TORONTO

REPORT FOR ACTION

Cycling Network Plan: 2021 Cycling Infrastructure Installation - Fourth Quarter Update and the Future of the 2020 ActiveTO Cycling Network Projects

Date: November 18, 2021
To: Infrastructure and Environment Committee
From: General Manager, Transportation Services
Wards: 3, 4, 5, 6, 9, 10, 11, 13, 14, 19, 22, and 25

SUMMARY

The Cycling Network Plan and the associated Near Term Implementation Plan (2019-2021), adopted by City Council in July 2019 seeks to build on the existing network of cycling routes to **Connect** gaps in the current network, **Grow** the network into new parts of the city, and **Renew** existing parts of the network to improve safety.

The 2021 Cycling Network Plan Update report, seeking Council endorsement of the 2022 – 2024 Near-Term Implementation Program, is presented for consideration at this Infrastructure and Environment Committee.

To accompany the 2021 Cycling Network Plan Update and 2022-2024 Near-Team Implementation Program, this report contains a summary of the initial group of bikeway projects that are proposed to be installed in 2022 and 2023 for which design and consultation have been completed. This report also includes recommendations on the future of the temporary 2020 ActiveTO Cycling Network Expansion projects.

Transportation Services is seeking authority for the following proposed new bikeway implementation projects to be installed in 2022. The projects are included in the Cycling Network Plan.

This report seeks Council authority to install 3.8 centreline kilometres of new bikeways on the following streets:

- Palmerston Avenue/Boulevard/Square: Dupont Street to Queen Street West (contra-flow bike lanes and cycle tracks, Ward 10 and 11)
- Tecumseth Street: Queen Street to Niagara Street (contra-flow bike lane and cycle tracks, Ward 10)

- Florence Crescent: Eileen Avenue to Pritchard Avenue (contra-flow bike lane, Ward 5)
- Runnymede Road: Liverpool Street to St. Clair Avenue West (cycle track, Ward 5)
- Ordnance Street: Strachan Avenue to 100 m to the east (cycle track, Ward 10)
- Baby Point Road: Jane Street to 15 metres to the west (cycle track, Ward 4)

This report also seeks Council authority to amend the necessary designated by-laws to install the 1.9 centreline kilometres of new bikeways in 2022-2023, which were approved through an Environmental Assessment in 2014 on the following street:

- Port Union Road: Island Road to Lawrence Avenue East (cycle track and speed limit reduction, Ward 25)

The ActiveTO Cycling Network Expansion program dedicated road space on a temporary basis to facilitate cycling for essential trips and physical activity in order to support the city during the COVID-19 pandemic. The program was highlighted in the City of Toronto's Office of Recovery and Rebuild's *COVID-19: Impacts and Opportunities Report*, which indicated that transportation infrastructure and programs will be critical for Toronto's recovery to build back better.

Among the seven temporary ActiveTO Cycling Network Expansion projects installed in 2020 and currently in place, there has been an increase in cycling volumes and an increase in safety with minimal travel time impacts for people driving. Each of these projects were identified as part of the 2019 Cycling Network Plan adopted by Council, and support the City's efforts to deliver on the Vision Zero Road Safety Plan and the TransformTO Climate Action Strategy.

As such, Transportation Services recommends making permanent the following seven ActiveTO Cycling Network Expansion projects installed in 2020, improved in 2021, and currently in place:

- Bloor Street: Avenue Road to Sherbourne Street (cycle track, Ward 11 and 13);
- Dundas Street East: Sackville Street to Broadview Avenue (cycle track, Ward 13 and 14);
- University Avenue/Queens Park: Adelaide Street West to Bloor Street West (cycle track and speed limit reduction, Ward 10 and 11);
- Huntingwood Drive: Victoria Park Avenue to Brimley Road (cycle track, Ward 22 and 23);
- Danforth Avenue: Broadview Avenue to Dawes Road, along with a 700 metre extension to Victoria Park Avenue requested by Council in April 2021 (cycle track, Ward 14 and 19);
- Bayview Avenue: Rosedale Valley Road to River Street (multi-use trail, Ward 13); and
- Wilmington Avenue: Finch Avenue West to Sheppard Avenue West (bike lanes, Ward 6).

By making the above ActiveTO Cycling Network Expansion projects permanent, Transportation Services will have opportunities to improve the temporary infrastructure

currently in place by enhancing the public realm, and adding accessibility and road safety features.

ActiveTO 2021 Cycling Network Expansion projects including Yonge Street between Bloor Street and Davisville Avenue, and Bayview Avenue between River Street and Front Street will continue to be monitored and evaluated and a report with recommendations on these projects will be brought forward in early 2022.

A map of the cycling projects proposed in this report is included as Attachment 1. The changes proposed would improve safety and mobility options by providing improved cycling connections to transit, parks, local schools, businesses, and residences. Pedestrian improvements such as curb extensions and new sidewalk installations have also been included in the projects, wherever feasible.

While there are varying impacts to traffic operations for motor vehicles, these impacts have been reviewed, analyzed and have been determined by Transportation Services to be acceptable in order to improve safety and comfort of all road users.

Finally, this report seeks to make minor housekeeping amendments to existing bikeways and their associated traffic and parking by-laws on the following streets:

- Brown's Line (bike lane by-laws, Ward 3);
- Cambridge Avenue (contra-flow bike lane by-laws, Ward 14);
- Finch Avenue West (bike lane by-laws, Ward 6);
- Davenport Road (traffic and parking, Ward 11);
- The Esplanade (traffic and parking, Ward 13);
- University Avenue (traffic and parking, Ward 10 and 11); and
- Winona Drive (bike lane by-laws and traffic and parking, Ward 9 and 12).

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council approve the ActiveTO Cycling Network Expansion projects installed in 2020 currently in place as permanent bikeways, and in doing so, authorize the necessary by-law amendments to retain the following locations as permanent installations:
   a. Bloor Street (cycle track from Avenue Road to Castle Frank Road);
   b. Dundas Street East (cycle track from Sackville Street to Broadview Avenue);
   c. University Avenue/Queens Park (cycle track from Adelaide Street West to Bloor Street West);
   d. Huntingwood Drive (cycle track from Victoria Park Avenue to Brimley Road);
   e. Danforth Avenue (cycle track from Broadview Avenue to Victoria Park Avenue);
   f. Bayview Avenue (multi-use trail from Rosedale Valley Road to River Street); and
   g. Wilmington Avenue (designated bicycle lanes from Finch Avenue West to Sheppard Avenue West).

2. City Council authorize the installation of bicycle lanes, or bicycle lane by-law amendments, on the following sections of roadway, as generally described in Attachment 2 - Designated Bicycle Lanes:

a. Brown's Line (from a point 200 metres south of Dover Drive to Lake Shore Boulevard West);
b. Palmerston Square (eastern segment from Palmerston Avenue (south leg) to Palmerston Avenue (north leg));
c. Finch Avenue West (from a point 150 metres west of Chesswood Drive to Alexdon Road);
d. Winona Drive (from a point 8 metres south of Barrie Avenue and St. Clair Avenue West); and
e.Tecumseth Street (from King Street West to Tecumseth Place (north leg)).

3. City Council authorize the installation of cycle tracks, or adjustments to cycle track by-laws on the following sections of roadway, as generally described in Attachment 3 - Designated Cycle Tracks:

a. Runnymede Road (from St. Clair Avenue West to Liverpool Street);
b. Ordnance Street (from Strachan Avenue to a point 100 metres east);
c. Palmerston Boulevard (from Bloor Street West to College Street);
d. Port Union Road (from Lawrence Avenue East to Island Road);
e. Tecumseth Street (from Queen Street West to Adelaide Street West);
f. Tecumseth Street (from Wellington Street West to Niagara Street); and
g. Baby Point Road (from Jane Street to 15 metres to the west).

4. City Council authorize the installation or adjustments of contra-flow bicycle lanes, or bicycle lane by-law amendments, on the following sections of roadway, as generally described in Attachment 4 – Contra-flow Bicycle Lanes:

a. Cambridge Avenue (from Danforth Avenue to a point 35 metres north);
b. Florence Crescent (from Pritchard Avenue to Eileen Avenue);
c. Palmerston Avenue (from Barton Avenue to Palmerston Square);
d. Palmerston Avenue (from London Street to Bloor Street West);
e. Palmerston Avenue (from Lane 1 S College E Euclid to 42 metres north of Dundas Street);
f. Palmerston Avenue (Dundas Street to Queen Street West); and
g. Tecumseth Street (Tecumseth Place (north leg) to Tecumseth Place (south leg)).

