



SUBJECT: Transit ridership data and preliminary analysis

TO: Community Planning, Regulation & Mobility Cttee.

FROM: Transit Department

Report Number: TR-03-23

Wards Affected: All

Date to Committee: October 31, 2023

Date to Council: November 14, 2023

Recommendation:

Receive and file transit department report TR-03-23 providing information/data on ridership regarding seniors, youth and SPLIT Pass as well as estimated costs and implementation matters that would need to be considered for future discussions around free transit for youth all day, every day.

PURPOSE:

Vision to Focus Alignment:

- Increase economic prosperity and community responsive city growth.
- Improve integrated city mobility.
- Support sustainable infrastructure and a resilient environment.

Background and Discussion:

At the Community Planning, Regulation and Mobility Committee meeting on June 27, report TR-04-23 was prepared for the purpose of free transit for seniors (65+ years of age) all day, every day, and free transit for youth (13 – 19 years of age) during evenings after 6pm and all hours on weekends.

During this meeting, the Committee requested Transit staff to provide additional information and ridership data for seniors, youth and Subsidized Passes for Low Income Transit (SPLIT), as well as cost estimates and implementation considerations for fare free transit for youth all day, every day.

There are many variables to take into account when considering significant changes to transit fares. This includes resources, capacity, plans, along with future needs and any funding requirements. The following information is provided with this in mind.

Burlington Transit Ridership Overview (2019 – 2023)

In September 2019, Burlington Transit restructured bus routes across the city towards a grid network, providing more frequency along major arterial roads. During the six months after the network change, ridership increased by 14% from September 2019 to February 2020. In March 2020, the pandemic was declared, and ridership was negatively impacted. Due to these variables, 2019 is established as the comparator year to understand how ridership is changing.

Overall ridership in 2020 plummeted by 39%. 2021 ridership remained 36% below 2019 ridership. In 2022, as COVID-19 pandemic restrictions were lifted, overall ridership increased; however, remained 9% lower than 2019 ridership.

Table 1 outlines actual and projected total ridership, broken out by concession fare categories. 2019 – 2022 provides actual ridership and the average percentage of ridership by concession. Historically, adults make up approximately 80% of all ridership, with the remaining 20% made up from child, youth and senior demographics combined. 2023 and 2024 illustrate estimated ridership and projected ridership growth based on historic concession percentages.

Table 1: Total Annual Ridership by Fare Concession

Year	Adult	Child	Youth/ Student	Senior	Total Ridership	% Change from previous year	% Change from 2019
2019	1,911,570	13,333	286,933	241,031	2,452,867	5%	-
2020	1,195,549	10,035	151,882	144,079	1,501,545	-39%	-39%
2021	1,256,128	21,940	134,078	154,859	1,567,005	4%	-36%
2022	1,787,193	56,506	230,372	149,102	2,223,173	42%	-9%
%	79.4%	1.3%	10.4%	8.9%	100%		
2023*	2,223,647	36,810	290,415	249,129	2,800,000	26%	14%
2024**	2,335,941	38,669	305,081	261,710	2,941,400	5%	20%

*2023 ridership is estimated based on nine months of data (Jan. to Sep.) and annualized for the year.

**2024 ridership is the projected ridership total illustrated within the Transit Five-Year Strategic Plan.

Since the pandemic, Burlington Transit has returned to the ridership growth curve that was projected in the Transit Five-Year Strategic (“Plan”) (2020-2024). In 2023, overall ridership is estimated to reach 2.8 million or approximately 14% increase from 2019 (pre-pandemic) ridership. The 2.8 million is in keeping with the anticipated total ridership provided to Council in the Plan and is consistent with planned ridership target of 2.9 million in 2024. In Table 1 above, the 2024 total annual projected ridership is

broken out by concession based on previous years' ridership experience for estimated comparison.

Burlington Transit is currently experiencing ridership growth in line with planned and projected growth estimates. Any additional increase to ridership and boardings should be done in a strategic and planned approach.

Information/Data on Ridership

The following sections provide Council with an update to existing free fare initiatives to date, including the planned SPLIT and Senior free fare, along with Youth free fare during weekdays after 6:00pm and all hours on weekends.

