

The background of the cover is a photograph of a person walking away from the camera on a sidewalk. The person is wearing a dark jacket, dark pants, and a backpack. To the left of the person is a white bus with blue accents. The entire image has a blue color overlay. A white rectangular frame is positioned on the left side, partially overlapping the bus. Inside this frame, there is a yellow square at the top left and the title text in yellow and white. The text "EDMONTON TRANSIT SERVICE" is in yellow, and "ANNUAL SERVICE PLAN" is in white. Below the title, "2018/2019" is written in white. In the bottom right corner, outside the white frame, is the "ETS" logo in white on a dark blue background.

EDMONTON TRANSIT SERVICE

ANNUAL SERVICE PLAN

2018/2019

ETS

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MESSAGE FROM BRANCH MANAGER



Over the course of 2019, Edmonton Transit Service (ETS) will continue to evolve and adapt, with a heightened focus on safety and service. By delivering on safety and service, we expect ridership to recover over time. To ensure our success, this plan identifies priorities for 2019 while leveraging longer-term opportunities, such as regional integration, the Bus Network Redesign and implementing the Regional Smart Fare Electronic Payment System.

Priorities for 2019:

- **Safety & Security:** Several new processes and measures are being implemented to further enhance safety and security for passengers and staff, including 24/7 onsite security guards at selected transit centres and LRT stations, additional operator training and on-board cameras, more Control Room staff, retractable bus shields and developing Facility Design Guidelines.
- **Bus Network Redesign:** Based on extensive public feedback, the new bus network will be finalized in 2019 and rolled out in 2020 with provision for post-implementation schedule adherence review.
- **Transit Centre/Station Improvements:** Through the Public Transit Infrastructure Fund (PTIF), several transit centres and LRT stations will have improved waiting areas, lighting, bus bays, surveillance, warning tile (LRT) and, where appropriate, rehabilitation of mechanical, electrical and ventilation systems.
- **Ride Transit Program:** This program offers Edmontonians experiencing low-income the ability to purchase monthly transit passes at a subsidized rate, helping them gain better access to various services. Based on successful program evaluation results, the Ride Transit program recently received approval for permanent City funding.
- **Customer Journey Mapping:** Identified as a priority in the Transit Strategy, ETS is always striving to better understand our customers' experience. Customer Journey Mapping will ensure we continue to learn from insightful feedback.
- **Advancing Smart Fare:** The Regional Smart Fare Electronic Payment System will be implemented in Edmonton, St. Albert and Strathcona County in the 2019–2022 budget cycle, and will provide customers with an easy-to-use account that uses a fare card, credit and debit cards or other compatible devices.

Through these strategic improvements, ETS will position itself as an industry leader while meeting City Council goals and corporate outcomes.

Last, but not least, I'd like to thank those who provide our service every day to thousands of Edmontonians, whether directly or behind the scenes. Your continued dedication and support is much appreciated.

Eddie Robar





1 PLAN SUMMARY

1.1 INTRODUCTION

ETS is a fully integrated and progressive public transit service that provides over 87 million rides each year. Transit plays a vital role in city building by connecting Edmontonians to their community, work and passions. Through a corporate culture that promotes continuous learning and improvement, ETS is always assessing how it can best support Edmontonians' transit needs and expectations.

This Annual Service Plan provides an overview of the work planned by ETS for the upcoming year, as the organization strives to connect people, places and possibilities. This plan includes information on service changes, major projects and infrastructure developments taking place in 2019, while recapping some recent accomplishments. Appendices with financial and performance reporting are included to provide a broader understanding of inputs and outcomes for ETS.



1.2 HIGHLIGHTS FROM 2016 – 2018

Over the past two years, ETS has successfully implemented a number of service improvements, along with innovative measures to expand accessibility and affordability. ETS also delivered many strategic projects and municipal priorities that ultimately provided better transit access to more Edmontonians.

Service Reallocation

In 2016 and 2017, ETS strategically reallocated 50,000 service hours each year to address overcrowding and on-time performance challenges. To achieve this within existing resources, ETS reduced service on routes that did not meet the performance standards for ridership set by City Policy C539. The 2016 and 2017 Service Reallocation Plan redistributed two per cent of service hours from underperforming routes to address operational challenges and improve overall service for customers.

Smart Bus Implementation

Smart Bus refers to the addition of enhanced technology to provide better information to customers, enable better management of on-road bus service and data collection to assist planners with designing service. Smart Bus components include automated stop announcements, computer-aided dispatch and an automatic vehicle location system to enhance incident management and real-time schedule information for riders. The installation of Smart Bus technology on the entire bus fleet was completed in September 2016.

Fort McMurray Fire Relief

During the devastating wildfire of 2016, ETS provided free transit for evacuees and an additional shuttle service between the airport and reception centre. ETS also participated in fire suppression efforts, transporting firefighters and equipment to Fort McMurray. Through a spirit of collaboration and compassion, ETS staff also coordinated and volunteered to host a special “Stuff a Bus” campaign to collect aid, which raised over 22,000 kgs of food donations.

ETS Rebranding

In 2017, Edmonton Transit System rebranded as Edmonton Transit Service to reinforce our commitment to customer service. The name change also demonstrates the integration and cooperation of all ETS branches (Bus/LRT/DATS) to provide a public service focused on reliability, efficiency and connection.

Children 12 and Under Ride Free

In April 2018, Council approved allowing children 12 and under to ride transit for free if accompanied by a fare-paying adult. The goal of this program is to make it easier for children to get to school, but also enables families to move around our city more easily, reducing isolation and building community. This transit initiative is part of a Game Changer Action in the EndPoverty Edmonton strategy (endpovertyedmonton.ca/our-strategy/).

Ride Transit Program Pilot

This pilot launched in September 2017 and offers Edmontonians in need the ability to purchase monthly transit passes at a subsidized rate, which helps them be active members of the community with better access to education, employment and recreational opportunities. The results from a formal program evaluation prove that specific outcomes are being achieved, making transportation more accessible for low-income Edmontonians. This program is cost-shared with the Government of Alberta and recently received approval for permanent funding for the City's portion of the program. Ride Transit is part of a Game Changer Action in the EndPoverty Edmonton strategy.

LRT 40th Anniversary

April 22, 1978 was a historic day in Edmonton that marked the opening of the LRT in conjunction with the Commonwealth Games. The original LRT ran along the CN right-of-way from Belvedere to Coliseum and Stadium, then to Churchill and Central.

In June 2018, ETS celebrated the LRT's 40th anniversary. The occasion was marked by a successful event at D.L. MacDonald Garage, the LRT's Operations and Maintenance Facility. Over 1,100 enthusiastic citizens visited the garage to see the first train car that arrived in Edmonton in 1978, along with a facility tour that detailed every aspect of train operations and maintenance.

40 years of LRT facts:

- The LRT opened in time for the 1978 Commonwealth Games, had five stations and provided over 18,000 rides each weekday.
- The first train car in service is still operating today, having travelled over 3.2 million kilometres.
- Today, the two-model fleet (older U2s and newer SD160s) includes 94 train cars, 18 stations and provides over 110,000 rides each weekday.
- In 2017, LRT cars travelled over 9.2 million kilometres (almost 12 trips to the moon and back).





2 PROPOSED SERVICE ADJUSTMENTS 2019

2.1 CONVENTIONAL TRANSIT: BUS & LRT

ETS is an integral part of Edmonton's transportation network that offers citizens accessible, reliable and affordable travel options. With forecasted population growth, effective and efficient public transportation in Edmonton will continue to be an increasingly important factor that shapes our city. This section outlines a number of initiatives planned for 2019.

