Attachment 8 Complete Streets Study Summary Report

1 Background

In 2019, the City launched The Danforth Study, a joint three-pronged project with City Planning, Transportation Services, and Economic Development that included a Complete Street study, Planning study and Economic Analysis and Retail study. The Complete Street study focused on ensuring the needs of all people were considered, such as people who walk, cycle, drive, and take transit, including seniors, people with mobility issues and local businesses. The Study included a consultation process that included community meetings, Stakeholder Advisory Committee meetings, online surveys, and engaging a broad range of stakeholders such as Business Improvement Areas, residents, and cycling groups. The project included a pilot project component which was conceived and implemented in early 2020 and through 2021 during the pandemic as part of the City's ActiveTO temporary cycling network expansion program.

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 people walking and cycling, and public transit riders to allow for better physical distancing; and directed 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. In May 2020, Council approved the installation of a Danforth Avenue complete street pilot project through the delivery of 'Destination Danforth' along with other ActiveTO corridors as part of the city's COVID-19 response.

The 'Destination Danforth' Complete Streets pilot project was installed in the summer of 2020 from Broadview Avenue to Dawes Road. The purpose of the pilot was to support local businesses by providing expanded outdoor patio areas and street beautification (e.g. planters and art installations), improve safety and comfort for all road users, and enable people to use all modes of transportation along the corridor. Consultation on the pilot consisted of letters, flyers, weekly meetings with Business Improvement Areas and local Councillors, a Stakeholder Advisory Committee meeting, a virtual community meeting, and through the project website.

The purpose of this summary is to document the process undertaken to arrive at the pilot design, outline the data and analysis undertaken, understand the performance of the pilot, and provide proposals for next steps.

1.1 The Danforth Study

The Complete Street study was undertaken as a separate study in parallel and coordination with the Danforth Avenue Planning study and the Economic Analysis and

Retail study. This joint initiative between three City divisions – Transportation Services, Economic Development and Culture, and City Planning was called The Danforth Study.

The Economic Analysis and Retail study identified key demographic and economic trends on Danforth Avenue, providing research into who lives and works in the neighbourhood, what stores and services are available and identified where people are going and where they are coming from to support and promote the economic vitality of Danforth Avenue.

The Danforth Avenue Planning study (between Don Valley Ravine and Coxwell Avenue) was a vehicle for long-range planning, urban design, and investment, building on the Danforth Avenue Planning study already completed for the segment between Coxwell Avenue and Victoria Park Avenue. The City developed recommendations for Official Plan policy amendments, heritage conservation, urban design guidelines, public realm improvements, and provided other strategic recommendations to guide investment, development, and infrastructure improvements within the study area.

This summary report focuses on the Complete Street study that was implemented as the Destination Danforth pilot project.

1.2 Danforth Avenue Pre-Pilot Context

Danforth Avenue is identified as an *Avenue* in the Official Plan and is classified as a Major Arterial in the City's Road Classification System. The right of way width is 26 to 27 meters, with a consistent sidewalk to sidewalk width of 16.4 to 16.8 m between Broadview Avenue and Dawes Road. This widens to 18 m for approximately 100 m on either side of Coxwell Avenue. The road layout prior to the pilot is shown in the cross section in Figure 1 and included the following:

- Four lanes of traffic, including a five meter wide curb/off-peak parking lane;
- Vibrant patios integrated into the sidewalk space;
- Posted speed limit of 40km/hr;
- No dedicated cycling infrastructure present;
- Sidewalks on either side of the street that accommodate street furniture, patios and some street trees; and
- A peak hour parking prohibition was in place that alternated between the westbound direction in the morning peak (7 to 9 a.m.) and the eastbound direction in the afternoon peak (4 to 6 p.m.).

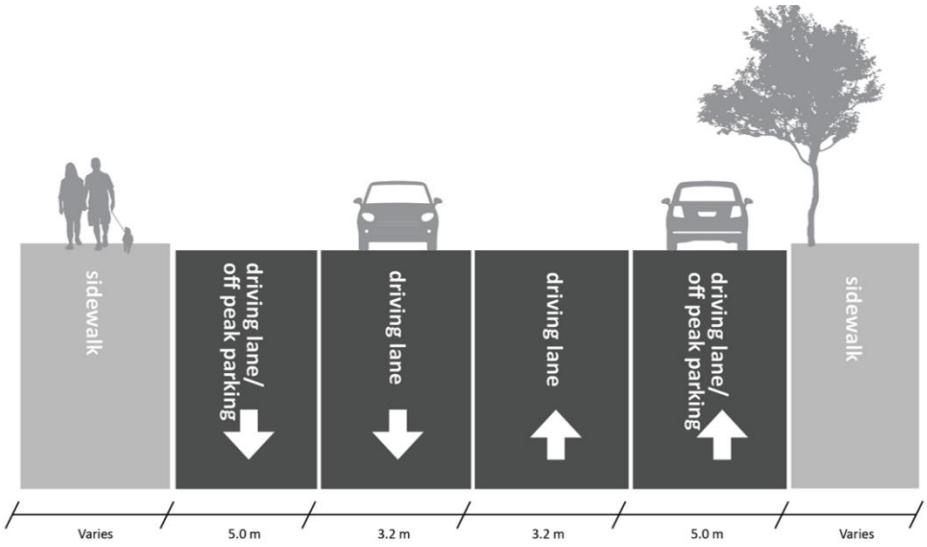


Figure 1: Danforth Avenue Typical Cross Section Pre-Pilot Installation

1.3 Pilot Study Area

The Complete Street pilot was installed along Danforth Avenue for a 5.4km stretch between Broadview Avenue and Dawes Road. This area was selected for implementation (instead of just a section) in order to provide:

- Equitable support of businesses (corridor-wide) to promote “Main Street” revitalization;
- Social distancing space for communities across the corridor;
- TTC subway relief through corridor-wide cycle track implementation;
- Bike Share expansion to meet existing and future demand resulting from Covid-19 restrictions and decline in transit usage; and
- Cycling network connectivity to existing bicycle lanes on Dawes Road.

The pilot area stretches across Ward 14 –Toronto-Danforth and Ward 19 – Beaches-East York. There are four Business Improvement Areas in the pilot area, including: Broadview Danforth, GreekTown on the Danforth, Danforth Mosaic, and Danforth Village.

1.4 Pilot Objectives

The pilot’s objectives captured the original Complete Street study objectives (refer to Figure 2) which sought to ensure Danforth Avenue is designed for everyone (people walking, cycling, driving, taking transit, and those with mobility challenges) with a key goal of prioritizing the most vulnerable road users as identified in the City's Visions Zero Road Safety Plan (pedestrians, school children, older adults and cyclists). Benefits of a complete street design for Danforth Avenue include:

- Improvements to road safety;
- Vibrant and beautiful streetscape;
- More mobility options;

- Social benefits;
- Local economic benefits; and
- Environmental benefits.

In the context of an accelerated pandemic response, the pilot also needed to meet the following additional objectives:

- Support local businesses by improving access options;
- Support local businesses by providing expanded patio & outdoor seating opportunities;
- Support physical distancing for active modes of transportation;
- Support transit system relief - provide sustainable alternatives for people who will not be comfortable taking transit (walking, cycling);
- Provide more space for public realm enhancements, Bike Share, bike parking; and
- The desire to make Danforth Avenue a "destination".

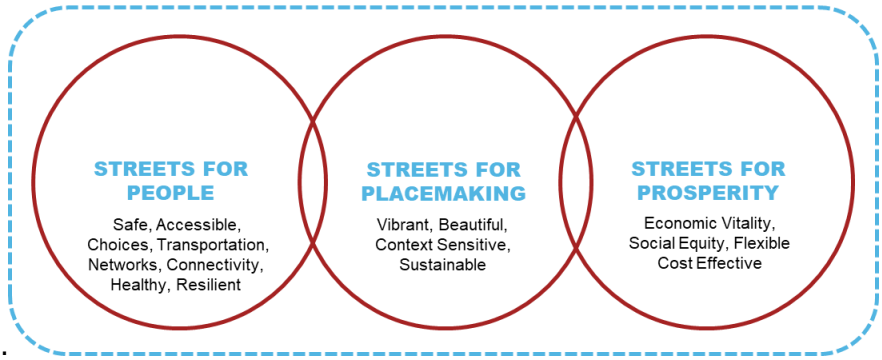


Figure 2: Toronto Complete Streets Objectives

1.5 Pilot Design Selection

The pilot design process included a detailed examination of the right-of-way and a feasibility design study to review traffic, parking, opportunities for expanded patio space and the potential for on-street cycling facilities along Danforth Avenue, among other technical and safety considerations.

City staff developed and evaluated three mid-block design options to determine the preferred option:

- Option A: Four travel lanes, no parking, and protected bike lanes (Figure 3);
- Option B: Three travel lanes, one parking/loading lane, and cycle tracks (Figure 4); and
- Options C: Two travel lanes, two parking/loading lanes, and cycle tracks (Figure 5).

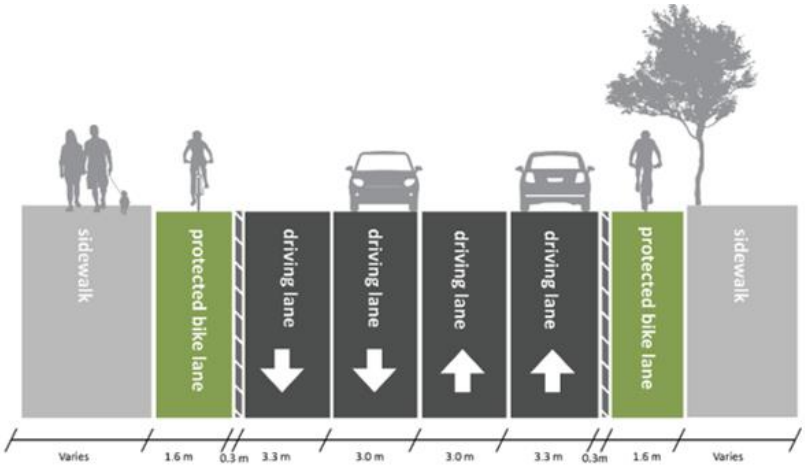


Figure 3: Danforth Avenue Complete Streets Design Option A Cross Section

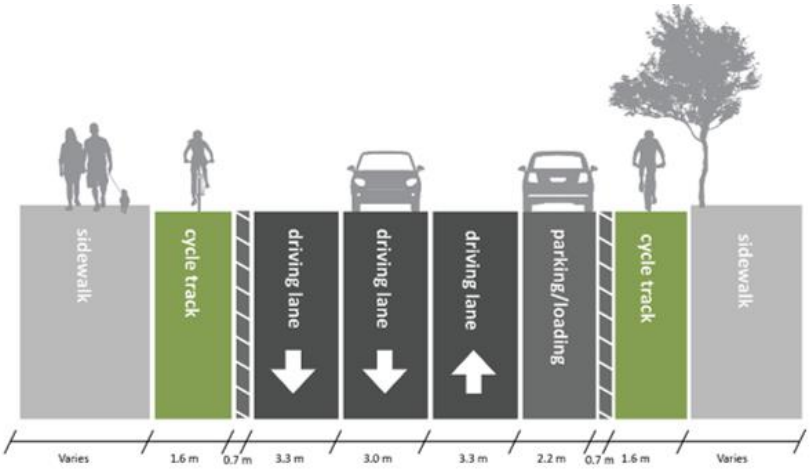


Figure 4: Danforth Avenue Complete Streets Design Option B Cross Section

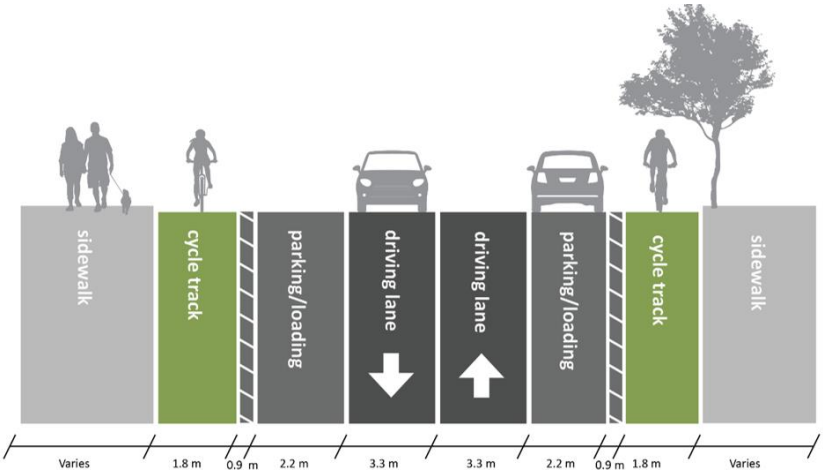


Figure 5: Danforth Avenue Complete Streets Design Option C Cross Section (preferred)

