

Calgary Transit Ridership, Revenue and RouteAhead Update

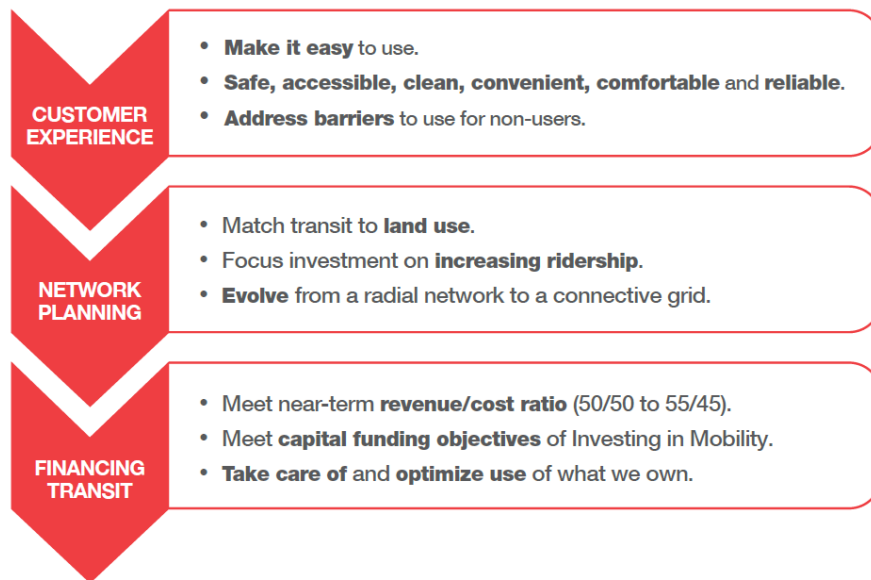
Introduction

The COVID-19 pandemic has impacted transit ridership, revenues and service delivery in ways that could not be foreseen in 2019. At the height of the pandemic in April 2020, ridership was 10 per cent of 2019 levels. In June/July 2020, the return of activity can be seen in the ridership on Calgary Transit, which is increasing every week and is now at 25 per cent of 2019 levels.

Calgary Transit surveys suggest customer satisfaction remains high among transit users. However, recent surveys of users and non-users suggests that the return to normal ridership will take time.

Reduced transit demand will be compounded by lower-than-normal economic activity. The gap in revenues as a result of the pandemic cannot be ignored, and service adjustments are required in 2020/2021 at a minimum as outlined in this report.

This report serves as Calgary Transit's update on the status of RouteAhead: a 30-Year Strategic Plan for Transit in Calgary, which was approved by Council in March 2013. Route Ahead was organized around the following core principles:



An overview of the **customer experience** amid the COVID-19 pandemic is described in the first section of this report. Initiatives to improve the customer experience as part of Calgary Transit's recovery in 2020/2021 are described at the end of this report. A key focus of this report is **financing transit** amid the current and projected impacts on revenues due to the pandemic. Strategies to mitigate the impacts on ridership/revenues are discussed, including fare strategy, new On Demand service areas, and application of "mobility as a service". A RouteAhead Update report specific to **network planning**, including capital projects, fleet and facilities will be presented to the SPC on Transportation and Transit in Fall 2020.

Calgary Transit Survey of Customer Usage and Attitudes amid COVID-19

Calgary Transit conducts regular customer research to determine customer perceptions and needs, monitor trends, collect data for decision making, tracking of metrics, and provide actionable business intelligence. With the advent of the COVID-19 pandemic, Calgary Transit's customer research pivoted to reset our baseline customer understanding, provide direct and relevant intelligence regarding our customers and their relationship to transit service, and determine the value and reach of the various safety measures and restrictions available to Calgary Transit.

There are two components to the research project: a monthly tracker and a larger usage and attitudes study. The monthly tracker will run for five months to continue to monitor changes in Calgary Transit's customer base and their transit experience. The usage and attitudes survey is a one-time initiative.

The first monthly tracker was in the field from May 28 to June 7, 2020 and sampled 170 Calgaryans recruited through the Calgary Transit Panel. The usage and attitudes survey was in the field from May 28 to June 9, 2020 and sampled 403 Calgaryans using the Calgary Transit Panel and the Leger LEO (Leger Opinion) panel (<https://www.legeropinion.com/en/>).

Future monthly tracker surveys may introduce relevant changes to the data or situation and the outcomes could vary in future reports.

Key Findings

- Key reasons for taking transit have shifted from work and school dominated trips to personal appointments and work followed by equally ranked social activities, shopping, and household errand activities.
- As restrictions ease, 52 per cent of recent or current transit riders will use transit the same as before and 33 per cent will use it less than before the pandemic started.
- Respondents who had used Calgary Transit since the lockdown restrictions came in place are consistently more comfortable using Calgary Transit than respondents who have not taken Calgary Transit since the lockdown started.
- Cleaning high-touch surfaces, nightly deep cleans, and blocking off seats to ensure social distancing are top-of-mind for our customers.
- The most effective combination of restrictions or measures to reach the most customers and ensure customers are comfortable and safe using transit are:
 - Mandatory use of face masks for customers;
 - Asking customers not to board a bus or train if they have flu-like symptoms; and
 - Disinfecting high touch surfaces inside of the vehicles throughout the day.

Detailed Findings

Reasons for Using Transit

Our customer’s collective reasons for riding transit have changed. The shift in reasons for using transit reflect the economic reality in that fewer customers are using transit to go to work or school.

The percentage of customers using transit for personal reasons (personal appointments, shopping, and household errands) have increased relative to the whole of ridership.

Trips taken for leisure and social activities fell somewhat as well reflecting adherence to provincially mandated physical distancing guidelines and smaller groups for meetings and get-togethers.

Reasons for using Transit

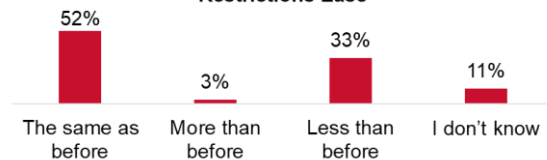


Transit Usage and Recent Experience with Transit

Only half of our customers are expecting to resume using transit as frequently as before the pandemic. Fully one-third are expecting to use it less. Key reasons are:

- Discomfort onboard vehicles and public places with the pandemic ongoing.
- Lack of need to travel due to changes in work, school, health.

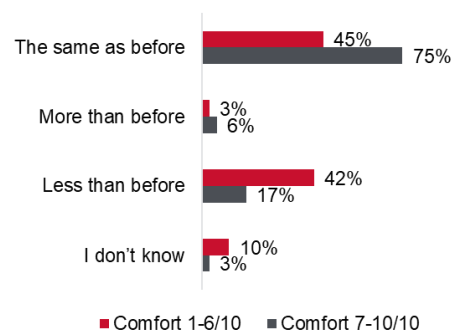
Use of Transit When COVID-19 Restrictions Ease



Experience drives comfort which translates into loyalty. Respondents who are more comfortable onboard Calgary Transit vehicles are more likely to use Calgary Transit to make more types of trips more frequently.

For customers who have not taken Calgary Transit since the start of the pandemic, their perceptions of the safety and cleanliness of transit service are markedly more negative than those that have taken transit since the pandemic started. This correlates with their perceived level of comfort using Calgary Transit.

