

Date: 2022-03-23

Subject: Brampton Transit Update – Moving Forward

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Report Number: Brampton Transit-2022-406

Recommendations:

1. That the report from Alex Milojevic, General Manager, Transit, dated March 23, 2022, to the Committee of Council Meeting of April 27, 2022 re: Brampton Transit Update – Moving Forward (Report Number Brampton Transit-2022-406, IB.C), be received.

Overview:

- Prior to COVID-19, Brampton Transit was the fastest growing large public transit system in the county.
- Up until March 2020, transit ridership was on pace for a double-digit percentage increase over the prior year.
- The COVID-19 pandemic has had a substantial impact on public transit systems and their ridership around the world, Brampton included.
- In 2021, transit ridership was gradually improving throughout the year, until the Omicron variant caused a sharp decline.
- As of today, transit ridership is at approximately 85% of pre-pandemic levels, which is the highest recovery rate across the Greater Toronto Hamilton Area.
- Transit is currently operating approximately 86% of pre-pandemic service with plans to reach 100% by the fall of this year, including the implementation of deferred 2020 service increases.
- Transit is currently in the process of developing an updated five-year business plan (2023-2027), which will assess future ridership demand, current and post-COVID operating environments and the impact of upcoming transit projects and initiatives on transit service delivery.
- Despite the pandemic, over the past few years Brampton has made significant progress on a number of transit projects and initiatives that support the current Term of Council Priorities.

- **Brampton has also secured unprecedented upper level government funding and financing to support these project and initiatives.**
- **These projects as well as current and future funding opportunities will transform the way transit service is delivered in the City of Brampton.**

Background:

On May 7, 2018, City Council unanimously endorsed the Brampton 2040 Vision. One of the key pillars of this transformational document is public transit and its integration with the current and future City of Brampton. In alignment with the 2040 Vision, the current Term of Council Priorities placed emphasis on several key Transit projects, which will play a vital role in continuing to establish Brampton as a green city. In addition to these key projects, significant progress has been made within Transit on a number of other project and initiatives to implement a green and connected framework for sustainable growth as well as lead in environmental innovation, all while providing Brampton's residents with the safe, efficient and reliable Transit service they depend on every day.

Over the past few years, Brampton Transit has continued to develop into one of the most dynamic public transit agencies across the country. Brampton's transit ridership reached an all-time high in 2019, moving nearly 32 million people. In early 2020, transit ridership was on pace for a double-digit percentage increase over the prior year, which continued to position Brampton as the fastest growing large transit system in the country, until the onset of COVID-19.

Impact of COVID-19

Since March 2020, the pandemic has had a significant impact on public transit systems across the world, and Brampton is no exception. In April 2020, ridership fell to an estimated 25% of pre-COVID levels, during which time fare collection was ceased and rear door boarding was implemented, as temporary measures for the safety of both passengers and operators. Over the course of 2020 and 2021, Brampton's transit ridership experienced many ebbs and flows, as the pandemic evolved and COVID restrictions and public health measures followed suit. As a result of this ridership uncertainty, and in order to balance demand with available resources, many routes experienced reductions in service and frequency.

In addition to service changes, Transit implemented numerous measures to keep Brampton's employees and customers safe, including:

- Providing personal protective equipment to all staff (medical grade facemasks, protective eyewear, gloves, hand sanitizer, etc.)
- Enhanced cleaning and sanitizing of buses and facilities
 - Majority of buses are still sanitized every 24 hours
 - Hard surfaces in facilities and terminals are sanitized daily

- Promoting physical distancing where possible
- Complying with Provincial directives, guidelines and mandates
- Communicating evolving changes to all staff
- Complying with the City of Brampton's vaccination administrative directive
 - Facilitating testing (if required), self-monitoring for symptoms and adhering to Public Health measures as required

Current Situation:

Over the first few months of 2022, Brampton has made progress in terms of pandemic recovery as COVID-19 cases primarily associated with the Omicron variant continue to decrease and most public health measures across Ontario have been lifted. On March 24, 2022, the City of Brampton terminated its state of emergency in response to COVID-19, exactly two years after its initial declaration.

