



# Route Ahead

A Strategic Plan for Transit in Calgary

**Calgary Transit**

*Onward/* Enable public transit, walking and cycling as the preferred mobility choices for more people.

[calgary.ca](http://calgary.ca) | contact 311







## Message from Mayor Naheed Nenshi

A strong public transit system that is well integrated into the very fabric of our communities contributes to a vibrant city. I am pleased that we are on our way to achieving this in Calgary through RouteAhead—our long-term strategy for Calgary Transit for the next 30 years.

This is an important and significant document. For the first time in our city's history, we will have a long-term and comprehensive strategy for public transit.

RouteAhead represents some of the best public transit ideas from around the world. But, most important, it is based on the ideas and desires of Calgarians. The real experts on transit are the people who use it. In Calgary, that includes approximately half a million people on any given week day. RouteAhead's value can be directly attributed to the effort of the many Calgarians who told us how they see the future of Calgary Transit.

Improving our city's transit system will help us create an even better Calgary. Improvements to the customer experience and the network will help us reach the Calgary Transportation Plan's goal to have public transit as the preferred mobility choice for Calgarians.

Investments in transit are amongst the best investments any city can make—they are investments in the environment, reducing congestion, and improving social mobility. Ultimately, they are investments in improving everyone's quality of life.

RouteAhead will help us build a public transit system that works for all Calgarians—a system of which we can all be proud.

Naheed K. Nenshi  
Mayor



## Message from General Manager Malcolm Logan

I am extremely pleased and proud of the method and the work that has gone into creating RouteAhead, our long-range strategy for Calgary Transit.

When we started this process, we knew Calgary Transit provided Calgarians with an efficient quality public service. However, given the rate of growth in Calgary, the changing needs of our customers and the need to ensure continued value for our limited resources, we determined a new long-term plan was needed.

Over the past year, we reviewed all of our operations and resources, looked at funding sources and options, and sifted through best practices and research. We engaged citizens with various interests and perspectives -riders, decision-makers, funders, land developers and citizens interested in what the future looks like.

We have come up with a plan that goes beyond the bus routes and LRT extensions that people want and need. This plan sets the direction for the entire Calgary Transit organization – employees, finances, maintenance, funding options, infrastructure and operations. Both in what we intend to deliver and how we will go about it.

This plan guides both operations and investment in transit over the next 30 years. It establishes a clear vision for public transportation in Calgary and will assist decision-makers regarding capital and operating budgets, fares, service hours and other major business decisions.

Public transit is a valued service that contributes to the well-being of our citizens and our community. Mobility options and accessibility to all citizens allows for the connections between people and places, promotes development and redevelopment, and lowers impacts on the environment.

Now, we will move ahead with a plan to ensure we provide an effective and integrated public transportation that helps keep Calgarians on the move and moves Calgary forward.

Malcolm Logan  
General Manager, Transportation



**Message  
from  
Director  
Doug  
Morgan**

Calgary Transit is at a turning point in its mission to deliver safe, accessible and courteous service in response to the needs of our customers. We have just come off a memorable year where a number of significant milestones were achieved. The extension of the northeast CTrain line to Saddletowne opened for service in August. In December, the 8.2 kilometre West LRT, the first new CTrain line since the late 1980s, began operation.

Additionally, Calgary Transit reached record ridership levels by finishing the year carrying almost 102 million passengers.

None of this could have been possible without the day-to-day work and commitment of our dedicated staff.

Building on the achievements of 2012 and our successes in providing quality public transit service for over 103 years, we have developed RouteAhead, a long-term plan for Calgary Transit over the next 30 years. This document provides the blue-print for our organization and transit system as we move forward to meet the challenges of an ever changing Calgary.

I am proud of the work we have accomplished over the past year with RouteAhead. Our engagement of citizens, customers, employees and other groups has been eye-opening and it has been encouraging to see the intense interest in public transit in Calgary. It is clear that Transit is important to Calgarians and they have aspirations that the future service will help define what it means to live in our community.

Calgary Transit already provides an important and valued service in this community. With RouteAhead, I believe we have a clear vision of how Calgary Transit should evolve in the future to help City Council (present and future) make important decisions for public transit in Calgary.

Doug Morgan  
Director, Calgary Transit



# table of contents

**Section 1** Vision for Public Transit  
in Calgary  
*Page 7*

**Section 2** About RouteAhead  
*Page 19*

**Section 3** The RouteAhead for the  
Customer Experience  
*Page 35*

**Section 4** The RouteAhead for  
Calgary Transit's Network  
*Page 89*

**Section 5** The RouteAhead  
for our Finances  
*Page 179*

**Section 6** The RouteAhead:  
What's Next  
*Page 225*

IT'S YOUR TRANSIT  
TELL US WHERE  
YOU WANT TO GO



# 1

**Vision for Public  
Transit in Calgary**



## Vision for Public Transit in Calgary

Mobility is the lifeblood of a city. Since 1909, Calgary Transit has been efficiently connecting people and places by providing mobility (the ability to move from place to place) and accessibility (the ability to reach a destination).

For people who choose not to drive or are unable to drive, including people with disabilities, transit provides low-cost mobility and accessible transportation. It provides mobility for

young adults who don't yet have a driver's licence or who do not own a car. It allows households to reduce transportation costs by driving less and owning fewer vehicles.

Cities benefit greatly from public transit: it reduces the need for more road capacity and supports efficient and attractive land use patterns, allowing a city to grow intelligently.

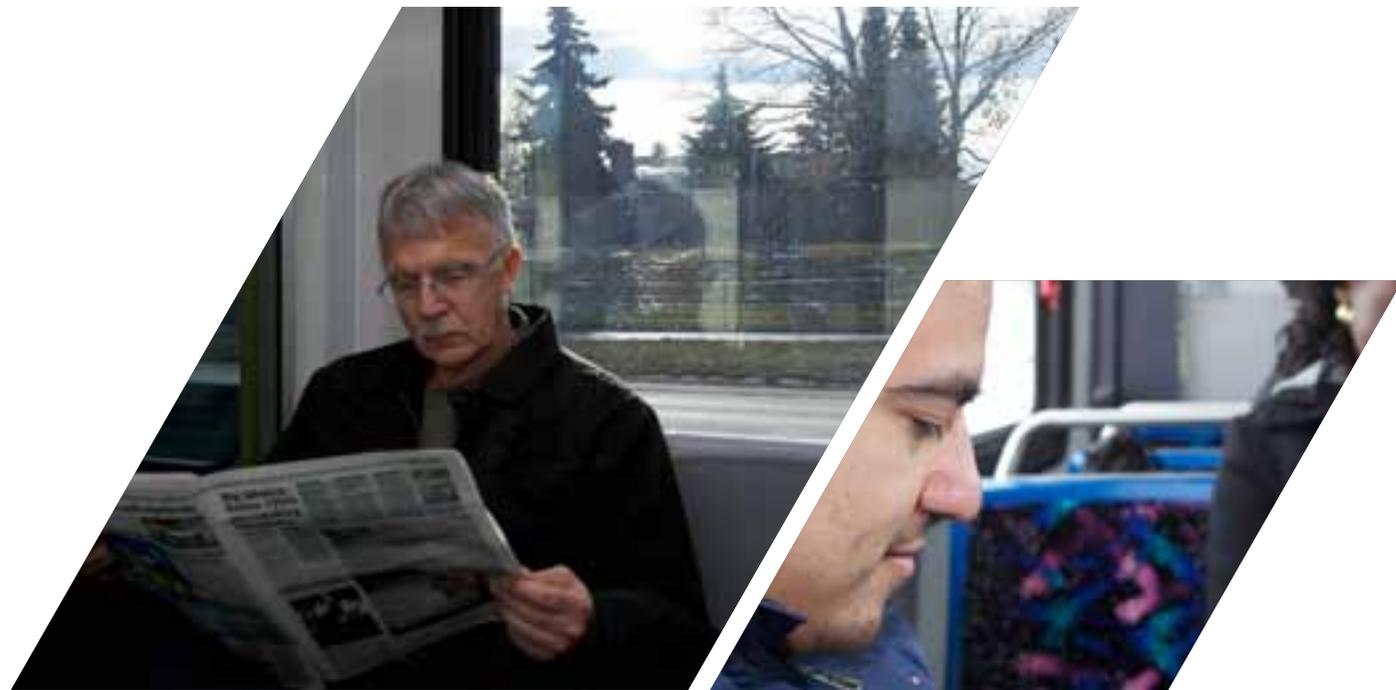
Transit provides a return on investment to cities by promoting development, redevelopment, private sector investment and increased revenues.

A city that invests in a strong public transit system has lower impacts on the environment, including reduced greenhouse gas emissions, lower land consumption and reduced energy consumption.

Having seen the benefit of these impacts over the past 30 years, it's no wonder Calgarians support increased investments in public transit in the future.

In 30 years, Calgary Transit will look different than it does today. It will be more integrated into our urban fabric.

RouteAhead identifies a new vision and a path to get there.





# guiding documents

RouteAhead is a long-term plan to guide Calgary Transit over the next 30 years. It follows other forward-looking initiatives at The City of Calgary (The City), including imagineCALGARY, Plan It Calgary and the 2020 Sustainability Direction.

## **imagine CALGARY**

In 2005, imagineCALGARY engaged over 18,000 Calgarians to help create a 100-year vision for Calgary. Through this initiative, Calgarians developed a blueprint for a sustainable future: The imagineCALGARY Plan for Long Range Urban Sustainability.

The plan includes a long-range vision and goals as well as targets that provide useful reference points for organizations and individuals to determine what action can be taken to build a sustainable community.

# Municipal Development Plan and Calgary Transportation Plan

In 2007, City Council directed that an integrated land use and transportation plan be created that aligned with the vision and goals of imagineCALGARY. The process for this was called Plan It Calgary and the goal was to set out a long-term direction for sustainable growth to accommodate another 1.3 million people in Calgary over the next 60 years.

Through the Plan It Calgary process, a new Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP) were created. These plans describe the vision for a long-term pattern of growth and development in Calgary over the next 60 years and provide policies to support that vision. The MDP and CTP were approved by Council in 2009.

The CTP provides a long-term plan for all transportation in Calgary, relying on expanded and more attractive transit service to achieve a more sustainable city. One of the objectives of the CTP is to provide safe, accessible, customer-focused public transit service that is capable of becoming the preferred mobility choice for Calgarians. To achieve this, a substantial increase in transit service

will be required along with customer service improvements.

To provide value to customers and citizens, while enabling transit to shape land use changes, the following success factors for transit are identified in the CTP:

- » Make transit a convenient and comfortable travel

alternative through the development of a primary transit network (frequent, highly-connected and well-integrated network).

- » Link land use decisions to transit.
- » Integrate transit with civic life.
- » Incorporate new transit technologies and innovations.
- » Sustain fleet and infrastructure.



## The 2020 Sustainability Direction

The 2020 Sustainability Direction is a strategic guide that identifies what must happen at The City over the next 10 years to work towards the imagineCALGARY 100-year vision.

It includes the key directions for investment in public transit to bridge the period of time between today and the CTP timeframe.





CP Rail

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113029

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2 MT PLEASANT





# about calgary transit

Calgary Transit has had a rich history of moving people safely, quickly and efficiently since July 1909 when passengers boarded the first streetcar. Since then, it has evolved from the streetcar to gasoline,

electric and diesel buses, and light rail transit. The following pages outline some key dates in the history of Calgary Transit as the system has grown and developed.





**“PENNANT” EXPRESS BUS ROUTES WERE INTRODUCED IN OCTOBER 1957**



**BLUE ARROW EXPRESS SERVED DOWNTOWN DURING RUSH HOUR IN 1972**

**1909**

Calgary Electric Streetcar Railway began operations with 16 miles of track and 12 electric cars.

**1947**

First Calgary Trolley route goes into operation on June 1.

**1959**

50 years of service. Carried 24 million customers.

**1978**

Construction of the first leg of the CTrain system began.

**CALGARY TRANSIT HAS BEEN MOVING PEOPLE SAFELY,**

**1932**

Gasoline fueled buses were introduced.



**1950**

The last Streetcar #14 made its official farewell run.

**1975**

Electric trolley coach service ends in Calgary on March 8.



**1981**

The 10.9 km south line from Anderson Road to 7 Avenue S.W. was officially opened on May 25. Extended to Fish Creek Lacombe in 2001 and Somerset/Bridlewood in 2004.

**CALGARY’S POPULATION    1909 - 30,000    1941 - 89,000    1971 - 403,000    2001 - 879,000    2012 - 1,120,000**



**ACCESS CALGARY  
WAS FORMED IN 2001  
TO COORDINATE TRANSPORTATION  
FOR PEOPLE WITH DISABILITIES**

**CALGARY'S CTRAIN  
SYSTEM RUNS ON  
WIND GENERATED  
ELECTRICITY**



**1985**

The 9.8 km northeast line from Whitehorn Station to 7 Avenue S.W. opened for service. Extended to McKnight-Westwinds in 2007 and Saddletowne in 2012.

**1993**

Accessible Low Floor bus service is introduced on September 14.



**2007**

Articulated Buses introduced.

**2012**

The 8.2 km west line of the CTrain system from 69 Street to Downtown West/Kerby Station was officially opened on December 10.

**QUICKLY AND EFFICIENTLY SINCE JULY 5, 1909.**

**1987**

The third leg of the CTrain system was completed in the northwest from University to 7 Avenue. Extended to Brentwood in 1990, Dalhousie in 2003 and Crowfoot in 2009.

**2004**

Bus Rapid Transit (BRT) Route 301 introduced on August 30.



**2009**

Calgary Transit celebrates 100 years of service.



**COMMUNITY SHUTTLE BUSES  
WERE FIRST INTRODUCED  
AS A PILOT IN **1986****

**IN FEBRUARY 2009  
CALGARY TRANSIT  
RECORDED ITS  
**1,000,000,000<sup>th</sup>**  
CTRAIN CUSTOMER**

## Calgary Transit – Current Operation (2012)

The year 2012 will be seen as a memorable one for Calgary Transit:

- » In August, the three-kilometre extension of the northeast CTrain line to Saddletowne was opened, providing residents of northeast Calgary with improved access to CTrain service.
- » On December 10, West LRT was delivered as promised and Calgarians saw the first new CTrain line since the late 1980s. The 8.2 kilometre West LRT, with six new modern stations,

extends the CTrain system to 56 kilometres, providing service to a total of 44 CTrain stations. As part of the opening of West LRT, the 7 Avenue Refurbishment Project was completed in downtown Calgary, the culmination of years of work revitalizing the 7 Avenue corridor, all performed while regular CTrain service was maintained in the downtown core.

- » Calgary Transit saw record annual transit ridership, reaching the

100 million passenger mark for the first time. Access Calgary service saw a marked increase in usage with 1.13 million trips provided.

- » 2.67 million hours of transit service were provided to Calgarians. This was accomplished with a fleet of approximately 1,000 buses and 192 light rail vehicles, and the dedication of over 3,000 Calgary Transit employees.

## The Future Network

Expectations about the role of public transit in our community are changing. Citizens want transit to play a larger role in their lives. They want to easily get around during peak hours as well as other times of the day to meet other daily needs. The physical structure of our city is also changing. We are evolving from being a uni-centric city, where most transit users live in suburban residential communities and work downtown, to a more polycentric city, where there are a multitude of high-density hubs of activity. In response to this pattern, The City is changing how it invests in the future transit network. RouteAhead describes the details of this new long-term plan for Calgary Transit.

