For Action

Sustaining a Reliable Transit System: Outlook 2024 and Beyond

Date: June 12, 2023
To: TTC Board
From: Chief Executive Officer

Summary

The Toronto Transit Commission (TTC)'s comprehensive network of bus, streetcar and subway services spans Toronto's 630 square kilometres geography, moving more than 525 million customers annually pre-pandemic. The TTC is foundational to the mobility network, enabling Toronto's population of 3.02 million to access employment, education, services and social connection through an integrated mass transit network. At the core of a region of 6.47 million, Toronto generates 26% of Ontario's GDP and 10% of the national GDP annually. The continued success of Toronto as a thriving social and economic hub will be contingent on a reliable, frequent and safe public transit system that creates access to opportunity for everyone.

There are, however, significant challenges ahead, which require partnership from all orders of government, to ensure the benefits of public transit are realized. This report outlines the key risks and issues facing the TTC as we undertake planning for 2024 and beyond. The following factors need to be considered:

- *Ridership is currently averaging at 74% of the pre-pandemic level,* due in large part to the continuation of hybrid work averaging 2.3 days per week in the office (18% of the gap, with the other 12% of the gap due to mode shift).
- *Recovery of ridership continues to be strongest on bus compared to other modes* (boardings at 84% pre-pandemic levels) and serves many of Toronto's equity-seeking communities, compared to streetcar and subway use at 57% and 63% pre-pandemic levels, respectively.
- *Recent data shows traffic congestion in Toronto is near pre-pandemic levels despite 50% of office worker trips not taking place*. Major construction is also planned and underway over the next seven-to-eight years with further potential impacts on surface transit reliability.
- *Customer experience and satisfaction are important to attracting and retaining riders.* However, concerns regarding streetcar service and community safety, amongst other factors, have resulted in a decline in customer satisfaction scores.
- *The heavy reliance on the farebox has demonstrated the vulnerability of the system and poses a risk to service* (approximately 70% of operating costs pre-pandemic

were funded by fares), the TTC continues to face significant ridership revenue impacts from COVID.

- *New rapid transit services are being built that will transform the network, but also introduce new operating cost pressures to a challenging fiscal framework* once entered into revenue service (e.g. Line 5, Line 6 and future subway expansion).
- *Population growth in Toronto and the region is expected, with Toronto's population expected to grow to 3.561 million by 2051.* With a current transit mode share of 23% (compared to 27% pre-pandemic), and the City's TransformTO goals to increase share of trips taking sustainable transportation modes – ensuring the competitiveness of public transit will be key in a climate-changed environment.

In order to provide service capacity to meet demand, and address the above factors and trends, the TTC anticipates an opening operating pressure in 2024 in the order of $480 million to $540 million. This could rise as high as $600 million depending on the outcome of collective bargaining agreements, and additional safety-related expenditures not yet identified. The TTC is undertaking further technical analysis on various scenarios to develop a final set of recommendations for the 2024 Annual Service Plan, a key input to the 2024 Operating Budget.

Service reliability is also dependent on steady investment in asset state of good repair. The TTC's infrastructure, facilities and fleet relied upon to deliver service range in age from one year to more than 100 years old. The TTC's 2023-2037 Capital Investment Plan (CIP) identified $38.05 billion in capital investment required over the next 15 years, of which $25.2 billion is unfunded. Despite an increase in investment by the City of Toronto under the City Building Fund since 2019, the scale of investment required to address the needs of a system requiring asset renewal are substantial and require predictable, long-term funding streams to address effectively. In particular, the state-of-good-repair backlog, and needs for fleet replacement and maintenance, are key priorities that are not fully funded in the CIP.

The TTC has proactively been seeking out efficiency opportunities and cost reduction measures to address the fiscal challenges of the TTC as a key strategic pillar of the last Corporate Plan. In the last five years, this has amounted to $182 million in savings. However, the combined operating and capital investments required to sustain the level and quality of transit service required to support Canada's largest city, cannot be supported solely through expenditure reductions, or revenue streams currently available to the TTC. All orders of government will play a key role in the future success of Toronto's transit network. A tri-partite discussion on a long-term financial strategy for public transit is necessary to support the liveability of Canada's large urban centres.

The TTC will be bringing forward a new Five-Year Corporate Plan and 2024 Annual Service Plan in the fall of 2023, which will outline strategic directions, and recommendations for Board consideration. This will also set the foundation for the TTC's 2024 Budget process as well as the Five-Year Service Plan in early 2024. The TTC is also engaging the University of Toronto to support analysis of the benefits of public transit and risks of underinvestment. This report identifies key issues and trends to inform the Board of the challenges ahead, and sets context for key strategies and plans, as the TTC seeks to provide a reliable, frequent and safe public transit system for everyone.

Recommendations

It is recommended that the TTC Board:

1. Forward this report to the following:

    a. The Federal and Provincial Governments to request a tri-partite discussion on development of a sustainable, long-term funding model for public transit; and

    b. The City Manager, City of Toronto to inform the development of the City's Long-Term Financial Plan.

Financial Summary

The recommendations do not have a direct financial impact. The report provides an outlook on the immediate financial pressures of the TTC, which will inform the context for the 2024 Operating and Capital Budget and planning process, and the development of the TTC's immediate- to long-term planning objectives. Please see section 3.

The Chief Financial Officer has reviewed this report and agrees with the Financial Impact Assessment.

Equity/Accessibility Matters

The TTC is an important contributor to creating access to opportunity and the conditions for an inclusive Toronto. The TTC serves a diverse customer base, reflective of the diversity of Toronto and the region. Pre-pandemic, the TTC served more than 525 million customer trips per annum. The geographic coverage and seamless integration of the TTC's multi-modal system enables the TTC to serve equity-deserving communities across Toronto. TTC customers are diverse and use the system at different rates. For example, of the 3.2 million average weekday boardings pre-COVID:

- 27% were youth (15-24)
- 53% live in apartments
- 34% are not employed
- 24% make less than $40K
- 23% make more than $100K
- 32% do not own a car
- 58% identify as female
- 55% may be visible minorities

For many, public transit is a primary mode of mobility. During the pandemic, when ridership was at its lowest (88% decline), the TTC continued to carry approximately, 200,000 daily revenue rides. Three key customer groups continued to rely on the TTC during this period: people with low income, women and shift workers.

The TTC's commitment to equity and accessibility is also reflected in how we plan and deliver our services, and we continue to seek ways to improve our approach. The TTC continues to work towards creating new partnerships and strengthening current ones, based on respect and transparency, to foster and improve trust between the TTC and the community. The TTC is strongly committed to making Toronto's transit system barrier-free and accessible so that all customers can enjoy the freedom, independence and flexibility to travel anywhere on the public transit system, regardless of ability. Inadequate financial support for public transit will have a significant implication on the achievement of an inclusive Toronto and region.

