



## Wheel-Trans Transformation Program 2021 Update

Date: June 16, 2021  
To: TTC Board  
From: Chief Operating Officer

### Summary

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This report provides an update on the implementation of the Wheel-Trans 10-Year Strategy and highlights some of the significant achievements since the last update to the TTC Board in July 2020. The report outlines accomplishments, impacts and next steps, including operationalization of Family of Services (FOS), Travel Training, documentation of policies, construction of remaining Access Hubs and rollout of new technology. This report also provides an update to the comprehensive review of cross-boundary Wheel-Trans service for riders travelling outside and into the city of Toronto.

### Recommendations

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It is recommended that the TTC Board:

1. Forward a copy of this report to City Councillors for information.

### Financial Summary

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The Wheel-Trans Transformation Program (WTTTP) includes a wide range of activities ranging from technology and infrastructure investments to various service improvements, and as such, funding has been approved in both the TTC's 10-year Capital Plan and Operating Budget to implement this program.

A total of \$49.8 million in capital funding has been approved for the technology and infrastructure investments. With life-to-date spending of \$28.1 million (as at P12 2020), the 2021-2030 Capital Budget and Plan, approved by the TTC Board on December 21, 2020 and approved by City Council on February 18, 2021, includes \$21.7 million under program 3.9 Buildings and Structures, Wheel-Trans Transformation Program to complete the capital work program. The WTTTP formed part of the list of projects approved for the Federal Public Transportation Infrastructure Fund (PTIF) funding program, with the receipt of \$9.8 million in PTIF funding.

The WTTTP is expected to be on target with the Estimated Final Cost of \$49.8 million.

The 2021 Wheel-Trans Operating Budget, approved by the TTC Board on December 21, 2020 and City Council on February 18, 2021, includes \$0.3 million to support operational initiatives that are part of the WTTP, including customer re-registrations, the Travel Training program, public events and customer communications.

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

## **Equity/Accessibility Matters**

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The goal of the Wheel-Trans 10-Year Strategy is to help make the TTC more accessible, equitable, inclusive and sustainable for existing and future customers. Towards achieving that goal, and in compliance with the Integrated Accessibility Standards Regulation (IASR) under the Accessibility for Ontarians with Disabilities Act (AODA), Wheel-Trans service and eligibility criteria have been expanded to include any persons who have a disability that prevents them from consistently using conventional transit for all or part of their trip.

Moreover, the FOS delivery model integrates specialized service into the TTC's broader suite of accessible conventional transit services, providing Wheel-Trans customers with greater access, flexibility and spontaneity of travel options. While some customers will continue to require door-to-door Wheel-Trans service as their primary or sole means of travel, others can access a combination of services and support tools through the FOS model.

The TTC has consulted extensively with Wheel-Trans customers, members of the public, community organizations and other stakeholders, including the TTC's Advisory Committee on Accessible Transit (ACAT), to ensure the Wheel-Trans 10-Year Strategy transformation is carried out in a manner that is accessible and inclusive.

Work with regional service providers also continues for the purpose of ensuring the elimination of barriers for cross-boundary travel. A guiding principle of the AODA is to provide equitable access to services. The TTC wants to ensure that entering into a cost-share agreement is done equitably with all neighbouring regional transit service providers so that a consistent service level is available for all Wheel-Trans customers. All regional transit providers are committed to improving transfer locations, ensuring that they are safe and secure and that they support all transfers, including FOS transfers. This has been a priority for all accessible service providers through the work being done in the Greater Toronto and Hamilton Area (GTHA) Specialized Transit Working Group.

## **Decision History**

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In 2012, the Auditor General performed an Audit Work Plan, which included a review of Wheel-Trans operations with the objective to assess its effectiveness and efficiency, and identify areas of improvement.

[https://www.ttc.ca/About\\_the\\_TTC/Commission\\_reports\\_and\\_information/Commission\\_meetings/2012/December\\_19/Reports/Auditor\\_General's\\_Re.pdf](https://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2012/December_19/Reports/Auditor_General's_Re.pdf)

In February 2016, the Wheel-Trans 10-Year Strategy was first introduced and approved by the TTC Board.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2016/February 25/Reports/W-Trans 10 Year Strategy Update combined.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2016/February%2025/Reports/W-Trans%2010%20Year%20Strategy%20Update%20combined.pdf)

The TTC Board was provided with a TTC Wheel-Trans 10-Year Strategy progress update in September 2016, and approved changes to Wheel-Trans eligibility, the ACAT mandate, commencement of the FOS pilot, and the FOS migration plan for existing customers.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2016/September 28/Reports/4 Wheel-Trans 10-Year Strategy - September 2016 Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2016/September%2028/Reports/4%20Wheel-Trans%2010-Year%20Strategy%20-%20September%202016%20Update.pdf)

The 2017 Accessibility Plan status update was presented and approved by the TTC Board with the direction to have annual status updates on the progress of the Multi-Year Accessibility Plan, which includes the Wheel-Trans 10-Year Strategy and Transformation Program.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2017/April 20/Reports/9 2017 Accessibility Plan Status Report BR%2018389.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2017/April%2020/Reports/9%202017%20Accessibility%20Plan%20Status%20Report%20BR%2018389.pdf)

In April 2018 the TTC Board considered an update on the Wheel-Trans 10-Year Strategy. Subsequent updates were provided in May 2019 and July 2020.

April 2018 Update:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2018/April 11/Reports/5 Wheel-Trans 10-Year Strategy April 2018 Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2018/April%2011/Reports/5%20Wheel-Trans%2010-Year%20Strategy%20April%202018%20Update.pdf)

May 2019 Update:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/May 8/Reports/7 Wheel-Trans 10 Year Strategy May 2019 Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/May%208/Reports/7%20Wheel-Trans%2010%20Year%20Strategy%20May%202019%20Update.pdf)

July 2020 Update:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/July 14/Reports/4 Wheel Trans Transformation Program 2020 Update.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/July%2014/Reports/4%20Wheel%20Trans%20Transformation%20Program%202020%20Update.pdf)

In May 2019, the TTC Board considered the 2019-2023 TTC Multi-Year Accessibility Plan, which includes several Wheel-Trans 10-Year Strategy objectives. Further updates to the Accessibility Plan were considered by the TTC Board in July 2020 and May 2021.

2019-2023 TTC Multi-Year Accessibility Plan:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/May 8/Reports/6 2019-2023 TTC Multiyear Accessibility Plan.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/May%208/Reports/6%202019-2023%20TTC%20Multiyear%20Accessibility%20Plan.pdf)

2020 Accessibility Plan Status Update:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/July 14/Reports/6 2020 Accessibility Plan Status Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/July%2014/Reports/6%2020%20Accessibility%20Plan%20Status%20Update.pdf)

2021 Accessibility Plan Status Update:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2021/May 12/Reports/6 2021 Accessibility Plan Status Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2021/May%2012/Reports/6%2021%20Accessibility%20Plan%20Status%20Update.pdf)

The TTC Board, at its meeting on October 24, 2019, considered a report on the Wheel-Trans Cross-Border Travel Study.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/October 24/Reports/8 Wheel Trans Cross Border Travel Study.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/October%2024/Reports/8%20Wheel%20Trans%20Cross%20Border%20Travel%20Study.pdf)

## **Issue Background**

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In February 2016, staff summarized the underlying drivers for the Wheel-Trans 10-Year Strategy, and specifically laid out the changing eligibility requirements for specialized transit under the IASR, as well as the growing customer demand for improved transit service. This justified the development of a new on-demand service delivery model and the implementation of intermodal trip booking through a FOS program.

In September 2016, staff provided an update following months of customer, community and stakeholder consultations, which confirmed the need to implement the proposed approach. That Board report contained an overview of the newly scoped Wheel-Trans Transformation Program, intended to deliver the changes called for in the Wheel-Trans 10-Year Strategy. It outlined the importance of implementing eligibility changes mandated by the IASR before January 2017, expanding the composition and Terms of Reference of ACAT to support these changes, launching a FOS pilot and implementing the migration plan for existing customers.

Implementation of the technological, operational and infrastructure changes to transform Wheel-Trans began in 2017 and will continue through to 2026. Benefit realization will be achieved in conjunction with broader accessibility investments as they are completed; namely, the new accessible streetcars that replaced the remaining inaccessible legacy fleet (completed in 2019) and the Easier Access Program Phase III, which will render all TTC subway stations accessible by 2025.

