsibility to take meaningful action, aligning its transportation strategies with broader climate objectives and helping drive collective progress.

Internally, sustainability has long been a priority at Waterloo, reflected in key documents like the [2009 Campus Master Plan](#), the [2017 Environmental Sustainability Strategy](#), and the [Shift:Neutral climate action plan](#), which targets carbon neutrality by 2050. These commitments are reinforced by the institution's [2021 Climate Emergency Declaration](#), Waterloo at 100, and wellness frameworks like the [Okanagan Charter](#) and [Healthy Workplace Statement](#).

The University has never had a coordinated approach to transportation planning. While the 2009 Campus Master Plan articulated important steps to improve transportation across the campus, there was no additional planning or implementation framework. Past investments have often been incremental and disconnected from broader goals, trade-offs, and/or mutual benefits. The convergence of the recent changes and the [Campus Plan](#) create an ideal time for a focused and distinct sustainable transportation plan — this *Shift:Mobility* plan — to bring a coherent approach, direction-setting, and action to support campus and community needs.

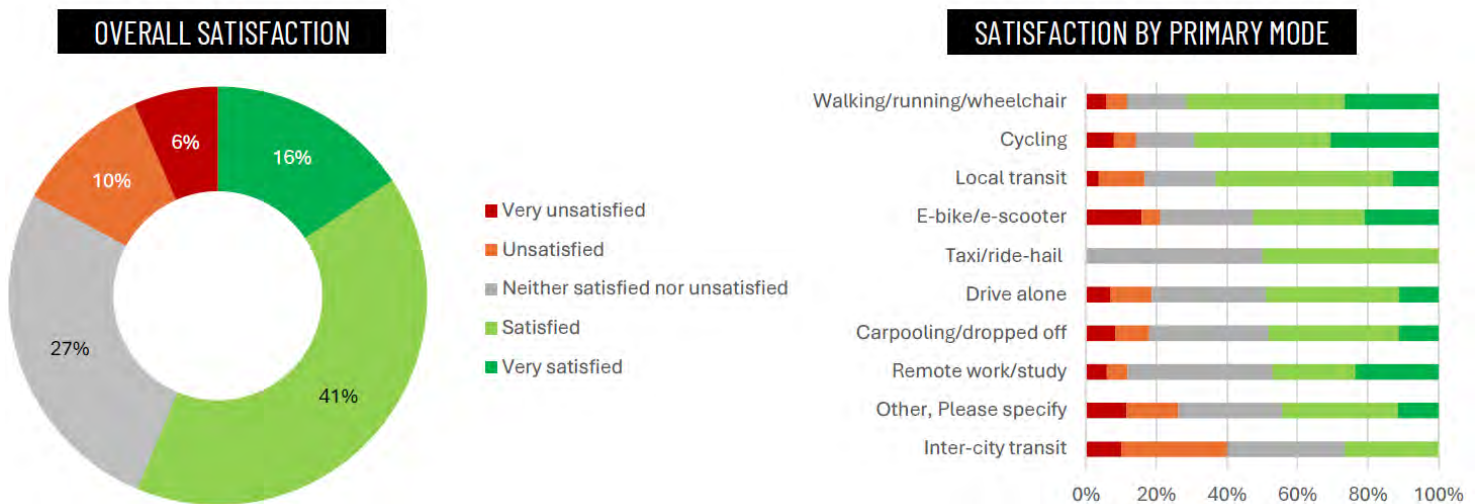
Community Engagement

The development of *Shift:Mobility* was an 18 month collaborative effort led by a core and planning group with representatives from across campus. Broad community engagement included the 2024 campus-wide Travel Survey, open houses, and targeted discussions with representatives from departments such as Athletics and Recreation, Campus Housing, Campus Support and Accessibility, Office of Indigenous Relations, Office of Equity, Diversity, Inclusion, and Anti-Racism, faculty subject-matter experts, and focus groups such as with UWSA, CUPE, and the International Student Advisory Committee. This enabled a wide range of perspectives and inputs to be considered.

Through the engagement sessions, several key themes emerged — from EV charging, carpooling, and parking concerns to transit reliability, accessibility, and continued flexibility of work types. The Travel Survey captured perceptions and feedback that offer quantitative insights to complement the qualitative input gathered through engagement sessions.

Survey respondents were asked how satisfied they were with their commute to campus. As shown in **Figure B-1**, 57% of respondents were either satisfied or very satisfied with their commute, and 16% were unsatisfied or very unsatisfied. Those who walked, cycled, or used local transit as their primary mode of travel felt the most positive about their commute.