5. City Council authorize the installation of a traffic control signal at the intersection of Palmerston Avenue and Dundas Street West.

6. Subject to approval of and in conjunction with the installation of traffic control signals at Palmerston Avenue and Dundas Street West identified in Recommendation 5, City Council authorize removal of the pedestrian crossover at Palmerston Avenue and Dundas Street West.

7. City Council authorize the reduction of the speed limit from 60 kilometres per hour to 50 kilometres per hour on Port Union Road between Island Road and Lawrence Avenue East.

8. City Council authorize the reduction of the speed limit from 50 kilometres per hour to 40 kilometres per hour on University Avenue/Queens Park Circle between Bloor Street West and Gerrard Street West.

9. City Council authorize the installation a sidewalk on the western segment of Palmerston Square using temporary materials until a permanent sidewalk is constructed in future years.

10. City Council authorize the amendments to traffic and parking regulations associated with Recommendations 2, 3, 4, 5, 6, 7, and 8, as generally described in Attachment 5 - Amendments to Traffic and Parking Regulations.

11. City Council amend traffic and parking regulations required in Chapter 910 and Chapter 950, as generally described in Attachment 7, to ensure that the by-law amendments for the Davenport Road cycle tracks and The Esplanade-Mill Street cycle tracks previously approved by City Council are enacted in phases aligned with the timing of implementation of the appropriate segments of the respective projects over 2021 - 2023.

FINANCIAL IMPACT

The estimated cost to implement the cycling infrastructure recommended in this report is $310,000, excluding Port Union Road which is funded separately in the City's Capital Plan. Funding is available in the approved 2021-2030 Capital Budget and Plan for Transportation Services.

The removal of approximately 11 Pay and Display (P&D) on-street parking spaces proposed in this report would reduce annual revenues generated by Toronto Parking Authority's (TPA) on behalf of the City of Toronto by approximately $16,500, based on 2019 revenues. Transportation Services continues to work with the TPA to identify additional paid parking spaces that could be added in the areas impacted.

Costs to implement on-street paid parking changes, including new on-street signage and the removal of machines and relocation of P&D machines as well as the programming of new rates and hours of operation are estimated at $3,000. All implementation costs will be borne by Transportation Services.

The funding required to maintain the new cycling infrastructure in 2022 is expected to be approximately $18,000 for sweeping and winter maintenance. Funding for this maintenance can be accommodated within the proposed 2022 Operating Budget for Transportation Services. Funding required for ongoing maintenance costs would be considered as part of future operating budget submissions for Transportation Services.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

Cycling Network Plan
In July 2019, City Council adopted, in principle, the Cycling Network Plan with the Near Term Implementation Program (2019-2021). The implementation of individual projects is subject to the completion of feasibility assessments, design, consultation, and future City Council approval.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE6.11

ActiveTO
On April 7 and 8, 2021, City Council adopted recommendations from ActiveTO - Lessons Learned from 2020 and Next Steps for 2021. The ActiveTO temporary cycling network, in response to the COVID-19 pandemic, aims to allow people on bikes to move around Toronto safely, to better connect the city, and to mirror major transit routes. (http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE20.12)

In October 2020, City Council approved the report which provides an update on the work undertaken by the Toronto Office of Recovery and Rebuild (TORR), information on the response to COVID-19 by the City including coordination with our federal and provincial partners, and a roadmap towards recovery and rebuild. The report includes recommendations for areas necessary for effective recovery including municipal services that benefit the region, province and country, such as newcomer integration, poverty reduction, climate resilience, transportation and public transit.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX17.1

In September 2020, City Council requested the City Manager to report to City Council on lessons learned from this year's CafeTO, CurbTO and ActiveTO programs, and, in consultation with residents and businesses, to include recommendations for modifications to these programs for 2021.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX16.27

In April 2020, City Council requested the General Manager, Transportation Services and the Medical Officer of Health to pursue opportunities to provide, where possible and under the advice of public health and through the City-wide recovery planning process, more space for pedestrians, cyclists and public transit riders to allow for better physical distancing, and for the General Manager, Transportation Services to report back to City Council on the possibility of fast-tracking projects within the 10 Year Capital Plan for Vision Zero and cycling infrastructure.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.CC20.2

Port Union Road
An Environmental Assessment study for Port Union Road was undertaken in 2002–2004 and endorsed by City Council, with the Ministry of Environment-mandated public review completed in 2004. An Addendum to the EA was undertaken in 2014. At its June 2014 meeting, City Council endorsed a modified plan for Port Union that reduced property impacts. The preferred alternative included bike lanes.
Agenda Item History - 2014.PW31.10 (toronto.ca)

COMMENTS

Toronto's Cycling Network Plan

The goals of the Cycling Network Plan are to Connect, Grow, and Renew Toronto's bikeways, with corresponding objectives and indicators for measuring and evaluating success. The objectives and indicators are aligned with a multitude of City policies including the Official Plan, TransformTO Climate Action Strategy, and the Vision Zero Road Safety Plan. The Cycling Network Plan consists of three components: a Long-Term Cycling Network Vision, the Major City-Wide Cycling Routes, and a three year rolling Near-Term Implementation Program.

The Long-Term Cycling Network Vision's key message is that all streets should be considered for bikeways and other cycling improvements, with streets being programmed for near-term delivery of bikeways based on the cycling impact analysis and overall prioritization framework. The Major City-Wide Cycling Routes form the backbone of the cycling network and establish a grid of significant north/south and east/west streets and are planned for high-quality bikeways. The Near-Term Implementation Program is a rolling three year plan that details near-term studies and implementation programs.

Transportation Services is seeking authority for initial group of cycling infrastructure projects that are proposed to be installed in 2022 for which design and consultation have been completed. New bikeways are proposed on Palmerston Avenue/Boulevard, Tecumseth Street, Florence Crescent, Runnymede Road, and Ordnance Street.

This report also seeks Council authority to amend the necessary by-laws to install raised bike lanes (cycle tracks) on Port Union Road in 2022-2023, which were approved through an Environmental Assessment in 2014.

Further, the seven ActiveTO temporary bikeways installed in 2020 and currently in place were identified in the Cycling Network Plan as either 2019-2021 Near Term Implementation Projects or Major City-Wide Cycling Routes. The past 16-18 months has provided the City an opportunity to observe the impacts of these new bikeways, while also providing people with a safer and more comfortable route to bike during the pandemic. Transportation Services is seeking approval to make the temporary bikeway infrastructure permanent on all seven corridors.

Palmerston Avenue, Palmerston Square, Palmerston Boulevard, and Tecumseth Street

Palmerston Avenue, Palmerston Square, Palmerston Boulevard, and Tecumseth Street between Dupont Street and Niagara Street connect several neighbourhoods and important east-west cycling routes including Bloor Street, Harbord Street, College Street, Richmond Street, and Wellington Street. Creating a safe and comfortable cycling route along the Palmerston/Tecumseth corridor was included in the Council-adopted 2019 Cycling Network Plan's 2019-2021 Near-Term Implementation Program. The

project was delayed by one year due to staff capacity as a result of the acceleration of Major City-Wide Cycling Corridor delivery through the ActiveTO program.

Palmerston Boulevard between Bloor Street West and College Street and Tecumseth Street between King Street West and Adelaide Street West are collector roadways. Palmerston Avenue between Dupont Street and Bloor Street West and between College Street and Queen Street West and Tecumseth Street between Queen Street West and Adelaide Street West and between King Street West and Niagara Street are local roadways. There is no transit service on the corridor and no cycling infrastructure.

In the last five years, there have been 37 reported collisions between people driving, walking and cycling on this corridor. 12 collisions involved people walking and one of those resulted in serious injury. 25 collisions involved a person cycling.

The goals of the Palmerston/Tecumseth project are to improve safety for people walking, cycling, and driving, encourage cycling by connecting existing bikeways, allow people cycling to travel two-ways along the corridor, minimize parking impacts and maintain local access for people driving.

The project recommendations include traffic calming features such as two-way to one-way street conversions and one-way street flips, a contra-flow bike lane in all the one-way sections of the corridor, cycle tracks in segments where motor vehicle volumes are higher and where space allows, traffic signal modifications at Bloor Street West, Harbord Street, College Street, and Queen Street West, as well as a pedestrian crossover (PXO) to signal conversion at Dundas Street West.

Through the public consultation process, the corridor was broken down into eight segments. Within each segment, different options were considered which focused on traffic diversion to lower the amount of through moving motor vehicle traffic on the corridor.