Decision History

The following reflects recent TTC Board decisions on budget and establishing direction on service:

(April 13, 2023) Financial and Major Projects Update for the Year Ended December 31, 2022: The report received the Board's endorsement to approve the 2022 Capital Budget in-year budget adjustments to offset projects that had accelerated spending with projects that have experienced delays and lower spending with no debt impact. The report also urged the Provincial and Federal governments for ongoing operating support as the TTC continues to recover from COVID-19. The Board adopted a member motion to direct staff to develop a report on potential revenues from naming rights and sponsorships to offset financial pressures, and this work is underway.
Report: Financial and Major Projects Update for the Year Ended December 31, 2022
Decision**:** Financial and Major Projects Decision

(February 28, 2023) Service Alignment: The report received the Board's endorsement to align TTC service with ridership and presented the first of two phases of service adjustments, implemented on March 26, 2023.
Report: Service Alignment – Phase 1
Decision: Service Alignment Decision

(January 9, 2023) TTC Conventional and Wheel-Trans Operating Budgets: The report received the Board's approval of the 2023 Conventional and Wheel-Trans Budgets. The Conventional budget was approved in the amount of $2.237 billion and the Wheel-Trans budget was approved in the amount of $142.8 million.
Report: Joint Conventional and Wheel-Trans Operating Budget.
Decision: Joint Budget Decision Report

(January 9, 2023) TTC 15-Year Capital Investment Plan, Real Estate Investment Plan Update and 2023-2032 Capital Budget and Plan: The Board endorsed the 2023-2037 Capital Investment Plan ($38.046 billion plan), the 2023-2037 Real Estate Investment Plan and the 2023-2032 Capital Budget and Plan.
Report: TTC 15-Year Capital Investment Plan, Real Estate Investment Plan Update and 2023 – 2032 Capital Budget & Plan
Decision: Capital Plan Decision Report

Issue Background

Toronto is the fourth largest city in North America with a population of more than three million residents and is forecasted to grow to more than four million residents by 2046. As Canada's largest city, Toronto produces approximately 26% of Ontario's GDP, accounting for 10% of Canada's GDP. Toronto is consistently ranked as one of the greatest cities in the world to live, visit and do business.

To support a growing Toronto and region, the TTC provides a necessary service, through its four subway lines, 10 streetcar lines, more than 150 bus routes and a paratransit (Wheel-Trans) service. The movement of people is critical to a growing region, enabling residents to access employment, education and services. Pre-pandemic, the TTC provided more than 525 million rides annually (2019), and as of April 2023, we have provided over 121 million revenue rides year to date.

Through provision of a high quality public transit service, the TTC has the potential to contribute to broader environmental, social and economic goals of the City of Toronto, Province of Ontario and Government of Canada. The TTC's importance can be demonstrated by the following analysis conducted by the University of Toronto on the benefits from investments made in the TTC's capital plan:

- There is an additional $2.40 of additional economic activity for every dollar invested (gross output).
- There are 15 new jobs created for every $1 million invested with 89% of economic benefits generated by TTC investments remaining within Ontario (52% of that being in the GTA), while a further 11% is realized nationally.
- State of Good Repair (SOGR) investments also provide positive economic benefits, matching those of expansion projects and enabling infrastructure to meet current service demands.

The TTC also plays an important role in meeting environmental, social and public health goals. For example:

- Public transit is key to addressing congestion. To replace the capacity on the Line 1 subway, Toronto would need to build the equivalent of eight-to-nine Gardiner Expressways to move the same amount of people.
- Shifting users from private vehicle to public transit is anticipated to reduce greenhouse gas (GHG) emissions and improve air quality. For example, personal travel emissions are reduced by 79% when taking the TTC instead of a car. Additionally, the TTC's Green Bus program will reduce 165,000 tonnes of emissions per year once fully completed.
- Studies from comparator North American cities demonstrate that public health outcomes, such as obesity, stroke, traffic accidents, exposure to air pollutants and physical activity all improved when there is access to transit.

Investment in the TTC is an investment in success of Toronto. Realizing the full benefits of public transit are at risk in the absence of a sustainable, long-term funding model for public transit, which ensures the TTC can sustain a reliable transit system.

Comments

The purpose of this report is to provide an outlook on key risks and issues facing the TTC in 2024 and beyond. This outlook will inform emerging strategic directions in response to this environmental context, in the TTC's next 5-Year Corporate Plan and the 2024 Annual Service Plan and 2024 Operating and Capital Budget Process in the fall of this year. A new 5-Year Service Plan is also under development, including a refresh of the Capital Investment Plan with a specific focus on the unfunded components, service implications and the costs of not investing in public transit. This work is supported by research the TTC is engaging in with the University of Toronto.

The following report outlines: (1) emerging issues with respect to customer demand and experience, (2) service capacity and quality, and (3) financial constraints on the operating and capital side, which directly impact our ability to sustain reliable transit service for Toronto.

1. Emerging Trends Impacting Customer Demand and Experience

The TTC collects and monitors data on ridership, customer satisfaction and travel behaviour in addition to key factors, such as road congestion that impact customer demand and service quality. The following provides an overview:

Customer Demand – Ridership Trends

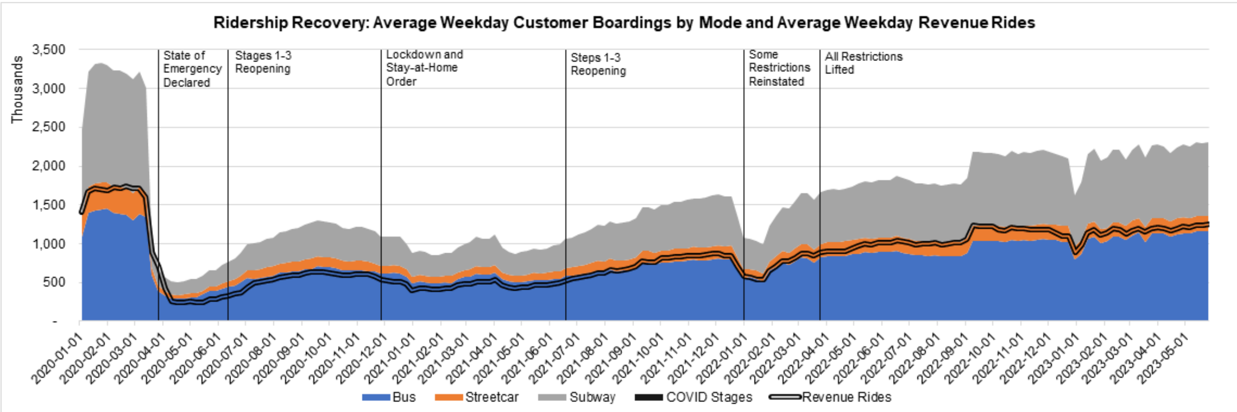
Pre-pandemic, the TTC had an annual ridership of more than 525 million, with daily ridership of 1.7 million. The TTC had established a long-term planning horizon to 2041, with an expected growth rate of 1.5% to address forecasted population and ridership growth from planned transit network expansion. The TTC used this information to determine long-term service and fleet plan requirements – inputs to the TTC's capital investment plans.

The pandemic introduced a sharp decline in transit ridership. In March 2020, the TTC's ridership decreased drastically (down 88% at the lowest point) – not only due to closures of workplaces and destinations, but also due to a fear of COVID transmission. Despite the steep decline, the TTC continued to carry approximately 200,000 daily revenue rides with customers making trips to access essential work and services. In July 2022, a report was presented to the TTC Board that presented the results of a comprehensive review of ridership and travel patterns over the course of 2020 and 2021. The following trends were observed:

- Customers who continued to rely on the TTC have travel behaviours that differ from the traditional 9-to-5 office worker. Pre-COVID, the office worker was the largest customer group representing approximately 38% of TTC ridership.
- During this period of the pandemic, primarily three key customer groups continued to rely on transit: people with low income, women and shift workers.
- In general, a greater proportion of customers travelled in off-peak times, made longer bus trips to destinations spread out across the city and women often trip-chain, making multiple stops during their trip.

The patterns that emerged during the lowest points of our ridership indicate the TTC has a segment of the customer base who primarily rely on public transit (approximately 32% of customers do not have access to a personal vehicle). Maintaining coverage and frequency was critical for those who needed access most through the pandemic, and for Toronto's continued mobility.

Figure 1. Average Weekday Customer Boardings by Mode and Average Weekday Revenue Rides



Revenue Rides and Customer Boardings are both measures of transit ridership Revenue rides are linked trips. They represent a customer journey from origin-to-destination one-way, including transfers, and are the basis for a fare. Boardings measure customer use of the system, and 'count' customers each time they board a TTC vehicle.