2.1.1 Service Adjustments

City Council will discuss potential service reductions as part of the fall 2019 supplemental operating budget adjustment process. Regardless of the outcome, ETS will be well positioned to achieve the guiding principles of the Bus Network Redesign project by maximizing efficiency and accessibility through insightful planning and scheduling. In addition, there will be some service changes on non-statutory holidays and special days that will help simplify service levels.

Throughout the year, ETS monitors ridership demand and uses customer feedback to make service adjustments. This is necessary to meet changes in travel demand and provide service to as many Edmontonians as possible.

2.1.2 Route-Running Time Analysis

Route-running is the time it takes for a bus to go from one Timing Point to the next Timing Point (a timing point is a marker along a set route such as a transit stop or station that a vehicle tries to reach at a scheduled time). ETS evaluates route segments to ensure the correct time is built into each route to achieve its desired schedule adherence. For 2019, using new analytic tools that leverage measurements collected by our Intelligent Transportation System (Transit Master), route segments across

the network will be evaluated and adjusted. Where necessary, segments may get additional time (if the segment runs late) or may have time trimmed when too much time exists. This is all part of maximizing bus efficiency to provide timely and reliable service to customers.

2.1.3 Deployment of Articulated Buses

In 2018, articulated buses (accordion-style) were deployed on express routes 15 and 100. ETS is monitoring ridership on these two routes, and may add extra articulated buses to address overloads and growing ridership. Articulated buses were no longer required on routes 8 and 9 as some passengers have shifted to the newer Metro Line LRT and route 15.

Furthermore, additional articulated buses will be purchased in 2019 and deployed in early 2020 for the Heritage Valley Park & Ride express service. Articulated buses are a cost-effective solution that provides improved precursor service for the Valley Line LRT.



2.1.4 Seasonal & Holiday Service Simplification

To simplify seasonal service changes, ETS has reviewed and reduced the number of schedule variations on statutory and non-statutory holidays and school breaks. As a result, service variations will be reduced and messaging will be simplified. Most holidays will now operate using Saturday or Sunday schedules. It is important for customers to note these holidays will have less frequent service during the morning and limited service to industrial areas.

Exception	Date	Service Level
Holiday Break	Jan 1	Sunday
Holiday Break	Jan 2–4	June Weekday
Family Day	Feb 18	Saturday
Reading Week	Feb 19–22	Weekday, no post-secondary specials
Teachers' Convention	Feb 28, Mar 1	Weekday, no school specials
Spring Break	Mar 25–29	Weekday, no school specials
Good Friday	Apr 19	Sunday
Easter Monday	Apr 22	Saturday with extra peak service
Victoria Day	May 20	Sunday
Canada Day	July 1	Sunday
Heritage Day	Aug 5	Sunday
Labour Day	Sep 2	Sunday
Thanksgiving	Oct 14	Sunday
Remembrance Day	Nov 11	Saturday with extra peak service
Fall Break	Nov 12–15	Weekday, no post-secondary specials
Holiday Break	Dec 23, 24, 27–31	Summer Weekday (July–August service levels)
Holiday Break	Dec 25	Reduced Sunday
Boxing Day	Dec 26	Saturday, extra service on route 4
New Year's Eve	Dec 31	Weekday, with free evening and late night service extended to 3am

2.1.5 Heritage Valley Park & Ride

In addition to the Public Transit Infrastructure Fund (PTIF) upgrades and improvements, construction of Phase 1 of the Heritage Valley Park & Ride also began in 2018, with the facility expected to open in late 2019. This first phase of construction includes a heated transit centre with 15 bus bays, a Park & Ride with up to 1,100 stalls and two Kiss & Ride drop-off locations. This facility will be expanded in the future to include more Park & Ride stalls, up to 20 bus bays, future LRT and other transit-oriented developments.

2.1.6 Groat Road Detours

ETS is implementing detours on routes 128 and 130, as well as School Specials 725 and 757, to avoid construction delays on Groat Bridge and to ensure the safety of bus passengers and those working on the bridge. These routes will detour to Government Centre, including bus stops near Corona LRT station. These detours will continue until summer 2020 and are anticipated to have a minimal timing effect for riders.

2.1.7 Downtown Road Construction Closures

The majority of trackwork for the Valley Line Southeast LRT will be installed in 2019. Since the rails will be installed along 102 Avenue in the Downtown core, this will involve the rotational full closures of 97 Street, 100 Street and 101 Street intersections for several weeks at a time. Once the timelines for these closures are finalized, ETS will detour all bus routes away from the construction and make adjustments to mitigate effects on passengers and operations.

2.2 PARATRANSIT: DATS

DATS is a safe, door-to-door, shared-ride service for Edmontonians who cannot use conventional transit for some or all of their travel needs, due to a physical or cognitive condition. With a focus on reliable customer service, DATS uses wheelchair-lift-equipped vehicles, minivans, accessible minivans and vans to provide over one-million specialized transit trips for approximately 10,000 eligible clients so they can reliably access work, medical, recreational and educational services.

2.2.1 Customer Service Improvements

Launch of Self-Serve Options

DATS rolled out new customer service features including the ability for clients to check the status of their ride via text message and receive an alert when their ride is close to arriving. The new tool modernizes the DATS experience, allowing users to easily access the service and get better information more quickly for improved planning. This type of tool has become an industry standard.

Increased Use of Metered Taxis

DATS expanded the use of metered taxis to five vehicles to deliver short blocks of trips in peak periods. This allows for greater capacity on any given day to meet fluctuating demands while reducing the average cost per trip.

Deployment of Automated Trip Booking Tools

DATS tested, piloted and fully deployed new automated tools in trip booking to allow agents to search for available trip times. The addition of this tool has reduced call times for DATS clients and improved the overall customer experience. The tool also supports better tracking of requested trip times, which will provide analytics to support improved service planning.



Installation of On-board Security Cameras

ETS is committed to safety across the entire transit service. All City of Edmonton DATS lift buses were equipped with on-board security cameras in 2018. This improves incident investigations, resolution and post-incident debriefs. The cameras also improve overall customer and employee safety.

Implementation of Demand Management Processes

New processes were developed in scheduling and booking to better manage increasing demand. This involved building in excess capacity to account for projected cancellations. For DATS clients, this means trip requests will no longer be rejected where anticipated capacity exists.

Increased Funding

As part of the 2019–2022 budget deliberations, City Council approved over \$2-million to help increase service during peak periods, as well as projected demand due to population growth and aging demographics. This amount will fund additional contracted resources to deliver roughly 90,000 additional trips by 2022.

2.2.2 Priorities for 2019

New Ambulatory Service Contract

The Negotiated Request for Proposals (NRFP) for DATS contracted service was released in late 2018 with the selection of successful vendors and a transition date of August 2019. The new contract will provide enhanced contract management, including a formal train-the-trainer model, technical integration of dispatch systems, rate audits and performance assessments. The contract has the potential to provide multiple competing vendors for expanded metered taxi service. The result could be cost savings, enhanced service flexibility and increased trip availability during peak demand.