Transit Ridership and Service

In 2021, transit ridership was gradually increasing on a monthly basis prior to the onset of the Omicron variant and provincial lockdown, which resulted in a sharp decline in ridership. In 2022, ridership has once again started to trend in the right direction, climbing back to roughly where it was in late 2021. As of March 2022, transit ridership has recovered to approximately 85% of pre-COVID levels, which represents the highest ridership recovery rate amongst Greater Toronto Hamilton Area (GTHA) public transit agencies.

Transit is currently operating at approximately 86% of pre-pandemic service hours. The majority of the arterial corridor network has been restored to regular operation and is presently operating at or above pre-COVID service levels. However, some off-peak service and a number of lower ridership local service routes still remain suspended or are operating at reduced service levels. Transit staff have recently completed a service recovery plan, which aims to incrementally restore service hours to pre-pandemic levels as follows:

- 90% of pre-pandemic service hours effective April 25
- Approximately 95% of pre-pandemic service hours effective June 27
- 100% of pre-pandemic service hours through the fall of 2022 (including 2020 deferred service increase)

Please note that the delivery of the service recovery plan will continue to be dependent on the effects of the pandemic, including the availability of resources.

In light of the pandemic, City Council approved staff recommendations to defer the 2020 transit service increase, to 2021 and then again to 2022. Staff anticipate these service improvements will be implemented in the fall of 2022.

Service improvements for fall 2022 include consideration of the following:

- assessing the longer-term impacts of the pandemic on ridership and travel patterns, to ensure effective use of resources and match service levels to ridership demand
- addressing system pressure points (overcrowding, changing travel patterns)
- working with various employers to adjust service to meet shift times and increased ridership demand in employment lands
- maintaining service quality and on-time performance
- service extensions and route realignments to improve service coverage to new growth areas
- launch of extension of Züm Bovaird to the Airport
- opening of new Bramalea GO Station bus terminal

Transit staff are also continuing their work with a number of partner agencies including the Greater Toronto Airport Authority, York Region Transit, MiWay and the Town of Caledon on service improvements and on-going service integration initiatives.

As longer-term impacts of the pandemic become better known, future transit demand will continuously be re-assessed and service adjustments will be implemented accordingly, in conjunction with the new five-year business plan.

Transit Projects and Initiatives

The City of Brampton is creating a modern, integrated transit system by enhancing regional transit connections, increasing connectivity to transit infrastructure, offering sustainable transportation alternatives, and implementing environmentally friendly and advanced technologies. During this term of Council, Transit has made significant progress on many projects and initiatives that will support the future growth of transit within Brampton. An overview of the projects and initiatives that have been started, advanced or completed during this term of Council is summarized below.

Term of Council – Intergovernmental Projects

Seven-Day All-Day/Two-Way GO Train Service

Metrolinx is leading the GO Expansion Program, one of the largest in Canadian history, to unlock the region's potential and bring significant benefits to transit users.

Electrification of the network, a key aspect of this program will help transform the service on core lines with Two-way All-day, 15 minute or better headways. Metrolinx is also leading the Kitchener GO Expansion that will see improved train services for the segments of the corridor west of Bramalea GO. Metrolinx completed the Preliminary Design Business Case for the Kitchener GO Rail Service Expansion in 2021.

The GO Rail Kitchener corridor benefits from the two programs above through planned improvements that include electrification with track and signal infrastructure upgrades between Union Station and Bramalea GO, and new third track, and modifications to

bridges and station platforms as needed, to provide an expanded corridor through to Mount Pleasant GO. At Bramalea GO station, a new parking structure with 2000+ spots and station building was opened to customers in fall 2021 and work to complete the bus loop is continuing, along with additional platform improvements underway.

Metrolinx is also leading an environmental assessment study for a new layover at the Heritage Heights to support improved service on the Kitchener Corridor to Mount Pleasant GO.

These infrastructure upgrades will enable trains to run at frequencies of 15 minute between Bramalea GO and Union Station, 30 minutes between Mount Pleasant GO and Union Station, and 60 minutes between Kitchener and Union Station.