## **Comments**

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### **The WTTP**

The WTTP was established to implement the Wheel-Trans 10-Year Strategy. The program was designed within the TTC's Project Management Framework for effective and transparent management of scope, schedule and budget. The TTC frequently

consults with ACAT on all facets of the WTTTP, gaining valuable feedback and ensuring that the changes being undertaken have all our customers in mind.

Since the last update was provided in July 2020, the TTC has achieved the following milestones:

- *Annual Public Update [Q3-Q4 2020]*
  - Held annual public update meeting virtually on July 27, 2020 to report on the progress of the 10-Year Wheel-Trans Strategy.
  - The presentation was published online on July 27, 2020 with a request for feedback. Wheel-Trans customers and the public were invited to engage and provide customer input.
  - Based on the feedback received, an FAQ was created and posted online.
- *ACAT [Q1-Q4 2020]*
  - Provided WTTTP updates at ACAT meetings and/or during subcommittee review meetings (in person until March 14, 2020, virtually for remainder of the year).
- *Access Hubs [Q1-Q4 2020]*
  - To support the Family of Services model, the TTC implemented a network of Access Hubs.
  - These are enhanced bus shelters that serve as transfer points between Wheel-Trans service and accessible conventional bus service.
  - The Access Hub project is now complete – construction and operationalization of 14 Access Hubs in nine locations was completed in 2020, bringing the total number of Access Hubs in service to 16 at 11 locations.
- *Contact Centre Review [Q3-Q4 2020]*
  - To improve the customer experience when booking a trip over the phone, the WTTTP included the Contact Centre Review project. This project explored various opportunities to improve response times for Reservations calls.
  - As part of completing this project, Wheel-Trans entered into a contractual relationship with Telus to obtain call overflow support for peak volumes to ensure that response times for Wheel-Trans customers are always within the Board-approved standard for Reservations calls of an average wait time of two minutes or less.
- *Technology Improvements [Q2/Q4 2020]*
  - Successfully launched Phase 2 of the Reservations, Scheduling and Dispatch (RSD) system upgrade in support of FOS and Conditional Trip Matching. Included in the Phase 2 launch was the Wheel-Trans Mobile App, which was introduced as a pilot.
  - Introduced new technology using the TTC's standard Customer Relationship Management system that allows customers to submit their Wheel-Trans applications through a web portal.
- *Fleet Replacement Planning [Q3-Q4 2020]*
  - In support of FOS, the WTTTP established the Fleet Replacement project to diversify its fleet mix to match new customer profiles, trip patterns and travel behaviour.

- As of the end of 2020, there were 128 Pro Master (six-metre) vehicles in service. These mini-buses are smaller, more fuel efficient and can easily access more destinations.
- The TTC also explored the option of a vehicle that would supplement the six-metre Pro Master mini-bus. In order to provide service efficiencies, the emphasis of the search requirements was to maintain a smaller-sized vehicle while increasing customer capacity.
- Through a joint procurement process with Metrolinx, a seven-metre demonstrator bus was obtained and a pilot was executed and successfully completed.
- *FOS [Q1-Q4 2020]*
  - Continued the process of FOS expansion and have established that 81 surface routes (bus and streetcar) are viable for use as FOS routes.
  - 42 of the 81 (52%) established surface routes were operational at the end of 2020.

The Program has faced the following challenges:

- *Customer Apprehension with Conditional Trip Matching*
  - The goal of Conditional Trip Matching is ensuring that customers always receive trip bookings that match their travelling capabilities based on their eligibility. That could be door-to-door or a drop-off/pick-up at a subway station or bus/streetcar stop.
  - To support the successful adoption of FOS by our customers, we created an initiative to provide Travel Training to any customer who may feel apprehensive about using the TTC's accessible conventional services. We have received very positive feedback from customers who have completed Travel Training sessions.
  - In 2020, we continued to offer Travel Training (in person until March, virtually for remainder of the year) to our Wheel-Trans customers that will be using the accessible conventional system.
  - Of the Wheel-Trans customer who received travel training, 68% were over the age of 60.
- *Reservations, Scheduling and Dispatch (RSD) system upgrade*
  - As the second phase of the RSD project was tracking late in 2019, the initiative underwent a program reset, which included a decision to pause Phases 5 to 8. The decision to pause allows the TTC to ensure that the scope and requirements that were defined in 2016 are still valid and beneficial in today's operating climate.
  - Looking ahead past the initial first four phases of the Wheel-Trans RSD project, we will be re-evaluating the requirements for future phases.
  - Procurement is currently underway for a transit specialist consulting firm to conduct an assessment and provide a recommendation for those future phases.
  - We plan to award the procurement by Q3 2021 and complete the assessment by Q4 2021.

- Once the assessment is completed and the recommendations are accepted, new technology projects under the WTTP will be established.
- *COVID-19 impact to WTTP*
  - Since the onset of the COVID-19 pandemic, a number of operational changes have been made to ensure the safety of our customers. For example, only providing solo-rides to limit potential exposure to the virus for both customers and staff.
  - This resulted in deferring the implementation of Conditional Trip Matching and Re-registration in order to minimize the number of changes our customers were experiencing during these unprecedented times.
  - As with all other areas of the TTC, Wheel-Trans employees have been mandated to work from home if able to do so. This includes Reservations and Customer Service employees.

By the end of this year, several critical goals will be accomplished:

- *FOS*
  - Additional surface routes will be added to the scheduling system to accommodate FOS trips. The target is to have 80% of the established surface routes in service by the end of 2021.
- *Conditional Trip Matching and Customer Re-Registration*
  - Customer surveys, along with guidance from Toronto Public Health, will inform the timing of a move to Conditional Trip Matching. This will be evaluated in Q3 2021.
- *Reservations, Scheduling, and Dispatch*
  - The Wheel-Trans Mobile App pilot will continue, along with completing Phase 4 of the scheduling system redesign.

The above accomplishments, impacts and goals will be shared at upcoming public meetings where the public will be provided the latest information and given the opportunity to provide feedback on important topics, such as customer re-registration and conditional trip matching.

The appendices provide further detail on what was accomplished and the next steps required to effectively implement the Wheel-Trans 10-Year Strategy.

### **Cross-Boundary Travel Initiatives**

Due to the pandemic, cross-boundary service focused on ensuring all trips were completed in a safe and timely manner. With the closure of businesses and the requirement for physical distancing at other public facilities, transfer points were condensed to locations managed by the service providers. Prior to the pandemic, there were 11 established transfer points. This has been reduced to six transfer points, which use two subway stations and four of the TTC Access Hubs.

During reduced service, cross-boundary travel represented less than one per cent of all trips provided by Wheel-Trans, with 8,200 trips to and from these transfer points.

Throughout the pandemic, the GTHA Specialized Transit Working Group has been meeting weekly over the past year and has committed to continue these weekly meetings throughout the pandemic in order to ensure consistent and safe service levels.

The TTC has completed Stage One of the future full integration of trip booking services. There have been recent software upgrades in the Scheduling and Dispatching software that allows a customer to calculate the full trip time while scheduling the portion within Toronto. The trip will take the rider to the most efficient transfer point and will provide contact information and trip details to allow them to book the balance of the trip with the other service provider. This is the first of many stages of software development that will provide the customer with the ability to book an entire trip at once.

The TTC, regional transit providers and the GTHA Specialized Transit Working Group have continued to work together on other projects as follows:

- Engaged the University of Toronto in discussions around expansion and enhancement of the transit terminal at the Scarborough Campus for regional and FOS transfers between the TTC and Durham Regional Transit – further development delayed due to the pandemic.
- Used the TTC Access Hubs as cross-boundary transfer locations during the pandemic.
- A regional video project on cross-boundary travel has been postponed. Preliminary work on this initiative is complete, with filming to occur post pandemic.
- Developed how-to guides on accessible travel within the GTHA. The guides are available in print and online for all regional transit providers and in an accessible format for customers – printing and circulation delayed as some content may not be relevant/accurate due to changes in operating procedures in response to the pandemic.
- Continue to collaborate with Accessible Committees, including ACAT, and the GTHA Accessible Advisory Committees in order to address customer needs in a consistent manner.