### Major Calgary Transit Metrics (2012)

Annual	Quantity
Ridership	102,000,000
Hours of service	2.67 million
Access Calgary trips	1.13 million
Bus routes	163
Buses: 18m, 12m, CS	63 buses, 791 buses, 116 buses
CTrain system	56 kilometres
CTrain stations	44 stations
LRVs	192
Employees	3044

# 2

**About  
RouteAhead**

In 2011, City Council directed that a new long-term plan for Calgary Transit be created in accordance with the principles and objectives of the CTP. Early in 2012, a team was established to develop this plan – called RouteAhead. Extensive public engagement was conducted and based on the feedback received

and the visions and goals of the CTP, RouteAhead provides strategic direction for transit in Calgary for the next 30 years.

RouteAhead identifies the costs to achieve the vision of the CTP. If approved, it will be used to develop the future business plans and budgets for Calgary Transit.

A RouteAhead steering committee was established to provide guidance and input to the RouteAhead team. This guidance has been valuable and has helped in the development of a customer-focused plan. Members of the committee include:

Name	Title
Mayor Naheed Nenshi	Mayor
Councillor Diane Colley-Urquhart	Chair of the SPC on Transportation and Transit, Member of Council, Ward 13
Councillor Richard Pootmans	Member of Council, Ward 6
Mac Logan	General Manager of Transportation, RouteAhead Steering Committee Chair
Doug Morgan	Director of Calgary Transit
Don Mulligan	Director of Transportation Planning
Thom Mahler	Manager, Established Community Planning, Land Use Planning and Policy
Ferio Pugliese	WestJet – Executive Vice-President, People, Culture and Inflight Services, and President, WestJet Encore



Calgary Transit 7659

IT'S YOUR TRANSIT  
TELL US WHERE  
YOU WANT TO GO

Calgary Transit 403-262-1000



UP TRANSIT  
UP  
WHERE  
YOU WANT  
TO GO

Calgary Transit 7659



# public engagement

The first phase of RouteAhead included extensive public engagement. It began with the launch of the RouteAhead engagement

bus as well as a customer-to-customer event attended by Mayor Nenshi, the Calgary Transit Customer Advisory Group and members of the public in May 2012.

During this phase, RouteAhead engaged many stakeholder groups, spoke with City employees, met with staff and students at a number of schools, and attended several community events.

In total, RouteAhead met, face-to-face, with over 4,000 people and received thousands of comments about:

- » What Calgary Transit is doing well
- » Calgary Transit's challenges
- » The focus for the future

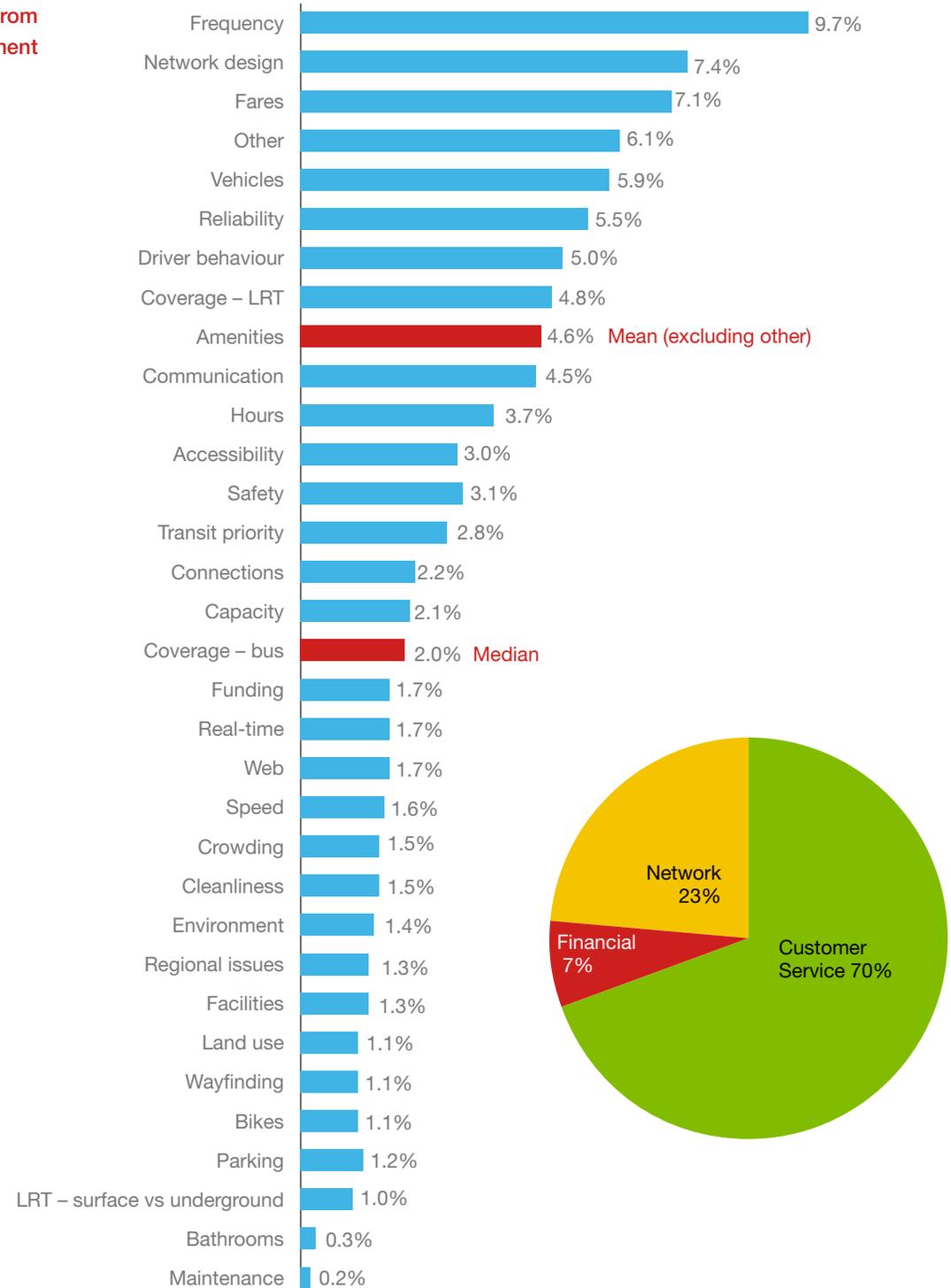
All comments received during engagement were recorded and categorized into 33 different areas. The top five priorities identified by citizens were:

- » Frequency – Schedule buses to arrive at stops more often.
- » Network design – Ensure routes go where people need them to go.
- » Fares – Keep fares affordable.
- » Vehicles – Ensure vehicles are comfortable.
- » Reliability – Ensure vehicles arrive on time.

The chart at right shows the percentage of responses for each of the 33 categories. The majority of responses were in the area of customer service.

Many more comments were received through Twitter and the RouteAhead website, including over 1,000 submissions to the online budget allocation

### Comments from Engagement



tool “It’s Your Transit. You Decide”. The tool gave citizens the ability to decide how they would spend Calgary Transit’s operating and capital budgets. The results were analyzed and the chart at right highlights their priorities.

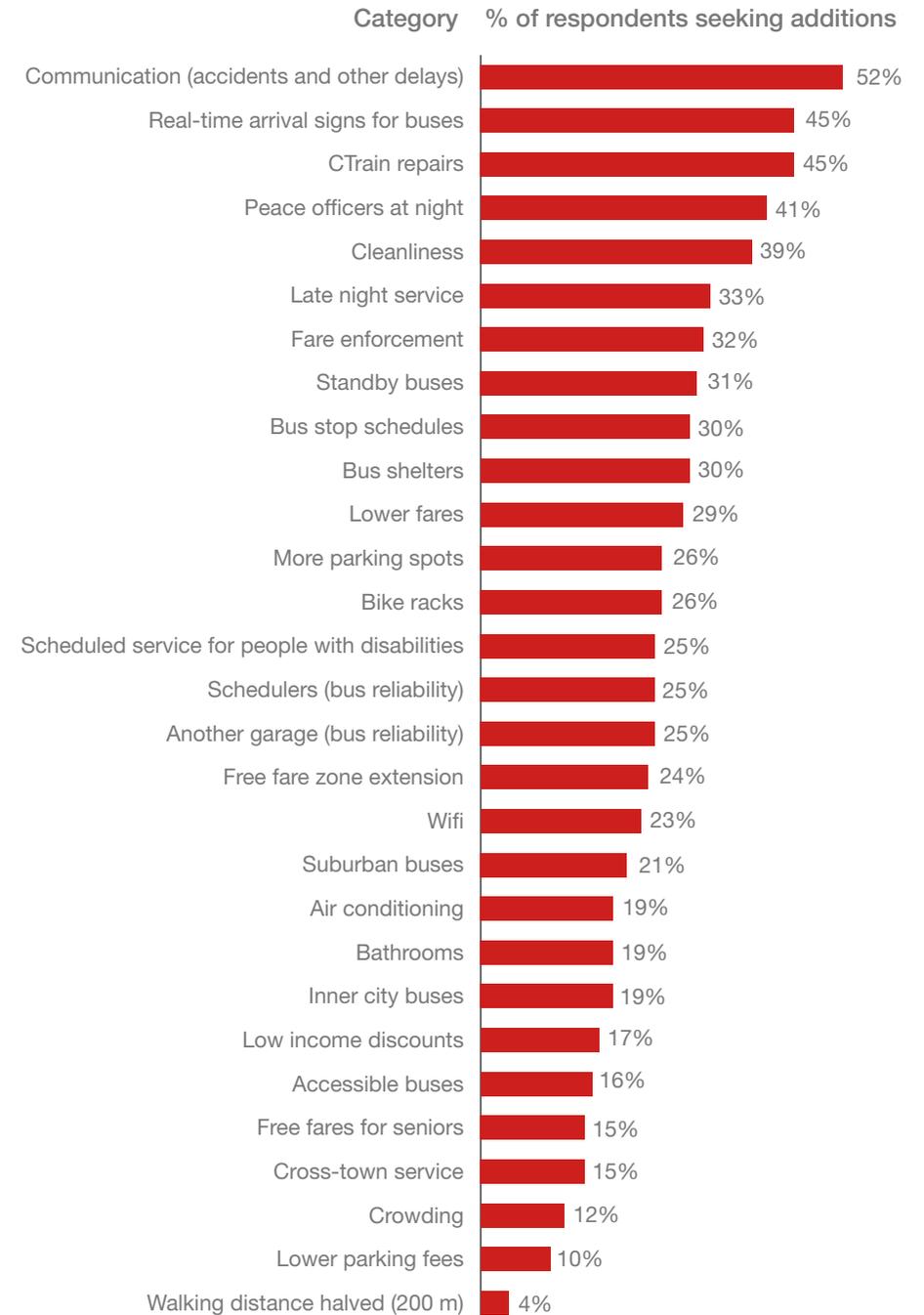
All verbatim comments from members of the public can be found on the RouteAhead website (www.routeahead.ca).

These comments were used to help develop the core principles for public transit in Calgary and to inform the visions, directions and strategies in this plan.

### Budget Allocation Tool



### Comments from Budget Tool





I think we should stop the bus

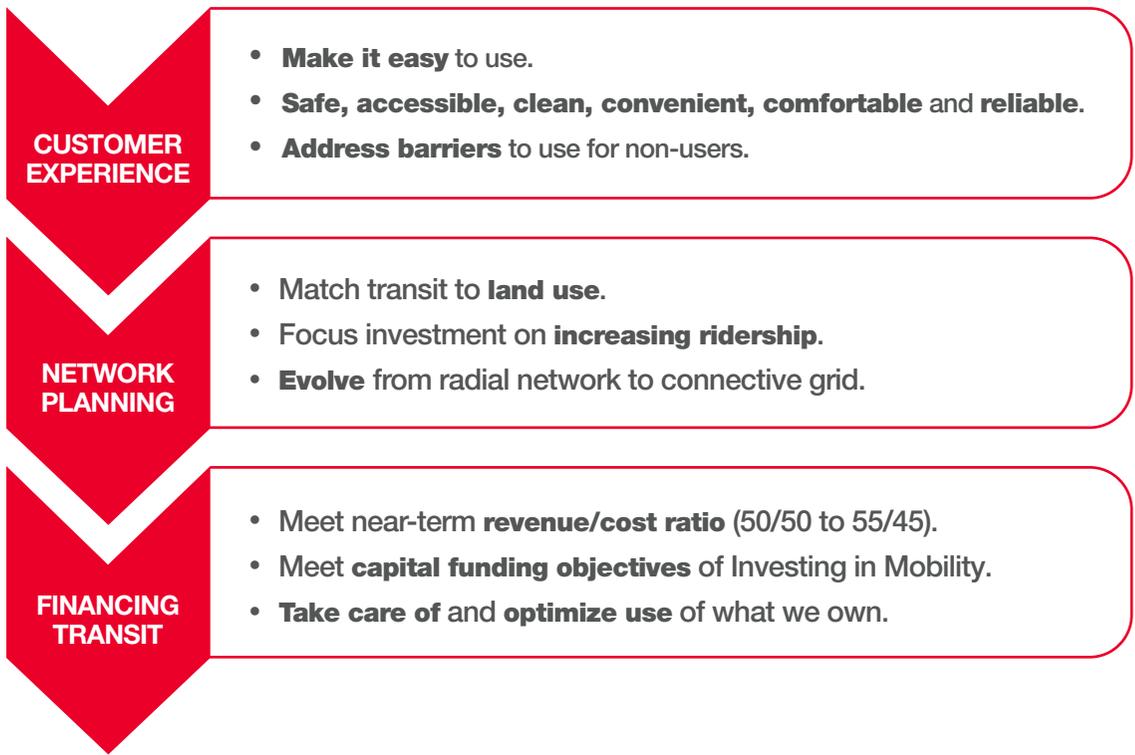
Ice cream!!!

CONJUR

# core principles for public transit in calgary

To guide the long-term plan for Calgary Transit, core principles for public transit in Calgary were created using feedback received from Council,

Administration and the public. These core principles were approved by Council on September 24, 2012:



**1. Customer Experience**

- a. Make it easy to use public transit in all steps: understanding, accessing, waiting, paying, riding and connecting.
- b. Be responsive to attributes of safety, accessibility, cleanliness, convenience, comfort and reliability.
- c. Address barriers to use for non-users.

**2. Network Planning**

- a. Match transit with land use: support activity centres and corridors, enhance Primary Transit Network connectivity, and support intensification of population and employment.
- b. Focus investment on increasing ridership.

c. Design the network for a connective grid:

evolve from a radial network focused on the downtown to a connective grid that facilitates travel between activity centres.

**3. Financing Transit**

- a. Meet Council’s near term revenue/cost ratio\*. Future revenue cost ratios could be revised depending on budget and business plan objectives.  
*\*The current business plan identifies a revenue/cost ratio in the range of 55/45 to 50/50.*

- b. Meet the capital funding objectives in Investing in Mobility, included funding allocation ranges, depending on funding eligibility, for mobility hubs and transit corridors (40 – 50 per cent), goods movement and traffic growth (25 – 30 per cent), transportation network optimization (five –10 per cent) and lifecycle and asset management (20 – 25 per cent).
- c. Improve asset management to take care of and optimize use of what we own.