The options were evaluated based on vulnerable road user safety, parking/loading capacity, public realm enhancements, ability to accommodate left and right turns,

people capacity, vehicle capacity/traffic operation, and peak vehicle volume intersection capacity. Option C was recommended as the preferred mid-block design following the evaluation. Option C had:

- The shortest pedestrian crossing distances (~6.6 m);
- The ability to accommodate the widest cycle track/buffer;
- On-street parking/loading lanes on both sides of Danforth Avenue;
- The highest reduction in pedestrian exposure through curb extensions; and
- The highest potential to configure block-wide curbside patios on either side of the street.

The design option evaluation and the refinement of the preferred design was informed by a number of studies that had been initiated prior to the pandemic, including a comprehensive Road Safety Review of the Danforth Avenue corridor, traffic analysis and a parking inventory.

2 Related/Connected Studies and Programs

2.1 ActiveTO and Cycling Network Plan

ActiveTO, including the ActiveTO Cycling Network Expansion projects, dedicated road space on a temporary basis to facilitate active transportation for essential trips and physical activity in order to support the City during the COVID-19 pandemic. The program was highlighted in the Toronto Office of Recovery and Rebuild's COVID-19: Impacts and Opportunities Report, indicating that transportation infrastructure and programs will be critical for Toronto's recovery and efforts to build back better and prioritize investments that support key priorities all through an equity and resilience lens.

Through the Cycling Network Expansion program, Transportation Services accelerated and installed new bikeways along key corridors in the Council-adopted 2019 Cycling Network Plan in June and July 2020, with particular focus on routes that mirrored major transit routes and/or connected to trails and greenspace. The ActiveTO cycling projects coupled with Transportation Services' permanent on-street cycling network and trail project represents the largest, single year increase in new bikeways in the City of Toronto's history.

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.

In December 2021, City Council approved the ActiveTO Cycling Network Expansion projects installed in 2020 currently in place as permanent bikeways, and in doing so, authorized the necessary by-law amendments, to retain them as permanent

installations, including Danforth Avenue (cycle tracks from Broadview Avenue to Dawes Road), along with an extension of Victoria Park Avenue to be installed in 2022.

2.2 CaféTO Program

The CaféTO program was launched in June 2020 to support restaurants and bars facing indoor dining capacity restrictions by providing expanded outdoor dining space on the street and sidewalk.

COVID-19 has had a significant impact on business owners and employees in the hospitality industry and it is expected that several years will be required before a full economic recovery from the pandemic is realized. This, coupled with the widespread support received for the program, indicates that there is a demand to make CaféTO permanent, which is the proposed direction for this program.

CaféTO also represents a significant shift in the look, feel and function of many of Toronto's main streets, increasing the vibrancy of our streetscapes and public realm and is a notable alteration in the way the City and its residents are using and experiencing the public right of way, including both curbside space and the sidewalk.

In November, 2021, a report regarding the permanency of the CaféTO program was before City Council. The report recommended the permanency of the program along with establishing additional criteria and future monitoring and implementation of the program. The report was adopted with amendments. It is proposed that CaféTO be established as a permanent program for the City of Toronto in a phased manner, with the streamlined sidewalk café application and permit process formalized permanently in 2022.

As part of the Destination Danforth Complete Streets pilot project, curb lane and sidewalk restaurant expansions were permitted (where feasible), as a result 81 restaurants/bars participated in 2020 while 89 participated in 2021. Of note is the increase in curb lane cafés from 2020 to 2021, seen with a decrease of business owners choosing to have both a curb lane and sidewalk expansion Café.

Table 1: Number of Cafés along Danforth Avenue as Part of CaféTO in 2020 and 2021

Year	Curb Lane Cafés	Sidewalk Cafés	Both – curb and sidewalk	Total # Cafés
2020	24	22	35	81
2021	51	21	17	89

2.3 The Planning Study

The Planning study continued the planning work of the previous Danforth Avenue Planning study that was conducted for the segment between Coxwell Avenue and Victoria Park Avenue focusing on the second segment of the study area from the Don Valley Ravine to Coxwell Avenue. The purpose of the Planning study was to conduct a planning review and analysis to inform future city-building opportunities, guide

development and growth, and enhance the public realm and quality of place, developing a new planning framework and urban design guidelines.

2.4 Danforth Avenue Retail Vibrancy and Economic Analysis

Three Sixty Collective was retained by the City of Toronto Economic Development & Culture Division to undertake a Retail Vibrancy and Economic Analysis of Danforth Avenue as a component of the Danforth Study. The study area was defined by the boundaries of the four BIAs along the Danforth Avenue and extends generally from Broadview Avenue to Victoria Park Avenue.

The analysis identified general trends, strengths and issues impacting main street small businesses along Danforth Avenue study area.

The following data was collected in January and February 2020 and analysed:

- Business mix and vacancy along the Danforth Avenue;
- Retail property sales and rental data;
- Number of people visiting a selection of businesses on different days of the week and time of day;
- Cell phone mobility data to determine Danforth Avenue visitors' postal codes and trade area analysis;
- Demographic and expenditure data for the trade areas and neighbourhoods within walking distance of Danforth Avenue and the 65% visitation trade area; and
- Workshop held with representatives from the four BIAs.

It is important to emphasize that most of the data was collected by the end of February 2020, just before the COVID-19 pandemic began to impact Toronto and lock-downs and business closures were mandated (which started on March 13, 2020). The research provides a picture of the state of area's retail vitality pre- COVID-19.

3 Implemented Pilot Design

The preferred design option was implemented in July of 2020. The final implemented design for the pilot consisted of:

- Streetscape improvements including planters (over 500 installed) filled with native perennials and grasses, brightly painted artistic curb extensions to reduce pedestrian crossing distances, and three public parklet seating areas;
- New and expanded patios (e.g. in the curb lane and on the sidewalks) through a streamlined permit process, with waived fees for businesses;
- Parking/loading available on a full-time (24/7) basis on both sides of the street, providing an additional 10 hours of parking availability per stall per week. A minor reduction in parking stalls along Danforth Avenue (loss of less than 10% of total

parking in the area) was required to accommodate the new streetscape elements;
- A separated cycle track in both directions to provide safe mobility options for local shopping and trips, and serve as a relief valve for the subway;
- One westbound and one eastbound traffic through lane, and turn lanes at intersections
- Adequate pedestrian space for circulation, safety and physical distancing;
- Art installations through 12 traffic box wrappings and five murals to beautify the corridor and showcase local artists;
- High-capacity bike parking provided more parking (~1260 bike parking stalls) along Danforth Avenue to serve additional cycling demand; and
- Four new Bike Share stations.

It should also be noted that following the implementation of the pilot, a number of adjustments and design modifications were made to meet the needs of road users, and feedback received from businesses and residents, with continued monitoring and analysis of the pilot using an iterative design process. Some key modifications included:

- Design modifications for patio zones to ensure adequate pedestrian space and safe cycling;
- Signal timing modifications made along the entire corridor to support better flow for all road users (implemented July 2021);
- Leading Pedestrian Intervals (LPIs) installed at key crosswalks to improve pedestrian safety;
- Intersection pavement marking adjustments and improvements to vehicle sightlines to improve traffic flow and pedestrian safety, including installing right hand turn lane onto Jones Avenue, and addition of left and right turn arrow on Arundel Avenue (to enforce the one-way direction of the avenue);
- Five new dedicated loading zones added for businesses plus many end of block loading areas at most intersections loading areas; and
- Location-specific adjustments (ramps, concrete curb and planter removals) to facilitate accessible pickup and drop off across the corridor.

Figure 6 to Figure 8 show the pilot design without the seasonal curbside patios, while Figure 9 to Figure 11 show the pilot design with the seasonal curbside patios.