Level of Comfort by Use of Transit When COVID-19 Restrictions Ease

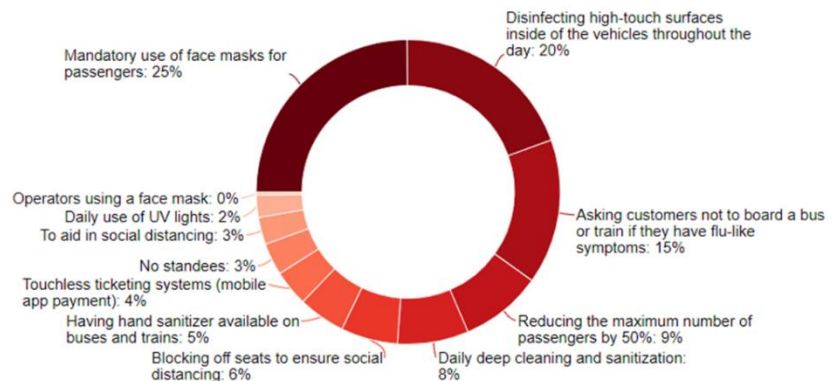
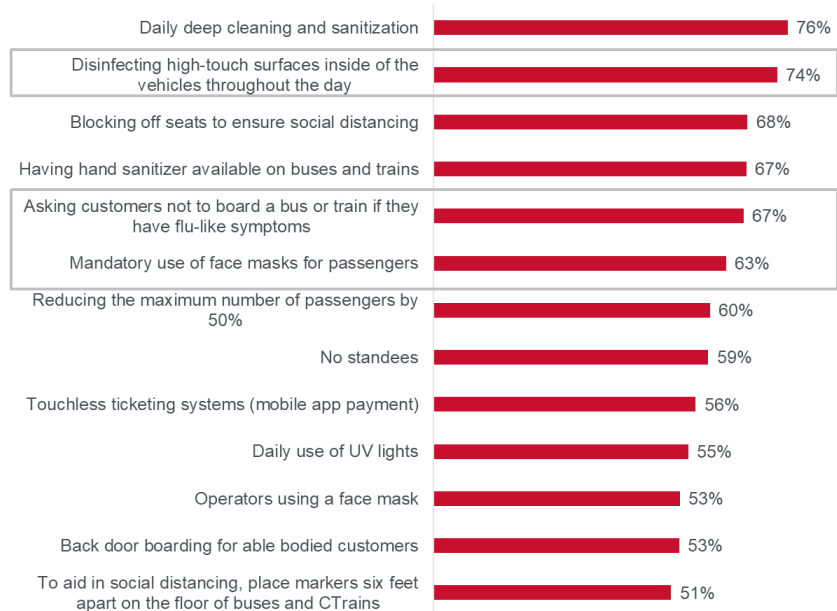


Key measures to invest in

When asked about the effectiveness of various measures that could be taken by Calgary Transit to make them feel safe onboard a transit vehicle, half or more of people felt that everything was important with the most visible cleanliness items, daily deep cleans and disinfecting high-touch surfaces throughout the day, being the most highest rated.

When asked to rank the various measures as to their impact on rider comfort with using transit, mandatory face masks for passengers, disinfecting high-touch areas throughout the day, and asking customers not to board if they are have flu-like symptoms emerged as the highest ranked items for having the highest impact.

Multiple types of analyses support that the top three items of most value to our customers and that have the highest reach to the most customers are mandatory face masks for passengers, disinfecting high-touch areas throughout the day, and asking customers not to board if they are have flu-like symptoms.



Portfolio	Reach (%)
1 Mandatory use of face masks for passengers, Asking customers not to board a bus or train if they have flu-like symptoms, Disinfecting high-touch surfaces inside of the vehicles throughout the day	84.5
2 Mandatory use of face masks for passengers, Reducing the maximum number of passengers by 50%, Disinfecting high-touch surfaces inside of the vehicles throughout the day	83.2
3 Mandatory use of face masks for passengers, Blocking off seats to ensure social distancing, Disinfecting high-touch surfaces inside of the vehicles throughout the day	81.3
4 Reducing the maximum number of passengers by 50%, Asking customers not to board a bus or train if they have flu-like symptoms, Disinfecting high-touch surfaces inside of the vehicles throughout the day	79.5
5 Daily deep cleaning and sanitization, Mandatory use of face masks for passengers, Disinfecting high-touch surfaces inside of the vehicles throughout the day	78.4

Other factors influencing consideration of measures

Physical distancing by other customers is the most significant concern among those surveyed with 73 per cent concerned that others will not follow physical distancing guidelines and 70 per cent worried about being close to people they do not know.

Cleaning, both the deep nightly cleaning and the in-service disinfecting of high-touch services have a high impact on customer comfort with using transit.

Mandatory wearing of masks was indicated by two-thirds of those asked that their “sense of safety and comfort to use transit” would be significantly higher when onboard a transit vehicle.

Trend in Ridership and the Impact of COVID-19

As of 2020 July 8 Calgary Transit had approximately 127,000 boardings-per-weekday compared to approximately 428,000 boardings-per-weekday prior to the start of the pandemic in Alberta (2020 March 9).

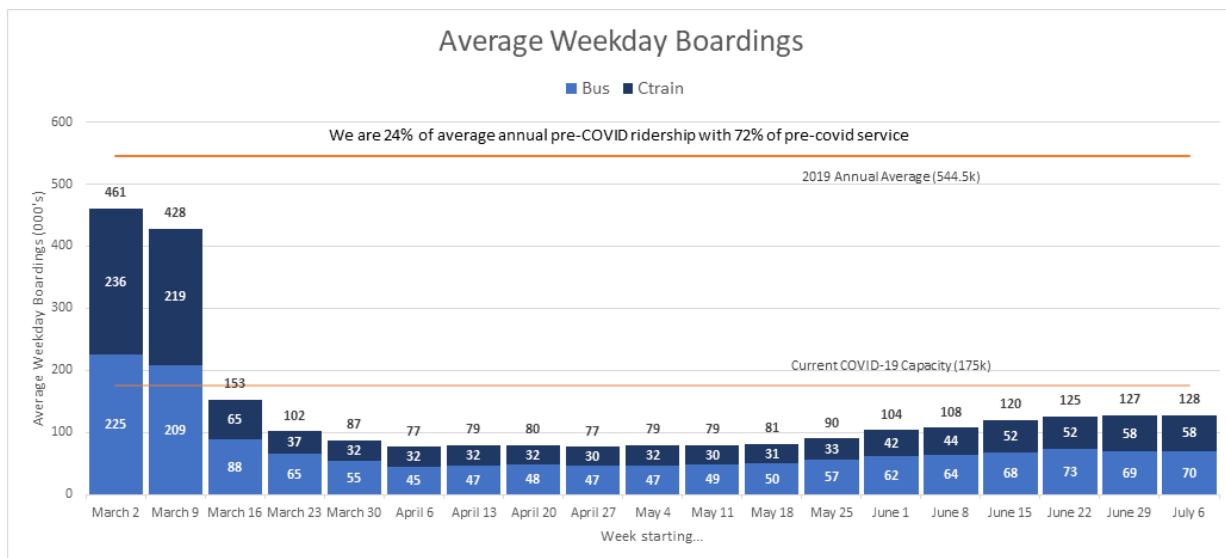


Figure 1 – Average Weekday Calgary Transit Boardings

The lowest point in ridership was experienced in April with approximately 77,000 boardings per weekday. Concurrent with the re-launching plan initiated by The Province in May, ridership has been increasing an average of five per cent week-over-week with trends continuing to rise.