Staff is actively working with and supporting Metrolinx staff to help expedite the Kitchener corridor works to address the capacity constraints to implement the Two-way All-day rail service, a Council priority.

LRT Extension Study

In December 2018, Council approved a motion directing staff to study an LRT extension on the Main Street corridor. The LRT extension study will examine and recommend a preferred alternative to extend light rail transit on Main Street, from Brampton Gateway Terminal to Brampton GO station in Downtown Brampton.

Throughout 2020 and 2021, virtual public information sessions were held to solicit stakeholder feedback on the LRT extensions options under consideration, specifically the two preferred alignments (surface and tunnel options), as well as the Metrolinx Preliminary Design and Business Case (PDBC) for the project.

In June of 2021, Brampton City Council unanimously supported the project team on taking both the surface and underground (tunnel) preferred alignments to the 30% preliminary design phase. Council also unanimously supported the tunnel option as the preferred alignment to advance funding advocacy, with the current provincial and federal governments.

Currently the project team is working on the 30% preliminary design for the two alignments along with the draft Environmental Project Report. The relocation of the Gateway Terminal stop on Steeles Avenue remains a crucial element in supporting the preferred alignments, planned growth and other future projects within Brampton.

Hazell McCallion LRT (HuLRT)

Brampton continues to support the construction of the HuLRT (along Hurontario from Port Credit to Steeles). The HuLRT will connect to other major transit corridors including GO Transit (Milton and Lakeshore West lines), the Mississauga Transitway, as well as future projects including Dundas Connects and the 407 Transitway. Brampton staff are

working closely with Metrolinx, the provincial government agency responsible for leading the Hurontario LRT project implementation.

Design development is approaching 100% for most disciplines. Construction progress to date has seen the completion of temporary traffic signal installations to facilitate road improvement works at all intersections within the City and the installation of tree protection measures along the corridor. Construction staging and temporary pavement markings are in progress in preparation for watermain and sewer installation. Brampton will see a significant ramp up in construction activities in 2022 with tentative completion and commissioning of the system by late 2024.

Queen Street - Highway 7 Bus Rapid Transit (BRT)

Metrolinx is leading the Queen Street – Highway 7 Bus Rapid Transit (BRT) project, with support from Brampton, Peel Region, and York Region.

The project will introduce a 24km BRT corridor from the current YRT Viva terminal on Helen Street in York Region to Mississauga Road in Brampton. In addition to offering more frequent rapid transit service and improved connections with local transit systems, the BRT service along Queen St. /Highway 7 will also link with the Highway 7 Rapidway, GO Rail, TTC subway system and the future Hurontario LRT north extension.

The results of the Initial Business Case (IBC), completed in late 2020, showed significant benefits from extending the rapid transit network through York Region and Brampton, including travel time savings, increased transit ridership, and improved quality of life. This corridor will connect communities and provide a link between Brampton and Vaughan to support long-term growth and development.

City staff are working collaboratively with Metrolinx to advance this project. The City is leading the integrated downtown plan, as well as the major transit station area plans, which will help inform the land-use, streetscape improvements, and the BRT station selection along the Queen Street corridor. Options to connect the BRT route with the future Transit Hub downtown near Brampton GO will also be considered.

Metrolinx infrastructure projects follow a benefits management process, which include stage gates for feasibility (initial case), preliminary design, procurement and detailed design, before moving to construction. The Queen St – Hwy 7 BRT is advancing through this stage gate process. Following the IBC that identified BRT scenarios for further consideration, Metrolinx is now in the process of developing the preliminary design business case (PDBC), the Preliminary Design, and the transit project assessment process (TPAP) for the corridor. Selection of the consultant to carry out the PDBC is currently underway.

Third Transit Facility + Electrification

Transit's new maintenance and storage facility, including electrification, is essential to support the continued growth of the bus fleet. The phase one build of the facility is estimated to have a capacity of approximately 250 buses and will be designed in a manner that future proofs for electrification or will be electrified from the start, subject to funding approval. Council has endorsed the electrification of the new maintenance and storage facility. The current estimated cost for electrification is approximately \$150M. Phase two of the facility, which will occur in the future, will accommodate approximately an additional 200 buses, for a total capacity of 450 buses. This facility, at full build, will allow for expansion of the transit fleet to approximately double what it is today.