# a new capital plan for Calgary Transit

RouteAhead includes new customer service-oriented rapid transit capital projects. To prioritize these projects (e.g. extending an LRT line, building new stations/garages, purchasing buses/

CTrain cars), RouteAhead collaborated with The City of Calgary Transportation department's 10-year Investing in Mobility project team to ensure strategic alignment between the two projects. Other capital

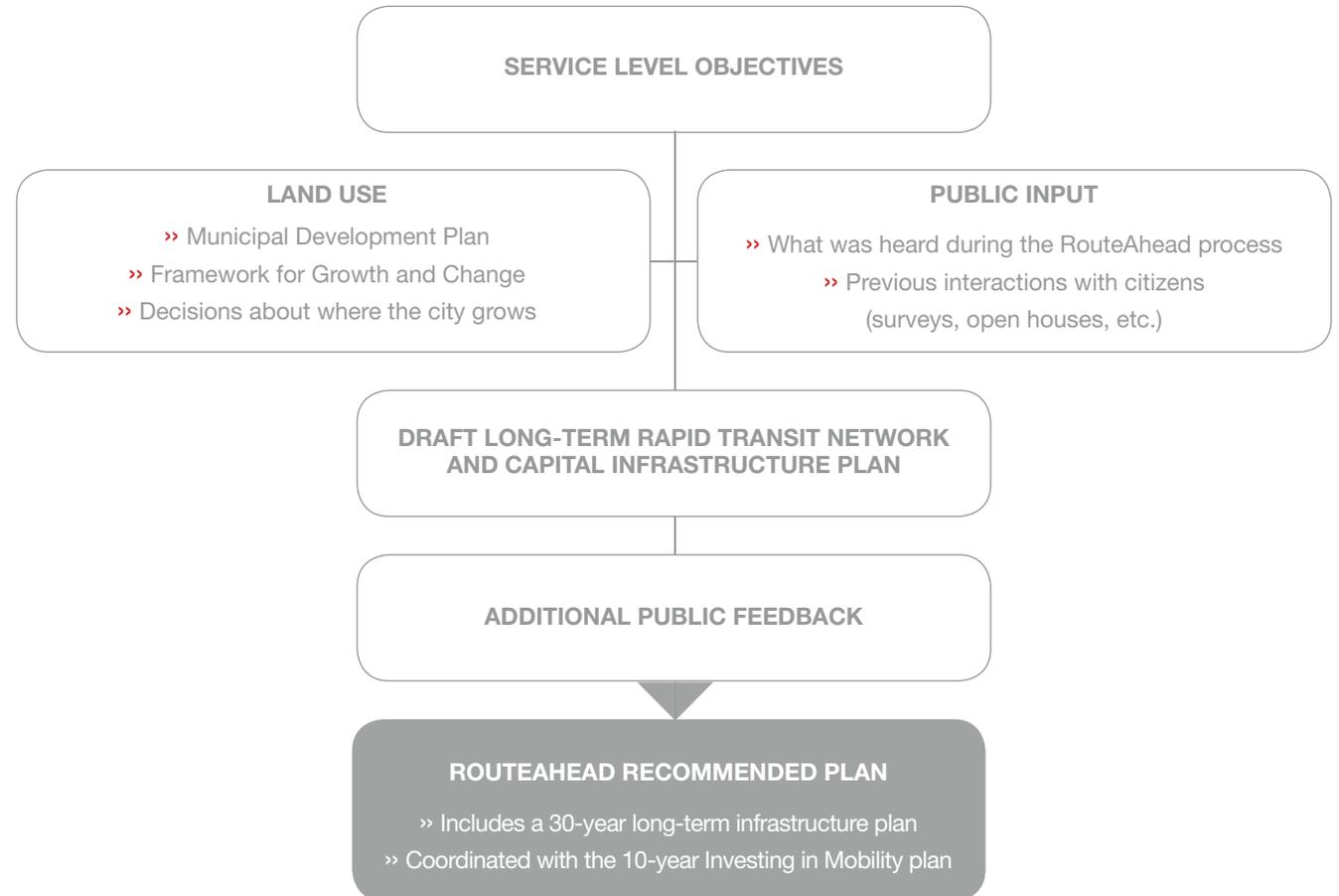
projects (such as bus purchases, storage and maintenance facilities and lifecycle maintenance) are captured in the Investing in Mobility project, and are identified in RouteAhead's 30-year timeframe.

The prioritization of projects included in RouteAhead is based on public input and three categories of evaluation criteria: land use, customer experience and project characteristics. Each category contains a number of sub-categories that received a value based on the relative merits of the project. More information on the evaluation criteria and the capital project

list are in Section 4: The RouteAhead for Calgary Transit's Network.

A draft plan was shown to the public and stakeholders for additional feedback.

The following illustrates how the plan was created:



*“Remember to plan ahead capacity, land use, speed, etc.”*

# navigating RouteAhead

RouteAhead includes a comprehensive list of visions, directions and strategies to improve the customer experience,

further develop and expand the network, and identify the amount and type of funding to fulfill the plan.

**Vision:** What the experience should be like in 30 years.

**Directions:** How The City will get to the vision.

**Strategies:** Specific initiatives to steer Calgary Transit towards the directions.



These visions, directions and strategies were developed with the view that Calgary Transit would be Calgarians' preferred choice for mobility and included extensive public engagement on how transit should evolve over the next 30 years. Core principles

were developed around the customer experience, network planning and financing transit. This process is outlined in the diagram below:

RouteAhead is sectioned as follows:

- Section 3  
The RouteAhead for the Customer Experience
- Section 4  
The RouteAhead for Calgary Transit's Network
- Section 5  
The RouteAhead for our Finances

Section 6  
The RouteAhead: What's Next?

Coloured dots that provide verbatim comments gathered during the engagement process are located throughout the RouteAhead plan.



**PUBLIC ENGAGEMENT AND FEEDBACK**  
+

**VISION OF TRANSIT AS A PREFERRED CHOICE**



**CORE PRINCIPLES FOR PUBLIC TRANSIT IN CALGARY**



**CUSTOMER EXPERIENCE**



**NETWORK**



**FINANCES**

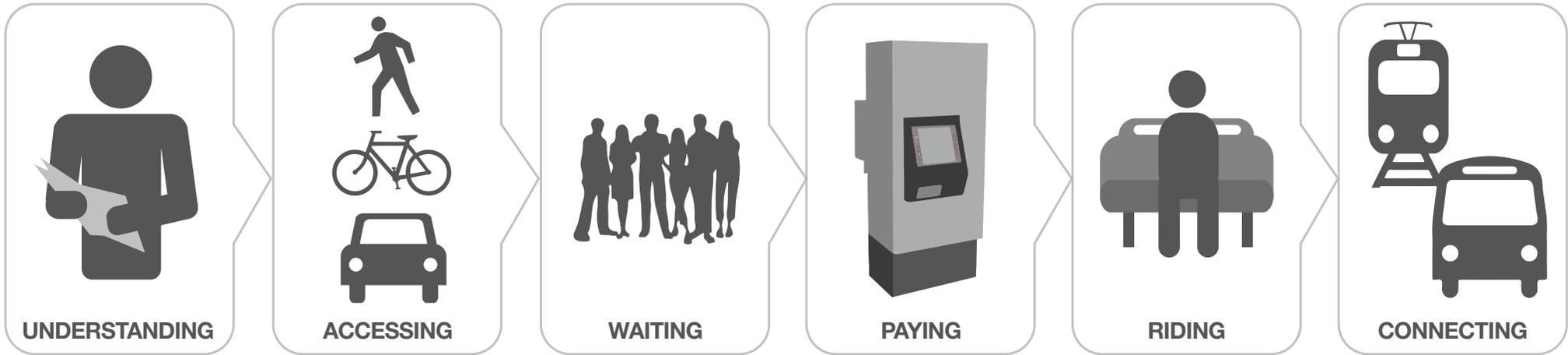


# 3

**The RouteAhead for  
the Customer Experience**



*“Twitter updates are great – keeps us posted on delays”*



## The RouteAhead for the Customer Experience

Providing a great customer experience is important to meet the visions outlined in the CTP and the MDP. It helps make public transit an attractive option for choice riders, and retains customers who have access to other options.

Expanded transit service—more buses/trains and more frequent service—will improve the customer experience. However, Calgary Transit recognizes that providing a great customer experience goes

beyond this. RouteAhead addresses each element of the customer experience including all steps of the transit journey, from *understanding* the system, to *accessing* the stop, *waiting*, *paying*, *riding* and *connecting* to the next bus or train.

Calgary Transit has employees in each of these areas who work hard and are committed to providing excellent customer service. There is always room for improvement and

RouteAhead has identified ways to improve the customer experience based on what customers and stakeholders have said is important.

RouteAhead's customer experience strategy is guided by the core principles for public transit in Calgary:

- » Increase the travel time advantage
- » Overcome issues of reliability and delay
- » Increase passenger capacity

# understanding

## Vision

In 2040, when travelling by Calgary Transit and Access Calgary, you are able to instantly get the information you need to go where you want to go. It is easy for new, occasional and



frequent users, and visitors to understand and use the system and know about any delays. You understand Calgary Transit's short- and long-term plans.



85

85 SHOLENDROP

3008 Calgary Transit

176  
66  
23

## behind the scenes

*Graham Bicknell,  
Information  
Distribution Clerk*

Graham joined Calgary Transit three years ago after he and his wife moved to Calgary from the United Kingdom. He chose Calgary because he liked the idea of living in a smaller city than London, England and he thought it would offer good job opportunities.

Every day, Graham focuses on being as organized and informed as possible so he can keep information up-to-date and better help customers understand the system. He does this by creating posters and printed bus and train schedules. When there are schedule or route changes, he ensures

the changes are updated in route brochures and properly distributes them so they get into customers' hands as soon as possible. He sends the brochures and maps to libraries, hospitals, malls, stores, immigration centres and more. He personally installs new posters and schedules on

CTrain station platforms. In 30 years, Graham believes most of what he produces in paper format will be available electronically – on computers at home, on mobile devices, but also at stations and major transfer points.



## direction

*C1: Make it easier for customers to get the information they need.*

Strategies	Benefits	Costs
1. Continually improve the availability, timeliness and usefulness of customer information in person, on mobile devices, at major stops and stations, over the phone, on the web and through new technologies as they evolve.	Customer satisfaction will increase through improved customer service. Calgary Transit will be seen as modern and agile.	\$\$
2. Develop processes and technologies to keep customers informed about delays in a consistent and reliable fashion using real-time information (e.g. real-time information displays at all rapid transit network stops).	Customers will have better information about how delays could impact their trip. Customers will be able to choose how they receive information from a palette of options. Customer uncertainty will be reduced.	\$\$
3. Improve signage for temporary closures of bus stops due to construction – identify alternative stops using maps and text. Ensure information is available through web/Teletext/Teleride/mobile devices.	Customers will have better information before and during bus stop closures.	\$
4. Monitor and address gaps in visual and audible communication of station closures and other planned/unplanned disruptions on the LRT system.	All customers will be kept informed about station closures and disruptions consistently. People with disabilities (e.g. blind, hard of hearing, people who use walkers/wheelchairs) will know in advance about access restrictions at stations.	\$



*“Interactive voice activated technology to route plan and tell you when the next bus comes or any disruption in service – like ‘Kit’ in Knight Rider.”*



*“Apps: young people love them.”*



*"We should have online services in malls, stores and various places."*



*"Improve website and trip planning functions."*

## direction

*C2: Make it easier for customers, including new users, occasional users and visitors to understand and use the system.*

Strategies	Benefits	Costs
1. Continuously improve trip planning (e.g. incorporate multi-modal trip planning) and online tools to ensure customers receive accurate real-time information.	Customers will understand in advance the best options for their trip.	\$\$
2. Develop a new design for a rapid transit and frequent service map, and communicate it to customers.	The public will understand the value of frequent network (service) and rapid transit network (infrastructure) investments. Future capital investments will be focused where they matter most.	\$\$
3. Investigate the benefits and costs of headway-based scheduling (e.g. every 10 minutes) on the primary transit network.	Customers will not have to consult a schedule on the primary transit network.	\$
4. Review bus route design and make recommendations that will improve understanding of routes and destinations.	The names, routing and options on some bus routes will be simpler and it will be easier to understand and use Calgary Transit service.	\$\$\$\$
5. Provide different customer segments with different information (e.g. maps, tactile maps, customer information, station area wayfinding) about different types of transit service, including accessible service, base transit service, primary transit network service (frequent and rapid transit).	Occasional users and visitors will have concise, specific information about how to use the system to get to key locations (special events, tourist sites, Centre City, etc.).	\$\$

## direction

*C3: Make it easier for customers and citizens to contact Calgary Transit, share concerns and find out about all aspects of service, including future plans.*

Strategies	Benefits	Costs
1. Provide Calgary Transit employees, customers and the Calgary Transit Customer Advisory Group with one point of contact (a community liaison) for listening, acting and coordinating continuous customer service improvements.	Customer satisfaction will increase through improved customer communication. Calgary Transit will be seen as responsive and caring.	\$\$
2. Simplify the process for employees, customers and citizens to submit comments, concerns and commendations.	Calgary Transit will have a heightened awareness of common concerns and potential improvements. It will be easier to submit customer service requests to Calgary Transit.	\$
3. Improve the Calgary Transit website's online content regarding the future plans of Calgary Transit, and enable broad engagement on these plans. Promote future plans through transit advertisement media (e.g. in vehicles, online, etc.).	Calgarians will be better informed. Customers and citizens will be part of the conversation about the future of Calgary Transit. It will be easy to stay informed wherever you live (not just in directly affected communities).	\$



*“Consult with the community.”*



*“Interactive touch screen information system with alternate live contact.”*

## direction

*C4: Ensure the eligibility process for Access Calgary is easy and transparent.*

Strategies	Benefits	Costs
1. Continue to revise existing application forms for Access Calgary to make the application process easier and clearer.	It will be easy for Access Calgary customers to apply for service and customers will clearly understand eligibility requirements.	\$
2. Adopt a common eligibility criteria – and point of customer contact – for Access Calgary.	It will be easy for Access Calgary customers to apply for service and customers will clearly understand eligibility requirements	\$



*“Have clear expectations related to services and usage.”*



*“Although changes have begun to create accessibility for persons with disabilities, there is no standard or definition for what “accessibility” means, which create problems for transit users.”*





1st Street SW

West

Westbound Train

Centre St

Help



# accessing

## Vision

In 2040, you can access stops and stations easily, whether by foot, bike or, in some locations, by car. The system is accessible to all customers. Access



Calgary provides you with user-friendly, reliable options if you are unable to access regular Calgary Transit service. The primary transit network is

frequent and reliable. You are able to show up at a stop/station on the primary transit network 15 hours a day, seven days a week and not need a schedule.



 Street

ENTRANCE

FARE

## behind the scenes

*Laura Czaban,  
Travel Trainer/  
Community Liaison*

Before starting with Calgary Transit six years ago, Laura worked for the Canadian National Institute for the Blind. While there, she was responsible for teaching people how to use transit, among other things, so her transition to Calgary Transit was natural and a good fit.