Calgary Transit Access service was likewise impacted. On the average weekday prior to the pandemic Calgary Transit Access would deliver approximately 5,000 trips. Trips delivered declined 90 per cent initially. Since May, demand has slowly risen, and as of July 8 approximately 1,000 trips are being delivered on the typical day.

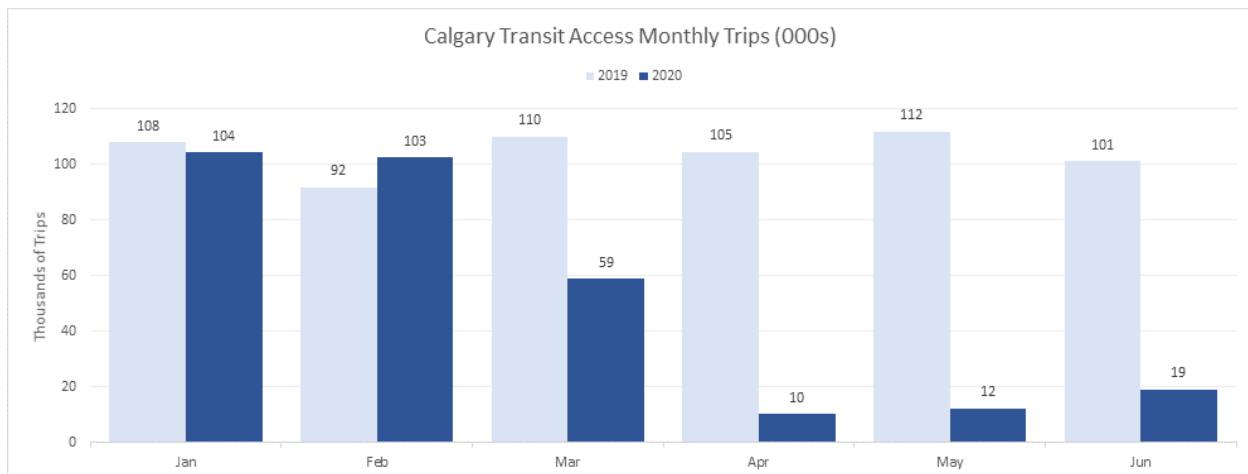


Figure 2. Average Weekday Calgary Transit Access Trips

Despite carrying 100,000 customers per weekday, Calgary Transit was forced to make the difficult decision to reduce service.

Effective 2020 May 25, Calgary Transit reduced service hours by approximately 30 per cent from the March 2020 levels. To make the necessary cuts in service, the entire transit system was evaluated to ensure we were still able to provide meaningful service to the many Calgarians that still rely on transit to get to important places like work, the grocery store and medical appointments. Service changes on 2020 May 25 included:

- Temporarily removing 25 routes;
- Reducing the frequency of 30 routes during the weekday;
- Reducing the frequency of 19 routes on the weekend; and
- Closure of parts of two maintenance facilities and the concentration of bus service out of only two facilities.

These reduced service levels will only be adjusted if there is a significant change to travel demand that drives additional ridership. As part of [Alberta's Relaunch Strategy](#), transit ridership is expected continue to grow as businesses, offices and schools reopen. Calgary Transit will respond to changing demand by reallocating service. However, given The City's financial position, Calgary Transit will be unable to make massive reinvestments.

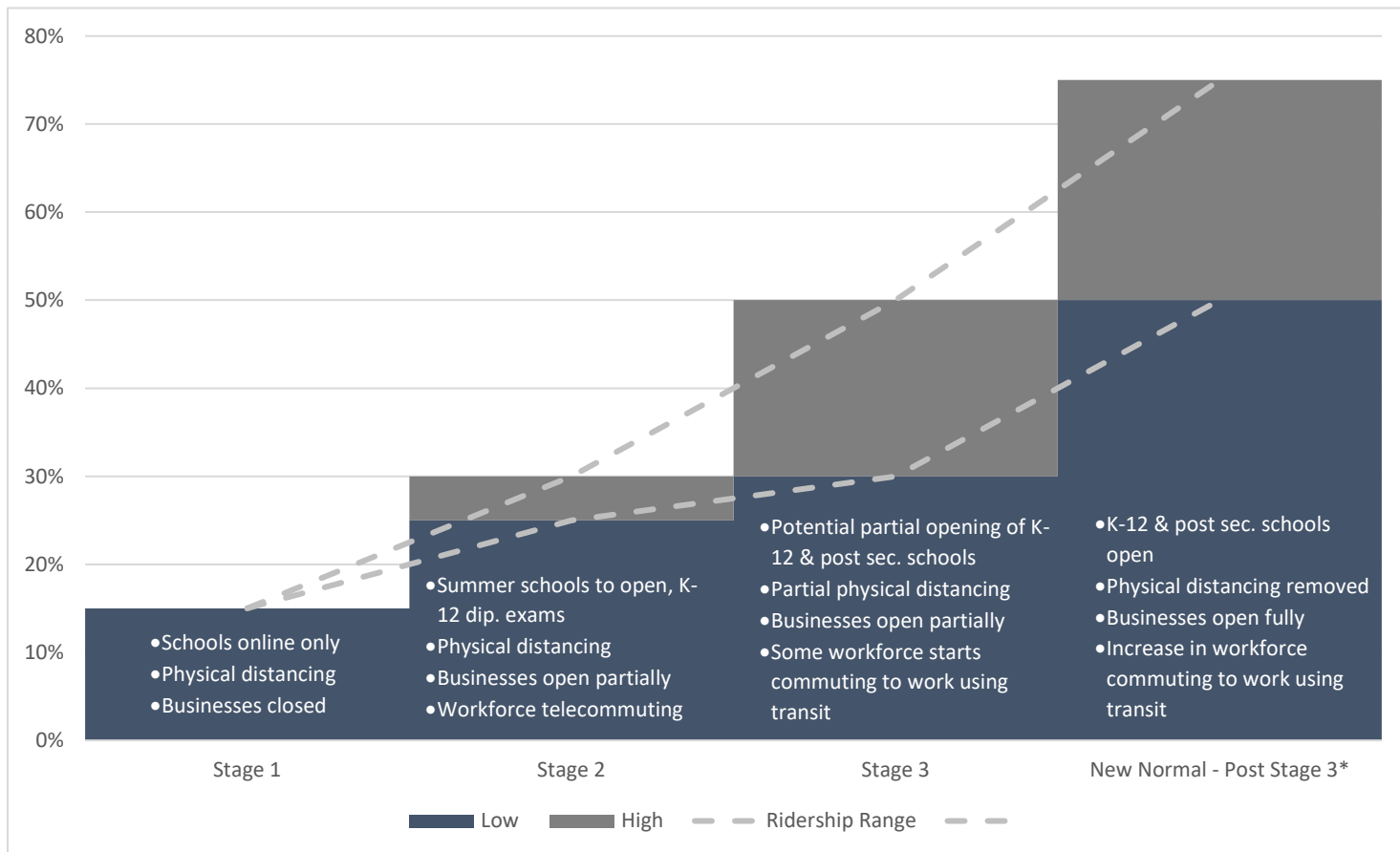
Ridership Projections

As the Government of Alberta reopens the economy, ridership is expected to grow as offices, businesses and schools reopen. Although ridership is increasing, ridership will likely remain below pre-COVID-19 levels for the duration of 2020. This will be due in part to customer comfort for physical distancing (among other factors influencing transit users outlined in Calgary Transit Survey of Customer Usage and Attitudes section above), post-secondary attendance, and work-from-home arrangements, which vary from business to business. Other factors include the availability and low cost of parking, reduced traffic congestion, and other factors that influence mode choice.