Prior to the pandemic, it was anticipated based on ridership growth from 2010 to 2019, that the Sandalwood and Clark transit facilities would have reached maximum capacity by around 2024. As mentioned above, ridership is currently at approximately 85% of 2019 pre-pandemic levels and continues to recover to that level. However, that still leaves the growth otherwise expected for 2020, 2021 and 2022 unrealized. Substantial completion of the third facility is anticipated in 2026 and design continues on this facility. This aligns with the timeline of when staff anticipate the two existing facilities will reach maximum capacity. It also allows time for the growth originally anticipated in 2020-2022 to be realized as full service is restored and future service improvements are implemented in accordance with the new five-year business plan.

Electrification of Sandalwood and Clark.

Staff will be bringing forward a request in the 2023 capital budget to increase the capacity of the Sandalwood facility to accommodate eBuses. This request will be consistent with the ZETF application made by the City. Full electrification of the fleet requires both the new transit facility to be able to operate eBuses out of, as well as the existing transit facilities. Moving forward with the new facility and Sandalwood concurrently will provide the broadest approach to electrification.

eBus Trial Phase I

In May 2021, Brampton Transit launched the largest global deployment to date of standardized and fully interoperable battery electric buses (BEBs) and high-powered overhead on-route charging systems, as part of the Canadian Urban Transit Research & Innovation Consortiums (CUTRICs) Pan-Canadian BEB Demonstration and Integration Trial.

In total, Brampton Transit added eight zero emission BEBs to its fleet, two from Nova Bus and six from New Flyer as well as four chargers, three from ABB and one from Siemens. The BEBs are operating on two routes: Route 23- Sandalwood and Route 26 – Mount Pleasant Village. After almost 8 months of service the BEBs and chargers are performing well and efficiency results are in keeping with the predictive modelling previously completed by CUTRIC for these two routes. A separate report with additional

details regarding the Trial is also included on the April 27, 2021 Committee of Council agenda.

In addition, Brampton Transit worked with CUTRIC to carry out an in-depth Transit Fleet Electrification Feasibility Analysis & Simulation Based Planning Study, a techno-economic predictive modelling feasibility assessment of Brampton Transit's existing route network. The feasibility study is being carried out in two separate phases, as follows:

- Phase I: Completed a full fleet, full route network, block-based, and route-based modelling study with vehicle orientation (battery electric buses and fuel cell electric buses)
- Phase II: Underway with completion estimated in June 2022. This supplementary analysis includes a preliminary capital cost assessment, lifecycle emission reduction assessment, preliminary schedule analysis, service area GIS analysis and noise pollution reduction analysis.

Zero-Emission Buses & ZEB Planning

Over the past several years, there has been a seismic shift towards environmental awareness and sustainability, particularly in Transit. Following Council's declaration of a Climate Emergency in 2019, The City of Brampton established strong commitments to implementing a green framework for sustainable growth and leading in environmental innovation. During this time, senior level governments also implemented strict mandates to support municipalities in their transition to Zero-Emission technologies.

Transit staff intend to expand Brampton's Phase I BEB Trial into a Phase II ZEB Trial to include two-bus Fuel Cell Electric Buses (FCEB) and up to three conversions from diesel to fully electric in 2023/2024. These projects will allow Brampton to further explore zero-emission bus technologies prior to further ZEB expansion and future full-fleet transition to ZEBs.

Council has also approved Brampton Transit to undertake a full ZEB Implementation Strategy and Rollout Plan. This study will be substantially completed in 2022, with input and guidance from the Government of Canada through Infrastructure Canada, Natural Resources Canada, and the Canada Infrastructure Bank as required. This study will form the City's overall ZEB implementation strategy and approach to fully electrifying the transit fleet with ZEBs. Outputs will include strategic goals for full fleet transition to support the City and Canada's overall GHG reduction targets. Deliverables will include how many and which type of ZEBs per year, financing and procurement strategy, capital and operating cost assessments, full scheduling analysis, facility retrofit and infrastructure needs analysis, amongst other things.