As ridership has started to recover from 2022 to present, the TTC continues to monitor shifts in trends and adjusting service to reflect today's context. Currently:

- System-wide ridership is at approximately 74% of pre-pandemic levels.
- Ridership frequency has changed with a higher degree of discretionary use. PRESTO data shows that 93% of unique riders have returned to transit, however, their frequency of use has changed with a decrease in the times per week. The number of unique riders who ride the system one-to-four days per week is 120% of pre-COVID ridership. Only 58% of pre-COVID ridership use the system four-to-five days per week.
- Bus boardings are recovering at a greater rate at approximately 84%. Boardings in off-peak periods is also recovering at a greater rate, with Sunday bus boardings exceeding 95% in recent weeks.
- Post-pandemic patterns mean pressures are in different places: Bus boardings now represent 50% of system-wide boardings, compared to 43% prior to the pandemic. Subway boardings is now 41% of system-wide boardings, compared to 46% prior to the pandemic.

Other key trends that have an impact on how the TTC plans its service include conditions in the broader mobility network. For instance, recent data from the City of Toronto shows that traffic congestion has returned to pre-pandemic levels despite only 50% of office-worker trips taking place. Table 1 shows that as of April 2023, in peak travel times, road congestion indices are near comparable to pre-pandemic conditions.

Traffic patterns also continue to change due to flexible work arrangements meaning that trips are being made at different times, which has a significant impact on transit travel times during traditionally off-peak periods.

Table 1. City-wide Travel Time Indices (City of Toronto- Transportation Services)

Stage	Dates	AM (8 to 9 am)	PM (5 to 6 pm)
Baseline	February 17, 2019 to February 16, 2020	1.61	1.76
Lockdown 1	March 17 to May 18, 2020	1.02	1
May 2023	April 11 to May 12, 2023	1.58	1.78
Travel Time indices are a measure of travel time compared to free-flow traffic. 1.78 means travel time takes 78% longer than in free flow.			

Further, downtown multimodal volume relative to pre-pandemic indicate auto use has resumed to 95% of pre-pandemic levels, while pedestrian traffic in the core has resumed to less than 70% and TTC transit use to 54%.

Table 2. Downtown Multimodal Volumes (City of Toronto – Transportation Services)

Stage	Dates	Cars	Pedestrians
Lockdown 1	March 17 to May 18, 2020	44%	17%
Spring 2023	March 20 to April 16, 2023	93%	73%
Previous Week	April 03 to April 09, 2023	95%	69%
Car and pedestrian traffic at selected downtown intersections relative to pre-pandemic traffic at that time of year.			

Increased congestion has a negative impact on the travel-times and efficacy of transit surface operations without dedicated right of way. Construction in the downtown core to accommodate major new infrastructure projects, including transit expansion over the next seven-to-eight years, will also result in further congestion on surface transit routes. Co-ordinated interventions with the City to prioritize public transit will be key to transit service reliability and overall mobility for the city.

The TTC will be undertaking more detailed modelling in the long term to understand changes in ridership and customer demand travel. Key factors that will inform ongoing technical analysis include:

- Emerging patterns in customer travel behaviour – in particular with new hybrid work model in key sectors of Toronto's economy.
- Population, employment and land-use projections updated for 2051.
- Results of the new Transportation Tomorrow Survey (TTS).
- Analysis of TTS, Customer Satisfaction Survey by gender, income and occupation-related data to better understand travel behaviours of the TTC's diverse customer base.
- Impact of influential policies, including TransformTO.

The outcomes of this analysis will inform the development of the new 5-Year Service Plan & 10-Year Outlook, and updates that may be required to long-term capital plans.

Customer Experience

In addition to monitoring ridership, the TTC also conducts regular surveys, focus groups, consultations and analysis to better understand the customer experience with the TTC system. This is important to help the TTC support existing customers, attract new riders, and improve the competitiveness of public transit compared to other modes.

In particular, the TTC conducts monthly customer satisfaction surveys. While satisfaction and Net Promotor Score stayed high for most of the pandemic, overall customer satisfaction and pride in the TTC have declined, principally since mid-2022, as restrictions were lifted and a greater number of people became mobile. This is illustrated in Figure 2 below. As a result, this is an area of focus as the TTC seeks to retain and attract new customers to public transit.

Figure 3 outlines the key drivers behind customer satisfaction scores, areas of success, and where the TTC has some challenges. Based on analysis of the last three months, customer satisfaction research indicates that satisfaction with length of trip, wayfinding and helpfulness of staff have all increased since mid-2022. Satisfaction sentiments were neutral areas regarding availability of Real-time information, Smoothness of Trip, Ride Comfort, Vehicle and Station Cleanliness. Reasons for decline in customer satisfaction have principally been attributable to lack of satisfaction with streetcar service due to impacts of construction and overall personal safety, which has declined eight percentage points since July 2022.

Customer satisfaction is a lagging indicator, and the results indicative of the month prior, and that changing customer sentiment takes time. Satisfaction over the coming months should begin to reflect the changing safety environment introduced by the TTC’s Community Safety initiatives in recent months, which are outlined in a separate report also before the Board.

In addition, the TTC is also increasing vehicle and station cleaning, and reviewing opportunities to improve on-time performance and communications specifically to the streetcar service. The TTC is currently developing a Customer Experience Plan to support the new 5-Year Service Plan to be introduced in Q1 2024.

Figure 2. Customer Satisfaction Trend (2017 to April 2023)