Customer Journey Mapping

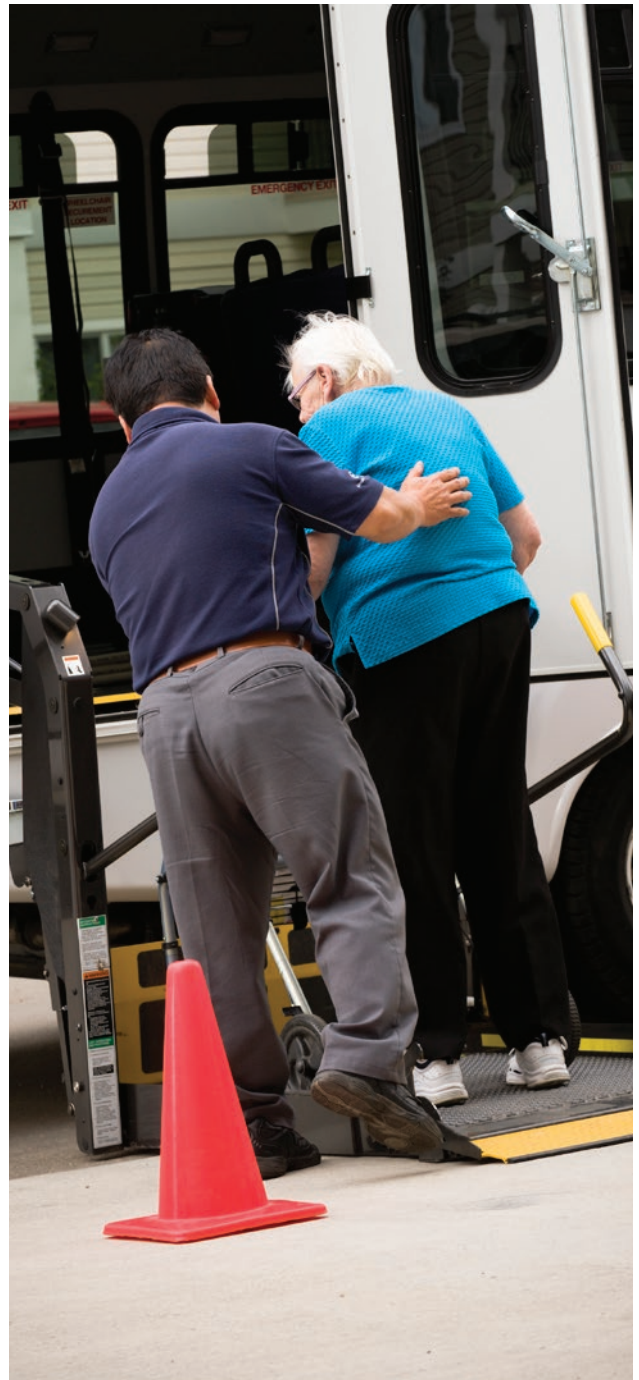
ETS is committed to improving customer experience across all services. As part of an ongoing engagement effort, DATS clients will be asked to help identify service principles and priorities that will better meet their needs. Potential client benefits could include shortened pick-up windows, introducing a drop-off window and/or developing new ways to integrate alternative service providers. The journey mapping project will be completed in summer 2019, with an implementation plan, based on findings, developed later in the year.

Continuous Improvement in Automated Trip Scheduling

Planned improvements to trip scheduling include map upgrades to better refine GPS locations and improve routing, as well as using segmented maximum ride time based on trip distance to improve customer experience and reduce ride times for shorter trips.

Community Partnerships

DATS will continue to work with community partners to fill gaps in travel needs. This could include not-for-profit ride providers, seniors' associations and private transportation providers such as taxi companies. The goal is to provide better information and resources to those with reduced mobility to enhance access to the community and increase travel flexibility.







3 PROJECTS & INFRASTRUCTURE 2018/2019

3.1 TRANSIT STRATEGY

The high-level Transit Strategy provides a comprehensive and integrated perspective on the transit system, including bus, LRT and DATS. The strategy focuses on customer service that is safe, fast, convenient and reliable and contributes to the corporate city-building vision of connectivity, integration and sustainability. Council approved the Transit Strategy in July 2017 and some of the key recommended actions are outlined below.



3.1.1 Regional Transit Services Commission

In October 2018, thirteen Mayors from the Edmonton Region signed onto the Memorandum of Understanding (MOU) for the Regional Transit Services Commission (RTSC). This agreement sets the stage for the RTSC transition team to define the future logistics for the new entity, establish clear scope and service levels, as well as negotiate a funding and financial model for the operating and capital requirements to provide the service.

This agreement represents the culmination of a regional transit initiative that started in 2015 with the report *Moving Integrated Transit Forward*, to the more recent RTSC Task Force work to create the MOU. The objective of the RTSC is to create fast, convenient, reliable, efficient and affordable transit services that are integrated with local bus services and other modes of transportation, thus improving mobility throughout the region.

3.1.2 Bus Network Redesign

The Bus Network Redesign is the first major action of the Transit Strategy. The strategy was built on input from over 20,000 Edmontonians and approved by Council in 2017. Edmontonians said they want transit that is safe, fast, frequent and easy to use. A complete network redesign was initiated in 2017 to provide a strong base that is effective and efficient, thereby providing a solid foundation for future growth. The final network will be implemented in 2020.

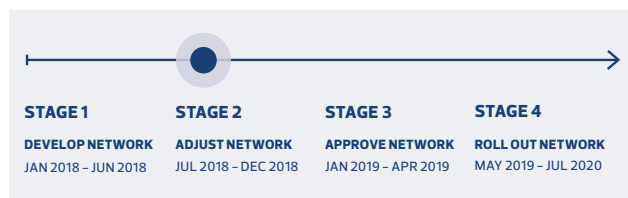
Almost every bus route is new and addresses the following:

- Different categories of routes for different uses
- Straighter routes with less overlap
- Inner area provides service throughout the day
- Outer area provides more service during peak commuter periods
- More frequency including addition of off-peak services, as warranted

To achieve a more efficient network using existing resources, tradeoffs (such as slightly longer walking distances to the nearest bus stop) were presented to the public for input. In 2018, ETS completed two iterations of the draft network based on the principles of the Transit Strategy and citizens feedback. The final draft network will be presented to City Council in early 2019, along with the updated Transit Service Standards Policy. Subsequent to Council's approval of the policy, significant work will begin to develop route schedules and create the extensive public communication and education campaign for 2020.

In the final draft network, most citizens are within a 5–7 minute walk of transit services. Some communities will have further walking distances and, in some cases, there will be limited transit service. ETS is committed to providing a public transportation solution in neighbourhoods that currently receive service and is looking at various innovative service delivery options for these particular communities. Potential solutions to First Kilometre/ Last Kilometre transportation will be presented to Urban Planning Committee in November 2019 and the outcome will define next steps for addressing these service challenges.

The timelines for the new network design are as follows:



Throughout 2019, the Bus Network Redesign will include assessing which bus stop signs and shelters need to be moved to match the updated routes. There may be up to 600 shelters that require movement, storage and rebuilding. The detailed plan will factor in outdated bus shelters, shelters with advertisements, power requirements, concrete footprints, modifications to sidewalk and accessibility needs, along with equipment, storage facilities and workforce to do the work.

3.1.3 Customer Charter

A key guiding principle of Pillar 4 in the Transit Strategy is to reinforce ETS' commitment to customer service by developing and promoting a Customer Charter that:

- Outlines commitments to provide safe, respectful and reliable service
- Includes a Code of Conduct with the responsibilities of customers and staff
- Is connected to performance measuring and reporting

A Customer Charter is a framework for service delivery and communicating service performance to customers. It is in the process of being developed and is aligned with best practices and tools from the Canadian Urban Transit Association (CUTA).

3.1.4 Fare Policy & Structure

The Fare Policy provides strategic direction for how ETS sets fares. The Fare Policy is being presented to Council for consideration in 2019. The draft policy is based on equity, fairness and affordability and presents four principles as the foundation for how citizens will pay for transit. The policy was developed based on Pillar Two of the Transit Strategy and was supplemented with market research related to the draft principles and a public survey to get input on the Revenue Cost Ratio (RC Ratio), distance-based fare approach and discount rates for various customer groups.

Should Council approve the Fare Policy, ETS will begin the process of adjusting fare categories, pricing and product options based on the approved principles and procedures.