Through these exciting initiatives, The City of Brampton remains committed to greening the transit fleet and keeping our residents moving with the safe, reliable and sustainable service they depend on.

Transit Hub

The City is in the process of implementing a new Transit Hub near Brampton GO, which will form part of the downtown Mobility Hub. This project will significantly improve the capacity and quality of the transit system, while also enhancing intermodal connectivity and supporting active transportation. The terminal will accommodate electric bus technologies and will support downtown revitalization, economic growth and development as well as enable transit-oriented communities.

An infrastructure delivery approach was developed in 2021 with extensive stakeholder consultation to move the project through its life-cycle, keeping options open for a stand-alone terminal or a mixed-use terminal, procured through a traditional or P3 (Public Private Partnership) model. This involved the development of the following stage gates: pre-planning, planning and reference concept design, procurement and detailed design, construction and commissioning.

With the completion of the pre-planning stage, currently work is ongoing to select a consultant through an RFP process to initiate an environmental assessment (EA), Transit Project Assessment Process (TPAP) and to finalize the location and preliminary design for the core transit infrastructure that will inform the building architecture reference concept design. The TPAP is anticipated to be completed in 2024.

5-Year Business Plan (2023-2027)

2022 is the last year of the current 5-Year Transit Business Plan (2018-2022). A new business plan is currently in development for the next five-year period (2023 to 2027). The purpose of the Transit Business Plan is to:

- Guide the improvement and expansion of the Brampton Transit network and services through the 5-year period of 2023 to 2027.
- Identify the needs and requirements to support these changes, while adhering to the long-term visions set forth by the City's 2040 Vision, Terms of Council Priorities, Transportation Master Plan, as well as a number of related policy documents, and ensuring the integration with adjacent and connecting inter-regional transit services.
- Develop a Fare Strategy that informs the impact of fares on ridership and on each of the various customer segments

The updated business plan will also consider several unique factors, including transits recovery from COVID-19, travel patterns in a post-COVID environment, emerging transit technologies, and how the capital projects and initiatives outlined in this report will shape Brampton Transit over the next five years.

Service

Chinguacousy Züm

Transit staff have begun engineering and service design work in preparation for the launch of Züm service along the Chinguacousy Road corridor, planned to coincide with the opening of the Hurontario LRT in late 2024. Work underway includes preliminary design for stations, evaluating options for routing and service levels, and reviewing related service level changes on connecting support corridors and local services.

Steeles Higher Order Transit Study

Staff are in the process of developing a framework to consider opportunities for higher order transit along the Steeles Avenue corridor. This framework will help arrive at an approach to study the corridor keeping all the key stakeholders in consideration. The City is committed to prioritizing higher order transit projects, like this one, to build a Green City.

On-Demand Transit

Brampton Transit is exploring the use of on-demand transit to offer a flexible way of providing transportation at times and days when alternative options to regular transit buses might prove more cost efficient. During the 2019 City Services Review, a detailed review of the viability of on-demand transit in Brampton concluded that the high-degree of productivity of Brampton Transit routes precluded any improvement opportunities for on-demand transit.

The impact of COVID-19 on ridership, in terms of passenger volumes and travel patterns, creates an opportunity for a second look with a modified approach. A pilot project, using on-demand technology combined with service delivered by Brampton Transit operators and buses, will test the option of targeted service based on specific service requests, as opposed to a fixed schedule for those sections of the City and times where usual ridership numbers were impacted by COVID-19. Service launch for this pilot project is expected in fall 2022.

Accessibility

Brampton Transit has continued to prioritize accessibility over this term of council through the purchase of only low floor, accessible buses equipped with ramps and the addition of new accessible bus stops with the installation of concrete pads. Currently, the bus fleet is 100% accessible, and approximately 85% of bus stops are fully accessible and being expanded every year through Transit's shelters, pads and stops capital program.