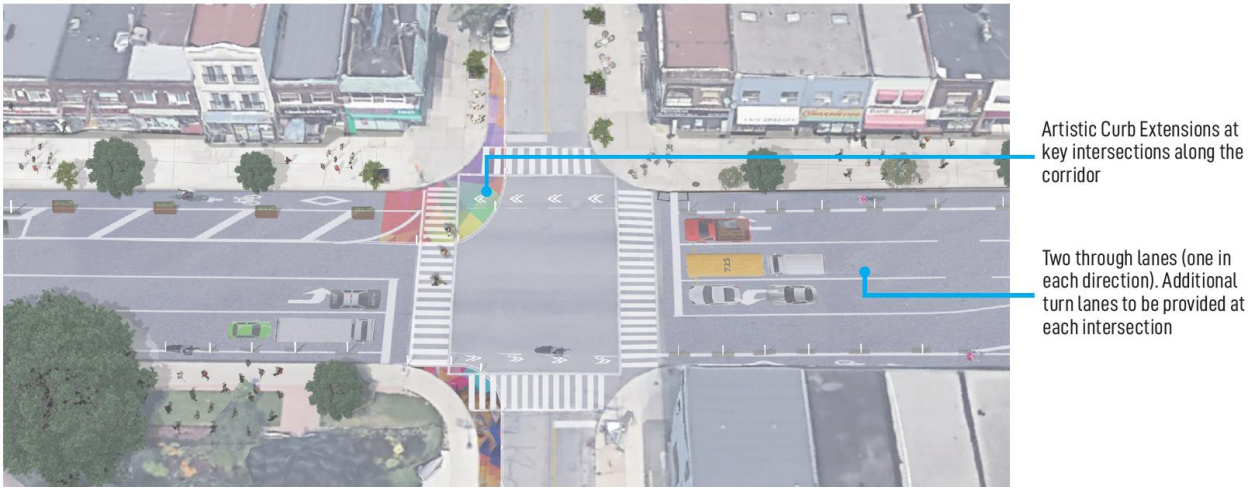


Figure 6: Typical Design with Parking/Loading on Both Sides - Aerial View

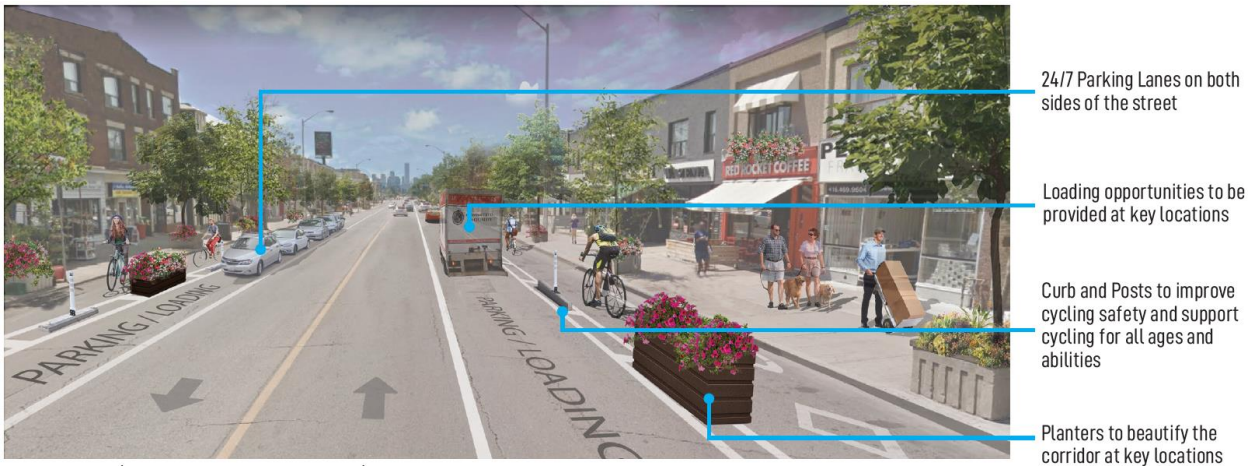


Figure 7: Typical Design with Parking/Loading on Both Sides - Rendering

Figure 8: Destination Danforth Pilot Bike Lane and Artistic Curb Extension

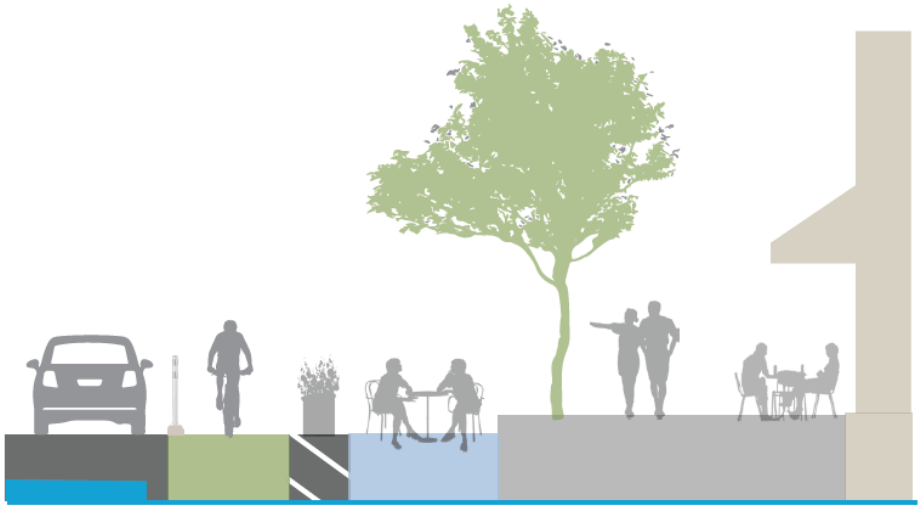


Figure 9: Danforth Avenue Complete Streets Pilot Design Cross Section (with Curbside Patio)

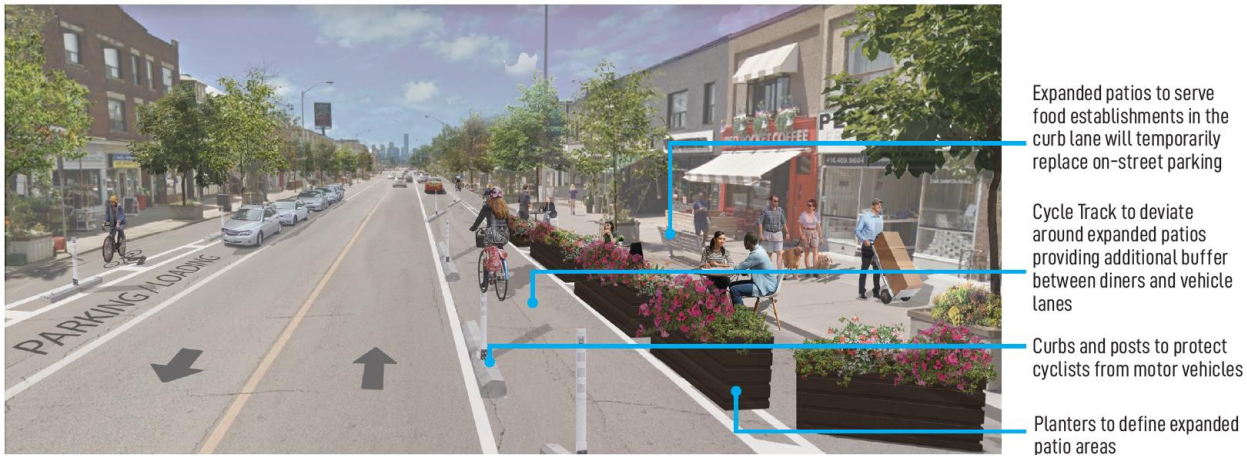


Figure 10: Typical Design with Expanded Curb Side Patio Option - Rendering

Figure 11: Destination Danforth Pilot Bike Lane and Curb Side Patio Photo

4 Public Consultation

An important part of the process for the Complete Streets study has been comprehensive and coordinated stakeholder and public engagement as part of the broader Danforth Study, in order to understand community priorities, assess existing conditions, evaluate complete streets design solutions, and ultimately select, implement and adjust a preferred design culminating in the Destination Danforth pilot project. In total, five Community Meetings and five Stakeholder Advisory Committee (SAC) Meetings were held throughout the process for the overall Danforth Study.

Table 2: Stakeholder Advisory Committee Meetings for Danforth Study

Meeting	Date	Meeting Focus	Meeting Topics
#1	November 4, 2019	Complete Streets and Planning Study	Discuss overall study, role of SAC, scope of work, timelines and community engagement
#2	January 14, 2019	Complete Streets, Retail and Economic Study, and Planning Study	Confirm role of SAC, review the Danforth Study updated Terms of Reference and Area Profile report, discuss Community Meeting #2
#3	June 24, 2020	Complete Streets	Overview of Complete Streets pilot "Destination Danforth" including background and goals in the context of COVID-19 and implementation details
#4	October 26, 2020	Planning Study	Update on Complete Streets pilot implementation, Update on Planning study – land use and built form, parks open spaces and public realm, and heritage
#5	October 6, 2021	Planning Study	Conclusions of the Planning study – land use, building heights, development density, parks and public realm, and heritage

Table 3: Community Meetings for Danforth Study

Meeting	Date	Meeting Focus	Meeting Topics
#1	November 7, 2019	Complete Streets, Retail and Economic Study, and Planning Study	Overview of the three components of The Danforth Study, review Terms of Reference, gather feedback
#2	January 27, 2019	Complete Streets, Retail and Economic Study, and Planning Study	Review the Danforth Study updated Terms of Reference, overview of Area Profile report, and provide further information on the three components of the Study
#3A	December 1, 2020	Complete Streets	Update on the Complete Streets pilot "Destination Danforth" implementation and the City's plan for monitoring and evaluation of the initiative
#3B	January 11, 2021	Planning Study	Update on Planning study – land use, building heights, development density, parks and public realm, and heritage
#4	October 28, 2021	Planning Study	Conclusions of the Planning study – land use, building heights, development density, parks and public realm, and heritage

Additional engagement included reaching out to BIAs and working with businesses on key issues and installation details, providing “Frequently Asked Questions” packages shared with BIAs and Councillors, and sharing a Project Visual Guide. Following Council approval of the pilot project, the City had weekly meetings with Councillors and BIAs leading up to and following implementation, including some walkabouts with Councillors and BIAs. A specific email to directly receive and address comments and questions from the public was also established.

What We Heard

Through the engagement held prior to the installation of the pilot project, stakeholders expressed support for considering the safety of all street users, traffic calming, protected bike lanes, more public art and street furniture, and more bike facilities including parking. Stakeholders also identified a number of concerns regarding Danforth Avenue including traffic congestion and speed, pedestrian safety, lack of dedicated bicycle lanes, parking, limited patio space and streetscape treatments. When participants were asked to rank their top priorities for Danforth Avenue, safety and complete streets (designing Danforth Avenue to be safe for everyone, people walking, cycling, taking transit, or driving and people of all ages and abilities) was ranked highest.

Immediately following the implementation of the pilot, public comments received by the project team included a variety of complaints and concerns such as pedestrians tripping on the new curbs, cyclists navigating around patios, and accessibility concerns. Site-

specific concerns were investigated and addressed through modifications where necessary. Comments of this nature decreased over time and comments of support for the pilot grew. The initial complaints could have been as a result of the adjustment period to the new street design.

Accessibility along Danforth Avenue was also discussed and comments obtained through a survey during the Community Meeting on December 1, 2020. Of those who identified that they have mobility needs, 43% indicated that the pilot has made it more difficult to get around (compared to 25% who felt that it improved their ability to get around). Many of the survey respondents with mobility needs rely on cars to get around, and the lack of available parking spaces was noted as a concern as it results in having to park further away and having to travel farther to their destination. Drivers also noted that exiting the car was a safety concern, since the vehicle traffic lane is located right next to the driver's side. Generally, those with mobility needs feel safer crossing the street, but had a new safety concern to navigate with the interaction between cyclists and people in wheelchairs or with walking devices trying to cross the cycle track.

Further information on engagement results, public perception and input can be found in Section 5 Performance Evaluation of this report. A detailed summary of the public consultation can be found in the *Danforth Complete Streets and Planning Study Engagement Summary Report.*

4.1 Education and Enforcement

Through the review of public and stakeholder comments, question and concerns received, it was recognized the new design of the street was an adjustment in how some people use the street. As a result, City staff worked on educational materials about how to use the new street features and on raising awareness for some of the common concerns (Figure 12). This included producing project FAQs and educational materials posted on the project website, responding to individual comments and concerns, design adjustments and through an education/enforcement blitz conducted by Toronto Police.

In fall 2020, Toronto Police officers in collaboration with local councillors and the Destination Danforth project team, conducted an educational blitz along Danforth Avenue. The blitz occurred over three days from Thursday, October 22nd to Saturday October 24th. Parking Enforcement Officers and Community Liaison Office staff from 55 and 54 Divisions, along with Social Media Bike Officers were on site for the day and evening shifts to distribute education materials, provide education and enforcement, with some social media coverage.

- The educational blitz included information on the Destination Danforth Complete Street pilot and how to use the new street features including:
- Expanded Patios and Parklets: Safety around expanded patios and parklets, encouraging cyclists to slow down while passing through these areas;

- Turning Right: Reminders to drivers regarding blind spots for right turns and who has the right of way;
- Parking: no parking in cycle tracks (except for authorized vehicles), park in designated zones, parking is now available 24/7;
- E-bikes: E-bikes, mopeds and motor scooters that can be propelled solely by motor are not permitted in the cycle track;
- Driver Fines: no stopping in cycle tracks, failure to obey can result in fines;
- Driveways and Sidewalks: cyclists should approach these with caution, people cycling over the age of 14 are not allowed to use the sidewalk;
- Crossing: pedestrians should check the cycle track for oncoming cyclists before crossing, painted curb extensions have been added;
- Traffic signals: ensure drivers and cyclists obey the traffic signals;
- Accessibility: TTC Wheel-trans vehicles and authorized accessible taxis can legally enter the cycle track; and
- Loading and Deliveries: ensure loading is performed in appropriate areas.