Segment 1 (Dupont Street to Bloor Street West): considered various configurations of shared lane markings, contra-flow bike lanes, and bike lanes.

Segment 2 (Bloor Street West to Harbord Street): two options were considered for the installation of contra-flow bike lanes between Bloor Street West and Harbord Street. Option 2a proposed to convert this segment from two-way to one-way southbound for motor vehicles along with a northbound contra-flow bike lane. Option 2b proposed to convert the street from two-way to one-way in two segments - northbound from Bloor Street West to Lennox Street, and one-way southbound from Herrick Street to Harbord Street, along with contra-flow bike lanes.

Segment 3 (Harbord Street to College Street): two options were considered for the installation of contra-flow bike lanes. Option 3a proposed to convert this segment from two-way to one-way northbound for motor vehicles along with a contra-flow bike lane southbound. Option 3b proposed to convert the street from two-way to one-way in two segments - northbound from Harbord Street to Ulster Street, and one-way southbound from Ulster Street to College Street, along with contra-flow bike lanes.

Segment 4 (College Street to Dundas Street West): two options were considered for the installation of contra-flow bike lanes and shared lane markings. Option 4a proposed no changes to motor vehicle travel and the addition of a new contra-flow bike lane. Option 4B proposed changing the direction of travel for motor vehicles and the addition of contra-flow bike lane.

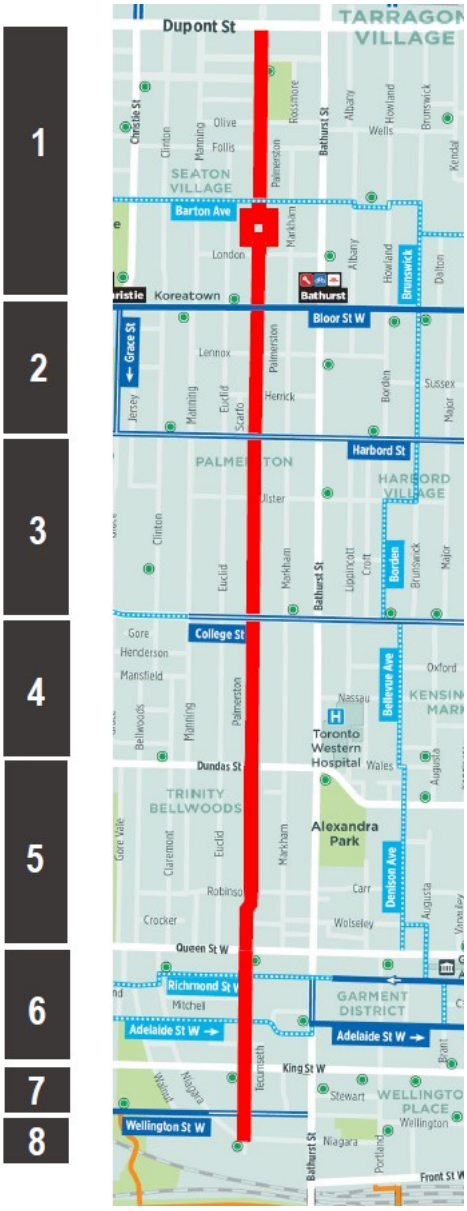

Figure 1: Palmerston and Tecumseth Project Limits

Segment 5 (Dundas Street West to Queen Street West): proposes the installation of a southbound contra-flow bike lane from Dundas Street West to Queen Street West, along with the conversion of the pedestrian cross over to a traffic signal and a bike signal at the Queen Street West intersection.

Segment 6 (Queen Street West to King Street West): proposes to convert this segment from two-way to one-way for motor vehicles in two segments - southbound from Richmond Street West to Mitchell Avenue, and northbound from Adelaide Street West to Mitchell Avenue, along with the addition of contra-flow bike lanes and protected bike lanes (cycle tracks).

Segment 7 (King Street West to Wellington Street West): two options were considered for the installation of contra-flow bike lanes and bike lanes. Option 7a proposed no changes to motor vehicle travel and the addition of new bike lanes. Option 7b proposed bike lanes be installed from King Street West to Tecumseth Place (north) and

converting the two-way segment from Tecumseth Place (north) to Tecumseth Place (south) to one-way northbound for motor vehicles, along with a contra-flow bike lane.

Segment 8 (Wellington Street West to Niagara Street): three options were considered for the installation of contra-flow bike lanes and/or bike lanes. Options 8a and 8b proposed no changes to motor vehicle travel and the addition of new bike lanes. Option 8c proposed converting this segment from two way to one-way northbound for motor vehicles with a southbound contra-flow bike lane and northbound protected bike lane (cycle track).

In keeping with best practice design criteria, shared lane markings are only proposed on segments of streets that fall below the threshold of 75 motor vehicles an hour. Motor vehicle speed and volume are the most important criteria in identifying the appropriate bikeway for streets. Sharing the roadway between people cycling and driving can be appropriate if the motor vehicle volume and speed are sufficiently low to be safe.

Public Consultation and Design Recommendation
There were various opportunities for the public and stakeholders to ask questions and provide feedback on the proposed changes along this corridor through the consultation process. On October 14th, 2021, an online stakeholder meeting was conducted with 11 participants in attendance. 112 people attended the virtual public meeting on Wednesday, October 20th, 2021. Three one-on-one stakeholder meetings were also held with local business representatives. Comments and feedback were received through 130 recorded emails, 1 phone call, and 285 completed responses to the online survey. Consultation will continue, even if approved, including with the Palmerston Square neighbours to refine the design in this unique block and to reduce impacts during installation.

Results from the survey indicated the following:

Segment 1 (Dupont Street to Bloor Street West): 61% of the respondents either 'strongly support' or 'support' the proposal for various configurations of shared lane markings, contra-flow bike lanes and bike lanes. There were no options presented in this section. Safety concerns were raised by some neighbours on Palmerston Square due to the missing sidewalk on the southbound western segment and poor sight lines. Transportation Services recommends installing all-way stop controls at Palmerston Avenue at Palmerston Square (north and south legs), additional bump-outs, shared lane markings (sharrows) and a sidewalk with temporary materials until a permanent sidewalk can be constructed in the future. All other parts of Segment 1 are recommended to be implemented per the proposed changes.

Segment 2 (Bloor Street West to Harbord St): 60% either 'strongly support' or 'support' option 2a (converting this segment from two-way to one-way southbound for motor vehicles along with a northbound contra-flow bike lane); 54% either strongly support or support option 2b (converting the street from two-way to one-way in two segments - northbound from Bloor Street West to Lennox Street, and one-way southbound from Herrick Street to Harbord Street, along with contra-flow bike lanes). While option 2b was initially preferred by staff because it would provide a signalized northbound left-turn at Bloor Street, both options have benefits and trade-offs. Transportation Services

recommends implementing option 2a with protected contra-flow bike lanes (cycle tracks) where space permits, which had the highest public support.

Segment 3 (Harbord Street to College Street): 55% either 'strongly support' or 'support' option 3a (converting the two-way to one-way northbound for motor vehicles and adding a contra-flow bike lane southbound); 58% either 'strongly support' or 'support' option 3b (converting the two-way to one-way northbound for motor vehicles from Harbord Street to Ulster Street and one-way southbound from Ulster Street to College Street along with contra-flow bike lanes). Transportation Services recommends implementing option 3b with protected contra-flow bike lanes (cycle tracks) where space permits.

Segment 4 (College Street to Dundas Street West): 55% either 'strongly support' or 'support' option 4a (proposes no changes to motor vehicle travel and the addition of new contra-flow bike lane); 62% either 'strongly support' or 'support' option 4b (changing the direction of travel for motor vehicles and the addition of a contra-flow bike lane). Transportation Services recommends implementing option 4b.

Segment 5 (Dundas Street West to Queen Street West): 63% either 'strongly support' or 'support' the proposal (the installation of a southbound contra-flow bike lane from Dundas Street West to Queen Street West, along with the conversion of the pedestrian crossover to a traffic signal and the addition of bike signal heads at the Queen Street intersection). There were no options presented in this section and Transportation Services recommends implementing the proposed changes.

Figure 2: Artist Rendering of Palmerston Avenue south from Wolesley Street

Segment 6 (Queen Street West to King Street West): 56% either 'strongly support' or 'support' (converting this segment from two-way to one-way for motor vehicles in two segments - southbound from Richmond Street West to Mitchell Avenue, and northbound from Adelaide Street West to Mitchell Avenue, along with the addition of

contra-flow bike lanes and cycle tracks). There were no options presented in this section and Transportation Services recommends implementing the proposed changes.