The TTC continues to maintain active partnerships with regional GTHA specialized transit service providers in furthering our common objectives of reducing wait times and improving transfer locations. This supports the continued collaborative approach to develop new and innovative ways to provide a fair, accessible and equitable service to all customers requesting cross-boundary travel to and from Toronto.

## **Next Update**

Significant work was completed to advance the Wheel-Trans 10-Year Strategy in 2020 and will continue through 2021 and beyond. This report has summarized many of these successes and also laid out some of the key upcoming activities to be undertaken over the next year.



The TTC expects to return to the Board and provide an update on the Wheel-Trans 10-Year Strategy and Cross-Boundary initiatives in Q2 2022, which will cover:

- FOS status;
- Impacts on customers and operations related to Conditional Trip Matching, re-registration and other policy changes;
- Status of the technology modernization efforts; and
- Collaboration initiatives to improve cross-boundary travel.

## **Contact**

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Dwayne Geddes  
Head – Wheel-Trans  
416-393-3095  
dwayne.geddes@ttc.ca

## **Signature**

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Jim Ross  
Chief Operating Officer

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## Attachments

Appendices	Summary
Appendix 1 – Eligibility Definitions	<ul style="list-style-type: none"> <li>• Unconditional, conditional, temporary</li> </ul>
Appendix 2 – Family of Services	<ul style="list-style-type: none"> <li>• Project objectives</li> <li>• Lessons learned: stakeholder engagement, travel training, route planning, service integration, customer experience</li> <li>• Improvements are recommended in the areas of IT, training, route expansion, conditional trip matching and re-registration</li> </ul>
Appendix 3 – Contact Centre Review – Telus Performance to date	<ul style="list-style-type: none"> <li>• Call overflow contract implemented on November 22, 2020</li> <li>• Call abandonment rate decreased to 3.2% from 26%</li> <li>• Average call wait time decreased to 1m58s from 9m22s</li> </ul>
Appendix 4 – A New Customer Experience	<ul style="list-style-type: none"> <li>• 20 new policies implemented</li> <li>• Eligibility re-defined with re-registration initiated</li> <li>• FOS and CTM</li> </ul>
Appendix 5 – Travel Training	<ul style="list-style-type: none"> <li>• 2018 pilot: 251 customers participated</li> <li>• 2019: 388 customers participated</li> <li>• 2020: 35 in person and 92 remotely</li> <li>• Travel training handbook and brochure were updated in 2020</li> </ul>
Appendix 6 – Changes to Eligibility	<ul style="list-style-type: none"> <li>• 2019: 11,429 applications processed</li> <li>• 2020: 7,325 applications processed</li> </ul>
Appendix 7 – Access Hubs	<ul style="list-style-type: none"> <li>• 14 deployed in 2020, 16 operational</li> <li>• Access hub locations</li> </ul>
Appendix 8 – Wheel-Trans Policy Updates	<ul style="list-style-type: none"> <li>• Wheel-Trans Severe Weather Policy was slightly adjusted in late 2020 to ensure that all Family of Services trips are automatically converted to Door-to-Door trips</li> </ul>
Appendix 9 – Community Bus Enhancements	<ul style="list-style-type: none"> <li>• 2 routes expanded in 2017</li> <li>• More Board-approved changes planned for September 2021</li> </ul>

<b>Appendices</b>	<b>Summary</b>
Appendix 10 – Fleet Replacement	<ul style="list-style-type: none"> <li>• 2018: 128 Pro Master vehicles in service</li> <li>• 2020: Metrolinx awarded a contract to Creative Carriage for the development of the 7m Pro Master vehicle as part of the Provincial joint procurement process               <ul style="list-style-type: none"> <li>○ Vehicle was reviewed by JHSC and ACAT</li> </ul> </li> </ul>
Appendix 11 – Technology Modernization	<ul style="list-style-type: none"> <li>• Customer Relationship Management (CRM) System</li> <li>• Reservations, Scheduling and Dispatch System</li> <li>• Reporting and Analytics System</li> </ul>
Appendix 12 – Reservations, Scheduling and Dispatch System Upgrade Project	<ul style="list-style-type: none"> <li>• Project background and timelines</li> <li>• Customer benefits</li> </ul>
Appendix 13 – COVID-19 Impact to Wheel-Trans	<ul style="list-style-type: none"> <li>• Operational changes since the onset of the pandemic</li> </ul>

## Appendix 1 – Eligibility Definitions

In accordance with the *Integrated Accessibility Standards Regulation (IASR)* under the *Accessibility for Ontarians with Disabilities Act (AODA)*, there are three levels of eligibility:

1. **Unconditional service** for customers who have a disability that always prevents them from using the TTC's accessible conventional services. These customers will require door-to-door service for all of their trips.
2. **Conditional service** for customers who have a disability that limits their ability to consistently use the TTC's accessible conventional services. These customers may be able to use conventional transit for all or part of a trip, but may also qualify for door-to-door service under specific circumstances (e.g. weather, travelling to an inaccessible location).
3. **Temporary service** is provided to customers who have a temporary disability that prevents them from using the TTC's accessible conventional services. Customers will be provided Wheel-Trans for all or part of a trip for a defined period of time (e.g. following an injury or surgery).

## **Appendix 2 – Family of Services**

Integrating Wheel-Trans door-to-door service with the TTC's accessible conventional services is the cornerstone of the Wheel-Trans 10-Year Strategy and was enabled by the eligibility changes enacted on January 1, 2017 (see Appendix 4 for more details on changes to eligibility). Termed Family of Services (FOS), it involves inter-modal trip bookings and travel by customers between Wheel-Trans service and accessible conventional services.

To facilitate the necessary operational changes, as well as ensure customers were fully involved in the changes, the TTC conducted a FOS pilot from May 2017 to April 30, 2018 (see below for pilot project objectives and lessons learned). The purpose was to gradually test service integration and to assess operational and process requirements needed to make full integration successful. Pursuant to the FOS pilot, Wheel-Trans customer volunteers were recruited to take FOS trips. Customers who qualified with conditional eligibility for Wheel-Trans service (e.g. can use the conventional TTC service when their conditions related to physical, sensory, cognitive or mental health disabilities are not present) were asked by staff if they were interested in scheduling this type of trip.

The TTC analyzed subway stations and bus stops to assess their accessibility features for the FOS service model and hired a consultant to complete an audit of accessible subway stations and bus stops along the pilot routes. This FOS pilot was conducted from a Wheel-Trans customer's perspective and served to evaluate the compliance of these stations and stops as defined by the IASR.

### **Project Objectives**

The FOS pilot was conducted in phases in order to gradually introduce customer pick-ups and drop-offs from Wheel-Trans vehicles to the TTC accessible conventional network starting with subway stops and then progressing to bus stops. The FOS pilot simultaneously allowed the TTC to: 1) work through any challenges or impediments related to service integration and delivery; and 2) develop a Wheel-Trans customer base that can serve as ambassadors of the FOS program. Next steps have been identified and a post-pilot business implementation plan has been developed.

During the FOS pilot, we focused on five bus routes (45 stops) and those subway stations that were accessible at the time (45 in total).

As of March 2021, we now can offer 42 bus and streetcar routes and 312 transfer stops. By summer 2021, we will be closer to 74 routes and 550 stops.

### **Lessons Learned**

To date, the FOS pilot has yielded five very important lessons learned that must be addressed to enable widespread adoption of FOS:

## **1. Employee and Stakeholder Engagement**

The goal of employee engagement during the FOS pilot was to support those riders impacted as they move from the transition stage of awareness to adoption of the change, while minimizing negative impact on the stakeholders and the organization. The employee engagement strategy used throughout the FOS pilot focused on key areas of change, communications, training and benefits measurement. It definitely proved successful in allowing the TTC to work through any challenges or impediments related to service integration and delivery, but fell a little short in gaining support from employees on the overall benefit of FOS to them or to the customers they assisted. Some employees (Operators, Reservationists, Customer Service, Dispatch and Service Support) struggled with the concept of moving away from the delivery of a door-to-door service to one whereby customers would be encouraged to transfer onto the conventional service.