Figure 12: Example of Educational Material Created and Distributed

5 Performance Evaluation of the Pilot

The assessment of the impacts and benefits of the pilot's performance involved the collection of before and after data for the following:

- Motor vehicles;
- Cycling;
- Pedestrians and accessibility;
- Parallel streets;
- Overall changes in travel mode;
- Curbside demand and parking;
- Safety;
- Public perception and level of support; and
- Public perception of supporting local business.

The findings of the performance assessment occurred against a backdrop of significant changes in transportation demand as COVID-19 restrictions were either put in place or lifted, and as businesses and schools re-opened. Efforts have been made to partially control for or contextualize observed changes against these rapidly evolving conditions. Given the rapidly evolving conditions, the assessment had the following limitations:

- 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 were made to partially control for this where possible; and
- Cycling volumes have been adjusted for seasonality, pedestrian and vehicle volumes are reported as is and may be influenced by other factors (e.g. the effects of the school year and the reopening of businesses and services as part of the pandemic response). Pedestrian volumes, in particular, are likely heavily influenced by both the re-opening of businesses and restaurants along Danforth Avenue and other COVID-19 response programs, such as CaféTO.

As part of the Pilot, the City partnered with Park People and Clean Air Partnership – The Centre for Active Transportation (TCAT) on a public survey known as 'The Intercept Survey'. The Intercept Survey provided opportunities for people to provide feedback on the elements of the complete street installation, including perceptions of safety by various road users and demographics, accessibility, frequency of visits, and whether the new street design has changed how they use the street.

The Intercept Survey was conducted over four days between September 24 and October 6, 2020 in person along Danforth Avenue. Over 440 surveys were conducted with the general public on Danforth Avenue using a randomized methodology to ensure a diverse cross section of respondents.

Findings from the Intercept Survey were compared to data collected on Danforth Avenue for the *Economic Impact Study of Bike Lanes in Toronto's Bloor Annex and Korea Town Neighbourhoods (2017),* completed by TCAT and the Clean Air Partnership – 'TCAT 2017 study'. Data was collected along Danforth Avenue between 2015 and 2017 to be utilized as a control site to observe changes along Bloor Street brought on by the addition of the bike lanes.

Key findings from the Destination Danforth pilot evaluation included:

- Increased cycling activity on Danforth Avenue following the implementation of the Destination Danforth Complete Streets pilot, accompanied by decreases in vehicle volumes:
    - Weekday cycling volumes increased by 67% and 133% at Jones Avenue and Woodbine Avenue, respectively; and
    - Weekday vehicular volumes decreased by 15% and 18% at Jones Avenue and Woodbine Avenue, respectively.
- Travel times did not change significantly (less than one minute) from travel times during the fall of 2019 (pre-pilot and pre-COVID-19) to fall of 2021 (post-pilot and during COVID-19);
- An overall decrease in number of collisions from pre-pilot to pre-COIVD-19 to following the pilot implementation;
- A shift in how people travel from vehicles and transit to biking and walking was observed through the pilot (and during COVID-19);
- Almost half (44%) of Intercept Survey respondents travel using multiple modes of transportation; and
- 80% of Intercept Survey respondents considered the bike lanes ‘safe’ or ‘very safe’ and there was an equal gender split on sense of cycling safety.

Table 4 summarizes the average daily volumes for two intersections along Danforth Avenue by all travel modes (people cycling, walking and driving), to provide a summary of changes in pedestrian, cycling and vehicle volumes along the Danforth Avenue.

Table 4: Average Daily Volumes along Danforth Avenue (7 a.m. to 11 p.m.) by Mode of Travel

Corridor	Mode	Day Type	Before (adj.)	After (2020)	After (2021) (adj.)	Difference After (2021) vs. Before
Danforth Ave (at Jones Ave)	**Vehicles** (East-West)	Weekday	18,280	16,120	15,390	-16%
		Weekend	15,800	15,090	14,730	-7%
	Cyclists (East-West)	Weekday	1,650	2,820	2,750	+67%
		Weekend	1,680	2,900	3,250	+93%
	Pedestrians (All 3 Legs)	Weekday	3,080	3,520	2,710	-12%
		Weekend	2,690	3,160	2,770	+3%
Danforth Ave (at Woodbine Ave)	**Vehicles** (East-West)	Weekday	17,540	14,710	14,450	-18%
		Weekend	15,050	14,300	13,680	-9%
	Cyclists (East-West)	Weekday	760	1,560	1,770	+133%
		Weekend	830	1,660	1,750	+111%
	Pedestrians (All 4 Legs)	Weekday	7,560	8,980	7,110	-6%
		Weekend	6,210	7,650	5,960	-4%

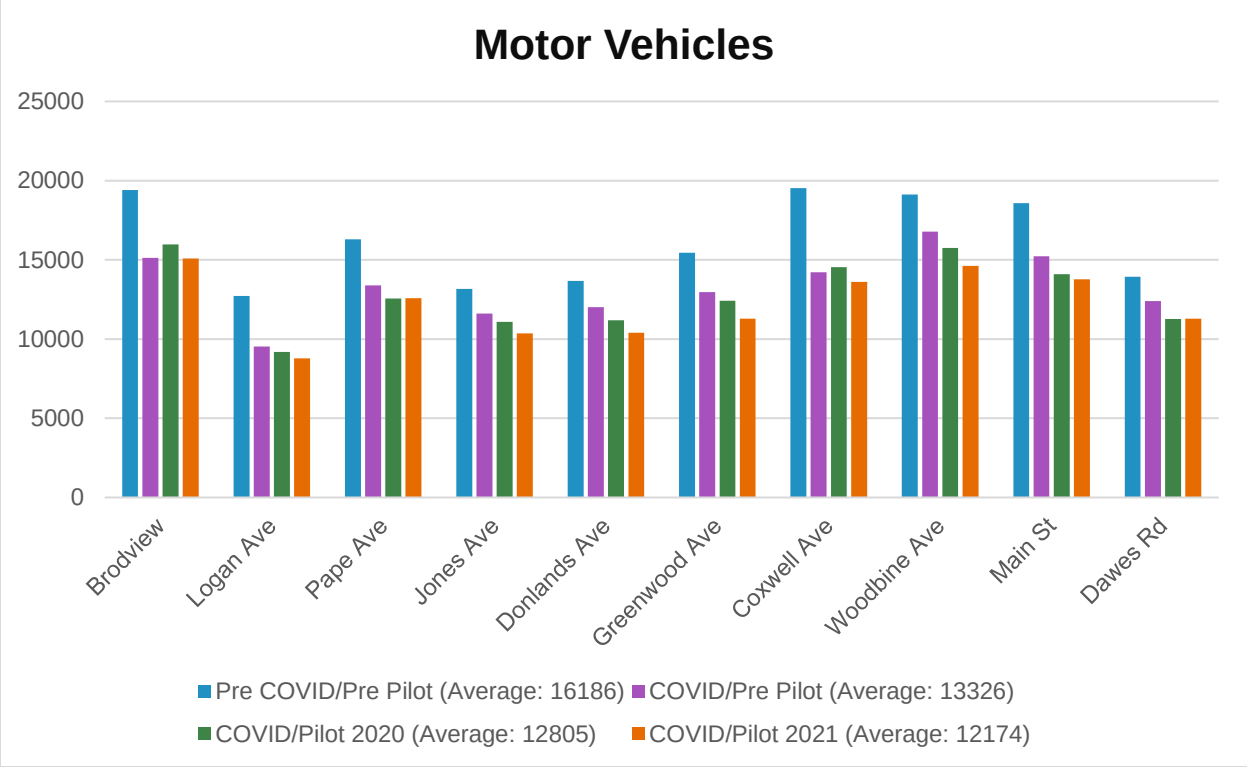
Analysis Ranges for Table above:

- Danforth Ave at Jones Ave: Before June 24 to July 19, 2020; After (2020) August 3 to September 18, 2020; After (2021) May 1 to June 20, 2021
- Danforth Ave at Woodbine Ave: before June 24 to July 26, 2020; After (2020) August 10 to September 18, 2020; After (2021) July 5 to September 5, 2021

5.1 Motor Vehicles

Motor Vehicle Volumes

Motor vehicles volumes were collected at each major intersection along the Danforth Avenue within the study area to compare pre-COVID-19 and pre-pilot installation, during COVID-19 and pre-pilot installation, and during COVID-19 and post-pilot installation numbers (Figure 13). There was a decrease in motor vehicle traffic by 26% to 33% from pre-COVID-19 and pre-pilot to after the pilot installation along Danforth Avenue. However, comparing during COVID-19 data between pre-pilot and post-installation, only a decrease of 4 to 9% is observed. The range of decrease is likely impacted by COVID-19 restrictions and stages of reopening, as well as time of year, however the general trend does show some decrease in number of motor vehicles along Danforth Avenue.



Analysis Ranges for Figure:

- Pre-COVID/Pre-Pilot: volumes for intersections along Danforth Ave are based on the most recent weekday data counts available from 2014 to 2019
- COVID/Pre-Pilot: volumes are based on counts undertaken on May 28 and 29, 2020
- COVID/Pilot 2020: volumes are based on counts undertaken on August 27 and 28, 2020
- COVID/Pilot 2021: volumes are based on counts undertaken on June 24 and August 19 or 24, 2021

Figure 13: Detailed Motor Vehicle Volumes along Danforth Avenue by Major Intersection

The detailed motor vehicle volume data (Figure 13) follows a similar trend as seen with the daily average volumes at Jones Avenue and Woodbine Avenue shown in Summary Table 4, repeated in Table 5.

Table 5: Average Daily Motor Vehicle Volumes along Danforth Avenue at Jones Avenue and Woodbine Avenue (7 a.m. to 11 p.m.)

Corridor	Day Type	Before (adj.)	After (2020)	After (2021) (adj.)	Difference After (2021) vs. Before (percentage)
Danforth Ave (at Jones Ave)	Weekday	18,280	16,120	15,390	-16%
	Weekend	15,800	15,090	14,730	-7%
Danforth Ave (at Woodbine Ave)	Weekday	17,540	14,710	14,450	-18%
	Weekend	15,050	14,300	13,680	-9%

Analysis Ranges for Table above:

- Danforth Ave at Jones Ave: Before June 24 to July 19, 2020; After (2020) August 3 to September 18, 2020; After (2021) May 1 to June 20, 2021
- Danforth Ave at Woodbine Ave: before June 24 to July 26, 2020; After (2020) August 10 to September 18, 2020; After (2021) July 5 to September 5, 2021

Travel Times

Vehicular Travel Times along Danforth Avenue within the pilot area were collected to determine the changes in travel time conditions with the reduced vehicular capacity, and are summarized in Tables 6.

In the adjustment period immediately after initial installation, the average travel times to cross the corridor between Broadview Avenue and Dawes Road increased in all directions during the morning and afternoon peak periods. During this time motor vehicle numbers experienced a negligible change (traffic decrease by ~5%). The increase in travel time could be attributed to the adjustment period of the new road configuration. Given the installation of new bikeways occurred in parallel with the staged re-opening of businesses and schools; travel times would likely have increased even without changes to the road configuration, although the impact would have likely been more subdued.

Comparing the average travel times immediately after the installation (summer 2020) to the following year (May 31 to July 25, 2021), the morning peak eastbound travel times slightly decreased (-0.2 minutes), while westbound travel saw a slight increase (+0.6 minutes), while for the afternoon peak eastbound travel decreased by 2.8 minutes and westbound by 2.4 minutes.