As ridership on the system increases, physical distancing guidelines will be strained; however, mitigation measures are in place, such as operator barriers and frequent vehicle cleaning.

Figure 3 highlights the Provincial re-launch stages with potential implications to transit ridership. Calgary is currently in an accelerated Stage 2.¹

- The first phase focused on allowing some businesses to resume operations beginning May 14 with enhanced infection prevention and controls in place. The cities of Calgary and Brooks reopened more gradually due to higher case numbers and fully entered Stage 1 as of June 1.
- The second phase allowed for additional businesses and services to reopen and resume operations beginning June 12 with physical distancing requirements and other public health guidelines in place.
- Stage 3 timing will be determined based on health indicators. Some restrictions and enhanced protection controls will remain in place. It is likely that local geographic areas will have restrictions in response to COVID-19 outbreaks in this stage.



*New Normal – Post Stage 3 is outside of provincial reopening plan.

Figure 3 - Ridership and Re-Launch Forecast Aligned with Provincial Re-Launch Stages

With a phased reopening of schools and businesses, ridership will continue to grow. However, with societal change and physical distancing, it is not expected that ridership will return to

¹ Province of Alberta's Relaunch Strategy: <https://www.alberta.ca/alberta-relaunch-strategy.aspx#toc-0>

similar levels before the pandemic began in the short term (2020/2021). Based on this, Figure 3 highlights a range in ridership growth to be expected as Calgary moves into Stage 3 and beyond.

Ridership demand will be dependent on the staged reopening by the Government of Alberta. Return to work in the downtown core and reopening of post-secondary institutions will drive ridership towards the higher end of the range.

It's also important to highlight that through the pandemic, ridership has remained consistent on a few routes, particularly adjacent to the SE and NE industrial areas. Specifically, service adjustments have been made to Route 43 – McKnight/Chinook, Route 32 – Huntington/Sunridge and Route 23 – 52 Street East to enable customers to continue to access jobs and appointments in these areas.

Despite the modest ridership and revenue increases resulting from the relaunch strategy, Calgary Transit will need to reduce service levels compared to the commitments made for 2020-2022 in One Calgary due to the overwhelming impact of revenue losses in 2020. Conversely, ridership growth will require more space for physical distancing as well as other safety measures.

Fare and Revenue Framework and the Impact of COVID-19

In 2020 March, the impact of the onset of the pandemic on ridership and revenue was stark. In order to prevent the spread of the virus, physical distancing was instituted across the city. Everyone was been encouraged to stay at home. Only essential services continued to operate. While public transit remained in operation to support essential services and provided approximately 110,000 daily boardings in March/April, this did not result in significant revenues.

Examples of the impacts include:

- Direction to the public to stay at home unless necessary and direction from employers to work from home;
- Temporary closure of businesses and institutions;
- Layoffs in industries impacted by the pandemic and related economic shocks; and
- Transition from in-person to remote/online learning for post-secondary, secondary, and junior high schools effective March 2020.

In addition, to ensure the safety of riders and employees, particularly bus and community shuttle operators of Calgary Transit, safety guidelines and precautions have been implemented at Calgary Transit that have significantly affected its service delivery; and ultimately on ridership and revenues. Impacts associated with the pandemic include:

- Direction to make March low-income transit passes valid for April and May and to extend the validity of expiring seniors' annual passes to mitigate the impacts of the pandemic on vulnerable populations;
- Physical distancing guidelines for public transit issued by the provincial government on 2020 March 25. This led to rear-door boarding requirements and an honour system for fare payment with limited enforcement, with new guidelines as of July 8; and
- Ease/attractiveness of travel via other modes, such as driving alone, walking and cycling.

Further detail regarding the impact on revenues from fares, advertising, parking and other potential streams are identified below. The impacts have been sudden and impossible to foresee in 2019 when budgets for 2020 were developed. As a result, the financial strain is not limited to Q1/Q2 and will have an impact lingering into 2021.

Calgary Transit is not alone in this predicament. While Calgary is currently experiencing temporarily suppressed ridership and revenues, this is not uncommon and is currently prevalent in the transit industry, at least in Canada and the United States, if not the world, since the onset of the pandemic.

Impact of COVID-19 on Fare Revenues

The table below identifies the year-to-date impacts relative to previous years.

Table 1. Comparative year-over-year fare revenue for the first five months (January to May) of the year:

Fare Type	2018 (\$'000)	2019 (\$'000)	2020 (\$'000)
Adult Monthly Pass	20,300	20,635	16,444
Adult Day Pass	199	231	190
Adult Single Ticket	17,641	17,329	12,614
Youth Monthly Pass	5,735	6,177	4,716
Youth Day Pass	152	25	14
Youth Single Ticket	4,141	2,229	1,709
Adult Low Income Monthly Pass	1,792	2,087	1,839
Youth Low Income Monthly Pass	353	430	397
U-Pass	6,776	7,139	7,465

Specifically, the following are the impacts to Calgary Transit fare revenues:

1. Significantly lower cash revenues with an 88 per cent decline from same period in 2019 as of end of May. Rear-boarding on buses resulted to almost no farebox revenues since access to the fare box was discouraged. Revenues from ticket vending machines was over 54 per cent lower.

Table 2. Comparative year-over-year cash revenues for the month of May:

Fare Type	2018 (\$'000)	2019 (\$'000)	2020 (\$'000)
Bus Cash	891	820	0.0020
LRT Cash	1,573	1,606	0.2871

2. Extension of validity of March low income passes for April and subsequently also for May.
3. A 93 per cent decline in the sale of regular May monthly passes (\$5.5 million in May 2019 vs. \$0.412 million in 2020)
4. Return of single tickets/ticket books by vendors due to cash flow issues.
5. Post-secondary institutions' suspension of the UPass program for spring/summer session.

Collectively, the above resulted to a revenue loss for the month of May 2020 of approximately \$13 million.

Impact of COVID-19 on Advertising Revenues

Related to the impact of low ridership and to the global impact of the pandemic, advertising contractors requested the suspension of the payment of minimum annual guarantees effective April until the end of 2020. The revenue loss attributed to this suspension is \$6.0 million.

Impact of COVID-19 on Reserved Parking

The reserved parking program, which contributes \$3.2 million to Calgary Transit revenues each year, has also been affected by the pandemic. Many customers have continuously requested refund of parking payments from March to date due to either being laid off work or working/taking classes from home. Reserved parking stalls are being held for those who intend to continue reserving stalls in future months (demand for use of these stalls in the meantime is non-existent).

Calgary Transit Guiding Principles for Means-Based Fare Structure

This section provides background information and guiding principles for pricing of transit fares via a means-based fare structure. This relates to the following motion arising from 2019 November: “Moved by Cllr Farrell, Seconded by Cllr Woolley. That with respect Report C2019-1052, the following Motion Arising be approved: That Council direct Administration to include a review of seniors and youth pass pricing as part of the RouteAhead Update returning to the Standing Policy Committee on Transit and Transportation in Q3 2020.”

Background

The social and financial impacts of modifications to seniors and youth fares are significant and need to be thoughtfully considered as it relates to Calgary Transit operating budget.

Given The City’s current budget challenges, recent service reductions, and Council’s direction to explore further reductions to municipal tax rates, it is not recommended to pursue age-based discounts but shift focus to a means based fare structure.

In 2014, a revised Calgary Transit Fare Strategy and Structure was approved that established clear direction on how fares for various transit customer groups should be set. Ultimately, the foundation of the fare strategy is the cost of the trip, however there are two additional considerations when setting transit fares: a usage-based pricing strategy that is focused on achieving a holistic Revenue / Cost (R/C) ratio target, and a user-based subsidy strategy that is based on a customers’ ability to pay.