Figure B-1: Commuter Satisfaction Overall

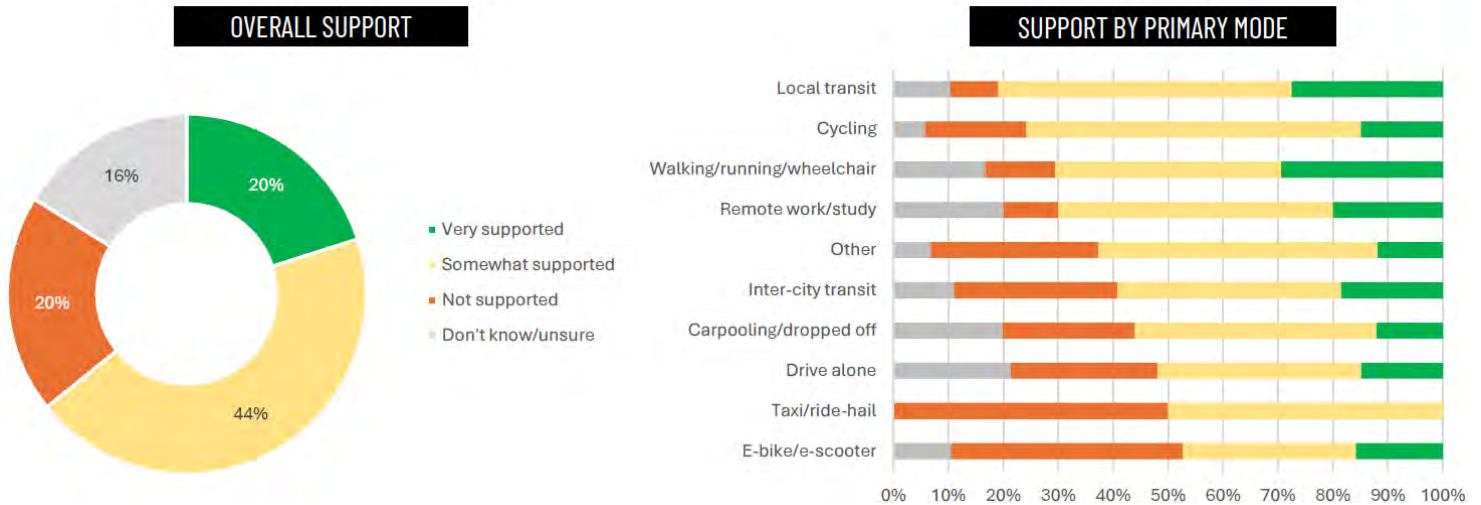


Respondents were also asked which modes of travel they would consider trying — or continue using — if more institutional support were available. Public transit received the strongest interest across all user groups. Among the suggestions for improving transit use, the most frequently mentioned was a desire for greater fare discounts, particularly among employees.

The survey asked respondents questions for their motivations for driving. The top reasons cited were timeliness, comfort, convenience, and the need to run personal errands. Many employees also noted child drop-off and pick-up responsibilities as key factors.

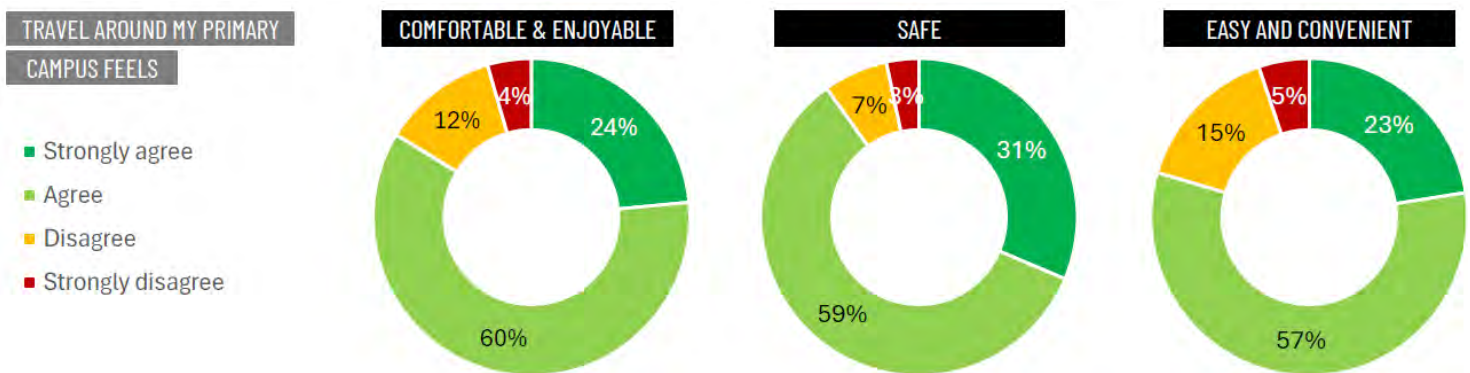
As shown in **Figure B-2**, respondents generally expressed that they felt somewhat or very supported by commuting programs and services offered by and through the University. Students reported higher levels of support than employees, and support was notably lower among non-binary individuals and those at the Cambridge and Stratford campuses. Those who walked, cycled, or used transit felt the most supported. When asked how services could be improved, respondents highlighted the need for more flexible parking options, better promotion of underused programs like [Emergency Ride Home](#), and enhanced infrastructure such as secure bike parking and EV charging. While some priorities — like improved transit service or sidewalk clearing — fall outside the University’s control, they point to opportunities for advocacy and better information sharing.