Segment 7 (King Street West to Wellington Street West): 55% either 'strongly support' or 'support' option 7a (no changes to motor vehicle travel and the addition of new bike lanes) and 56% either 'strongly support' or 'support' option 7b (bike lanes be installed from King Street West to Tecumseth Place (north) and converting the two-way segment from Tecumseth Place (north) to Tecumseth Place (south) to one-way northbound for motor vehicles, along with a contra-flow bike lane), Transportation Services recommends implementing option 7b.

Segment 8 (Wellington Street West to Niagara Street): 44% either 'strongly support' or 'support' option 8a (no changes to motor vehicle travel and the addition of new southbound bike lanes); 47% either 'strongly support' or 'support' option 8b (no changes to motor vehicle travel and the addition of new northbound bike lanes); 64% either 'strongly support' or 'support' option 8c (converting this segment from two way to one-way northbound for motor vehicles with a southbound contra-flow bike lane and northbound cycle track). Transportation Services recommends implementing option 8c.

Based on best practice design criteria, informed by data as well as feedback received from local stakeholders, the community, the Councillor's offices, Transportation Services recommends implementing the changes outlined in the following options for each segment: 1, 2a, 3b, 4b, 5, 6, 7b and 8c. This combination of options will result in the reduction of traffic volumes, which will improve the safety and comfort for people using the roadway.

Efforts to minimize impacts to on-street permit parking have been a key consideration in the design of this project. The proposed changes would require the removal of approximately 17 on-street permit parking spaces, with the reduction of approximately 11 spaces on Palmerston Avenue / Palmerston Square / Palmerston Boulevard (where there is a utilization rate of approximately 85%), and approximately 6 spaces on Tecumseth Street (where there is a utilization rate of approximately 61%).

Overall, many responses indicated support for the project because of the proposed road safety improvements for people walking and cycling.

Subject to Council approval, Transportation Services will monitor the project following the installation to determine if additional modifications are recommended to improve safety. A similar approach was taken on Shaw Street, where contra-flow bike lanes were initially installed in 2013, and later in 2019-2020 further improvements including changes to one-way vehicular street direction and traffic diversion was proposed, approved by Council, and implemented.

A detailed summary of the public consultation feedback and more information on the project can be found at toronto.ca/PalmerstonTecumseth. The local Councillors have been consulted on the proposed project.

Scarlett - Runnymede Cycling Connection

In 2020, protected bike lanes (cycle tracks) were installed along Scarlett Road from the Humber River to Bernice Crescent, just north of St. Clair Avenue, as approved by Council in July 2019. As part of the Scarlett Road public consultation process, Transportation Services committed to reviewing new local street cycling connections between Scarlett Road and Runnymede Road.

In 2021, the City explored two options to create a direct and comfortable cycling connection and consulted with the community to gain feedback on the potential neighbourhood cycling routes. Both options are shown below.

Option 1, via Pritchard Avenue was selected as the preferred option because it is the shorter route, has existing traffic signals at major road crossings, as well as a stop controlled intersection at Pritchard Avenue and Castletown Avenue. This route has limited impacts to motor vehicle parking and travel.

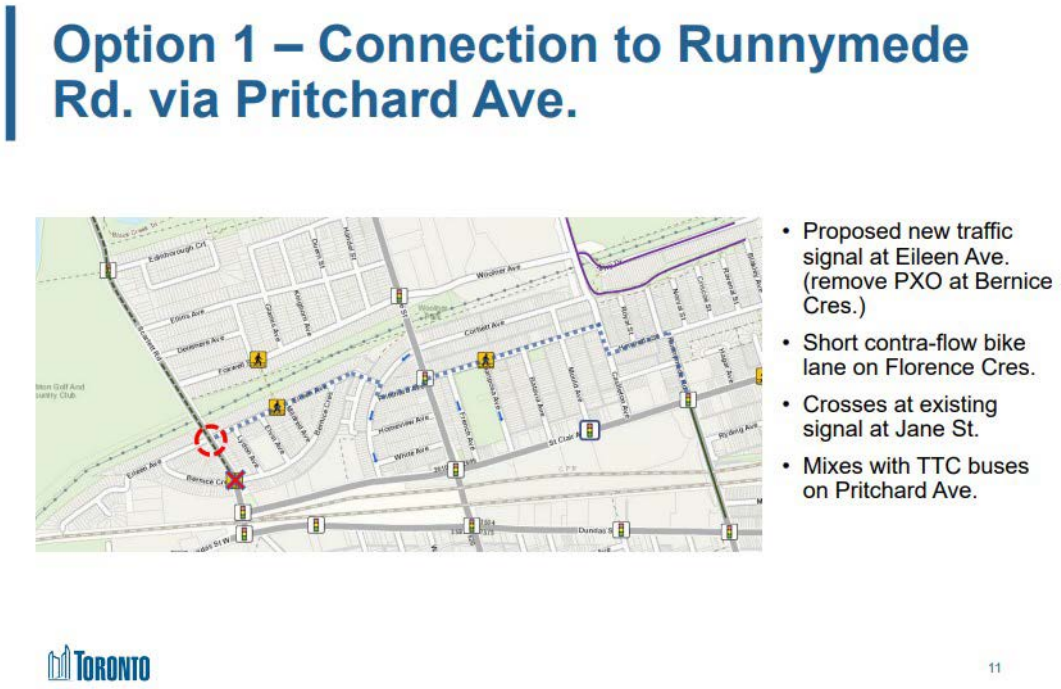

Figure 3: Option 1- Connection to Runnymede Road via Pritchard Ave.

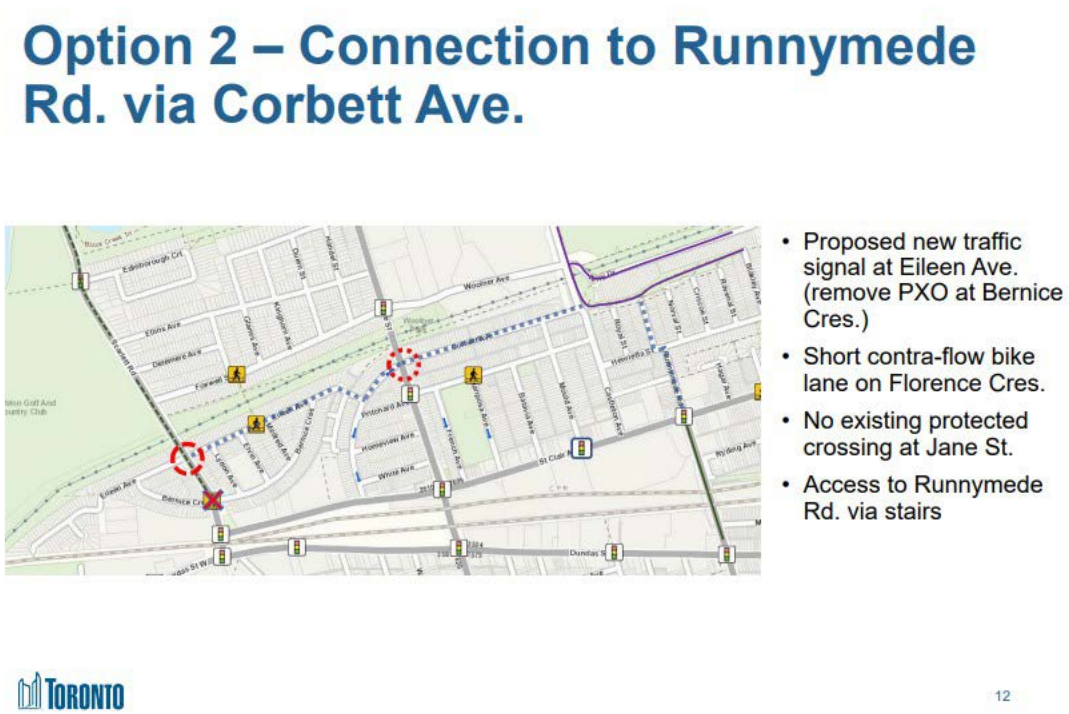

Figure 4: Option 2- Connection to Runnymede Road via Corbett Ave.

The proposed changes include:

- Cycling wayfinding markings (sharrows) on Eileen Avenue between Scarlett Road and Florence Crescent, Pritchard Avenue between Florence Crescent and Castleton Avenue, Castleton Avenue between Pritchard Avenue and Henrietta Street, Henrietta Street between Castleton Avenue and Runnymede Road and Runnymede Road between Henrietta Street and Liverpool Street.
- A short contra-flow lane on Florence Crescent between Eileen Avenue and Pritchard Avenue
- Cycle tracks on Runnymede Road between Liverpool Street and St. Clair Avenue West
- This project would have no impact to motor vehicle travel lanes.