On 2018 June 25, Council approved RouteAhead Update, TT2018-0617 to: “Direct Administration to use the attached Fare and Revenue Framework in the development of transit fares as part of One Calgary 2019-2022.” In addition, the considerations below will be used to update the Fare and Revenue Framework to be part of the One Calgary Service Plan and Budget/User Fees update in 2021.

While fare price is an important factor when considering travel choices, engagement and research on different customer groups (including seniors and youth) have indicated that investments in core service quality attributes are critical for driving ridership; this includes travel

time, coverage/frequency, winter weather accessibility, personal safety, and crowding/access to seating.

Zero Based Review (ZBR)

The ZBR report, written by an independent consultant, was created in response to Council's direction to Administration to increase the focus on the effectiveness and efficiency of City services. All of Calgary Transit's revenue sources, including seniors' fares, were examined within the ZBR.

Seniors are the fastest growing population cohort in Calgary, with Calgarians age 65-74 growing by 74 per cent over the past 10 years, and adults age 55-64 growing by 54 per cent (Calgary 2019 census). The population of Calgary seniors is expected to continue growing at a higher rate per year more than the general population over the next 10 years (Calgary and Region Economic Outlook 2017-2026).

The Calgary Transit Zero-Based Review flagged this as a significant growing risk to transit revenues and the operating gap if further age-based discounts are provided. In terms of income-based eligibility, the 2016 federal census showed that 10.8 per cent of seniors age 65-74 fall below the Low Income Cut-Off (similar to the general population), and 13.5 per cent of seniors age 75 and over fall below the Low Income Cut-Off. Pre-seniors age 55-64 have the lowest prevalence of low-income at 9.5 per cent.

The Zero-Based Review recommended "aligning non-low-income seniors fare pricing with youth discounts, including eliminating the regular senior annual pass and instead offering discounted cash fares, tickets and monthly passes"

Seniors Fare Engagement

Between January 29 and February 11, 2018, Calgary Transit conducted engagement with seniors on their transit priorities and aligned it with criteria developed by the Seniors' Age-Friendly Strategy around affordability, accessibility, acceptability, availability and adaptability. Through these criteria and a variety of engagement techniques seniors were asked about their most important considerations when deciding whether to use public transit, including fares and various amenities.

The most important issues for seniors flagged during the engagement were:

- Winter weather conditions negatively impact seniors by serving as a barrier to accessing transit. This is related to mobility challenges, including balance, physical limitations and other health concerns pose a problem for seniors when considering transit.
- Many seniors using transit consider personal safety to be a potential risk due to external factors, including night travel and the behaviour of other transit users.
- Access to seating impacts seniors' decision to use transit.

Other considerations included:

- Cost increases to the seniors' annual transit pass would negatively impact users.
- Logistics in planning transit trips, including planning tools, transfers, wait times and distance between stops can pose a challenge for seniors.

- Amenities, including washrooms and benches, would encourage more seniors to use transit.

Fares, as stated above, were not amongst the most important consideration for seniors when deciding whether to use public transit.

Means-Based Fare Structure – Guiding Principles

In 2014, a revised Calgary Transit Fare Strategy and Structure was approved that established clear direction on how fares for various transit customer groups should be set. Ultimately, the foundation of the fare strategy is the cost of the trip, however there are two additional considerations when setting transit fares:

- Usage-based pricing strategy that is focused on achieving a holistic revenue – cost ratio target based on the number of trips a customer makes; and
- User-based subsidy strategy that is based on a customers' ability to pay.

Based on these considerations, Administration will use the principles below to guide the development of a means-based fare structure for seniors and youth to be part of the One Calgary Business Plan and Budget/User Fees update in 2021:

1. Maintaining the Fair Entry Low Income Transit Pass program.
2. Equity focused on income-based subsidies—customer's ability to pay:
 - Specific to senior's fare, consideration will be given to the ability of the customer to pay, as well as incentivizing seniors' transitions (in some cases relying on transit more and travelling outside of the peak periods).
3. Review Youth Pass Pricing:
 - Youth ridership makes up approximately 15 per cent of Calgary Transit trips.
 - Youth transit passes are lower than adult passes due to their ability to pay and priorities for usage are typically based on the parents.
 - Consideration will be given to habit setting and rider retention after youth move on from school.
 - Calgary Transit will monitor discussions surrounding school bus service with Calgary Board of Education and Calgary Catholic School District.
4. Evaluate integration with My Fare (Mobile Ticket System):
 - My Fare provides an opportunity to include flexible and scalable options for different fare products.
 - Promoting partnerships and designing other fare options could make it easier and more affordable to use transit services.
5. Revenue tradeoffs:
 - Given the current economic climate, Calgary Transit will be mindful that we understand and respond to the needs of our customers while also managing the costs and revenue associated with providing the service.
 - Discounts to individual groups mean additional costs to other groups or increased tax support to maintain transit service.

6. Benchmarking fares and fare policies:
 - A peer review of fares at other agencies will allow us to benchmark to ensure a level of consistency and acceptance for customers.
7. Include feedback from stakeholders:
 - Social Wellbeing Advisory Committee, Age-Friendly Steering Committee and Older Adult Advisory Table, Calgary Transit Customer Advisory Group are among the stakeholder groups that will be engaged.
 - Calgary Transit will engage with each of these committee over fall and winter 2020 to solicit feedback to incorporate the next fare and revenue framework.

Forecast for Revenues for Remainder of 2020

With the uncertainty surrounding the pandemic, it is challenging to determine when recovery will strengthen. While the province is currently re-opening, activities are still restricted, suppressing travel demands throughout the summer, coupled with the cancellation of the Calgary Stampede and other summer events. Other openings or continued restrictions are speculative and unknown at this point. However, a range of possible outcomes for use of fare products can be forecast, albeit with limited certainty. The following revenue forecast assumes the following:

- Schools return in September, including all Calgary Board of Education and Calgary Separate School District schools;
- Post-secondary institutions have announced that majority of academic programs will be delivered online and UPass programs have been suspended until 2021;
- Shops and malls sustain their opening which began in May/June;
- Limited return to workplaces (e.g. half work at home, half work at workplace) in September;
- Fair Entry Low Income Transit Pass band eligibility doubles starting in June due to economic impacts; and
- Demand for Calgary Transit remains suppressed (but not to the extent it has in April-June 2020).

Total fare revenue forecast is only \$28.9 million against budgeted revenue of \$125.98 million for the period Q2-Q4 2020. The fare revenue gap is estimated to be \$97.3 million.

The total projected revenue gap resulting from all sources of revenue that are lower than budget is approximately \$105 million by year end 2020. Reduced costs (projected to be \$46 million less than budgeted) resulting from Calgary Transit's service and back-of-house reductions result in a net budget gap of approximately \$59 million.

RouteAhead calls for Calgary Transit to achieve a revenue/cost ratio of between 50 and 55 percent. Figure 4 below shows a declining ratio since 2012 (the year RouteAhead engagement was conducted) as the cost to provide service is increasing at a much faster rate than revenues. Cost increases are mainly attributed to increasing prices for labour, parts, technology and the length of customer trips, which have become longer as Calgary continues to expand geographically. Since 2012, the operating cost to provide a single customer trip has increased by 22 percent while the average fare paid by customers has risen by only one percent. The adult monthly pass rose by 13 per cent over the period 2012-2019. During this time, the

number of customers using Fair Entry products (low income monthly pass, low income seniors annual pass) increased from 12 to 24 percent of total customers.

