5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK

NEXT STOP, EVEN BETTER

Mobile Clima

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295 + 98K

TORONTO

2020-2024 & beyond



Table of contents

From the Chair	2
From the Chief Executive Officer	3
About the plan	4
Our unique Toronto context	12
Vision and opportunities	28
Pillar 1	32
Pillar 2	44
Pillar 3	50
Pillar 4	56
Pillar 5	64
20-point action plan	74
Benefits summary	78
Investment summary	86
Measuring performance	94
10-year outlook	98



From the Chair

I am proud to present the TTC's 5-Year Service Plan & 10-Year Outlook. The TTC's ridership is expected to increase by 35 million riders by 2024. This document is our blueprint for delivering the transit services our City needs to accommodate projected population and employment growth over the next five years.

The Plan's five pillars of opportunity – and the 20-point action plan - will enhance customer experience on every step of our riders' journeys: from planning a trip, to using TTC stops or stations, to riding and connecting with neighbouring transit providers and other mobility options in Toronto.

Extensive public consultation and stakeholder engagement was undertaken in the preparation of this document. Through this process, TTC riders made their expectations clear. The 5-Year Service Plan & 10-Year Outlook should:

- Deliver reliable and frequent service:
- Enhance transit priority on the bus and streetcar network;
- Integrate surface transit with new rapid transit lines, neighbouring transit agencies, and other transportation modes;
- Identify local service improvement opportunities with community groups; and
- Improve the overall transit rider experience, from beginning to end.

I would like to thank TTC staff for their excellent work on the 5-Year Service Plan & 10-Year Outlook. I would also like to thank my fellow TTC Commissioners for their continued support.

Transit is the future of transportation in Toronto - one of North-America's fastest-growing cities. This document charts a path forward to ensure that the TTC transit network continues to serve Torontonians for years to come.

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Jaye Robinson TTC Chair December 2019



From the Chief Executive Officer

The Greater Toronto Area is one of the fastest growing regions in North America. At its core is Toronto, the leading city for population growth among all central cities in either Canada or the United States and where 85% of all local transit trips in the GTA are taken on the TTC.

TTC focused on multi-year planning in 2019 – using known development pipeline projects we developed a comprehensive service and asset plan for the coming five years. This 5-Year Service Plan & 10-Year Outlook aims to improve TTC service to ensure existing customers and new residents keep choosing us.

This Plan aligns with our other multi-year plans: Corporate Plan, Capital Investment Plan, Accessibility Plan and Wheel-Trans 10-Year Strategy. The Plan is within budget targets and will increase transit services to meet the population and employment growth forecasted in the City's Official Plan. The Plan will help the City to achieve mobility, climate change, resilience and social equity goals.

The 5-Year Service Plan & 10-Year Outlook will bring certainty to the TTC, our customers, and the City by transparently laying out the service plans and improvements planned over the course of five years. Every year, we will prepare an annual service plan and budget that details the actions to be implemented for the upcoming year.

The five pillars of opportunity and 20-point action plan contained in this service plan put the needs of our customers first by increasing travel options, reliability and comfort, while reducing journey and wait times across the network.

The tangible benefits for customers of implementing this plan include providing:

- demand has increased:
- on-time departures; and
- on key corridors.

I am proud of the work we've done, and confident that this Plan's focus on providing reliable, accessible and integrated public transit is essential to delivering sustainable, world-class transit to the community we serve.

Richard J. Leary Chief Executive Officer December 2019

More frequent service in high-growth areas across the city and where

More reliable service on bus and streetcar routes as we trend towards 90%

• More rapid service through various actions including improvements on Line 1, the opening of Line 5 – Eglinton and Line 6 – Finch West, and the implementation of new express bus services and transit priority measures



About the plan

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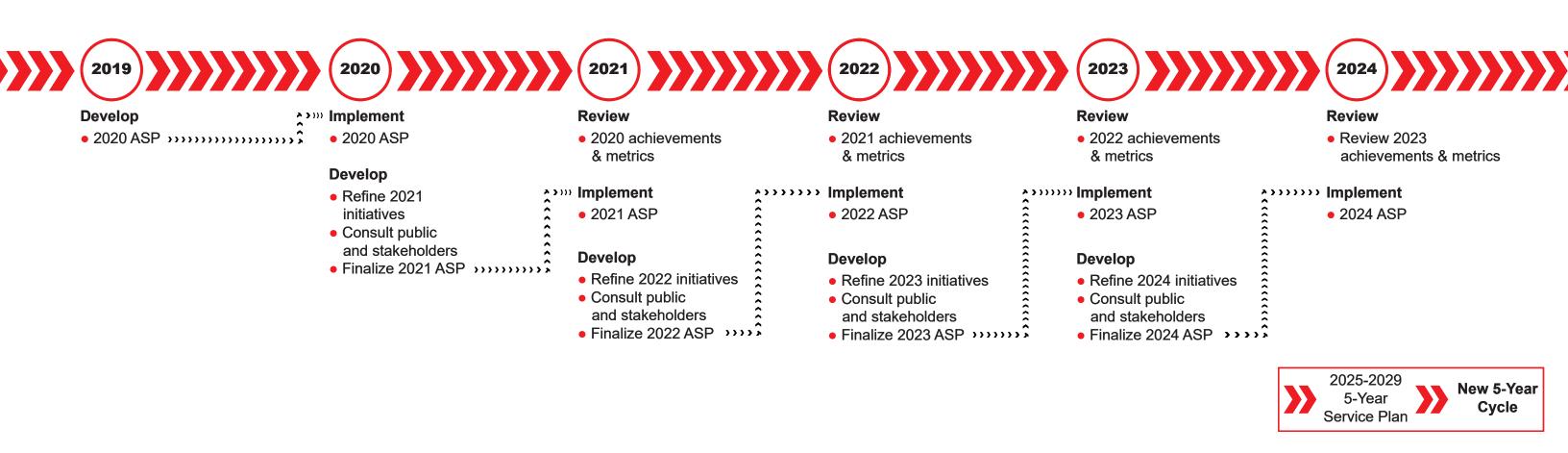
Overview

The 5-Year Service Plan & 10-Year Outlook (the Plan) is a blueprint for service needs between 2020-2024. It identifies resource and funding requirements and serves as the basis for annual operating budgets and annual 10-year capital plans.

The actions outlined in this Plan will improve customer experience when planning a trip, waiting at stops and stations, waiting for a vehicle, riding the vehicle and integrating with connecting transit services and other mobility options.

TTC is committed to maintaining, strengthening, and growing our relationships with all who are interested in the future of our transit system.

Implementation of this Plan will include annual consultation with customers and stakeholders to inform the development of detailed annual service plans (ASP). These consultations will focus on refining the actions in the 5-Year Service Plan and addressing any changes that may have occurred. Then every five years we will have an in-depth consultation focused specifically on our next 5-Year Service Plan. This ongoing investment in staying connected with and responsive to our customers is critical to delivering an outstanding service.



Plan preparation

The Plan is intended to improve public transit service where it is needed over the next five years considering:

- + Population and employment growth
- + Provincial, municipal and corporate policies, plans and strategies
- + A fairer and more just Toronto that ensures equitable outcomes for all residents
- + Opportunities to improve our existing services
- + Major enhancements to the rapid transit network

20 actions have been identified under five pillars of opportunity.

Combined with a robust annual framework for measuring progress, engaging stakeholders, and refining specific initiatives – this plan puts the needs of our customers first by increasing travel options, reliability and comfort, and by reducing journey and wait times across the network.

Plan preparation process

Background	Pillar	Plan	10-Year Outlook
Review	Identification	Development	
 + Region and City Characteristics + Guiding policies + System review + Opportunities + Vision 	 + Network + Key stops + Reliability + Key corridors + Integration 	 + Action Initiatives + Investment Summary + Monitoring & Continuous Improvement 	+ What's on the horizon

Public and stakeholder engagement

The Plan has been prepared with the public and stakeholders through an extensive engagement program, including:

- + Approximately 3,000 respondents to three online public surveys
- + Over 3,000 members of the public engaged at seven public open houses
- + Over 60 representatives of stakeholder

The participants said that they would like to see this 5-Year Service Plan support the TTC's efforts to:

- + Deliver reliable and frequent service
- + Enhance transit priority on the bus and streetcar network
- + Integrate surface transit with new rapid transit lines, regional transit partners and other transportation modes
- + Improve the overall transit rider experience, from beginning to end



The vast majority of online respondents support the Plan with

stating they highly support the Plan.

groups and transit advocates participated at stakeholder meetings

+ Identify local service improvement opportunities with community groups

This inaugural 5-Year Service Plan & 10-Year Outlook for the TTC is based on a powerful combination of technical analysis, operational insights, as well as the experiences and priorities shared by transit users, transit advocates, and many of the organizations and institutions that the TTC is proud to work with and serve. Feedback received through the consultation contributed directly to the strength of this Plan.

