REPORT

ActiveTO Midtown Complete Street Pilot: Before and After Study

Final Draft Report

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1   Introduction and Study Context

Yonge Street through Midtown Toronto is a vibrant arterial corridor, with active frontages, schools, homes, restaurants and small businesses. Yonge Street between Bloor Street and Davisville Avenue has been transformed into a complete street through the CaféTO and ActiveTO programs, which were both created in 2020 as quick-start COVID-19 response programs. CaféTO provided urgent support to hundreds of local restaurants and ActiveTO has connected the City's cycling network like never before.

The temporary Complete Street Pilot provides support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway.

1.1   ActiveTO Midtown Complete Street Pilot

On October 27, 2020, City Council adopted motion 2020.IE15.11 to consider and explore a complete street pilot project along Yonge Street or parallel routes north of Bloor Street in Midtown Toronto. The pilot project would include a temporary protected bikeway implemented in conjunction with on-street patios, road safety improvements and traffic-calming measures, following a complete streets approach.

After a preliminary evaluation of candidate corridors in early 2021, Yonge Street between Bloor Street and Davisville Avenue (refer to Exhibit 1.1) was selected for the ActiveTO Midtown Complete Street Pilot. In April 2021, Toronto City Council approved the installation of a temporary Complete Street Pilot on Yonge Street between Bloor Street and Davisville Avenue as part of the City's Pandemic Mobility Recovery Strategy.

Exhibit 1.1: Project Limits
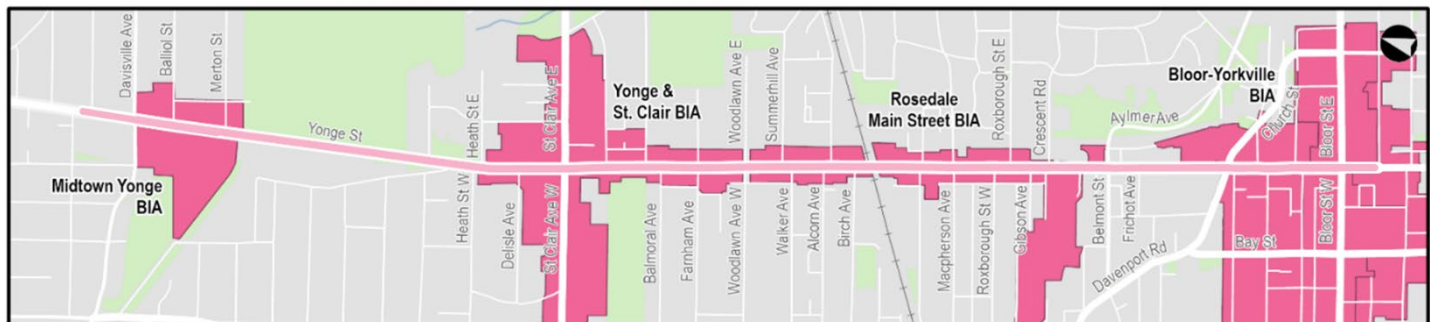
Following comprehensive community and stakeholder consultation, the project was installed in Summer 2021 with on-going monitoring and adjustments through Spring 2022.

The purpose of this before and after study is to evaluate and compare the performance of Yonge Street before and after the installation of the pilot project. The before and after

study takes a data-driven approach and considers the perspective of all road users and stakeholders.

This before and after study will inform the City of Toronto's decision to continue or discontinue the temporary Complete Street Pilot on Yonge Street between Bloor Street and Davisville Avenue.

This study is structured as follows:

- **Chapter 1** is an introduction to the before and after study.

- **Chapter 2** describes the impacts that the COVID-19 pandemic had on the pilot project and the data collected throughout the various stages of public health restrictions.

- **Chapter 3** describes the various data sources and methodological notes that were used in this study.

- **Chapter 4** describes the performance evaluation criteria used in the study and provides an overall summary of the evaluation.

- **Chapter 5** summarizes how each of the project goals were met.

1.3   Pilot Project Goals

The ActiveTO Midtown Complete Street Pilot has several key project goals including:

1. **Improved Road Safety:** Lower the frequency and severity of collisions.

2. **Vibrant, Accessible and Beautiful Streetscape** – Create a destination in Midtown Toronto by integrating "Complete Street" elements.

3. **More Mobility Options:** Provide mobility options for residents, regardless of mode.

4. **Social and Recreational Benefits:** Provide the community with safe infrastructure to exercise and interact safely outdoors.

5. **Local Economic Benefits:** Support local businesses by attracting customers to the corridor, while respecting public health, during the COVID-19 pandemic.

6. **Environmental Benefits** – Increase the shift to sustainable modes.

The before and after study evaluates the pilot project using these overall project goals. Evaluation criteria were developed for each goal, as described in **Section 1.4**.

1.4   Performance Evaluation Criteria

To achieve the project goals, described in Section 1.3, a series of indicators to assess in the before and after study were defined:

1. Impact on People Walking and the Public Realm

2. Impact on People Cycling

3. Impact on People Taking Transit

4. Impact on People Driving

5. Impact on Local Businesses, Curbside Demand, and Parking

6.   Overall Impacts on Residents and Visitors

Multiple performance measures were defined for each category of indicator. Wherever possible, quantitative criteria are defined. In some instances, quantitative measures are not possible and qualitative criteria are defined.

The indicators related to each goal are presented in Exhibit 1.2 and described in more detail in Section 4.

Exhibit 1.2: Summary of Performance Measures

Performance Measures	Description	Project Goal	Source
Indicator 1: Impact on People Walking & the Public Realm			
Public Perception of People Walking	For people walking along the corridor: perceptions of safety, accessibility and support for public goals	1,2,3,4,6	Public Intercept Survey
Comfort of People Walking	Based on City of Ottawa Pedestrian Level of Service methodology applied to representative sections within major city blocks	3,4,6	Multi-Modal Level of Service Methodology drawing on operating speeds, design drawings
Number of People Walking	Number of people walking along corridor before/after	1,2,3,4,6	Multi-modal traffic counts
Safety (Exposure to Conflicts)	Physical changes along the corridor (i.e. curb extensions) that reduce the length of road crossings and therefore reduce overall exposure to conflicts	1,3	Collision data / qualitative review
Indicator 2: Impact on People Cycling			
Public Perception of People Cycling	For people biking along the corridor: perceptions of safety, comfort and support for public goals	1,3	Public Intercept Survey
Comfort of People Cycling	Based on City of Ottawa Cycling Level of Service methodology applied to representative sections within major city blocks	1,3,6	MMLOS methodology drawing on operating speeds, design drawings
Number of People Cycling	Number of people cycling along the corridor before/after	1,3,4,6	Multi-modal traffic counts
Safety (Exposure to Conflicts)	Considers historical collision trends and evaluate if the proposed changes are likely to have a net positive or negative safety benefit	1	Collision data / qualitative review
Indicator 3: Impact on People Taking Transit			
Public Perception of People Taking Transit (Intercept Survey)	For people taking transit to the corridor: perceptions of safety, comfort and support for public goals	1, 2, 3	Public Intercept Survey
Transit Travel Times	Average travel time for TTC Route 97 North and South of St. Clair Avenue	3, 6	TTC

Performance Measures	Description	Project Goal	Source
Number of Wheel-Trans Trips	Number of drop-offs or pick-ups within the study area;	2,3	Wheel-Trans / TTC
Indicator 4: Impact on People Driving			
Public Perception of People Driving (Intercept Survey)	For people driving to the corridor: perceptions of safety, comfort and support for public goals	1,3	Public Intercept Survey
Number of People Driving	Change in the number of people driving along the corridor	3	Turning movement and ATR Counts
Travel Time	Travel time for people driving along the corridor	3	HERE Data
Operating Speed	Operating speed of people driving along Yonge Street	1,3	ATR (Tube) Counts
Indicator 5: Impact on Local Business, Curbside Demands & Parking			
Curbside Demand (Intercept Survey)	Results of curb access questions from intercept survey	2,5	Public Intercept Survey
Public Perception	Results of business-related questions from intercept survey	2,5	Public Intercept Survey
Parking Supply	Impacts of the pilot on parking supply	3,5	Design Drawings
Parking Revenues	Change in parking revenues along the Yonge Street corridor	3,5	Toronto Parking Authority
CaféTO Accommodation	Comparison of the number of applications submitted and the percentage of CaféTO requests accommodated	2,4,5	Design Drawings / CaféTO Office
Indicator 6: Overall Impacts on Residents & Visitors			
Overall Public Perception (Intercept Survey)	Overall results from intercept survey	2,3,4,5,6	Public Intercept Survey

1.5 Additional Factors

There are many factors that could be used to measure the pilot outcomes. Where a factor is not considered in this report, it is likely because of one of the following:

- **Difficulty in Collecting or Obtaining Data:** In some cases, it was not feasible or possible to collect data on a particular area of interest, or data was not available in time for the delivery of this study.

- **Lack of Quantitative Measure:** Some measures are by nature difficult to quantify or measure across a representative sample. They are better reflected through discussions of lived experience, for example through focus groups or stakeholder discussions.

Specific measures that emerged through consultation that are not directly reflected in indicators in this study due to the challenges above include:

- **Emergency Services Response Times (Aggregate):** It was not feasible to present data in this report related to changes or impacts on emergency

service vehicles based on current demands on EMS. However, Toronto Fire Services and Toronto Paramedic Services have each conducted an analysis to assess the impact of the ActiveTO Midtown Complete Street Pilot on their respective operations. Neither service has found evidence of any impact on emergency response as a result of the ActiveTO installation.

- **Access Delays at Unsignalized Side Streets:** Resident concerns identified through the stakeholder meetings noted challenges exiting side streets due to a steady stream of traffic, particularly for streets without access to a signalized crossing. Gap studies or camera reviews of particular streets are challenging to complete, so were not included in this evaluation, however work is on-going to understand and assess these impacts.

- **Post-Implementation Collision (Safety) Data:** As the pilot has been in place less than a year, it is not meaningful to review a short-time frame of post-installation collision data. Typical collision analysis considers at least three-five years of collision data not yet available. As noted in Section 4.1.4 & 4.2.4, alternative measures have been considered to try to estimate the safety impacts of the pilot until a fulsome collision dataset is available.

- **Impacts to Accessibility:** As part of the intercept survey, an extra day of surveying was completed focused on targeting street users who had visible accessibility needs. Every street user using a walker, wheelchair, motorized wheelchair, support cane for the visibly impaired or using Wheel-Trans was approached to capture their feedback. These efforts resulted in an additional nine direct conversations from one Wheel-Trans driver, two people using wheelchairs, three using motorized wheelchairs, two using walkers and one visually impaired respondent. Three of them regularly use Wheel-Trans. The most common impact of the Complete Street installation cited is the change in traffic which respondents were divided as to whether that made it easier or harder to cross the road. Some said it slowed traffic and others said it was too busy. The artistic curb extensions were specifically mentioned as beneficial and it was suggested that their effectiveness would increase as there are more are installed across the city and people understand their benefit. Bike lanes were appreciated either as a buffer from traffic, for safer cycling (one respondent was in a wheelchair because of a cycling accident), or for their own use in getting around. In general, accessibility at the street level has not been impacted immensely one way or the other by the Complete Street installation with three key exceptions. These included concerns about Wheel-Trans stops and curb access, temporary street furniture, signage and planters impeding the clearway and the relative infrequency of crossing opportunities (impeded by consistent barriers along the bikeway). This dataset is small; however, it does provide insight into the lived-experience of people with accessibility needs accessing Yonge Street

Despite difficulties in quantifying or measuring these factors, we acknowledge their impacts on the overall effectiveness of the pilot. The City will continue to consult with key stakeholder (e.g. TTC, emergency services) to ensure the pilot continues to operate effectively. Overall, the project team is committed to continuing to adapt the project to address issues as they arise.