A major challenge faced during the FOS pilot was to ensure that employees, Wheel-Trans customers and more broadly, members of the public were aware and well-informed about the FOS pilot. It is anticipated that going forward, educating transit riders about the role they play in creating a barrier-free TTC environment and experience for seniors and persons with disabilities will be equally challenging. During the FOS pilot, it was learned that it is important to update stakeholders in advance of every change, and then to follow-up within a few weeks of implementation to remind stakeholders of the service change or expectations. Equally important, however, is the method of communication (small group engagement, supported with e-mails and hard copy materials, all in accessible formats), as no one medium alone is sufficient to capture the attention of all internal and external stakeholders.

## **2. Training**

One of the major challenges experienced during the FOS pilot was that the current scheduling and dispatch system was not capable of booking and scheduling multi-regional or FOS (multi-modal) trips. Under the FOS pilot, multi-modal trips were scheduled manually by Reservationists using multiple standalone tools, such as Triplinx, Google Maps, and an in-house created excel spreadsheet template. Scheduling and keeping track of all employees attending the multiple training and re-training sessions held throughout the FOS pilot proved to be extremely challenging for all departments and the program team. A balance always needed to be struck between releasing employees for training, while maintaining appropriate staffing levels to properly service customers. Adding to this challenge was the fact that there was not always a training facility available during the hours of every shift. It was also evident that peer-to-peer training was not consistent, which often meant that some employees required re-training. In addition, it was observed that providing employees with comprehensive training, preferably in a small group setting, augmented by a detailed training manual is critical when introducing new processes associated with FOS, such as multi-modal trip scheduling and monitoring. The training should include realistic scenarios that allow employees to practice in a safe and supportive environment. It was also very evident throughout the FOS pilot that employees have different abilities and learning styles, so offering remedial one-on-one training after the initial session is also crucial for overall information retention across the department.

### **3. Route Planning**

The original intent of the FOS pilot was to identify and use different types of conventional service bus stops to determine which one better supported integration with Wheel-Trans service (e.g. near-side vs far-side stops, wider bus bays, etc.). However, the lack of demand for this type of transfer did not allow for a thorough assessment of each type of conventional stop.

### **4. Integration with the Conventional Fixed-Route Service**

In addition to Wheel-Trans employees, other TTC departments play a vital role in the customers' journey and overall experience. The FOS pilot period was an opportunity to demonstrate how the needs of customers who are registered with Wheel-Trans need to be taken into consideration by the TTC as a whole. It was also evident that in order for the FOS pilot to be successful, the TTC's Service Delivery, Operations and Training and Development departments have to be engaged and their collective goals in alignment.

### **5. Customer Experience**

Customer experience proved to be a major component of the FOS pilot. The FOS pilot setting allowed the TTC to refine the FOS delivery model in collaboration with its customers so that it provides maximum opportunity for customers to safely and spontaneously travel across the city with dignity and freedom of travel. Changing or influencing customers' behaviours/habits when it comes to their transit choices proved to be extremely challenging and requires not only a multifaceted approach, but also frequent and consistent messaging. During the FOS pilot, this was difficult to achieve, which may partially explain the reason why we did not achieve as many FOS trip bookings as we had forecasted.

## **Recommendations**

Based on the lessons learned throughout the FOS pilot and in order to ensure a successful implementation and adoption of FOS across the TTC, among customers and other external stakeholders, the following changes and improvements are recommended in the areas of information technology (IT), training, route expansion, conditional trip matching and re-registration:

### **IT**

The Reservations, Scheduling and Dispatch (RSD) system upgrades will continue to be rolled out to support automated trip booking of FOS trips. In March 2020, changes were required due to the effect of COVID-19, and the Self-Booking website was modified as well as the scheduling system to only schedule "solo rides". Screening questions were implemented for occasional one-time trips and regular re-occurring trips, such as dialysis, can only be booked by calling the Reservations office. In June 2020, Phase 2 was implemented, which included a number of improvements to the Self-Booking website. This included the ability for customers to reset their passwords, list their cancelled trips in their Trip History, an option to hide the map and screen design improvements. The Mobile App Pilot (ability to book, cancel, modify trips, set up notifications, see where vehicle is) was also launched with Phase 2. The RSD system upgrades will continue to be rolled out to support automated trip booking of FOS trips.

- As of Phase 1 (December 2018) FOS trips solutions were automatically generated by the Wheel-Trans RSD system.
- As of Phase 2 (June 2020) the system can support Conditional Trip Matching or mandatory FOS.
- During Phase 3, we will be incorporating “walking” non-transfer stops into FOS trip solutions to reduce the reliance on Wheel-Trans service when an origin or destination is within 350 metres of one of these stops.

## **Training**

Wheel-Trans employees will continue to receive training with all new phases as they are delivered. Wheel-Trans employees will need to be adequately trained in order to optimally use the changes in IT. Robust training was introduced prior to the launch of Phases 1-3.

## **Future Route Expansion**

A working group consisting of expertise from Strategy and Service Planning, Wheel-Trans Operations, Bus Transportation, Wheel-Trans Transportation and Streetcar Transportation has been created to identify appropriate routes and transfer stops that can be used for FOS transfers. Phase 1 consisted of five routes and some 25 stops; Phase 2 had 42 routes and 312 stops; Phase 3 will eventually grow to 74 routes and 550 transfer stops.

## **Conditional Trip Matching Based on Customer Eligibility**

With the implementation of Phase 2 of the IT Wheel-Trans Scheduling and Dispatch project in June 2020, the Self-Booking website will be upgraded and allow customers with conditional eligibility to be assigned a FOS trip when their condition is not present. However, given the restrictions of operating Wheel-Trans during the COVID-19 pandemic (e.g. one passenger per ride), it is anticipated that the earliest this feature could be turned on would be Q3 2021.

## **Re-registration of Customers registered for Service Pre-January 1, 2017**

As detailed in Recommendation 4 of the September 2016 Board report update, and in order to comply with IASR requirements, the eligibility review strategy for the migration of existing customers (registered prior to January 1, 2017) has been finalized and the customer re-registration process is well underway with more than 6,500 customers voluntarily re-registering.



## FOS Route Expansion Strategy

Waves	Implemented/Target	Approx.# of conventional bus/streetcar routes	Approx. # of bus/streetcar/subway transfer Stops
Pilot	May 2017	5	90
Waves 1-4	June 2020	42	310
Wave 5	May 2021	60	450
Wave 6	Nov 2021	74	550

This table shows the waves (components) of the FOS expansion strategy along with the implementation/target date and the approximate number of conventional bus/streetcar routes and approximate number of bus/streetcar/subway transfer stops. The first wave was the pilot, which was implemented in May 2017, and added five routes and 90 stops. The second wave included Waves 1 through 4, which was implemented in June 2020, and increased the totals to 42 routes and 310 stops. The third wave includes Wave 5, which was implemented in May 2021, and increases the totals to 60 routes and 450 stops. The final wave includes Wave 6, which will be implemented in November 2021, and will increase the totals to 74 routes and 550 stops.

### Summary

- Service must be expanded to create a more robust FOS network.** Wheel-Trans customers travel to all parts of the city, requiring a vast FOS network to suit their trip patterns. This will involve expanding to more accessible conventional bus routes and the accessible streetcar network. Also, as subway stations become accessible, they are added to the FOS network. As of Q2 2021, authorized Wheel-Trans sedan taxis under contract to the TTC will be permitted to enter accessible stations to pick up and drop off customers at the designated Wheel-Trans stops, along with Wheel-Trans buses and contracted taxi accessible minivans. This will vastly improve scheduling flexibility and trip availability for FOS trips and benefit customers by integrating them into the accessible conventional TTC network.
- Customers are unsure about how to use the conventional system or don't understand the services available.** Although this was heard through various feedback mechanisms, customer feedback shows that once customers try FOS, many are very satisfied with the service. We will continue to engage our customers with conditional eligibility (through Customer Service inquiries, Annual Public

meetings and through ACAT) by offering FOS trip options and educating them on the available support tools. These tools include the reservations line, priority line, trained staff on buses and at subway stations. In addition, we will continue to offer Travel Training to support customers as they transition onto the conventional system. Training options include remote training over the phone, small group sessions at accessible subway stations, or customized one-on-one route training. Various training options allows for customers to select the training and learning style that meets their individual needs (see Appendix 5 for more details).