> "I appreciate all the opportunities available to provide comments and suggestions in the TTC draft Plan. I look forward to seeing these improvements implemented as soon as possible without further delay. Passengers and visitors who use the TTC will greatly benefit from a reliable, comfortable and safe travel experience".

TTC

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prove stop areas

– Survey respondent

"The City should absolutely do everything in its power to prioritize the movement of mass transit through our streets. This is one way the TTC will be able to better compete with the speed and convenience of driving".

Survey respondent

These photos were taken during the in-person consultations held between summer and fall 2019. This included seven public open houses (at TTC stations and malls) and three stakeholder meetings.

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5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK • 11

Our unique Toronto context

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12 • 5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK



Hybrid Electric

Toronto is a growing and dynamic city

Population

The existing population of 2.7 million people is projected to grow to 3.2 million people by 2031

A highly diverse City, with over 51% of residents being racialized, which is 22% higher than the Provincial average

The largest centre in the Greater Toronto and Hamilton Area (GTHA), and one of the fastest growing regions in North America

14 • 5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK

Employment

Toronto has a large growing economy

It currently has over 1.5 million jobs and 75,680 businesses, and it is expected to grow to 1.7 million jobs by 2031

Economic growth has been strongest in the office, service and community, institutional and entertainment sectors

Other sectors such as retail has been relatively stable and manufacturing has been declining since 2008 but has shown some recent resurgence

which means that our transit service also needs to be growing and dynamic

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Congestion impacts on surface transit

70% of all trips on the TTC network include a trip on surface transit (bus and/or streetcar), which makes the surface transit network critical to access and mobility in Toronto

In 2019, 66% of new service added was dedicated to improve service reliability

Increases in traffic congestion has largely impacted service reliability of heavily-used bus and streetcar routes on busy streets

Traffic congestion not only affects transit service reliability, but has an impact on the overall quality of life, health, safety, and regional economy

As Toronto and the region grow

Traffic congestion will continue making surface transit slower and more unreliable

New destinations will emerge and travel patterns will change

The importance of addressing poverty, inequity, public health and climate change will magnify

Exceptional public transit service is vital to the City's prosperity.

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18 • 5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK

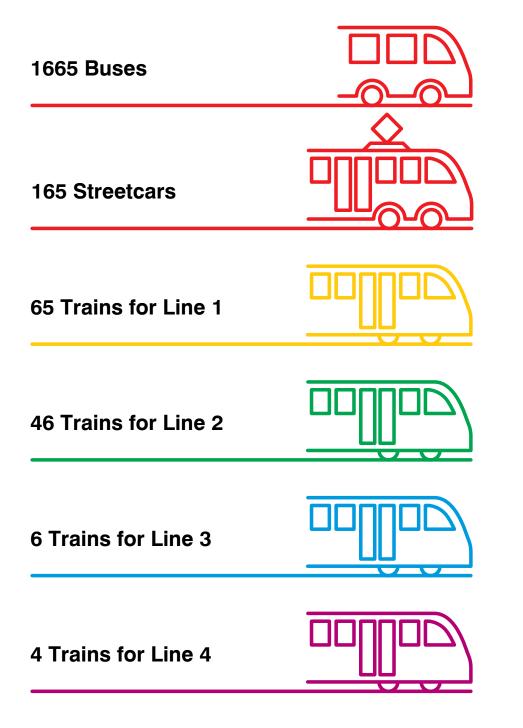
All levels of Government recognize that Toronto's prosperity, vibrancy and sustainability depend upon the efficient movement of people. This means:

- + Reducing single-occupant auto vehicle trips
- + Increasing travel options and reducing reliance on the car
- + Prioritizing public transit in the transportation infrastructure
- + Improving reliability and increasing frequency of transit

Factors that inform transit service planning

Existing TTC service

During peak service TTC operates



90% of the City's population and employment within a five minute walk of transit during peak hours



Providing 9.7 million service hours







Serving 526 million customer trips



Overnight bus and streetcar network that runs on most major routes every 30 minutes or better from 1:30am – 5:30am







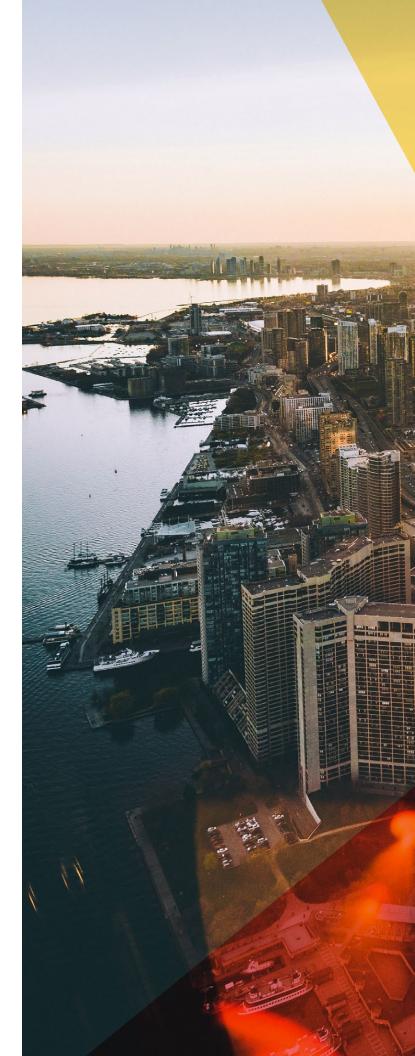
City structure and growth areas

Toronto's population and employment is growing by 1% per annum on average. The Official Plan aims to direct growth to the City's Avenues, Centres and Downtown where transit service can be provided effectively and efficiently. This results in achieving the City's key goal of reducing auto dependency.

With new residential and employment developments coming to the City, demand for transit services will increase.







5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK • 23

Indicators of high transit usage



Renters

In the City of Toronto 47% of people rent their homes, this is 17% higher than the Provincial average. Studies have shown that transit usage increases as the proportion of renters increase.

Millennials

Residents age 15–40 represent 36% of the City's population (5% higher than the Provincial average). The millennial generation is the largest and most diverse generation, and they are already driving trends and challenging the traditional transportation network.

Diversity

Racialized peoples comprise 51% of the City of Toronto's population which is 22% higher than the Province as a whole. Studies have also shown that transit usage increases with increases in the proportion of racialized peoples.



20% of the population in Toronto falls within the low income measure after tax. This is 6% higher than the Provincial average. Studies show that economically disadvantaged persons have fewer mobility options and are more dependent upon public transportation and other shared mobility systems.

Equity

Apartments

Income

As part of the Strong Neighbourhoods 2020 Strategy, the City of Toronto developed a Neighbourhood Equity Index to rank the City's 140 neighbourhoods. The lowest-ranked 31 neighbourhoods are designated as Neighbourhood Improvement Areas (NIAs). Studies show that residents of NIAs rely on transit service to access employment and socioeconomic opportunities.

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In Toronto, the majority of residents (64%) live in apartments, this is 33% higher than the Provincial average where the majority of residents live in single family homes. Generally, transit trip rates among Toronto's apartment dwellers are higher than those of persons living in single family homes.

Travel trends

Regional and city-wide

Changes to population and the economy drive regional and city-wide travel patterns.

Regionally, 18% of trips are made on public transit. Of these, 8% are made on GO Transit while the remaining 92% are made on the TTC and our regional transit partners.

Within the City of Toronto, 30% of all trips are made on the TTC.

In the AM peak, 47% of all long-distance trips and 16% of all short-distance trips are made on the TTC.

The major destinations include Downtown (68% on transit), Mid-Town (45% on transit), West Scarborough (26% on transit) and Don Valley East and West (26% on transit).

Local

Over the next five years, changes to schools and institutions will drive local travel patterns. Examples of known planned changes include:

Secondary schools

- York Memorial will be rebuilt
- Bloor Collegiate will close
- Central Tech will increase enrollment

Post-secondary schools

Seneca Newnham will continue to expand

Institutions

- and Bail Centre in North York
- Centre in York



Yearly consultation through the annual service plan development process will continue to keep TTC up-to-date on changes in travel patterns.

Provincial courts will consolidate: New Toronto Courthouse in Downtown

 Hospitals will expand: Mount Sinai, St. Michael's, CAMH in the Downtown and Michael Garron Hospital in East York and West Park Healthcare

Vision and opportunities

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The 5-Year Service Plan & 10-Year Outlook sets a vision, identifies opportunities and actions to enhance public transit service in Toronto over the next five years.

Vision

The 5-Year Service Plan & 10-Year Outlook focuses on improvements that enhance TTC's core-competency: mass transit – moving large volumes of customers safely, reliably and swiftly across Toronto.

Five pillars of opportunity

The five pillars of opportunity seek to improve our

Improve service reliability

Late and irregular service has a significant impact on a customer's decision to use transit as it increases wait times, crowding and trip duration, while adding uncertainty to their journey. The third pillar identifies actions to improve reliability and provide service that our customers can count on.