On Florence Crescent, a reduction of 4 permit parking spaces is proposed. Currently there are 39 parking spaces with only 14 permits issued on Florence Avenue between Jane Street and St. Clair Avenue, and thus the loss of four parking spaces can be accommodated with no impact.

The existing bike lanes on Runnymede Road terminate at St. Clair Avenue West. As part of this project, the cycle tracks are proposed to be extended north to Liverpool Street. There is currently paid parking along this stretch on the east side of the street and 6 Pay and Display parking spaces are proposed to be removed to accommodate the cycle track. These spaces have low utilization and are not expected to impact business operations, due to the presence of a large surface parking lot immediately adjacent to these spaces.

Public consultation took place between June 23, 2021 and July 8, 2021. Approximately 3,000 colour flyers were delivered by Canada Post, which provided the opportunity for the community submit feedback via the project web page and by email. The project team received six emails and 18 feedback form submissions.

Overall, respondents were generally supportive of the safety and comfort improvements expected from the proposed changes. Some respondents expressed concerns about the reduction in parking spaces. City staff worked to limit the reduction in parking spaces across the corridor as this was the main concern raised during consultation.

A detailed summary of the public consultation feedback and more information on the project can be found at toronto.ca/cycling-scarlett-runnymede. The local Councillor has been consulted on the proposed project.

Ordnance Street

Ordnance Street is a local street in Liberty Village that serves three recently completed developments. As part of the developments, the roadway was narrowed and can generally accommodate two traffic lanes (one lane per direction) and protected bike lanes (cycle tracks) on both sides of the roadway.

In September 2021, Toronto and East York Community Council adopted TE27.85 Parking Amendments - Ordnance Street to amend parking on Ordnance Street between Strachan Avenue and the dead end of Ordnance Street. The approved on-street parking regulations were focused on improving safety and operations, and facilitating the implementation of future bike lanes. To provide area residents with curb-side loading/ unloading opportunity, a commercial loading zone was designated on the east side of Ordnance Street (north/south leg) that will operate at all times.

While Ordnance Street currently ends 100 m to the east of Strachan Avenue, in the future the street could connect to the Ordnance Triangle Park and the new Garrison Crossing pedestrian/bicycle bridge. Bikeways may also be extended west of Strachan Avenue along East Liberty Street. When those future connections are developed, Ordnance Street would become a vital active transportation corridor.

Before the new developments open on Ordnance Street between Strachan Avenue and 100 m east, it is recommended to install cycle tracks to support mobility choices of new residents and improve operations of the newly narrowed street.

The local Councillor has been consulted on the proposed project.

Jane Street and Baby Point Intersection

In 2022, road resurfacing is planned for Jane Street between Annette Street and Dundas Street. While Jane Street was not identified for near-term bikeway improvements, Transportation Services reviewed ways to improve safety for people walking and cycling as part of the state-of-good-repair work planned.

At every intersection, curb radii will be reduced and accessibility elements will be installed to improve safety and accessibility for people walking.

As part of this work, the intersection of Jane Street, Annette Street, and Baby Point Road will be modified to improve cycling safety. On Annette Street at Jane Street, the stop bar will moved further east and a green bike box added, along with markings to guide people cycling through the intersection heading west.

On Baby Point Road at Jane Street, Transportation Services proposes to install an eastbound protected bike lane (cycle track) at the approach of the intersection. The cycle track will be protected with a raised island and have upgraded pavement markings.

The local Councillor has been consulted on the proposed project.

Port Union Road

As approved in a 2004 Municipal Class Environmental Assessment and Environmental Assessment Addendum undertaken in 2014, Port Union Road from Lawrence Avenue East to Island Road will be reconstructed in 2022 to include the addition of a second northbound lane, wider and continuous sidewalks, centre-turn lanes in some locations, and bike lanes.

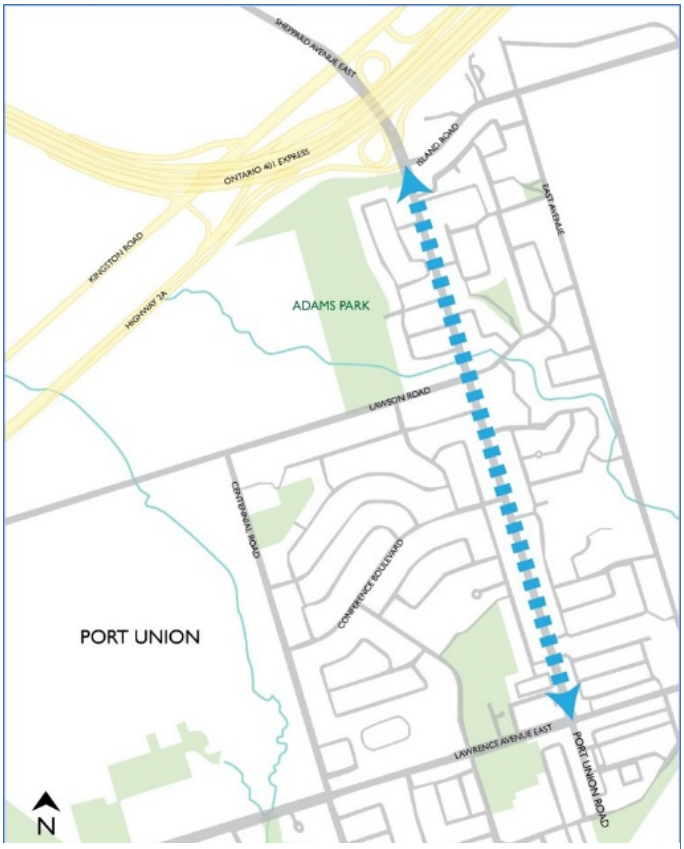

Figure 5: Port Union Road Widening Project Limits

The detailed design exercise for the Port Union Road project is nearing completion, with construction anticipated to begin in spring 2022. Initially, bike lanes with a painted buffer zone adjacent to motor vehicle lanes were included in the design.

In May 2021, Transportation Services hosted a virtual public meeting on the design of the project. A total of 238 people registered in advance, with 156 people attending the entirety of the meeting. During the meeting, 105 comments and questions were posted in the chat and the question & answer panel to City staff. During the virtual public meeting, people voiced concerns about speeding on Port Union Road, general support for the buffered bike lanes, and a number of participants requested that the City undertake a review to upgrade the planned bike lanes to raised cycle tracks.

Given the opportunity afforded by this major reconstruction project, and in keeping with best practice design criteria as well as recent public feedback received on the project, physically-separated cycle tracks have since been incorporated into the design using the space previously allocated to the buffered bike lane.

This report requests that Council authorize the bylaws for cycle tracks on Port Union Road, and to lower the posted speed limit on the corridor from 60 km/h to 50 km/h to improve road safety.

Figure 6: Artist rendering – Port Union Road at Winter Gardens Trail looking south

Details on the project, including public consultation materials and summaries, can be found at toronto.ca/portunion. The local Councillor has been consulted on this project.

Technical Amendments to By-Laws

By-Law Enactments of Existing Bikeways - Brown's Line, Finch Avenue West, and Cambridge Avenue

There are existing bikeways on Brown's Line between a point 200 metres south of Dover Road and Lake Shore Boulevard West, on Finch Avenue West between a point 150 west of Chesswood Drive and Alexdon Road, and on Cambridge Avenue between Danforth Avenue and a point 35 metres north, which were installed before the regular reporting of by-laws in Chapter 886, Footpaths, Pedestrian Ways, Bicycle Paths, Bicycle

Lanes and Cycle Tracks. This report is requesting the enactment of the required by-law amendments for the existing bikeways.

Technical Amendments - The Esplanade, Davenport Road and Winona Drive
Earlier in 2021, Council authorized the installation of bikeways and associated road safety improvements on The Esplanade and Davenport Road bikeways. The installation of these projects has been phased over 2021-2023 as follows:

- Davenport Road between Bay Street and Yonge Street, cycle tracks were installed in September 2021, with the existing bike lanes between Bay Street and Dupont Street to be upgraded to cycle tracks in 2022; and
- The Esplanade- Mill Street bi-directional cycle track between Sherbourne Street and Front Street was installed in October - November 2021. The project will be extended to Yonge Street in phases over 2022 and 2023.