2   Impacts of COVID-19

The COVID-19 pandemic and corresponding public health restrictions were considered in the development of the before and after study. Varying public health regulations in place during the study period may have skewed or impacted data collected.

City staff and the project team worked diligently to adjust data collection. For example, the stay-at-home order in place during the data post-install public intercept survey may have reduced the number of people present on Yonge Street during collection days. To address this, data was collected on additional days to achieve a comparable dataset.

For context, the timeline of public health restrictions and data collection points is summarized below:

September 2020:

- **Pilot Status:** Pre-install (before condition)

- **COVID-19 Status in Toronto:** The City of Toronto is in Stage 3 of Reopening. Most businesses are entitled to open under Stage 3, but high-risk places and activities that involve large crowds congregating, have difficulties with physical distancing, or challenges maintaining the proper cleaning and sanitation required are not open. New COVID-19 cases average 130 per day. COVID-19 vaccines are not available as of September 2020.

- **Data Collected for the Before and After Study during this time:**

  – Traffic counts

December 2020:

- **Pilot Status:** Pre-install (before condition)

- **COVID-19 Status in Toronto:** The City of Toronto is in the Grey – Lockdown category of the Province of Ontario's COVID-19 response framework. New COVID-19 cases average 637 per day. Distribution of the COVID-19 vaccines to healthcare workers begins on December 15, 2020.

- **Data Collected for the Before and After Study during this time:**

  – TPA Parking revenue

March 2021:

- **Pilot Status:** Pre-install (before condition)

- **COVID-19 Status in Toronto:** On March 8, 2021, the Province moved the City of Toronto into the Grey Lockdown level. New COVID-19 cases average 527 per day. COVID-19 vaccines are available only to Phase 1 populations (e.g. adults 80 years of age and older, healthcare workers, Indigenous adults, etc.)

- **Data Collected for the Before and After Study during this time:**

  – TTC travel times

May 2021:

- **Pilot Status:** Pre-install (before condition)

- **COVID-19 Status in Toronto:** The City of Toronto is under a stay-at-home order by the Province of Ontario. All residents must remain at their homes unless conducting an activity deemed essential. Essential businesses can operate at 25 percent capacity by appointment only and all non-essential businesses are closed. On May 22, outdoor recreation amenities are allowed to reopen, and outdoor gatherings of up to five people are permitted. New cases average 540 per day. 69% of Toronto residents have one dose and 7% have two doses of the COVID-19 vaccine.

- **Data Collected for the Before and After Study during this time:**

  – Traffic counts

  – Travel times

  – Pre-Install Public Intercept Survey (599 respondents)

June 2021:

- **Pilot Status:** Installation of the pilot occurs beginning June 12 with most pavement markings, cycle tracks and cafés installed by the end of June.

- **COVID-19 Status in Toronto:** The City of Toronto is in Step 1 of the Roadmap to Reopen where 60% of adults (18+) in Ontario have received at least one dose of the COVID-19 vaccine. Essential retail operates at 25% capacity and non-essential retail operates at 15% capacity. New cases average 50 per day. 77% of Toronto residents have one dose and 44% have two doses of the COVID-19 vaccine.

July 2021:

- **Pilot Status:** Post-install (after condition) with installation clean-up on-going through July including raised platforms (July 17-18) and some decorative pavement markings.

- **COVID-19 Status in Toronto:** The City of Toronto is in Step 2 of the Roadmap to Reopen where 70% of adults (18+) in Ontario have received at least one dose of the COVID-19 vaccine and 20% have received both doses. Essential retail operates at 50% capacity and non-essential retail operates at 25% capacity. New cases average 25 per day. 80% of Toronto residents have one dose and 69% have two doses of the COVID-19 vaccine.

- **Data Collected for the Before and After Study during this time:**

  – Traffic Counts

September 2021:

- **Pilot Status:** Post-install (after condition) with all curb extensions installed; only awaiting one transit platform installation.

- **COVID-19 Status in Toronto:** The City of Toronto is in Step 3 of the Roadmap to Reopen where 70–80% of adults (18+) in Ontario have

received at least one dose of the COVID-19 vaccine and 25% have both doses. Essential and non-essential capacity is based on physical distancing of two meters. New cases average 114 per day. 85% of Toronto residents have one dose and 78% have two doses of the COVID-19 vaccine.

- **Data Collected for the Before and After Study during this time:**

  - Traffic Counts

  - TTC travel times

  - Post-Install Public Intercept Survey (547 respondents)

December 2021:

- **Pilot Status:** Post-install (after winter condition).

- **COVID-19 Status in Toronto:** The City of Toronto is in Step 2 of the Roadmap to Reopen where 82% of adults (18+) in Ontario have received at least one dose of the COVID-19 vaccine and 77% have received both doses. Essential retail operates at 50% capacity and non-essential retail operates at 25% capacity. New cases average 208 per day between December 1 and December 15, and 2,338 between December 16 and December 31. Approximately 90% of Toronto residents have one dose, 82% have two doses, and 26% have three doses of the COVID-19 vaccine.

- **Data Collected for the Before and After Study during this time:**

  - TPA Parking revenue

January 2022:

- **Pilot Status:** Post-install (after winter condition).

- **COVID-19 Status in Toronto:** The City of Toronto is in Step 2 of the Roadmap to Reopen where 86% of adults (18+) in Ontario have received at least one dose of the COVID-19 vaccine and 80% have received both doses. Essential retail operates at 50% capacity and non-essential retail are closed. Approximately 91% of Toronto residents have one dose, 84% have two doses, and 47% have three doses of the COVID-19 vaccine.

- **Data Collected for the Before and After Study during this time:**

  - Travel times

3 Data Sources and Methodological Notes

3.1 Public Intercept Surveys

Two public intercept surveys, led by Park People and The Centre for Active Transportation, were completed before and after the installation of the pilot project to assess perceptions of the pilot. The public intercept survey gathered information all road users within the study area, collecting 599 responses during the pre-install survey and 547 responses during the post-install survey.

Surveys were conducted with members of the public using a randomizing methodology at select locations along Yonge Street from Bloor Street to Davisville Avenue at the arrival side of traffic lights. Surveyors had equal chance to approach pedestrians (who also represent drivers after parking, transit riders, and rideshare users), as well as cyclists when stopped at a red light. Intercept surveys were conducted during weekdays and weekends. The survey methodology included:

- Pre-installation surveys were conducted on Thursday, June 3rd and Saturday, June 5th and post installation surveys were conducted Saturday, September 11th, Tuesday, September 14th, Thursday, September 16th and Saturday, September 18th.

- Pre-installation intercept surveys were conducted at three major intersections along Yonge Street: Bloor Street, St. Clair Avenue, and Davisville Avenue.

- Post-installation intercept surveys were conducted at four locations: Bloor Street, St. Clair Avenue, Davisville Avenue, and Rosedale.

3.1.1 Public Intercept Survey Demographic Profile

The public intercept surveys collected demographic information from all respondents. A summary of the demographic profile of the respondents from the pre- and post-install public intercept survey is shown in Exhibit 3.1.

Exhibit 3.1: Demographic Profile of Public Intercept Survey Respondents

Demographic Indicator	Pre-Install (BEFORE)	Pilot (AFTER)
Visits Yonge Street at least once per week	83%	87%
Identifies as female	46%	52%
Identifies as male	50%	46%
Identifies as Black, Indigenous, or a Person of Colour (BIPOC)	27%	26%
Average household income between $50,000 - $99,000	25%	28%

Further details are available in the *Intercept Study Survey Report* prepared by Park People and The Centre for Active Transportation.

3.2　Multi-Modal Level of Service

Multi-modal level of service (MMLOS) was used to evaluate the impacts of the pilot on non-automobile road users. The MMLOS methodology is based on the [City of Ottawa Multi-Modal Level of Service Guidelines](#). The MMLOS criteria were applied to evaluate the convenience and comfort of pedestrians and cyclists at specific pilot segments.

The following site-specific assumptions were applied to guide the MMLOS evaluation of the post-pilot condition:

- In the pedestrian level of service methodology, the boulevard width is a factor in pedestrian comfort, since a wider boulevard provides more separation from moving vehicles. For the evaluation of the pilot, the new cycle tracks were factored into the boulevard width calculations since they serve a similar purpose in providing protection for pedestrians by increasing the distance between sidewalks and roadways. While cars that are parked on-street serve a similar purpose, they were not included in the boulevard width as they were evaluated separately in the methodology. Trees, garbage cans, benches, and other curbside amenities were included in the boulevard width calculations since these amenities impede linear flows of sidewalk traffic.

- Average sidewalk widths were used for the segments with variable sidewalk widths based on available design drawings and topographic surveys.

- Operating speed was based on 85th percentile recorded speeds in most cases, while posted speeds were used where operating speed data was not available.

3.3　Multi-modal Traffic Counts

Multi-modal traffic counts were collected from the following sources:

- **Travel Times of People Driving:** speed data sourced from HERE Technologies that summarizes GPS traces of connected cars, trucks, and other devices.

- **Number of People Walking & Cycling:** short-term turning movement counts collected using temporary camera installations along Yonge Street (1- to 3-day counts before and after the installation):

  – Cyclist counts are adjusted for weather and seasonality based on established local factors.

- **Number of People Driving:** a combination of short-term turning movement counts collected using temporary camera installations and 7-day counts conducted before and after the installation using road tubes.

3.4　Collision Data

The City provided a total of 1,778 validated collisions along the Yonge Street corridor between 2015 and 2019 which were analyzed to identify trends and dominant collision types in the pre-install condition. These results are summarized in the *ActiveTO Midtown Complete Street Pilot Existing Conditions Safety Analysis* report. To align with

the objectives of the ActiveTO Midtown Complete Streets Pilot Project, emphasis was placed on collisions involving vulnerable road users, those resulting in injuries or fatalities, and movements that may result in potential conflicts with the implementation of cycle tracks along Yonge Street.

It should be noted that collisions during the "after" period of the pilot were not available to be analyzed as part of this report. A typical horizon of 3 to 5 years, depending on the frequency of issues observed, is typical to meaningfully track changes. Alternatively, a shorter term near-miss analysis could be used to see the direct impact of this infrastructure change and may still be considered, but has not yet been initiated.