- **Automated multi-modal trip-booking is required.** The TTC introduced an automated booking tool, the Self-Booking website, in December 2018, which was upgraded in June 2020 and January 2021.
- **Customers are choosing to change their travel habits as we make it easier to travel on all modes.** A fall 2018 survey and a winter 2019 survey both indicate that Wheel-Trans customers are self-selecting to take a fully diverted trip (no Wheel-Trans component). A third survey from winter 2020 was cut short by the pandemic, but results from prior to the pandemic indicated more customers were self-selecting.

### Appendix 3 – Contact Centre Review – Telus Performance to date

On November 22, 2020, we successfully implemented our soft launch of the Wheel-Trans Reservations Overflow Contract after completing rigorous testing of the call transfer solution along with development of Standard Operating Procedures (SOP), recruitment, training and internal employee engagement. The Overflow Contract was considered a soft launch as we wanted to still provide some on-the-job coaching, periodic call reviews and SOP adherence auditing on a more frequent basis. During the soft launch, the overflow threshold was set at five minutes and provided time for the TTC and TELUS to review progress/performance indicators, listen to calls and collaborate on areas/techniques for improvement. On December 13, 2020, after a successful soft launch period, we implemented a full launch of the call transfer solution. This allowed more calls to be routed to the overflow with TELUS answering approximately 20% of Reservations calls.

Wheel-Trans Reservations had an abandonment rate of **26%** and an average wait time of **9m22s** (nine minutes and twenty-two seconds) prior to the launch of the Overflow Contract in November. Since we launched, we have seen a significant improvement in the Abandonment Rate as we have achieved an average abandonment rate of **3.2%** in the first three full months of the contract. This low of an Abandonment Rate has never been seen in Wheel-Trans Reservations since the inception of call stats tracking. Additionally, our Average Wait Time has been **1m58s** (one minute and 58 seconds) on average over the first three full months of the contract, which is under our new Board-approved two-minute target.

Overall, we are happy to report a smooth transition and implementation of the Overflow Contract. The vendor has been performing well in most areas and we expect performance to improve as we continue to strengthen our partnership. As we continue through these unprecedented times, this flexible and scalable overflow solution will assist us in meeting the ever-changing demands of our customers.

## Appendix 4 – A New Customer Experience

The Wheel-Trans 10-Year Strategy aims to create an experience that provides customers with freedom, dignity and spontaneity of travel. A new Wheel-Trans Customer Experience Strategy was developed to ensure consistency and clarity in customer interaction and employee service delivery. The strategy is supported by new customer-centric policies that define a clear and transparent set of expectations – from trip booking through trip delivery. It is our goal to create policies that are simple and flexible, and to create a safe and respectful environment for everyone using Wheel-Trans services. By defining clear rules and guidelines for all persons using or interacting with TTC Wheel-Trans, our customers will know what to expect and how Wheel-Trans will support them on their journey.

There are now a total of 20 customer-facing policies that have been implemented. Each policy was designed in consultation with the ACAT and with the TTC's Legal and Diversity and Human Rights departments. Wheel-Trans customer policies are divided across four categories: eligibility, trip-booking, travelling with Wheel-Trans and safety. Policy implementation began in 2017 and completed in 2019.

Wheel-Trans has started the Re-registration process of all customers who registered with Wheel-Trans prior to January 1, 2017. Eligibility criteria and associated processes for specialized transportation services were subject to legislated requirements in the IASR that came into effect on January 1, 2017. To be compliant, Wheel-Trans defined three categories of eligibility (see Appendix 1), a new application for service, and new application and appeal processes. These changes applied to all new customers from the effective date moving forward. However, a migration plan for existing customers prior to the effective date has been developed, called Re-registration. A detailed process to re-register these customers was developed while working closely with key stakeholders, including ACAT and the Legal and Diversity and Human Rights departments.

In conjunction with our Re-registration process and implementing our new reservations and scheduling system, we will also begin to better trip match. The system now offers a FOS or a door-to-door trip solution based on a customer's eligibility, and whether or not a customer's conditions are present (e.g. winter service). This conditional trip matching provides greater variety and spontaneity, for customers with conditional eligibility by offering them a FOS trip when their conditions are not present. Conditional Trip Matching (CTM) was delayed in 2020 as a result of the pandemic. All customers with unconditional and temporary eligibility will be offered a door-to-door trip, but the customer will be able to request a FOS trip if they prefer. The plan is to introduce conditional trip matching in Q3 or Q4 2021.

Providing an FOS trip as the only option for conditionally eligible customers, only when their condition is not present, will be a major change for those customers. To assist with this transition, the TTC has operationalized a Travel Training program for our customers that will provide one-on-one training of our accessible conventional system.

## Appendix 5 – Travel Training

From June 2018 to December 2018, the Wheel-Trans Transformation Program conducted a pilot project to determine the success of a Travel Training Program offered to customers with disabilities (Travel Training Pilot). The purpose of the Travel Training pilot was to support customers with disabilities as they learned to navigate the TTC and transition to the accessible conventional transit system.

The Travel Training pilot included Information Sessions, Vehicle Exploration events and personalized one-on-one training. A total of 14 Information Sessions were held across the city, which included customers attending an in-class presentation on how to safely and independently navigate the TTC's accessible network. Three Vehicle Explorations were held, which involved customers participating in an interactive presentation onboard a conventional accessible bus or low-floor streetcar, allowing for the exploration of the vehicle and its features within a controlled environment. Lastly, customers were also able to receive personalized one-on-one training, where a customer is accompanied and guided by a travel trainer on a route of their choice, up to four times. One-on-one training is structured based on the needs of the individual customer, and allows the customer to develop safe travel skills, independence, confidence, and building of familiarity with the TTC network. Throughout the 2018 Travel Training pilot, a total of 251 customers participated in some capacity, with 50 of those customers completing one-on-one training. The Travel Training pilot proved successful and in 2019 became operationalized.

Throughout 2019, Travel Training evolved and became more refined. 2019 included one Information Session, two Vehicle Exploration events, the continued offering of customized one-on-one training, but also small group training sessions, called Station Orientation Days. A Station Orientation Day is an event held at an accessible TTC subway station with all three vehicular modes, and includes customers participating in a one-hour training session in small groups. The training sessions provide customers with onsite training, and gives an overview of how to use the TTC's accessible network. Seven Station Orientation Day events were held at various stations around the city between June-December 2019. At the conclusion of 2019, a total of 388 customers had participated in some capacity, with 176 of those customers completing one-on-one training or attending a Station Orientation Day. Many efforts were made to increase program awareness, and resulted in a total of 1,145 customers expressing interest to date.

On March 25, 2020, during the pandemic, Travel Training was adapted in order to offer customers training remotely. Customers were able to schedule a one-on-one phone call with the TTC's Travel Trainer directly, and were taken through a presentation that reviewed accessibility features throughout the conventional TTC network, how to travel using FOS, and safe and independent travel techniques based on the customer's personal needs. For customers that had access to the internet, the information was shared via e-mail, which provided customers with the information and accompanying visuals. The information sent through e-mail was available in several formats, including PDF, PowerPoint, Microsoft Word and Microsoft Word with text only.

In the earlier part of 2020, a total of 35 customers participated in an in-person session, followed by 92 customers that participated in a session remotely.

## **Travel Training Handbook**

The Travel Training Handbook is an instructional guide for customers with disabilities on how to use the TTC's accessible conventional network. The handbook describes the various accessibility features found throughout the TTC system, and provides instructions and helpful travel tips to assist customers with varying disabilities and needs. The Travel Training Handbook is used as a supplemental resource for customers with disabilities to be able to travel on the TTC to the best of their abilities, safely and independently.

A hard copy of the Travel Training Handbook is given to customers during any in-person travel training session, and can be requested through Wheel-Trans Customer Service or TTC Customer Service. The Travel Training Handbook was last updated in 2020. The newest version of the Handbook was printed and is available to customers. It is also in the process of being uploaded to the TTC website. The previous version of the Handbook can be found via the following link:

[https://www.ttc.ca/TTC\\_Accessibility/Easier\\_access\\_on\\_the\\_TTC/Handbook\\_for\\_Accessible\\_Travel.jsp](https://www.ttc.ca/TTC_Accessibility/Easier_access_on_the_TTC/Handbook_for_Accessible_Travel.jsp).