Enhance customer experience at key surface transit stop areas

A key step in a customer's journey is the time spent waiting for services at a transit stop, and this experience positive or negative - has a major impact on their decision to use transit. The second pillar includes actions that enhance the customer's experience before they even board a transit vehicle.



Enhance the transit network

a changing mobility landscape,

the first pillar aims to provide

customers with the option to

times of the day as they plan

travel further, during more

more choice: an expansive

Every journey begins with

a choice – "How will I get

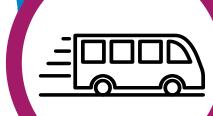
to where I need to go?"

To ensure TTC remains

a competitive option in

network that provides

their journey.



customer's experience through each step in their journey; helping you get where you need to go quickly and reliably.

Accelerate integration with regional transit partners and complementary modes of transport

TTC transit stops are not the starting or ending point of a customer's journey. Additional modes of transportation, or other transit services, are needed to connect customers to their destinations. The fifth pillar aims to provide customers with a seamless connection to and from TTC services.

Prioritize surface transit

TTC operates a busy surface transit network, including the most heavily used bus corridors in Canada and the U.S. The fourth pillar focuses on providing additional priority for surface transit on these and other routes so that customers can get to their destinations faster and more reliably once on board.

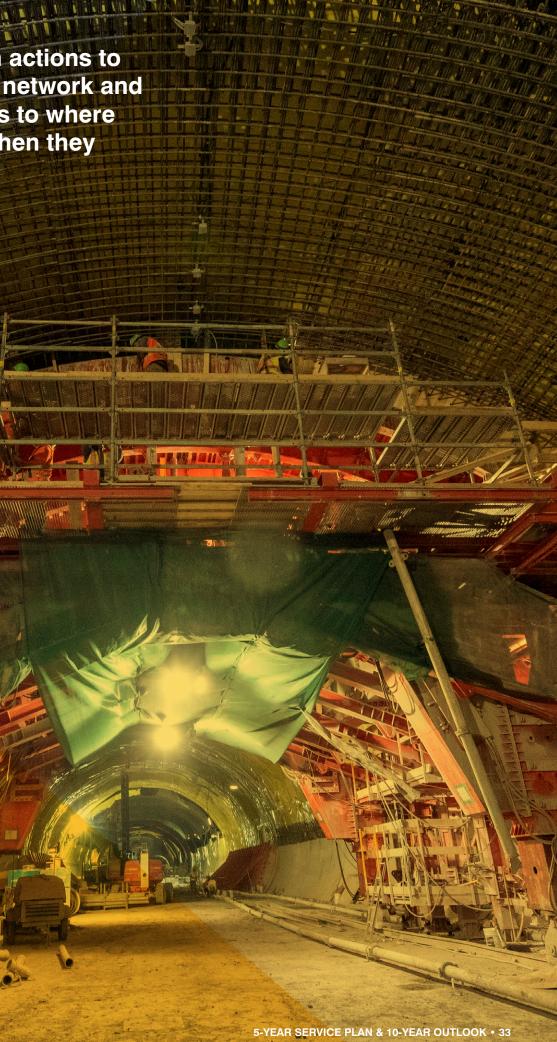
Pillar 1

Enhance the transit network



Pillar 1 focuses on actions to expand the transit network and help get customers to where they want to go, when they want to go.

Photo courtesy of Crosslinx Transit Solutions



What we've done

TTC has implemented recent initiatives to keep pace with growth. We have recently expanded all day everyday services and the Express Bus Network; changed local routes to support the Line 1 Extension; and implemented new services in the Junction, West Mall, Mimico and Scarborough.

-new or restored off-peak service

Expanded all day everyday service

Express Bus Network



Local route changes to support Line 1 Extension



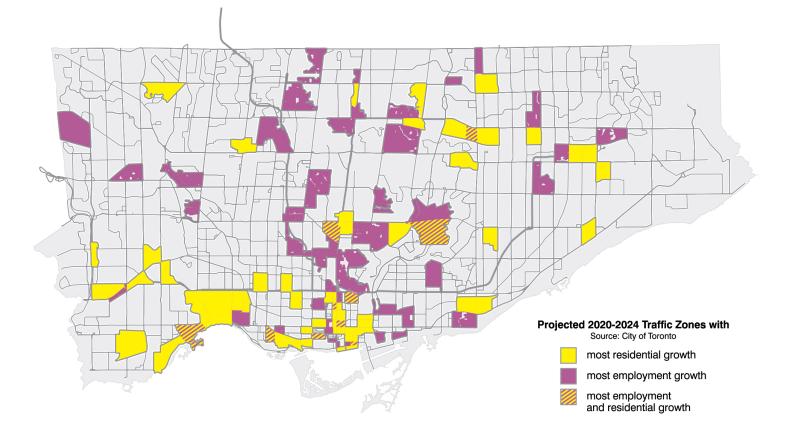
Our plan to improve

1.1 Accommodate population and employment growth

Between 2020 and 2024, population and employment will continue to grow by 1% per year, on average. New customers will choose our bus. streetcar and subway services to make their trips. Starting with the 2021 ASP, and for all future ASPs,

Toronto will grow by 1% per year over the next five years.

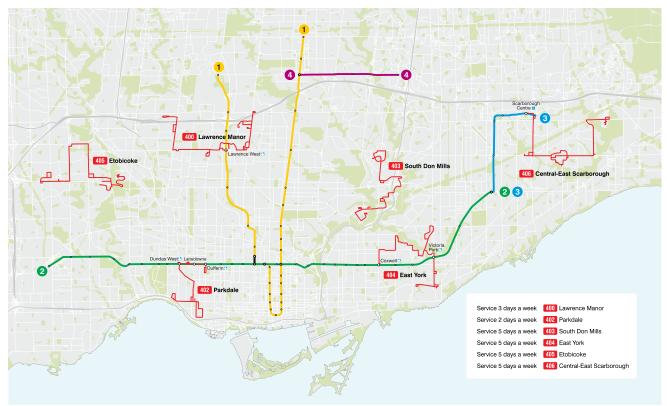
we will review all active developments nearing completion so that we're ready to make service more frequent and less crowded to accommodate and grow customer demand.



1.2 Implement new services to address travel patterns

As the City grows, and density increases, new travel patterns In 2019, bus routes in the Junction area that were in place for over 50 years were will emerge. We will be restructured to accommodate responsive and enhance our surface network by modifying **new travel patterns** triggered by existing and implementing redevelopment. new routes to serve new travel patterns. In 2020, we will introduce new overnight service to connect people with jobs in the Tapscott Employment District and we will begin updating existing community bus routes. In 2021, we will expand the Express Bus Network across the City, enhance bus service in Scarborough and implement new services for growing communities in North York. In 2022 and beyond, we will continue to implement new services to ensure the network is designed to take customers to where they want to go.

Proposed Community Bus Network

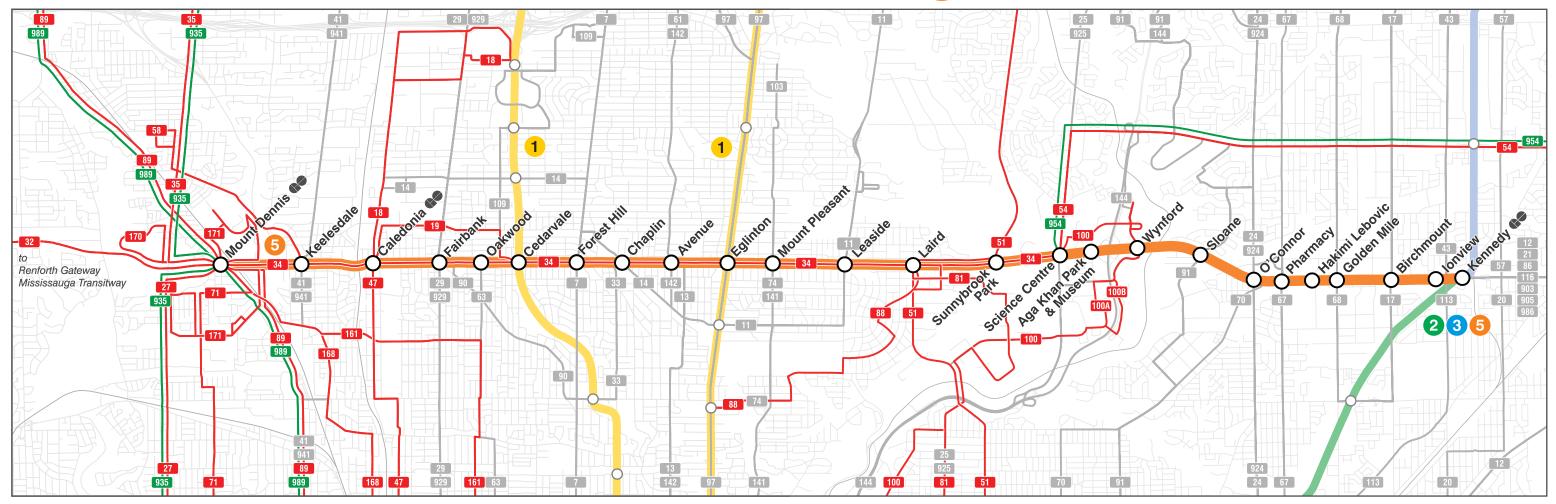


5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK • 37

1.3 Open Line 5 – Eglinton

In late 2021, we will begin to operate Line 5 – Eglinton which will offer customers a new fast and frequent east-west rapid transit service across Toronto's Eglinton Avenue from Etobicoke to Scarborough. We will also modify service on more than 50 bus routes to connect to the 25 new Line 5 stations to maximize connectivity. The opening of Line 5 and changes to the surrounding bus network will have a transformational effect on our customers' journey - more frequent, faster and reliable service. The conversion from bus to train service will also allow us to re-allocate buses to implement other initiatives identified in the Plan.