As such, a qualitative assessment of the impacts to road user safety along the Yonge Street corridor was completed by examining the potential safety impacts of the geometric and operational design features considering the collision types occurring before the pilot project.

3.5   Additional Data Sources

Additional data sources include:

- **Parking Supply Estimates:** The ActiveTO Midtown design drawings were used to calculate the curb length and estimate the amount of parking supply prior to the install of the pilot project. The parking supply was estimated by determining the gross available curb length and subtracted the required setback lengths for bus stops, driveways, intersections, and fire hydrants. The net available curb length was dividing by 6 metres, which is the standard length of a parking space. The estimated parking supply does not account for parking regulations or parking turnover.

- **Toronto Parking Authority:** The Toronto Parking Authority provided parking revenue data for spaces along Yonge Street. This data was used to measure the difference in parking revenue for the study area. This data, like other data used for this analysis, is undoubtedly impacted by COVID-19 restriction throughout the course of the pilot.

- **Wheel-Trans Trips:** Wheel-Trans provided the number of accessible transit trips picked up or dropped off along Yonge Street.

4   Evaluation of the Pilot

This section compares the before and after conditions for each indicator:

- **Impacts on People Walking & the Public Realm:** Assesses impacts to people walking and the overall public realm along the corridor.

- **Impacts on People Cycling:** Assesses impacts to people cycling along the corridor and changes in cycling activity along the corridor.

- **Impacts on People Taking Transit:** Assesses impacts to people taking transit and transit operations along the corridor.

- **Impacts on People Driving:** Assesses impacts to people driving along the corridor and overall traffic operations along the corridor.

- **Impacts on Local Businesses, Curbside Demands and Parking:** Assesses impacts to local businesses, considering curbside demand/availability and parking/loading measures along the corridor.

Each performance measure contains collected data from Yonge Street prior to the installation (i.e. "before") and another set of data collected after the installation (i.e. "after) of the pilot project. For each performance measure, a quantitative or qualitative analysis was completed to determine if the pilot project was successful in achieving the project goals. The analysis for each performance measure is summarized at the end of each chapter.

4.1   Impact on People Walking and the Public Realm

Yonge Street through Midtown Toronto is vibrant arterial corridor, with active frontages, schools, homes, restaurants, and small businesses. These land uses generate significant pedestrian activity. The pilot project aimed to support and enhance the experience for people walking by improving safety, providing a vibrant and accessible streetscape and supporting recreation and social interactions.

This section evaluates the pilot project based on the following performance measures:

- Public perceptions of people walking on Yonge Street based on intercept surveys;

- Pedestrian comfort based on a level-of-service evaluation tool;

- Number of people walking on Yonge Street; and

- Safety impacts for people walking based on exposure to conflicts.

4.1.1   Public Perceptions

The public intercept survey conducted along Yonge Street measured public perception changes of people walking in terms of accessibility, safety, and the overall project.

Accessibility

Prior to the install of the pilot project, people cycling were asked if Yonge Street is currently accessible, from an Accessibility for Ontarians with Disabilities Act point of view, with 66% indicating that Yonge Street is very or moderately accessible. After the

install, 42% of respondents indicated that Yonge Street is much more or slightly more accessible. 37% of respondents indicated that Yonge Street had not changed in terms of accessibility. People walking on Yonge Street's perception of accessibility is shown in Exhibit 4.1.

Exhibit 4.1: People Walking on Yonge Street's Perception on Accessibility

Perception of Accessibility	Pre-Install (BEFORE)	Pilot (AFTER)
Yonge Street is very or moderately Accessible	66%	N/A
Yonge Street is much more or slightly more accessible	N/A	42%
No change in accessibility	N/A	37%

Safety

People walking on Yonge Street were asked how safe they felt travelling on Yonge Street Prior to the install of the pilot project, 25% of respondents indicated that Yonge Street was very safe. After the install of the pilot project, 35% of the respondents indicated that Yonge Street was very safe, representing an increase of 10%.

Achieving Project Goals

People walking were asked if the pilot project provided support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway. 76% of people walking on Yonge Street indicated that the agreed or strongly agreed that the pilot project met the project goals.

Overall, the public's perception of accessibility and safety on Yonge Street has improved with the pilot and people walking are positive about the overall success of the pilot project. Findings are summarized in Exhibit 4.2.

Exhibit 4.2: Before and After Perceptions of People Walking on Yonge Street

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Perception of Accessibility	N/A	42%	+42% much more or slightly more accessible
Perception of Safety	25%	35%	+10% increase
Perception of Pilot Achieving Goals	N/A	76%	76% agree or strongly agree that pilot project met goals

4.1.2   Comfort of People Walking

Walking level of service (LOS) is a measurement of overall comfort along a particular roadway. Walking level of service varies from LOS A (high level of comfort) to LOS F

(low level of comfort). Key characteristics informing the walking level of service for this location-level analysis include:

- Vehicular operating speed

- Motor vehicle volumes

- Sidewalk and boulevard widths

- Presence of on-street parking

The existing and future walking LOS at key locations along the corridor is shown in Exhibit 4.3. It is important to note that the presence of protected bike lane design elements, such as bollards and concrete curbs, likely supports perceptions of safety and comfort for pedestrians in the same manner as on-street parking lanes, as they provide protection and delineation from active vehicle travel lanes. This is reflected in the analysis by adding the bike lanes width to the boulevard width.

Exhibit 4.3: Before and After Walking LOS

Location & Direction	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Merton Street to Glen Elm Avenue Northbound	D	C	+1 grade point increase in LOS
Merton Street to Glen Elm Avenue Southbound	C	C	No change in LOS
St. Clair Avenue to Rosehill Avenue Northbound	C	B	+1 grade point increase in LOS
St. Clair Avenue to Rosehill Avenue Southbound	C	B	+1 grade point increase in LOS
Ramsden Park Road to Macpherson Avenue Northbound	C	B	+1 grade point increase in LOS
Ramsden Park Road to Macpherson Avenue Southbound	C	B	+1 grade point increase in LOS
Bloor Street to Yorkville Avenue Northbound	C	B	+1 grade point increase in LOS
Bloor Street to Yorkville Avenue Southbound	C	B	+1 grade point increase in LOS

Key findings:

- Pre-install LOS at the key locations fluctuates between LOS C and LOS D northbound and between LOS B and LOS C southbound. Pilot LOS at the key locations fluctuates between LOS B and LOS C both northbound and southbound.

- From Merton Street to Glen Elm Avenue, the northbound level of service improves from LOS D to LOS C during the hours when on-street parking is not permitted (pre-install) due to the introduction of on-street parking in the pilot and remains constant at LOS C when on-street parking was permitted

(pre-install). In the southbound direction at this location, level of service decreases from LOS B to LOS C when on-street parking was permitted (pre-install) due to a lack of on-street parking in the pilot, while the level of service remains at LOS C when on-street parking (pre-install) was not permitted.

• From St. Clair Avenue to Rosehill Avenue, Ramsden Park Road to Macpherson Avenue, and Bloor Street to Yorkville Avenue, the level of service increases from LOS C to LOS B in both directions. These changes are due to the increased boulevard widths and introduction of on-street parking in some cases.

• Overall, walking LOS is largely held constant or improved as a result of the pilot, largely due to the increased presence of parking or bike lanes buffering the sidewalk.

4.1.3   Number of People Walking

One and two day counts of fourteen-hour period before and after the installation period were conducted to count the number of people walking within the Yonge Street Active TO Midtown Complete Street Pilot corridor.

Based on fourteen-hours of count data, the number of people walking along the corridor increased by 8% to 80% during the summer period across all locations. During the fall period, the number of people increased by 22% and 47% at two of the study area locations as shown in Exhibit 4.4. At Rowanwood Avenue / Macpherson Avenue, the pedestrian volumes were lower by 25%, while Davenport Road / Church Street had no change. The data is unadjusted for seasonality / weather. The overall increase in the number of people walking along ActiveTO Midtown Pilot corridor may be at least partially attributed to increased activity due to the ActiveTO and Café TO programs.

Exhibit 4.4: Before and After Volume of People Walking

Locations	Pre-Install May/Jun 2021 (BEFORE)	Pilot July/Aug 2021 (AFTER)	Change May/Jun to July/Aug 2021	Pilot Sep/Oct 2021 (AFTER)	Change May/Jun to Sep/Oct 2021
Bloor Street	15,300	27,600	**+80%**	22,500	**+47%**
Davenport Road / Church Street	6,300	10,300	**+63%**	6,300	**0%**
Rowanwood Avenue / Macpherson Avenue	4,400	7,600	**+73%**	3,300	**-25%**
Davisville Avenue / Chaplin Crescent	13,000	14,100	**+8%**	15,900	**+22%**

4.1.4   Safety (Exposure to Conflicts)

Based on a collision analysis completed of the 5-years period preceding initiation of the pilot project (2015 to 2019), a total of 90 pedestrian collisions were reported along the Yonge Street corridor. Of those collisions, 93% of them resulted in injury.

As noted in Section 1.5, it is not possible at this time to complete a fulsome evaluation of post-implementation collisions due to challenges with lead times associated with collision data collection, processing, and analysis (3-5 years).

In lieu of a comparison of collision rates, a qualitative assessment of the impacts to pedestrian safety along the Yonge Street corridor was completed by examining the potential safety impacts of the geometric and operation design features included in the design, specifically:

- **Curb Extensions** – Crossing distance is a well-documented factor in pedestrian collisions (i.e. longer crossing distances are associated with greater collision risk). Therefore, curb extensions which reduce crossing distance are anticipated to reduce the frequency and severity of pedestrian collisions along the corridor. In addition, curb extensions often reduce the intersection radius which can in turn reduce vehicle turn speeds and improve visibility between drivers and vulnerable road users crossing the intersection.

- **Leading Pedestrian Intervals** – LPIs are proven safety countermeasure in the City of Toronto and therefore expansion of the program is anticipated to reduce the frequency and severity of pedestrian collisions along the corridor. The Highway Safety Manual (HSM) suggests that LPI implementation at signalized intersections can reduce the number of vehicle-pedestrian collisions by 18% or more.

It should be noted that this analysis considers the intent of the design as implemented along Yonge Street, using the proxy measures of pedestrian crossing distance and presence of Leading Pedestrian Intervals at signalized intersections.

Curb Extensions

Where feasible, curb extensions were installed on side streets along Yonge Street Curb extensions help improve road user safety for pedestrians by reducing the crossing distance along side streets and improving pedestrian visibility at the crosswalk. In addition, curb extensions help to visually narrow the intersection approach for drivers, which can reduce vehicle operating speeds at the approach.

Exhibit 4.5 outlines locations along Yonge Street where curb extensions are present. The crosswalk direction aligns with the direction of travel of the adjacent vehicular lane (i.e., the northbound crosswalk is on the east side of the intersection). Pedestrian crossing distances were measured with and without curb extensions, and the reduction of pedestrian crossing was calculated.