The Travel Training Handbook touches on the following topics:

- Plan an accessible trip (Triplinx, Google Maps, TTC Customer Information).
- Understanding maps, signage and wayfinding features.
- Resources with up-to-date service information (Lift Line, e-alerts, social media, Next Vehicle).
- Accessibility features onboard TTC conventional vehicles and in stations (ramps, elevators, emergency buttons, DWA, internal/external announcements, etc.).
- Different operators and staff that can provide assistance throughout a customer's trip.
- Priority seating and boarding/disembarking (with or without a mobility device).
- Fare payment, PRESTO and proof of payment.
- Emergency procedures and handling the unexpected (closures, turn backs, service changes).

## **Travel Training Brochure**

The Travel Training Brochure is used to create program awareness and to encourage conditionally eligible customers to participate if needing assistance with travel using the FOS. The brochure describes the Travel Training Program, including the various training options, the skills that can be learned, and the benefits to using conventional transit. Also included in the brochure are testimonials from previous customers that have participated. The Travel Training Brochure is included in the Wheel-Trans Welcome Package for conditionally eligible customers, and shared with Wheel-Trans customers that attend a functional assessment or an appeal. The Travel Training Brochure was last updated and printed in June 2020.

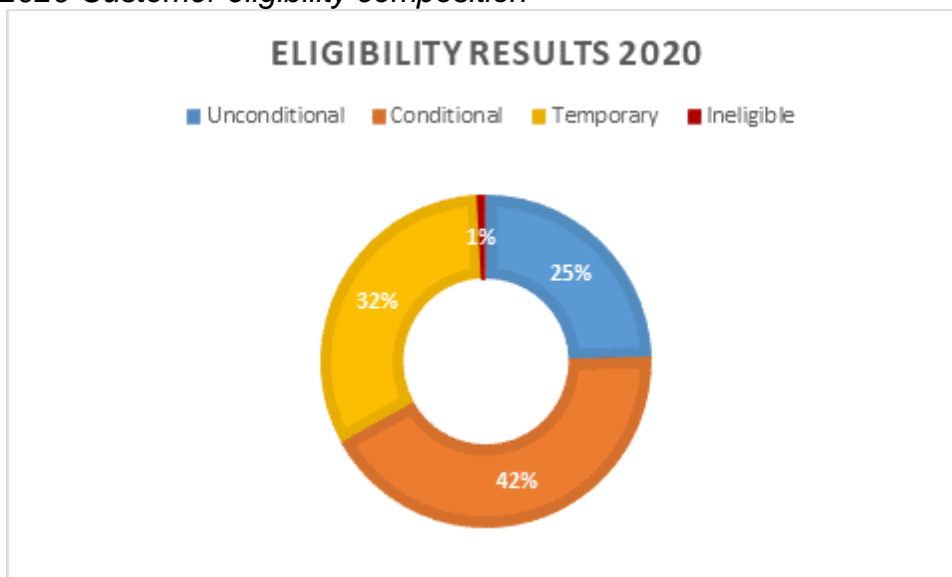
## Appendix 6 – Changes to Eligibility

Effective January 1, 2017, the TTC expanded its Wheel-Trans eligibility criteria and service model, in compliance with the IASR. Prior to 2017, Wheel-Trans eligibility was based on a person's physical mobility. The expanded criteria extended eligibility to any person who has a disability that prevents them from taking conventional transit for all or part of their trip, including persons who have cognitive, sensory and/or mental disabilities. The TTC also introduced new eligibility categories, consistent with the IASR: Conditional, Unconditional and Temporary; as well as the necessary framework of policies and processes to support these changes.

The new application process was developed through a diversity and inclusion lens, with extensive consultation with customers and community groups. Over an eight-week period in June and July 2016, the TTC held 40 meetings with 55 organizations/agencies representing individuals who may be impacted by the eligibility changes, and in close alignment with peer agencies in the GTA for the convenience of customers registering in multiple jurisdictions. Previously, every customer was required to attend an in-person interview to assess their eligibility for Wheel-Trans service. Now, customers submit an application with a section to be completed by a healthcare professional. In limited cases, where a decision cannot be reached, the customer is requested to attend a functional assessment conducted by a licensed occupational therapist.

The new assessment method has proven both successful and efficient. The number of applications received and processed in 2019 was 11,429. The number of applications received and processed in 2020 was 7,325 (lower number due to pandemic). We were able to process 100% of the applications within the 14-day timeframe mandated by the IASR. The majority of customers who applied for Wheel-Trans were granted conditional eligibility (Figure 1).

Figure 1: 2020 Customer eligibility composition



This graph shows the percentage of customers in the three eligibility categories: Unconditional (25%), Conditional (42%), Temporary (32%), and the percentage of customers found to be Ineligible (1%).

## Appendix 7 – Access Hubs

To support the Family of Services model, the TTC has implemented a network of Access Hubs. These are enhanced bus shelters that serve as transfer points between Wheel-Trans service and accessible conventional bus service (Figure 2). The first Access Hub was successfully installed at the Meadowvale location (Meadowvale Rd. and Sheppard Ave. E.) in Q1 2018 with another installed in 2019 at Humber College North Campus. 14 additional Access Hubs were deployed in 2020 at nine locations across the city. In constructing the Access Hubs, the TTC engaged with key partners and aligned with public works and other development projects wherever possible. The Access Hubs project is now closed.

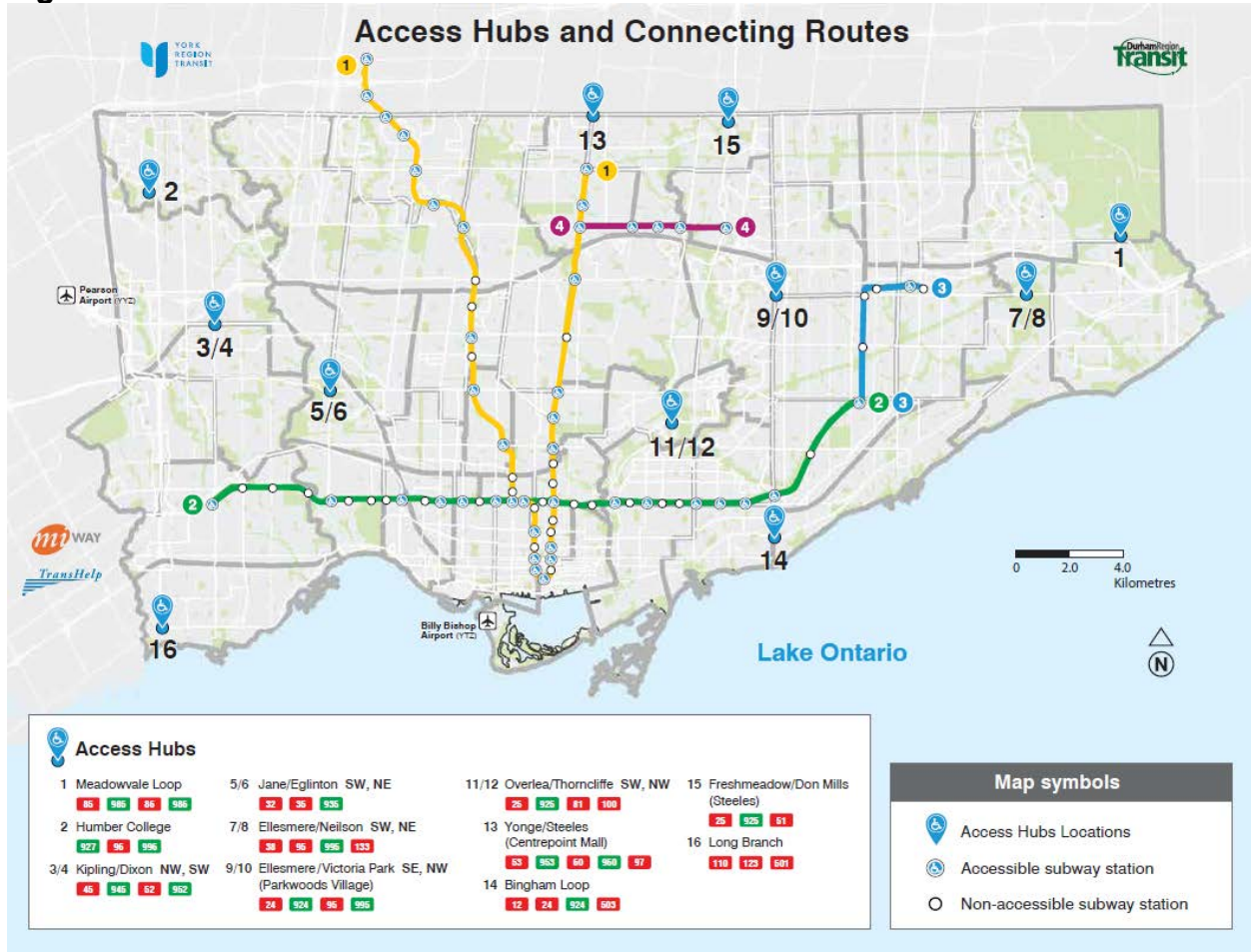
*Figure 2: Access Hubs*



Photo 1 (left) is a picture of the Meadowvale Access Hub taken from outside the Access Hub. There is one customer in a wheelchair inside the Access Hub and another customer with their guide dog entering the Access Hub. Photo 2 (right) is a picture of the same customers taken from inside the Access Hub. In both pictures there is a Wheel-Trans Pro Master min-bus in the background.