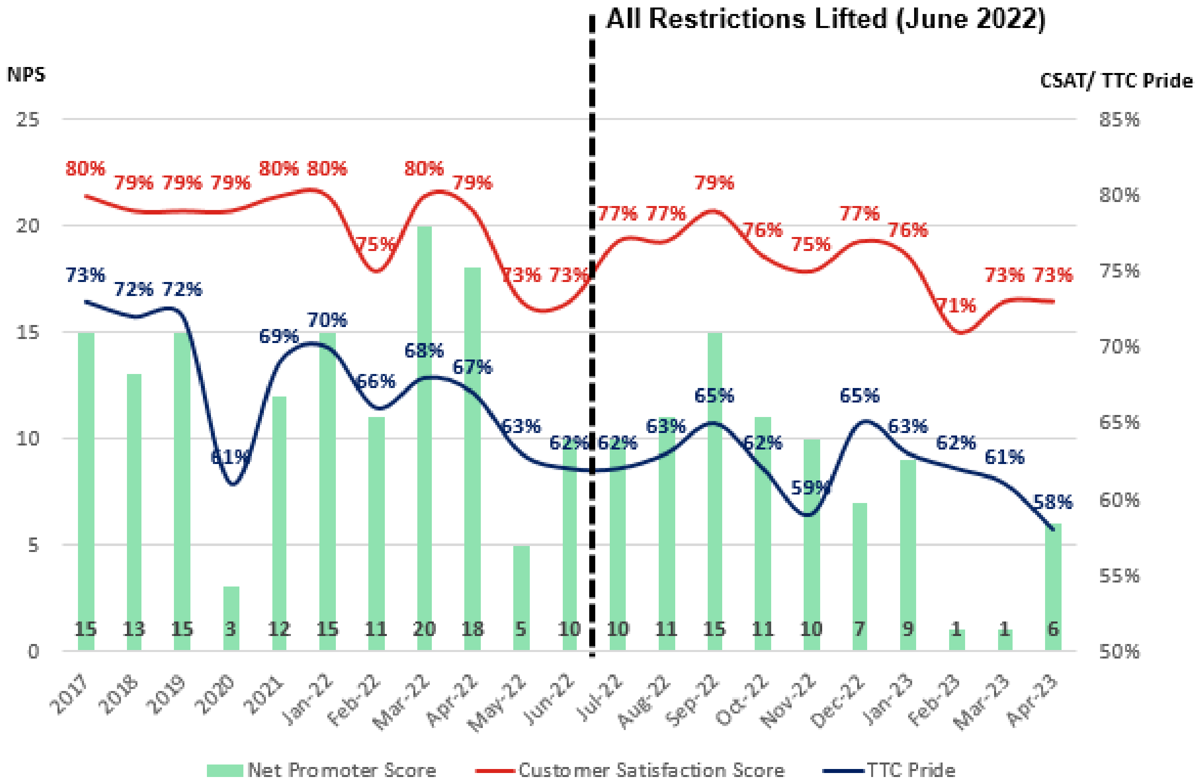
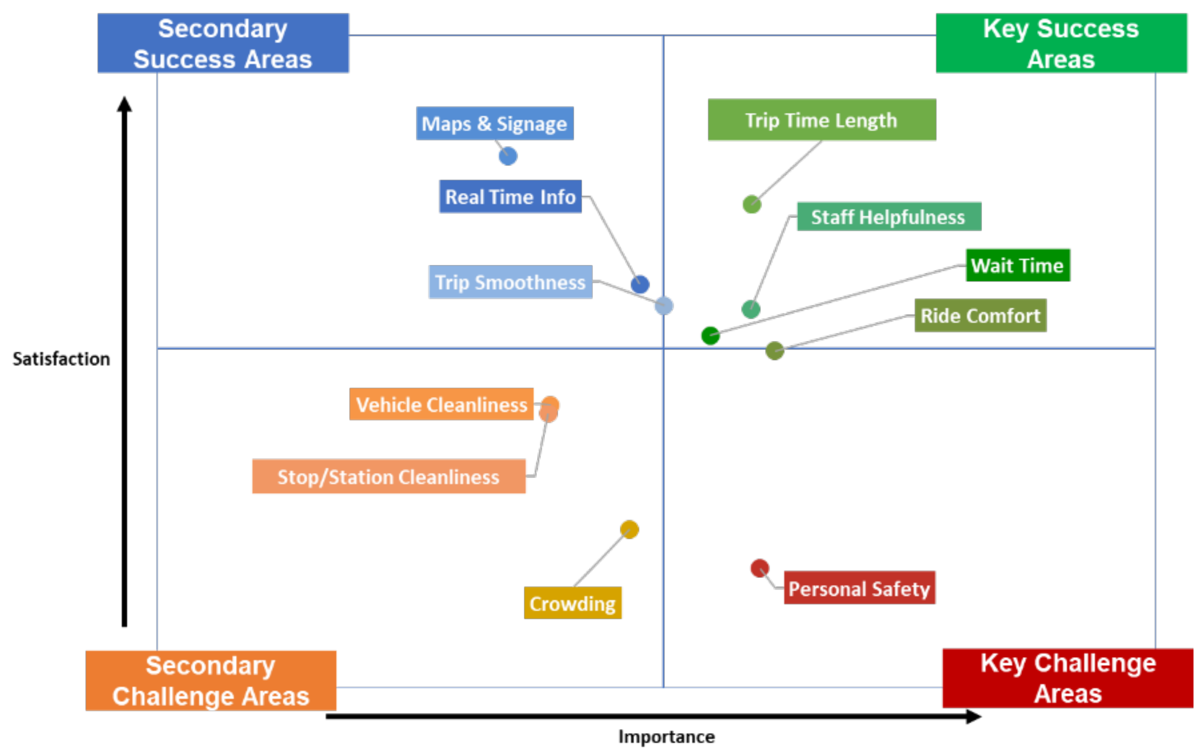


Figure 3. Customer Satisfaction Key Driver Analysis – February to April 2023



2. <u>Service Outlook</u>

TTC service in 2023 is increasingly incomparable to pre-COVID conditions

The TTC is currently operating at 93% of pre-COVID service to meet a pre-COVID ridership level of 75% projected for year-end. While at first glance, this would indicate that service is proportionally greater than before the pandemic, when looking strictly at customer demand, there are several other factors accounted for in the number of service hours delivered and how they are allocated across the system:

- *Adjustments to schedules to improve on-time performance and service reliability,* which will continue to be a challenge as traffic patterns continue to shift and has returned or is exceeding pre-pandemic levels at many times and different times of the week.
- *Shifting priority of investment on the bus network,* which has a higher rate of ridership retention and return. Bus investment now represents 82% of TTC regular service hours, compared to 80% pre-COVID.
- *Protection of 30-minute maximum wait times, service coverage and periods of service throughout the network,* regardless of level of ridership return to ensure all areas of Toronto have access to basic mobility. Any recommendations related to changes will be considered through the 2024 Annual Service Plan process.
- *Continued operation of policy-based services on most routes as set out in the TTC's Service Standards,* such as the Overnight Network, 10-Minute Network, Seasonal Service Network and Express Bus Network.
- *Adjustment to service hours above budget to respond to changing demand and network needs.* For example, allocation and restoration of six-minute-or-better service on Lines 1 and 2 in evenings.

Increasing demand for TTC service will result in capacity pressures, especially in off-peak periods

Spring 2023 ridership data shows that busiest hour, peak point demand on bus routes is growing at a faster rate than all-day boardings. This means that while overall ridership may be growing a steady rate, customers returning to transit are travelling at the same time. Prior to the pandemic, capacity constraints on TTC services resulted in "peak spreading" where customers would travel earlier or later to avoid crowding. There may be a period of transition before this equilibrium is reached again. Until then, capacity will need to be adjusted through service increases or the deployment of demand-responsive buses.

What is Peak Point Demand?

Peak point demand determines how frequent a service needs to operate to provide the necessary capacity. It is the number of people passing through the busiest hour in the busiest location and direction:

- *For every increase of 50 people on a bus route in rush hours,* it means an additional trip is needed to maintain service quality.
- ***Larger vehicles on subway and streetcar provide more space for growth.*** Additional capacity can be provided at a lower variable cost per passenger than on bus.
- *Service increases are more likely to be required on the busiest routes,* whereas low-ridership routes currently have more spare capacity for growth.

As many off-peak periods return to pre-pandemic demand, the need to address capacity needs is growing, with the need to provide more space for customers travelling in off-peak when there are more strollers, shopping carts and other items onboard. In 2023, initiatives were introduced to increase capacity on major shopping corridors on weekends. The expansion of similar measures will be explored through the 2024 Annual Service Plan.

Emerging 2024 Service Needs

The 2024 Annual Service Plan, which will be presented to the TTC Board in September 2023, is currently under development. The TTC is currently consulting with customers and communities on service priorities, including asking questions about how priorities may change in different funding scenarios.

To meet the emerging needs for ridership and to respond to the current context, the 2024 Annual Service Plan will focus on matching capacity to demand as has been the principle in prior years. Early ridership trends are being assessed to inform the 2024 forecast, and to establish a base requirement for next year's service. This is a prudent approach to assess the opening pressures to maintain service quality with modest investments targeted at improving service for customers most dependent on TTC services. Potential initiatives to be considered, subject to available funding, include:

- Investments for service reliability and service resiliency to be ready to respond to changes to traffic patterns, increasing congestion, and increased risk for daily disruptions on the network due to construction.
- A placeholder for service enhancements to be identified through the Annual Service Plan, in particular to respond to the needs of priority customer groups.
- Identification of priority investment to address acute off-peak crowding and service quality issues.

Based on trends, it is anticipated there will be growth above the current average 74% of pre-pandemic ridership experienced in 2023, being driven predominantly by bus. The extent of growth in 2024, and the service capacity required will, however, also be dependent on an increase in the average days of work in office downtown, plus the impacts of traffic congestion and potential increase in mode shift back to transit.

The following table compares the 2023 budgeted and actual customer demand and service capacity. As discussed in the previous section, service was added to bus to improve service reliability and resiliency, and to subway to restore evening subway service frequencies. The 2023 experience provides a baseline to inform the potential service by mode that may be required to respond to customer demand, maintain service quality, and respond to operating conditions in 2024. Given the factors above, the 2024 service requirements could be in the range of 93% (pre-COVID) at minimum, subject to further analysis. The TTC continues to monitor trends and will report back on the 2024 Annual Service Plan in the fall, followed by an update to the Board on the 5-Year Service Plan (2024-2028) in early 2024.