Exhibit 4.5: Pedestrian Crossing Distance Reduction – Curb Extensions

LOCATION	SIDE	Pre-Install Length (BEFORE)	Pilot Length (AFTER)	Overall Outcome (% Reduction in Crossing Distance)
Balliol Street	NB	10.8	7.8	28%
Delisle Avenue	SB	10.8	10.1	6%
Woodlawn Avenue	SB	14.5	6.7	54%
Summerhill Avenue	NB	11.8	8	32%

LOCATION	SIDE	Pre-Install Length (BEFORE)	Pilot Length (AFTER)	Overall Outcome (% Reduction in Crossing Distance)
Walker Avenue	SB	14	7.5	46%
Shaftesbury Avenue	NB	13.3	7.4	44%
Macpherson Avenue	SB	8.2	6	27%
Roxborough Street W	SB	14	10.1	28%
Roxborough Street E	NB	13.6	11.5	15%
TOTAL	N/A	119.3	83.4	30%

Based on the summary in Exhibit 4.5, there are several curb extensions implemented along the Yonge Street corridor that significantly reduce the distance that pedestrians are walking across live traffic lanes, an important proxy for exposure to conflicts.

Leading Pedestrian Intervals

A leading pedestrian interval (LPI) applied at a signal-controlled intersection, provides crossing pedestrians an advance phase to enter the crosswalk before adjacent vehicles are given a green phase. By giving pedestrians a 5-10 second head start into the intersection, it reinforces the pedestrian right of way (ROW), increases pedestrian visibility, and thereby reduces potential conflicts between pedestrians and turning vehicles. Research has shown that LPIs have resulted in an 18%, or greater, reduction in pedestrian collisions[1]. LPI implementation can be limited based on the presence of advance left-turn phases. For example, if a northbound left-turn phase exists, the north-south pedestrian phase is not eligible for LPI implementation.

In support of the City's Vision Zero initiatives, hundreds of LPIs have been implemented at more than 700 locations in Toronto, with 370 locations in 2021 alone. As part of the post-implementation traffic signal coordination study, there will be LPIs implemented at various intersection approaches along the Yonge Street corridor, as summarized in Exhibit 4.6. Note that implementation of these LPIs is not anticipated until April 2022.

Exhibit 4.6: LPI Implementation

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Signalized intersection within study area with LPIs (percent)	17%	94%*	77%* increase in LPI implementation

* Note: This represents the number intersections where implementation is feasible based on the presence of advance left-turn phases. This will be finalized once traffic signal optimization has been completed for the study area.

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[1] Goughnour, E., D. Carter, C. Lyon, B. Persaud, B. Lan, P. Chun, I. Hamilton, and K. Signor. "Safety Evaluation of Protected Left-Turn Phasing and Leading Pedestrian Intervals on Pedestrian Safety." Report No. FHWA-HRT-18-044. Federal Highway Administration. (October 2018)

4.1.5   Summary of Results: Impact on the Public Realm & Walking Environment

The ActiveTO Midtown Complete Street Pilot was successful in improving the impact on the walking environment. The results of the impacts on the walking environment is displayed in Exhibit 4.7.

The pedestrian perception of accessibility, safety, and congestion and number of people choosing to walk on Yonge Street has improved. Overall, the pedestrian LOS is largely held constant or improved due to the increased boulevard widths due to the pilot project. In lieu of collision data, pedestrian safety and exposure to conflicts has improved due to several curb extensions that significantly reduce the distance of pedestrian crossings and the LPIs that will be implemented at various intersection approaches.

Exhibit 4.7: Impact on People Walking and the Public Realm Summary

Performance Measure	Description	Impact	Overall Outcome
Public Perception	Perception of Accessibility	+	+42% much more or slightly more accessible
Public Perception	Perception of Safety	+	+10% increase
Public Perception	Perception of Pilot Achieving Goals	+	76% agree or strongly agree that pilot project met goals
Comfort of People Walking	Pedestrian Level of Service	+	+7 grade point increase in level of service across four key locations
Number of People Walking	Counts of People Walking	+	+56% average increase during summer and +11% average increase during fall period.
Safety	Crossing Distance (Proxy for exposure to conflicts)	+	30% reduction in crossing distance across 9 crosswalks
Safety	Signalized intersection within study area with LPIs (percent)	+	28% increase in LPI implementation

+   Positive Impact

=   No Impact / Varies

-    Negative Impact

4.2   Impact on People Cycling

The ActiveTO Midtown Complete Street Pilot provides additional opportunities for people cycling to safely visit schools, homes, restaurants and small businesses on Yonge Street. The pilot project aimed to improve road safety and to support and enhance the experience for people cycling by providing an all ages and abilities bikeway.

This section evaluates the pilot project based on the following performance measures:

- Public perceptions of people cycling on Yonge Street based on intercept surveys;

- Cycling comfort based on a level-of-service evaluation tool;

- Number of people cycling on Yonge Street; and

- Safety impacts for people cycling based on exposure to conflicts.

4.2.1   Public Perceptions

The public intercept survey conducted along Yonge Street measured public perception changes of people cycling in terms of safety, and the overall project.

Safety

People cycling on Yonge Street were asked how safe they felt travelling on Yonge Street Prior to the install of the pilot project, 35% of people cycling indicated that Yonge Street was safe or very safe. After the install of the pilot project, 76% of the respondents indicated that Yonge Street was very safe, representing an increase of 41%.

Exhibit 4.8: People Cycling on Yonge Street's Perception of Safety
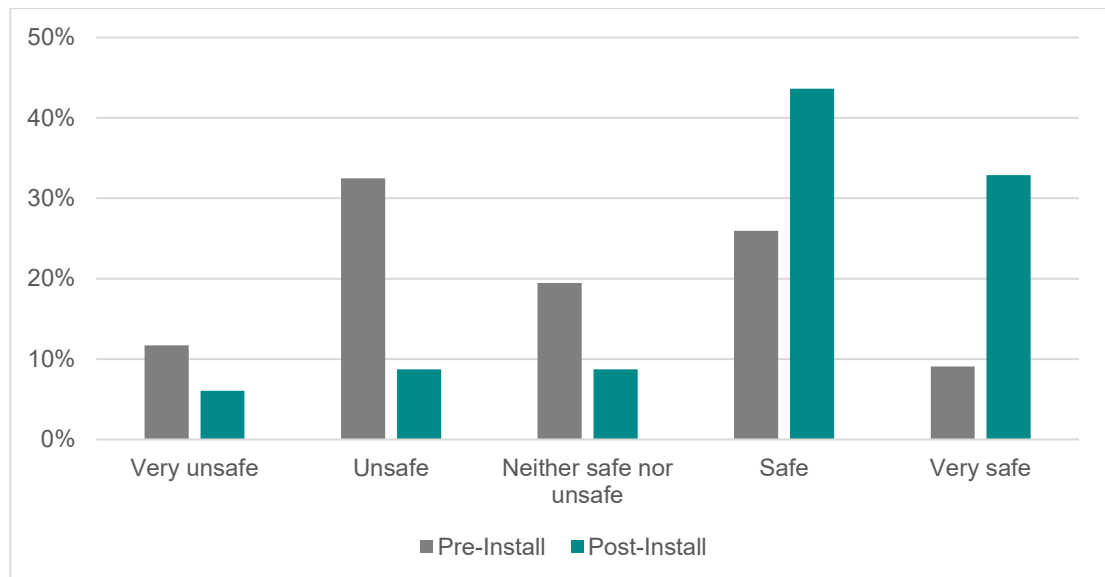
Achieving Project Goals

People cycling were asked if the pilot project provided support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway. 80% of people cycling on Yonge Street indicated that they agreed or strongly agreed that the pilot project met the project goals.

Overall, the public's perception of accessibility and safety on Yonge Street has improved with the pilot and people walking are positive about the overall success of the pilot project. Findings are summarized in Exhibit 4.2.

Exhibit 4.9: Before and After Perceptions of People Walking on Yonge Street

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Perception of Safety	35%	76%	+41% increase
Perception of Pilot Achieving Goals	N/A	80%	80% agree or strongly agree that pilot project met goals

4.2.2   Cycling Comfort

Similar to the comfort of people walking along Yonge Street, the comfort of people cycling can also be estimated quantitatively using multi-modal level of service (MMLOS) analysis. Key characteristics informing the bicycle level of service for this location-level analysis include:

• Type of bikeway

• Vehicular operating speed

• Number of lanes

• Presence of on-street parking

• Presence of median refuge

The existing and future cycling LOS at key locations along the corridor are shown in Exhibit 4.10. Pre-install conditions fluctuate between levels E and F along the corridor, due primarily to high operating speeds and lack of designated or separated bikeway. The post-installation LOS increases to level 5 along the entire corridor due to the installation of cycle tracks from Davisville Avenue to Bloor Street.

Exhibit 4.10: Before and After Bicycle LOS

Location & Direction	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Merton Street to Glen Elm Avenue Northbound	F	A	+5 grade point increase in LOS
Merton Street to Glen Elm Avenue Southbound	F	A	+5 grade point increase in LOS
St. Clair Avenue to Rosehill Avenue Northbound	E	A	+4 grade point increase in LOS
St. Clair Avenue to Rosehill Avenue Southbound	E	A	+4 grade point increase in LOS
Ramsden Park Road to Macpherson Avenue Northbound	E	A	+4 grade point increase in LOS
Ramsden Park Road to Macpherson Avenue Southbound	E	A	+4 grade point increase in LOS

Location & Direction	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Bloor Street to Yorkville Avenue Northbound	E	A	+4 grade point increase in LOS
Bloor Street to Yorkville Avenue Southbound	E	A	+4 grade point increase in LOS

4.2.3   Number of People Cycling

One to three-day counts took place during the pre- and post-install observation periods to count the number of people cycling within the ActiveTO Midtown Complete StreetPilot corridor. The number of people cycling on Yonge Street along all corridors, except for Bloor Street, increased substantially by 58-198% and 37-205%, on weekdays during the summer and fall months, respectively. On weekends, the cycling volumes increased by 27-207% and 5-100%, during the summer and fall periods, respectively.

These findings are summarized in Exhibit 4.11.

Exhibit 4.11: Before and After Cycling Counts

Locations	Weekday/Weekend	Pre-Install May 2021 (BEFORE)	Pilot July 2021 (AFTER)	Change May/Jun to July/Aug 2021	Pilot Sep/Oct 2021 (AFTER)	Change May/Jun to Sep/Oct 2021
Bloor Street (North leg)	Weekday	870	870	**-15%**	650	**-25%**
Davenport Road / Church Street	Weekday	420	1250	**+198%**	1280	**+205%**
Rowanwood Avenue / Macpherson Avenue	Weekday	600	1530	**+155%**	1190	**+98%**
St. Clair Avenue	Weekday	730	1150	**+58%**	1000	**+37%**
Davisville Avenue / Chaplin Crescent	Weekday	300	770	**+157%**	480	**+60%**
Bloor Street (North leg)	Weekend	600	760	**+27%**	650	**+8%**
St. Clair Avenue	Weekend	570	730	**+28%**	600	**+5%**

Locations	Weekday/Weekend	Pre-Install May 2021 (BEFORE)	Pilot July 2021 (AFTER)	Change May/Jun to July/Aug 2021	Pilot Sep/Oct 2021 (AFTER)	Change May/Jun to Sep/Oct 2021
Davisville Avenue / Chaplin Crescent	Weekend	150	460	**+207%**	300	**+100%**

4.2.4   Safety (Exposure to Conflicts)

Based on a collision analysis completed of the 5-years period preceding initiation of the pilot project (2015 to 2019), a total of 55 collisions involving people on bikes were reported along the Yonge Street corridor. Of those collisions, 80% of them resulted in injury. A major goal of the ActiveTO initiative is to improve road safety for vulnerable road users, including people on bicycles.