Figure B-2: Feeling of Support from University of Waterloo Programs and Services



Respondents also shared their level of agreement on statements about comfort, safety, and convenience of travel around their primary campus. As indicated in **Figure B-3**, overall, there was very high levels of agreement that respondents could comfortably and enjoyably, safely, and conveniently travel across campus. There was little difference between students or employees compared to the average response, but nuance on other demographics. For example, only 27% of those identifying as women strongly agreed with feeling safe, compared to the 31% average, while 39% of those identifying as a man strongly agreed. Those identifying as another gender aligned with the average. Across all questions, satisfaction was significantly lower at the Cambridge and Stratford campuses, particularly regarding comfort and convenience.

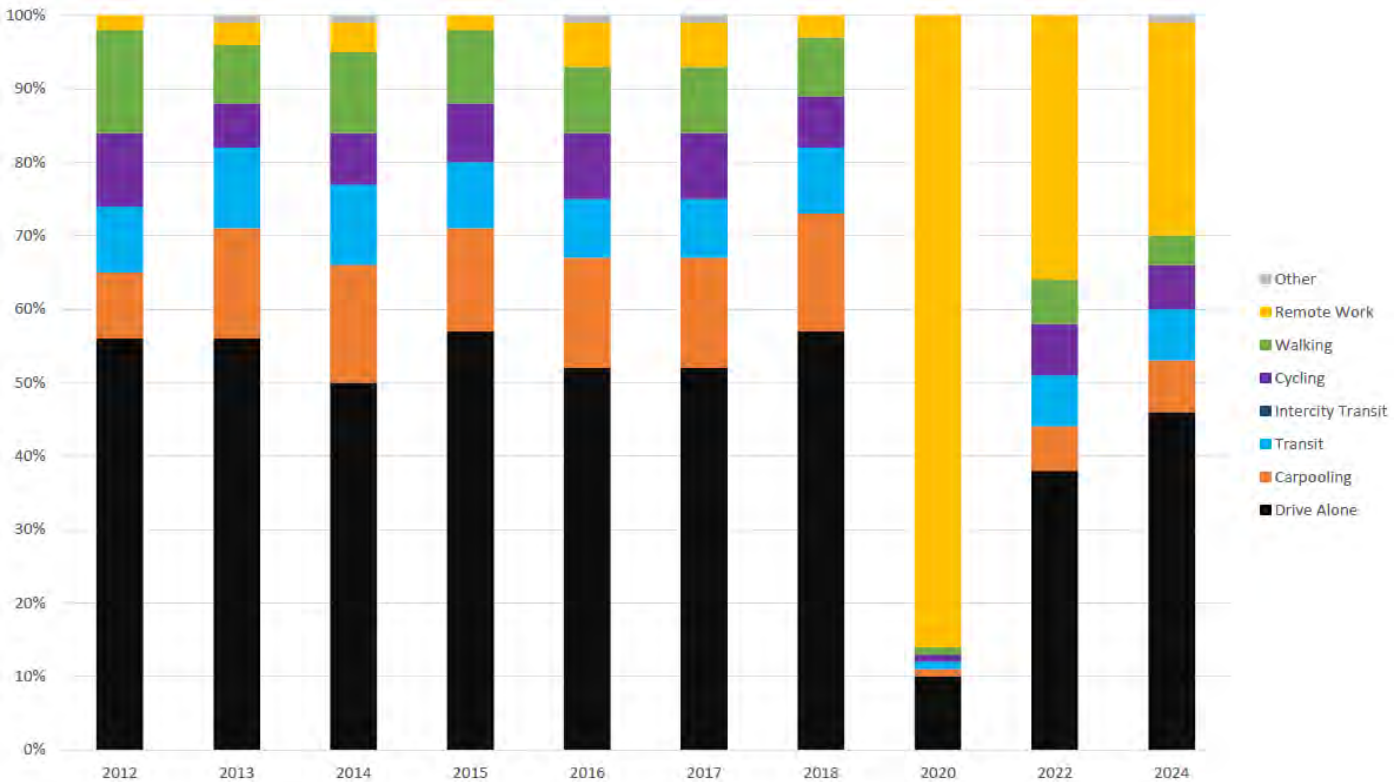
Figure B-3: Comfort, Safety, Convenience Travelling Around Campus