Table 3. 2023 Budget and Actual – Demand and Regular Service by Mode (% of Pre-COVID)

Demand/Service by Mode	Bus	Streetcar	Subway	Total
Budgeted Demand (Year End 2023)	80%	72%	73%	75%
Budgeted Service (Year End 2023)	94%	87%	75%	91%
Current Demand (Spring 2023)	82%	64%	67%	74%
Current Service (Spring 2023)	97%	83%	76%	93%

Notes
- Service percentages shown represent regular service and exclude hours added for construction.
- Figures presented are adjusted for comparative purposes, including adjustments to reflect one-person train operation on Line 1 and vehicle type assumptions on streetcar routes.

3. Financial Outlook – Operating

Preliminary Outlook on 2024 Operating Pressure

Based on the approved 2023 Operating Budget's services and service levels, the preliminary forecast of the 2024 Operating Budget's opening pressure is $455 million, as outlined in Table 4 below. The opening 2024 pressure is comprised of three major components:

- Costs of maintaining 2023 approved services and service levels;
- The incremental costs of funding operations and maintenance cost obligations for the opening of Lines 5 and 6, and the SRT bus replacement service on Line 3; and
- The continuing financial impact of COVID being experienced by the TTC.

This forecasted pressure is ***prior to*** any estimated cost that will arise from the outcome of collective bargaining, as the existing Collective Bargaining Agreement (CBA) with the ATU Local 113, TTC's largest union, is set to expire on March 31, 2024. Equally, the 2024 forecasted pressure is ***prior to*** any adjustment to TTC Conventional and Wheel-Trans service based on emerging service trends, including the TTC's need for its ongoing response to safety and security issues in the transit system.

Table 4. Preliminary 2024 Operating Budget Pressure, Based on 2023 Approved Budget Service Level

Item	$M	Comments
Base Pressures		
Economic Factors	32	Includes Energy & Material Price Increases, Benefit Inflation/Utilization
Operating Impacts of Completed Capital Projects	10	Includes Vehicle Deliveries, Bus Wi-Fi, IT Projects
Reversal of Reserve Draw	16	Portion reserve draw dedicated to limiting size of fare increase
Legislative	7	Primarily related to legislated Canada Pension Plan Changes
Annualization of 2023 Fare Increase	(5)	
Subtotal Base Pressures	**60**	
Transit Expansion & Conversion	45	Annual effect to operate Line 5, Line 6 and SRT Bus Replacement Service for full year.
COVID Impact	350	Primarily Lost Passenger and Ancillary Revenues
Total Based on 2023 Approved Budget Service Level*	**455+**	*Total is prior to any estimate for: 1) Outcome of collective bargaining, as the existing CBA with the ATU 113, TTC's largest union, is set to expire on March 31, 2024. 2) Safety & Security Measures which may need to be made permanent pending assessment and report back to the board.

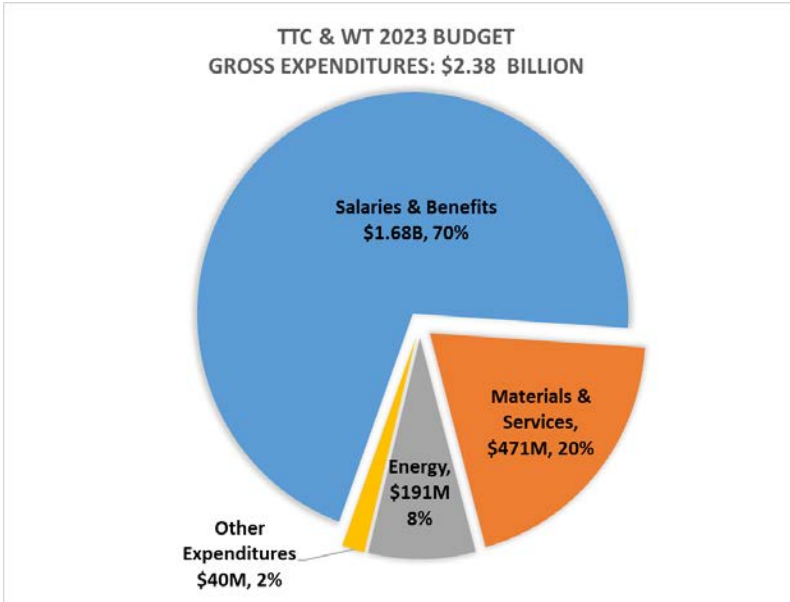
Funding Transit Operations

Transforming for Financial Sustainability has been a key pillar of the TTC's Corporate Plan for the past five years. The organization has initiated a number of actions to identify efficiencies and opportunities for cost savings in an effort to be good stewards of public funds, and make best use of scarce resources in the interest of our customers. While the TTC remains committed to continuous improvement and modernizing how it does business, savings that can be generated through efficiency measures alone are marginal in comparison to the scale of investment required.

Operating Cost Drivers – Labour and Energy/Fuel Costs

TTC expenditures are primarily driven by labour and related costs accounting for roughly 70% of expenditures, and energy/fuel related costs accounting for another 8%. The significant majority of these costs are associated with the day-to-day operations and maintenance personnel required to run the daily service. While the TTC continues to look at efficiency measures and modernization efforts to reduce costs, the options to address a major funding shortfall are severely limited and would demand major adjustments to the level of service provided. This presents a major risk to the viability of the core business of the TTC as a mass public transit provider with implications for the livability of the city.

Figure 4. TTC Conventional and Wheel-Trans 2023 Budget Gross Expenditures



Measures to Balance the Budget 2020 to 2023:

Between 2020 and 2022, Safe Restart Funding from the Provincial and Federal governments provided $1.8 billion in essential funding relief to offset lost passenger revenues, balance the operating budget and maintain essential transit services.
With 70% of the TTC's annual operating expenses dedicated to salaries and benefits, mostly to fund frontline roles, and the need to maintain affordability and accessibility of transit service, opportunities to meaningfully reduce financial pressures in a high-inflation environment with ridership remaining 25-30% below pre-pandemic levels are limited.

Nevertheless, through ongoing implementation of efficiency initiatives and annual budget review, the TTC has achieved $182 million in total operating savings since 2019. These savings do not impact service levels provided to customers, but rather are the result of actions taken that change how service is provided from such initiatives as the implementation of One-Person Train Operation on Line 1; the ongoing implementation of Auditor General recommendations, overtime reduction strategies, business transformation initiatives, including the outsourcing of non-core operations.

In 2023 alone, the TTC utilized the following strategies to balance the budget, including:

- $46.5 million in 2023 through service adjustments to match capacity to demand.
- $35.6 million in budgeted 2023 reserve draws to limit the size of the fare increase ($15.7 million), and fund various one-time requirements.
- $16.1 million in 2023 from a 10-cent fare increase on single fares only and excluding seniors and Fair Pass.
- $11.9 million through other revenues, including $6 million net increase in passenger revenue through a resumption of ticketing for fare evasion.

Limited Revenue Streams

The TTC's conventional transit operating budget, pre-pandemic, was funded predominantly through fare revenues. In 2020, the approved TTC Operating Budget included $1.25 billion in passenger revenue accounting for 62.7% of TTC Conventional service operating funding. Inclusive of ancillary revenues, such as advertising, commuter parking and subway concessions, which are also influenced by ridership, more than two-thirds of the Conventional system's operating expenses were funded by non-subsidy (property tax) revenue streams, considered amongst the highest in North America.