1. Subsidized Passes for Low Income Transit (SPLIT) Program

SPLIT Pass usage accounts for approximately 5% of Burlington Transit's total ridership, which is currently represented by 70% adults, 21% seniors and 9% youth.

Since August 1, 2023, seniors started to travel for free at all times and are no longer required to apply for any subsidy for public transit in the City of Burlington. It is also important to note that SPLIT usage changes from year to year and is guided by many community factors such as an individual's circumstances, current economy, employment, etc.

2. Free Transit for Seniors (65+ Years of Age)

Senior ridership demographic equates to 9% of total ridership for the City of Burlington. Starting May 2019, the Senior Free Midday fare pilot was introduced, and senior ridership initially increased by 41% during the first nine months (June 2019 to February 2020) of the pilot, until the pandemic.

As illustrated in Table 2 below, in 2020 overall senior ridership fell by 40% due to pandemic restrictions, and from 2020 to 2022, Burlington Transit did not see a return to pre-pandemic senior ridership levels. In 2023, based on the first nine months of ridership data, senior ridership is making a recovery to pre-pandemic levels with an estimated 3% increase from 2019.

Table 2: Burlington Transit Senior Annual Ridership

Concession/Year	2019	2020	2021	2022	2023*
Senior (65+ years of age)	241,031	144,079	154,859	149,102	249,129
Year over Year Percent Change (+/-)	22%	-40%	7%	-4%	67%
Percent Change from 2019 (Pre-pandemic) (+/-)		-40%	-36%	-38%	3%

*2023 Estimated based on January to September 2023 ridership and annualized for the full year.

The current trend for senior ridership is reporting 27% higher in August 2023 from August 2019, and 28% higher in September 2023 from September 2019.

Seniors continue to travel during off-peak demand time of the day, which has minimal impact to ridership capacity during peak demand in the early morning and late afternoon/early evening hours. This is represented in Graph 1 below.

Senior free fare was approved by Council (TR-04-23) and the estimated \$160,000 in lost revenue has been incorporated into the 2024 Financial Needs and Multi-Year Forecast. The 2024 rates and fees for senior fare concession has been adjusted to reflect the \$0 fare.

3. Free Transit for Youth (13 – 19 Years of Age) Weekdays after 6pm and Weekends

Based on previous ridership data from 2019 – 2022, youth make up 10% of total Burlington Transit ridership. As shown in Table 3 below, again due to the pandemic, there was a reduction in youth ridership in 2020 and 2021. In 2022, youth ridership didn't fully return to pre-pandemic levels; however, the data illustrates that when students returned to school and pandemic restrictions were lifted, this ridership demographic returned to using Burlington Transit to get around. Based on 2023 estimates, staff are anticipating a 1% increase in youth ridership from 2019.

Table 3: Burlington Transit Youth Annual Ridership

Concession / Year	2019	2020	2021	2022	2023*
Youth / Student	286,933	151,882	134,078	230,372	290,415
Year over Year Percent Change	-6%	-47%	-12%	72%	26%
Percent Change from 2019 Pre-pandemic (+/-)		-47%	-53%	-20%	1%

**2023 Estimated based on January to September 2023 ridership and annualized for the full year*

Starting August 1, 2023, youth started to travel for free on Burlington Transit during weekdays after 6pm, and all hours on weekends. The free fare for youth was recommended to allow seniors to travel for free at all times, due to constraints of the PRESTO system, which can only support a single time of day concession. The youth free fare weekday and weekend hours were decided to ensure that weekday ridership capacity would not be negatively impacted.

Historically, data illustrates that youth ridership is lower during the months of July and August and increases in September to June of each year. This is consistent with ridership increasing during active school months.

Current trends are consistent with past experience showing that youth riders have returned to using Burlington Transit due to school starting in September. Table 4 below illustrates how youth use Burlington Transit during school months and less during the summer months. Staff are continuing to review ridership data to get a comprehensive understanding of how free ridership after 6pm on weekdays and all day on weekends is being used by this ridership demographic. At this time, there are only two months of

reported free ridership data, which is not enough to get a full understanding of how free fare is influencing the use of transit. Staff will continue to monitor and share information with Council.