In her role at Calgary Transit, Laura works closely with people with disabilities to help them learn to use transit. She also collaborates with engineering and construction groups to ensure stops and stations

are accessible for people with all types of disabilities. This involves analyzing ramps, sidewalk wheelchair ramps, paved paths, lighting (so drivers can see customers) and more. When major work is being done to a station or stop,

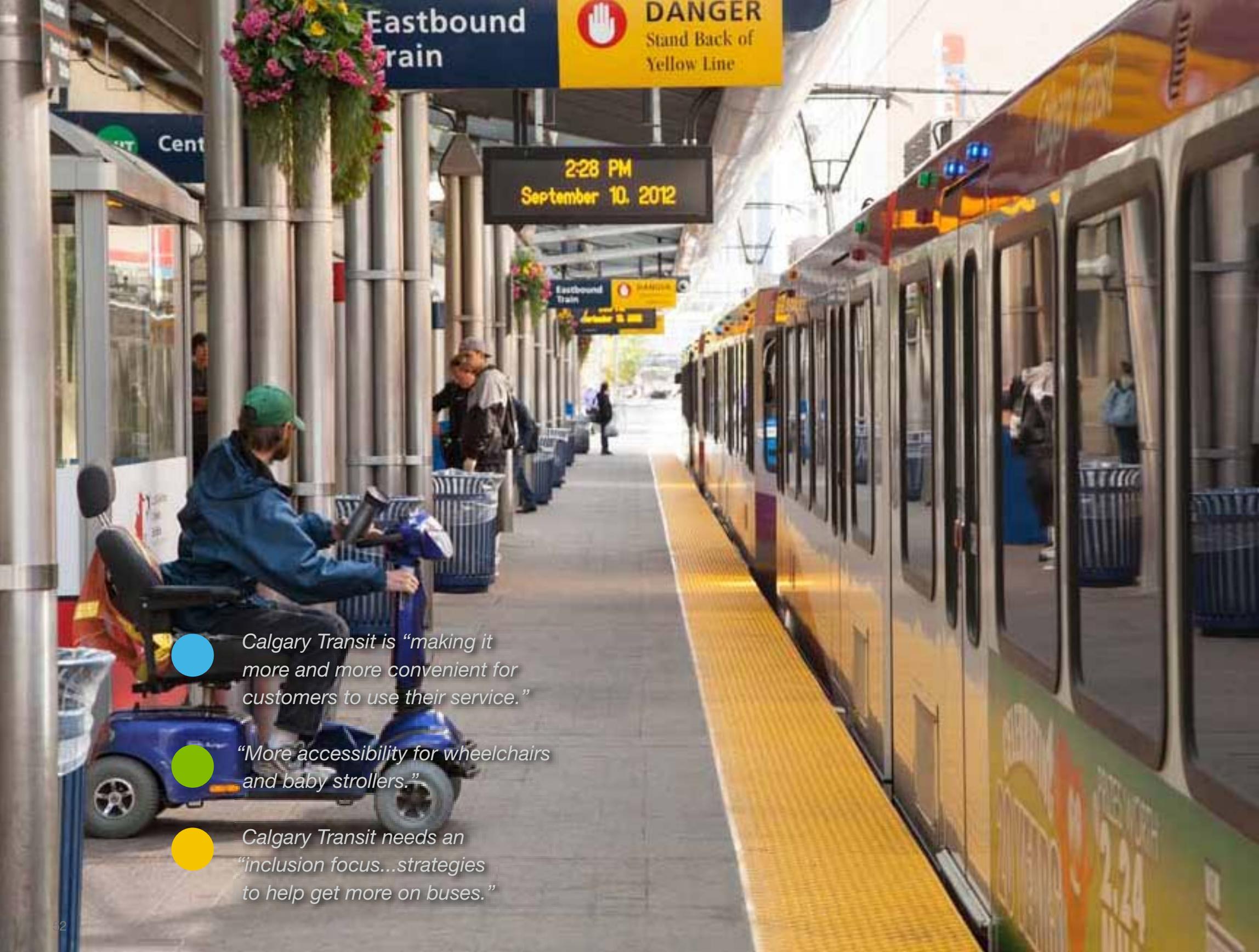
Laura works with designers to make improvements to the station or stop's accessibility. As Laura says, "Accessibility improvements make it easier for all transit customers."



## direction

*C5: Make it easier to get to the stop/station.*

Strategies	Benefits	Costs
1. Identify bus stops with a combination of high ridership and barriers to access (e.g. no sidewalks) to plan and implement future pedestrian and cycling improvements.	People will be able to walk to the stop. Gaps in the pedestrian/cycling network will be addressed.	\$\$\$
2. Ensure future development plans in LRT and transitway station areas have improved pedestrian and cycling access.	It will be easier to access existing and future LRT stations and future transitway stations. Stations will have efficient pedestrian access, comfortable passenger waiting areas and safe, direct, unobstructed routes for pedestrians and cyclists.	\$
3. Engage customers who access stations/stops by bike to identify and implement preferred improvements for bike parking and storage.	People who use bikes will have improved facilities at LRT and transitway stops/stations.	\$
4. Incorporate mobility improvements when renewing existing infrastructure.	It will be easier to access existing and future LRT stations and future transitway stations. Stations will have efficient pedestrian access, comfortable passenger waiting areas and safe, direct, unobstructed routes for pedestrians and cyclists.	\$
5. Ensure the application of The City's Access Design Standards in the design of Calgary Transit facilities through education of staff and consultants.	There will be fewer changes during the planning and design process to address Calgary Transit's requirements. The need to retrofit facilities will be reduced.	\$
6. Increase travel training opportunities for Access Calgary customers who have the ability to use other Calgary Transit services for some of their trips.	It will be easier for people who use Access Calgary to also use other Calgary Transit services.	\$



*Calgary Transit is “making it more and more convenient for customers to use their service.”*



*“More accessibility for wheelchairs and baby strollers.”*



*Calgary Transit needs an “inclusion focus...strategies to help get more on buses.”*

## direction

*C6: Integrate Access  
Calgary and Calgary  
Transit services.*

Strategies	Benefits	Costs
1. Improve brand recognition of Access Calgary (a service of Calgary Transit) through vehicle identity, operator apparel, identification and customer information.	Customers will understand that Access Calgary is one of many accessible services offered by Calgary Transit. There will be one point of contact for information about public transit for people with disabilities.	\$
2. Promote all Calgary Transit services, including Access Calgary, so people with disabilities understand how to access stations.	People with disabilities will have improved options to get to and from LRT, BRT and transitway stops/stations.	\$
3. Continue to improve the accessibility of older LRT stations to remove barriers to use by people with disabilities, and market the progress and importance of accessibility of Calgary Transit services.	It will be easier for all users to access stations. People will understand the value of investments in accessibility.	\$\$\$



*“More accessible options for all populations of people, families, individuals.”*

## direction

*C7: Strategically manage parking at transit stations.*

Strategies	Benefits	Costs
<p>1. Review and implement changes to the current park and ride stall provision goal of 15 to 20 per cent of corridor demand. Analyse the costs as well as the benefits to transit users and the overall mobility network (such as reduced traffic volumes into the core and encouraging transit oriented development).</p>	<p>The provision of park and ride will be aligned with the availability of transit services. Lower parking requirements in certain areas will enable more sustainable land development. Stalls will be available for park and ride customers in outer suburban areas where bus service is limited due to the cost of delivering service.</p>	\$
<p>2. Manage park and ride to match the context of surrounding land use.</p>	<p>Ridership will significantly increase due to land use intensification in station areas and it will be easier for the city to meet goals of sustainable land development.</p>	\$



*“More parking at CTrain stations.”*



*“Reduce vehicular parking.”*



*“Pay for parking higher rates for out of town parkers.”*



## direction

*C8: Advertise, market and expand the primary transit network.*

Strategies	Benefits	Costs
1. Advertise and promote the frequent service on the current primary transit network.	Customers and the public will know on what routes and during what time periods they can show up at a stop/station and a bus/CTrain will arrive every 10 minutes.	\$
2. Expand the primary transit network.	Customers and the public will have more options for frequent service 15 hours a day, seven days a week.	\$\$\$
3. Market the primary transit network through “frequent service” identification on maps, bus zone signage, and other customer information.	Customers will understand where they can “show up and go”. It will be easy to see where primary transit network service is in place.	\$\$



*“Schedules [with] frequent and direct service with good connections.”*



*“Grid of high frequency – direct buses, enabling a two-bus transfer for most destinations.”*



*“Keep expanding and marketing public transportation.”*





Calgary  
**HandiBus**



# waiting



## Vision

In 2040, to the extent possible, the amount of time you have to wait is minimized. The area you wait is safe, comfortable and clean. The station you interact with reflects the community's individuality and identity. You and your

community are proud of your stop/station and share a sense of ownership. While waiting, it is easy for you to access clear and accurate information on the status of your trip.



## behind the scenes

*Cam Maze,  
Outside Maintenance  
Labourer/Custodian*

Cam is part of a team of people responsible for keeping CTrain stations, bus stops and other transit facilities clean and free of debris and snow. His days are spent “out and about” tidying stations, emptying garbage, cleaning up graffiti and dealing with problems that need immediate attention.

There are other aspects to his job as well. He loves being outside and interacting with customers and coworkers. Planning his day can be a bit of a challenge at times: he has to consider the weather, urgent issues and the availability of other staff.

Cam must ensure that the most important work gets done – especially safety issues such as removing broken glass. Cam enjoys working for The City of Calgary. He likes the people he works with, and appreciates the benefits and job security. He enjoys his job and this is apparent

to the many people he meets every day. In fact, one of the most common questions he is asked when he is working on the platforms is how to get a job with The City!



## direction

C9: Ensure Calgary Transit continues to be safe and secure.

Strategies	Benefits	Costs
1. Through an education campaign, highlight the role of peace officers and how they help customers.	Customers will understand the role and availability of peace officers and will feel safer.	\$
2. Increase the number of peace officers each year to meet Public Safety and Enforcement targets.	As stations grow in ridership and activity, resources in safety and security will keep pace, and overall system safety will be maintained. Vigilant enforcement of fare payments makes costs equitable for users. Rules can be expanded to support bus rapid transit.	\$-\$\$
3. Open a public safety and enforcement office on each line or in quadrants and centre city, that will operate while the system is open, or 24 hours/day.	Transit operators will have quicker, more reliable response times to incidents. Customers will have locations to meet with peace officers, and officers will have increased knowledge of community issues. Calgary Transit's ability to control patronage will be improved.	\$\$



*“Education is the key to success! :) Stay positive!”*



*“For security, consider encouraging police constables to periodically visit stations randomly and perhaps ride the LRT for one or two stops and then return back to the original station. This will create a perception of safety. I think that Calgary Transit is safe but there can be a perception of insecurity.”*



*"Wifi!"*

## direction

*C10: Ensure Calgary Transit stops and stations are clean and comfortable.*

Strategies	Benefits	Costs
1. Conduct education to highlight the shared role of customers, citizens and Calgary Transit in ensuring bus stops remain clean.	Customers will have a better understanding of the impacts of littering and graffiti on other users.	\$
2. Increase the availability and quality of shelters on the primary transit network.	Additional shelters will provide customers with protection from the weather resulting in a more comfortable wait time.	\$\$
3. Develop design/conditional standards for bus stops/stations, conduct condition assessments and implement necessary improvements.	Customers will be provided with a more comfortable and welcoming environment while waiting for service.	\$
4. Work collaboratively with other City business units on a city-wide coordinated street furniture program (including shelters, benches, and garbage/recycling receptacles).	Street furniture will be more uniform and consistent throughout the city.	\$\$
5. Expand station cleaning programs to meet future demand on CTrain and transitway platforms.	As stations grow in ridership and activity, station cleaning resources will keep pace, and new stations (CTrain and transitway) will continue to meet customer expectations.	\$
6. Ensure that sufficient lighting and security cameras are in place at CTrain and transitway stop/stations. Ensure that sufficient streetlighting is provided at bus stops.	Customers will feel safe and comfortable while waiting at CTrain and transitway stop/stations.	\$\$



*“Keep stops cleaner.”*



*“Cleaner stations and shelters.”*

## direction

*C11: Increase access to clear and accurate real-time information.*

Strategies	Benefits	Costs
1. Explore the introduction of Wi-Fi in CTrain stations.	Customers can access Calgary Transit information quicker using mobile devices. Customers will have access to the Internet while waiting and wait times can be productive.	\$
2. Implement real-time arrival information for buses.	Customers will have accurate next bus arrival information so they are better informed while waiting.	\$\$\$
3. Improve the functionality of the Calgary Transit website and third-party mobile applications and provide recommendations for developing a more accessible, customer-focused design, layout and navigation system.	Customers will be able to access real-time information quicker using computers and mobile devices.	\$-\$\$





*“Equipping every bus with GPS and providing a good mobile app that shows where my bus is in real time and gives me an estimate of time at my stop based on its real location.”*

## direction

C12: Monitor, report, and improve on-time performance.

Strategies	Benefits	Costs
1. Ensure standards for on-time performance are communicated (annual reports and through targeted media such as text messaging to subscribers) to employees and the public.	Customers will see the results of improvements to on-time performance and will understand the reasons for delays. Support will be garnered for the resources needed to address delays.	\$
2. Develop an action plan to address on-time performance issues. The action plan should include service hours, fleet, maintenance strategies and facilities.	Reliability will improve, customers will be retained and ridership will grow.	\$\$\$
3. Reduce risks of service disruptions through proactive repairs and lifecycle maintenance.	Problems will be addressed when vehicles and facilities are not in service. There will be fewer disruptions, customer satisfaction will increase and ridership will grow.	\$\$
4. Conduct repairs and lifecycle maintenance of CTrain facilities and systems using scheduled maintenance windows.	Service disruptions will be minimized and customers will be able to schedule activities around service disruptions. Repairs and maintenance will be more efficient.	\$



*“More reliable arrival times (it’s understandable buses cannot be on time 24/7, but at least a 5 minute delay would be acceptable.)”*



*“Maintenance and upkeep on old trains and buses.”*

## direction

*C13: Make stops and stations attractive public spaces.*

Strategies	Benefits	Costs
1. Concentrate public art in CTrain and transitway station areas where people gather.	Citizens will have the opportunity to view public art up close. Activity in station areas will increase, resulting in a safer, more vibrant waiting area.	\$
2. Expand community partnership programs that result in the use of station areas for community-based activities.	Citizens will see the community's identity reflected in the station and will share a sense of pride and ownership in the station.	\$





# paying



## Vision

In 2040, paying is easy and seamless. The payment structure is transparent, affordable and fair, and you believe you receive good value for your money.

Payment options are well communicated and diverse, keeping pace with current technology and offering multiple ways of paying.

## behind the scenes

*Randy Martelock,  
Coordinator, Fare  
Collection Services*

Randy is passionate about Calgary Transit's payment systems. He wants to provide customers with an efficient way to pay their transit fares and address any issues they may have.

After an interesting career that has spanned being a student, rolling coins,

a human resources manager at Revenue Canada, and a manager at CDI College, Randy is pleased to be working for Calgary Transit. He ensures ticket vending machines and fare boxes are working properly.

With the addition of West LRT, Randy ensured that all the new stations had ticket vending machines ready and installed – an additional 55 machines to the existing 145! He also addresses customer comments and concerns and works with other

Calgary Transit employees to address problems.

His goals are to make it even easier and faster for people to pay and to provide a seamless fare payment system – so seamless that customers “don't even see us.”