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 (summer 2021), average travel times are now generally in line with the pre- pandemic baseline.

Another impact to travel times along the Danforth Avenue (from pre-pandemic and pre-pilot to after pilot and after retiming) could be from implementation of Leading Pedestrian Intervals (LPIs) at key intersections. The LPIs provide an advanced walk signal (~ five seconds at Danforth Avenue intersections) for pedestrians to begin crossing the street before vehicles get a green signal in the same direction of travel. LPI's can improve pedestrian safety by enhancing the visibility of pedestrians in the intersection and reinforcing their right of way over turning vehicles, but can contribute to vehicle travel time.

Travel times across the City, including along Danforth Avenue, 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 below 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.

Tables 6: Average Travel Times along Danforth Avenue between Broadview Avenue and Dawes Road (in minutes)

AM Peak (7 to 10 a.m.)

Direction	Before Fall 2019	Before Pilot May - Jul 2020	After Pilot Aug - Sep 2020	Before Retiming May 31 - Jul 25, 2021	After Retiming Aug 2 - Sep 4, 2021	After Retiming Fall 2021 Sep 6 – Dec 20, 2021	Difference After (Fall 2021) vs Before (Fall 2019)
Eastbound	12.6	11.4	12.3	12.1	11.8	13.2	+0.6
Westbound	13.7	9.5	10.7	11.3	11.8	13.6	-0.1

PM Peak (4 to 7 p.m.)

Direction	Before Fall 2019	Before Pilot May - Jul 2020	After Pilot Aug - Sep 2020	Before Retiming May 31 - Jul 25, 2021	After Retiming Aug 2 - Sep 4, 2021	After Retiming Fall 2021 Sep 6 – Dec 20, 2021	Difference After (Fall 2021) vs Before (Fall 2019)
Eastbound	16.5	11.6	18.3	15.5	15.8	17.3	+0.8
Westbound	14.8	13.3	15.9	13.5	14.0	15.7	+0.9

Weekend Midday (12 p.m. to 7 p.m.)

Direction	Before Fall 2019	Before Pilot May - Jul 2020	After Pilot Aug - Sep 2020	Before Retiming May 31 - Jul 25, 2021	After Retiming Aug 2 - Sep 4, 2021	After Retiming Fall 2021 Sep 6 – Dec 20, 2021	Difference After (Fall 2021) vs Before (Fall 2019)
Eastbound	13.5	11.7	13.6	13.4	13.1	14.3	+0.8
Westbound	13.4	11.7	12.7	12.8	12.7	14.1	+0.7

Intercept Survey Results on Public Perception of Traffic Congestion

The Intercept Survey assessed the public perception on congestion increases, and found a wide range of responses when the public was asked "Do you find traffic Danforth Avenue has changed since the complete street installation?", 42% did not notice a difference, 30% thought it was a little worse, 25% stated traffic was much worse, while 2% believed that congestion had improved.

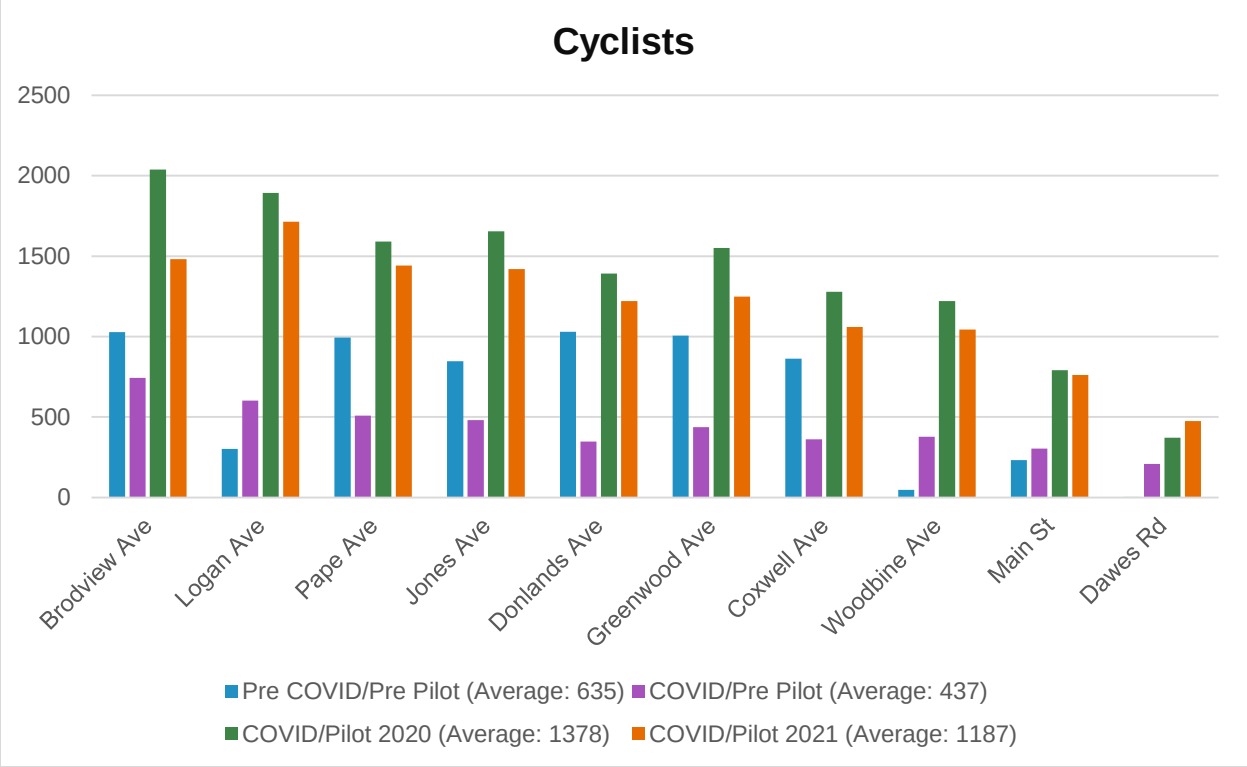
Interestingly, of the 79 respondents who cited that traffic is “much worse” on Danforth Avenue since the installation, over one-third were still supportive of the changes to the street.

The Intercept Survey also looked at different mode share responses to this question to see if there were differences between driver / non-driver perceptions and found that drivers were slightly more likely to cite increased congestion since the installation, and that people walking and cycling were least likely to have noticed a change in traffic.

5.2 Cycling

Cycling Volumes

Cycling volumes were collected at each major intersection along Danforth Avenue within the study area to compare pre-COVID-19 and pre-pilot installation, during COVID-19 and pre-pilot installation, and during COVID-19 and post-pilot installation numbers. The introduction of a 5.4 km of dedicated cycling track on Danforth Avenue resulted in an increased average number of people cycling by 50% from pre-pilot (and pre-COVID-19) to immediate after implementation (August 27-30, 2020). Figure 14 below provides a summary of the total volume of cyclists from 7:30 a.m. to 6:00 p.m. by intersection for conditions pre-pilot installation and pre-COVID-19, pre-pilot installation during COIVD, and post-pilot installation during COVID-19.



Analysis Ranges for Figure:

- Pre-COVID/Pre-Pilot: volumes for intersections along Danforth Ave are based on the most recent weekday data counts available from 2014 to 2019
- COVID/Pre-Pilot: volumes are based on counts undertaken on May 28 and 29, 2020
- COVID/Pilot 2020: volumes are based on counts undertaken on August 27 and 28, 2020
- COVID/Pilot 2021: volumes are based on counts undertaken on June 24 and August 19 or 24, 2021

Figure 14: Cyclists Counts along the Danforth Avenue by Major Intersection

The detailed cycling volume data (Figure 14) follows a similar trend as seen with the daily average volumes at Jones Avenue and Woodbine Avenue shown in Summary Table 4, repeated in Table 7 below.

Table 7: Average Daily Cycling Volumes along Danforth Avenue at Jones Avenue and Woodbine Avenue (7 a.m. to 11 p.m.)

Corridor	Day Type	Before (adj.)	After (2020)	After (2021) (adj.)	Difference After (2021) vs. Before
Danforth Ave (at Jones Ave)	Weekday	1,650	2,820	2,750	+67%
	Weekend	1,680	2,900	3,250	+93%
Danforth Ave (at Woodbine Ave)	Weekday	760	1,560	1,770	+133%
	Weekend	830	1,660	1,750	+111%

Analysis Ranges for Table above:

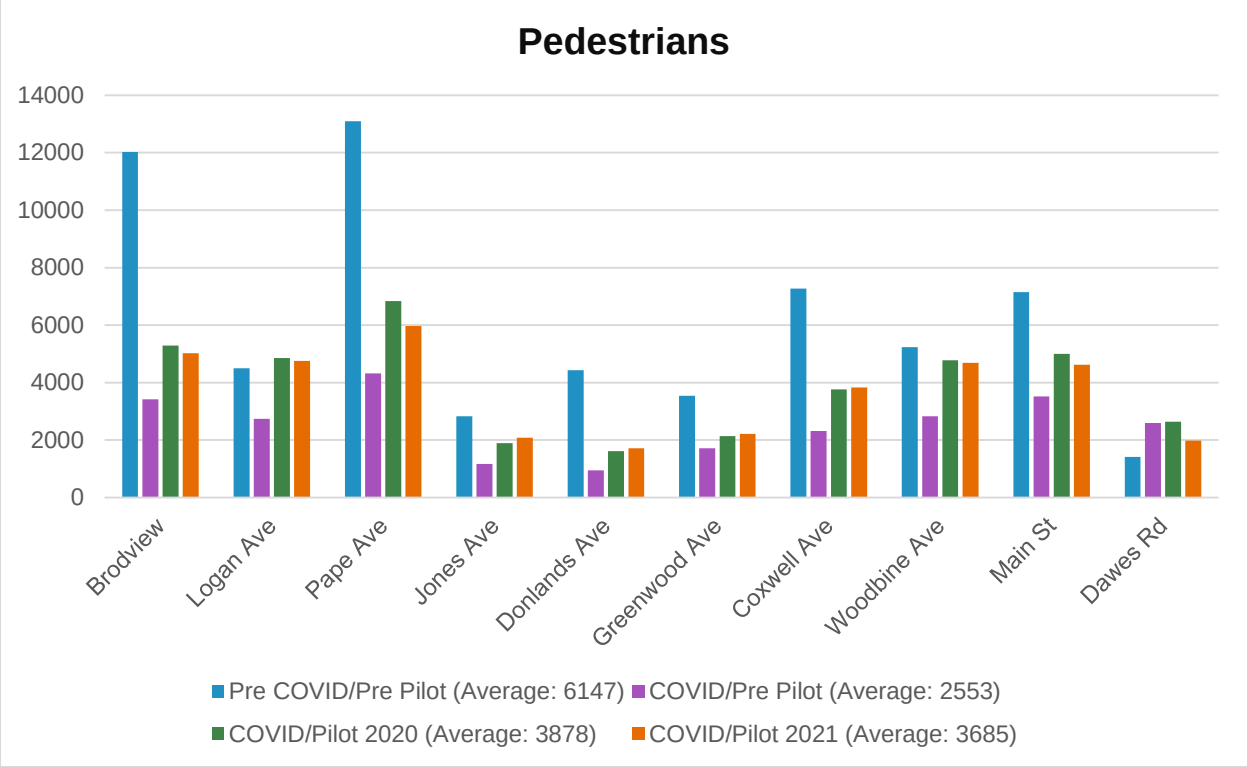
- Danforth Ave at Jones Ave: Before June 24 to July 19, 2020; After (2020) August 3 to September 18, 2020; After (2021) May 1 to June 20, 2021
- Danforth Ave at Woodbine Ave: before June 24 to July 26, 2020; After (2020) August 10 to September 18, 2020; After (2021) July 5 to September 5, 2021

Intercept Survey Results on Cycling Mode Shift

The Inception Survey also assessed how participants access Danforth Avenue, and found that both COVID-19 and Destination Danforth pilot have inspired shifts in how people get around. 22% of cyclists surveyed were either new to cycling or restarted cycling this year. Of people who reported a mode shift this year, 71% reported a switch to cycling (28% switched from mainly transit rides, 24% switched from mainly walking, and 19% switched from mainly car trips).