In 2020 and 2021, Transit also participated in the City's Rick Hansen Facility Accessibility Certification assessment. This was a highly detailed accessibility review of

nine City facilities. An assessment of Brampton Transit's two busiest locations were included in this review: Brampton Gateway Transit Terminal, and Bramalea Transit Terminal. These transit locations were ranked #2 and #3 of the nine City facilities reviewed, ranking only 1% behind Brampton City Hall. These facilities now carry a Rick Hansen Foundation "certified" accessibility rating through 2026.

Fares

Discounted & Free Senior Fares

Over the past few years, Council has highlighted the importance of providing senior residents with access to affordable public transit. In 2019, further to council approval, Transit implemented a \$15 discounted monthly pass for Brampton senior residents (age 65+). This initiative was very well received and gave senior residents another affordable fare option in addition to the \$1 cash fare for eligible Brampton senior residents.

As part of the 2020 budget process, Council further approved free fares for Brampton senior residents. However, as a result of the pandemic and in order to ensure the safety of Brampton's senior residents, the implementation of the program, which required senior residents to physically come in person to obtain a PRESTO card loaded with an annual pass, was deferred in both 2020 and 2021. On February 28, 2022, Transit was very pleased to officially implement free fares for Brampton senior residents who meet the eligibility criteria. Eligible senior residents are able ride Brampton Transit anytime by tapping their PRESTO card loaded with an annual pass and displaying their Brampton senior identification card.

Explore Brampton Youth Pass

Brampton is one of the youngest cities in Canada. To encourage Brampton's youth to explore the City and its amenities, Transit has collaborated with recreation to launch a pilot program for a youth "Explore Brampton" summer pass. This pilot project will provide 1,000 summer passes to youth ages 12-15 in Brampton to have free access to Transit and various recreation programs across the city from July 1 – September 5, 2022. This initiative will provide Brampton's youth with valuable exposure to two great City services.

Technology

Technology Enhancements

Transit has also implemented a number of technology enhancements. Transit is currently in the process of implementing a fleet-wide upgrade to new digital cameras and video recorders, which will increase the safety of our employees and riders as well as provide higher quality footage to support safety reviews and investigations.

Transit is also in the early stages of replacing its two key SmartBus systems, Computer Aided Dispatch (CAD) and Automatic Vehicle Location (AVL), which are reaching end of life. The new CAD/AVL systems will include enhanced functions and features that will improve data reliability, streamline operational activities, and improve customer experience.

In addition, Transit's Hastus upgrade project is also ongoing, which will update a key operations support software to a newer version that is compatible with supported technologies (desktop & server OS and database versions). It will also continue to integrate transit's published General Transit Feed Specification (GTFS) schedule and real-time data to the City's OpenGov website and Google Transit. New electronic signs have also been implemented at transit terminals utilizing the GTFS data to display bus times from Brampton Transit, MiWay and GO Transit.

PRESTO Device Refresh

In 2021, as part of a GTHA-wide device refresh program, Brampton Transit replaced its first generation of PRESTO equipment, introduced into service in 2011, that had reached the end of its useful life. This project included the purchase and installation of new on-board PRESTO fare collection devices for Brampton's entire transit bus fleet. It also included the replacement of additional stationary PRESTO equipment to support Transit operations as well as all of the required inspection, testing and training required as part of the transition.

This device refresh set the foundation for modernization of the fare collection experience, such as contactless payment options (debit/credit), which give riders more flexibility and enhance the overall customer experience.

Fleet & On-Road Infrastructure

Bus Purchases & Refurbishments

Since the beginning of 2019, Transit has commissioned 84 new growth and replacement buses, which include 61 diesel buses, 15 hybrid electric buses and Brampton's first ever 8 zero tailpipe emission Battery Electric Buses (BEBs), as part of Brampton's eBus Phase I Trial. Brampton Transit is also ramping up for a deployment of ZEBs.