3.1.5 First Kilometre/ Last Kilometre Study

The term "First Kilometre/Last Kilometre" refers to the challenge of providing transit service between a citizen's home and a transit hub, particularly in areas that are difficult to service due to low population density, the road network and geographic barriers. With the Bus Network Redesign underway, an opportunity emerged to explore a new service delivery model for these unique areas.

To address areas that have lost service or incurred walking distances beyond 800 metres in the new proposed network, City Council requested staff to research innovative service delivery options that could fill the gap.

Effective and efficient transit, particularly in a growing city, requires innovative strategies that look beyond the traditional fleet. To explore this topic, Administration completed a First Kilometre/Last Kilometre study. The study includes a review of transit innovations in other jurisdictions, an exploration of service delivery options and potential providers in Edmonton, identification of service gaps and a tool to prioritize areas that would benefit from alternative transit options. This study also documents the benefits of alternative transit options and the effect on retaining and increasing ridership. This report was discussed by Urban Planning Committee on January 15, 2019.

3.2 INFRASTRUCTURE

Transit infrastructure plays a key role in how effectively the service moves Edmontonians throughout the city. Whether it's maintaining current transit assets or building new innovative infrastructure, the goal remains the same – to provide a holistic and efficient transit system that connects citizens to people, places and passions. Our infrastructure approach is focused on strategic renewal investments and planning for future population growth to ensure our transit system remains safe, efficient and reliable.

3.2.1 Valley Line Southeast LRT

A key element of the City's LRT plan includes the Valley Line, which will eventually operate from Mill Woods to Lewis Farms via Downtown. The Valley Line will differ from existing operations by using urban (low-floor) LRT design principles to encourage a better community fit and development along the corridor.

The first phase, Valley Line Southeast (Downtown to Mill Woods), is scheduled to operate in late 2020. Valley Line Southeast is a P3 project, with TransEd designing, building and operating the line for 35 years. The City will retain limited responsibilities, including security, fare enforcement, fare revenue collection and advertising. Construction is currently underway and will continue for the next two years.

3.2.2 Kathleen Andrews Transit Garage

Kathleen Andrews Transit Garage, named to commemorate ETS' first female Bus Operator, will become an innovative transit hub in northeast Edmonton. Kathleen Andrews joined ETS in 1975 as a Bus Information Clerk and five months later was Edmonton's first female Bus Operator. During her 23 years with ETS, she inspired many women to follow in her footsteps, including her daughter. Today, ETS proudly employs 347 female operators.

Kathleen Andrews Transit Garage, scheduled to open in late 2019, was commissioned to replace the Westwood Garage, which is at the end of its life. The new LEED (Leadership in Energy and Environmental Design) Silver certified garage, comprised of over 400,000 square feet, will accommodate up to 300 conventional buses as well as infrastructure to support new electric buses.



3.2.3 Transit Centre & Station Upgrades

A series of transit infrastructure upgrades and improvements were initiated in 2017 thanks to the Public Transit Infrastructure Fund (PTIF). These upgrades are intended to improve the customer experience by enhancing waiting areas, lighting, visibility and amenities. A large portion of upgrades were completed in 2018, however, the following improvements will continue in 2019:

Transit Centres:

Belvedere Transit Centre: a new building with improved amenities and viewing area is expected to open in 2019.

Castle Downs Transit Centre: a new building with improved amenities, including upgrades to heating, electrical and mechanical systems, is expected to open in 2019. This new design also addresses passenger capacity, technology upgrades, architectural aesthetics, landscaping and operational efficiencies.

Jasper Place Transit Centre: the centre platform and building are being replaced to increase the size of the waiting area. The new facility is expected to open in 2019.

LRT Stations:

A combination of floor tile, ceiling tile and LED lighting upgrades are planned for 2019 at Clareview, Kingsway, MacEwan, Belvedere, Central, Bay/Enterprise Square, Corona, Health Sciences/Jubilee, McKernan/Belgravia, South Campus/Fort Edmonton Park, Southgate and Century Park. Upgrades will improve customer visibility and comfort.

Surveillance camera upgrades will be completed at Corona in 2019 to further improve facility safety.

Escalator replacements will be completed in 2019 at Bay/Enterprise Square and Corona to improve platform accessibility.

3.2.4 Planned Track Shutdown

With portions of the LRT over 40 years old, the Engineering and Maintenance team within ETS works hard to keep trains running on time. While some service disruptions are needed to maintain the system, one way of minimizing disruption to customers is through the use of strategic shutdown plans. Yearly and quarterly plans combine many maintenance and capital projects together to make the most of any planned LRT service adjustment. Upwards of 25 different projects can be worked on concurrently to rebuild and maintain safe service. Additional improvements will continue throughout 2019, including planned LRT shutdowns to allow the City to test the Thales signalling system.

3.2.5 New Operations & Maintenance Facility

As part of plans to extend the Metro Line LRT north to Blatchford, additional Light Rail Vehicles (LRV) are required to maintain headways and spares for maintenance. The existing Operations and Maintenance Facility (D.L. MacDonald) is at capacity and, therefore, a new building will be required to facilitate light maintenance, LRV cleaning and storage. The site location and design are currently being worked on and construction funding will be incorporated with the Metro Line extension.

3.2.6 Support to PTIF Projects

In addition to the Transit Centre and LRT Station upgrades described earlier, ETS is also collaborating with other City departments to support several capital projects funded through PTIF. One project, the Muttart Development across from Commonwealth Stadium, is incorporating a LRT pedestrian crossing. This will include a number of infrastructure modifications and service outages to facilitate the construction. The existing LRT Operations and Maintenance Facility at D.L. MacDonald Garage is also receiving many upgrades through PTIF. This will include upgrades to the LRT power systems in the building and yard, along with backup generator upgrades.

3.2.7 LRV Replacements

ETS currently has two fleets of Light Rail Vehicles. One is now 40 years old (U2 fleet) and is approaching its end of life. A competitive procurement process will commence in 2019, with the intent of replacing the U2 fleet between 2023–2025.



3.3 TECHNOLOGY

ETS is continually looking to use and maximize innovative technology across our system. Technological upgrades, along with customer expectations, continue to evolve and with that comes unique opportunities for enhanced integration, connectivity and customer service. ETS is dependent on a myriad of technical systems that interact to provide efficient, real-time customer service, and enhance safety monitoring, reporting and oversight.

3.3.1 Regional Smart Fare Electronic Payment System

ETS and other municipal transit services in the Edmonton Region will be introducing a modern electronic fare payment system to better serve customers, making it more convenient to pay and take advantage of opportunities not available with existing fare products. It will be an account-based, open-payment system, where customers will use a fare card, credit or debit cards or other compatible devices. Payment options like Pay-As-You-Go, fare capping and distance-based fares can be advantages of the Smart Fare system.

3.3.2 Electric Buses

Based on the completion of a competitive procurement process, the City is set to become one of the first in Canada to add roughly 20–25 electric buses to its fleet. These electric buses are scheduled to be put into regular service in 2020. The supplier's clean-running, quiet electric buses are winter compatible, have a range up to 400 kilometres and contribute to the City's shift toward more sustainable transportation, a lower carbon footprint and high-quality transit service for Edmontonians.

3.3.3 Train-to-Track Worker Safety System

To further enhance the safety of ETS staff and maintenance teams working at track level, ETS is exploring options to procure new technology that better alerts track crews of oncoming trains while also alerting operators of crews along the track. This technology has made significant improvements over recent years which can further enhance safety and reduce workplace hazards.