5.3 Pedestrians and Accessibility

Pedestrian volumes were collected at each major intersection along the Danforth Avenue within the study area to compare pre-COVID-19 and pre-pilot installation, during COVID-19 and pre-pilot installation, and during COVID-19 and post-pilot installation numbers (Figure 15). Since the implementation of the Complete Streets pilot on Danforth Avenue an increase of approximately 31 to 34% pedestrian use has been observed during COVID-19 between the pre-pilot and post-pilot installation. The number of pedestrians has not returned to pre-COVID-19 numbers however the increase following the installation is promising.



Analysis Ranges for Figure:

- Pre-COVID/Pre-Pilot: volumes for intersections along Danforth Avenue are based on the most recent weekday data counts available from 2014 to 2019
- COVID/Pre-Pilot: volumes are based on counts undertaken on May 28 and 29, 2020
- COVID/Pilot 2020: volumes are based on counts undertaken on August 27 and 28, 2020
- COVID/Pilot 2021: volumes are based on counts undertaken on June 24 and August 19 or 24, 2021

Figure 15: Pedestrian Volumes along Danforth Avenue by Major Intersection

The detailed cycling volume data (Figure 15) follows a similar trend as seen with the daily average volumes at Jones Avenue and Woodbine Avenue shown in Summary Table 4, repeated in Table 8 below.

Table 8: Average Daily Pedestrian Volumes along Danforth Avenue at Jones Avenue and Woodbine Avenue (7 a.m. to 11 p.m.)

Corridor	Day Type	Before (adj.)	After (2020)	After (2021) (adj.)	Difference After (2021) vs. Before
Danforth Ave (at Jones Ave)	Weekday	3,080	3,520	2,710	-12%
	Weekend	2,690	3,160	2,770	+3%
Danforth Ave (at Woodbine Ave)	Weekday	7,560	8,980	7,110	-6%
	Weekend	6,210	7,650	5,960	-4%

Analysis Ranges for Table above:

- Danforth Ave at Jones Ave: Before June 24 to July 19, 2020; After (2020) August 3 to September 18, 2020; After (2021) May 1 to June 20, 2021
- Danforth Ave at Woodbine Ave: before June 24 to July 26, 2020; After (2020) August 10 to September 18, 2020; After (2021) July 5 to September 5, 2021

Accessibility

A key goal of the project is to prioritize the most vulnerable road users as identified in the City's Vision Zero Road Safety Plan, which includes pedestrians, school children, older adults and cyclists. City staff were directed by Council to install a Complete Street Pilot that included safe cycling infrastructure as well as improvements for other road users and businesses in light of the pandemic. In doing so, staff were challenged to balance the needs of all road users, while prioritizing the most vulnerable road users in an extremely complex urban environment.

Accommodating accessibility needs was fundamental in the overall design approach for the Destination Danforth Complete Streets pilot based on City's design guidelines, lessons learned from other similar City projects and from conversation with stakeholders for Danforth Avenue and other similar projects. The Destination Danforth pilot was designed in accordance with the *Accessibility for Ontarians with Disabilities Act, 2005 Ontario Regulation 191/11 Integrated Accessibility Standards*, and the City of Toronto's Accessibility Guidelines. The pilot was also iterative in nature, with adjustments made to the design throughout the pilot.

When the pilot was implemented, City staff completed a full review of the corridor in close consultation with WheelTrans and other accessibility stakeholders in order to make location-specific adjustments (ramps, concrete curb and planter removals) to facilitate accessible pick-up and drop-off across the corridor. As accessibility requirements are different by users/contexts/locations, City staff also worked to make adjustments for issues with specific concerns on a case-by-case basis.

Some of the key features implemented as part of the pilot that supported accessibility included:

- Curb extensions to provide people more room to navigate on the sidewalk, and improve pedestrian visibility at intersections. Curb extensions also allow able-bodied pedestrians to safely make room for people with mobility challenges in constrained sidewalk conditions;
- Spacing between cycle track barriers to provide permeability between parking zones and the sidewalk thus providing space for people with low mobility to access the sidewalk when entering or exiting a vehicle;
- New ramps installed in the expanded curb lane patio locations, at loading zones, and key accessible parking zones to provide easier access from the roadway to the sidewalk. WheelTrans data and stakeholder feedback was used to help identify accessible pick-up and drop-off 'hot spots';
- Barrier-free access maintained at all TTC bus stops bus stops for barrier-free bus and WheelTrans access; and
- Concrete curbs and planters were removed at 10 key locations to facilitate accessible curbside access for Wheel-Trans vehicles (in consultation with WheelTrans and other stakeholders).

Intercept Survey Results on Public Perception from Pedestrians

A quarter of all the pedestrians surveyed, reported that they visit Danforth Avenue more often following the complete streets changes, while 7% came less often. 46% of pedestrians reported that Danforth Avenue “feels safer” than before the installation.

In addition, the Intercept Survey inquired about accessibility impacts. Of the respondents who cited having “differing abilities or situations that can make moving through public spaces challenging,” (n=48), the majority cited that accessibility had not changed for them (44%), while 30% said it had gotten “much less accessible” or “slightly less accessible”, and 27% said the installation had made the street “slightly more accessible” or “a lot more accessible”.

The major reason cited for why people perceived Danforth Avenue as less accessible included difficulty of finding pick-up or drop-off locations close to their destination. The reasons cited for why people perceived Danforth Avenue as more accessible included slower traffic and increased ease of crossing, due to both the curb extensions and the slower traffic.

Respondents to this question consisted of people using mobility devices as well as parents with strollers and small children who benefit from the same accessibility enhancements of safer shorter road crossings, slowed traffic, and ramps.

5.4 Effects on Parallel Streets

Motor vehicle traffic patterns along adjacent East-West streets were considered and monitored as part of the Destination Danforth Complete Streets pilot project. Mortimer Avenue and Gerrard Street East were selected to monitor the traffic impact of the Complete Streets pilot project on adjacent street networks as these minor arterial road networks run parallel to Danforth Avenue for the full stretch (or majority) of the study

area, in addition pre-pandemic volume numbers were available for these locations. At key intersections along Mortimer Avenue and Gerrard Street East, multi-modal (people walking and cycling, and vehicular traffic) volume counts were obtained and monitored for the following time periods: prior to the pandemic, during the pandemic prior to the launch of the Complete Streets pilot, and after the launch of the Complete Streets pilot. The findings are shown in Table 9 and Table 10.

Motor vehicle numbers decreased at the Gerrard Street East intersections of both Broadview Avenue and Main Street from before to after the pilot installation (years 2020 and 2021). A similar motor vehicle decrease is seen at Mortimer Avenue and Broadview Avenue/Pottery Road and Lumsden Avenue and Main Street. However, motor vehicle traffic did increase post-pilot installation (2020 and 2021) at both intersections of Coxwell Avenue and Gerrard Street East and Mortimer Avenue and Coxwell Avenue. This could suggest that drivers are looking for alternative routes utilizing Coxwell Avenue (approximately at the middle of the Destination Danforth study area) or that traffic in general is increasing along Coxwell Avenue. It should also be noted that bridge rehabilitation and pedestrian path resurfacing work was undertaken on Coxwell Avenue under the Metrolinx rail line (between Hanson Street and Fairford Avenue) from June to December 2019. The works included northbound lane closures along Coxwell Avenue, which may have impacted (decreased) the number of vehicles utilizing Coxwell Avenue during this time.

A general trend of an increase in cycling activity can be seen along both Gerrard Avenue and Mortimer Avenue/Lumsden Avenue from before to post-pilot installation. This uptick in cycling could also be attributed to people choosing alternative forms of transportation during the pandemic, or a general increase in cycling infrastructure across the city thus providing more cycling destinations.

A general trend of a decrease in pedestrians along Gerrard Street East can also been seen, this decrease may be impacted by the COVID pandemic with fewer individuals leaving their homes for non-essential trips.

Table 9: Multi Modal numbers along Gerrard St East (South of Danforth Ave)

Intersection	Mode	Before	2020 COVID & Pre-Pilot Install	2020 COVID & Post-Pilot Install	2021 COVID & Post-Pilot Install	Difference Before to 2021
Gerrard St E / Broadview Ave	Vehicles	10982	7872	10403	9787	-1196 (-11%)
	Cyclists	257	757	640	622	+365 (+142%)
	Pedestrians	5053	3210	4126	4273	-780 (-15%)
Eastwood Rd / Gerrard St E / Coxwell Ave	Vehicles	9836	7976	10999	12024	+2188 (+22%)
	Cyclists	246	371	261	324	+78 (+32%)
	Pedestrians	5647	2622	3107	2971	-2676 (-47%)
Gerrard St E / Fairford Ave / Coxwell Ave	Vehicles	10215	8044	11202	11107	+892 (+9%)
	Cyclists	231	305	299	317	+86 (+37%)
	Pedestrians	1892	789	988	1006	-887 (-47%)
Gerrard St E / Main St	Vehicles	16181	10862	14878	14848	-1333 (-8%)
	Cyclists	156	372	312	320	+164 (+105%)
	Pedestrians	1627	1104	1323	1427	-201 (-12%)

Analysis Ranges for Table above:

- Before COVID counts taken from: Broadview Ave on May 13, 2012; Coxwell Ave on May 7, 2016; Coxwell and Fairford on May 9, 2016; Main St on May 7, 2014
- COVID and pre-pilot install taken on June 4 & 5, 2020
- 2020 COVID and post-pilot install taken on August 27 & 28, 2020
- 2021 COVID and post-pilot install taken on June 24 & August 19, 2021

Table 10: Multi Modal Numbers along Mortimer Ave/Lumsden Ave (North of Danforth Ave)

Intersection	Mode	Before	2020 COVID & Pre-Pilot Install	2020 Post COVID & Post-Pilot Install	2021 Post COVID& Post-Pilot Install	Difference Before to 2021
Pottery Rd / Mortimer Ave / Broadview Ave	Vehicles	14845	12445	15083	12982	-1864 (-13%)
	Cyclists	197	758	576	487	+290 (+147%)
	Pedestrians	1027	1509	1375	1268	+241 (+23%)
Coxwell Ave / Mortimer Ave	Vehicles	12385	5722	13544	13496	+1111 (+9%)
	Cyclists	81	117	210	179	+98 (+121%)
	Pedestrians	947	907	1850	2220	+1273 (+134%)
Lumsden Ave / Main St	Vehicles	8472	3357	5025	5722	-2750 (-32%)
	Cyclists	0	211	181	0	0
	Pedestrians	1003	370	421	379	-624 (-62%)

Analysis Ranges for Table above:

- Before COVID counts taken from: Potter Rd/Broadview Ave on February 28, 2017; Coxwell Ave on May 7, 2016; Main St on January 6, 2011
- COVID and pre-pilot install taken on June 4 & 5, 2020
- 2020 COVID and post-pilot install taken on August 27 & 28, 2020
- 2021 COVID and post-pilot install taken on June 24 & August 19, 2021

5.5 Changes in Travel Modes

A shift in travel mode along Danforth Avenue was observed from pre- to post-pilot, however as this time period also coincides with pre- and during COVID-19 periods, a definitive conclusion that the pilot project is the sole driving force of mode shifts is not possible. However, the Destination Danforth Complete Streets pilot did provide the opportunity and means to safely support shifts. When comparing the mode of travel of all Danforth Avenue users (traveling along Danforth Avenue), an increase in cycling and a decrease in driving post-pilot is seen, with 7% to 8% of road users cycling and 71% of road users driving.