Transit has also continued to develop its robust capital refurbishment program to keep the bus fleet in a state of good repair operating safely, efficiently and reliably. The OEM (original equipment manufacturer) design life for transit buses is typically around 12 years. The capital refurbishment programs in place allow Brampton Transit to extend the OEM design life by up to 50%, in order to reach a target useful life of 18 years. The activities included under Transit's capital refurbishment program include Midlife Overhauls (Body/Structural), Hybrid/Electric Batteries, Engines/Transmissions, Hybrid

Drive Units and Articulation Joints. Transit's bus refurbishments are being funded through the Investing in Canada Infrastructure Program until 2024.

Shelters, Pads & Stops

Since the beginning of 2019, Transit's pad & shelter capital program has incorporated the following on-street transit amenities, which continued throughout the pandemic:

- Total of 140 new accessible bus stops with the installation of concrete pads
- Total of 105 new bus shelters, which includes 55 solar shelters
- Total of 150 new benches

In addition, two new shelter refurbishment programs were introduced in order to keep existing Züm and solar shelters in a state of good repair.

Transit staff have also worked closely with the City's Capital Works and Public Works departments on projects such as road widening and road rehabilitation projects that have assisted in urbanizing and accommodating additional transit infrastructure in areas that were not fully accessible with sidewalk connections and new concrete pads.

After completion of the 2021 pad & shelter program, 85% of bus stops within Brampton were fully accessible. Fully accessible bus stops provide sufficient space for passengers with mobility devices to safely board and alight transit buses including a connection to accessible municipal sidewalks. In addition, 37% of bus stops within Brampton had shelter as of year-end 2021.

Funding/Financing Achievements

Funding from upper level governments is essential for municipalities to implement capital and large-scale infrastructure projects. Brampton City Council has been very active in advocating for Transit funding over the past few years. Staff have also worked diligently to identify funding and financing programs made available, submit applications and work with federal and provincial partner agencies to move projects through the approval process. During this term of Council, Transit has secured more external funding than ever before in its history, and with electrification, there is a lot more funding and financing on its way. Total estimated Transit funding/financing (approved and future eligible) exceeds \$1.1B, as demonstrated in Appendix A.

Canada Infrastructure Bank (CIB) - Zero-Emission Bus (ZEB) Initiative

In 2020, the federal government announced \$10B towards major infrastructure initiatives under the Canada Infrastructure Bank (CIB) growth plan. This initial three-year growth plan included investments in five major initiatives, one of which was \$1.5B for zero-emission buses (ZEBs). The intent behind this financing was to expand and accelerate the adoption of ZEBs to modernize bus fleets, reduce greenhouse gases and

reduce operating costs over the long term. This program also directly supported the federal government's goal of reaching 5,000 new zero emission buses.

In 2021, Council approved staff to enter into a non-binding memorandum of understanding with CIB to explore ZEB financing opportunities. Recognizing the unique opportunity this financing presented, staff worked closely and collaboratively with the CIB through a technical due diligence process and the development of the appropriate legal agreements, with a goal of reaching financial close in 2022 on a financing arrangement.

In March 2022, further to Council's endorsement, Brampton and CIB achieved financial close. Through this investment, the CIB will commit up to \$400 million to support Brampton Transit's purchase of up to 450 zero-emission buses (ZEBs) by the end of 2027. As the largest CIB investment in a municipal transit agency in Canada to date, this CIB financing will contribute towards the upfront capital cost of the ZEBs, and more specifically battery electric buses, to help accelerate the electrification of the City's bus fleet. Consistent with the CIB's ZEB initiative, repayment of the investment is expected to be covered through the anticipated operating cost savings over time of the ZEBs as compared to diesel buses. CIB is sharing in the risk of those savings materializing with the City.

With the procurement of these battery electric buses (BEBs) taking place until the end of 2027 (and taking up to two years to be manufactured and put into service), and based on the estimated BEB useful life of 15 years, it is estimated that this financing agreement with the CIB could be ongoing until approximately 2044.

Natural Resources Canada (NRCAN) - Electric Vehicle Infrastructure Demonstration (EVID) & Energy Innovation Program (EIP)

Brampton's eBus Phase I Trial was initially co-funded by both the federal and provincial governments. However, subsequent to the 2018 provincial elections, the province withdrew its funding contribution, leaving a portion of the project unfunded. During this time, staff worked diligently to identify alternate funding sources to cover the shortfall. In the end, the federal government funded 70% of the project with a total contribution of \$11.2M. This funding was provided under two funding streams within Natural Resources Canada (NRCAN), \$3.5M through the Electric Vehicle Infrastructure Demonstration (EVID) program and \$7.7M through the Energy Innovation Program (EIP). The City funded the remaining 30% of the project.