Modal Split: Change Over Time

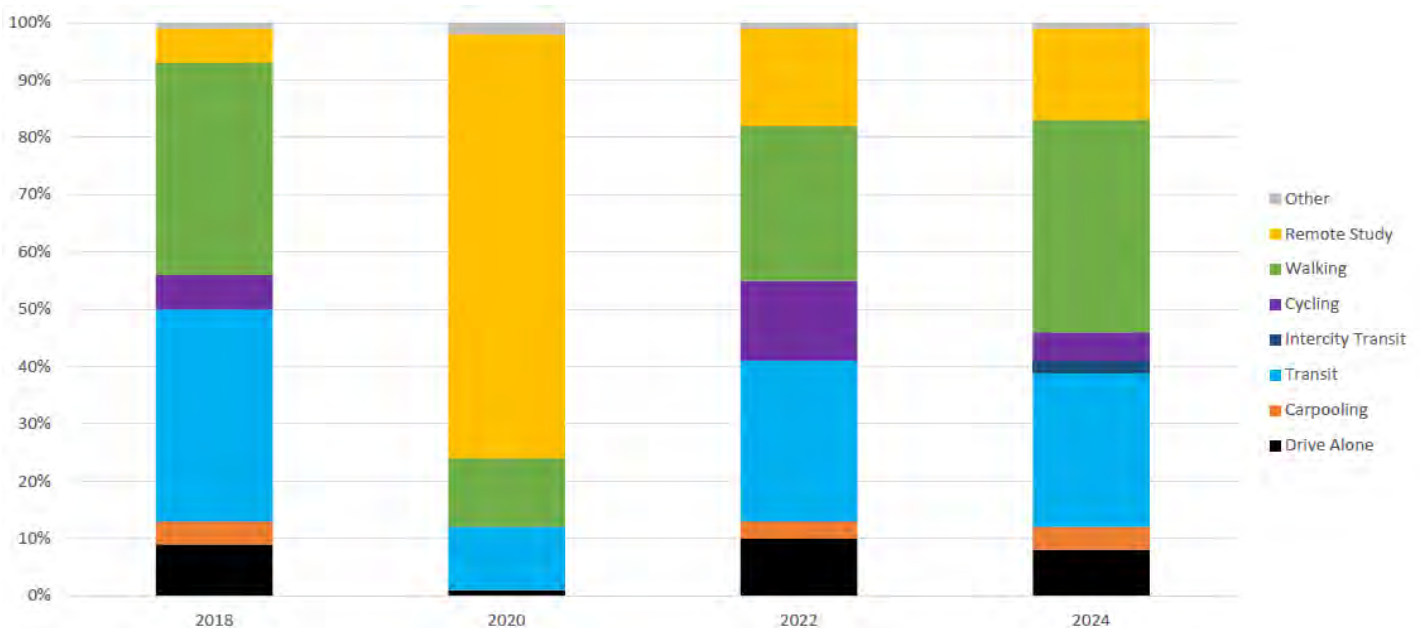
Employees have been surveyed through the TravelWise program since 2012, showing relatively high consistency in modal split for around eight years prior to the pandemic. The largest shift came with the introduction of remote working in 2020. Waterloo has averaged a 45% non-driving modal share prior to the pandemic, comparatively high among other local employers, with regular use of transit, cycling, and carpooling by employees. Employee commuting patterns over time are shown in **Figure B-4**.