## direction

*C14: Make it more convenient to pay to ride Calgary Transit.*

Strategies	Benefits	Costs
1. Enable CTrain ticket vending machines to pay for more than one ticket at a time.	It will be easier for a group or family to buy transit tickets in one credit/debit/cash transaction at a machine.	\$\$
2. Improve the accessibility of future ticket vending machines.	Customer needs (e.g. audio and other accessibility features) will be addressed.	\$\$
3. Investigate the benefits and costs of rear-door boarding and off-board fare payment on future transitways/bus rapid transit.	Customers will be able to get on and off vehicles quicker and there will be fewer fare disputes for transit operators to address. The speed and reliability of service will increase.	\$\$-\$
4. Implement electronic fare payment on buses and CTrains.	It will be more convenient for customers to pay, and it will be easier to implement incentives to ride transit.	\$\$\$
5. Expand electronic fare collection to Access Calgary and other civic services.	It will be more convenient to pay for City services, and connections between Calgary Transit, Access Calgary and City services will be easier.	\$\$\$
6. Explore partnerships with sports and entertainment venues whereby transit fares would be included in an event ticket.	It will be easier to take transit to an event and will help venues manage parking.	\$



*“Don’t bring in a 3 zoned fare system – too confusing. Pay based on kilometres travelled.”*



*“More advanced fare collection systems, possibly based on travel distance, something like Vancouver’s zone system?”*



*“Cashless fare system.”*



*“Security – fare enforcement.”*



*“Routes to nearby towns – Chestermere, Airdrie, Cochrane, Okotoks, Strathmore, Nanton. Introduce zone-fare rates.”*

## direction

*C15: Ensure the payment structure in Calgary is transparent and fair.*

Strategies	Benefits	Costs
1. Increase peace officer presence and awareness of bylaws to reduce fare evasion.	Fare evasion will be reduced and customers will perceive the system to be fairer and safer.	\$\$
2. Work with the Calgary Regional Partnership and Airdrie Transit to develop a regional fare strategy.	Possible future confusion regarding fares and revenues will be alleviated. It will become seamless to connect between regional services and Calgary Transit.	\$
3. Communicate the value for money (e.g. cost: benefit) of public transit through promotion and community activities (e.g. Doors Open).	If citizens perceive a high value and return on investment from public transit, they will be more likely to support sources of revenue (other than fares) to address the cost of improvements to the customer experience.	\$
4. Adopt a common eligibility criteria – and point of customer contact – for fare discounts which align with all City of Calgary services.	It will be easy for eligible customers to apply for discounts.	\$



# riding

## Vision

In 2040, riding is safe, reliable, comfortable, welcoming, accessible, affordable and sustainable.

You are part of a social transit community.



5 Street

Outbound



## behind the scenes

*Shafiq Rawji,  
Transit Operator*

When asked about his job as a transit operator for the past 17 years, Shafiq is quick to say “I love it!” Although he is a senior operator, Shafiq chooses to go on standby – filling in for other operators if they are sick or have other emergencies. This means

that he doesn’t know what he will be doing from day to day, but he likes getting to know so many of the other drivers and so many customers. For Shafiq, this makes the job more exciting, challenging and fun.

Shafiq believes that a key part of his job is to help people reach their destinations. This goes beyond just driving the bus – it also includes giving customers tips and information to make their trips faster and easier.

Speaking six languages certainly helps with his job, and it helps him build a strong rapport with everyone he meets. This rapport has resulted in him discovering a passion for hiking 10 years ago through a passenger on his bus!



## direction

*C16: Improve the experience of riding in Calgary Transit vehicles.*

Strategies	Benefits	Costs
1. Ensure sufficient capacity is available to meet customer demand.	Customers will be able to board the first transit vehicle that arrives at the stop or station.	\$\$\$
2. When buying new vehicles, consider seating arrangements, seat types, accessibility, air conditioning and windows (e.g. sizes and tints that provide visibility while helping keep vehicles cooler in the summer).	Comfort will be maintained or improved and customers will feel welcomed.	\$-\$
3. Evaluate the benefits, costs and potential customer use of bike racks/hooks inside CTrains and transitway vehicles.	Customers who bring bikes on board will have a designated location to park them out of the way of other customers.	\$\$
4. Increase the number of bus routes with bike racks on buses. Focus future bike racks on buses and bikes on trains on long-haul trips (not community shuttle runs where trips are close in length to cycling distances).	Customers who want their bike at the start and end of their bus trip will not be required to have a folding bike and will have access to more destinations.	\$\$
5. Review the benefits and costs of additional amenities on vehicles for a more social transit trip, such as music/audio information, TV, active maps and Wi-Fi.	Comfort will be improved and customers will feel welcomed.	\$\$\$



“A/C.”



“Wifi.”



“TV!”



“Bike racks.”

## direction

*C17: Improve reliability of service through technology.*

Strategies	Benefits	Costs
1. Analyse vehicle performance statistics to anticipate reliability issues including maintenance reports from vehicles, operational factors, external factors (congestion due to traffic collisions, freight rail traffic). Develop actions and processes to address events that impact reliability.	Reliability and travel time issues will be addressed and improvements will result in higher ridership in priority corridors.	\$\$\$
2. Develop priorities for service improvements throughout the base transit network through analysis of travel times, delays, operational data and customer feedback.	Improvements to address delays will be prioritized. Once implemented, improvements will result in higher ridership and lower operating costs.	\$\$\$
3. Improve response to disruptions and delays through real-time information, current technology and communication among staff.	Delays and disruptions will be minimized.	\$\$-\$\$\$



*“Be on time.”*



*“Use GPS.”*



*“QR codes on bus stops to see when next one coming.”*

## direction

*C18: Create a fully accessible transit fleet to address the mobility needs of people with disabilities.*

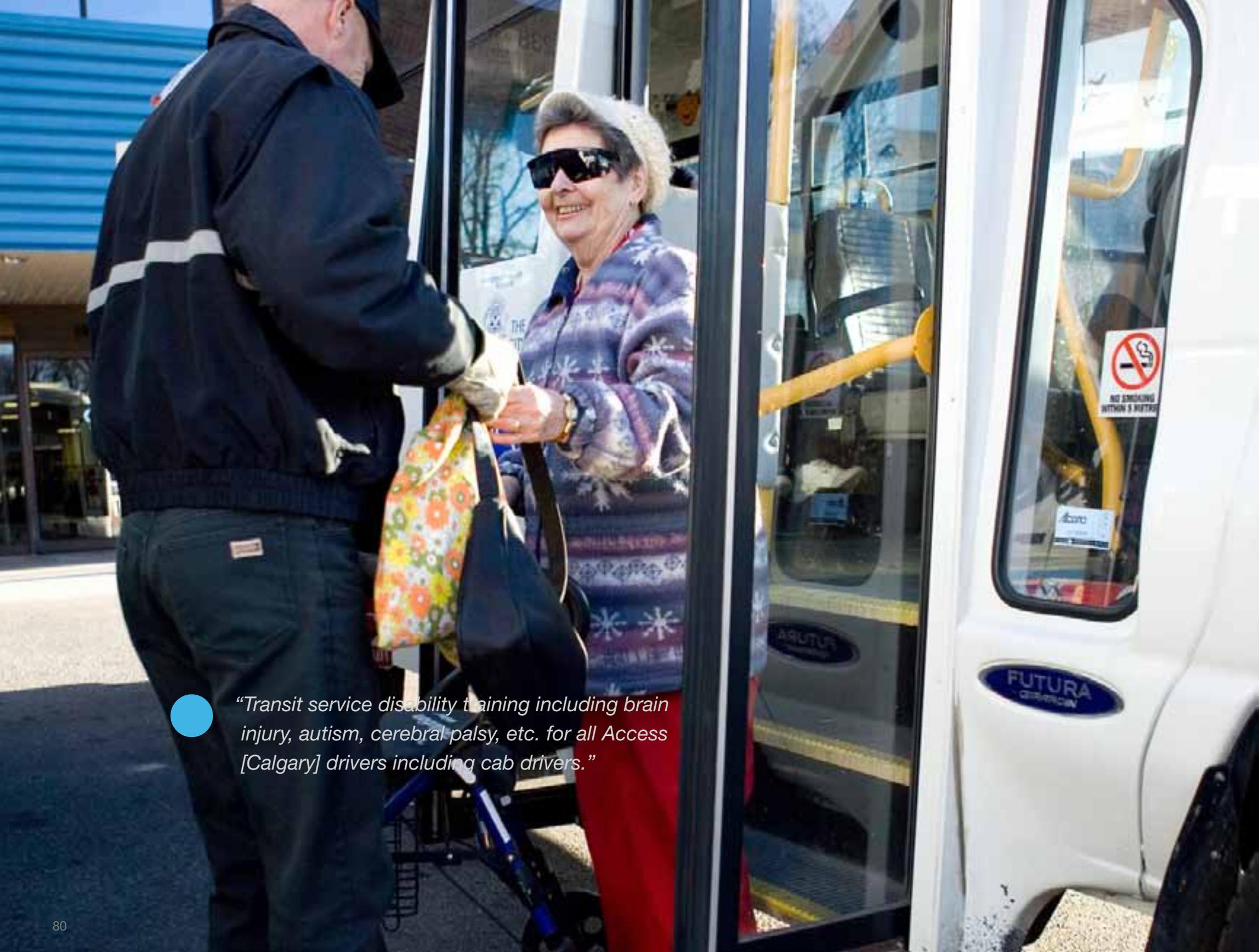
Strategies	Benefits	Costs
1. Replace the remaining older high-floor buses with low-floor buses.	It will be easier to board the bus for all customers, particularly people with disabilities.	\$\$
2. Implement real-time audible and visual stop announcements on buses.	Customers will be able to see and hear stop locations in real time. People who have difficulty seeing and hearing will be able to prepare for their stop in advance.	\$\$
3. Investigate requiring operators to assist customers with wheelchair tie-downs in Calgary Transit buses in the future.	Access Calgary customers will be able to make a quicker transition to other Calgary Transit services.	\$



*“Wheelchair access onto C-trains.”*



*“Having parameters which encourage/ support individuals to be as independent as possible.”*



*“Transit service disability training including brain injury, autism, cerebral palsy, etc. for all Access [Calgary] drivers including cab drivers.”*

## direction

*C19: Continuously improve customer service.*

Strategies	Benefits	Costs
1. Enhance customer service training of contracted service providers.	Customers will feel welcomed and share a sense of community.	\$\$
2. Improve customer service through Calgary Transit employee engagement and customer service training, aligned with The City's Cultural Transformation program.	Engaged employees will deliver improved customer service, resulting in a friendlier, welcoming experience.	\$\$
3. Address the system-wide decline in supervisor to operator ratios and set standards for the future.	Customers will see more consistency in communication, customer service and service reliability. Operators will have increased opportunity for coaching, information and sharing of ideas.	\$\$
4. Evaluate the potential for additional technology and tools to better enable operators to assist customers and report problems with vehicles and facilities.	Operators will have more tools to provide customers with information at the time of the request.	\$\$



*“Good drivers, polite and knowledgeable.”*



*“Generally the staff are courteous. Perhaps consider having periodic training sessions on customer service such as how to deal with difficult passengers (for drivers).”*



# connecting

## Vision



In 2040, connections are simple and convenient. It is easy to find your next bus

or train, and planning your next trip is intuitive. Options and destinations are clear.

## behind the scenes

*Doug Corraini,  
Scheduler*

Doug Corraini has been with Calgary Transit for 10 years. Prior to this, he drove for Handibus which paved the road for him to work in scheduling and dispatching for Access Calgary. The skills he gained at Access Calgary helped him

transition to scheduling traditional transit service. Doug now helps schedule up to 700 buses and 50 trains for the rush hour peaks. Making the most of available resources, he schedules the best and most efficient service, while recognizing the impact this

service has on customers and operators.

A large portion of scheduling service includes helping customers make connections. A lot of Doug's time is spent ensuring these are convenient for everyone. It is challenging

work, but Doug is proud to contribute to reducing traffic congestion "which benefits all Calgarians."



## direction

*C20: Make it easier for customers to find the next bus or train they are connecting with.*

Strategies	Benefits	Costs
1. Provide real-time information to customers regarding connections/schedules for CTrain-to-bus and bus-to-bus connections.	Customers will know how long it will be before their connecting bus/CTrain arrives, and will be able to modify their trips accordingly.	\$
2. Enable customer connections between Access Calgary and other Calgary Transit services through barrier-free design and improvements to customer communication.	It will be easier make connections for all customers, particularly people with disabilities.	\$\$



*“Most important [way/method] to get people out of car is to make it easy for rider to anticipate the next bus. This is by smart phone apps that give time to next bus and schedules posted and eventually communicating real-time next bus information.”*



*“Have a GPS system board where customers can access information on what bus route to take and where to get off and the times for those buses. Customers’ GPS system for direction to and from destinations and making connection :)”*



*“More frequent service.”*



*“Fixing the weekend times so the wait for the next bus isn’t so long :)”*



## direction

*C21: Make connections more convenient and ensure transfer locations are hospitable and welcoming.*

Strategies	Benefits	Costs
1. Increase the frequency of service to reduce waiting time between connections on routes that are part of the primary transit network.	Customers will not need to consult a schedule to make connections on the primary transit network and waiting times will be short.	\$\$\$
2. Use real-time information to fine-tune schedules to improve connections.	Wait times for connecting buses will be shorter, saving time and reducing inconvenience for customers.	\$\$
3. Review feedback, passenger counts and other data to identify key locations where customers have concerns regarding connections, and identify improvements to address concerns.	Connections between buses and CTrains will be more convenient, and more customers will be attracted to the service.	\$
4. Improve feeder bus frequency in evenings at connection points to the CTrain, in accordance with demand.	It will be easier for customers travelling outside peak periods to make connections from the CTrain to buses, reducing the demand for park and ride.	\$\$
5. Evaluate software solutions to optimize travel connections for people with disabilities who are using a combination of Access Calgary and other Calgary Transit services.	Connections between Access Calgary and other Calgary Transit services will be convenient and efficient.	\$-\$\$



# 4

**The RouteAhead for  
Calgary Transit's Network**

Calgary Transit's network will need to expand over the next 30 years. Geographic expansion is necessary to keep pace with a growing city and to serve new suburban communities. Enhancements to the existing network are required to address capacity issues on overloaded routes, expand the primary transit network (a frequent, highly-connected and well-integrated network) and improve the quality

of transit service so Calgary Transit becomes Calgarians' first choice for travel. Supporting infrastructure (vehicle maintenance and storage facilities, administration buildings, etc.) must be scaled to support the growing network, additional transit service, expanding fleet and staff numbers.

The RouteAhead core principles that apply to the evolution of Calgary Transit's network are:

- » Match transit with land use: support activity centres and corridors, enhance primary transit network connectivity, and support intensification of population and employment.
- » Focus investment on increasing ridership.
- » Design the network for a connective grid: evolve from a radial network focused on the downtown to a connective grid that facilitates travel between activity centres.

## Transit Service Evolution

Calgary Transit is facing challenges in balancing the growing demand for transit service in new suburban communities while addressing capacity issues on established corridors. At any one time, as many as 20 to 25 new communities are under development in Calgary and each of them will require transit service. This pattern of development creates a continuous demand for service expansion beyond what can be accommodated within Calgary Transit's operating budget.

Calgary Transit is evaluating service design, network planning principles and performance standards and will bring an updated document to Council for approval after the completion of the RouteAhead project.

## Introductory Transit Service

Prior to introducing transit service into a new community, Calgary Transit follows approved policies and design principles that influence the planning and delivery of transit service. The City's goal is that Calgarians have access to transit service within a five-minute walk (approximately 400 meters) from their homes. During the community planning process, roads, transit routes, bus stops and walkways are designed with this goal in mind. Transit route networks are also designed to allow good transit access to local community services (schools, shopping centres, etc.) and other destinations, such as downtown.

Before Calgary Transit will consider implementing service in a community, a number of requirements must be met:

- » The required budget must be available to pay for the new service.
- » The required labour force must be available to operate the service.
- » The required vehicles must be available to provide the service.
- » The road network must be adequately developed to allow for a safe and efficient transit route.
- » There must be an adequate population or job intensity to support transit.

If these requirements are met, the introduction of new service is prioritized based on the needs of other new communities, existing routes that require additional capacity, and service to existing and new employment centres and other new services, such as LRT extensions.