Due to the impacts of COVID-19, it is estimated the revenue/cost ratio will reach approximately 20 per cent at year-end due to cumulative revenue losses.

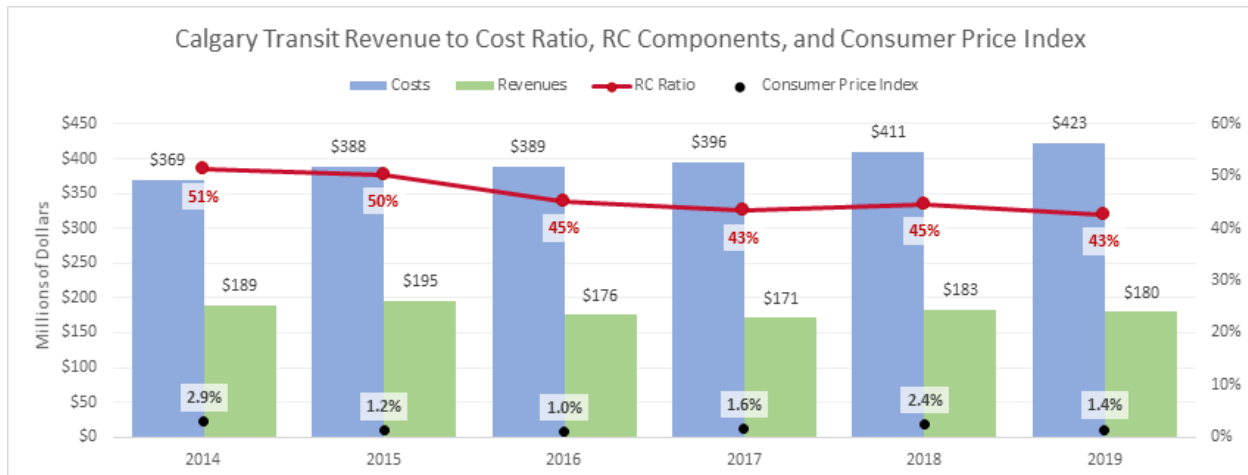


Figure 4: 2019 Revenue/Cost Ratio

Revenue Gap Mitigation

The following mitigation strategies are planned for implementation to address the decline in transit revenues:

Relinquish growth and reinvestment of service

Approximately \$6 million in growth was approved in 2020 budgets. The purpose of the growth funding was to invest in additional service in existing and actively developing communities and reinvest in service that was reduced in 2019. This growth has been relinquished due to COVID-19 impacts. Approximately 80 full-time equivalent (FTE) positions will be relinquished as part of this (these were not yet recruited and filled).

Service reductions on existing routes

A total reduction of approximately 17,000 weekly service hours (30 per cent reduction) was implemented as described earlier. The reductions were introduced in two stages:

- Stage 1 (2020 April 6): Cost reduction of approximately \$2 million, with a total of 15 per cent service reduction. No manpower was impacted as a result of this reduction, as work was managed by reducing working hours of operators. This stage addressed the cost of filling service in the face of increasing employee absences. Stoney Transit Facility was no longer used for dispatching service in order to be kept as a standby facility.
- Stage 2 (2020 May 25): Cost reduction of approximately \$4 million a month, including \$2 million in Stage 1 above, with a total service reduction of 30 per cent. Approximately 350 operator positions have been impacted and 70 - 80 maintenance positions have been directly impacted. The bus portion of Anderson Transit Facility and Stoney Transit Facility are unused apart from retaining physical standby status and fleet and facility

asset management. As many as 25 routes are temporarily unavailable, and 30 routes reduced frequency on weekdays. In addition, 19 routes have reduced frequency on weekends.

Specialized Transit (Calgary Transit Access) service reductions

Calgary Transit Access has reduced both in-house service and the use of contracted service providers (Southland Transportation, Care Calgary & Checker Taxi). Reduced service demand has also affected workloads in Calgary Transit Access call centre and operations control centre where 15 on-call Passenger Agents and three on-call Operations Controllers have been impacted in the Control Centre. This resulted in approximately \$2 million cost reduction per month.

Cost Improvement

As part of this process, expenditure related to parts, fuel and utilities, etc. are analyzed to determine if there are any potential savings.

As an example, over the last decade, cash processing operations at Calgary Transit has seen a sustained decline in cash fares received in buses and ticket vending machines. Most recently, the daily average prior to the pandemic is about \$35,000, approximately 50 per cent less from 10 years ago. Cash processed is mainly derived from the bus fare box, since cash receipts from ticket vending machines also declined with the introduction of debit and credit option in 2011. While processing cost is going up, cash revenue is going down.

With the onset of the COVID-19 pandemic, the safety guidelines and precautions that have been implemented have significantly affected cash revenue receipts for processing.

Effective May 2020, two positions were eliminated, and the administrative supervision and financial reporting functions for the team have been added to existing management exempt staff. Further adjustments may be required depending on the impact of My Fare on the use of cash on buses.

Manpower/Management Capacity Review

Calgary Transit reviewed all positions to ensure that back-of-house support is aligned with the service change. Consideration is being given to the anticipated timeline of impact to ensure that we have enough manpower to support the existing service and recovery phase. The intent is to balance front line service while still supporting some capacity for change (e.g. restoration of some higher service levels in September 2020). Management positions were relinquished as a result of the review.

My Fare, Calgary Transit's Mobile Ticketing System

My Fare was launched on 2020 July 1 concurrent with the restoration of front-door boarding on buses and installation of operator compartment shields.

Information about My Fare has been made available on the Calgary Transit website and to our social media and call center teams. Physical advertisements promoting My Fare to a broader customer base will begin to be installed in summer.

Maintaining existing fare structure

The current fare revenue losses can be mitigated by maintaining the approved fare structure for the remainder of 2020. This includes a budgeted increase to youth monthly passes of \$2 per month effective September (from \$77 to \$79).

In February 2020, the Government of Alberta and The City of Calgary established an agreement for the sustainment of the Fair Entry Low-Income Transit Pass program, including the sliding scale (different bands for different income levels). Increasing fare subsidies are another challenge to maintaining funding for transit service.

Further budget adjustments and/or changes to the low-income transit pass price in each band will likely be necessary in 2021, if demand within this segment grows in proportion to regular transit product use, as a direct impact of unemployment and contraction of household incomes due to the COVID-19 pandemic.

It must be noted that the post-secondary institutions in Calgary that participate in the UPass program (University of Calgary, Mount Royal University, Southern Alberta Institute of Technology, Alberta University of the Arts and St. Mary's) made a decision to suspend the UPass for the spring/summer 2020 session and further into the fall 2020 semester. This will directly impact the Fair Entry Low Income Transit Pass Program with post-secondary students applying to gain access in the absence of the UPass.

In addition to the introduction of planned fare increases in 2021, Calgary Transit plans to address Council direction related to equitable means-based fare discounts. Engagement with stakeholder groups will begin in 2020 September using key principles identified in the section above.

Leverage New Revenue Streams

Subject to the advice of a Naming Rights broker, Real Estate & Development Services, and other consultants, Calgary Transit is evaluating the introduction of new revenue streams from naming rights and revenue property leases (for third-party vendors, kiosks, etc.) in order to capitalize on the upcoming economic recovery.