Figure B-4: Employee Modal Share Change over Time



Student travel surveys began in 2018, and show similar major swings during the pandemic, as shown in **Figure B-5**. The modal split is influenced by a large proportion of students who live on campus, as well as the direct development of nearby high-density student housing that makes walking convenient.

Figure B-5: Student Modal Share Change over Time



Monitoring and Evaluation

Shift: Mobility will be updated every five years, with annual progress tracked through the University's Environmental Sustainability Report. Key Performance Indicators (KPIs) have been identified and are expected to evolve over time as conditions and data sources change.

KPI Cluster	Description	Sub-Metrics / Indicators	Frequency of Collection	Target Population / Data Availability	
1	Availability of sustainable transportation modes (catchment areas)	Evaluates access to community services such as transit and bike and walking facilities	Transit: Distance of campus away from # of bus routes	Every five years	All campus users
			Transit: % of people that can ride to campus within X time	Every five years	Employees and general student areas
			Transit: Availability of acceptable late night / weekend service (incl. satellites)	Every five years	All campus users
			Cycling/Walking: % of people who live within X distance of campus	Every five years	Employees and students in residences
			Cycling: % of people with protected bike lanes/trails for most of their commute	Every five years	Employees and general student areas
2	Use of available sustainable transportation modes	Tracks sustainable transportation use among those with reasonable access, excluding those with accessibility barriers	% of people who can make a sustainable trip are doing so	Every five years	Employees and students in residences
3	Sustainable modal share and associated indicators	Tracks the shift to sustainable modes and its impacts	Modal split	Biennial	Employees and students
			Vehicle kilometres travelled (VKT) - average distance by motor vehicles per person	Biennial	Employees and students
			Total GHG emissions per person	Biennial	Employees and students
			Commuting satisfaction	Biennial	Employees and students
			Sedentary travel: time spent sitting while commuting	As available	Employees and students
4	Transportation affordability	Assesses the economic accessibility of transportation for students and employees, focusing on sustainable modes versus solo driving	Aggregated average savings for individual use of sustainable transportation modes	Biennial	Employees and students
5	Land used for transportation infrastructure	Evaluates the efficiency of land allocated for transportation purposes	% of land used for motor vehicle parking and roadways	Every five years	Not applicable
			Average % lot utilization	Biennial	Employees and students
6	Active transportation user safety	Monitors and assesses safety risks for active transportation users	# bicycle and pedestrian conflicts/collisions	Annual	All campus users
			Traffic counts on Ring Road (small, medium, large motor vehicles)	Termly counts	All campus users
7	Bicycle security and perceived support	Addresses both bicycle security and perceived support for cyclists	# of (reported) bike thefts	Annual	All campus users
			Value of (reported) stolen bikes	Annual	All campus users
			Satisfaction levels - how supported do people feel	Biennial	Employees and students
8	Accessibility	Assesses transportation accessibility for individuals with disabilities	Satisfaction levels - how supported do people feel (segment to capture feedback for persons with disabilities)	Biennial	Employees and students
			Perceived safety of travelling across campus (segment to capture feedback for persons with disabilities)	Biennial	Employees and students
			Accessible entrances, wayfinding, route mapping	Every five years	Employees and students
			Getting to/from campus building for same amount of time, cost, & carbon as able-bodied colleagues	Every five years	Employees and students
9	Fleet performance and environmental impact	Tracks the environmental impact and efficiency of the University fleet	% of vehicles that are electric / alternative fuel	Annual	Employees - Plant Ops, CS, and ST
			# of motor vehicles that are right-size for the task	Annual	Employees - Plant Ops and ST
			# of trips / distance travelled by cargo bikes or transit	Annual	Employees - Plant Ops and ST
			Fuel consumption and GHGs from fleet vehicles	Annual	Employees - Plant Ops and ST
10	Logistical efficiency and safety	Evaluates the balance between essential campus services and safety/accessibility by first developing metrics and a dashboard to identify pain points.	Average daily number of deliveries or service vehicles using the Inner/South Campus	Biennial	All campus users
			Percent of deliveries and service vehicle access occurring during core University hours (8:30-4:30)	Biennial	All campus users

APPENDIX C — CONTRIBUTORS AND PARTNERS

Grateful acknowledgement is extended to the Sustainable Transportation Plan Working Group for their active participation and leadership throughout the planning process, as well as representatives from many departments, units, groups, and networks who provided valuable input. Appreciation is also given to the hundreds of individuals across the University and broader community whose insights helped shape this plan.

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