The normal introduction of transit service to new areas is generally phased-in according to the following sequence:

1. Weekday morning and afternoon peak period service (from approximately 6 a.m. to 9 a.m. and approximately 3 p.m. to 6 p.m.)
2. Weekday midday service (between the morning and afternoon peak periods)
3. Saturday service
4. Evening service on weekdays and Saturdays
5. Sunday service

This staging program is a logical approach that allows Calgary Transit to meet the growing transit demands of developing communities and to control operating costs. The frequency of the route (the amount of service) is limited when transit is introduced in new communities. As ridership increases, the frequency of the route (and therefore the capacity) will increase.

## Base Transit Service

Base transit service includes a comprehensive range of transit services (feeder routes, mainline and cross-town transit services) that will support the primary transit network by providing comprehensive community coverage. Base transit service may also augment the primary transit network by meeting additional needs (cross-town travel, local circulator services within the Centre City and activity centres) that involve high ridership but not necessarily full primary transit levels of service.

Base transit service will provide a comfortable

**The council-approved performance policies for transit service require shuttle routes to carry at least 15 passengers per hour and regular size buses to carry at least 25 passengers per hour.**

and safe travel environment and be integrated with the primary transit network to enable convenient connections. Communities and employment centres served by the base transit service will have a sufficient intensity of population and employment to achieve the Council-approved performance policies for transit service. The minimum level of service for the base transit network is recommended to be every 30 minutes to improve frequency and connections and make it easier for customers to understand, access and travel.

## Frequent Transit Service

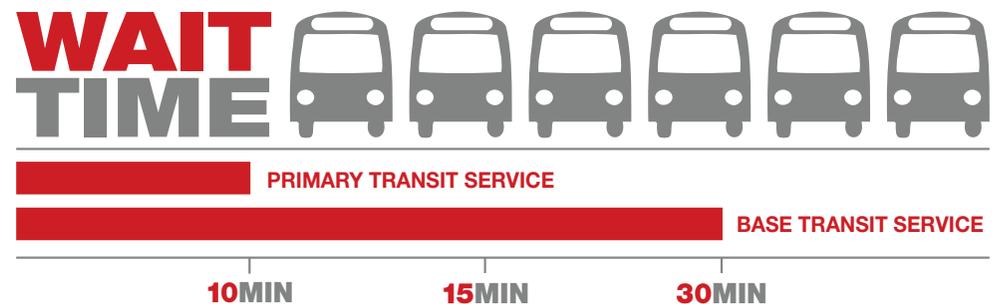
Frequent transit comes more often than base transit service (with a target of 30 minute frequency), but less often than primary transit (with a target of 10 minute frequency). Frequent transit service will be provided on high ridership routes along priority corridors and between activity centres identified in the MDP.

land use intensification. One of the core elements of the CTP transit strategy is to commence upgrading major transit corridors (LRT and mainline bus service) to primary transit service levels to “lead development” and stimulate land use intensification of activity centres and corridors.

The primary transit network is defined by the level, or frequency of service and not by the mode or vehicle that provides the service. It is comprised of a permanent network of high-frequency transit services (LRT, bus rapid transit, streetcars/trams and frequent bus service) that operate every 10 minutes

## Primary Transit Network

The City’s Key Directions for Land Use and Mobility recognizes that, in order to move towards an efficient city, land use and transit decisions need to be linked to ensure that the urban form supports quality transit service that is provided in a timely manner to support



or better over an extended operating period, seven days a week. The primary transit network will form the foundation of the transit system and will incorporate the highest standards with regard to level of service, operating speed, connectivity and amenities to attract new customers.

The primary transit network will be developed in phases over the next 30 years and will be monitored closely based on five key measures of transit service quality:

**1. Frequency**

During core operating periods, combined service frequency will be every 10 minutes or better. This level of service will enable seamless connections between transit services and make it possible for people living near these services to make spontaneous trips along the transit corridors without the need to consult a transit schedule.

**2. Span of service**

Core operating periods on the primary transit network will be at least 15 hours a day, seven days a week. Less frequent service will continue to be provided outside the core operating period. This is important to ensure that all types of trips can be accommodated on the primary transit network – not just work and school commuting.

**3. Speed and directness**

Route directness and operating speed are critical to the success of the primary transit network since most travellers will choose the fastest mode when planning their trips. A range of transit priority measures will be implemented with a “transit first” philosophy along the primary transit network.

**4. Service reliability**

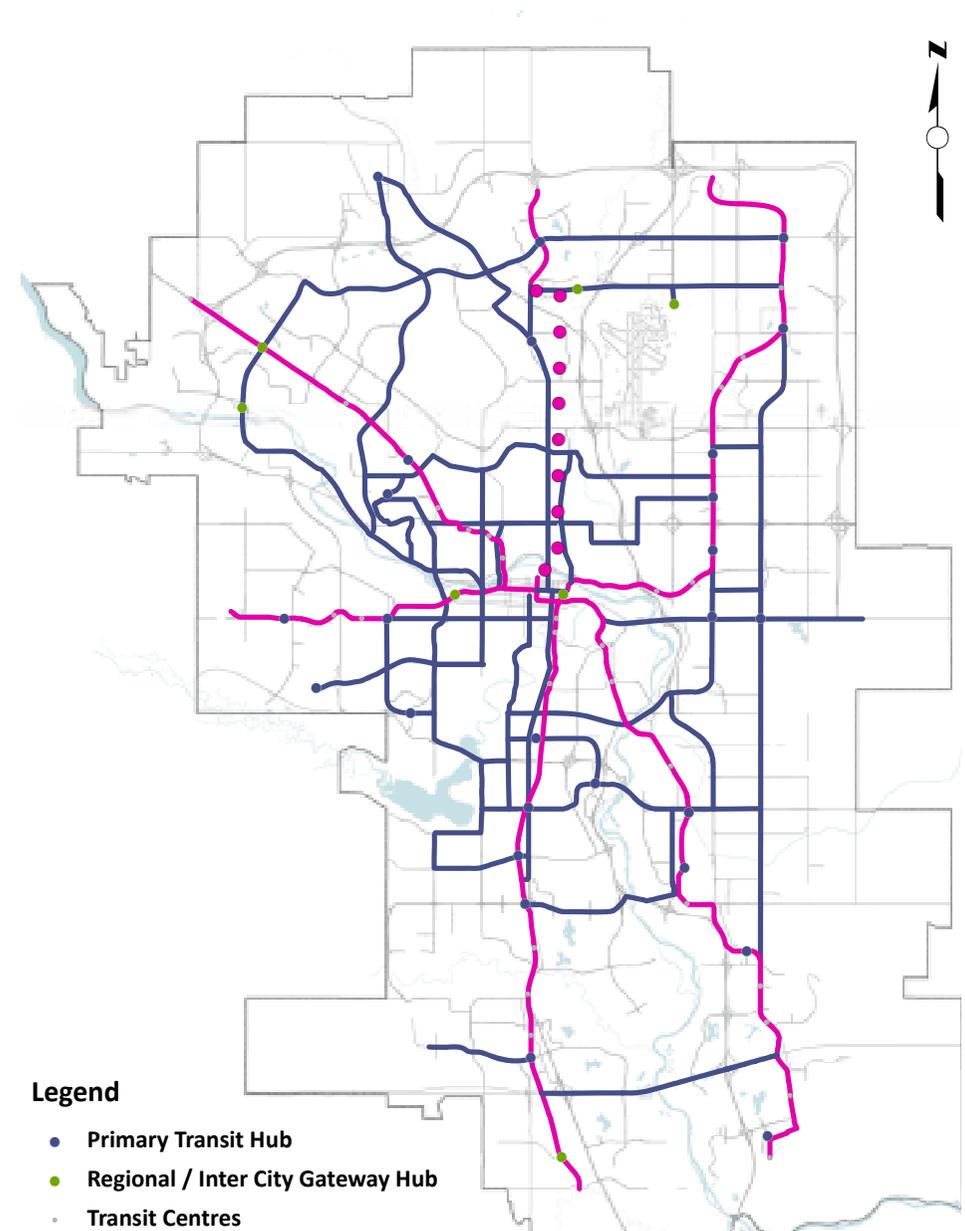
Service reliability is one of the critical measures of transit service quality. Users

can expect the primary transit network to operate on a reliable schedule to minimize customer wait times. All primary transit services should operate within three minutes of scheduled departure times.

**5. Increased transit capacity**

The primary transit network will be closely monitored to ensure that sufficient capacity is available to accommodate ridership demand. Improved frequencies and selection of appropriate transit vehicles will be necessary to provide adequate capacity for a comfortable ride. Strategically located activity centres and corridors will also support more efficient use of transit by supporting more balanced, two-way passenger flows on the primary transit network.

**Primary Transit Network**



**Legend**

- Primary Transit Hub
- Regional / Inter City Gateway Hub
- Transit Centres
- Primary Transit Network (mode to be determined based on corridor development)
- Skeletal Light Rail Transit
- Alignment TBD

## Marketing the Primary Transit Network

Calgary Transit will need to educate existing customers, prospective customers, citizens and organizations on the staged implementation and permanency of the primary transit network (PTN) as well as its benefits.

### The PTN offers the following benefits to existing transit customers:

- » Easy – It is easy to identify PTN services by their unique brand/image.
- » Short wait times – Short wait times for buses and trains makes connections easy.

- » Schedules – Customers don't need to consult a schedule because a bus or train will arrive within 10 minutes.
- » Shorter travel times – Travel time is reduced because waiting times are short.
- » Convenient – Transit is more convenient to use.

### Benefits to non-customers:

- » Shorter wait times – Easier connections and added convenience will entice more Calgarians to ride transit.
- » Improved service – Making transit more convenient will take more personal vehicles

off the road, reducing congestion and demand for limited parking.

- » Less chauffeuring of dependents who are unable to drive.

### Benefits to Calgarians:

- » Increased value – Homes and offices with excellent transit access and service are more marketable.
- » Access – Connections between people and places are improved with frequent transit.
- » Information is available to Calgarians who want to find out if their home or job is near frequent service.

To take full advantage of the PTN, Calgarians will need to know where primary transit service is available. Currently, it is available on all CTrain lines and on Route 3, north of Heritage Station. A map indicating primary transit and frequent service routes will help identify these corridors.

Physical markers can be added to bus stops where frequent service is provided to indicate the higher level of service. The markers will be easy to identify and will make it easier for customers and non-customers to

understand where frequent service is available.

In addition, Calgary Transit will need to communicate the annual progression of the PTN similar to the LRT network. This will help position Calgary Transit as the preferred transportation choice in Calgary.



*“Expand current services to accommodate the more active generation of healthier seniors”*



*“Continue to provide a viable effective transportation option for all Calgarians, especially those that utilize Access services”*

## Access Calgary Service and Integration With Other Calgary Transit Services

Access Calgary (a service of Calgary Transit) provides transportation services for Calgarians who are not always able to use Calgary Transit buses and CTrains due to limited mobility. Access Calgary offers a shared-ride, door-to-door service within Calgary's limits. Its services are integrated with Calgary Transit's fixed route services and regular transit tickets and monthly passes can be used as fare payment for Access Calgary services.

Access Calgary is responsible for determining the eligibility of applicants for service and also for booking, scheduling and dispatching trips. It delivers safe, responsive and courteous transportation services through partnerships with service providers, including Calgary Handi-Bus and taxi companies. Service is provided on specialized buses, accessible taxis (retrofitted vans), sedans and minivans. Access Calgary is a public transportation service and

should not be confused with private taxi, medical or emergency transportation.

Access Calgary provides over one million trips each year to nearly 15,000 Calgarians with disabilities. Three hundred new customers are approved for its services every month. Through its eligibility determination process, Access Calgary creates an equitable and integrated system to meet customers' needs based on a range of accessible transportation services available in the community.

Travel training and educational materials are provided to seniors and people with disabilities to encourage self-confidence and independence when using Calgary Transit services.

Making the transit system accessible (stations, vehicles, information) is a priority to ensure all Calgarians are able to use public transit.



## Vehicle Types

Calgary Transit uses a number of vehicle types to serve customers based on ridership.

- » Access Calgary vehicles: accessible vehicles are used for door-to-door, shared-ride transit services for people with disabilities.
- » Community shuttles: smaller vehicles are used to introduce service to new communities and on routes that have fewer passengers. Community shuttles typically have a

seating capacity of up to 24 passengers. Because community shuttles cost less to operate, they allow Calgary Transit to provide service on routes and in areas that would not be viable with a larger bus.

- » Bus: the traditional 12-metre-long bus is the workhorse of Calgary Transit's fleet. About 800 of these buses provide service to Calgarians every day of the week. Able to carry 65-75

passengers, one bus can take more than 50 personal vehicles off the road, reducing road congestion, reducing the demand for new roads and bridges and lessening the demand for limited parking spaces.

- » Articulated bus: 18-metre-long articulated buses can carry 125 passengers and are used on routes with high ridership or where additional

capacity is needed during peak travel times.

- » Light rail transit: Calgary Transit has a fleet of approximately 200 light rail vehicles to provide service on the four legs of the LRT system, commonly called the CTrain. A three-car CTrain can carry approximately 600 people. The CTrain moves approximately half of Calgary Transit's customers each day.



*“Good drivers, polite and knowledgeable.”*



*“Generally the staff are courteous. Perhaps consider having periodic training sessions on customer service such as how to deal with difficult passengers (for drivers).”*

Vehicles	Passengers
Access Calgary	<10
Community Shuttle	<24 seated
12-metre bus	65-75
18-metre bus	125
CTrain (three-car)	600

## Bus Rapid Transit (BRT)

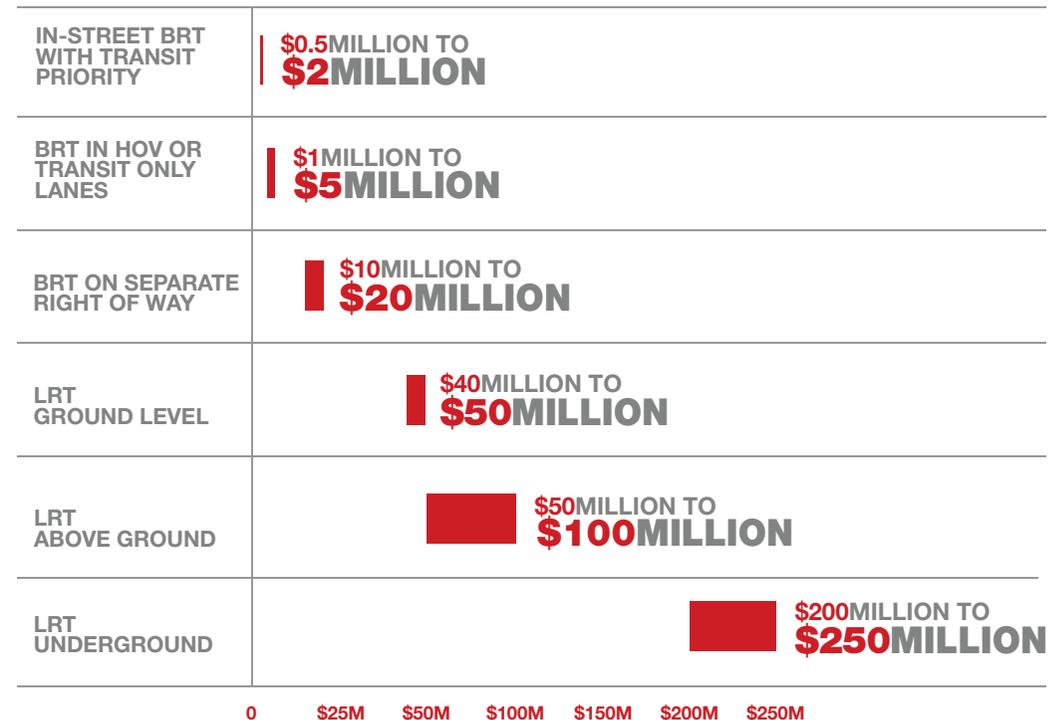
In Calgary, BRT is limited-stop bus service, provided on existing streets, generally mixed with private automobiles. Transit is given priority at traffic lights and in some cases transit-only lanes or queue jumps are provided to reduce delays to buses caused by congestion or traffic lights.