Table 4: Burlington Transit Youth 2023 PRESTO Boardings – Weekdays Before 6:00pm, Weekdays After 6:00pm and Weekends All Hours

Month/Year	Weekdays Before 6:00pm	Weekdays After 6:00pm	Weekends All Hours
May	29,835	3,454	3,587
June	28,246	4,106	3,864
July	14,933	4,407	5,040
August	15,830	5,603	4,788
September	30,173	4,721	6,312

As illustrated in Graph 1 below, youth ridership data reports that this demographic uses transit during school bell hours, with bus boardings’ peak demand at 7:00am and then from 2:00pm to 4:00pm.

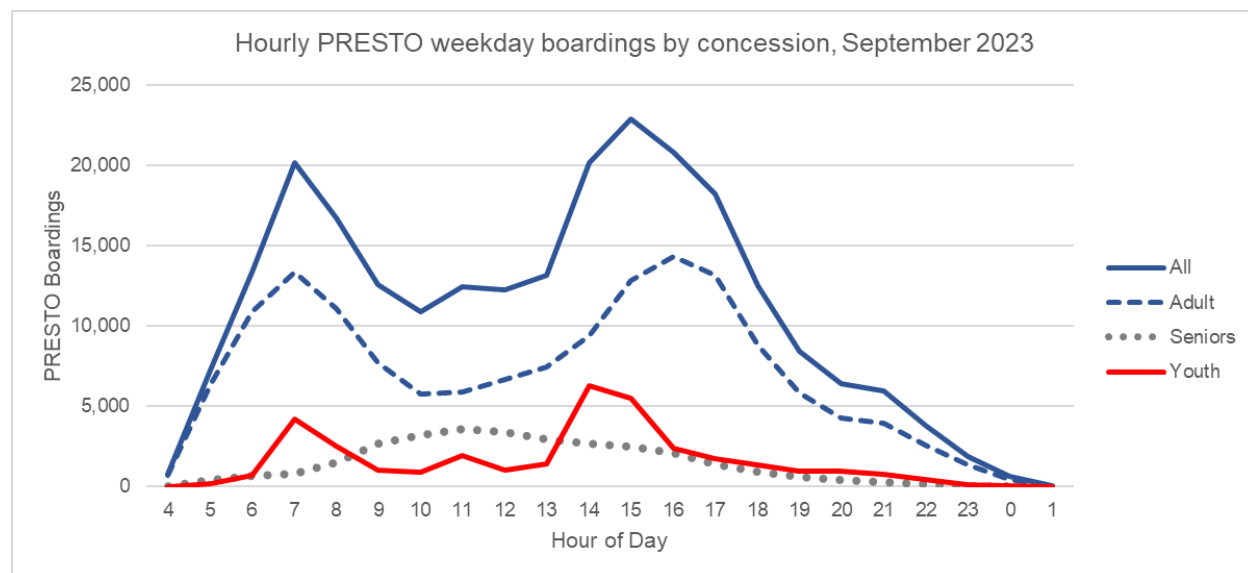
Time of Day Ridership Demand

The weekday hourly graph below represents when youth, seniors and adults are using Burlington Transit. While seniors tend to use Burlington Transit during off-peak times of day, usually between 9:00am to 1:00pm, youth travel during weekday peak travel times, which overlaps with adult morning and afternoon ridership demand hours.

During the morning and afternoon peak periods, especially in the afternoon, the ridership growth, along with heavy traffic, is causing increasing delays and crowding to some of Burlington Transit’s busiest routes, such as the Routes 1, 2, 3, and 10. Burlington Transit staff are monitoring the situation closely and making service adjustments within existing resources in response to the changing demand. These routes also service many of the high schools in Burlington.

Implementing expansion to free transit for youth all day will require additional service during these peak periods, necessitating an expansion to Burlington Transit’s bus fleet. The estimated fiscal impact is included in the financial impact section below.

Graph 1: Burlington Transit Boardings by Time of Day



Strategy/process/risk

Prior to any additional or expansion of free fares, Burlington Transit would recommend that a phased approach be considered to establish the foundation to support transit service delivery. The first phase would be to complete the implementation of the Transit Five-Year Strategic Plan. The second phase would be to work with a consultant to conduct a comprehensive analysis to include budgetary impacts, transit service requirements, PRESTO contract obligations, environmental benefits, and more. This would establish a strategic plan and objectives for any potential changes to ensure quality of transit service. The third phase would be to further review the Operating Metrolinx Agreement and the City’s decision to renew the contract in 2027.