Investing in Canada Infrastructure Program (ICIP)

In 2019, Brampton secured the largest federal and provincial funding contributions in its history, through the Investing in Canada Infrastructure Program (ICIP). This multi-year infrastructure program provided Brampton with over \$351M in combined federal and provincial funding. Under the direction of Council, staff submitted applications for a number of key infrastructure projects that would shape and support the future growth of

Transit within Brampton. Staff continue to work with the federal (Infrastructure Canada) and provincial (Ministry of Transportation of Ontario) governments to administer and deliver these key projects between now and the end of 2027.

Zero Emission Transit Fund (ZETF)

The federal Zero Emission Transit Fund (ZETF) was announced in fall 2021, with a total funding envelope of \$2.75B. Unlike other funding programs, funding is to be distributed based on applications received and approved, not pre-determined allocations. In order to apply for funding, applicants must complete a two-stage process, beginning with an expression of interest (EOI) submission outlining all of the projects and initiatives under the municipalities' proposed electrification program. Once Infrastructure Canada (INFC) approves the EOI, municipalities can then enter into stage two and submit capital and planning project applications for funding. Through the ZETF program, the federal government will fund up to 50% of capital projects like ZEBs, charging infrastructure and ancillary infrastructure (new facilities, existing facility retrofits, etc.) and up to 80% of planning projects like feasibility studies or ZEB implementation strategies.

In December 2021, Brampton submitted a consolidated expression of interest to INFC under the ZETF program for ZETF funding for eight (8) key electrification projects totaling approximately \$395M.

Brampton has received approval of its initial EOI submission, and has subsequently been invited to submit detailed capital and planning funding applications required to support these projects. Brampton has submitted a capital application for the electrification of its new maintenance & storage facility and is working closely with INFC to submit additional applications for planning as well as buses and supporting infrastructure as soon as possible.

Permanent Public Transit Program (PPTP) & Permanent Transit Fund (PTF)

In February 2021, the federal government announced \$14.9B for public transit projects between April 2021 and March 2029. This funding was broken down into two major categories:

- \$5.9B to accelerate ambitious public transit projects and planning in years 1-5 of the program (April 2021 – March 2026)
 - \$2.75B later established as Zero Emission Transit Fund (ZETF)
 - Framework unknown for remaining \$3.15B (non ZETF) funding
- \$3B/year Permanent Transit Fund in years 6-8 of the program (April 2026 to March 2029)

Staff continue to strongly advocate for a fair share of this future funding and for input on the framework and program design for the remaining (non-ZETF) funding.

Corporate Implications:

Financial Implications:

There are no financial implications at this time. As Transit's capital and major infrastructure projects are funded or financed, there may be requests for municipal capital and operating contributions in order to implement and administer these projects.

Term of Council Priorities:

The Transit projects and initiatives outlined in this report support all five of the Term of Council Priorities established for 2019-2022 as well as the Brampton 2040 Vision: Living the Mosaic.

Conclusion:

Despite the challenges of COVID-19, the future of public transit in Canada, and more specifically in Brampton, is full of opportunities. As ridership continues to recover, Transit's new five-year Business Plan (2023-2027) will provide a road map for the next five years to bring Brampton one step closer to achieving its 2040 Vision. Projects like the Hurontario LRT, Queen St. – Highway 7 BRT and sustainable electrification will transform the way transit service is delivered in the City. Additional projects and initiatives will develop a well-rounded transit system that will become the transportation option of choice for residents, both today and in the future. Timely funding and financing commitments from upper level governments are reinforcing the importance of public transit, especially in dynamic growing cities like Brampton. The City of Brampton is excited to embrace a rapidly approaching new era of public transit.

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Appendix A – Transit Funding & Financing Overview