Conceptual TTC Routes Connecting to Line 5 Eglinton



1/3 of our bus network will connect customers to the new Line 5 – Eglinton

1.4 Relieve crowding on Line 1

In 2022, we will complete the Line 1 signaling system upgrade known as Automatic Train Control. This, along with other system upgrades, will allow us to increase the frequency of trains on the City's only north-south subway service. Line 1 capacity will increase by more than 15%, making room for up to 5,500 more customers per hour southbound at Bloor Station, our most critical point on the subway network.

We are adding **5 more trains** per hour in the morning rush hour to relieve crowding

1.5 Open Line 6 - Finch West

In 2023, we will begin to operate Line 6 Finch West between Humber College and Finch West Station. More than 20 bus routes will connect at 18 new stations. The new light rail service will reduce travel times and make service more comfortable for customers living in the Neighbourhood Improvement Areas it serves.

Conceptual TTC Routes Connecting to Line 6 Finch West



Eastbound Westbound

Nearly 1/4 of Toronto's **Neighbourhood Improvement** Areas will be directly served by Line 6 – Finch West

1.6 Enhance streetcar network

Starting in 2020, we will only operate new low floor, high-capacity, streetcars on our streetcar network. We will continue to operate buses over the short-term to provide much needed additional capacity to accommodate demand in the Downtown. Between 2022 and 2024, an additional 60 new streetcars will be required to allow us to better serve our customers. This includes more frequent and reliable service on

35% of Toronto's proposed residential units which are either under construction or review,

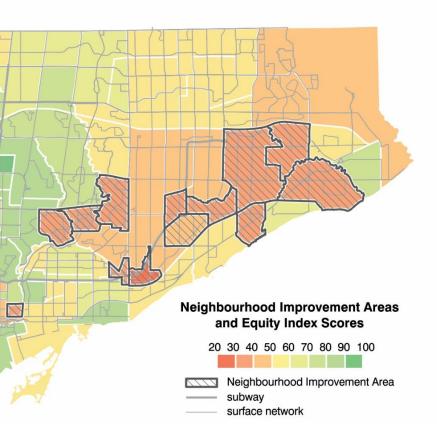
are in the Downtown and **Central Waterfront**

all routes and specific enhancements to 501 Queen, 504 King and 511 Bathurst that will be developed through the annual plan process.

1.7 Apply an equity lens to service planning

The City of Toronto and the TTC are committed to equity for all and aim to High-quality transit achieve this by supporting improved provides access to jobs and social connection socio-economic vitality and outcomes for opportunities, and is a equity groups. To promote fairness, access key linkage in and opportunities for all, TTC will implement ending the cycle two new policies as part of the 5-Year of poverty Service Plan. In 2020, we will implement an equity focused consultation process for major service changes to ensure potential negative impacts are minimized. Between 2021 and 2024, we will modify our service standards to pilot new services in Neighbourhood Improvement Areas for customers who need our services the most.





Pillar 2

Enhance customer experience at key surface transit stop areas

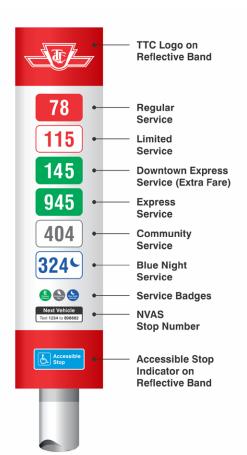




What we've done

We are committed to enhancing overall customer experience by improving comfort, connections and safety at bus and streetcar stops across the network. This includes the recent delivery of:

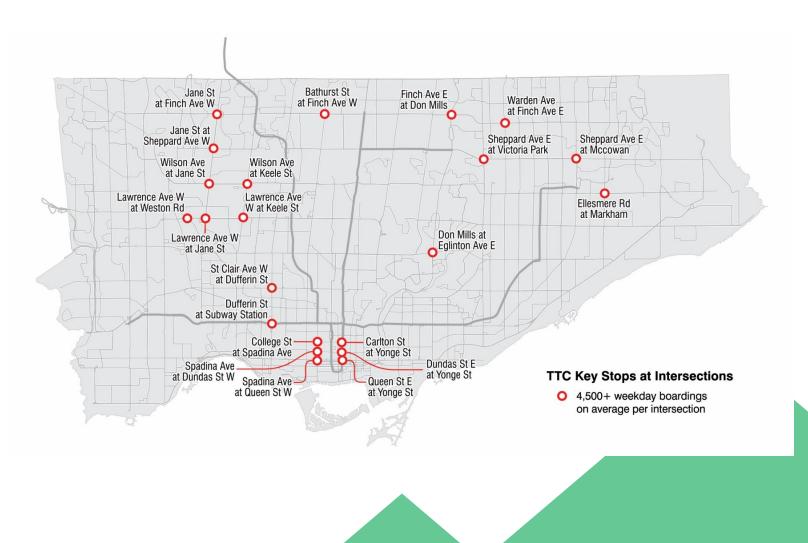
- + Enhanced passenger information signage at stops
- + 300 real-time passenger information displays
- + Accessibility enhancements to 530 stops
- + Two new access hubs to facilitate comfortable connections between Wheel-Trans and regular route service



Our plan to improve

2.1 Expand customer amenities at stop areas

Over the next five years, we will improve our customers' experience at stop areas across the City. We will continue to work with the City to ensure stops are: accessible for customers of all abilities, equipped with more and/or heated shelters to protect them from the elements and furnished with more seating to ensure our customers are comfortable all year round.





Improvements to amenities and stop areas supports the Family of Services approach to taking public transit in our City

2.2 Improve wayfinding at stops

We know that our customers value clear and concise information as it makes for a positive and stress-free journey on the TTC. Over the next five years, we will improve wayfinding and information at bus and streetcar stops to help customers find where

Schedule and real-time arrival information reduces uncertainty and

improves rider satisfaction

they want to go. We will install more next vehicle arrival signs that communicate, in real-time, when their vehicle is expected. And, we will roll-out TO360 maps at stops so that customers can navigate their way to their final destination. The TO360 Wayfinding project is a pedestrian wayfinding system of the City of Toronto that is a central component to the City's ambition to make Toronto a more walkable, welcoming and understandable place for all.

2.3 Improve placemaking at key stops

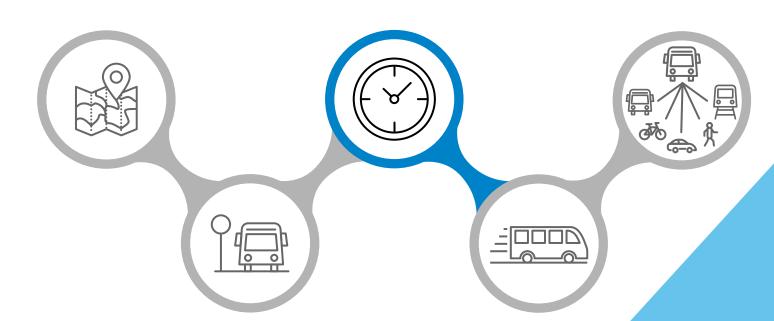
As opportunities arise through public and private investment, TTC will work alongside the City of Toronto to implement public realm improvements at key stops to better integrate these high activity locations with the surrounding community. Improvements include enhanced amenities and improved wayfinding as noted in Action 2.1 and 2.2 customer experience. as well as other enhancements such as formal pathways that connect to stops, improved lighting, larger sidewalks and platforms for customers to wait.



There are 22 bus and streetcar stop areas in the City where more than 4,500 customers board each weekday. In comparison, only six GO Transit rail stations exceed this threshold, yet every GO station is outfitted with various amenities to enhance

Pillar 3

Improve service reliability





What we've done

Late and irregular service adversely affects customer experience by adding to wait times, crowding and trip duration. Over the past five years, we have undertaken initiatives to increase reliability, including improving route management practices, vehicle reliability, operating practices and technology to make better decisions.

In 2019, we have improved reliability on **OVER 60 Schedules** on weekdays and 20 on weekends.