1. Implementation of Burlington Transit Five-Year Strategic Plan

Burlington Transit is currently working to fully implement the strategic objectives of the Transit Five-Year Strategic Plan (2020-2024). The strategies and initiatives defined in the Plan were established to allow for flexibility in timing and financials due to COVID-19 and the City’s recovery from the global pandemic. Full implementation of the Plan has been delayed due to various reasons; however, it is an important first phase to complete this Plan before additional expansion of free fare ridership is considered. Council endorsed this plan in December 2020, following discussions and adaptations of the Plan to ensure transit ridership growth and service was practical and sustainable.

This Plan is a living document and provides the strategic roadmap to encourage continued ridership growth and the investment to support this growth. 2023 is the first year since the pandemic that Burlington Transit has returned to full service and is able to shift focus from adapting to a pandemic to implementing the strategic initiatives of the

Plan. While 2024 is the last year of the Plan, many of the strategic objectives will continue to be included in future years' budgets and built on as part of the next Five-year Plan.

At a minimum, to support current day and planned transit service and ridership growth, full implementation of the Plan's Organizational Structure and Staffing is required. Table 6 below illustrates the Plan's phased staffing approach to align with planned service expansion. Based on 2023 approved FTE, there are many positions that are still required to support this transit service expansion and growth. The last column represents the current gap in staffing resources.

Table 6: Burlington Transit Five-Year Strategic Plan Organizational Structure and Staffing by Year, 2023 Current FTE and FTE Shortfall.

Job Title / Year	2019	2020	2021	2022	2023	Staffing Plan 5-Year Total	2023 Approved FTE Total	Variance from Plan to Current FTE
Operators	111	119	119	127	135	143	127	16
Transit Supervisor	6	6	6	9	10	11	6	5
Motor Vehicle Mechanics (310T Licence)	8	8	8	9	9	10	9	1
Transit Maintenance Supervisor	1	1	1	1	1	1	1	0
Mechanic Helper	4	4	4	4	4	4	3	1
General Service Technician (FT)	0	0	6	6	7	8	6	2
General Service Technician (PT)	0	0	4	4	5	6	5	1
Customer Service (FT)	2	2	2	2	2	2	1	1
Customer Service (PT)	3	3	3	4	5	5	4	1
Maintenance Coordinator	0	0	0	1	1	1	0	1
Operations Dispatch	0	0	0	1	1	1	0	1
Total								30

2. Preliminary Analysis, Strategic Approach and Financials to Provide Free Transit for Youth

Additional infrastructure and resources would be required to support youth free fare and the increase in ridership demand. Before any additional or expansion to free fares is considered, a full and comprehensive review and strategic approach is required to ensure continued quality of transit service. In order to provide Council with the requested information and cost estimates for youth free fare at all times, the following

information is provided with two months of youth free ridership (weekdays after 6pm and weekends) experience.

Estimated Youth Ridership Increase and Risk

Based on the number of high school students who are currently not eligible or provided school bus transportation by the school boards in Burlington, free transit would result in a significant increase in annual youth ridership, which is estimated to be up to 1.1 million in boardings. This is based on 187 active school days within a school year. It is necessary to estimate the number of anticipated boardings to understand the potential demand in relation to capacity.

At this time, within existing resources, Burlington Transit does not have the capacity to add school specials or additional buses to routes that service high schools. Based on the expected increase in boardings and to accommodate this extra growth in ridership, it is estimated that additional infrastructure and staffing resources would be required to service this demand. It is important to note this would be in addition to the planned increase in staffing outlined in the Transit Five-Year Plan, illustrated in Table 6.

To sustain operations and provide free transit for youth at all times, the following additional resources and staff positions would be required to properly deploy this program:

- Four additional conventional buses
- Eight Operators
- One Rider Experience and Education Specialist
- One Operations Supervisor
- One Mechanic

Prior to any additional free fare programs being expanded or introduced, it is recommended that a comprehensive analysis be conducted. This would be part of the consultant review approved by Council through Staff Direction to report back in Q4 2024 (SD-31-23).