Figure 3: Access Hub locations



This chart shows the locations of the Access Hubs on a map of Toronto along with some connecting routes.

## Milestones

Activity	Date
Access Hubs Site 1 (Meadowvale Loop) Approval	March 2017
Access Hubs Site 1 (Meadowvale Loop) Go live	January 2018
Access Hubs Site 2 (Humber College) Approval	March 2018
Access Hubs Site 2 (Humber College) Go live	May 2019
Access Hubs Site 3 & 4 (Kipling & Dixon NW, SW) Go live	July 2020
Access Hubs Site 5 & 6 (Jane & Eglinton SW, NE) Go Live	July 2020
Access Hubs Site 7 & 8 (Ellesmere & Neilson SW, NE) Go live	August & December 2020
Access Hubs Site 9 & 10 (Ellesmere & Victoria Park SE/NW) Go Live	August 2020
Access Hubs Site 11 & 12 (Overlea & Thorncliffe SW, NW) Go live	August & December 2020
Access Hubs Site 13 (Yonge & Steeles SW) Go Live	July 2020
Access Hubs Site 14 (Bingham Loop) Go Live	August 2020
Access Hubs Site 15 (Freshmeadow & Don Mills) Go Live	August 2020
Access Hubs Site 16 (Long Branch Loop) Go Live	July 2020
Access Hubs Site 17 (Jane & Wilson NE) Go live	Cancelled
Access Hubs Site 18 (Jane & Wilson SW) Go live	Cancelled

This table shows the milestones by site location of the Access Hubs along with the implementation date.

## Appendix 8 – Wheel-Trans Policy Updates

To date, a total of 20 policies have been updated and published, one of which was updated in 2020.

**Severe Weather:** The Wheel-Trans Severe Weather Policy was modified in late 2020 to ensure that all FOS trips are automatically converted to door-to-door trips. Severe weather is applicable to a broad range of weather-related disruptions, including, but not limited to: storms, heavy freezing rainfall, flooding, major accumulation of snow or ice and extreme cold or heat. According to the policy, only events declared by TTC Wheel-Trans as “Severe Weather” are considered severe weather conditions. In these circumstances, Wheel-Trans will issue service alerts on the RideLine (Interactive Voice Response), the TTC Wheel-Trans website ([ttc.ca/wheeltrans](http://ttc.ca/wheeltrans)), the trip booking website ([mywheel-trans.ttc.ca](http://mywheel-trans.ttc.ca)), and via automated greeting messages on the Wheel-Trans Reservations and Customer Service phone line.

### List of 20 Updated Wheel-Trans Policies

1. Code of Conduct
2. Door-to-Door
3. Travelling using Mobility Aids and Assistive Devices
4. Late Cancellation/No Show Policy
5. Vehicle Exception
6. Carry-on Items
7. Environmental Sensitivity
8. Support Person
9. Companion
10. Service Animals and Pets
11. Severe Weather
12. Service Disruption and Irregular Operations
13. Food and Beverage
14. Lost and Found
15. DNLU (Do not Leave Unattended) Policy
16. Family of Service Travel
17. Fare Payment
18. Cross-Border Travel
19. Travelling with Children or Infants
20. Layover and Multiple Stop

## **Appendix 9 – Community Bus Enhancements**

Diverting customer trips to an enhanced and expanded Community Bus service was one of the strategies identified in the Wheel-Trans 10-Year Strategy.

Community Bus service lends itself well to use by seniors and persons with disabilities due to the vehicle type used and the strategic placement of stops at locations, such as plazas, supermarkets, hospitals, senior residences and other community service locations. Furthermore, in addition to stopping at all conventional bus stops along the route, the Community Bus can be hailed or waved down so customers don't have to worry about reaching the stop in time. The Community Bus service is available to all TTC customers.

Following Stantec consultant recommendations and best practices, a pilot was launched in Q3 2017 to enhance two of the five existing community bus routes: 400 Lawrence Manor and 404 East York. This included extending both routes to more key destinations and landmarks that are of importance to our customers and adding a bus on both routes. The pilot also involved establishing a distinctive brand and raising awareness about the Community Bus service. Community Bus vehicles were painted in new livery, with clearer visuals to make it easier for customers to identify and wave down vehicles.

An assessment of the pilot and next steps was presented to the Board in December 2019 as part of the TTC's 5-Year Service Plan and 10-Year Outlook. Based on the assessment, the Board approved service modifications to the 400 Lawrence Manor, 402 Parkdale, 404 East York and 405 Etobicoke Community Bus routes. Implementation of these changes has been delayed due to the ongoing pandemic, but are planned for September 2021. A second phase of Community Bus changes is planned for future years once key Wheel-Trans changes, such as Conditional Trip Matching, Customer Re-registration and trip-booking system upgrades are fully implemented.

## Appendix 10 – Fleet Replacement

Wheel-Trans has begun to diversify its fleet mix to match new customer profiles, trip patterns and travel behaviour. As of the end of 2020, there were 128 Pro Master vehicles in service. These mini-buses are smaller, more fuel efficient and can easily access more destinations (Figure 4).

*Figure 4: Dodge Pro Master mini-bus*



Photo 1 (left) shows the Wheel-Trans Dodge Pro Master mini-bus facing the front, driver's side of the vehicle.

Photo 2 (right) shows the same vehicle facing the passenger side with the side doors open and the ramp deployed.

The TTC also explored the option of a vehicle that would supplement the Pro Master mini-bus. In order to provide service efficiencies, the emphasis of the search requirements was to maintain a smaller-sized vehicle while increasing customer capacity. Through the joint procurement process with Metrolinx, a seven-metre demonstrator was reviewed by ACAT, Joint Health and Safety Committee (JHSC) and the Operational Training Centre (OTC) in January 2020. ACAT members were taken for test rides in February 2020 and they approved the concept vehicle for consideration.

On February 25, 2020, the TTC Board authorized the purchase of one, seven-metre Pro Master vehicle as a pilot vehicle. This authorization also included the approval of purchasing 90 additional vehicles once the pilot program was endorsed by ACAT.

In March 2020, Metrolinx awarded a contract to Creative Carriage for the development of the seven-metre Pro Master vehicle as part of the Provincial joint procurement process. Design review meetings commenced and the TTC received the seven-metre Pro Master pilot vehicle in September 2020. This vehicle was reviewed by the JHSC and ACAT, and members completed solo test rides. The vehicle was placed into regular service and all customers over a four-week period completed a questionnaire that was also completed by ACAT members. All findings were presented to ACAT and on December 17, 2020, ACAT endorsed the purchase of the seven-metre Pro Master vehicle.



Figure 5: Seven-metre Pro Master Pilot Vehicle



Photo 3 shows the seven-metre Pro Master pilot vehicle.

## **Appendix 11 – Technology Modernization**

Modernizing our supporting technology is a fundamental component to ensuring the TTC's ability to deliver on the vision and commitments of the Wheel-Trans 10-Year Strategy:

### **1. Customer Relationship Management (CRM) System**

The TTC successfully launched Phase 2 of the CRM rollout for Wheel-Trans that included a new Self-Serve Portal. The Portal allows customers to register or re-register online, eliminating the need for customers to fax or mail a paper application. Customers can also appeal their eligibility decision through the Self-Serve Portal.