Of the residual $789.8 million to fund 2020 expenses, the 2020 operating subsidy funding for the TTC's Conventional and Wheel-Trans services amounted to $698.2 million, representing 32.5% of the total budget being funded from the City of Toronto's property tax base. The composition of pre-pandemic funding limited transit system growth as funding increases necessitated either fare or property tax increases above the rate of inflation. More critically, this funding structure left the TTC vulnerable to a decline in ridership.

Even with a substantial recovery to approximately 73% of pre-pandemic ridership now having occurred, property tax funding in 2023 represents 36.4% or $867.1 million of total funding approved. Notwithstanding the increased subsidy, there remains to be a revenue (funding) shortfall of $328 million due to lost passenger revenue, effectively comprising the majority of the $366-million COVID impact for 2023.

As directed by the Board in April 2023, an analysis of opportunities associated with non-farebox revenue streams will be undertaken and reported to the Board. Recognizing the importance of the fare box as a primary revenue stream for TTC operations, the TTC is also undertaking an updated baseline analysis of the financial exposure the TTC is facing due to fare evasion. Nevertheless, the TTC is one of the few large transit systems without diverse revenue sources beyond passenger revenue and property tax.

Ongoing Financial Impacts from COVID

The primary component of the operating budget pressures are the ongoing financial impacts from COVID, which were estimated at $366 million in 2023, of which $328 million is lost passenger revenue relative to pre-pandemic levels; $14 million for lost ancillary revenue (advertising, parking and commercial rents) and $24 million to continue key COVID expense costs. Comparable impacts are now estimated at $350 million for 2024, of which $316 million is due to lost passenger revenue.

While the Federal and Provincial governments provided essential funding relief for 2020 to 2022 totalling $1.8 billion, no funding commitment has been made for 2023 and future years, despite the ongoing impact, in particular due to lost passenger revenue stemming from ongoing hybrid work arrangements. For 2023, the City of Toronto indicated that in the absence of funding relief, one-time reserves and redirected capital funding would be utilized to offset COVID impacts. However, if this strategy is utilized in 2023, the backstop strategy would be fully exhausted and unavailable to address the ongoing impact, which is expected to continue into 2024 and beyond.

Potential Financial Impact of Service Restoration

The 2023 Operating Budget reflected an alignment of service to forecast service demand, set at 91% of pre-COVID service based on a projected ridership of 75% of pre-COVID levels by year-end. As service demand changes, additional service may be required, as noted above. In order to provide a range of potential incremental financial impacts, Table 5 provides the annualized costs of service associated with a return to historical service as a per cent of pre-COVID levels. These scenarios are provided for illustrative purposes, acknowledging that the minimum restoration that may be required is the actual service level being provided in 2023.

Table 5. Financial Impact of Historical Service Scenarios (% of Pre-COVID)

Scenario	**% of Pre-COVID Service Level**	**Annual Financial Impact ($Millions)**
2023 Current	93%	15
2022 Actual	96%	40
2022 Budget	98%	57
Pre-Pandemic	100%	75

After accounting for the preliminary 2024 operating opening budget pressure, based on 2023 approved budgeted service levels, transit expansion, conversion and COVID cost impacts ***and*** a potential change in service demand, the total 2024 Operating Budget pressure is projected to be the range of $480 million to $540 million, as summarized in Table 6.

Table 6. Preliminary 2024 Operating Budget Opening Pressure with Potential Service Demand Adjustments

Preliminary 2024 Operating Budget Pressure With Potential Service Demand Adjustments		
Item	**$M**	**Comments**
Base Pressures	60	As Itemized in Table 1 Above
Transit Expansion & Conversion	45	Annual effect to operate Line 5, Line 6 and SRT Bus Replacement Service for full year.
COVID Impact	350	Primarily Lost Passenger and Ancillary Revenues
Subtotal Based on 2023 Approved Budget Service Level	**455+**	
Service Restoration		
Wheel-Trans	10	Provision to accommodate potential increase in ridership
TTC Conventional	15 to 75	Range based on currently operated service (93% of pre-pandemic) to restoration of pre-pandemic service hours.
Combined Preliminary 2024 Operating Budget Pressure*	**480 to 540+**	*Total is prior to any estimate to: 1) Outcome of collective bargaining, as the existing CBA with the ATU 113, TTC's largest union, is set to expire on March 31, 2024. 2) Safety & Security Measures which may need to be made permanent pending assessment and report back to the board.

It is critical to note that this estimate is ***prior to*** any estimate from the outcome of collective bargaining, and the ongoing response to safety and security issues in the transit system. Considering these other cost drivers, the operating budget pressure facing the TTC could reach upwards towards $600 million just in 2024.

4. Capital Investment Outlook

The TTC recently celebrated 100 years as a transit system, and has facilities ranging in age as far back as a century ago. The TTC has an expansive asset inventory and the infrastructure is aging. Subway trains operating on Line 2 are nearly 30 years old, and the subway network is 68 years old with aging infrastructure and systems.

TTC Facilities History

- 1921 Roncesvalles Carhouse
- 1921 Russell Carhouse
- 1924 Hillcrest Complex
- 1954 Davisville Carhouse
- 1955 Birchmount Garage
- 1958 McBrien Building
- 1966 Greenwood Carhouse
- 1966 Queensway Garage
- 1966 Subway and Keele Yard
- 1976 Wilson Carhouse and Garage
- 1980 Lakeshore Bus Garage
- 1983 Malvern Garage
- 1985 McCowan Carhouse, Yard and Substation
- 1988 Arrow Road Bus Garage
- 2001 Eglinton Bus Garage
- 2008 Mount Dennis Bus Garage
- 2015 Leslie Barns
- 2021 McNicoll Bus Garage
- 2022 Kipling (Future) Bus Garage

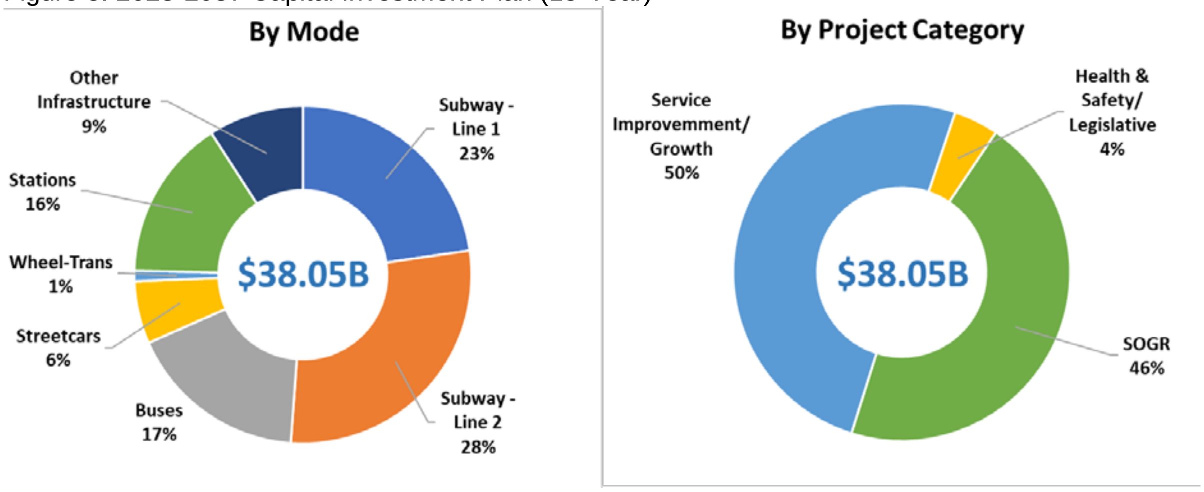
The TTC's capital program is largely driven by the cost of maintaining these physical assets in a state of good repair. Managing the accumulated State of Good Repair (SOGR) backlog is a key priority for the TTC in order to ensure that current assets are able to support the delivery of safe, reliable and seamless transit services to customers.