Service Reliability Programs

Since 2015



Route Management new practices to deliver reliable service

- 2015 Customer-focused metrics
- 2015 Reliable schedules
- 2018 Single transit control centre



Vehicle Reliability operate reliable vehicles to minimize in-service failures

2015-19 204 new low-floor streetcars

- 2015-19 1,180 new buses
 - 2015 Optimum spare ratio
 - 2015 Preventative maintenance programs
 - 2017 Optimum bus life program



Operating Practices secure additional vehicle and operator resources

- 2016 "Run-as-directed" vehicles
- 2018 Resilient workforce program



Technology

leverage technology to make better decisions

2018 Automatic passenger counting (APC technology)

2019 New CAD/AVL system (VISION)

Our plan to improve

3.1 Improve surface transit schedules

Between 2020 and 2021, weekday and weekend bus and streetcar schedules will be improved to reflect actual operating conditions so that customers can enjoy a reliable and consistent service. We will also look at opportunities

Customers consistently selected service reliability as the **most important** action in the 5-Year Service Plan

to reduce non-revenue service when vehicles leave and return to the garage. Between 2022 and 2024, we will improve overnight schedules including timing transfers at the busiest connections and regularly updating schedules on all routes to ensure TTC is able to deliver what is advertised.

3.2 Mitigate delays and disruptions to service

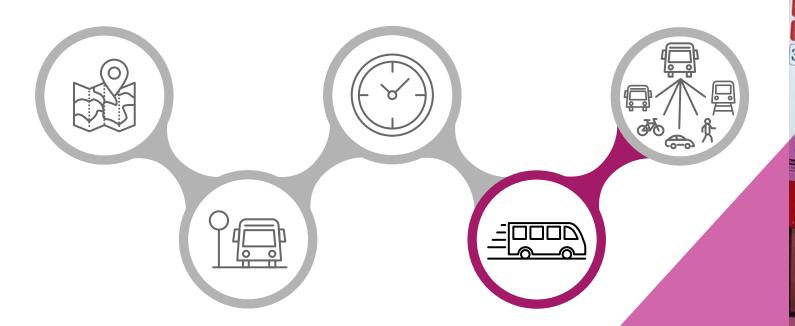
We will continue to mitigate the impacts of planned service disruptions such as subway closures and unplanned service disruptions such as short-term road works, collisions and emergencies. More buses, streetcars and trains will be available to minimize the effects of service disruptions on our customers' journeys.



Late evening and weekend subway closures are required to keep our subways operating safely and reliably

Pillar 4

Prioritize surface transit



Pillar 4 aims to provide fast service that values our customers' journey time.

5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK • 57

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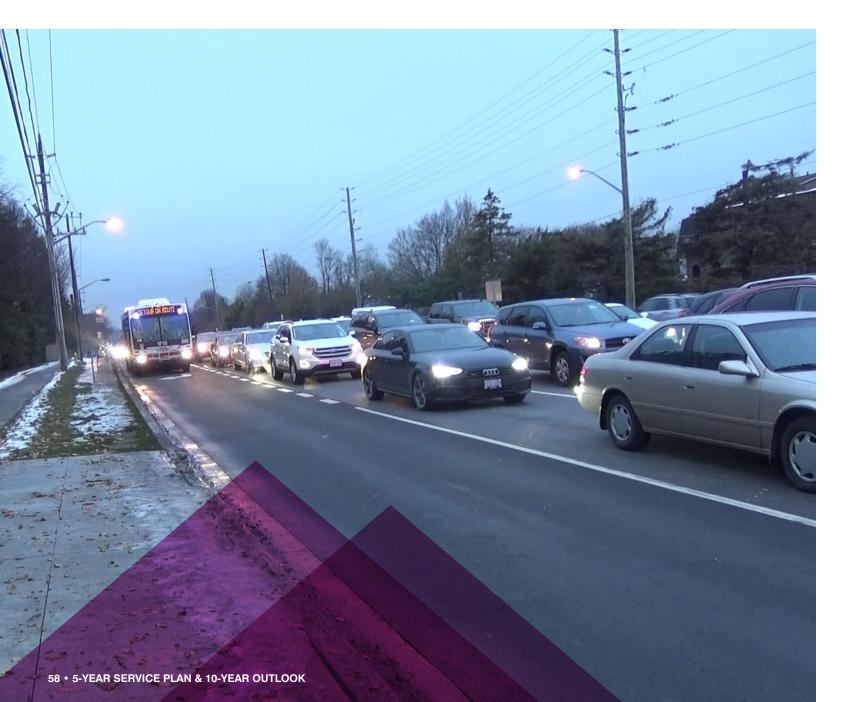
What we've done

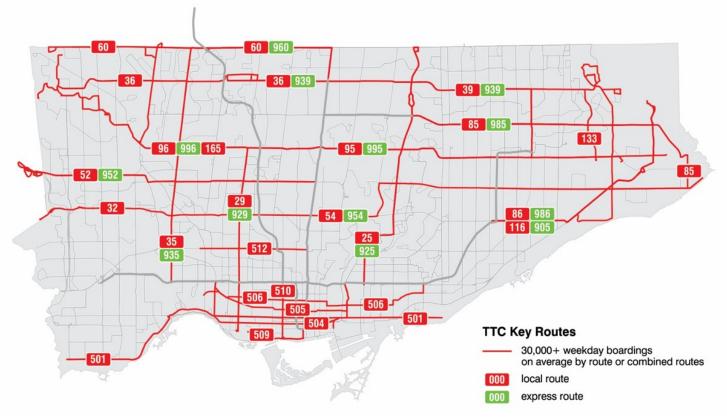
In recent years, TTC and City of Toronto have continued to roll out transit signal priority and bus queue jump lanes across the network. Additionally, the success of the King Street Transit Priority Corridor has improved speed and reliability for the busiest surface transit route in Toronto. But there is more that can be done.

Our plan to improve

There are 24 bus corridors in Canada and the United States that carry more than 30,000 customers per day; TTC operates 13 of them with little to no transit priority measures in place.

TTC buses average 65 boarding passengers per bus hour, for the highest level of overall passenger productivity of any major transit system in North America.



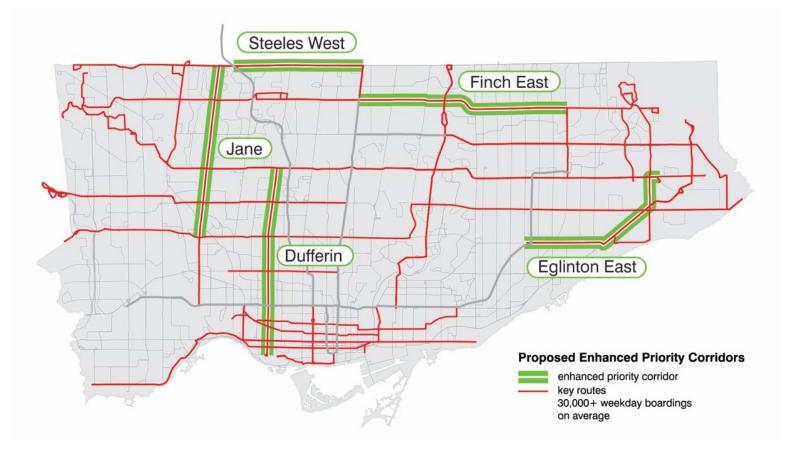


4.1 Explore bus transit lanes

Given the success of the King Street Transit Priority Corridor, we will explore implementing exclusive bus lanes, stop consolidation, all-door boarding and other transit priority measures to speed up bus service on Toronto's busiest bus corridors. Over the next five years

Nearly a quarter of a million customers travel along these five priority bus corridors every weekday.

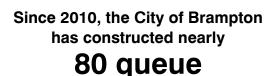
we will explore opportunities on Eglinton Avenue East, Dufferin Street, Jane Street, Steeles Avenue West and Finch Avenue East. Although our focus will be on these major corridors to start, we will continue to identify opportunities on other busy corridors to improve travel time and reliability for customers.





4.2 Implement more queue jump lanes

Queue jump lanes allow buses and streetcars and the customers they carry to bypass the line (queue) of cars at traffic signals. This allows buses and streetcars to be the first vehicle to cross the intersection after the light has changed thereby reducing travel time for our customers. Currently, there are five queue jump lanes in the City of Toronto. We are

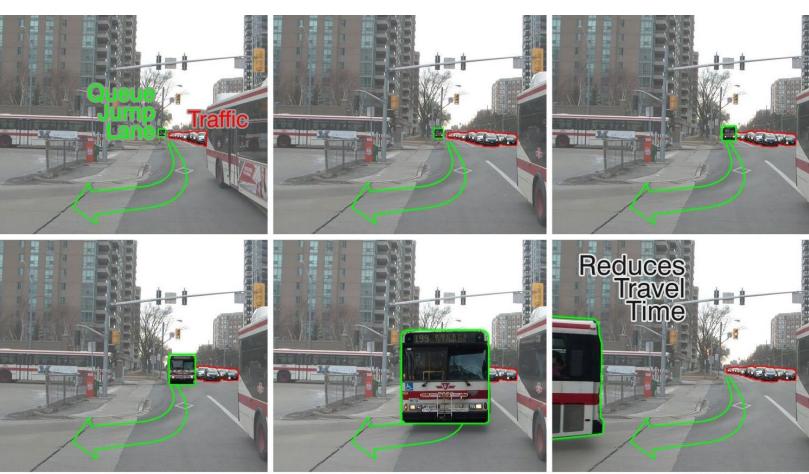


jump lanes

to reduce travel times and improve the reliability of their bus rapid transit service.

working towards a new streetcar queue jump lane that will be installed on Lake Shore at the Long Branch Loop. Moving forward, up to three new locations will be constructed each year.