Service Value and Achieving Excellence (SAVE) Recommendations and Financial Task Force Council Recommendations

SAVE is an initiative leading to recommendations that reduce the size and cost of local government. Those findings that relate to Calgary Transit service delivery will be incorporated into our future plans, and a report identifying these opportunities is anticipated to be presented to the Priorities & Finance Committee in 2020 September.

2021 Outlook

Operating funding remains a significant constraint for expansion of transit service. As a result, adjustments will be made to the 2019-2022 service plan and budget for Public Transit and Specialized Transit and will be identified as part of adjustments to the mid-cycle adjustments.

Adjustments to Strategy: On Demand Community Shuttle Service in Established Community

Overview of On-Demand Pilot in Livingston/Carrington

In 2018 Calgary Transit initiated a pilot project to uncover the benefits and costs associated with On Demand transit service in the Calgary context in an area where there was no pre-existing transit service. A one-year contract was awarded to Southland Transportation, who subcontracted with RideCo, a customer application/dispatching software, starting in 2019 August in the communities of Livingstone and Carrington.

During the pilot prior to the COVID-19 pandemic, Southland Transportation used one 12-passenger vehicle all day and a second 12-passenger vehicle during peak hours. Customers booked rides between Carrington/Livingston and North Point (and return) and paid standard transit fares. The RideCo software routes the vehicle and creates shared rides where possible.

On Demand service covers a large geographic area of low demand with reasonable performance and levels of service. On Demand service in this context uses less vehicle miles that a comparable fixed route would have. Customer acceptance on the On Demand service is high.

Based on the preliminary findings from the pilot project outlined in a report to the SPC on Transportation and Transit on 2020 June 24, On Demand service will provide an opportunity to invest in transit service early in new and actively developing communities where demand is low and it is not possible to introduce fixed-route transit service at higher cost.

Fixed route service remains an important complement to On Demand service. The value of On Demand service emerges when it serves as the “last mile” solution for high-frequency fixed route transit as a part of a spectrum of other modes.

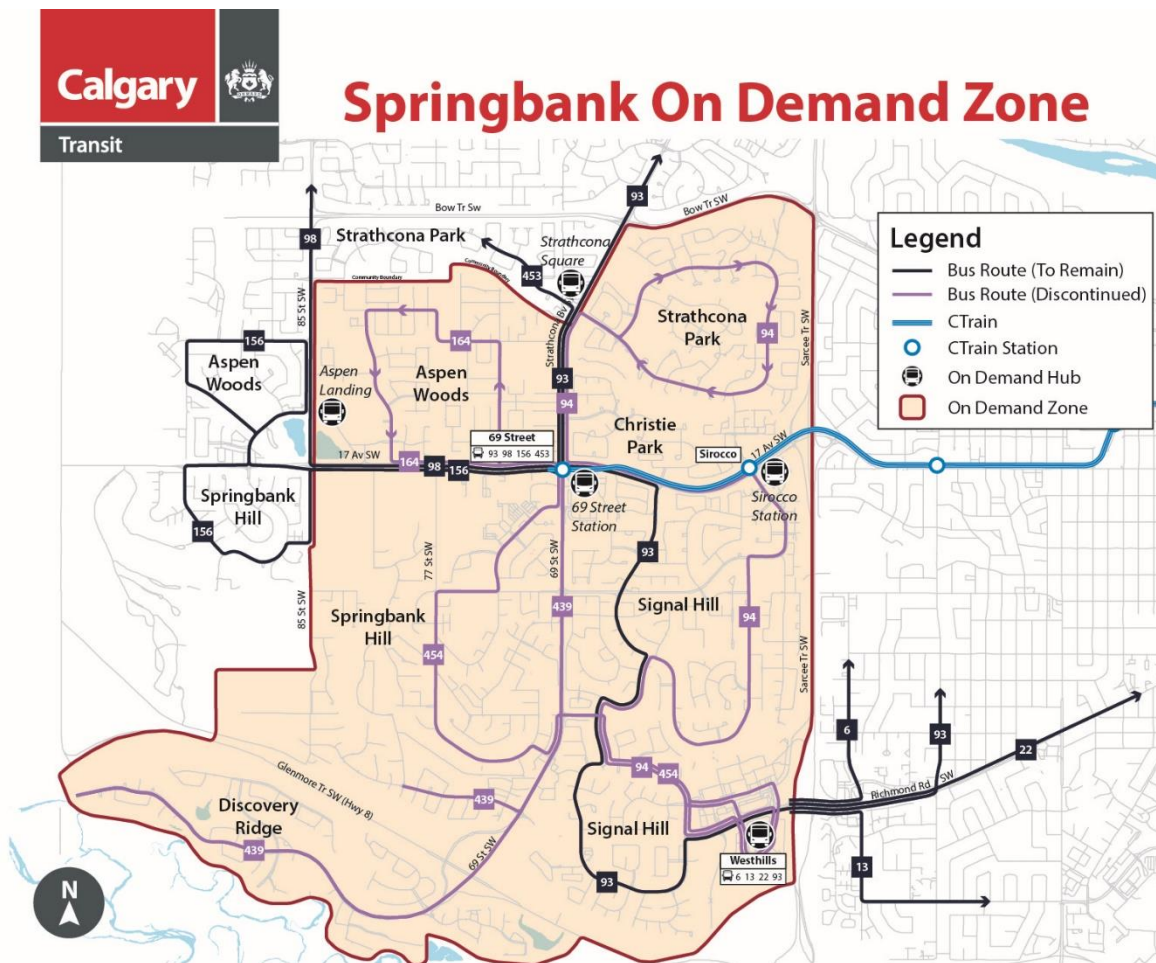
At a certain threshold On-Demand service becomes unsustainable financially due to the demand on the service. More vehicles travelling more frequently (when/where customers want) eventually becomes far more expensive than fixed route service. Actively developing communities would likely see a mode progression from On Demand to fixed route Calgary Transit service at some point in their development.

At the other spectrum of development, there may be communities that already have fixed route transit service that is low-performing and not sustainable. On Demand service may provide benefits in low ridership areas or in low ridership time periods, such as late evenings and weekends.

Review of Routes Most Impacted by COVID-19

Administration was asked to evaluate the routes deleted from service as part of Calgary Transit’s response to the pandemic to see if On Demand Community Shuttle service would be appropriate. Calgary Transit reviewed the 25 routes deleted from service 2020 May 25; most will remain deleted (saving significantly more than if On-Demand service is introduced), and some are on long corridors (Centre Street express routes) where On-Demand service is impractical. However, the COVID-19 pandemic has resulted in ridership levels on routes in west Calgary that make a transition to On-Demand service possible, at least under current conditions.

The exhibit below identifies potential conversion of a service area impacted by significant reductions in ridership in the area south of Highway 1, north of Highway 8, and west of Sarcee Trail.



The goal of introducing service will be to identify the operating parameters that make On Demand community shuttle service most effective, and to determine where fixed route becomes (or in this case, remains) more efficient.

For reasons described below, it will not be possible to save money in the short term by introducing this service where customers are already used to fixed-route service. This is an experience unique to existing service conversions where customer expectations have been established.

Assumptions and Considerations

Some of the assumptions at the outset of planning for the conversion of fixed-route service to On Demand service are worth noting, because they affect whether the modified service is any less expensive. In fact, the experience of some agencies is that the service is more expensive when converted to On Demand due to the “customization” of existing service that is inherently simpler. Assumptions that require clarification in the process of implementation include:

- Minimal change in process for operations supervisors;

- Increased operator scheduling flexibility (depends on willingness of labour force to participate in service that varies seasonally, daily and within the day);
- Minimal training required which depends on the ability of existing employees to adapt to new technology;
- Minimal additional customer support beyond existing use of call-centre employees which is dependant on the volume of calls;
- Ability for customers to continue to walk to bus zones (no change to current expectations associated with fixed-route accessibility);
- Willingness of customers to book ahead for trips since higher costs are associated with the need for On Demand service to be responsive to growing ridership with same day booking expectations; and
- Penalties for no-shows that are similar to existing practice in Livingstone/Carrington.