As a result of the planned phasing of implementation over 2021-2023 for the above projects, by-law amendments to Chapter 910 and Chapter 950 are required in order to ensure the bills associated with the by-law amendments are enacted in phases aligned with the timing of implementation of the appropriate segment.

In June 2021, Council also authorized the implementation of the Winona Drive bikeway, which was installed in November 2021. The segment from Barrie Avenue to St. Clair Avenue West was approved by Council as part of the project but not correctly included in the by-law amendments submitted in June 2021.

ActiveTO 2020 Cycling Network Expansion Projects - Temporary to Permanent

Through the ActiveTO 2020 Cycling Network Expansion projects, new cycle tracks and bike lanes were rapidly installed through temporary materials by re-purposing curb lanes, with particular focus on routes that mirror major transit routes and/or connected trails and greenspace.

The following key corridors in the Council-adopted 2019 Cycling Network Plan were accelerated and installed in June and July 2020, improved in 2021, and currently in place on a temporary basis:

- Bloor Street: Avenue Road to Sherbourne Street (cycle track, Ward 11 and 13);
- Dundas Street East: Sackville Street to Broadview Avenue (cycle track, Ward 13 and 14);
- University Avenue/Queens Park: Adelaide Street West to Bloor Street West (cycle track and speed limit reduction, Ward 10 and 11);
- Huntingwood Drive: Victoria Park Avenue to Brimley Road (cycle track, Ward 22 and 23);
- Danforth Avenue: Broadview Avenue to Dawes Road (cycle track, Ward 14 and 19);
- Bayview Avenue: Rosedale Valley Road to River Street (multi-use trail, Ward 13); and
- Wilmington Avenue: Finch Avenue West to Sheppard Avenue West (bike lanes, Ward 6).

A summary of each corridor is included in Attachment 6.

Through delegated authority, staff were able to consult, design, and install an unprecedented amount of new bikeways, on a temporary basis, which enabled staff to make modifications to projects quickly in response to monitoring and stakeholder feedback.

A selection of improvements to these projects completed in 2021 include:

- Huntingwood Drive: bike lanes were upgraded to parking-protected cycle tracks to provide residents with on-street parking and increase safety for people cycling.
- Bloor Street East between Sherbourne Street and Castle Frank Road: bike lanes were upgraded to cycle tracks to create a continuous protected bikeway on Bloor/Danforth and to normalize the operations of the corridors due to a number of work zones.
- Bayview Avenue: The multi-use trail was extended from River Street to Front Street, as approved by Council in April 2021.

While six of the ActiveTO corridors utilized inexpensive and temporary materials, a more transformational complete streets approach was taken on Danforth Avenue. This was in order to support the main street character and local economy and in keeping with the objectives of the Danforth Avenue Complete Street and Planning Study that was underway before the COVID-19 pandemic.

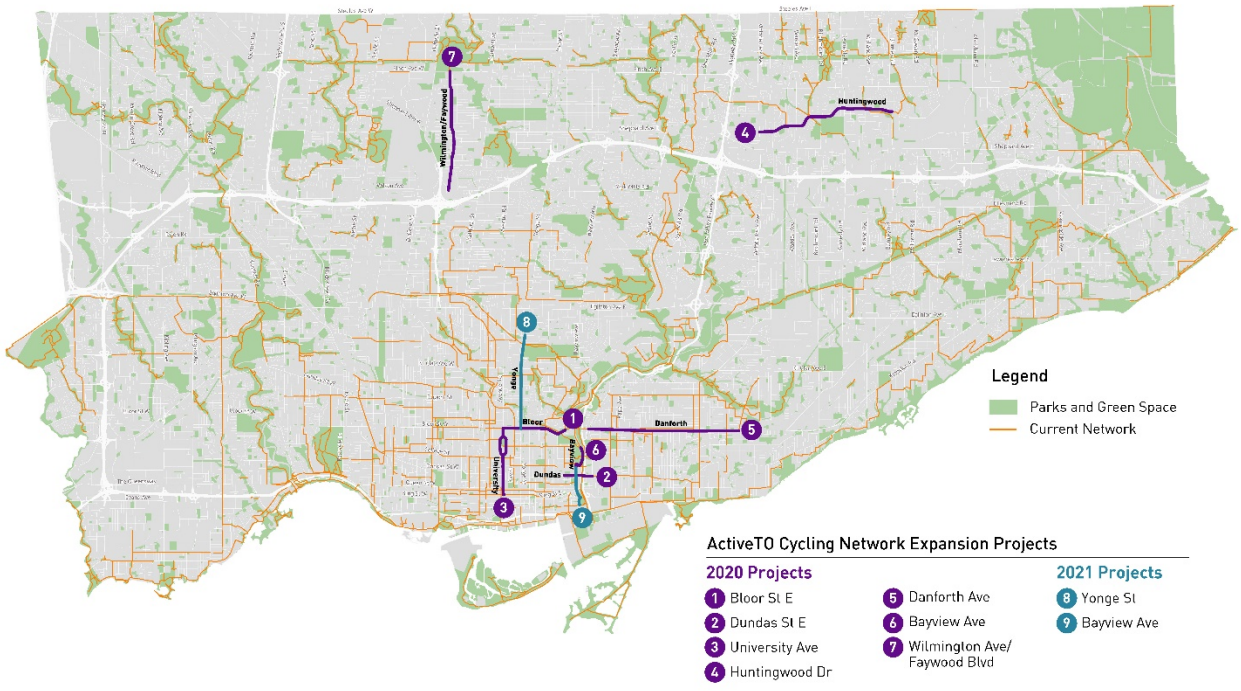

Figure 7: A map of 2020 ActiveTO Cycling Network Expansion corridors currently in place. The map can also be found in Attachment 1.

Recommendations

Among the seven temporary ActiveTO Cycling Network Expansion projects installed in 2020 and currently in place, there has been an increase in cycling volumes and an increase in safety, with minimal travel time impacts for people driving. A summary of the monitoring and evaluation of these projects is detailed later within this report.

Each of these projects were identified as part of the 2019 Cycling Network Plan adopted by Council, and support the City's efforts to deliver on the Vision Zero Road Safety Plan and the TransformTO Climate Action Strategy.

Transportation Services recommends converting the temporary ActiveTO Cycling Network Expansion projects to permanent bikeways. In addition, Transportation Services is recommending that the Danforth Avenue cycle tracks be extended from the current eastern terminus at Dawes Road to Victoria Park Avenue as requested by Council in April 2021 (IE20.12).

These recommendations are grounded in a number of urgent City Council adopted policies that have directed City staff to take action.

Figure 8: Photo of the ActiveTO River St. / Bayview Ave, Cycle Tracks. Photo Credit: Harry Choi (used with permission)

In 2019, City Council adopted the Vision Zero 2.0 Road Safety Plan, a policy that acknowledges that no loss in life as a result of traffic collisions is acceptable. As recently as November 2021 City Council have directed staff to develop plans to accelerate progress.

In 2019, City Council declared a climate emergency for the purpose of deepening the City's TransformTO commitment to protecting our economy, our ecosystems, and our community from climate change. At the time of this report, City Council will be reviewing an update to TransformTO seeking methods to accelerate Toronto's progress toward a carbon neutral future. The transportation sector is one of the largest emissions contributors, representing 36% of Toronto's emissions. The report states that to achieve Toronto's long-term targets, a massive shift to low-carbon modes of transportation will be needed. This means active transportation including cycling for short trips and electric public transit for longer trips.

The *COVID-19: Impacts and Opportunities Report* outlines the results of the Toronto's Office of Recovery and Rebuild's (TORR) work and provides recommendations for the City of Toronto and its agencies and corporations to support the recovery and rebuild of our communities, organizations, partners, and businesses. The report recommends accelerating and making permanent the ActiveTO initiatives the City undertook quickly to support crisis response and restart and to build upon those initiatives to make progress toward a modern, green and less car dependent city.

By making the ActiveTO 2020 bikeways permanent, Toronto will be a step closer to achieving the targets set-out in the policies above.

Subject to Council approval to retain the bikeways as permanent, Transportation Services will have opportunities to continue to consult with communities and improve the temporary infrastructure including public realm, accessibility, and transit upgrades. In the next five years, Huntingwood Drive, Wilmington Avenue, Bloor Street East, and the intersection of Bayview Avenue and Rosedale Valley Road have state-of-good-repair work programmed. Improvements such as green infrastructure, raised concrete physical separation, improved transit stops and accessibility upgrades could be incorporated.