Finch Avenue East Westbound Queue Jump Lane



4.3 Implement more transit signal priority

Transit signal priority helps buses, streetcars and the customers they carry to move quickly through intersections by adjusting traffic signals. The City and TTC will continue to roll out transit signal priority over the next five years, with up to 20 new locations implemented each year.



Along the King Street Transit Priority Corridor, **8 of 12 intersections** are equipped with transit signal

priority that improve service reliability, reduce travel times and improve transit efficiency.

Pillar 5

Accelerate integration with regional transit partners and complementary modes of transport



Pillar 5 focuses on accelerating integration with regional transit partners and complementary modes of transportation so that our customers experience a seamless connection to and from our services.



5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK • 65

What we've done

In recent years, we have worked with the City of Toronto to implement bike parking and repair stations at transit stations, we have improved wayfinding for private microtransit services that connect to our stations and we have integrated direct service to and from TTC stations with regional transit partners.

IKEA Shuttle Bus North York Store

66 • 5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK



68

Renforth

WAY

Our plan to improve

5.1 Expand service integration

There are more than 40 regional routes connecting to TTC stations and six routes that TTC operates into York Region and Mississauga. These routes provide approximately 75 network connections between TTC and MiWay, Brampton Transit, York Region Transit/VIVA, Durham Region Transit and GO Transit. Starting in 2020,

Nearly 15% of all TTC customers either start or end their trip outside the City of Toronto

we will work with regional transit partners to identify opportunities for further service integration on key regional corridors to be implemented in 2021 and beyond.

5.2 Integrate microtransit services

In 2020, TTC, the City and Metrolinx will work collaboratively with the private sector to launch an autonomous shuttle trial connecting residents of the West Rouge neighbourhood with TTC, Durham Region Transit and GO Transit services at the Rouge Hill GO Station. In 2020, we will also improve connections for customers who use TTC services and high-occupancy microtransit shuttle services. This includes integrating schedules for improved trip planning and enhancing wayfinding as well as piloting physical improvements at Don Mills Station.



Smart Commute Toronto identifies **carpooling**, **shuttles and public transit** as important actions to reduce congestion and pollution in the City.



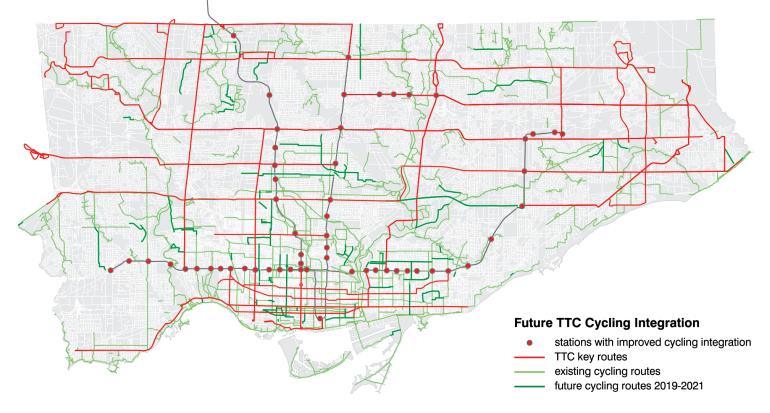
5.3 Enhance integration with cycling

Over the next five years, TTC will improve its integration with cycling to facilitate multi-modal trips alongside City of Toronto's expansion of the cycling network.

In 2020, we will roll-out planned enhancements at 49 TTC subway stations to improve the experience for people cycling. This will include more Toronto's cycling network is planned to expand by 17% over the next three years (2019-2021) with 120 km of new trails and bikeways.

bike repair stations and new, high-capacity, bike parking. TTC will collaborate with the Toronto Parking Authority to investigate the feasibility of expanding Bike Share into suburban Toronto. We will also increase the capacity of existing Bike Share locations at TTC stations, where feasible.

In 2021, we will expand bike parking at key surface stop locations, implement Bike Share in suburban Toronto and increase the capacity of existing Bike Share locations at TTC stations, where feasible. Beyond 2021, we will continue to work with the City to monitor, address and support increased cycling demand by providing bike parking and facilitating seamless connections to and from our service.



5.4 Enhance pedestrian pathways to TTC services

In some areas of Toronto, there are informal short cuts that provide customers with shorter distances between their neighbourhoods and transit facilities and services. Starting in 2020, we will identify and prioritize key locations to enhance pedestrian access to transit, and work with the City of Toronto to investigate and implement potential improvements.



We can immediately improve pedestrian access to transit by formalizing paths that customers have created.

5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK + 71

5.5 Implement a Mobility as a Service (MaaS) strategy

MaaS brings together mobility services like transit, taxi, bike share and parking under one smartphone app to plan trips, get real-time info and make payments. In 2020, TTC will work with the City of Toronto to explore

Seven in ten (69%) TTC customers combined a recent trip with some other mode of transportation. With one quarter (27%) of these trips including a shared mobility service.

and recommend options for MaaS governance and policies to meet the public's needs. In 2021, TTC will look to pilot a partnership with another mode, such as Bike Share or Green P. Beyond 2021, TTC and City will work with regional and private sector partners to expand MaaS opportunities.





20-point action plan

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The 20-point action plan summarizes the actions and initiatives that TTC will undertake over the next five years.

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How TTC plans to achieve the action and when

Proposed actions	2020	2021	2022	2023
Pillar 1: Enhance the transit m	etwork –			
An expansive network that get	s customers to where they want to go, whe	en they want to go		
1.1. Accommodate population and employment growth			Relieve peak & o	ff-peak crowding
1.2. Implement new services to address travel patterns	Implement overnight network changes & start updating community bus network	Update community bus network, expand Express Bus Network, enhance bus service in Scarborough & add new services	Nev	v services to be identified through the an
1.3. Open Line 5 – Eglinton		Open Line 5 & enhance surrounding bus network		
1.4. Relieve crowding on Line 1	T		Increase AM peak service	
1.5. Open Line 6 – Finch West	+			Open Line 6 & enhance surrounding b
1.6. Enhance streetcar network	Deploy new streetcars on 505 Dundas		Enhance streetcar service	on 501 Queen & 504 King
1.7. Apply an equity lens to service planning	Implement new customer consultation process		Pilot new service in Neighbo	purhood Improvement Areas
	perience at key surface transit stop areas gins before our customers get on a vehicle			
2.1. Expand customer amenities at stops		' ' '	Install more shelters, heated shelters & bench	es. Continue with accessible stop & acces
2.2. Improve wayfinding at stops		1	Install next vehicle arrival screens & wayfin	ding maps
2.3. Improve placemaking at key stop areas		1	Enhance the walkability, comfort & convenie	nce of key stop areas
Pillar 3: Improve service relia	bility – A reliable service that our custome	ers can count on		
3.1. Improve surface transit schedules	Improve remaining weekd	ay & weekend schedules		Improve overnight schedules & ongo
3.2. Mitigate delays & disruptions to service	Add more buses & trains to mitigate delays			
Pillar 4: Prioritize surface tran	sit – A fast service that values our custom	ers' journey time		
4.1. Explore bus transit lanes			Eglinton East, Steeles West, Jane, Dufferin	
4.2. Implement more queue jump lanes		Lake Shore @ Long Branch Loop	Lip to 20 locations per vegr	Up to 3 locations per year
4.3. Implement more transit signal priority		 	Up to 20 locations per year	
	n with regional transit partners and comple vides our customers with a seamless com			
5.1. Expand service integration	Develop plan & pilot project		Expand service integration with MiWay, Brampto	on Transit, York Region Transit, Durham R
5.2. Integrate microtransit services	Implement Automated Transit Shuttle Trial & integrate private microtransit services		Explore AV shuttle opportunities & expand int	egration with private microtransit service
5.3. Enhance integration with cycling	Enhance bike parking & repair stations at TTC Stations Collaborate to expand Bike Share into suburban Toronto & increase Bike Share capacity at TTC stations	Expand bike parking at key stop areas, implement Bike Share stations in suburban Toronto & increase Bike Share capacity at TTC stations	Continue to work	with the City to monitor, address & supp
5.4. Enhance pedestrian pathways to TTC	Establish pedestrian path working group & action plan		Implement pedesi	rian path program
5.5. Implement a Mobility as a Service (MaaS) strategy	Establish Mobility as a Service (MaaS) working group & action plan	Implement a pilot partnership with another mode of transport		Expand MaaS working group & action