As noted in Section 5.1, it is not possible at this time to complete a fulsome evaluation of post-implementation collisions due to challenges with lead times associated with collision data collection, processing, and analysis. In addition, due to the relatively short time span of the ActiveTO Midtown pilot implementation, there is limited collision data which can make quantifying impacts difficult.

At this point in time, in lieu of a comparison of collision or conflict data, a qualitative assessment of the impacts to safety for people cycling along the Yonge Street corridor was completed by examining the potential safety impacts of the geometric and operation design features included in the design. Research related to safety impacts for people cycling is still novel and uncommon, which has resulted in a lack of quantifiable impacts from a road user safety perspective. Consequently, this analysis considers the intent of the design as implemented along Yonge Street and cannot definitively determine if safety performance for people cycling has changed.

Provision of Cycle Tracks

Of the 55 collisions involving people on bicycles along Yonge Street, 24 of those collisions involved a person driving and a person cycling that were travelling in the same direction with one party sideswiping or rear-ending the other. With the implementation of cycle tracks along Yonge Street, this interaction is anticipated to be significantly reduced by providing separated right-of-way for people on bicycles to travel alongside motor vehicle lanes.

A total of eight collisions involved a right-turning vehicle colliding with a person on a bicycle at an intersection. Through the implementation of cycle tracks, physical barriers and flexi-posts serve to reduce vehicle turn radius and speeds, which can provide greater opportunities for vehicles to spot oncoming people on bicycles. The addition of green pavement markings through intersections also provide a visual cue for turning drivers to watch for people on bicycles across their turn paths.

Increased Cycling Demand

Based on findings of the cycling volume data, cycling demand increased significantly throughout various locations along Yonge Street. This significant increase in cycling demand can lead to a safety in numbers phenomenon for people on bicycles. While the degree of safety improvement cited in various studies varies widely based on methodology, the findings consistently suggest a relationship between increased cycling demand with improved road user safety. There are many reasons why this safety in numbers phenomenon may exist; studies hypothesize that when drivers see more people on bicycles on the roadway, they are more likely to recognize and react to people cycling. The implementation of cycle tracks often leads to induced demand for people on bicycles, further adding to the safety in numbers phenomenon.

4.2.5   Summary of Results: Impact on People Cycling

The ActiveTO Midtown pilot project was successful in improving the impact on the cycling environment. The results of the impact on people cycling is displayed in Exhibit 4.12.

The public perception of safety, cycling experience, and the number of people cycling has improved. Overall, the cycling LOS has largely improved due to the installation of the bikeway. In lieu of collision data, cycling safety and exposure to conflicts has improved due to dedicated bikeways and the increase in cycling demand contributing to the safety in numbers phenomenon. To better assess safety outcomes, it is recommended that the pilot remain in place for a longer period of time to allow for the collection of additional collision data.

Exhibit 4.12: Impact on People Cycling Summary

Performance Measure	Description	Impact	Overall Outcome
Public Perception	Perception of Safety	+	+41% increase
Public Perception	Perception of Pilot Achieving Goals	+	80% agree or strongly agree that pilot project met goals
Cycling Experience	Cycling Level of Service	+	+34%. increase in level of service across four key locations
Number of People Cycling	Cycling Counts	+	+111% average increase during summer and +75% average increase during fall weekday period. +87% average increase during summer and +38% average increase during fall weekend period.
Safety	Exposure to Conflicts	+	Provision of dedicated bicycle facilities and associated design features to improve bicycle right-of-way and priority.

Performance Measure	Description	Impact	Overall Outcome
+	Slight Positive Impact		
=	No Impact / Varies		
-	Slight Negative Impact		

4.3   Impact on People Taking Transit

Yonge Street through Midtown Toronto is a key transit corridor. The TTC operates the Line 1 subway, the 97 bus (Davisville Station), and the Wheel-Trans accessible transit service within the project corridor. During the pilot project the TTC operated subway shuttle service to support the Automatic Train Control (ATC) signaling program. These transit services generate a significant amount of people walking to, boarding, and alighting transit vehicles. The pilot project aimed to support and enhance the experience for people taking transit by installing platforms to provide level boarding at key bus stops and maintaining accessible pick up and drop off locations throughout the corridor.

This section evaluates the pilot project based on the following indicators:

- Public perceptions of people taking transit on Yonge Street. based on intercept surveys;

- The number of people taking transit on Yonge Street;

- Travel time of TTC Route 97 buses on Yonge Street; and

- Wheel-Trans trips and accommodations.

4.3.1   Public Perceptions

The public intercept survey conducted along Yonge Street measured public perception changes of people taking transit in terms of safety, and the overall project.

Safety

People taking transit on Yonge Street were asked how safe they felt travelling on Yonge Street Prior to the install of the pilot project, 77% of people taking transit indicated that Yonge Street was safe or very safe. After the install of the pilot project, 77% of the respondents indicated that Yonge Street was very safe, indicating that most people felt safe taking transit on Yonge Street This suggests that the pilot had little to no impact on the perceptions of safety for people taking transit.

Achieving Project Goals

People taking transit were asked if the pilot project provided support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway. 69% of people taking transit on Yonge Street indicated agreed or strongly agreed that the pilot project met the project goals.

Overall, the public's perception of accessibility and safety on Yonge Street has improved with the pilot and people taking transit are positive about the overall success of the pilot project. Findings are summarized in Exhibit 4.13.

Exhibit 4.13: Before and After Perceptions of People Walking on Yonge Street

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Perception of Safety	77%	77%	No change
Perception of Pilot Achieving Goals	N/A	69%	69% agree or strongly agree that pilot project met goals

4.3.2 Travel Time

There have been noticeable changes in travel times for the TTC 97 bus (Davisville Station), which runs along Yonge Street. As shown in Exhibit 4.14, the pre- and post-install travel times of northbound vehicles decreased and increased for southbound vehicles. The most significant impacts for both directions have been observed during the PM peak period. The northbound average travel time was reduced by 3.1 minutes (43%) and southbound average travel time increased by 1.3 minutes (+41%).

Exhibit 4.14: Before and After Average Travel Time

Period	Pre-Install March 2021 (BEFORE) (mins)	Pilot Sep 2021 (AFTER) (mins)	Change
Yonge Street Northbound (St. Clair Avenue to Davisville Avenue)			
AM Peak	5.2	3.8	1.4 mins (-27%)
Midday	5.4	3.3	2.1 mins (-38%)
PM Peak	7.1	4.0	3.1 mins (-43%)
Yonge Street Southbound (Davisville Avenue to St. Clair Avenue)			
AM Peak	3.1	3.3	0.2 mins (+8%)
Midday	3.3	3.8	0.5 mins (+15%)
PM Peak	3.0	4.3	1.3 mins (+41%)

4.3.3 Number of Wheel-Trans Trips

There has been a change in the total number of pick-up and drop-off Wheel-Trans trips along Yonge Street between Bloor Street and Davisville Avenue. As shown in Exhibit 4.15, the total number of Wheel-Trans trips during post-install period decreased by 24% compared to pre-install period. It is difficult to interpret the change in the number of Wheel-Trans trips as being directly related to the impacts of the pilot, however it could indicate less demand or concerns about difficulty accessing the corridor post-pilot.

Exhibit 4.15: Before and After Wheel-Trans Trips

Location (Bloor Street to Davisville Avenue)	Pre-Install Average Monthly Counts Jan-May 2021 (BEFORE)	Pilot Average Monthly Counts July-Aug. 2021 (AFTER)	Change
Total Yonge Trip Counts	560	427	-24%

4.3.4 Summary of Results: Impact on People Taking Transit

The ActiveTO Midtown pilot project appears to have varied impacts on people taking transit. Results of various performance measures are summarized in Exhibit 4.16.

The public perception of safety remains unchanged among people taking transit but most people taking transit agree that the pilot met the project goals.

Exhibit 4.16: Impact on People Taking Transit Summary

Performance Measure	Description	Impact	Overall Outcome
Public Perception	Perception of Safety	=	No change
Public Perception	Perception of Pilot Achieving Goals	+	69% agree or strongly agree that pilot project met goals
Transit Travel Time	Average Travel Time for TTC Route 97	=	Reduction in northbound travel time Increase in southbound travel time
Wheel-trans Trips & Accommodation	Number of trips	-	-24% reduction in total number of average monthly trips

+ Positive Impact

= No Impact / Varies

- Negative Impact

4.4 Impact on People Driving

Yonge Street through Midtown Toronto is a key north-south corridor for people driving. As a result of the pilot project, one travel lane in each direction was removed and additional parking/loading space was provided. The pilot project aimed to support and enhance the experience for people driving and vulnerable road users by improving road safety.

This section evaluates the pilot project based on the following indicators:

- Public perceptions of people driving on Yonge Street based on intercept surveys;

- The number of people driving on Yonge Street;

- Travel time of vehicles driving on Yonge Street;

- Speed of vehicles driving on Yonge Street; and

- Signal coordination on Yonge Street

4.4.1   Public Perceptions

The public intercept survey conducted along Yonge Street measured public perception changes of people driving in terms of safety, and the overall project.

Safety

People driving on Yonge Street were asked how safe they felt travelling on Yonge Street Prior to the install of the pilot project, 68% of people driving indicated that Yonge Street was safe or very safe. After the install of the pilot project, 65% of the respondents indicated that Yonge Street was very safe, indicating a slight decrease in the perception of safety of those driving on Yonge Street as seen in Exhibit 4.17.