To improve safety and operations, Transportation Services is also seeking approval for the following changes to the 2020 ActiveTO Cycling Network Expansion projects:

- that the Danforth Avenue cycle tracks be extended from the current eastern terminus at Dawes Road to Victoria Park Avenue as requested by Council in April 2021 (IE20.12); and that
- that the speed limit on University Avenue/Queens Park Circle between Bloor Street and Gerrard Street be reduced from 50 kilometres per hour to 40 kilometres per hour.

Figure 9: Photo of Danforth Ave. Photo Credit: Upper Canada (used with permission)

Monitoring and Evaluation:
As part of its comprehensive monitoring and evaluation plan, Transportation Services has monitored the impacts of new bikeways on these corridors. Preliminary findings were reported to Council in April 2021, and the findings presented here summarize the results collected to-date across three main categories:

- Number of people cycling;
- Number of people walking; and
- Motor vehicular travel times.

Among the seven temporary ActiveTO Cycling Network Expansion projects installed in 2020 and currently in place, there has been an increase in cycling volumes and an increase in safety, with minimal travel time impacts for people driving.

The findings reported here occurred against a backdrop of significant changes in transportation demand as businesses and schools re-opened and COVID-19 restrictions were lifted. Efforts have been made to partially control for, or contextualize, observed changes against these rapidly evolving conditions. The following limitations should be considered:

- Increases in Overall Traffic: the implementation of this program coincided with various stages of re-opening of businesses and restaurants, making it difficult to isolate the impact of one from the other.
- Changes in Traffic Patterns: in addition to general increases in traffic, response policies (e.g. changes to school year with online options) and differences in the ability of employees to telework across sectors led to major shifts in time-of-day travel patterns that vary geographically.
- Changes in Seasonality: volumes across all modes, and in cycling in particular, are sensitive to changes in seasonality and weather patterns. Adjustments using available weather and solar data were made to partially control for this.

Cycling Volumes[1]
Data collected in 2021 shows that there continues to be significantly more people cycling along most corridors where new bikeways have been installed relative to the period just prior to installation. Estimated daily weekday volumes of people cycling along these corridors is shown in Table 1 below.

Table 1: Two-Way Cyclist Volumes, Weekday Daily (7 AM - 11 PM) Average - Selected Locations[2]

ID	Corridor	Total Daily Cyclists (Weekday Average)			
		Before (adj.)	**After (2020)**	**After (2021)** (adj.)	**Change** Before vs. After (2021)
1	**Bloor St E** (at Church)	1,870	2,810	2,590	+720
2	**Dundas St E** (at River)	860	1,440	1,150	+290
3	**University Ave** (at College)	530	1,230	1,080	+550
4	**Huntingwood Dr** (at Victoria Park)	80	100	110	+30
5	**Danforth Ave** (at Jones)	1,650	2,820	2,750	+1,100
6	**Bayview Ave** (at Rosedale Valley)	320	550	900	+580
7	**Wilmington Ave / Faywood Dr** (at Sheppard)	170	150	160	(10)

The majority of these corridors have seen overall trends remain relatively consistent with levels observed last summer after the installation of the bikeways, with some variation. The exception to this is Bayview Avenue (measured at Rosedale Valley Road), where total north-south approach volumes have further increased in 2021.

Pedestrian Volumes
Data collected in 2021 shows that there continues to be more people walking along most corridors where new bikeways have been installed relative to the period just prior to installation. The link between rising pedestrian volumes and the new bikeways is limited. There is most likely a higher correlation between the relaxation of COVID-19

1. Volumes have been adjusted (where indicated) to reflect differences in seasonality and weather patterns between days on which these counts were conducted.
2. These adjustments have been made using a newer model, resulting in minor changes to previously reported numbers (in addition to a one-hour shift in the time window to reflect data availability).

restrictions and the changes in volumes below. The data highlights that the impact of the ActiveTO bikeways on the growth in walking has generally been neutral and that the business corridors have been exposed to more pedestrian traffic in 2021, than the Spring of 2020. Estimated daily weekday volumes of people walking along these corridors is shown in Table 2 below.

Table 2: Pedestrian Volumes, Weekday Daily (7 AM - 11 PM) Average - Selected Locations

ID	Corridor	Total Daily Pedestrians (Weekday Average)			
		Before	**After (2020)**	**After (2021)**	**Change** Before vs. After (2021)
1	**Bloor St E** (at Church)	11,090	12,480	13,090	+2,000
2	**Dundas St E** (at River)	2,900	2,860	3,350	+450
3	**University Ave** (at College)	8,300	11,260	15,000	+6,700
4	**Huntingwood Dr** (at Victoria Park)	750	600	690	(60)
5	**Danforth Ave** (at Jones)	3,080	3,520	2,710	(370)
6	**Bayview Ave** (at Rosedale Valley)	180	90	230	+50
7	**Wilmington Ave / Faywood Dr** (at Sheppard)	1,010	940	1,070	+60

Motor Vehicle Travel Time

Impacts on motor vehicle travel times continue to be minimal, with peak period travel times generally in line with pre-pandemic conditions (+/- less than one minute). As detailed in Table 1 and Table 2, travel times in recent weeks (after schools reopened) are comparable to conditions observed ("Fall 2019") prior to the COVID-19 pandemic in both the morning and afternoon peak periods.

Initial data in 2020 showed that average eastbound travel times on Danforth Avenue during the afternoon peak period were previously 1.7 minutes longer than the pre-pandemic baseline. Following efforts to optimize signal timing along the corridor and improve traffic flow, average travel times are now generally in line with the pre-pandemic baseline.

Travel times across the City have steadily increased over the past year as businesses and schools have re-opened, and COVID-19 restrictions have been lifted. Travel times observed prior to the pandemic ("Fall 2019") are provided here as the best available point of comparison to current conditions. These comparisons continue to be

challenging and while city-wide vehicle traffic is substantially higher than conditions present when these bikeways were first installed, current traffic has not yet returned to pre-pandemic levels.

Table 3: Average Motor Vehicle Travel Time (mins), AM Peak Period (7 a.m. to 10 a.m.)

ID	Corridor	Direction	Average Travel Time (mins)[3]		
			Fall 2019	Fall 2021	Change
1a	**Bloor St E** Avenue Rd - Sherbourne St	Eastbound	4.3	4.2	-0.1
		Westbound	5.2	4.6	-0.6
1b	**Bloor St E** Sherbourne St - Castle Frank Rd	Eastbound	1.8	1.9	+0.1
		Westbound	3.0	2.8	-0.2
2	**Dundas St E** Sackville St - Broadview Ave	Eastbound	2.5	2.6	+0.1
		Westbound	2.3	2.2	-0.1
3	**University Ave** Davenport Ave - Adelaide St W	Northbound	8.1	7.4	-0.7
		Southbound	7.5	7.4	-0.1
4	**Huntingwood Dr** Victoria Park Ave - Brimley Rd	Eastbound	10.4	7.6	-2.8
		Westbound	9.5	8.3	-1.2
5	**Danforth Ave** Broadview Ave - Dawes Ave	Eastbound	12.6	13.2	+0.6
		Westbound	13.7	13.2	-0.5
6	**Bayview Ave / River St** Rosedale Valley Rd - Gerrard St E	Northbound	1.5	1.7	+0.2
		Southbound	1.5	1.9	+0.4
7	**Wilmington Ave / Faywood Blvd** Finch Ave W - Sheppard Ave W	Northbound	4.1	3.6	-0.5
		Southbound	3.7	4.0	+0.3

[3] Average travel times are estimated over two distinct date ranges: Fall 2019 (September 16, 2019 to December 6, 2019), and Fall 2021 (September 6, 2021 to October 24, 2021)

Table 4: Average Motor Vehicle Travel Time (mins), PM Peak Period (4 p.m. to 7 p.m.)