### **2. Reservations, Scheduling and Dispatch (RSD) System**

An automated, multi-modal trip-booking system is crucial for the success of the new service model as it enables high volumes of FOS trips to be booked and delivered. The TTC is planning to upgrade the existing system using a phased approach between 2018 and 2021. The modernized reservations system will be mobile friendly and will include conventional transit schedules when offering trip options. Phase 3 was launched in January 2021. Phase 4 will be launched in October 2021.

### **3. Reporting and Analytics System**

A new Reporting and Analytics system is being delivered in multiple phases during 2020 and 2021. The first phase, which launched in December 2020, included the introduction of a new reporting technology application along with more robust data collection, storage processes and hardware. Also included in the first phase was the conversion of existing Excel-based Wheel-Trans operations management reports to the new dynamic reporting tool. Subsequent phases, to be delivered in 2021, will include the introduction of new Key Performance Indicators to better manage existing Wheel-Trans operations and to support expanded FOS capabilities.

## **Appendix 12 – Reservations, Scheduling and Dispatch System Upgrade Project**

### **Project Background**

The Wheel-Trans 10-Year Strategy was developed in response to legislative requirements of the *Integrated Accessibility Standards Regulation* (IASR) under the *Accessibility for Ontarians with Disabilities Act* (AODA), recommendations provided by the City of Toronto Auditor General, and the resulting anticipated surge in demand for specialized transit services in the city of Toronto.

To meet the anticipated surge in demand for its service, in April 2017, the TTC introduced the FOS concept, a new service delivery model that allows Wheel-Trans customers to take intermodal trips combining specialized and conventional, fixed-route services.

The Wheel-Trans 10-Year Strategy set targets for FOS diversion of 10% in 2019, climbing to 50% in 2025.

The RSD project will deliver and support updated computer systems with various media channels, such as website trip booking, Mobile Application with multi-modal trip planning (FOS), on-demand trip booking, dynamic scheduling, cross-boundary scheduling and an Interactive Voice Response (IVR) touch-tone telephone system.

The upgrading and adding of new media channels provides real-time information to customers, communication of door-to-door vehicle arrival times, service alerts and vehicle location. In addition, conventional transit operations of subways and surface fixed-route vehicles and systems will be integrated and used to provide information to customers. The system will be able to identify and reroute FOS trips during service disruptions.

This system will create the opportunity for customers to make independent choices of how they book their trips and how they communicate with TTC Wheel-Trans with their channel of choice: website, mobile device, contact centre, online chat and IVR, while, at the same time, meeting the demand for service.

### **Project Time Lines**

Phase 1 – Completed December 9, 2018

Phase 2 – Completed June 7, 2020

Phase 3 – Completed January 24, 2021

Phase 4 – Target October 3, 2021

### **Phase 1 Update: Implemented December 9, 2018**

Phase 1 focused on enhancing the current customer trip booking website functionality to include easier and simpler navigation with the ability to book FOS trips as an option. The system currently supports 500 FOS trips/day.

#### *Customer benefits:*

- Improved ability to do their own trip planning, rather than relying on a booking agent.
- No longer have to wait for a Reservationist to book a FOS trip.



- Ability to book FOS trips any time at their convenience and available 24/7.
- Faster and quicker way to book trips, review, update and/or cancel existing bookings.
- Map view – customers are able to see a map when looking up addresses.
- More user-friendly. Customers can:
  - View their trip history up to 18 months.
  - Change their own website password.

### *Training*

Employee Training was provided to all affected employees on new features.

### *Customer Communications*

Customer Help Pages and videos were created by Design and Wayfinding and posted online by the Marketing and Customer Experience Department.

### **Phase 2 Update: Implemented June 7, 2020**

This Phase has improved the current website with a redesign of the trip booking page and provide immediate trip booking results, if available, of regular trip requests. A new mobile smartphone application was introduced as a pilot and changes were made to the Dispatch and Scheduling systems to allow for improved management of FOS trips during service events and disruptions.

The Scheduling System has been expanded by adding more accessible conventional routes and is able to support 3,000 FOS trips/day.

The Scheduling System will be upgraded to allow for Conditional Trip Matching and to ensure customers who are capable of using the conventional network can only book FOS trips.

### *Customer benefits:*

- Updated website trip booking page.
- Able to receive immediate trip results for regular bookings.
- Ability to book monthly regular trips.
- Receive e-mail notifications.
- Book trips using a Mobile Application.
- View Trip History on Mobile Application.
- View, cancel or modify upcoming trips on the Mobile Application.
- See vehicle location arriving to pick them up in real-time (pilot of buses only).
- Receive service alerts.
- Receive e-mail messages.
- Receive phone “Call Ahead” when vehicle is within 10 minutes.
- Receive a phone call if customer has been “No-Showed”.
- A telephone call will be made to the Receiving Person of the Customer.
- Ability to reset passwords.

### **Phase 3 Update: Implemented January 24, 2021**

Phase 3 will further expand FOS trips with more stops to support more transfers between fixed routes, and more defined eligibility conditions to improve trip matching as well as other software improvements.

The initiatives now include:

- More FOS routes available to customers.
- Expanded Conditional trip matching.
- Cross-Boundary Regional Trips transfers scheduled at time of booking.
- Real-time service updates available via phone in addition to mobile application and e-mail notifications.
- Option to set up notifications and edit communication preferences over the phone and on the website.
- Option to change e-mail address and contact phone numbers online.
- Dashboard Reporting with Visual for Dispatch Centre.

#### *Customer benefits*

- More connections between conventional services.
- Users can book more complex FOS trips.
- Improved FOS solutions provided.

### **Phase 4 Update: To be implemented October 2021**

The focus of this phase is scheduling optimization, whereby trips will be based on real-time vehicle availability. This will allow for Wheel-Trans to be more efficient, which will result in more trip availability for customers and make room for spontaneous, same-day bookings.

Enhancements include: customers will be able to choose to make their real-time location/position available to Wheel-Trans Dispatchers. Mobile and website alerts will be updated to provide customers with the projected vehicle arrival time at their location. As well, if the vehicle will be late, an automated alert will be provided to Dispatchers to allow them to determine if changes to schedules are required.

In addition, the improved, integrated Customer Relationship Management software will support online customer applications and allow Customer Service agents to better service customers, as they will now be able to access detailed and specific information about the customer's trip and their disability from one source. As well, customers will be able to communicate directly with a Reservationist via an online chat feature on both the website and mobile application.

Phase 4 will continue to expand FOS trips with more stops to support more transfers between fixed routes.

*Customer benefits:*

- Expand FOS trips capability.
- Customers able to use conventional transit for more than one leg of their FOS trip.
- More conventional routes and stops added.
- Ability to be more interactive with the mobile application and website through a Chat tool.
- More trip availability and spontaneity.

## Appendix 13 – COVID-19 Impact to Wheel-Trans

Since the onset of the COVID-19 pandemic and the impact that followed, particularly in March 2020 and onward, a number of operational changes have been made to ensure the safety of our customers, as reported to the TTC Board in June and September 2020.

Examples of operational changes:

- Temporary shut down to the self-booking website, which was later reopened and included a health screening questionnaire.
- Introduction of solo rides, which will continue as long as operationally feasible due to lower ridership levels and physical distancing requirements.
- Regular/reoccurring trip bookings only available by calling Wheel-Trans Reservations.
- Delay of the mandatory Conditional Trip Matching in order to minimize the number of changes our customers were experiencing during unprecedented times.
- Personal Protective Equipment requirements and additional vehicle cleaning implemented.
- As with all other areas of the TTC, Wheel-Trans employees have been mandated to work from home if able to do so. This includes Reservations and Customer Service employees who are currently working from home.

June report to TTC Board:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/June 17/Reports/4 COVID 19 Transitioning from Response to Restart and Recove.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/June%2017/Reports/4%20COVID%2019%20Transitioning%20from%20Response%20to%20Restart%20and%20Recovery%20Update.pdf)

September report to TTC Board:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/September 24/Reports/5 COVID 19 Restart and Recovery Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/September%2024/Reports/5%20COVID%2019%20Restart%20and%20Recovery%20Update.pdf)