Exhibit 4.17: People Driving on Yonge Street's Perception of Safety
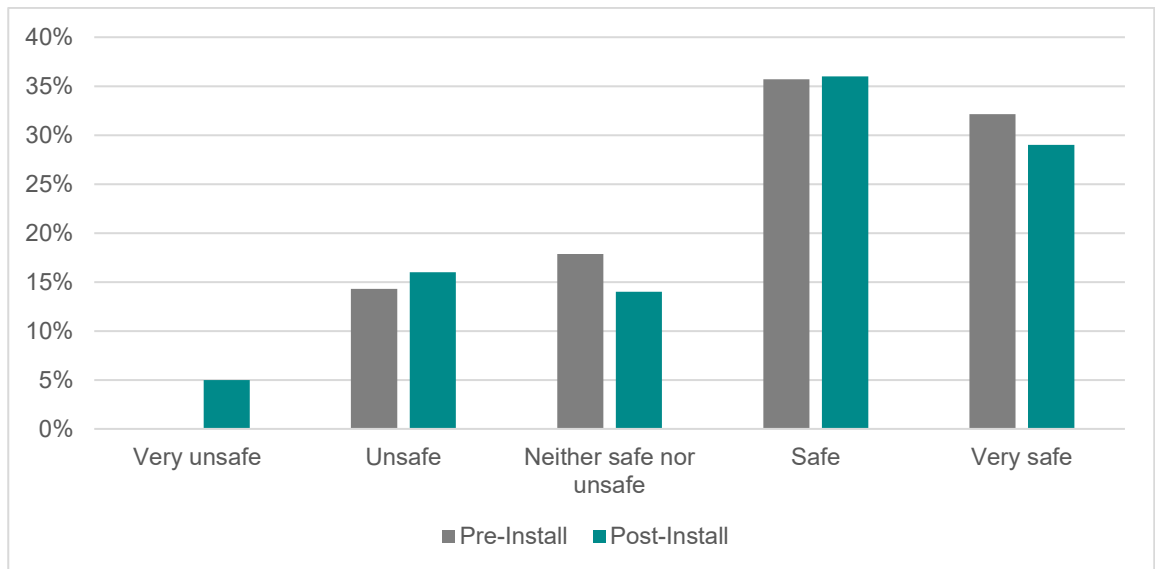
Achieving Project Goals

People driving were asked if the pilot project provided support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway. 62% of people driving transit on Yonge Street indicated agreed or strongly agreed that the pilot project met the project goals.

Overall, people driving on Yonge Street's perception of safety has slightly decreased with the pilot, however people are positive about the overall success of the pilot project. Findings are summarized in Exhibit 4.18.

Exhibit 4.18: Before and After Perceptions of People Driving on Yonge Street

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Perception of Safety	68%	65%	Slight decrease in the perception of safety
Perception of Pilot Achieving Goals	N/A	62%	62% agree or strongly agree that pilot project met goals

4.4.2   Number of People Driving

A combination of short-term turning movement counts and 7-day counts were conducted before and after the installation of the pilot project to assess impacts to the number of people driving in the ActiveTO Midtown Pilot corridor.

The impacts vary throughout the corridor, and by month, as shown in Exhibit 4.19.

Exhibit 4.19 Before and After Volume Counts

Locations	Weekday/Weekend	Pre-Install May 2021 (BEFORE)	Pilot July 2021 (AFTER)	Change May to July 2021	Pilot Oct 2021 (AFTER)	Change May to Oct 2021
Between Rosehill Avenue and Pleasant Boulevard (Both Directions)	Weekday	60908	42928	-29%	43135	-29%
	Weekend	22033	18205	-10%	18243	-10%
Between Collier Street and Scollard Street (Both Directions)	Weekday	39428	42825	+9%	NA	NA
	Weekend	14362	18184	+27%	NA	NA
Yonge Street North of Glen Elm Avenue	Weekday	82552	87960	+6%	84610	+2%
	Weekend	32173	30292	-6%	32348	+1%

There is evidence of some vehicle traffic diversion to Mount Pleasant Road and Avenue Road, as daily volumes on Yonge Street (measured just south of St. Clair Avenue) dropped by 30% and 17% on weekdays and weekends, respectively, while increasing on the alternate corridors by approximately 10% as shown in Exhibit 4.20. The reduction in the number of travel lanes and increased congestion may have contributed to traffic diversion.

Exhibit 4.20 Before and After Traffic Diversion Impacts

Locations	Weekday/Weekend	Pre-Install (BEFORE)	Pilot (AFTER)	Change
Avenue Road	Weekday	17700	19700	+11%
Yonge Street	Weekday	12200	8600	-30%
Mount Pleasant Road	Weekday	15200	16600	+9%
Avenue Road	Weekend	16600	18500	+11%
Yonge Street	Weekend	11000	9100	-17%
Mount Pleasant Road	Weekend	14100	14700	+4%

4.4.3 Travel Time

Travel times for motor vehicles on Yonge Street during the pilot study are slightly higher than pre-pandemic travel times (Fall 2019) as shown in Exhibit 4.21. Comparing Fall 2019 to Winter 2022 data, the change in travel times for the northbound direction ranged from +0.1 to +1.7 minutes with the largest change occurring during weekend midday. Change in travel times for the southbound direction ranged from -1.1 to +0.9 minutes. It is interesting to note the weekday AM peak experienced a reduction in southbound motor vehicle travel times.

It is important to note that the changes to travel times may not be entirely due to the ActiveTO Midtown pilot project. Travel times for motor vehicles on Yonge Street would be influenced by changes to vehicle volumes as public health restrictions evolved over time.

Exhibit 4.21 Before and After Travel Time – Northbound (Davisville Avenue to Bloor Street)

Period	Fall 2019 (mins)	Pre-Install May 2021 (BEFORE) (mins)	Pilot Jul/Aug 2021 (AFTER) (mins)	Pilot Sep/Oct 2021 (AFTER) (mins)	Pilot Nov/Dec 2021 (AFTER) (mins)	Pilot Jan/Feb 2022 (AFTER) (mins)	Change Fall 2019 to Winter 2022
Weekday – AM Peak	7.5	6.2	7.8	8.7	8	8	+0.5 mins (+6.6%)
Weekday – Midday	8.7	7.6	10.1	11.3	11.2	9.7	+1.0 mins (+12%)
Weekday – PM Peak	8.6	6.5	8.6	10	9.6	8.7	+0.1 mins (+1%)
Weekend – Midday	7.3	6.5	8.2	9.3	9	9	+1.7 mins (+23%)

Exhibit 4.22 Before and After Travel Time – Southbound (Davisville Avenue to Bloor Street)

Period	Fall 2019 (mins)	Pre-Install May 2021 (BEFORE) (mins)	Pilot Jul/Aug 2021 (AFTER) (mins)	Pilot Sep/Oct 2021 (AFTER) (mins)	Pilot Nov/Dec 2021 (AFTER) (mins)	Pilot Jan/Feb 2022 (AFTER) (mins)	Change Fall 2019 to Winter 2022
Weekday – AM Peak	9	7.1	7.2	8.1	8.1	7.9	-1.1 mins (-12%)
Weekday – Midday	9.2	8.2	9.5	10	10.3	9.3	+0.1 mins (+1%)
Weekday – PM Peak	8.4	6.7	8.2	8.8	8.9	8.6	+0.2 mins (+2%)
Weekend – Midday	7.8	7.5	8.0	8.8	8.9	8.7	+0.9 mins (+12%)

Comparison to Pre-Pandemic Travel Times

As noted, changes to travel times between Fall 2019 and January/February 2022 are conflated with changes to pandemic restrictions and overall traffic patterns. Comparisons between Fall 2019 and Winter 2022 travel times suggest the largest impact occurred for northbound traffic during midday periods on Yonge Street.

Signal Coordination & On-going Efforts

In reviewing the above results, it's important to acknowledge on-going work to improve operations along the corridor through the signal coordination work. The signal coordination efforts will help to reduce delays and improve travel times for peak-hour, peak direction traffic while maintaining priority for vulnerable road users.

4.4.4   Operating Speeds

Operating speeds capture the actual speed at which people drive along the corridor. The 85th percentile speed helps to determine what the posted speed limit should be, among other design factors. The 85th percentile speed is an important tool to determine operating speeds and adjust road design to limit speeding. The 85th percentile speed defines the speed that approximately $5/6$ people will travel at or below.

There has been a slight reduction in the 85th percentile operating speed of people driving by approximately 10% at few locations along Yonge Street during both summer and fall periods as shown in Exhibit 4.23. The reduction in speed is mainly observed at those segments where Active TO and Café TO were installed while at other locations, the 85th percentile of speed remains unchanged.

Given that the pilot project included the reduction of the posted speed along Yonge Street through the pilot area to 40km/hr, the City is targeting an operating speed of 40km /hr. Reducing the operating speeds closer to the posted speed, is considered to

reflect the City's Vision Zero Road Safety Plan goals. The highest observed speed on Yonge Street was 88 km/h, significantly higher than the posted speed limit, suggesting that further efforts to reduce travel speeds may be explored.

Exhibit 4.23: Before and After Travel Speed

Locations	Weekday/Weekend	Pre-Install May 2021 (BEFORE) (km/hr)	Pilot July 2021 (AFTER) (km/hr)	Change May to July 2021	Pilot Oct 2021 (AFTER) (km/hr)	Change May to Oct 2021
Between Rosehill Avenue and Pleasant Boulevard (Both Directions)	Weekday	48	43	-10%	43	-10%
	Weekend	48	43	-10%	43	-10%
Between Collier Street and Scollard Street (Both Directions)	Weekday	43	43	+0%	N/A	N/A
	Weekend	43	43	+0%	N/A	N/A
Yonge Street North of Glen Elm Avenue	Weekday	58	58	+0%	58	+0%
	Weekend	58	58	+0%	58	+0%

4.4.3   Summary of Results: Impact on People Driving

The ActiveTO Midtown pilot project had varied levels of effectiveness in minimizing the impact on people driving. The results of the impacts on people driving is displayed in Exhibit 4.24.

The public perception of safety among people driving slightly decreased as a result of the pilot project, whereas most respondents agreed that the pilot met the project goals. The pilot project had varied impact on the number of people driving and the operating speed of vehicles. The pilot project slightly increased the travel time for people driving.

As noted in Section 4.4.3, there is on-going work through signal coordination and design revisions to address current performance at key areas on the corridor.

Exhibit 4.24: Impact on People Driving Summary

Performance Measure	Description	Impact	Overall Outcome
Public Perception	Perception of Safety	-	Slight decrease in the perception of safety
Public Perception	Perception of Pilot Achieving Goals	+	62% agree or strongly agree that pilot project met goals

Performance Measure	Description	Impact	Overall Outcome
Number of People Driving	Traffic counts	=	±15% increase or decrease at few locations
Travel Time	Travel time of vehicles	-	0.8 minutes (+11%) and 0 minutes (+0%) average increase in travel time during weekdays and weekends for Northbound and Southbound traffic respectively.
Speed	Operating speed	=	-10% decrease at one location; minimal change for other segments.

+	Positive Impact
=	No Impact / Varies
-	Negative Impact

4.5   Impact on Local Businesses, Curbside Demands and Parking

Yonge Street through Midtown Toronto within the pilot project corridor contains four different business improvement areas and a variety of land uses with competing demands for the curbside. The pilot project aimed to support local businesses by attracting more people to the corridor, therefore increasing local economic benefits, managing curbside demand by allocating parking and loading areas, and accommodating CaféTO installations.

This section evaluates the pilot project based on the following indicators:

- Number of people utilizing the curbside and the amount of money spent at local businesses on Yonge Street based on intercept surveys;

- The number of parking spaces provided on Yonge Street;

- The changes in parking revenue on Yonge Street; and

- The number of CaféTO applications accommodated.

4.5.1   Public Perceptions

The public intercept survey conducted along Yonge Street measured the demand on the curbside and the impacts on local businesses.

The public perception survey measured the curbside demand by asking respondents what they were doing on Yonge Street that day. During the pre-install survey, 67% of respondents indicated they were on Yonge Street for a purpose related to a local business or resident (e.g. an appointment, food or drink, visiting friends or family). After the pilot installation, 87% of respondents indicated they were on Yonge Street for a purpose related to a local business or resident.