ID	Corridor	Direction	Average Travel Time (mins)[4]		
			Fall 2019	Fall 2021	Change
1a	**Bloor St E** Avenue Rd - Sherbourne St	Eastbound	5.3	6.2	+0.9
		Westbound	5.7	5.2	-0.5
1b	**Bloor St E** Sherbourne St - Castle Frank Rd	Eastbound	2.0	2.0	-
		Westbound	2.0	2.3	+0.3
2	**Dundas St E** Sackville St - Broadview Ave	Eastbound	2.9	3.2	+0.3
		Westbound	2.4	3.3	+0.9
3	**University Ave** Davenport Ave - Adelaide St W	Northbound	7.4	7.3	-0.1
		Southbound	8.4	8.8	+0.4
4	**Huntingwood Dr** Victoria Park Ave - Brimley Rd	Eastbound	10.0	7.9	-2.1
		Westbound	8.9	7.9	-1.0
5	**Danforth Ave** Broadview Ave - Dawes Ave	Eastbound	16.5	17.4	+0.9
		Westbound	14.8	15.1	+0.3
6	**Bayview Ave / River St** Rosedale Valley Rd - Gerrard St E	Northbound	1.7	2.0	+0.3
		Southbound	1.9	2.3	+0.4
7	**Wilmington Ave / Faywood Blvd** Finch Ave W - Sheppard Ave W	Northbound	3.3	4.0	+0.7
		Southbound	3.5	3.7	+0.2

[4] Average travel times are estimated over two distinct date ranges: Fall 2019 (September 16, 2019 to December 6, 2019), and Fall 2021 (September 6, 2021 to October 24, 2021)

Bike Share Data

Transportation Services received Toronto Bike Share data through the Toronto Parking Authority for their stations along Bloor Street, Dundas Street East, University Avenue, and Danforth Avenue. Ridership grew along the corridors, particularly along University Avenue. As a comparison, the Bike Share system-wide average ridership increase is 22% year-over-year between 2020 and 2021 (year to date).

- Along Bloor Street within the limits of the ActiveTO cycling project, there are eight bike share stations. There was a 31% increase in ridership between 2020 and 2021 (year to date).
- Along Dundas Street East within the limits of the ActiveTO cycling project, there are two bike share stations. There was a 21% increase in ridership between 2020 and 2021 (year to date).
- Along University Avenue within the limits of the ActiveTO cycling project, there are 13 bike share stations. There was a 50% increase in ridership between 2020 and 2021 (year to date). Two new stations were installed between 2020 and 2021, which could have contributed to the increase in ridership.
- Along Danforth Avenue within the limits of the ActiveTO cycling project, there are 18 bike share stations. There was a 27% increase in ridership between 2020 and 2021 (year to date). Seven new stations were installed between 2020 and 2021, which could have contributed to the increase in ridership.

Figure 10: A photo of the ActiveTO University Avenue cycle tracks

Ryerson University Research
Transportation Services is working with Ryerson University to examine city-wide and corridor-level trends related to collisions involving people cycling and walking. This project is a preliminary assessment at the broader safety impacts of new cycle tracks (and specifically those implemented as part of the ActiveTO program) in Toronto. Previous research has found that cycle tracks are effective in reducing collision rates for people cycling on these corridors. Transportation Services is interested in exploring whether similar benefits have been realized through the implementation of new bikeways in recent years.

Initial findings show that police-reported collisions involving people cycling have been decreasing since 2016; it is unclear, however, to what extent this can be fully attributed to infrastructure build-out as these collisions have historically been under-reported in police data. An examination of hospital administrative data is currently underway to further validate these trends. This will be accompanied by an initial assessment of the localized safety impacts of the new bikeways, with an acknowledgement that safety trends are typically evaluated over a 5 year period. A final report will be completed later this year.

University of Toronto Research
Through a partnership with Transportation Services, the University of Toronto Department of Civil and Mineral Engineering recently undertook a research project to investigate analysis on the level of traffic stress experienced by people cycling within Toronto. As part of this work, the University of Toronto's research evaluated the ActiveTO Cycling Network Expansion corridors impact on Level of Traffic Stress (LTS) and low stress cycling accessibility.

LTS is a rating given to a road segment or crossing indicating the traffic stress it imposes on people cycling. LTS ranges from 1 to 4. LTS1 indicates low-stress streets for all people cycling, including children. LTS2 streets are comfortable for the majority of the adult population. LTS3 for "enthused and confident" cyclists, and LTS4 for "strong and fearless" cyclists.

With ActiveTO cycling infrastructure, the calculated travel time and reachable area at LTS2 expanded by 4.1% and 7.9%, respectively. This expansion corresponds to a 10-20% increase in population, jobs, and food store accessibility, and a 6.3% increase in park accessibility. Accessibility increased around all of the new ActiveTO Cycling Network Expansion projects, but gains varied in different parts of the city. In some central locations, access increased by well over 100,000 people or jobs. Wilmington Avenue and Huntingwood Drive provided new access to food and parks. If the bikeways were removed, these gains in low stress network connectivity would be lost.

The modelling showed that increases in low stress accessibility occurred most intensively around central Toronto, with smaller gains in other parts of the city. Overall, the University of Toronto's researchers found that the accessibility impacts of the ActiveTO Cycling Network Expansion projects were large, if uneven. Barriers to access

a low stress network of bikeways remain for many in Toronto due to disconnected cycling infrastructure.[5]

Preliminary Findings - 2021 ActiveTO Cycling Network Expansion Projects

In April 2021, Council approved the installation of a temporary complete street pilot on Yonge Street between Bloor Street and Davisville Avenue/Chaplin Crescent as part of the ActiveTO program and COVID19 pandemic response as part of the ActiveTO program and COVID-19 pandemic response, to help create a safer street for pedestrians, people on bikes, people driving and those riding transit, create more beautiful and liveable spaces for residents, and support businesses through expanded dining options. Installation of the summer configuration of the pilot was completed from July to September 2021.

Figure 11: A photo of Yonge Street transformation in Summerhill.

Preliminary data on pedestrian and cycling counts and motor vehicle travel time impacts of the pilot is summarized within this report. Now that these results are in hand, additional work is underway to improve general traffic flow including updated signal coordination.

Preliminary data on pedestrian and cycling counts demonstrates that, when compared to periods before the pilot:

- Two-way cycling volumes have increased significantly, with a 105% increase in cycling volumes, on average, with the largest percentage increases observed between Davenport Road/Church Street and Heath Street.
- Total pedestrian volumes have also increased. Weekday pedestrian volumes increased by 60 to 80% in the three locations measured within the pilot area, and

[5] Lin, B, Chan, T C Y, and Saxe, S. (2021). "The Impact of COVID-19 Cycling Infrastructure on Low-Stress Cycling Accessibility: A Case Study in the City of Toronto". Findings (In press) https://findingspress.org

remained mostly unchanged just north of it (at Davisville Avenue / Chaplin Crescent).

Preliminary data demonstrates that motor vehicle travel times on Yonge Street have increased by up to 90 seconds in am/pm peak periods and approximately 2-3 minutes midday. There have been noticeable impacts to travel times on Yonge Street, which have further increased since schools reopened in September. The largest impacts have been observed in the northbound direction during the middle of the day.

Travel times in both directions along Yonge Street during most times of the day are now slightly above the pre-pandemic (Fall 2019) baseline with up to 90 seconds increase in am/pm peak periods and approx. 2-3 minute increase during midday. The entirety of this increase from prior to installation can't be attributed solely to the pilot, as they happened against the backdrop of increasing travel times across the city as pandemic restrictions have lifted.

Community consultation has taken place, both before and during the pilot, with local businesses, including four Business Improvements Areas (BIAs), several neighbourhood associations and area residents.

Additional data, including updated counts and travel time impacts as well as public intercept surveys and focus group feedback, will be made available in early 2022.

The ActiveTO 2021 Cycling Network Expansion projects including Yonge Street between Bloor Street and Davisville Avenue, and Bayview Avenue between River Street and Front Street will continue to be monitored and evaluated and a report with recommendations on these projects will be brought forward in early 2022.

The ActiveTO Cycling Network expansion projects have rapidly grown Toronto's cycling network, connect more people on bikes to the places they need to go by providing more, safe separated bike lanes. Together with the initial group of near-term bikeway projects contained within this report, these projects deliver on key parts of the Council-approved Cycling Network Plan, advance the City's Vision Zero Road Safety Plan vision of creating safer roadways, support an increase in the amount of trips taken by bike in keeping with TransformTO Climate Action Strategy, and are a cornerstone of the City's efforts to build back better from the COVID-19 pandemic.

CONTACT

Jacquelyn Hayward
Director, Project Design & Management
Transportation Services
Tel: (416) 392-5348
Email: Jacquelyn.Hayward@toronto.ca

SIGNATURE

Barbara Gray
General Manager, Transportation Services

ATTACHMENTS

Attachment 1: Proposed Cycling Network Installation Location Map
Attachment 2: Designated Bicycle Lanes
Attachment 3: Designated Cycle Tracks
Attachment 4: Designated Contra-flow Bicycle Lanes
Attachment 5: Amendments to Traffic and Parking Regulations
Attachment 6: ActiveTO Detailed Corridor Summaries
Attachment 7: Amendments to Traffic and Parking Regulations