3.3.4 Metro Line Signalling System

The Metro Line signalling contractor, Thales Canada Inc. (Thales), has been responsible for the design and construction of a CBTC system for the City's Metro Line and Capital Line LRT. City Council set a deadline of April 30, 2018 to deliver a fully-functional system and issued a Notice of Default when the deadline was missed. The City, ETS and Thales continued working together throughout 2018. On December 4, 2018, Thales handed their system over to the City. During Q1 2019, ETS will test the Thales system before putting it into operation while also working on an alternative signalling plan to ensure service on the Metro and Capital Lines can be maintained and, in some cases, restored to previous service (five-minute peak service north of Churchill to Clareview).

3.3.5 LRT Tunnel Radio Repeaters

A project has been initiated to replace the aging Distributed Antenna System (radio repeater used in LRT tunnels). This system will provide extended radio coverage in below-grade LRT tunnels and platforms, which ultimately provides more reliable communication for operators and further improves safety and customer service. This expected completion date is fall 2019.

3.3.6 LRT Communications Network Replacement

The core communications network is the backbone that connects ETS' various technological systems. These systems include: surveillance cameras, two-way radio system, Building Management Systems, right-of-way (ROW) phones, information and emergency phones, LRT station public address system, LRT signals and fare collection equipment. The core communications network that ultimately allows these various systems to operate has reached its end of life and will be replaced in 2019. This will result in a more reliable communications network.

3.4 SAFETY & OPERATIONAL ENHANCEMENTS

Reviewing operational priorities is a continual process that helps ETS update processes and maximize integration between various internal areas. By sharing key intelligence and learnings, ETS gains efficiencies that ultimately result in a safer, faster and more reliable transit service for Edmontonians.

3.4.1 Committed to Safety & Security

In fall 2018, Council approved over \$20-million to accelerate and enhance immediate and long-term transit safety initiatives as part of ETS' ongoing commitment to keep transit safe for customers, operators and staff. The following initiatives are being implemented:

- 24/7 private security guard deployment at 25 Transit Centres and LRT Stations
- Installation of retractable bus shields to further protect operators
- 24 additional full-time ETS Inspectors and Control Room staff
- 25 additional Transit Peace Officers (before the Valley Line Southeast LRT becomes operational)
- Facility Design Guidelines to assess safety standards at facilities
- Continuous training to support on-going learning for Transit Operators



3.4.2 Operator Continuous Training Program (OCTP)

After engaging operators and supervisors to assess on-going learning needs for the Transit Operator position, the Learning and Development team identified key topics that will be included in the 2019-2022 Operator Continuous Training Program (OCTP). These include safety, driving and customer relations.

Following industry best practices, instructors from Learning and Development worked with training modules from the Canadian Urban Transit Association to develop a training plan to help our operators handle difficult and dangerous situations. This program was piloted and began implementation in late 2018. It helps ensure operators build on their skills, knowledge and abilities, learning to do things like de-escalating challenging customer situations. Driving and customer relations topics will be offered to operators in 2019. The training program will be offered on an ongoing basis ensuring operators receive proactive training every year.

3.4.3 Operational Efficiency Review

ETS is undertaking a cross-functional review of transit operations to enhance processes and identify opportunities to improve service delivery. As part of this review, technology, policies and practices will be evaluated. The goal is to better align with transit industry norms and standards.

3.4.4 Customer Journey Mapping

Customer Journey Mapping will explore the customer experience while using transit in Edmonton. It incorporates a variety of different customer personas to gain insight into the customer journey and related touchpoints with transit. The journey map process will involve key stakeholders and be completed through an engaging, collaborative approach. It will involve looking at paratransit and conventional transit services. The journey map will help ETS better understand customer needs and inform the implementation of the Transit Strategy.





4 APPENDIX A: SERVICE STANDARDS

TRANSIT SERVICE STANDARDS AND PLANNING GUIDELINES*

Time Periods

WEEKDAY		SATURDAY		SUNDAY	
A.M. Peak	Start of service to 9 a.m.	Morning	Start of service to 8 a.m.	Morning	Start of service to 10 a.m.
Midday	9 a.m. to 3 p.m.				
P.M. Peak	3 p.m. to 6 p.m.	Midday	8 a.m. to 7 p.m.	Midday	10 a.m. to 7 p.m.
Evening	6 p.m. to 10 p.m.				
Night	Weekday Night – 10 p.m. to end of service	Night	7 p.m. to end of service	Night	7 p.m. to end of service

Start of service on weekdays is approximately 5:30 a.m.

Start of service on weekends is approximately 6 a.m.

End of service is approximately 2 a.m. (subject to extended or all-night service).

Walking Distances

Maximum walking distances, where feasible and when warranted, by development levels and demand for service:

		RESIDENTIAL AREAS	EMPLOYMENT AREAS
Weekday	A.M. Peak	400m	600m
	Midday	400m	–
	P.M. Peak	400m	600m
Saturday	Midday	400m	–
Sunday	Midday	400m	–
All Other Times		800m	–

*Under review and subject to the Bus Network Redesign Project.

Frequency and Span of Service

Minimum service intervals

		RESIDENTIAL AND TRANSIT CORRIDORS	INDUSTRIAL	COMMUNITY BUS ROUTES
Weekday	A.M. Peak	30 min	30 min	–
	Midday	30 min	60 min	60 min
	P.M. Peak	30 min	30 min	–
	Evening	30 min	60 min	–
	Night	60 min	–	–
Saturday	Morning	60 min	–	–
	Midday	30 min	–	–
	Night	60 min	–	–
Sunday	Morning	60 min	–	–
	Midday	30 min	–	–
	Night	60 min	–	–

Route Performance Standards

To be used to “flag” individual bus routes for further review for potential service changes.

PASSENGER BOARDINGS PER HOUR

		Low Ridership Thresholds			High Ridership Thresholds	
		RESIDENTIAL AND TRANSIT CORRIDORS	INDUSTRIAL	COMMUNITY BUS ROUTES	RESIDENTIAL AND TRANSIT CORRIDORS	INDUSTRIAL
Weekday	A.M. Peak	30	20	–	60	60
	Midday	15	15	10	50	50
	P.M. Peak	30	20	–	60	60
	Evening	15	15	–	50	50
	Night	15	15	–	50	50
Saturday	Morning	15	–	–	50	–
	Midday	15	15	10	50	50
	Night	15	–	–	50	–
Sunday	Morning	15	–	–	50	–
	Midday	15	–	–	50	–
	Night	15	–	–	50	–
		First/last trips carrying five passengers or less			Individual trips greater than 55 at the peak point	
		Express, School and Customized Trips – 80% of seated capacity			More than 50 passengers at the peak point on consecutive trips	

Staging Service to New Development Areas

Residential Areas

- Peak periods – catchment area of a route reaches a population of 500 residents.
- All other times – catchment area of a route reaches a population of 1,500 residents and lower ridership thresholds are achieved in peak periods (Note – service in all off-peak times would be implemented simultaneously).

Employment Areas

- Peak periods – catchment area of a route reaches approximately 500 employees. Limited Weekday Midday service will be provided when peak period service is implemented.
- Service in off-peak times to be provided where it is expected that minimum route performance standards would be achieved (at the discretion of ETS).

Community Bus Routes

- Will be considered when walking distance to major senior residences (greater than 50 units), activity centres or other identified destinations is greater than 250 metres.

Implementation Periods

- New peak services will be maintained for a minimum of one year.
- New off-peak services and peak industrial services will be maintained for a minimum of two years.