The public perception survey measured the typical amount of money the respondent spends in a typical month on Yonge Street After the pilot project was installed, respondents indicated they were spending more money on Yonge Street in a typical month (refer to Exhibit 4.25). There was an increase of 11% of respondents that were

typically spending between $100 and $999, whereas there was decrease of 11% that were spending less than $100 on Yonge Street

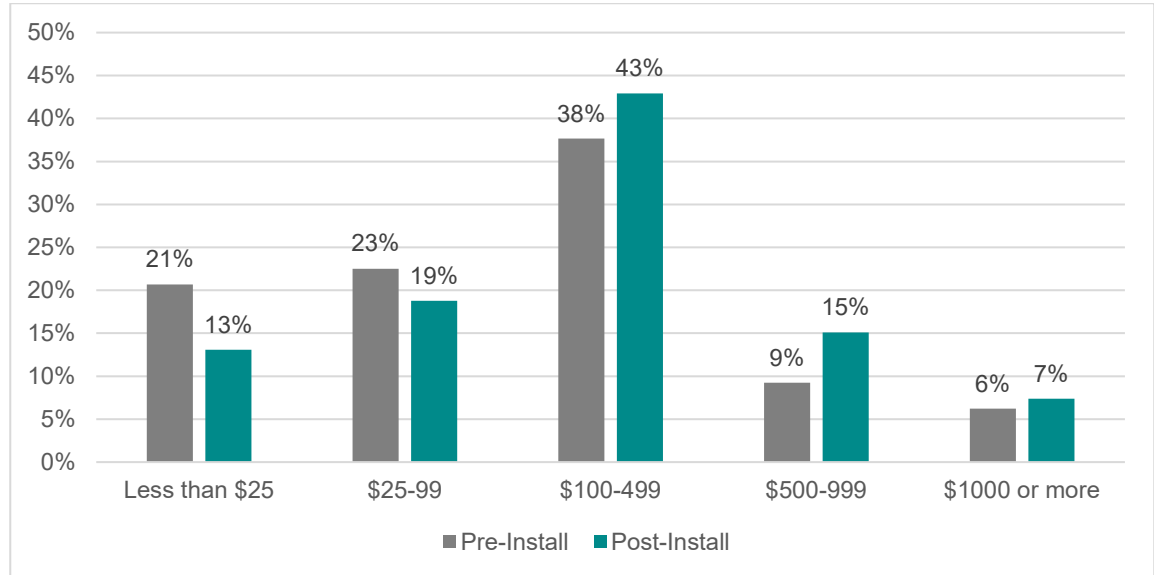**Exhibit 4.25: Typical Monthly Spend on Yonge Street**

Exhibit 4.26: Impacts on Curbside & Spending on Yonge Street

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
People visiting Yonge Street utilizing the curbside	67%	87%	+20% increase in the number of respondents utilizing the curbside
Amount of money spent in a typical month (between $100 and $499)	47%	58%	+11% increase in the amount of spending on Yonge Street

4.5.2   Parking Supply

Prior to the install of the pilot project, parking on Yonge Street was only available on Yonge Street, north of Glen Elm Avenue. Most of the parking supply in this area of the corridor was located between Glen Elm Avenue and Merton Street, adjacent to the Mount Pleasant Cemetery. There was an estimated parking supply of 144 spaces on Yonge Street based on the available curb length, assuming 6 metres per parking space.

As a result of the pilot project, parking between Merton Street and Davisville Avenue was reduced, resulting in losing an estimated 91 spaces. On-street parking adjacent to the Mount Pleasant Cemetery was limited to the east side of Yonge Street, reducing the overall parking supply between Glen Elm Avenue and Merton Street.

However, south of Glen Elm Avenue to Bloor Street saw an increase of 33 on-street parking spaces, bringing on-street parking to residents and local businesses that did not have on-street parking before.

When broken into segments, there was on-street parking on three segments of Yonge Street prior to the install of the pilot project. As a result of the pilot project, 11 segments

of Yonge Street had on-street parking, increasing the number of parking opportunities for local businesses and visitors. The 11 segments are identified in Exhibit 4.27 and the impacts on parking supply are summarized in Exhibit 4.28. Loading opportunities on public roadways are detailed in Appendix A.

Exhibit 4.27: Segments with On-Street Parking

Exhibit 4.28: Impacts on Parking Supply

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
Parking Supply – Glen Elm Avenue to Davisville Avenue	144	53	-91 parking spaces
Parking Supply – Bloor Street to Glen Elm Avenue	0	33	+33 parking spaces
Parking coverage (# of segments of Yonge Street with permitted on-street parking)	3 (Segments 1-3 per above)	11 (Segments 1-11 per above)	Increased number of parking opportunities

4.5.3   Parking Revenues

One of the direct financial implications of the pilot project is the change in parking revenues and revenue potential. As shown in Exhibit 4.29, during the post-installation period the total number of paid parking spaces and revenue increased by 53% and 167% respectively. The increase in parking revenue can be attributed to an increase in number of paid parking opportunities for people driving to the ActiveTO Midtown pilot corridor.

The change in revenue needs to be situated in the context of overall impacts of COVID-19 on parking revenues across the City of Toronto, as discussed in Section 2. Revenue / stall of $360 represents a decline of about 77% from December 2019 revenues (pre-pandemic) per stall along Yonge Street.

Exhibit 4.29: Before and After TPA Parking Revenues

Period	PRE-INSTALL DECEMBER 2020 (BEFORE)	PILOT DECEMBER 2021 (AFTER)	Change
Number of Spaces	21	105	+400%
Total Revenue	$14,175	$37,800	+167%
Revenue/Stall	$675	$360	-47%

4.5.4 On-Street Loading Space

The pilot has impacted on-street loading operations, although the net outcome is difficult to assess.

Prior to the installation of the pilot project, there were no designated loading spaces between Davisville Avenue and Bloor Street. However, stopping in the curb lane was generally permitted outside of peak periods. By contrast, after the installation, designated full-time loading, accessible loading, and unofficial loading spaces were identified intermittently on both sides of the pilot project corridor, although the total length of space allocated to loading was reduced.

Given the variables of time of day and geography, it is difficult to draw meaningful comparisons of pre and post-installation loading impacts. The City continues to work with the business community to identify strategies to support loading where concerns have been identified.

4.5.5 CaféTO Accommodation

As a result of the pilot project, there were additional opportunities to accommodate more CaféTO applications compared to 2020. As seen in Exhibit 4.30, 26 CaféTO applications were accommodated in 2021, compared to 17 in 2020, representing a 53% increase.

While some of the increase in the number of CaféTO restaurants is likely related to the overall growing popularity and awareness of the program, it is also noted that the pilot project provided opportunities to add additional cafés in locations that were not possible in the pre-pilot configuration.

Exhibit 4.30: CaféTO Applications Accommodated

Performance Measure	Pre-Install (BEFORE)	Pilot (AFTER)	Overall Outcome
CaféTO Restaurants Accommodated (2020 vs. 2021)	17	26	53% increase in the number of accommodated CaféTO restaurants

4.5.6 Summary of Results: Impact on Local Businesses, Curbside Demands and Parking

The ActiveTO Midtown pilot project was successful in supporting local businesses, increasing the number of people utilizing the curb, increasing the parking coverage, and

increasing the number of CaféTO applications accommodated. The results of the impacts on local businesses, curbside demand, and parking is displayed in Exhibit 4.31.

The public perception survey indicated that there was an increase in the number of people utilizing the curb and an increase in the typical monthly spend on Yonge Street at local businesses. While the overall number of parking spaces decreased, the parking coverage increased, providing additional parking opportunities for other areas of the pilot corridor. As a result of the pilot project, additional CaféTO applications were able to be accommodated, due to the additional space available to restaurants on the street and/or sidewalk.

Exhibit 4.31: Impact of Local Businesses, Curbside Demand, and Parking Summary

Performance Measure	Description	Impact	Overall Outcome
Public Perception	People visiting Yonge Street utilizing the curbside	+	20% increase in the number of respondents utilizing the curbside
Public Perception	Amount of money spent in a typical month (between $100 and $499)	+	11% increase in the amount of spending on Yonge Street
Parking Supply	Number of parking spaces	-	-91 spaces north of Glen Elm Avenue and +33 spaces south of Glen Elm Avenue (total loss of 58 parking spaces)
Parking Coverage	Number of segments with permitted on-street parking	+	Increased number of parking opportunities for visitors throughout the corridor
Parking Revenues	Change in revenue	=	167% increase in total parking revenue, indicative of greater parking availability and options, however decline in per stall revenues
CaféTO Accommodation	Number of Applications and those accommodated	+	53% increase in the number of accommodated CaféTO restaurants

+ Positive Impact

= No Impact / Varies

- Negative Impact

4.6 Overall Impacts on Residents and Visitors

Yonge Street through Midtown Toronto is a vibrant community with many road users that have competing interests and different perceptions of safety. The public intercept survey measured the public's perception of the pilot project.

This section evaluates the pilot project based on the following indicators:

- Public perceptions of safety for all survey respondents based on intercept surveys, regardless of travel mode; and

- Public perceptions of whether the pilot met the overall project goals based on intercept surveys, regardless of travel mode.

4.6.1 Overall Public Perceptions

Safety

People travelling on Yonge Street were asked how safe they felt. Prior to the install of the pilot project, 70% of respondents indicated that Yonge Street was safe or very safe. After the install of the pilot project, 73% of the respondents indicated that Yonge Street was very safe, indicating a slight increase in the perception of safety across all modes of travel as seen in Exhibit 4.32.

Exhibit 4.32: All respondents Perception of Safety
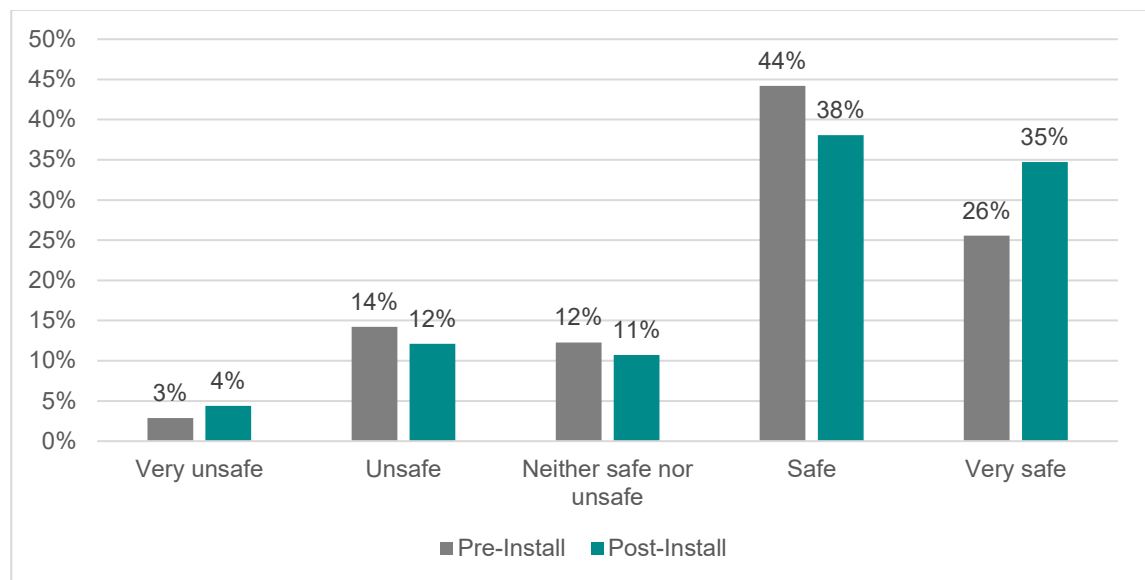
Achieving Project Goals

All respondents were asked if the pilot project provided support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway. 72% of all respondents agreed or strongly agreed that the pilot project met the project goals. Overall, respondents are positive about the overall success of the pilot project.