The TTC established a long-term planning horizon to 2041, with an expected growth rate of 1.5%, to address forecasted population growth and ridership growth. The TTC used this information to determine long-term service and fleet plan requirements, which are inputs to our capital asset plans. Along with an assessment of SOGR requirements based on asset management practices, the TTC utilizes this information to determine capital investment needs for the system.

In 2019, the TTC introduced the first 15-year (2019-2033) Capital Investment Plan (CIP), which outlined capital requirements for the base transit system (distinct from transit expansion). As a rolling plan, the CIP is updated annually to reflect refined estimates based on changes to timing of planned investments, capital planning progress made through project life cycle stage gating, estimate updates to account for external economic factors (e.g. inflation, market conditions), and emergent capital needs based on updated asset condition assessments. The most recent update was presented to the TTC Board as part of the 2023 Budget process.

The 2023-2037 CIP presented a 15-year outlook that identified a total of $38.05 billion, of which $25.20 billion is currently unfunded. SOGR and Health, Safety and Legislated projects represent over half of the critical capital work required in the next 15 years. The CIP is also comprised of capital projects to account for service improvements (36%) and growth (14%), such as the Line 1 and Line 2 Capacity Enhancement programs.

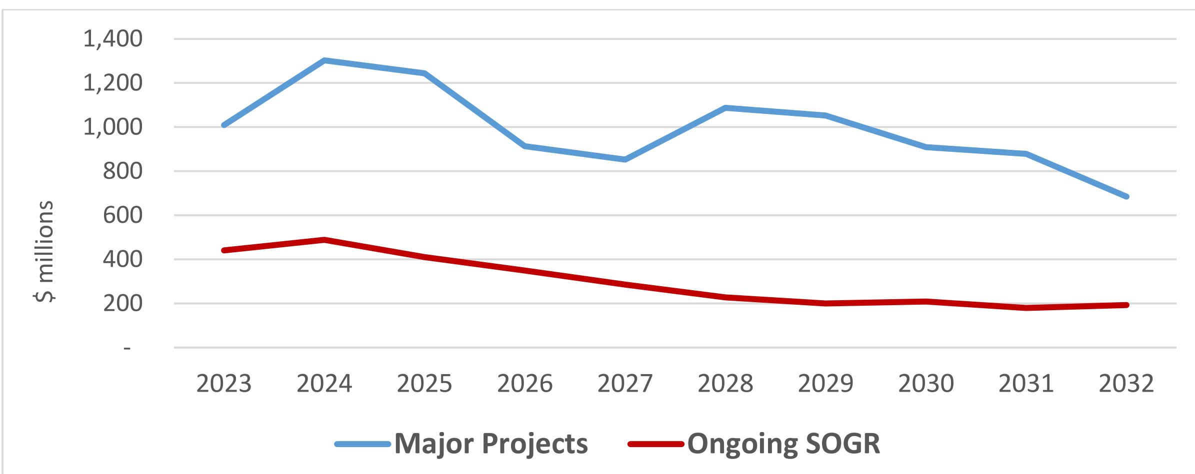
Figure 5. 2023-2037 Capital Investment Plan (15-Year)



The TTC's approved 10-year (2023-2032) Capital Budget and Plan has approved funding of $12.9 billion, with a priority focus on SOGR (55%), H&S (2%) and Legislative projects (6%), will comprise over 63% of the funding in the 10-year Capital Plan to ensure critical assets are maintained to preserve system safety and reliability.

Figure 6 shows how this funding is allocated to major projects in the program (which involve asset replacement and modernization), and to ongoing state of good repair (annual maintenance activities). Funding starts to decline for both in 2025, with a decline in steady state funding in particular for ongoing SOGR. This has a direct impact on service reliability and performance.

Figure 6. 2023-2032 Capital Plan – Funded Major Projects and Ongoing SOGR



10-Year Plan ($ Millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total	% of Total
Major Projects	1,010	1,303	1,244	914	853	1,088	1,053	909	879	685	9,937	77%
Ongoing SOGR	441	489	411	350	285	228	200	209	180	193	2,985	23%
Total 2023-2032 Budget	**1,451**	**1,792**	**1,655**	**1,264**	**1,138**	**1,316**	**1,252**	**1,118**	**1,059**	**877**	**12,922**	100%

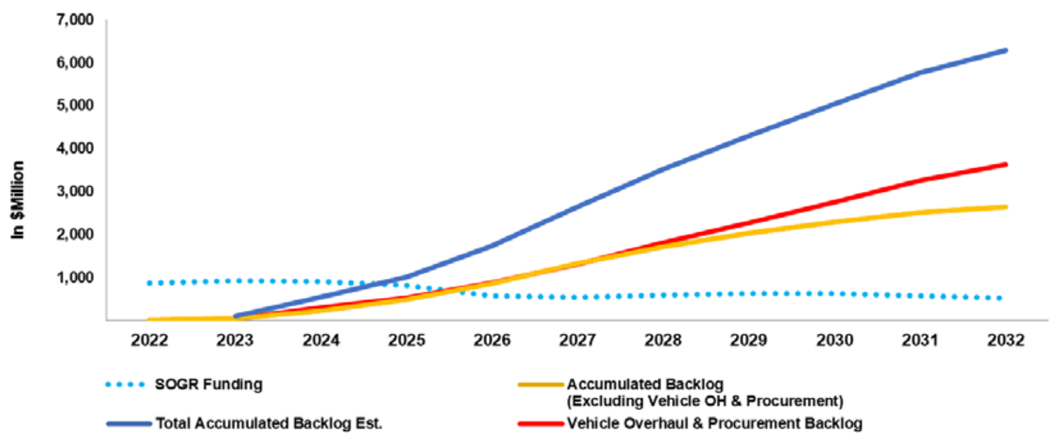
Unfunded Capital Priorities:

State of Good Repair Backlog

Despite a combined investment of $8.228 billion for critical Health, Safety, Legislated and State of Good Repair projects in the next 10 years, the TTC has a significant backlog of unfunded SOGR needs of $5.933 billion in the 10-year period, and a total of $10.195 billion, projected over the CIP's 15-year period.

The following graph outlines the impact available funding has on the unmet SOGR needs identified in the CIP, charting TTC's SOGR Backlog trend over the 2023 to 2032 timeframe. Starting from 2023, the SOGR backlog will grow from $2.2M (or 0.001% of total asset value) to $5.933 billion (or 16.9% of total asset value) by 2032 if no additional funding for SOGR is provided. Of this amount, $2.642 billion is attributable to the backlog of SOGR funding for TTC infrastructure and $3.291 billion is associated with unfunded vehicle replacement and overhaul requirements.

Figure 7. SOGR Backlog 2023 - 2032 (10-Year)



At present the TTC also has partial funding for key priority investments in major projects and programs. These projects are interdependent with plans to modernize the subway system and support future growth. Additional funding is also required to replace the TTC's large diesel bus fleet with e- buses in order to sustain bus services and transform to net-zero emissions by 2040.