Service Monitoring

New service implementations will be monitored throughout the implementation period and should achieve stage performance thresholds as follows:

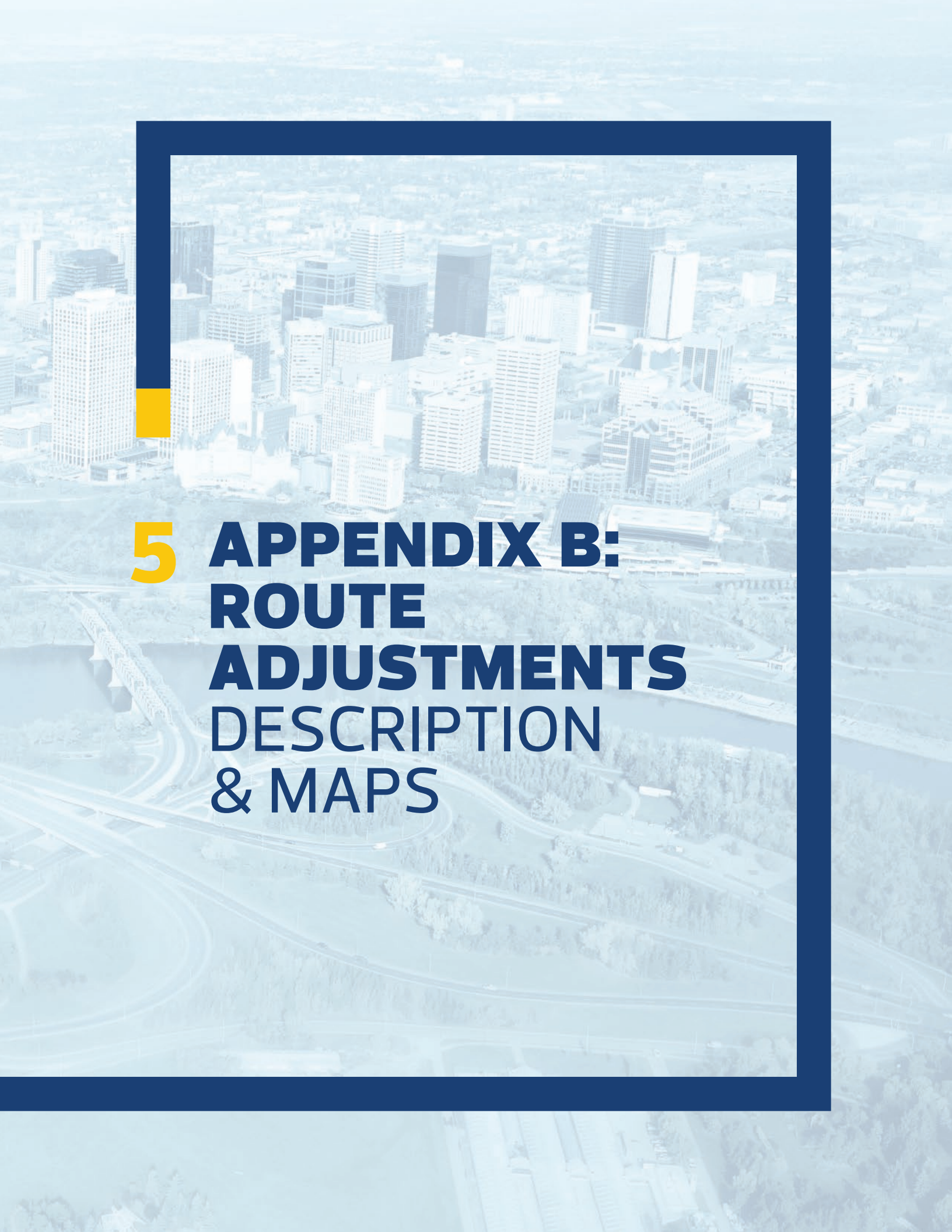
- Peak periods – 50 per cent of the recommended minimum performance level after six months; 100 per cent after one year.
- All other times and peak industrial service – 50 per cent of the recommended minimum performance level after one year; 100 per cent after two years.

New services that do not meet these thresholds will be reviewed for improvement measures, and may be discontinued at the end of the implementation period if improvements are not evident.