3. Operating Agreement for PRESTO By and Among Metrolinx (Nov. 2027)

Furthermore, the City of Burlington currently has contractual obligations through the Operating Agreement for PRESTO By and Among Metrolinx until November 2027. The contract binds the City to use only PRESTO as a fare payment system. A fare amount can be \$0; however, a transit agency is required to achieve an adoption rate and aggregate fare revenue that is generated based on annual revenue ridership.

When staff consider the commitment to minimum revenue outlined in the Agreement, it will be necessary to better understand the financial impact to additional free fare and the PRESTO Agreement. This will be carefully reviewed with finance, corporate legal and PRESTO to ensure any additional fees required to be paid by the City of Burlington is

considered as part of the financial impact provided in Q4 2024. The PRESTO contract and fare integration impacts are outlined in the work that will be undertaken by the consultant, as per Staff Direction SD-31-23.

Financial Matters:

Transit Five-Year Strategic Plan – Capital and Operating Budget Investment

As previously noted, the Five-Year Plan has not been fully implemented, which includes the planned expansion of conventional buses from 63 buses in 2019 to a total of 79 buses by 2024 to support planned service and ridership growth. The last remaining eight expansion conventional buses are currently included in the Financial Needs and Multi-Year forecast for funding of four buses in 2024 (\$4,045,000) and four buses in 2025 (\$4,329,000). Capital Project VE-VN-1503 provides the total financial impact of \$8,374,000. The planned expansion is partially funded through ICIP, with a total committed amount of \$6,141,000 in approved funding.

It is important to note that a conventional bus takes one year to 18 months from procurement to delivery. Based on this timing, it will be 2026 to 2027 before the planned expansion for conventional buses is completed.

In addition to capital investment, the Plan also outlined an organization and staffing plan to support transit service growth. To date, the full implementation of the organization and staffing plan has been delayed due to various reasons, including timing of the Plan, duration of the pandemic, competing corporate priorities and available funding. Currently (2023) there is a shortfall of 30 positions that are still required, reference Table 6.

Of the 30 positions required, there are 11 FTE and other associated operating impacts included at a cost of \$1.3 million for Council's consideration as part of the City's 2024 Financial Needs and Multi-year Forecast, while the balance is reflected in future years with an additional \$3.17 million funding required for all associated costs.

Free Fare Transit Youth Financial Impact

To support free youth ridership would require additional resources, from an operating and capital investment.

Free Youth Ridership Additional Conventional Bus Estimates

It is estimated four additional conventional buses would be required in addition to the expansion planned in the Five-Year Transit Plan, to bring the total bus count from 79 planned to 83 conventional buses. Each bus currently costs approximately \$1,046,000 for an additional financial impact of \$4,188,000. This is not currently included in the Financial Needs and Multi-Year forecast and funding is not known.

Free Youth Ridership Additional FTE Estimates

To be ready for additional anticipated service demand of 1.1 million in increased boardings for free youth ridership, Table 7 below outlines 11 additional FTE resources that would be required to support this ridership demographic. It is estimated that an additional \$1.68 million in salaries and other operating expenses would be required. This is in addition to any cost estimates to implement the Transit Five-Year Strategic Plan.

Table 7: Additional Staff Resources to support youth demographics.

Job Title	2024
Operators	8
Rider Experience and Education Support	1
Operations Supervisor	1
Mechanic	1
Total	11

Lost Revenue

In addition to the expenses noted above, it is estimated that there would be a loss in revenue of \$580,000. This is based on the youth ridership and 2024 planned budget for fare concession revenue. This has not been included in the 2024 Financial Needs and Multi-Year Forecast.

Total Financial Impact

The total financial impact to provide free fare transit for youth is summarized below. The total fiscal impact includes the capital investment, ongoing operating investment and anticipated revenue loss.