Table 7. Examples of Priority Major Projects/Programs with Partial Funding

Modernizing the Subway System	**Funding Require for 80 New Subway Trains: $1.7 billion commitment in 2023** • The New Subway Train (NST) procurement – is currently only one –third funded by the City. • Matching funding of $1.7 billion, based on an initial estimate of $2.4 billion total cost is required to procure the 80 new trains (55 to replace Line 2 trains, and 25 to address Line 1 growth). Note this estimate may be subject to change due to market factors. Implementation of Automatic Train Control (ATC) on Line 2 is dependent on replacement of the Line 2 trains. A new Line 1 TMSF will also require funding to accommodate the growth trains. This is not fully funded, and still under study.
Transforming & Electrifying Bus Service	**Funding Required for E-Buses: $2.97 B between 2026 to 2035** • Current funding allows for the procurement of 336 hybrid-electric buses, and 340 battery-electric buses (or eBuses) between 2023 and 2025. • Post 2025, the Green Bus Program outlines a plan for approximately 1,840 zero-emission buses to be delivered between 2026 to 2035. This is unfunded. **Funding Required for Charging Infrastructure: $0.56 billion between 2024 to 2037** • Current funding contributes to the design, delivery, construction and installation of charging infrastructure, including 248 charge points as part of the ZETF program, between 2023 and 2025. • Beginning in 2024, investments are required to fully electrify TTC garages to support the Green Bus Program and meet Net Zero 2040 objectives. **Funding Required for Wheel-Trans Electrification: $0.32 billion between 2028 to 2037** • Procurement of up to 10 battery electric Wheel-Trans Buses and related charging infrastructures for delivery in 2025 is currently funded as part of a pilot program to evaluate, assess and inform future procurements. • Post 2027, the Wheel-Trans Bus Fleet Plan identifies a need for 431 zero-emission buses to be delivered from 2028-2037. This is unfunded.

Funding the Capital Plan

City funding represents nearly 66% of total capital funding for the TTC while provincial funding contributes 12% and federal funding provides 22%, representing 34% or approximately one-third of the total capital funding provided by these two funding partners. TTC's capital funding sources over the 10 years are summarized below.

Table 8. 2023 - 2032 Capital Funding Sources

Funding Sources ($ Millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total
Recoverable Debt	691.57	860.72	788.86	569.23	458.39	846.73	764.90	341.70	288.61	139.12	5,749.83
Debt	59.63	26.13	17.50	7.09	4.14	5.07	3.79	336.67	347.85	345.00	1,152.89
Development Charges	192.12	303.82	261.78	266.34	265.95	19.45	22.05	24.74	25.02	6.26	1,387.53
TTC Internal Depreciation	32.30	35.39	30.88	23.22	15.02	10.49	13.47	13.77	12.56	13.26	200.37
Total City Funding	975.63	1,226.06	1,099.02	865.88	743.51	881.74	804.20	716.89	674.04	503.64	**8,490.62**
Federal	285.14	359.66	398.41	263.05	250.27	270.13	272.99	248.07	239.53	234.08	**2,821.33**
Provincial	123.59	183.29	157.01	134.91	144.31	164.12	175.22	152.92	145.28	139.60	**1,520.26**
Other	66.88	22.66	0.31	-	-	-	-	-	-	-	**89.85**
Total Funding	**1,451.24**	**1,791.67**	**1,654.76**	**1,263.84**	**1,138.09**	**1,315.99**	**1,252.42**	**1,117.88**	**1,058.85**	**877.33**	**12,922.06**

Because of the CIP, the TTC has been able to clearly articulate requirements to other orders of government. Since 2019 the TTC has received an incremental $8.9B in City funding, in large part due to the introduction of the City Building Fund. This has enabled the TTC to make necessary investments in the state of good repair and modernization of the existing transit system.

The TTC has also been seeking intergovernmental funding opportunities to address the unfunded capital needs of the TTC based on the CIP. There has been success in securing new funding from grant-based application programs over the last couple of years, such as:

- $349 million in federal funding under the Zero Emission Transit Fund for 340 e-buses and 248 charging points;
- $360 million in provincial and federal funding for the procurement of 60 new streetcars and towards modernization of Hillcrest Facility;
- Up to $1 billion in provincial and federal funding for the Bloor-Yonge Capacity Improvement project under the Investing in Canada Infrastructure Program (ICIP)

While these grant-based contributions to individual projects are appreciated, there remains a need for a long term sustainable funding solution for public transit that is predictable and supports long term planning for capital investment.

The federal government has committed to $3 billion annual national transit funding through the Permanent Transit Fund starting in 2026 and the TTC has participated in ongoing engagement on program design alongside industry partners. The TTC continues to advocate for priority funding commitments required and recommendations for program design.

A tri-partite approach involving provincial governments as well is needed. The TTC continues to engage, along with peer public transit agencies, and associations such as the Canada Urban Transit Association and Ontario Public Transit Association to advocate for sustainable funding for both capital needs and operation support.

Recognizing the significant fiscal challenges ahead, the TTC is also initiating a recalibration of the TTC 15-Year CIP, with a priority focus on the unfunded SOGR requirements of the system, implications for service short and long term, in addition to an assessment of any opportunities with respect to timing of the growth/service improvement initiatives. This assessment will be informed by forthcoming updates to long term ridership and population forecasting, which will also inform the 5-Year Service Plan under development.

The scale of investment required in an aging system like the TTC, however is substantial. In order to sustain a multi-modal network like the TTC, it is necessary to balance investment across all modes to ensure the network continues to function as a seamless and integrated system. With the majority of the CIP being comprised of state of good repair and health/safely and legislated requirements, opportunities to delay/cancel projects are limited without significant impact to the base system and the service we provide.

5. Summary and Next Steps

This report identified a number of key issues and trends that inform the challenges ahead as the TTC seeks to provide a reliable, frequent, and safe public transit system. The conditions under which the TTC operated service pre-pandemic have changed. Notably:

- Hybrid work arrangements, have resulted in ridership averaging at 74% of pre-pandemic levels in April
- Recovery is occurring fastest on bus routes, which have a higher variable cost than other modes to provide the same additional capacity.
- Traffic congestion, and major construction over the next decade will also impact service reliability.
- Customer satisfaction with the service is driven by a number of factors, but notably community safety concerns have impacted satisfaction scores in recent months.

In this context, the TTC plans its services to match capacity to demand, protect periods of service and network coverage on all routes, and ensure those who rely on transit the most continue to have access.

To sustain the level of service currently being provided today, which may not be fully sufficient to accommodate modest growth and conditions related to road congestion, approximately $480 million to $540 million will be necessary in 2024 to fund the opening operating pressure. This could rise as high as $600 million depending on the outcome of collective bargaining agreements, and additional safety related expenditures not yet identified. In the absence of funding, there are limited opportunities to reduce expenditures that do not contemplate reductions in service. A funding pressure of this scale cannot be addressed through fare increases without impacting demand and affordability for customers.

A reliable transit system, also requires assets to be maintained in a state of good repair. The TTC’s state of good repair backlog in the next 10 years is approximately $5.9 billion, with the level of funding starting to decline in plan in 2025. There are other key investments to modernize the subway system and transform the TTC bus fleet to achieve net zero by 2040 that are also not fully funded. The total unfunded 15-year outlook is $25.2 billion.

It is in this context, the TTC is in the process of refreshing key planning documents to guide the organization. The TTC will be bringing forward a new 5-Year Corporate Plan and 2024 Annual Service Plan in the fall of 2023 which will outline key strategic directions and recommendations for Board consideration. This will also set the foundation the 2024 Budget process, as well as a refresh of the 5-Year Service Plan and 10-Year Outlook in early 2024, which will reflect of updated long term ridership forecasting and other key customer insights. The TTC also continues to engage the University of Toronto to support analysis on the benefits of public transit and risks of underinvestment. The findings of this next phase of work is anticipated to be presented to the Board in October, 2023.

Addressing the fiscal sustainability gap will continue to be a focus of the TTC. This includes continued commitment to modernization and efficiency measures to reduce expenditures, explore non-fare revenue opportunities, and to seek any opportunity to recalibrate timing on non-SOGR related projects in the TTC CIP pending the outcome of additional long term forecasting analysis. It must be stressed however, that the structural financial challenges of the TTC cannot be solved by the TTC alone.

The need for partnership from all orders of government is critical to sustain the level and quality of service demanded by customers, and to ensure the many economic, social and environmental benefits the TTC provides to Toronto, Ontario and Canada are realized. This requires support for a new sustainable funding model for public transit, consideration of approaches to supporting public transit in the mobility network, and creating the conditions that make transit an attractive mode of travel.

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