



SUSTAINABLE
Queen's

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SUSTAINABLE TRANSPORTATION WORKING GROUP ANNUAL REPORT

2022



Alternative Transportation Working Group

The Alternative Transportation Working Group (ATWG) serves to provide recommendations for the evaluation, planning, development and implementation of alternative transportation structures and methods such as public transit options, parking pass options, and active transportation options for Queen's community members. The ATWG is committed to enhancing the accessibility, efficiency, and sustainability of transportation at Queen's.



Since November 2019, the Alternative Transportation Working Group (ATWG) has met monthly to discuss and act towards increasing sustainable transportation at the University. This focus has been on reducing single occupancy vehicles and increasing public transit and active transportation. Through conversation and survey research, the group has come up with various recommendations to increase sustainable transportation on campus using these commuter methods:

Walking



Cycling



Transit



Carsharing



Carpooling



Electric Vehicles



Executive Summary

Overview

The Alternative Transportation Working Group (ATWG) has provided recommendations for the planning and implementation of sustainable transportation structures and methods for Queen's community members. Since 2019, the ATWG has met monthly and collaborated with stakeholders and campus partners in an effort to contribute to the following Sustainable Development Goals:

- **SDG 3:** Good Health and Wellbeing
- **SDG 9:** Industry, Innovation, and Infrastructure
- **SDG 11:** Sustainable Cities and Communities
- **SDG 13:** Climate Action

Goals Achieved

- **Improved security** of existing secure bike storage at Mackintosh - Corry Hall and received approval for an **additional secure bike storage facility** at Stirling Hall for construction in 2023
- **Updated the 3D interactive campus map** with active transportation infrastructure, Kingston transit bus stop locations and walking distances between buildings on campus
- **Educational sessions** on Kingston transit Transpass program for **new employees**
- Produced two YouTube videos: **How to ride Kingston transit** and **Testimonials from Transpass Users**
- **Rebranded** Parking Services to **Commuter Services** to emphasize all facets of **sustainable transportation**
- Provided Human Resources with **updated Commuter Services information** to improve communication with new employees about alternative transportation options
- Rebranded the committee name to the **Sustainable Transportation Working Group** and established **four sub working groups**

Future Objectives

- Make recommendations for policy changes at the University
- Provide recommendations to fund increased sustainable transportation infrastructure on campus
- Increase transit ridership to pre covid numbers



Sustainable Development Goals

The Alternative Transportation Working Group is committed to advancing the United Nations' Sustainable Development Goals (SDGs) in all 17 areas. Through collaboration with stakeholders and Queen's campus partners, **the ATWG's achievements and future goals are most evident in the following SDG's:**



SDG 3: Good Health and Wellbeing

Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development.



SDG 9: Industry, Innovation, and Infrastructure

Investing in resilient infrastructure for reliable, safe, and accessible transportation is crucial to achieving sustainable development and empowering our community.



SDG 11: Sustainable Cities and Communities

Cities and communities must themselves be sustainable, resilient, inclusive, and safe. The world's population continues to increase in urban centers which includes universities.



SDG13: Climate Action

Universities are home to immense innovation and opportunity which is why it is even more necessary to take urgent action to combat climate change and its impacts.



Importance of the ATWG

Commuter Emissions as a Part of Queen's Scope 3 Emissions

Background

Emissions are captured within three different scopes. The three areas are as follows:

- **Scope 1 Emissions:** direct emissions from sources which are owned or controlled by the university.
- **Scope 2 Emissions:** emissions from purchased energy, including electricity, heating, and cooling.
- **Scope 3 Emissions:** commonly recognized to cover everything else.

Scope 3 emissions were not calculated as part of the total in the 2016 Queen's Climate Action Plan but it is indicated that in the future Scope 3 may be included.

Queen's could consider including Scope 3 emissions in its inventory from emissions associated with employee travel, waste disposal, water use and commuting. Scope 3 emissions would be tracked in a separate inventory, subject to individual targets associated with each type of emission.