4.6.2   Summary of Results: Overall Impacts on Residents and Visitors

The summary of the overall impacts is displayed in Exhibit 4.33. The public perception of safety among all respondents slightly improved as a result of the pilot project. Most respondents agreed that the pilot met the project goals.

Exhibit 4.33: Overall Impacts on Residents and Visitors Summary

Performance Measure	Description	Impact	Overall Outcome
Public Perception	Perception of Safety	+	+3% increase
Public Perception	Perception of Pilot Achieving Goals	+	72% agree or strongly agree that pilot project met goals

+   Positive Impact

=   No Impact / Varies

-    Negative Impact

4.7   Overall Summary of Performance Measures

An overall summary of the performance measures in this study is shown in Exhibit 4.34.

Exhibit 4.34: Summary of Performance Measures

Performance Measure	Description	Impact	Overall Outcome
Indicator 1: Impact on People Walking & The Public Realm			
Public Perception	Perception of Accessibility	+	+42% much more or slightly more accessible
Public Perception	Perception of Safety	+	+10% increase
Public Perception	Perception of Pilot Achieving Goals	+	76% agree or strongly agree that pilot project met goals
Experience of People Walking	Pedestrian Level of Service	+	+7 pt. increase in level of service across four key locations
Number of People Walking	Counts of People Walking	+	+56% increase during summer and +11% increase during fall period.
Safety	Crossing Distance (Proxy for exposure to conflicts)	+	30% reduction in crossing distance across 9 crosswalks
Safety	Signalized intersection within	+	28% increase in LPI implementation

Performance Measure	Description	Impact	Overall Outcome
	study area with LPIs (percent)		
Indicator 2: Impact on People Cycling			
Public Perception	Perception of Safety	+	+41% increase
Public Perception	Perception of Pilot Achieving Goals	+	80% agree or strongly agree that pilot project met goals
Cycling Experience	Cycling Level of Service	+	+34 pt. increase in level of service across four key locations
Number of People Cycling	Cycling Counts	+	+111% average increase during summer and +75% average increase during fall weekday period. +87% average increase during summer and +38% average increase during fall weekend period.
Safety	Exposure to Conflicts	+	Provision of dedicated bicycle facilities and associated design features to improve bicycle right-of-way and priority
Indicator 3: Impact on People Taking Transit			
Public Perception	Perception of Safety	=	No change
Public Perception	Perception of Pilot Achieving Goals	+	69% agree or strongly agree that pilot project met goals
Transit Travel Time	Average travel time for TTC Route 97	=	Reduction in northbound travel time Increase in southbound travel time
Wheel-trans Trips & Accommodation	Number of trips	-	-24% reduction in total number of average monthly trips
Indicator 4: Impact on People Driving			
Public Perception	Perception of Safety	-	Slight decrease in the perception of safety
Public Perception	Perception of Pilot Achieving Goals	+	62% agree or strongly agree that pilot project met goals
Number of People Driving	Traffic counts	=	±15% increase or decrease at few segments.
Travel Time	Travel time of vehicles	-	0.8 minutes (+11%) and 0 minutes (+0%) average increase in travel time during weekdays and weekends for Northbound and Southbound traffic respectively.

Performance Measure	Description	Impact	Overall Outcome
Speed	Operating speed	=	-10% decrease in travel time at one location while no change in speed at other segments
Indicator 5: Impact on Local Business, Curbside Demands & Parking			
Public Perception	People visiting Yonge Street Utilizing the curbside	+	20% increase in the number of respondents utilizing the curbside
Public Perception	Amount of money spent in a typical month (between $100 and $499)	+	11% increase in the amount of spending on Yonge Street
Parking Supply	Number of parking spaces	-	-91 spaces north of Glen Elm Avenue and +33 spaces south of Glen Elm Avenue (total loss of 58 parking spaces)
Parking Coverage	Number of segments with permitted on-street parking	+	Increased number of parking opportunities for visitors
Parking Revenues	Change in revenue	=	167% increase in total parking revenue, indicative of greater parking availability and options, however decline in per stall revenues
CaféTO Accommodation	Number of Applications and those accommodated	+	53% increase in the number of accommodated CaféTO restaurants
Indicator 6: Overall Impacts on Residents & Visitors			
Public Perception	Perception of Safety	+	+3% increase overall
Public Perception	Perception of Pilot Achieving Goals	+	72% agree or strongly agree that pilot project met goals

+ Positive Impact

= No Impact / Varies

- Negative Impact

5   Summary of Findings

The ActiveTO Midtown Complete Street pilot resulted in the installation of cycle tracks, with on-street patios, road safety improvements and traffic-calming measures. This study evaluated the overall impacts of the pilot project considering a variety of indicators and performance measures to identify how well the pilot project has fulfilled the project goals.

Key findings of the before and after study are summarized against the study goals in Exhibit 5.1.

Exhibit 5.1: Success of the Pilot against Project Goals

Project Goal	Representative Performance Measures	Commentary
Improved Road Safety	-Safety (Exposure to Conflicts) -Operating Speeds - Public Perception Survey Results (Safety)	There was a slight reduction in operating speeds along the corridor, which is anticipated to provide a safety benefit, although a more significant reduction in operating speeds along the full length of the pilot project would have been preferred. According to the public intercept survey completed after the installation of the bikeway, **73% of the respondents indicated that Yonge Street was safe or very safe, a slight increase from 70% prior to the installation**. It is not possible at this time to complete a fulsome evaluation of post-implementation collisions due to challenges with lead times associated with collision data collection, processing, and analysis. In lieu of a comparison of collision or conflict data, a qualitative assessment of the impacts to safety for people walking and cycling was completed by examining the potential safety impacts of the geometric and operational design features included in the design. **Many of the design elements included in the corridor have well-documented or speculative safety benefits (i.e. expansion of leading pedestrian intervals which are a proven safety countermeasure).**
Vibrant Accessible Streetscape (Create a Destination)	- CaféTO Accommodation Public Perception Survey Results (Accessibility, Curbside Demand)	Quantifying the vibrancy of a street is difficult, but there are performance measures that explore how visitors and residents interact with public spaces such as the number of CaféTO patios, the curbside demand, and accessibility. As a result of the pilot program, there was a **53% increase in the number of CaféTO patios accommodated compared to 2020, resulting in more destinations for visitors**. Respondents of the public intercept survey also indicated t**hey were visiting Yonge Street more often**, further supporting the goal of making Yonge Street a destination.
More Mobility Options	- Level of Service (Walking & Cycling) - Number of People Taking Transit - Number of Parking Spaces	The **overall level of service for walking and cycling improved significantly along the corridor,** suggesting that these modes are improved as mobility options. For people driving, the option remains, **however it is noted that travel times and congestion have increased along the corridor**. Yonge Street is a key corridor in the heart of Midtown Toronto with over 20,000 residents working in proximity to the pilot project area. Prior to the installation of the pilot project, there were few north-south cycling routes available. **The pilot project brings an all ages and abilities bikeway to the residents and people that work nearby.** There was a **significant increase in the on-street parking coverage,** bringing additional parking opportunities for visitors driving to Yonge Street Prior to the install of the pilot project, there were no parking spaces on Yonge Street south of Glen Elm Avenue, whereas there are now 33 spaces. It is difficult from data currently available to draw conclusions about impact on the transit operations.

Project Goal	Representative Performance Measures	Commentary
Social & Recreational Benefits	- CaféTO Accommodation - Public Perception Survey Results (Curbside Demand)	The pilot project resulted in an **increase in the number of opportunities for social and recreational activities, such as CaféTO patios for social gatherings or bikeways for exercise**. Respondents of the public intercept survey indicated they were **visiting Yonge Street more often for socially distanced gatherings** (e.g. food or drink), visiting friends or family, or for exercise. It is important to acknowledge that the COVID-19 public health restrictions in effect at different times throughout the study likely heavily influenced to what extent people were able to interact with others.
Local Economic Benefits	- Public Perception Survey Results (Spending Amounts) - TPA Parking Revenue	Respondents of the public intercept survey indicated they were **visiting Yonge Street more often, typically for an appointment, visiting a local business, or food or drink.** **Respondents also indicated they were spending more in a typical month on Yonge Street,** benefiting local businesses in the area. There was a **significant increase in parking revenue,** likely due to the increased number of paid parking opportunities throughout the corridor, specifically south of Glen Elm Avenue, where there were no paid parking spaces prior to the pilot project.
Environmental Benefits	- Number of People Walking - Number of People Cycling - Number of People Taking Transit - Number of People Driving	The pilot project generally resulted in **a decline in people driving and an overall increase in the number of people walking and cycling, resulting in a net positive impact in shifting people to sustainable modes**. It is more difficult from data currently available to draw conclusions about transit. Although not directly studied or assessed, it is important to acknowledge that an increase in congestion can lead to lower air quality associated with increased emissions. It is difficult to comment on the extent to which this impact may be mitigated by fewer people driving along the corridor overall.

Major takeaways from the analysis include:

- Impacts on people walking and cycling are generally highly positive. The results show an increase in the perceptions of safety, accessibility, support for the pilot goals, and level of service for people walking and cycling.

- It is difficult from data currently available to draw conclusion about transit. For this reason, TTC suggests an extension of the pilot period with further monitoring of the corridor as conditions returned to a sustained normal condition.

- Impacts on people driving are slightly negative, as there are increases in the travel time along the corridor.

- Impacts on local businesses are generally highly positive. The evaluation shows an increase in the number of people visiting and spending more money at local businesses. More restaurants were able to offer outdoor dining through the CaféTO program.

5.1   On-going Monitoring Needs

In order to better asses the overall effectiveness of the pilot project, it is recommended that the pilot remain in place for a longer period of time to allow for the collection of additional data. Data sources that will continue to be explored include: safety and collision-related data that become available over time and transit impacts, where data was not conclusive for this study. Routine counts will continue to be completed along the corridor to assess the longer-term changes to travel patterns and travel times, particularly after the signal coordination efforts have been fully implemented.

In addition to primarily quantitative data collection efforts, the City is committed to continuing to engage with residents and stakeholders regarding their lived experience and will work to adapt and modify the pilot project over time.