Table 11: Percentage of Total Road Users by Mode of Travel

Project Phase	Motor Vehicles	Pedestrians	Bikes
Pre-pilot & pre-COVID-19	75%	22%	3%
Pre-pilot & during COVID-19	82%	16%	3%
Post-pilot & during COVID-19 (2020)	71%	21%	8%
Post-pilot & during COVID-19 (2021)	71%	22%	7%

Analysis Ranges for Table above:

- Pre-pilot and pre-COVID-19 data: from Transportation Tomorrow Survey Travel Characteristics data (that looked at trip purpose and mode of travel)
- Pre-pilot installation and during COVID-19: counts at 11 intersections on May 28 – May 30, 2020
- Post-pilot installation and during COVID-19 2020: 2020 counts at 11 intersections on August 27-30, 2020
- Post-pilot installation and during COVID-19 2021: counts at 11 intersections on June 24 & August 19, 2021

Intercept Survey Results on Mode Shift

As part of The Intercept Survey, participants were asked how they arrived to Danforth Avenue, with the majority of survey respondents having arrived on foot, with an equal share of respondents having arrived by car (16%) or bike (16%). Pedestrian representation was understandably disproportionate as pedestrians are much more likely to encounter a surveyor along the street. However, 44% of respondents reported that they were multi-modal in some form or other (drivers that are also pedestrians, cyclists that are also drivers, pedestrians that are also cyclists, etc).

Respondents who arrived by public transit are notably lower than normal due to risks associated with COVID-19. Responses from TCAT's 2017 study on Danforth Avenue showed 20% of respondents arrived by public transit at the time, while during the 2020 survey only 10% arrived by public transit.

The Destination Danforth pilot was partly designed in response to COVID-19, including the need to provide safe, equitable, socially distanced transportation options. On Danforth Avenue this has manifested in a variety of patterns in people's shifts in how they get around. The most predominant reported transportation mode shifts were:

- 28% from transit to cycling;
- 24% from foot to bike;
- 19% from car to bike;
- 12% from car to foot; and
- 6% from transit to foot.

5.6 Safety – pedestrians, cyclists, and motorists

Safety for people walking and cycling was an overarching consideration for the proposed improvements along Danforth Avenue. Some of the key safety improvements implemented as part of the Complete Streets pilot included:

- Shorter crossing distances (at mid-block and at intersections) through the reduction in the number of vehicle lanes;
- Addition of 38 brightly painted curb extensions that provided more space for safe physical distancing and improved pedestrian visibility when crossing the street;
- Narrower vehicle lanes to reduce vehicle speeds and dangerous vehicle movements (e.g. U-turns, accelerating merging maneuvers at intersections);
- "Leading Pedestrian Intervals" at critical intersections provided pedestrians a head-start to cross the street, protecting them from turning vehicles; and
- A generous buffer between pedestrians and motor vehicles with the bike lanes and 24/7 on-street parking and/or expanded patio areas between the sidewalks and travel lanes.

Collisions

An In-service Road Safety Review (ISRSR) of Danforth Avenue between Broadview Avenue and Victoria Park Avenue was undertaken by CIMA Canada Inc prior to the installation of the complete streets pilot (June 2020). The ISRSR consisted of a review of 2014 to 2018 background data provided by the City (including collision history and traffic volumes), a detailed field investigation of the study area intersections and midblock segments, an assessment of findings, and the development of recommendations. The key findings from the ISRSR were updated to include 2019 collision data numbers. The findings of this study were utilized to inform the selection and refinement of the complete streets design.

Key Findings:

- Annual collisions have slightly increased from 2014 to 2018, with a slight decrease in 2019;
- On average 22 cyclists and 19 pedestrians are involved in collisions annually; and
    - Some high priority areas identified included:
    - Broadview Avenue to Chester Avenue
    - Pape Avenue to Donlands Avenue
    - Woodbine Avenue to Sibley Avenue.

To review impacts the Complete Streets pilot had on collisions, pre-installation averages from 2014 to 2019 were compared against 2021 collision data. Data collected from 2020 was not utilized as the pilot was installed in July of 2020, therefore a direct comparison of yearly data could not be made, however 2020 overall data does shows a similar trend in fewer total collisions and injuries when compared to previous pre-pilot years.

Total collisions along Danforth Avenue between Broadview Avenue and Dawes Road have decreased by 53%. Total collisions that reported some type of injury decreased by 50%. The number of people walking and cycling involved in collisions also decreased by 27% and 37%, respectively.

Typically five years of collision data would be required to demonstrate trends for meaningful comparison. While currently less than two years of data is available "after" the installation of the pilot, preliminary indications show that despite an increase in cycling volume and only a slight decrease in vehicle volume (15 - 17%), total collisions have decreased as well as collisions involving cyclists.

Intercept Survey Results on Public Perception of Safety

The perception of safety was addressed by two distinct means in the Intercept Survey. One looked at whether the respondent's sense of safety on the street in general had changed since the installation, and the other looked specifically at the sense of cycling safety in the bike lanes.

Change in sense of safety by all transportation modes (cars, bikes, and pedestrians) showed cyclists experienced the greatest sense of increased safety (66%), but also that 36% of drivers and 40% of pedestrians felt that Danforth Avenue is safer since the installation, though 11% of cyclists, 19% of pedestrians, and 21% of drivers surveyed felt that the street is less safe.

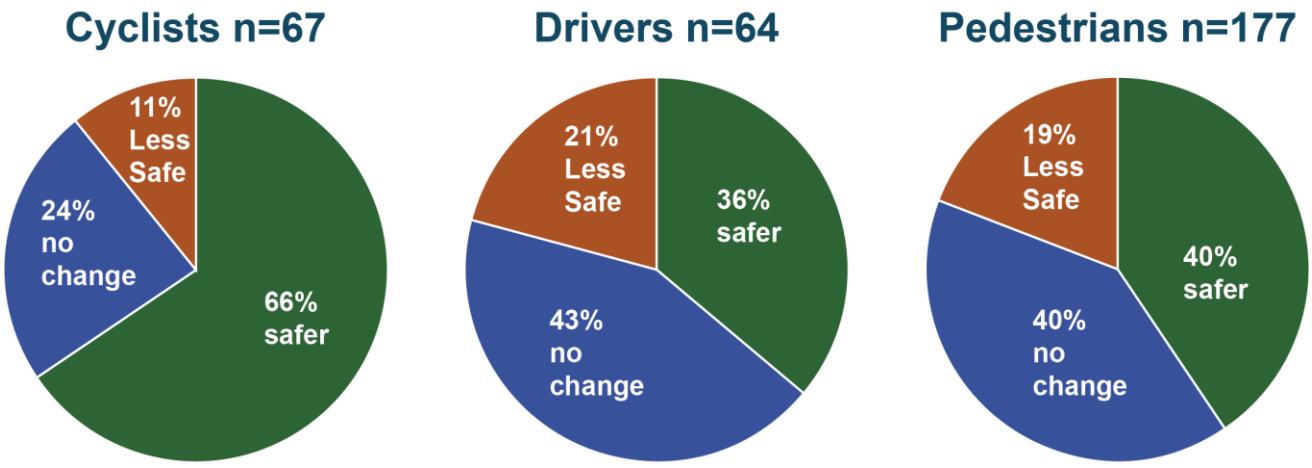


Figure 16: Change in Sense of Safety by Transportation Mode following Implementation of the Complete Streets Pilot

A question was posed to all respondents, as it was in the TCAT 2017 study, to gauge *"With the current street configuration, how safe do you feel (or would you feel) riding a bicycle on Danforth Avenue?"* The results of this question show that overwhelmingly 80% felt "safe" or "very safe" using the bike lanes, while 9% were neutral, and 11% felt unsafe or very unsafe. People who reported feeling unsafe predominantly cited driver behaviour or other cyclist or road user behaviour as the reason.

Comparing the perception of safety before and after the Danforth Avenue bike lanes were installed (through comparisons of data from the Intercept Survey to the TCAT 2017 study), 22% felt safe cycling on Danforth Avenue in 2015 (pre-pilot) while this increased to 80% feeling safe in 2020 (post- pilot implementation).

5.7 Parking and Loading Impacts

A parking and loading study was undertaken by CIMA in spring 2020 (prior to implementation) to inform the design of the parking and loading spaces along Danforth Avenue as part of the Complete Streets pilot implementation. The study included parking and loading inventory, utilization surveys and analysis which resulted in recommendations that were incorporated into the design.

The estimate of parking stalls prior to the implementation of pilot was 3,129 parking spots, which included on-street (Danforth Avenue), on-street side streets (north and south of Danforth Avenue), Green P lots, and private parking lots. The implementation of the pilot saw an approximate 10% reduction in the overall parking stalls across the corridor during the expanded patio season (during the first year of CaféTO), and less than 5% during off-patio season in 2020. This minor reduction was seen to the on-street parking along Danforth Avenue to accommodate bus stops, vehicle turn lanes, loading areas, and seasonal extended curb lane patios. In addition, the peak hour parking prohibitions along Danforth Avenue were removed, adding an additional 10 hours of parking per stall per week.

Two bicycle parking racks were added to the corridor in key locations to ensure people cycling have opportunities to park. Four BikeShare stations were also installed at key locations along the Danforth Avenue corridor.

Consultation and engagement occurred throughout the pilot project with the public, businesses, and the BIAs, which resulted in adjustments to the parking and loading areas along Danforth Avenue to accommodate different needs and operations as they arose. In addition, a loading survey was sent out to businesses between August 20 and September 4, 2020, the survey received 34 responses, 15 of which were related to specific situations. Some of the key feedback received included the lack of loading spaces, the request for new loading areas, and that some existing loading areas are not clear. There is always a balancing of needs and trade-offs in advancing a complete street design. For example, businesses that have a curb side café while also requesting space for loading which requires further reductions to on-street parking. Following the survey (and analysis), five additional dedicated loading zones were added for businesses.

Intercept Survey Results on Public Perception of Parking

The Intercept Survey also inquired about people’s perception of the impact of the pilot on parking. Of the survey respondents, 16% identified as drivers, which was equal to the number of cyclist respondents. Of those respondents 71% stated that finding parking on Danforth Avenue was “easy” or “very easy” while 7% found finding parking

“very difficult.” This is only slightly lower than the 75% of drivers who found parking easy in the TCAT 2017 study using comparable methodology, suggesting that finding parking has not become much more difficult since the Destination Danforth Complete Streets pilot implementation. Location of parking was fairly evenly split between parking on Danforth Avenue (25%), on a side street (38%), and in a parking lot (37%). Responses also suggest that the available parking is quite easy to find and saw no difference between ease of parking for locals (75% said finding parking was “easy”) and visitors from the wider Greater Toronto Area (75% also said finding parking was “easy”).

5.8 Public Perception of Pilot Overall

The Intercept Survey assessed the overall public perception on the pilot project. The purpose of the Destination Danforth Complete Streets pilot was very well understood by the vast majority of the respondents and they felt that the installation overall reached its goals.