Service Design

Four routes will be replaced by On-Demand community shuttle service. Several routes will remain operating in fixed-route format. The reason for these to remain is to carry customer outside the zone (travel outside the On Demand zone is not feasible for On-Demand service) and to carry larger volumes of customers for which On Demand service is unsustainable.

Service will be anchored around key hubs, functioning similarly to North Point in the Livingstone/Carrington pilot. These key hubs will likely include 69 Street CTrain Station, Sirocco CTrain Station, Westhills Shopping Centre, Strathcona Square, and possibly others required to maximize the efficiency of service.

Students are permitted to use On Demand Service. Just as in Livingstone/Carrington, they will require a valid transit fare. However, the impact of peak-period demand associated with schools in the area has the potential to outstrip the efficiency of On Demand service. This is anticipated to be a larger concern in established communities than in new communities, because travel behaviour has evolved to a point where students are more likely to travel to school by transit. The west Calgary area ridership amid the impacts of the COVID-19 pandemic is anticipated to have a sustainable level of demand, if certain routes remain as fixed-route service.

Routes 98, 156, and 453 are frequently used by students attending schools in the area. Some students who previously used one of the routes that will be replaced by On Demand community shuttle service could also be within walk distance of another route (for example, Route 93 in Signal Hill).

Routes To Remain Service

93, 98, 111, 156, 453

Routes To Be Replaced with On-Demand Community Shuttle Service

94, 164, 439, 454

Westhills Shopping Centre, like Sirocco Station and 69 Street station, will be a destination node from communities outside the zone, and Routes 6, 13, & 22 will continue to operate as fixed-route service.

Customer Communications

Calgary Transit has conducted comprehensive engagement with customers and communities affected by service changes in the recent past in the form of Transit Service Reviews (2016 in

Northwest Calgary, 2018 in Northeast and Southeast Calgary associated with MAX Orange, Purple and Teal implementation, and 2019 in Southwest Calgary associated with MAX Yellow implementation). The timeline for Transit Service Review engagement is six to twelve months. The implementation of On Demand service by mid-October where fixed route service exists today, will require a compressed engagement timeline (one to two months) focused almost exclusively on informing customers and citizens of the change. The approach will include the following components (and omissions):

Initiatives Anticipated to be Included:	Attributes of past Transit Service Reviews that will NOT be included:
Pop-up information sessions at transit hubs focused on existing customers	<i>Open-house in-person information sessions for general public</i>
Community association phone/email contacts	<i>Community Consultation Committees</i>
Targeted information for key stakeholders (Calgary Transit Customer Advisory Group, Advisory Committee on Accessibility, local schools, seniors' facilities, shopping centres)	<i>Feedback and adjustments on service proposals from citizens and employees prior to launch (will be post-launch with adjustments made in January)</i>
CalgaryTransit.com information and social media updates	<i>Comprehensive Engage portal</i>
Riders' Guides distributed to customers on Calgary Transit vehicles in September	<i>Hardcopy Riders' Guides for every household</i>
Communication of change coming at bus stops in September	<i>Advance notification of changes and online trip planning tools in advance</i>
"Inform" level of engagement	<i>"Consult" level of engagement</i>

In short, the initiation date of mid-October is challenging but possible with the understanding that the usual engagement/communication associated with Transit Service Reviews cannot be provided. Due to the impacts of the pandemic, the ridership affected is in the 1,000's rather than 10,000's, so it is anticipated to be a manageable impact at this time.

Performance Monitoring Plan

Customer feedback and service design metrics will be monitored to ensure the Calgary Transit customer experience is maintained and expenditures are appropriate. It is anticipated that On Demand community shuttle service can be maintained within +10 per cent of the cost of fixed-route service on a monthly basis in this catchment area due to the impacts of the COVID-19 pandemic. There might reach a point where fixed-route service will need to be reintroduced in the area as a result of escalating costs to meet increasing demand.

Aside from direct feedback from customers as part of the communications plan described above, other performance metrics include:

- Customers per day
- Passengers per revenue hour (On Demand and Fixed Route)
- Stop by stop ridership (On Demand and a sample of Fixed Route)
- Service hours and total cost invested (On Demand and Fixed Route)
- Cost per trip (On Demand and Fixed Route)
- Number of vehicles/operators used (On Demand)

- Customer waiting times (On Demand)
- Travel time (On Demand)
- Vehicle capacity/crowding (On Demand and Fixed Route)

Next Steps

All the possibilities described in On Demand service for communities' hinges on the capacity to invest in service. Amid a downturn accentuated by the pandemic, Calgary Transit has limited capacity to invest in the cost of extending public transit service. As a result, The City will be selective about the introduction of On Demand service, and it will be complemented by the overarching strategy of leveraging mobility as a service (shared systems) as described below.

Adjustments to Strategy: Shared Systems – Mobility as a Service (MaaS)

Calgary Transit is continuously monitoring the evolution of technology in order to efficiently and effectively deliver safe and accessible public transit. The desire for high frequency public transit continues to grow across the city, while limited operating budgets and competing demands for resources constrain our ability to address that growth. Calgary Transit has evolved service delivery models in the past where they have demonstrated value for our customers and our business. For example, community shuttle service for lower ridership areas and testing On Demand transit service.

Calgary Transit has also recently introduced the My Fare app, initially for adult and youth single-ride tickets, monthly passes and day passes. Future phases of the project will see the introduction of Fair Entry passes, seniors passes, and UPass. Adjustments to the current approach for Calgary Transit Access and Calgary Transit On Demand ticket/pass validation will be explored. Additionally, part of the future roadmap is to extend the solution to neighbouring municipalities in the Calgary region.

The emergence of ride-sharing, car-sharing, e-scooters and bike-share in Calgary (outlined in The City's [Future of Transportation](#) strategy) has prompted questions regarding the integration of service delivery between shared services with public transit.

The City of Calgary's Transportation Department is exploring Mobility as a Service (MaaS) which is the integration of various shared transportation modes (public transit, car-share, bike-share, scooter-share, transportation network companies etc) into one single digital application that can be used to trip plan, book trips and pay for services². Calgary Transit is in the initial phases of exploring the framework of how this can be applied in Calgary and the approach to this will be thoughtful and pragmatic.

To facilitate shared ride solutions with public transit, Calgary Transit is currently working on the following initiatives:

- Identifying locations at select park and rides for electric vehicle parking.
- Identifying formal locations at CTrain stations for e-scooters as well as future bike-share and car-share opportunities.
- On Demand Pilot in Carrington and Livingston.
- Reviewing future transit station plans to better integrate shared mobility.

² Ready for MAAS? Easier Mobility for Citizens and Better Data for Cities, UITP Policy Brief – May 2019: https://www.uitp.org/sites/default/files/cck-focus-papers-files/Policy%20Brief_MaaS_V3_final_web_0.pdf

- Reviewing the Calgary Transit App to include shared mobility as well as multi modal transportation trips. For example, a customer could make a trip plan that highlights walking to a CTrain Station, use the train and then bike to their final location.

Longer term investments can be made on the success of these initiatives as well as applying strategies from the lessons learned from initial projects.