Data

The average emissions per reported commuter is **13.56kg** of CO₂ per day.

Commuting emissions for staff (2611 persons) accounts for **8500.66 MTCO₂e** per year, increasing unaccounted emissions by **22.4%**.

When using the number of current monthly parking permit holders (3418 persons) the number increases to **11,128 MTCO₂e**, which would equal **29.4%** of unaccounted emissions.

Setting targets for the reduction of commuter emissions is critical and the University should focus its efforts in the under 3km range where alternative transportation is already popular and in the 3-5km range from campus where half of the respondents drive, and half use alternative transportation.

Queen's Climate Action Plan calls to cut scope 1 and scope 2 emissions from 2008 levels by:

35% by 2020
70% by 2030

Queen's has achieved its 2020 commitment and cut emissions from **57,716 MTCO₂e** to **37,782 MTCO₂e**.

If we were to apply the same commitment to reduce scope 3 emissions as scope 1 and 2, we could address the 29.4% of unaccounted scope 3 emissions by the Queen's Climate Action Plan and significantly contribute to advancing the United Nations' Sustainable Development Goals, specifically in these two areas:

SDG 11: Sustainable Cities and Communities by providing safe and accessible transportation



SDG 13: Climate Action by setting baselines to reduce carbon emissions





Active Transportation

Cycling

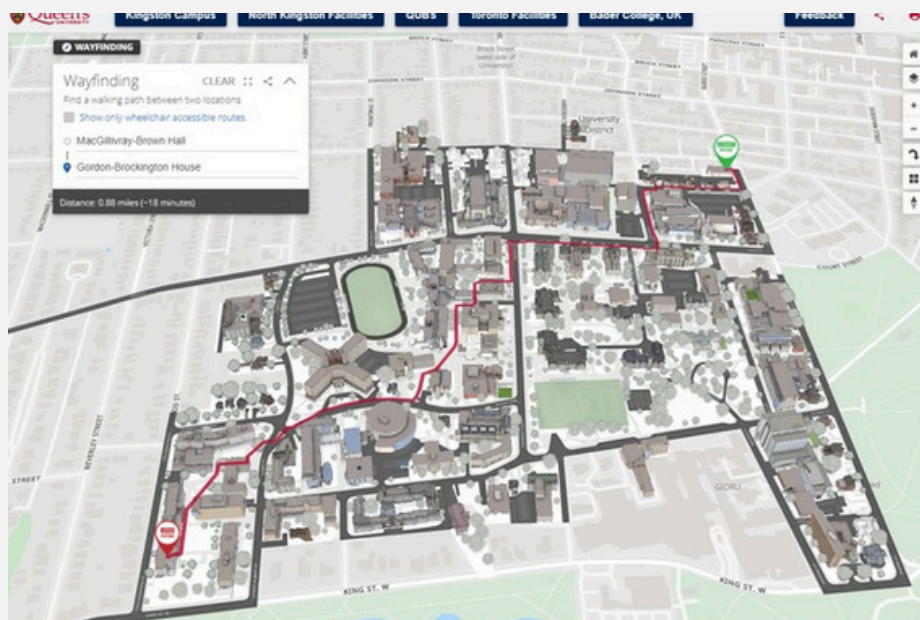
Queen's University currently has 400 bike racks available for use on main campus, west campus, and 355 King Street West. The ATWG has identified barriers and solutions for increased cycling, policy, and infrastructure on campus including the need for additional secure bike storage facilities. As of 2022, Queen's campus has two secure bike storage facilities, one on main campus located between Mackintosh - Corry Hall and Dunning Hall and one on west campus at Jean Royce Hall 2. Two more secure bike storage facilities are being constructed at the Albert street residence and Stirling Hall

Walking

- **Wayfinding** feature allows users to find a walking path between two locations on campus with the estimated distance and time of the walk
- Wayfinding can also highlight wheelchair accessible routes, accessible entrances and washrooms



Queen's 3D interactive main campus map indicating bike racks and secure bike storage infrastructure locations.