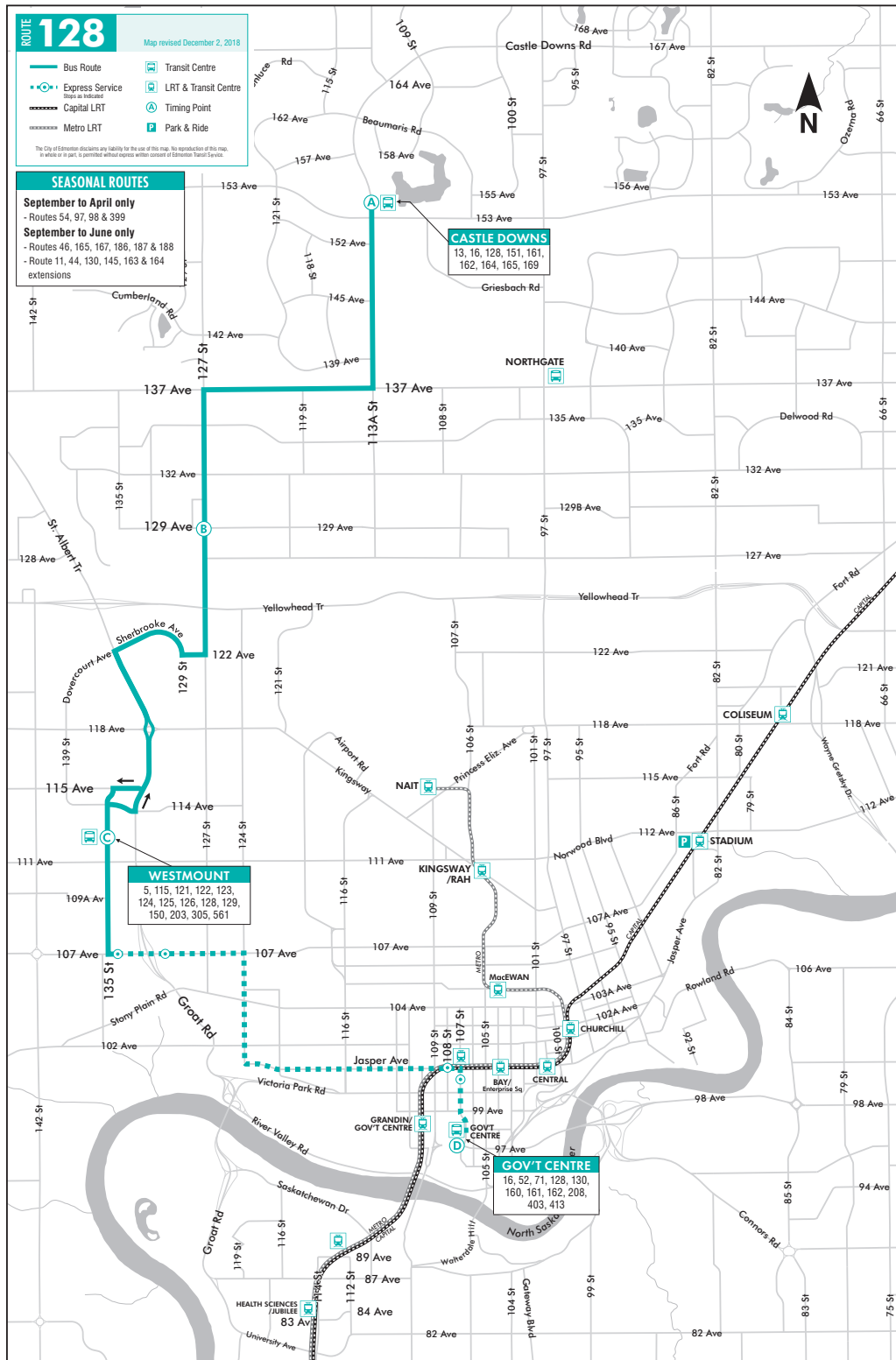
On-time Performance

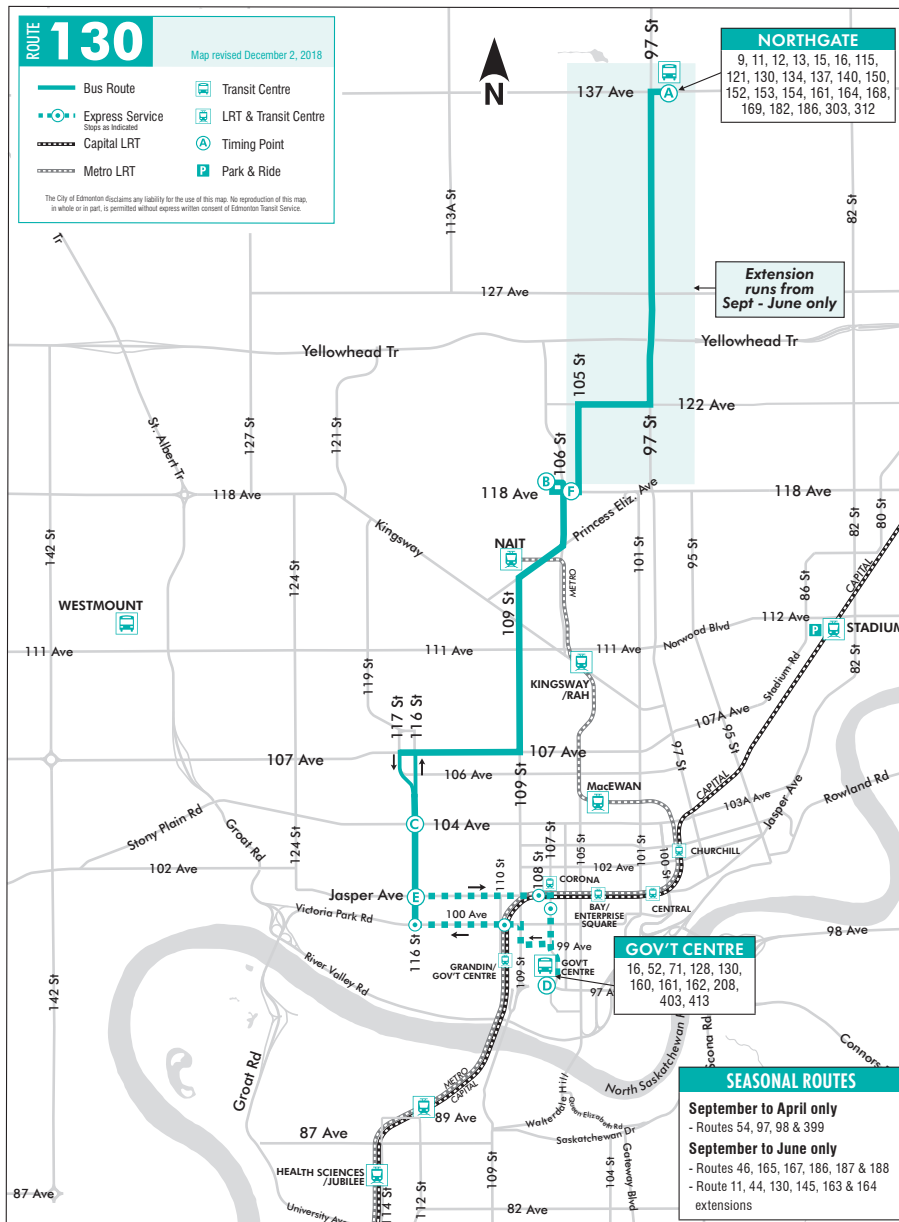
- Departures from key timing points – from zero minutes before to three minutes after the scheduled departure time – on 90 per cent of trips. No vehicles will leave a timing point early.
- Arrival times at key timing points – from five minutes early to one minute late – on 90 per cent of trips.



An aerial photograph of a city skyline, featuring numerous skyscrapers and buildings. A river flows through the lower portion of the image, with a bridge crossing it. A highway with multiple lanes is visible in the foreground. The entire image is overlaid with a semi-transparent blue filter. A dark blue L-shaped graphic element is positioned on the left side, with a yellow square at its corner.

5 APPENDIX B: ROUTE ADJUSTMENTS DESCRIPTION & MAPS

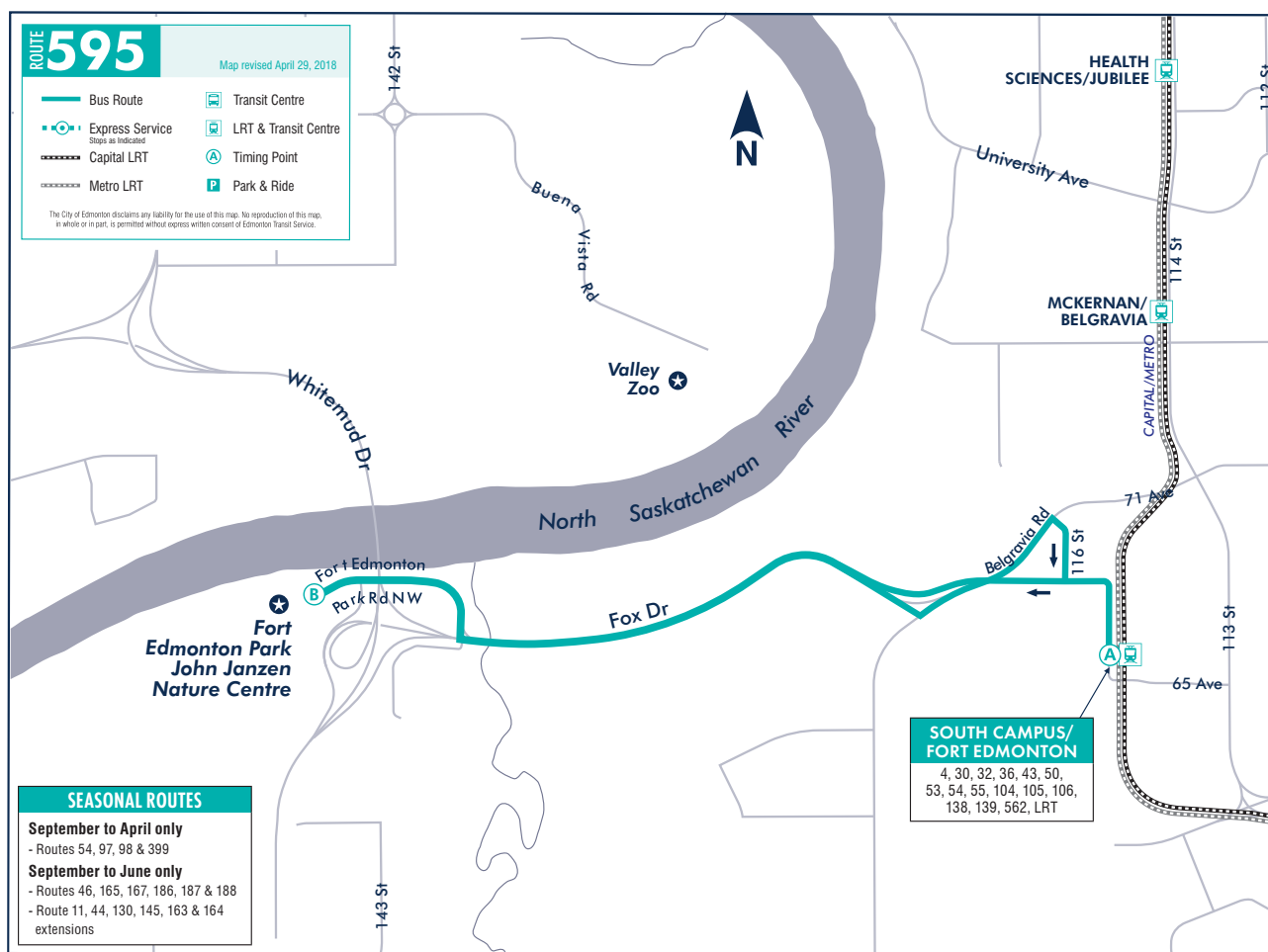




Routes 128 and 130

Due to Groat Road bridge construction, routes 128 and 130 will detour to Government Centre instead of terminating at University. This led to the closure of multiple bus stops on Groat Road, Victoria Park Road, stops west of the University of Alberta, as well as two southbound stops on 116 Street south of Jasper Avenue. However, this detour does include stops near Corona and Grandin LRT Stations.