Respondents were prompted that ActiveTO Destination Danforth responds to the imminent need for more room for physical distancing for walking and cycling, support for local businesses by improving access options and extending patios, and safe cycling options for people who are not comfortable taking transit. They were asked if they felt that Destination Danforth has met any of these goals.

- 86% agreed that it had “improved people’s ability to get around by bike”;
- 74% agreed that it had “benefited businesses”; and
- 61% agreed that it had “improved physical distancing”.

Respondents were presented a list of elements that had been added to the street as part of the installation and asked which ones had a “positive impact on your experience on the street.” Patios, bike lanes and planters were the most often cited. Artistic curb extensions and road markings were appreciated for their colour, though respondents often cited not knowing what their purpose was, especially since some were still without bollards at the time of the study.

Parklet seating and accessible ramps to patios were often elements that people had not personally used or noticed yet, though they recognized their value. Added bike parking was appreciated, and 87% of cyclists found parking “easy” or “very easy.”

The Intercept Survey evaluation was designed, not as a referendum of support of the project, but as an exploration of the impacts and outcomes of the installation.

Feedback gathered at Community and Stakeholder Advisory Committee Meetings and through online and general feedback has shown an overall support for the Complete Street study and the pilot that was installed in summer 2020. Feedback gathered from Community Meeting 3A illustrates that overall, the community is supportive of the Complete Street projects goals (85%), and 79% believed that the Complete Street pilot implemented in summer 2020 supported these project goals. In particular, the public

noted appreciation for the street character, the addition of patios, beautification and art, and the cycle track. When polled specifically, the vast majority of respondents identify a positive or very positive experience of the pilot (84%), and showed a wide-spread support for the pilot becoming permanent (76%, and 15% partially or some aspects).

The community also provided the City with a number of suggestions to improve the pilot. This included the need to address increased traffic and congestion for drivers, lack of parking spaces available (specifically for those who require accessible parking spaces), and some safety issues. In particular, the public would like more consideration for the interaction between the different road users and how to make this safer, safety concerns around crossing the cycle track, and more protected intersections. Some drivers expressed that the pilot has resulted in a longer commute on Danforth Avenue, caused by increased traffic and congestion, less lanes, and limited parking. The public would also like to see more education and enforcement for the Complete Street pilot. It was noted that following the rules of the road, better knowledge of safe road practices, proper use of the cycle track, and greater enforcement of these practices would help to address some of the safety concerns identified by the community.

5.9 Supporting Local Businesses

Supporting local businesses was even more important amid the COVID-19 Pandemic. In an effort to support local businesses, the following was implemented in the pilot project:

- Full-time parking on both sides of Danforth Avenue;
- Opportunities for “al fresco” patio dining on the street and sidewalk, through the CaféTO program;
- New access opportunities for people to get to the Danforth Avenue (eg. by bike, Bike Share);
- More high-capacity bicycle parking;
- Streetscape beautification and animations (using curb extensions and public seating) to bring excitement to the street and create more space for social distancing; and
- Identifiers for Business Improvement Areas (BIAs) across the corridor, using unique curb extension colour combinations and plantings in each BIA area.

Public Perception of Supporting Local Businesses

The Intercept Survey found that people were visiting Danforth Avenue more often following the implementation of the pilot project. Many people’s travel patterns changed in summer 2020 both due to COVID-19 and to the street changes implemented in response to COVID-19. Being a predominantly local street, Danforth Avenue saw frequency of visits to the street unchanged for the majority of visitors (62%), while 30% stated that they came more often. Most of these respondents stated this was mostly an effect of the bike lanes which encouraged more frequent cycling trips or to enjoy the patios, while people who came less often (7%) cited working from home or not going out much in general in response to COVID-19 as the factors.

Danforth Avenue Retail Vibrancy and Economic Analysis Study

The analysis completed under the Danforth Avenue Retail Vibrancy and Economic Analysis study identified general trends, strengths and issues impacting main street small businesses along Danforth Avenue study area. It is important to note that most of the data was collected by the end of February 2020 (before COVID-19 restrictions and lock-downs), providing a picture of the state of area's retail vitality pre-COVID-19.

The key findings from the analysis included:

- Danforth Avenue is a stable main street with low vacancy;
- The Danforth Avenue study area has fairly continuous linear retail frontage on both sides of street;
- The collective business community benefits from a good mix of strong support from local neighbourhoods plus some broader regional draw;
- The retail mix is complemented by other neighbourhood-serving amenities, such as daycare centres, schools, houses of worship, parks, etc.;
- A high proportion of businesses are busy at multiple times throughout the day and/or week; and
- Overall, these characteristics provide a strong foundation for the street to adapt to changing markets and trends without a huge impact.

The study also concluded on the whole the Danforth Avenue study area, pre-pandemic, had a strong foundation as a main street with good connections to the surrounding neighbourhoods. COVID-19 is creating major challenges for its business community, as it is for retail businesses and shopping districts throughout the city and around the globe. In that it started from a position of a strong foundation and diverse business mix, the report concluded that the Danforth Avenue is well positioned to recover its former retail vitality.

6 Conclusions and Next Steps

In December 2021, City Council approved the ActiveTO Cycling Network Expansion projects installed in 2020 that were in place as temporary pilots, and authorized the necessary by-law amendments, to retain them as permanent installations, including Danforth Avenue (cycle tracks from Broadview Avenue to Dawes Road), along with an extension of Victoria Park Avenue to be installed in 2022.

The Complete Street study sought to ensure Danforth Avenue was designed for everyone (people walking, cycling, driving, taking transit, and those with mobility challenges) with a key goal of prioritizing the most vulnerable road users as identified in the City's Vision Zero Road Safety Plan. Overall, the Destination Danforth Complete Streets pilot was highly successful in achieving the Complete Street Study's objectives as well as additional objectives associated with the City's pandemic response.

Complete Streets Objectives: Design Danforth Avenue for everyone, with a key goal of Prioritizing Vulnerable Road Users

The Destination Danforth pilot provided improved safety and comfort for all road users, prioritizing vulnerable road users (such as people walking and cycling), and provided more mobility options.

While safety trends need to be measured over a longer timeframe, initial data indicates that the total number of collisions along Danforth Avenue between Broadview Avenue and Dawes Road decreased by 53%. The number of cyclists and pedestrians involved in collisions also decreased by 27% and 37%, respectively.

80% of intercept survey respondents consider the bike lanes safe or very safe. Of total respondents, cyclists (66%) and pedestrians (40%) were the most likely to report that Danforth Avenue "feels safer" than before the installation.

Cycling activity along Danforth Avenue between Broadview Avenue and Dawes Road has increased with a small decrease in vehicle volumes. Average travel times have not significantly changed (increased or decreased less than 1 minute) from fall 2019 to fall 2021, against a backdrop of a small decrease in vehicle volumes over this period. The range of decrease to vehicular traffic along Danforth Avenue is likely impacted by COVID-19 restrictions and stages of reopening, as well as time of year, however the general trend does show some decrease in number of motor vehicles along Danforth Avenue.

The community also provided the City with a number of suggestions to improve the pilot. This includes the need to address increased traffic and congestion for drivers, availability of parking spaces (specifically for those who require accessible parking spaces), and some safety concerns. In particular, the public would like more consideration for the interaction between the different road users and how to make this safer, safety concerns around crossing the cycle track, and more protected intersections.

Some concerns still remain regarding accessibility, in particular with regard to accessible curbside access. As was done throughout the pilot, addressing these accessibility concerns and making improvements will need to be further explored and addressed on corridor-wide and site-by-site (specific) basis, and may include such solutions as installing accessible boarding and deboarding areas or movement of curb barriers. In addition, Transportation Services is working on On-Street Bikeway Design Guidelines which will include standard drawings for specific elements related to accessibility, including transit and bike integrated stops and beveled curbs for interim raised cycle tracks. These standards can be applied to any future alterations to the Destination Danforth cycle tracks.

City's Pandemic Response Objectives: Support for Local Businesses, Physical Distancing and Transit System Relief, and make Danforth Avenue a "Destination".

The Destination Danforth pilot was partly designed in response to the COVID-19 pandemic, including the need to provide safe, equitable, socially distanced transportation options as a means for physical distancing and a transit system relief option. On Danforth Avenue, this has manifested in a variety of patterns in people's shifts in how they get around, most notably an increase in people shifting to cycling as a safe efficient travel option. The Destination Danforth pilot supported physical distancing and enabled greater active transportation as was seen with:

- An increase to cycling (by 50%) was seen throughout the pilot;
- Strong public support for the bike lanes; and
- High percentage of the public agreed that the pilot had improved people's ability to get around by bike (86% of those polled) and had improved physical distancing (61% of those polled).

The initiatives implemented by the Complete Streets pilot to support local business also supported the desire to make Danforth Avenue a "destination". This was achieved by:

- Improving access options for people visiting Danforth Avenue;
- Providing expanded outdoor patio areas on the street and sidewalk;
- Street beautification and public realm enhancements using planters, curb extensions, art installations, public seating, and high-capacity bicycle parking; and
- Full-time parking on both sides of Danforth Avenue.

The pilot received a broad level of support for the improvements along Danforth Avenue. In particular, the public noted appreciation for the street character, the addition of patios, beautification and art, and the cycle track. When polled specifically, the vast majority of respondents identify a positive or very positive experience of the pilot (84%), and showed a wide-spread support for the pilot becoming permanent (76%, and 15% partially or some aspects).

The outcomes of the Complete Streets study, including the Destination Danforth Complete Streets pilot project, were utilized to inform the Danforth Avenue Planning study Site and Area Specific Policies and the Danforth Avenue Urban Design Guidelines.

Next Steps

The cycle tracks from Broadview Avenue to Dawes Road (along with the extension to Victoria Park Avenue) will be retained as a permanent installation, in addition the CaféTO program will continue to be a permanent program for the City of Toronto. With these directions there are short, medium and long term improvements that are proposed to be explored along Danforth Avenue to ensure Destination Danforth continues to operate successfully.

Ongoing Operations and Maintenance Plan (Short Term)

- Continued seasonal operations and maintenance including relocation of planters, curbs and posts to accommodate CaféTO curbside cafés, seasonal maintenance of cycle tracks, and maintenance of plant species in planters.
- Inventory of public realm enhancements implemented as part of Destination Danforth to determine state-of-good-repair improvements where necessary, including for planters, curbs, posts, and artistic curb lane extensions.

Further Improvements for Accessibility (Short Term)

- Some concerns still remain regarding accessibility particularly with regard to accessible curbside access. As was done throughout the pilot, addressing these accessibility concerns and making improvements will need to be further explored and addressed on both a corridor-wide and site-by-site (specific) basis.

Further Improvements for Loading (Short Term)

- Address site-specific concerns for parking and loading areas, to ensure adequate balance between the two uses, explore additional solutions for loading areas.

Monitoring (Medium Term)

- Future monitoring of vehicle traffic volumes and travel times on Danforth Avenue and adjacent streets to assesses the impacts post-COVID-19.
- Future assessment of collision trends and safety benefits following obtaining two to three additional years of data.

Capital Enhancements (Long Term)

Review existing temporary elements of the pilot design and replace (where feasible) with permanently constructed elements, to ensure longevity, and operational efficiency, while still adhering to the objectives of the pilot and remaining flexible to adapt to changes in the community.

Identify opportunities for future capital enhancements to Destination Danforth and streetscape enhancements, to improve or replace any temporary infrastructure and improve accessibility, access and continued road safety.