	2024
annual plan proc	ess
g bus network	
	Deploy new streetcars on 511 Bathurst
cess hub progra	ins
going schedule ι	Jpkeep
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ar	
Region Transit	& GO Transit
ce providers	
innort increased	cycling demand
pport moreased	
on plan to regior	nal & private partners

Benefits summary

5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK • 79

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The Plan advances the City's economic prosperity, social wellbeing, social-inclusion and environmental sustainability



Accommodates projected population and employment growth of 1% per year, on average

Enhances transit services to Neighbourhood Improvement Areas by improving access to employment opportunities by approximately 14%



Promotes healthy exercise and activity by integrating and enhancing infrastructure to support cycling and walking to transit

Supports mental health and well being by increasing predictability, reliability and reduced trip times – factors which are linked to lower-stress commutes



Reduces tailpipe emissions of both greenhouse gas emissions that contribute to climate change and air pollutants that cause heart and lung problems, by providing transit services that decrease the need for single occupancy cars



Advances the vision of a more resilient Toronto by achieving specific actions outlined in the City's Resilience Strategy

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Uses City streets to move more people more efficiently on key bus and streetcar routes

The Plan advances TTC's mission of providing a reliable, efficient and integrated bus, streetcar and subway network

Increases transit customer trips by 35 million by 2024 More frequent service in high-growth areas across the City and where demand has increased

More rapid service through various actions including improvements on Line 1, the opening of Line 5 – Eglinton and Line 6 – Finch West, and the implementation of new express bus services and transit priority measures on key corridors

> Upgrading stop amenities and infrastructure across the City for customers of all abilities as we advance our Family of Services approach

More reliable service on bus and streetcar routes as we trend towards 90% on-time departures

Ridership

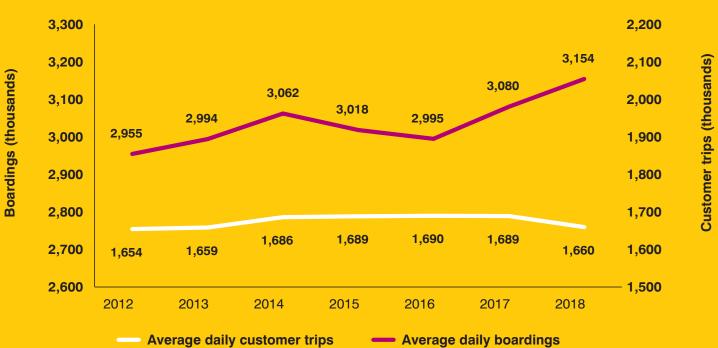
After increasing steadily for 12 years, customer trips stabilized in 2016 and declined in 2017 and 2018. This trend is similar to other large mature North American transit systems, many of which are experiencing falling ridership on one or more of their transit modes. Ongoing analysis is required, but contributors could include changes in demographics, travel behaviour and technology that is changing how people travel in cities.

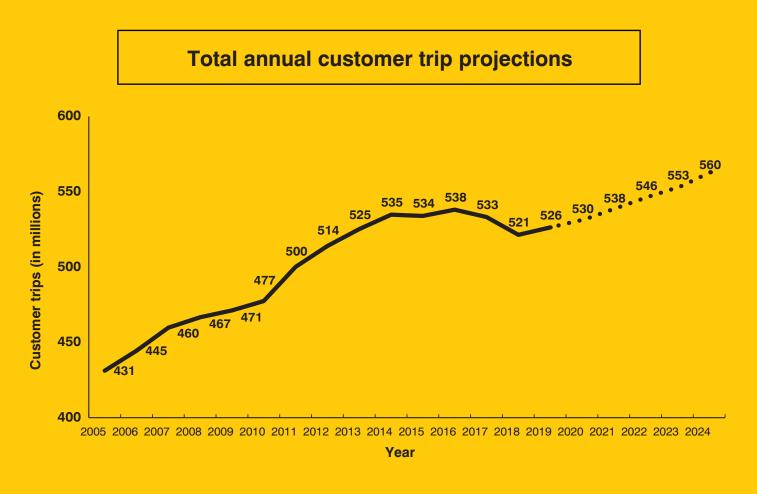
Transit systems are also finding that revenue control measures (e.g. monitoring fare payment) are required to a greater extent than in the past, which in turn affects measured ridership. TTC likely experienced some revenue (and measured ridership) loss during the PRESTO introductory period.

Although customer trips has declined, data shows that boardings continue to increase. This may be a result of changing travel behaviour/patterns and changes in fare policy (i.e. kids under 12 ride free and 2-hour transfer). Additional analysis will be completed as part of the 5-Year Fare Policy and 10-Year Collection Strategy.

Over the next five years, customer trips are expected to increase. Projected population and employment growth, rapid transit expansion and investment in transit priority corridors are all expected to contribute to increasing transit ridership in the City.

Average weekday boardings and customer trips

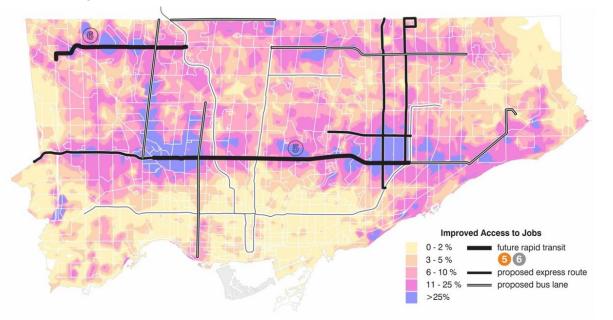




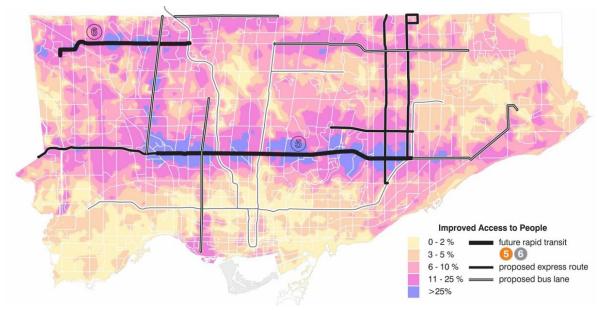
Travel time improvements

The actions in this Plan focus on moving our customers safely, reliably, and swiftly across Toronto. Opening two new rapid transit lines, implementing priority bus corridors and expanding the Express Bus Network will result in faster customer travel times. This results in greater access to people and jobs across the City.

For individuals, this means access to a greater number jobs from wherever they call home within 45 minutes.



For businesses this means a larger market from which they can attract customers.





Investment summary

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Operating costs

The 20-point action plan includes initiatives to improve service for existing and future customers between 2020 and 2024. These initiatives include introducing rapid transit enhancements on Line 1, Line 5 and Line 6, improving service reliability on surface transit routes and increasing service levels to accommodate demand across the City. By 2024, \$174 million is required for gross operating costs.

Operating costs (\$ millions)

Action	Capital requirement	2020	2021	2022
1.1 Accommodate population and employment growth	Buses Streetcars & MSF	\$0.0	\$2.0	\$4.7
1.2 Implement new services to address travel patterns	Buses	\$0.0	\$3.5	\$3.5
1.3 Open Line 5 - Eglinton		\$0.0	\$30.1	\$34.0
1.4 Relieve peak crowding on Line 1		\$0.0	\$0.0	\$0.6
1.5 Open Line 6 - Finch West		\$0.0	\$0.0	\$0.0
1.6 Enhance streetcar network	Streetcars & MSF	\$0.0	\$0.0	\$2.6
1.7 Apply an equity lens to service planning	Buses	\$0.0	\$0.5	\$0.5
3.1 Improve surface transit schedules	Buses Streetcars & MSF	\$3.7	\$5.3	\$6.4
Total - incremental annual operating costs		\$3.7	\$41.4	\$52.3
Total - cumulative annual operating costs		\$3.7	\$45.1	\$97.4

Note: Excludes incremental passenger fare revenues.

Line 5 and Line 6 operating cost estimates have been prepared in advance of finalizing an operating agreement with the Province and therefore are subject to change.



2023	2024	Total
\$6.2	\$7.2	\$20.1
\$0.9	\$0.1	\$8.0
\$1.5	\$1.6	\$67.2
\$0.6	\$0.1	\$1.3
\$19.3	\$21.3	\$40.6
\$5.6	\$3.3	\$11.5
\$0.1	\$0.0	\$1.1
\$4.6	\$4.2	\$24.2
\$38.8	\$37.8	\$174.0
\$136.2	\$174.0	

Fleet & facilities

Over the next five years, we will operate more vehicles in-service: 75 more buses, 50 more streetcars, more trains on Line 1 & Line 2 and new trains on Line 5 - Eglinton and Line 6 - Finch West. Additional vehicles will be maintained and stored at new facilities including McNicoll Bus Garage, facilities to support Line 5 and Line 6, and a facility to support more streetcars.