The farthest distance between two buildings on campus is 0.88 miles which is an estimated 18 minute walk

Accomplishments in 2022:

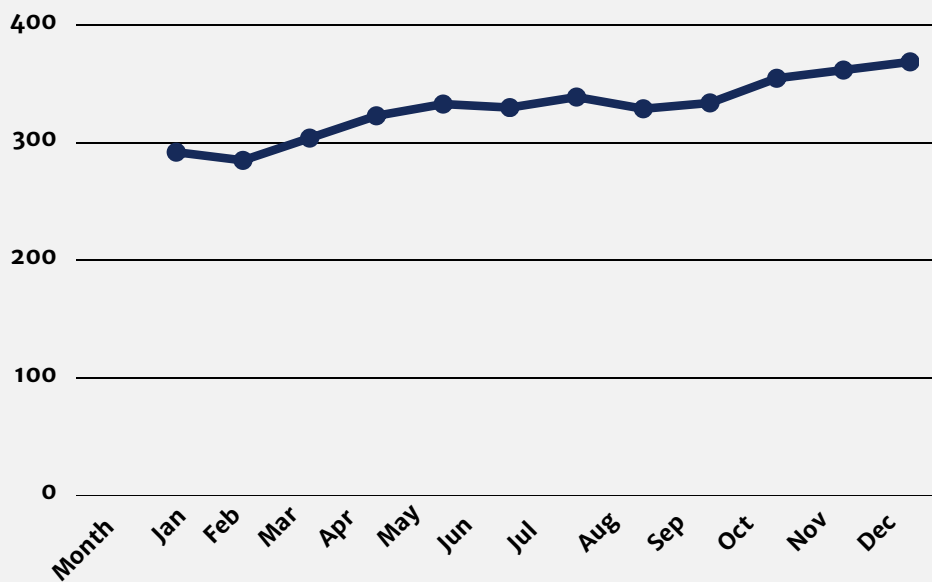
- Approval for additional secure bike storage facility at Stirling Hall for construction in 2023 (indicated by the red location)
- Made modifications to existing secure bike storage at Mackintosh - Corry Hall to make it more secure (indicated by the yellow location)
- Active transportation infrastructure locations were added to the 3D interactive campus map (bike rack locations are blue)

Transit and Transpass

Public transit ridership to the University decreased during the COVID-19 pandemic. While efforts have been focused on increasing Transpass holders, this trend continues to challenge the University's efforts to reduce commuter-related Scope 3 emissions.

Number of Queen's Transpass Users in 2022

Queen's University is a member of Kingston Transit's Employer Transpass Program to improve the accessibility of Kingston transit for faculty and staff by providing a discounted rate on the monthly pass through payroll deductions and unlimited monthly bus rides, including express routes.