Table 9: Youth Free Fare Budget Estimates

Description	Operating \$	Capital \$
Capital Infrastructure – 4 Additional Conventional Buses	-	\$4,188,000
11 Additional FTE to Support Youth Free Ridership	\$1,680,000	
Lost Revenue	\$580,000	
Estimated Sub-total	\$2,260,000	\$4,188,000

The total cost to implement free transit to youth demographics is estimated to be \$6,448,000. These costs are not currently included within the Financial Needs and Multi-year Forecast, and do not include associated operating costs, like fuel and maintenance. These costs are also in addition to full implementation of the Transit Five-Year Plan, which is still underway.

Source of Funding

The source of funding is unknown at this time, as all funding under the ICIP program has been allocated to the implementation of the Transit Five-Year Plan. Other transit funding sources such as Provincial and Federal Gas Taxes are currently dedicated to the renewal of the existing fleet.

Halton School Boards are provided provincial funding for student transportation. It would be beneficial to include this in the consultant's work to better understand any potential funding opportunities if the City is going to provide transit service where dedicated school bus transportation is provided, or partially subsidize public transit as a service to the school boards.

Other Resource Impacts

As noted above, the human resource impacts of implementing a free fare program for students would require additional support staff. Specifically:

- Transit Operations Supervisors to support additional capacity on buses, provide assistance at schools and to troubleshoot potential concerns and issues that arise.
- Rider Experience and Education Specialist is required to support travel training and student transit education program. This resource would plan and develop the travel training program and work with school boards to support travel behaviors.
- Transit Operators to support the increase in service hours required for increased transit service.
- Transit Mechanics to support additional infrastructure and increase use.

Other costs of the program may include:

- Increased maintenance costs due to expanded service hours, which would result in additional staffing.
- Fuel costs due to increased service hours.
- Additional maintenance costs to buses due to increased service hours.

Risks

Providing youth free fare transit at this time, without planned investment, has the potential to create the following risks:

- Overcrowded buses during peak periods and the potential of leaving people behind,
- Schedule delays from buses operating at crush loads,

- Poor customer service and increased complaints,
 - Unsafe conditions due to overcrowding,
 - Burlington Transit and the City's reputation,
 - City's obligation to the PRESTO Operating Agreement,
 - Reduced ridership due to poor customer service,
 - Increased problematic behaviour due to overcrowding, decline in service, etc.
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Climate Implications:

Public transit plays a critical role in local climate mitigation by providing residents with the opportunity to utilize public transit as a way to decrease greenhouse gas emissions (GHG) from automobiles for single use trips.

Public transit supports the City's targets to reduce carbon dioxide (CO₂) emissions. Every ride on Burlington Transit removes a car off the road and reduces CO₂ emissions and traffic congestion.

Each 40-foot bus (12.2 metres) seats 40 riders comfortably; however, can hold up to 60 passengers with standing room. Considering annual ridership totals divided by 40 riders provides staff with an average estimate of personal vehicles removed from roadways. Based on 2023 anticipated ridership, it is estimated that Burlington Transit will remove 70,000 single trip vehicles from the roadways.

Each standard passenger vehicle emits 4.6 cubic metres of CO₂ on average into the atmosphere each year. Based on 2023 anticipated ridership and the estimated number of vehicles removed from the roadways, this equates to approximately 322,000 CO₂ emissions being avoided.

Engagement Matters:

Residents and transit riders have engaged through the City's Customer Relationship Management (CRM), City events, the Transit Rider survey and transit forums.

Staff have started conversations with the City's finance department to better understand the full financial impact of free transit on the transit operating and capital budget.

To have a fulsome youth transit program, engagement with Halton School Boards at a political level is required to re-initiate the conversations that were started in 2019. The purpose would be to discuss funding opportunities to offset some of the costs to offer this program.

Conclusion:

It is recommended that the Transit Five-Year Strategic Plan is fully implemented to support current growth, projected growth and quality of service. It is estimated that full implementation will not take place prior to 2027, based on the Financial Needs and Multi-year Forecast.

Also, that any expansion of free fare programs be deferred until after the consultant study is completed. The consultant study will examine any associated costs, benefits and risks, impact to financial sustainability, service impacts, and potential funding sources, and will be provided to Council in Q4 2024, as per Staff Direction (SD-31-23).

Lastly, that the existing PRESTO Agreement be considered in regard to timing of any additional or expansion of free fare changes due to the City's contractual obligation.

Respectfully submitted,

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Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.