In-street BRT is the typical bus rapid transit service provided in Calgary. The infrastructure investment is relatively low and passengers can travel to their destination faster than on local bus routes. Calgary has used BRT services as a precursor to LRT in each of the corridors where LRT was built.

The role of BRT is described in the CTP as a network of radial and cross-town services that operate in dedicated rights-of-ways, high-occupancy-vehicle (HOV) lanes and mixed traffic with transit priority at traffic bottlenecks and signalized intersections. RouteAhead's 30-year capital plan indicates the location of future BRT

infrastructure. Transit service in these corridors will begin with BRT service and may eventually evolve into higher order rail service based on land use, travel demand and other factors.

# INFRASTRUCTURE COSTS FOR BRT AND LRT CONSTRUCTION PER KILOMETRE



## Light Rail Transit (LRT)

LRT is a mode of public transportation that primarily, but not exclusively, uses separated rights-of-way, usually with electrically-powered vehicles and lower passenger capacities and running speeds than heavy rail. Light rail infrastructure (rail, stations, vehicles) generally costs less than heavy rail, but is far more expensive than BRT systems.

Heavy rail is a term used for subway/metro operations (such as Toronto's subway or Montreal's Metro) and commuter rail operations (such as Vancouver's West Coast Express, Toronto's GO Transit, or Montreal's Trains de Banlieue).

Calgary's LRT, the CTrain, moves about 50 per cent of Calgary Transit's passengers and accounts for only seven per cent of total operating hours.

LRT is effective at generating ridership on the transit system because of the high capacity, high frequency nature of this technology. Investment of public dollars in LRT infrastructure (tracks, stations) has been shown to attract investment from private companies in new developments and redevelopment of older sites to higher, transit-supportive densities.



## Transitway

In Calgary, transitways can be a number of different things. They can be comprised of transit-only lanes separated from regular roadways, separate lanes on existing roadways, shoulders on an existing roadway, or any combination of these. In each case, the transitway lanes are for the exclusive use of transit and emergency services vehicles, and provide transit customers with a number of benefits.

A transitway:

- » reduces travel times
- » increases speed of travel
- » improves schedule reliability
- » reduces operating cost
- » increases the attractiveness of transit as a travel option
- » increases safety by reducing conflicts with transit vehicles

The following are examples of different types of transitways, existing or planned in Calgary:

- » Separate roadways are proposed as part of the SETWAY (Southeast Transitway) that will be built to service southeast transit customers in the absence of sufficient funding for LRT. The transitway will be separated from regular traffic by a physical barrier.
- » Separate lanes on existing roadways have been built on Centre Street North at McKnight Boulevard. The separate bus-only lanes allow transit vehicles to travel more quickly through the area.

- » Shoulders on a roadway that can only be used by transit vehicles have been implemented on Crowchild Trail. This alleviates the bottleneck entering the downtown from southwest Calgary, saving customers up to 10 minutes on each morning trip into the downtown and increasing the reliability of service. This type of transitway is part of the future Southwest Transitway.

Transitways reduce transit travel times because transit vehicles do not get stuck in traffic. This helps provide reliable service that customers can count on without much of the uncertainty produced by traffic congestion or collisions. Another advantage of transitways is increased efficiency, leading to lower operating costs. Fewer buses are required to provide the same level of service when the buses can travel faster, move more people and avoid delays on congested roadways.



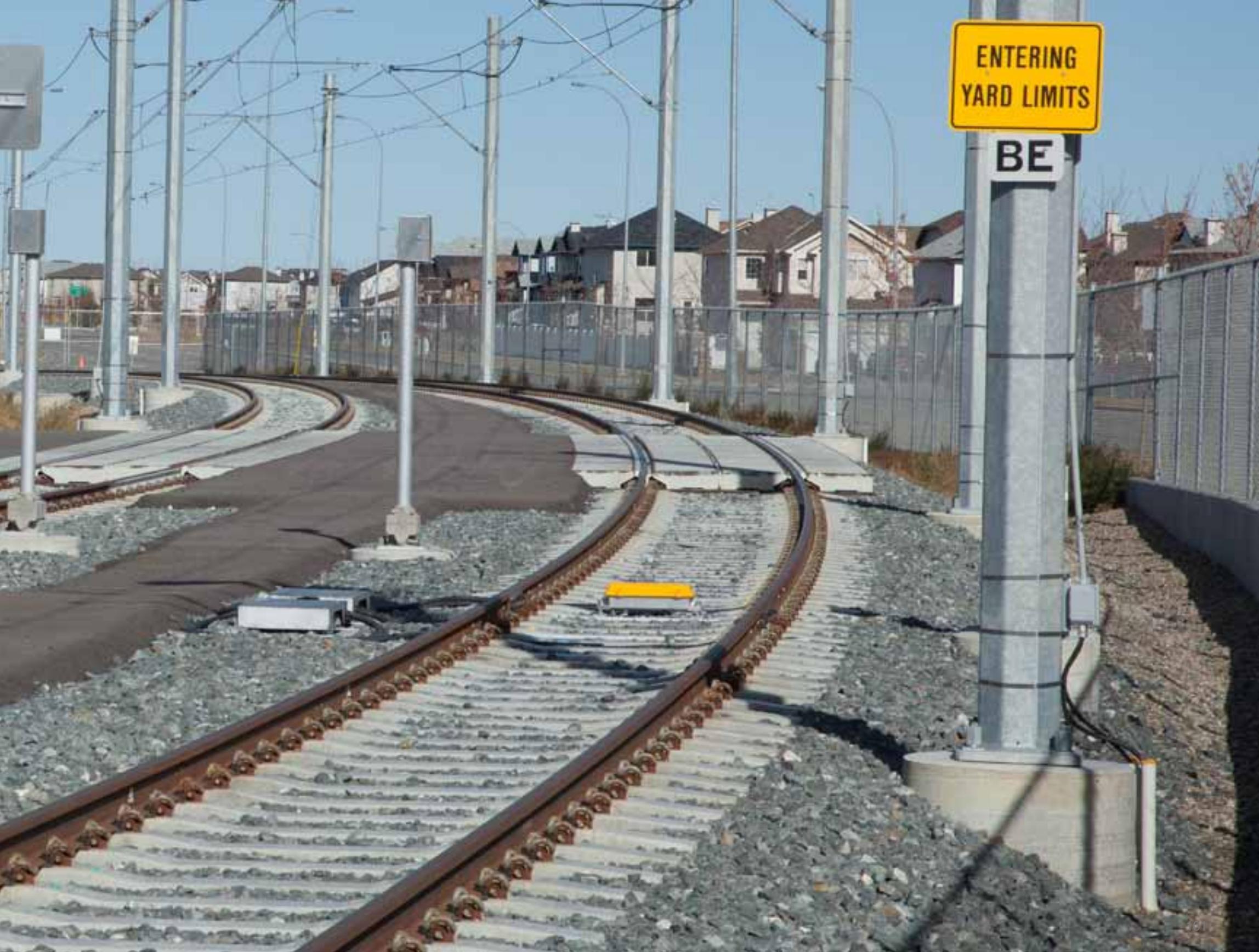
ENTERING  
YARD LIMITS

BE



**ENTERING  
YARD LIMITS**

**BE**



## Considerations for Evolution of Transit Services

The intensity of service and choice of vehicle technology/capacity in a rapid transit corridor should evolve over time to meet changing demand, land use characteristics and expectations of customers and residents. Planning is required to forecast the future population/land use/transit demand, identify and reserve rights-of-way, locate transit facilities (including stations, park and ride lots and maintenance facilities) and identify means of access to stations, buses and terminals.

Technology that is less permanent and less capital intensive, such as local buses and BRT can be implemented to develop travel patterns, offer transportation choice and build a solid foundation for progression to higher-capacity transit technologies.

Mode progression in a corridor is not a linear activity that should be defined solely by ridership or available technology. There are many factors that influence mode

progression, including but not limited to: land use intensity; urban form and adjacent development; availability of capital funding; operating and maintenance costs; long-term plans for transit and the city; environmental/emissions targets; system capacity; desired travel time; travel reliability; and readiness, both in terms of project delivery and impact to adjacent residents and businesses.



## Transition from BRT to LRT

In Calgary there have been several successful examples of mode progression in rapid transit corridors. The Blue Arrow Bus Express began serving residents in the Macleod Trail corridor in 1972, prior to the opening of the south LRT in 1981. In-street BRT was introduced on Route 301 in 2004 in the Centre Street (north) and Bow Trail/17 Avenue (west) corridors prior to opening West LRT in 2012. This approach, along with other factors, has helped Calgary's LRT become one

of the highest ridership light rail systems in North America.

Calgary's LRT network is the backbone of the system. It is frequent and moves large numbers of passengers seven days a week. The CTrain carries about the same amount of people as the entire citywide bus network. When compared only to BRT services, the CTrain carries 13 times as many passengers. The CTrain moves more people with fewer operators because of the large capacity of

the trains (approximately 600 passengers per three-car train).

BRT service is generally more flexible, meaning it is easier to add additional service or remove service without disrupting operations. For example, if additional service is required another bus can be inserted at a point along the route to serve passengers – this is difficult to do with the train.

The CTrain has helped shape land use and development in the city,

whereas it is more difficult to measure the BRT network's effect on land use because it is relatively new (eight years old versus 31 years for the train). It is expected that sustained BRT service, in conjunction with the primary transit network, will help shape land use and development decisions.

LRT infrastructure differs from BRT infrastructure in terms of the impression of permanency, or long-range stability. For instance, a concrete guideway, or train tracks signal to

developers and investors that the infrastructure will be in place for the long-term. In-street BRT suffers in this regard because the infrastructure is often smaller in scale and not as visible, even if the service is intended to continue for a long time period or be a precursor to future LRT investment. Transitways can have more permanent infrastructure and will inspire more transit-oriented development than in-street BRT.





# driving ideas in designing the transit network

Section 1 of this plan discusses how The City's plans and investments in public transit are changing. Transit service is:

- » Evolving from *peak-oriented* service to all-day service.
- » Evolving from a focus on *coverage* to a focus on *ridership*.
- » Evolving to a grid network.
- » Improving in frequency, reliability and speed.

These network design concepts are drawn from transit consultant Jarrett Walker's book, *Human Transit: How clear thinking about public transit can enrich our communities and our lives*.

There are fundamental questions about the role of transit in Calgary that drive the design of the rapid transit network. Should transit primarily serve commuters? Should it provide a basic mobility service for those unable to drive? Should it make living without a car, or fewer cars, a viable option for Calgarians' daily needs? Or should transit, to some degree, serve

all of these purposes? The answers to these value questions translate into how communities plan transit networks. Calgary must find the desired balance and evolve to meet future goals (*all-day* service rather than *peak-oriented*, for instance) while delivering service cost-effectively, within the constraints of available budgets.

## Peak-oriented versus all-day

A network that is *peak-oriented* focuses on morning and evening rush hours. Outside of the peak times, there may be only limited basic services on fewer routes and at a low frequency. Lower density suburban areas and uni-centric cities tend to focus more on *peak-oriented* services. Peak services are considered the fundamental

product while “off peak” services are secondary.

A network that is more focused on *all-day* service provides a relatively even level of high frequency service throughout the day. Denser and more poly-centric cities tend toward all day service. With *all-day* service, a more diverse range of trips that happen outside the peak period

work commute can be served (depending on the demand for the service, and the resulting revenue recovery). This allows more households to live without a car, or with fewer cars. *All-day* service is considered the fundamental product, with supplemental service added at the peak to meet demand.



## Coverage versus Ridership

All transit agencies face two contradictory goals – to serve all parts of a community and to maximize *ridership* within a fixed budget. The first goal, *coverage*, fulfills the desire to provide equity in the availability of transit service regardless of the level of *ridership* that's achieved (within financial constraints). This arises from the value placed on transit as a social service. The second goal, *ridership*, speaks to a desire to maximize the efficiency of the system (productivity or recovery from fares) by targeting locations

and routes within the city capable of supporting higher frequency, higher capacity transit service.

In every city, the allocation of resources for transit usually falls somewhere within the spectrum between the competing goals of *ridership* and *coverage*. Articulating *ridership* and *coverage* goals through service standards will provide clarity on transit network design and resource allocation.

**Calgary's goal under the MDP and the CTP is to increase density in activity centres and corridors, resulting in a more poly-centric city (many high-density mixed-use areas of people and jobs). The PTN addresses this goal by providing a robust network of frequent all-day service. The PTN will shift transit service toward an all-day focus, balanced by a ridership goal.**



## Connective Grids

Designing the transit network is, at least in part, a geometric exercise. A grid network can transport many people to many different destinations as quickly and efficiently as possible, as long as the wait time between connections is short. A connective grid results in an easier to understand network that allows greater frequency of service for the same budget.

### Grids with straight lines versus deviating/circuitous service

The fastest way between point A and point B is a straight line. This is as true for transit as it is for anything else – it's a geometric fact. Transit planners take into account the cost to customers (additional travel time) and the transit agency

(operating costs) that result from deviating off the primary course of a bus route to serve a destination more directly. Similarly, The City avoids highly circuitous road networks that require routes to meander inefficiently through communities. These deviations are needlessly inefficient and slow compared to areas of the city where a grid road network or bus-only crossings are available. This speaks to the importance of road patterns that allow transit to travel in straight lines as well as the need to cluster transit trip-generating uses such as employment or education “on the way” rather than “out of the way”.