When Groat Road bridge construction began earlier in 2018, it limited traffic to a narrow, single-lane crossing on the east side of the bridge. While this didn't directly impact bus service, the recent decision to detour buses is a precautionary measure to ensure a safe work site. Furthermore, some buses have different mirror configurations and detours will ensure bus operators and passengers remain safe.



Route 595

Route 595 will not operate in 2019 due to the closure and renovations at Fort Edmonton Park. Route 595 runs from South Campus/Fort Edmonton Park Station to Fort Edmonton Park. Service will be restored in 2020 once Fort Edmonton Park reopens.

School Special Routes

City Policy C539 Transit Service Standards establishes a route performance standard for school trips, which requires all trips to meet 80 per cent of seated capacity, or 30 passengers for an individual trip. When ridership falls below this threshold, the routes are reviewed for potential route change, consolidation or service reduction. Trips duplicating regular routes will be shifted into regular schedule for simplicity.







6 APPENDIX C: PERFORMANCE METRICS

6.1 FINANCIAL SUMMARY

Proposed 2019–2022 Budget – Bus & LRT

RESOURCES (\$000)	2017 ACTUAL	2018 ADJUSTED BUDGET	2019 BUDGET	2020 BUDGET	2021 BUDGET	2022 BUDGET
Revenue & Transfers	131,154	136,948	140,894	145,261	170,514	174,289
Expenditure & Transfers	321,850	341,039	341,039	351,611	376,596	380,883
Subtotal	190,696	204,091	200,145	206,350	206,082	206,594
Intra-municipal Recoveries	(3,499)	(2,136)	(2,136)	(2,136)	(2,136)	(2,136)
Total Net Operating Requirement	187,197	201,955	198,009	204,214	203,946	204,458

Full-time Equivalents	2,103.7	2,086.7	2,115.5	2,140.0	2,117.8	2,117.8
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Proposed 2019–2022 Budget – DATS

RESOURCES (\$000)	2017 ACTUAL	2018 ADJUSTED BUDGET	2019 BUDGET	2020 BUDGET	2021 BUDGET	2022 BUDGET
Revenue & Transfers	2,137	2,429	2,429	2,429	2,429	2,429
Expenditure & Transfers	31,339	29,750	30,267	30,438	30,611	30,879
Subtotal	29,202	27,321	27,838	28,009	28,182	28,450
Intra-municipal Recoveries	(1,502)	(947)	(1,243)	(1,243)	(1,243)	(1,243)
Total Net Operating Requirement	27,700	26,374	26,595	26,766	26,939	27,207

Full-time Equivalents	191.2	187.6	186.6	186.6	186.6	186.6
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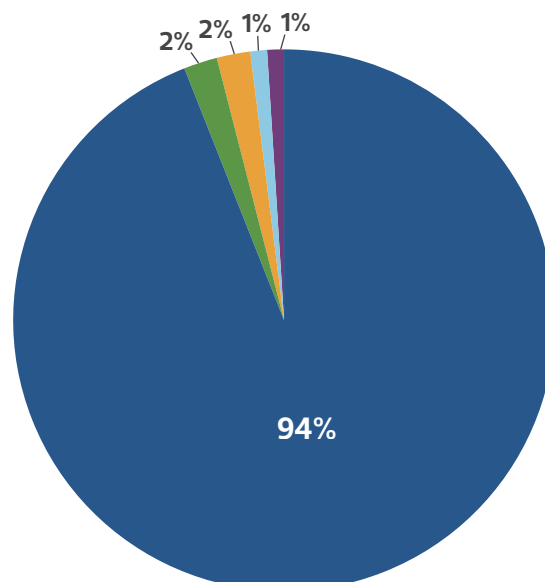
6.2 OPERATIONAL METRICS (RIDERSHIP, RC RATIO, ETC.)

SERVICE OUTCOME	PERFORMANCE METRIC	TARGET METRIC	2015	2016	2017
Transit balances user fares with societal benefit	Revenue / Cost ratio	40–45%	43%	41%	40%
Transit service is effective	Ridership per capita	105	99.1	96.9	91.6
Transit provides reliable service	On-time performance	Bus	N/A	72.2%	69.7%
		DATS 90%	95.5%	96.7%	94.9%
Service impacts due to breakdown of vehicles is minimized	# of mechanical delays (bus)	N/A	1,999	1,753	1,381
Collisions are reported and analyzed to attain Vision Zero	# of reported collisions per 100,000 km	0	2.49	1.95	2.04

6.3 CUSTOMER SERVICE

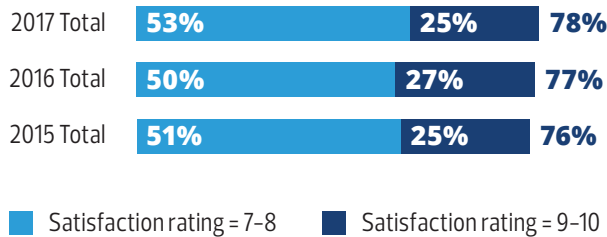
The Edmonton Call Centre received over 910,000 calls and emails about ETS in 2017, representing roughly 47 per cent of their total volume. The majority of the inquiries pertained to routes and schedules (94 per cent). The remaining 6 per cent consisted of fare, lost & found, general inquiries and complaints.

- Routes & Schedules (94%)
- Fare Products (2%)
- Complaints and Compliments (2%)
- Lost & Found (1%)
- General Information (1%)



6.4 CUSTOMER SATISFACTION SURVEY RESULTS (2017)

Each year, ETS does research to assess customer satisfaction. The research is conducted using a continuous, random probability telephone survey. A total of 1,600 annual phone interviews are completed with customers who used transit in the last four weeks. The survey takes into consideration all of the citizens' interactions before, during or after their trips. The survey measures 30 specific attributes covering nine stages of the customer experience. User satisfaction of ETS performance is summarized in the following chart. Overall satisfaction is measured on a 10-point scale, where 1 means "not at all satisfied" and 10 means "completely satisfied".



As in the two previous years, over three-quarters of customers are satisfied. Results are also stable in terms of the proportion who are 'extremely satisfied' (25% rate their overall satisfaction as 9 or 10 out of a possible 10). The majority of citizens within each customer segment are satisfied (workplace commuters, families, post-secondary students and special-event riders). Ratings are highest for secondary students (93%) and lowest for riders with a disability (71%). Seniors aged 65+ express the strongest appreciation (40% are extremely satisfied).

Overall satisfaction can be increased the most by improving attributes that are highly important to customers. These are the most influential attributes:

- Good connections (the most important in 2017)
- Bus frequency (2nd most important)
- Trip duration (equally 2nd most important)
- Value for fare
- Bus on-time reliability
- ETS communications

The information collected through customer research informs the activities and projects that ETS undertakes to improve the customer experience.





AIR TANK DRAINS
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