Planned in-service vehicles over the next five years

Mode	2020	2021	2022	2023	2024	
Buses	1,679	1,689	1,721	1,737	1,755	
Streetcars	164	164	182	198	214	
Line 1 - Trains (6 cars)	65	65	68	68	70	
Line 2 - Trains (6 cars)	46	46	46	46	48	
Line 3 - Trains (4 cars)	6	6	6	6	6	
Line 4 - Trains (4 cars)	4	4	4	4	4	
Line 5 - Trains (2 cars)	0	17	18	18	20	
Line 6 - Trains (1 car)	0	0	0	15	15	



Capital costs

The 20-point action plan includes initiatives between 2020 and 2024 to meet the transit needs of our growing City. Capital funding is required to buy more vehicles, improve stop areas and implement transit priority measures.

In total, nearly \$779.5 million is required over the next five years.

Capital costs (\$ millions)

Item	Actions supported	2020-2029 Capital Plan	2020	2021	2022	2023	2024	Total
Buses	1.1 Accommodate population and employment growth	Request	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
	1.2 Implement new service to address travel patterns	Unfunded	\$0.0	\$0.0	\$100.7	\$62.1	\$1.3	\$164.1
	1.7 Apply an equity lens to service planning3.1 Improve surface transit schedules	Sub-total	\$0.0	\$0.0	\$100.7	\$62.1	\$1.3	\$164.1
	1.1 Accommodate population and employment growth	Request	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Streetcars	1.6 Enhance streetcar network	Unfunded	\$0.6	\$2.4	\$135.3	\$137.5	\$138.6	\$414.5
	3.1 Improve surface transit schedules	Sub-total	\$0.6	\$2.4	\$135.3	\$137.5	\$138.6	\$414.5
Chrosteen	1.1 Accommodate population and employment growth	Request	\$0.9	\$1.2	\$0.0	\$0.0	\$0.0	\$2.0
Streetcar Maintenance & Storage Facility	1.6 Enhance streetcar network	Unfunded	\$4.0	\$8.7	\$38.9	\$31.3	\$0.0	\$83.0
Maintenance & Storage Facility	3.1 Improve surface transit schedules	Sub-total	\$4.9	\$9.9	\$38.9	\$31.3	\$0.0	\$85.0
Kana Ohana Ana an	2.1 Expand customer amenities at stops	Request	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Key Stop Areas (Operational Improvements)		Unfunded	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$15.0
		Sub-total	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$15.0
	2.2 Improve wayfinding at stops	Request	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Next Vehicle Arrival Signs		Unfunded	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$1.1
		Sub-total	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$1.1
Bus Rapid Transit Lanes		Request	\$0.6	\$0.6	\$0.6	\$0.0	\$0.0	\$1.8
	4.1 Explore bus transit lanes	Unfunded	\$0.0	\$10.0	\$10.0	\$10.0	\$10.0	\$40.0
		Sub-total	\$0.6	\$10.6	\$10.6	\$10.0	\$10.0	\$41.8
Transit Priority Measures (Queue Jump Lanes & Transit Signal Priority)	4.2 Implement more queue jump lanes4.3 Implement more transit signal priority	Request	\$6.6	\$6.6	\$6.6	\$5.3	\$5.3	\$30.3
		Unfunded	\$3.0	\$2.2	\$4.4	\$9.4	\$8.8	\$27.8
		Sub-total	\$9.6	\$8.7	\$10.9	\$14.7	\$14.1	\$58.0
		Request	\$8.0	\$8.3	\$7.1	\$5.3	\$5.3	\$34.1
Total		Unfunded	\$10.8	\$26.6	\$292.5	\$253.6	\$161.9	\$745.5
		Total	\$18.8	\$34.9	\$299.6	\$258.9	\$167.2	\$779.5

Measuring performance

94 • 5-YEAR SERVICE PLAN & 10-YEAR OUTLOOK



The 5-Year Service Plan & 10-Year **Outlook provides a blueprint of** service improvements to address Toronto's transit needs.

Measuring performance is critical to ensuring investments in our services result in the benefits we envision for our customers.

We will measure performance in three ways. At the system level, route level and Plan level.

Every year, we will report on performance and any resulting actions we will take through the Annual Service Plans. This will be a key part of our annual consultation with customers and stakeholders, as well as the consultations we will hold to inform our future 5-Year Service Plans.

System Level

Route Level

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Plan Level

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Customer Satisfaction Measured by overall customer satisfaction



Ridership Measured by boardings



Service Reliability Measured by on-time departures



Journey Time Measured by travel time



Productivity Measured by boardings per revenue hour



Service Reliability Measured by on-time departures



Crowding Measured at the busiest stop on the route



Efficiency Measured by net cost per passenger



Status Measured by implementation of planned action items

10-year outlook



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BAY

Electric Bus

Between 2025 and 2029, the City will continue to grow by Side 1% per year and transit will continue to play a vital role in the City's prosperity. DOWNTOWN

We must continue to improve the speed, reliability and frequency of our service to ensure we remain a competitive travel option in the City. This will ensure we are doing our part to achieve the City's goals of addressing poverty, public health and climate change.

Between 2025 and 2029, bus, streetcar and rapid transit services will continue to grow and expand requiring additional fleet and facilities.

As we respond to growth and add service, TTC will need to review opportunities to expand capacity at bus terminals.

The number of buses will increase by 135 from 2,160 to 2,295. A new 9th bus garage is required to store, maintain and service our growing bus fleet. The streetcar network will grow with a number of new expansion projects that will necessitate additional streetcars, a new facility and modifications to existing terminals and loops.

Several key streetcar projects would improve service along Toronto's waterfront. These include improvements to the streetcar loop at Union Station; extension of streetcar service east along Queens Quay to the East Bayfront area, and beyond; a new streetcar connection between Exhibition Loop and Dufferin Street; and future improvements in the Humber Bay, West Donlands, and Portlands areas. The rapid transit network will grow with a number of planned expansion projects requiring additional fleet and facilities, and new connections to TTC surface routes.

Four provincial priority rapid transit projects are being planned, funded, and delivered by the Province, and would be operated by TTC. These projects would expand the rapid transit network in Toronto.

Ontario Line

This line would provide new rapid transit service between Eglinton & Don Mills and Exhibition Place connecting with Line 5, Line Highway 7. The project 2, Line 1, the downtown core, and the Lakeshore East and West GO lines. The line would provide vital relief to crowding on Line 1, and bring new rapid transit to many Toronto neighborhoods.

Line 1 Yonge **Subway Extension**

This subway extension would extend Line 1 from Finch Station up to would expand the rapid transit network along the Yonge Street corridor, and would improve connections to the TTC bus network.

Line 2 East Extension

This subway extension of Line 2 would replace Line 3 Scarborough with a three-stop extension of Line 2 from Kennedy

Station to McCowan Road and Sheppard Avenue. The project would expand the rapid transit network in Scarborough, and would improve connections to the TTC bus network.

Line 5 Eglinton West Extension

This extension of Line 5 Eglinton would extend service on the under-construction Eglinton line west of Mount Dennis Station to Renforth, and Pearson Airport. The project would expand the rapid transit network in Etobicoke.

These projects will support the GTA's growth and build stronger regional connections.

SmartTrack/GO **Expansion**

Up to twelve new GO Transit rail stations are planned to be built in Toronto. These stations would be served by more-frequent GO Trains, would improve access to higher order transit, and would offer excellent connections to TTC rapid transit, streetcar, and bus services. Some of the stations would be funded by the City of Toronto as part of the SmartTrack project.

Line 5 Eglinton **East Extension**

This extension of Line 5 Eglinton would extend service on the under-construction Eglinton line east of Kennedy Station to the University of Toronto Scarborough, Sheppard Avenue, and the Malvern neighborhood. The project would expand the rapid transit network in Scarborough.

This bus rapid transit corridor is currently being planned by Metrolinx and the Region of Durham. The project involves the provision of a higher order bus rapid transit facility along Highway 2 and Ellesmere Road to Scarborough Centre Station. The corridor would be used by TTC, Durham Region Transit, and GO Transit buses.

Dundas Bus Rapid Transit

This bus rapid transit corridor, which is currently being planned by Metrolinx and the City of Mississauga, involves the provision of a higher order bus rapid transit facility along Dundas Street through Mississauga to Kipling Station. The corridor would be used by MiWay, GO Transit, and TTC buses.

Durham-Scarborough Bus Rapid Transit

Bloor-Yonge Capacity Improvement project

This project would provide crucial upgrades to Bloor-Yonge Station, the busiest in the subway system. Expanding capacity and improving passenger circulation is required to safely accommodate future transit expansion and projected growth in demand. Other benefits of the project would include less frequent overcrowding, reduced train dwell time, and support for more frequent trains on Line 1 and Line 2.

Airport Transit Hub

The Greater Toronto Airports Authority (GTAA) plans to build a new **Regional Transit Centre** (RTC) at Toronto Pearson International Airport. TTC is working with the GTAA and other transit partners to plan and design the future requirements for transit connections at the RTC.