77

Queen's employees joined the Kingston Transit Employer Transpass Program in 2022

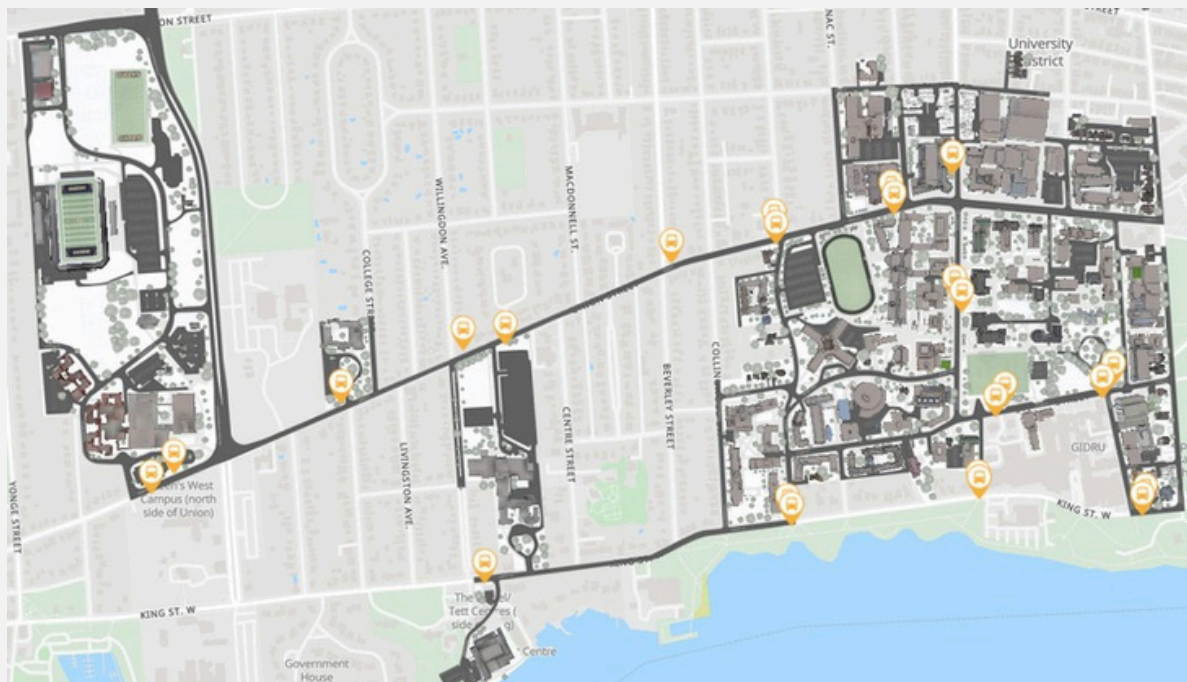
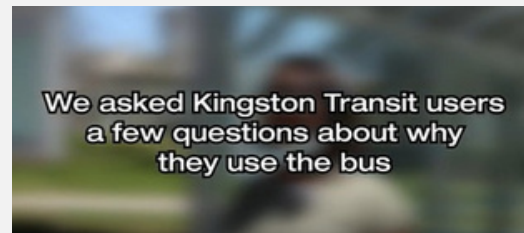


Kingston Transit currently has two 100% electric buses and are expecting to order five more in 2023

Accomplishments in 2022

- Promotional sessions with Kingston transit staff
- Education during employee onboarding
- Kingston transit bus stop locations added to campus map
- The introduction of Honk Mobile: allows commuters to pay a daily parking rate on days they drive to campus, encouraging the use of other modes of sustainable transportation on other days
- Produced two informational YouTube videos: How to Ride Kingston Transit and Queen's Employee Testimonials on the Transpass Program

Video 1: How to Ride Kingston Transit Video 2: Testimonials from Kingston Transit Users



Queen's 3D interactive campus map indicating bus locations on main campus, 355 King Street West and west campus

Planning and Policy

The ATWG recognized that transportation makes up a sizeable portion of Kingston's annual carbon emissions (28% as reported in the 2018 Kingston Climate Action Plan). Employee commutes to campus by single passenger cars continues to be a large component of said emissions. Lack of Transpass awareness in new employee onboarding and insufficient parking zone enforcement were identified as barriers to changing parking behaviors on campus. Developing approaches to overcome these barriers will be the work of the committee in the coming year,

Accomplishments in 2022

- Established four subgroups within the ATWG; Cycling & Infrastructure; Transit & Transpass; Onboarding; and Policy
- Rebranded Parking Services to Commuter Services and included information on website about all forms of sustainable and active transportation
- Recommendations from the Onboarding subgroup were implemented into the HR onboarding process in order to improve communication with new employees about alternative transportation options
- Changed committee name to Sustainable Transportation Working Group (STWG) to align with the committee's priorities



2023 Goals and Objectives

1. Make recommendations to commuter policies and procedures that will help to increase the use of sustainable modes of transportation
2. Provide recommendations to fund increased sustainable transportation infrastructure on campus
3. Increase transit ridership to pre covid numbers

For inquiries:

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To learn more:

 [Commuter Services](#)

 [YouTube Channel](#)

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Visit the [Sustainable Transportation Working Group website](#) for information on our mandate, roles and responsibilities, and the working group composition