**Historically, Calgary's development pattern has been dominated by a dense downtown surrounded by a vast area of low-density residential development. This pattern has resulted in a radial transit network design. However, this pattern is beginning to evolve. There are large employment hubs emerging such as those at the University of Calgary/Foothills Hospital and Quarry Park. As a result, in addition to continuing to serve downtown, the transit network needs to evolve to connect residential areas, new activity centres and the downtown through a connective grid.**

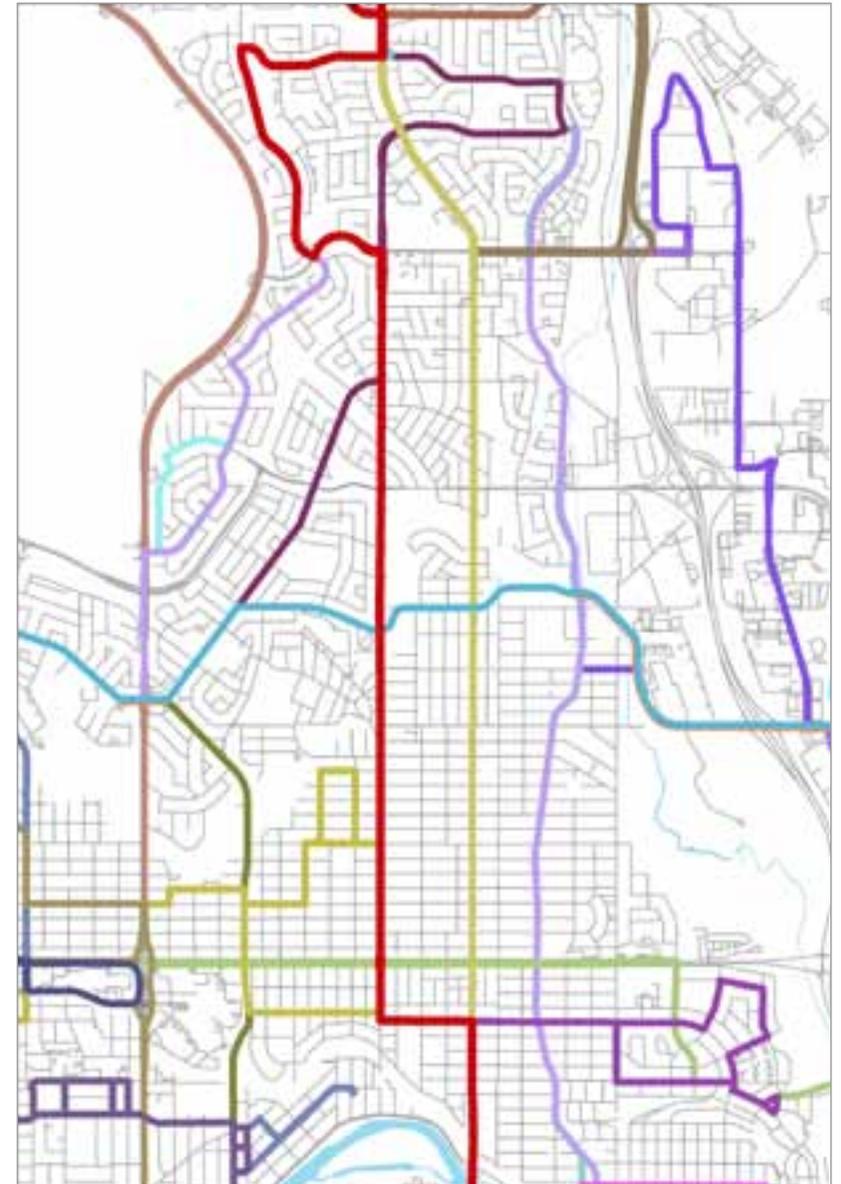
### The connected grid – understanding the benefits of connections

As cities grow and become more complex – from more uni-centric (where most people travel to the same place at the same time – a “radial” network) to more poly-centric (many people going to many different places) it makes designing a transit network more complex.

In *Human Transit*, Jarrett Walker explains why a connected grid provides the benefits of a simpler network and allows for

greater frequency of service. In his scenario, there are three primary residential areas and three major destinations – downtown, a college and a mall. In designing a network for this scenario one could directly connect each residential area to each major destination. However, an alternative is to implement a connective grid. The cost to deliver the service is similar in both cases.

Calgary's post-World War II residential development pattern has resulted in many circuitous road patterns in relatively low-density residential communities. This is highly inefficient for the operation of transit. For transit to be effective, street networks need to be designed as a grid with straight and direct routes. In some cases, this can be achieved using bus-only crossings in communities.



	Infrequent direct service option	Frequent connective service option
Route design	Route from each residential area to each and every activity centre	Route from each residential area to one activity centre, connecting with other routes at a strategic point.
Connections (transfers) required travelling from college to mall?	Yes, through residential area	Yes, through connection hub
Connections required getting downtown from each residential area?	No	Yes, in some cases.
Number of routes required	Nine	Three
Frequency	Bus every 30 minutes on every route	Bus every 10 minutes on every route
Customer service benefits	Direct route if you happen to be going certain places	“Show up and go” – bus arrives every 10 minutes, no matter where you are headed



**Key elements:  
Improving frequency,  
reliability and speed**

The frequency of transit is the greatest factor in allowing people to travel spontaneously and has the greatest bearing on waiting for transit. It is, unfortunately, often undervalued in how transit is thought of and marketed. As discussed earlier in this section, the frequency of the PTN will be emphasized in future marketing.

Being able to show up at a transit station knowing the bus or train will be there soon, without needing to look at a schedule, is what makes transit feel truly convenient and empowering. As a result, frequency is a key component of the rapid transit network.

Speed is one of the most basic desires in

**The primary reasons why The City of Calgary implements transit-only lanes are to reduce delays and improve reliability for customers. Bus-based transit-only lanes are relatively inexpensive compared to LRT, for example, but can significantly reduce delays and improve on-time schedule performance.**

**Transit-only lanes are often perceived by motorists as “empty”. Some assume that a bus lane that is not lined with buses isn’t productive. In fact, it’s quite the opposite: only a blocked transit-only lane appears to be full of buses. The lanes give travel speed advantage to the high number of people in the transit vehicle and make the most of public investment in transit operating funds. The greater the travel time advantage, the more likely the bus is to be busy, and the less time it will spend dwelling in the lane. The less time a bus is there, the better the lane is working!**

transportation – to get as quickly as possible from origin to destination. However, it’s easy to mistake the traditional notion of speed with the customer’s desire to get to the destination without being delayed along the way. When working on “speeding up” public transit, the most important thing from the customer perspective is to remove delays.

Of course reliability and unexpected delays such as medical emergencies and mechanical breakdowns happen. Transit agencies work hard to avoid unforeseen delays as much as possible. However, to “speed up” service, it’s more important to focus on routine delays, ones that are common in everyday operation. Examples of these include traffic congestion, delays

due to traffic signals, and delays associated with transit service, such as boarding/alighting, fare collection on vehicles, and acceleration/deceleration of the vehicle. The overall delay for transit vehicles is most often affected by stop spacing. This is why rapid transit lines focus on more widely spaced stops, to reduce travel time delay and to increase the average speed of the transit trip.

# park and ride policy

Park and ride is an important service provided for Calgary Transit customers and it is in high demand. However, due to a number of factors

described below it is in limited supply and therefore often falls short of demand.

Currently, Calgary Transit provides about 16,000 parking spaces at 33

locations. Parking at CTrain stations accounts for over 13,000 of these total spaces. In addition, about 1,400 park and ride spaces are provided by other parking lot owners at five locations.

Park and ride facilities compliment public transportation by providing an option for those people wishing to travel by transit but who need a car for some portion of their trip. As well, park and ride

serves those who do not have other options to access LRT such as those living outside of Calgary or in new communities where regular bus service has not yet been introduced. The majority of park and ride users are traveling to the downtown for work so park and ride offers a high level of convenience and a savings over the higher cost of downtown parking. In total, park and ride users account for about 10 per cent of weekday transit customers.

Calgary Transit has park and ride lots at least five kilometres from the downtown so they intercept auto commuters at the earliest opportunity and encourage continuation of their trip by transit. When viewed in this context, park and ride facilities perform an important role as a substitute for downtown parking and as a tool for managing roadway congestion, helping to preserve the environment of established inner city communities.

The challenge with park and ride is determining the appropriate balance of these facilities relative to other transit access modes and land use opportunities. Park and ride is only one way to access transit service and it must be planned in concert with other transit access modes (i.e. feeder bus, walking, cycling and passenger drop off). Since Calgary's sustainable development goals are focused on minimizing auto travel, priority should be given

to providing service and facilities that favour access to LRT by feeder bus, walking and cycling. Park and ride lots require a significant investment to construct (\$5,000 to \$8,000 per stall for surface lots and \$35,000 to \$50,000 for structured parking, plus land costs) and funds to operate and maintain (e.g. security, snow clearing, cleaning, sweeping, line painting, electricity, garbage collection and patching).

Land near LRT stations and major bus stops is valuable – it is about 15 to 30 per cent higher in value than other comparable lands. Park and ride lots preclude transit oriented development (TOD) on this land. Calgary's transit oriented development guidelines also discourage auto oriented uses that require large amounts of parking. Transit oriented developments typically result in several times more ridership than would be generated from land

devoted to parking. In this context it could be argued that a park and ride lot next to an LRT station is not the best use of this land. While park and ride is a good service that is highly valued by those who use it, it requires careful management. Too much parking can detract from the general goal of minimizing auto use. The traffic generated by a large park and ride lot can negatively impact local community streets and the quality of life in adjacent neighbourhoods. As well,



excessive amounts of park and ride will take ridership away from local feeder bus services. Without sufficient ridership support, these local buses that also serve local community destinations such as schools, shopping and recreation facilities may not have sufficient ridership to be operated at attractive service levels.

On the other hand, too little parking may restrict transit ridership in a corridor – particularly in new areas where there are no other options for accessing the system. As well, without some parking provided in

corridors, parking pressures in adjacent communities and businesses will be high.

With over 40 years experience with park and ride, Calgary Transit has determined that it is necessary to strike a balance between providing a service that reflects demand while recognizing the costs and other implications. The determination of park and ride requirements over the past 30 years has been based on consistent application of Council-approved LRT access guidelines. These guidelines specify that sufficient

park and ride facilities should be provided at CTrain stations and along major bus corridors (e.g. BRT) to accommodate approximately 15 to 20 per cent of expected peak period transit trips from the adjacent communities. Calculation of the park and ride supply considers the population of the transit service area for each station, the number of transit trips external to the community, percentage of transit trips accessing the station by auto and the efficiency of the parking lot.

As the transit system has been extended, there are

several park and ride lots where the supply of parking greatly exceeds this policy (e.g. Anderson, Fish Creek-Lacombe, Whitehorn and Brentwood). In these areas there are opportunities for redevelopment of a portion of these lands for transit oriented development. As well, where LRT and bus services in an area provide excellent access opportunities by local bus, walking and cycling, the need for parking is reduced. It is recommended that the current policies related to the provision of park and ride be reviewed and updated.



*“Bus Park n Rides – more of them”*



*“Making buses more frequent and parking more expensive so people are encouraged to ride”*





# rapid transit network

The RouteAhead 30-year rapid transit plan was developed in coordination with the Investing in Mobility project team to ensure strategic alignment between the two projects. This plan

also supports The City's Framework for Growth and Change. RouteAhead used input from Council, Administration and the public to create the plan and the capital projects included in it are new

customer service-oriented rapid transit projects. Programs (such as bus purchases), back-of-house facilities (such as storage and maintenance facilities), and lifecycle maintenance are captured in the Investing in Mobility project and discussed

later in this section. The prioritization of projects for RouteAhead and the 10-year Investing in Mobility Plan is based on the evaluation criteria described on the following pages.

## Alignment with Investing in Mobility

Investing in Mobility, formerly called the Transportation Infrastructure Investment Plan (TIIP), is a 10-year plan for major transportation capital projects. Currently, Investing in Mobility identifies approximately \$4.5 billion worth of capital infrastructure requirements to progress towards the goals of the CTP.

Using transparent prioritization criteria, the Investing in Mobility team ranked the activity centres and corridors, in terms of population and employment, identified in

the MDP. This provided RouteAhead with clarity on where to focus investments geographically to improve mobility and to coordinate with city-wide goals.

The Investing in Mobility funding allocation strategy was approved at the July 30, 2012 Regular Meeting of Council and included funding allocation ranges, depending on funding eligibility, for mobility hubs and transit corridors (40-50 per cent), goods movement and traffic growth (25-30 per cent), transportation network optimization (five-10 per cent) and lifecycle

and asset management (20-25 per cent).

This was the first update to TIIP/Investing in Mobility since the CTP was approved by Council in September 2009 and the first opportunity to align transportation capital investments with CTP and MDP policies, Council's Fiscal Plan for Calgary, the 2020 Sustainability Direction and the RouteAhead strategic plan.



*“More bus lanes so buses are not stopped in traffic”*

## Project Identification

Projects are identified for the rapid transit network. The rapid transit network is designed to provide limited-stop transit service offering customers a faster way to travel. Calgary's future rapid transit network will consist of LRT, BRT, bus-only lanes or high-occupancy vehicle lanes (HOV) and transitways. This limited stop service is distinguished by a heavy investment in capital infrastructure and a high level of transit priority.

The rapid transit network is part of the PTN, which refers to transit service with a frequency of 10 minutes or better, 15 hours a day, seven days a week. Many routes in the PTN include closely-spaced stops but routes on the rapid transit network will feature limited

stops and will be a faster way to travel.

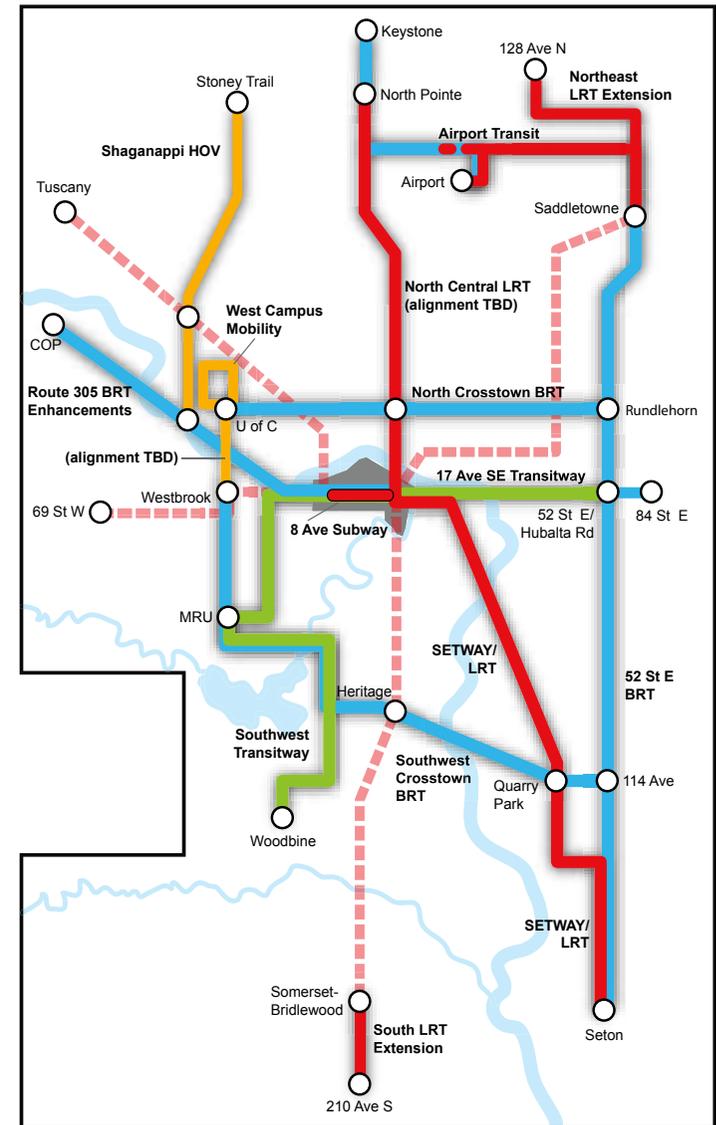
Transit priority measures will be implemented to improve travel throughout the PTN, but big infrastructure investments and higher capacity vehicles will be used in the rapid transit network.

Through engagement, including input from Calgary Transit customers and employees, key stakeholders and citizens, outstanding items from previous capital plans and City Council direction, several capital projects were identified. The map at right illustrates the proposed future rapid transit network.

Projects included in this analysis were identified through:

- » Outstanding items from previous capital plans, such as TIIP 2009-2018 and the Calgary Transit 30-year capital plan.
- » Council direction.
- » Public engagement, including input from key stakeholders, residents, Calgary Transit customers and employees.

**Calgary Transit Future Capital Projects**  
(includes existing rapid transit network)



### Legend

- Terminus/Connection
- Existing LRT
- Proposed Transitway
- Proposed LRT
- Proposed BRT
- Proposed Rapid Transit (HOV or other)



305 BRT

202

6007