

2010 – 2013 Public Transit Council Initiatives: Terms of Reference

Initiative Title: Public Transit
City Council Sponsor(s): Councillor A. Sohi
Supporting Department and Lead Staff: Charles Stolte, Transportation Department

BACKGROUND:

Edmonton Transit System (ETS) provides customer-focused, safe, reliable and affordable public transit services that link people and places. Considerable political, economic, social, technological and environmental challenges present new opportunities for ETS to implement its three year initiatives.

DESIRED OUTCOMES:

Guided by the **City Vision** and **The Way We Move** (Transportation Master Plan), ETS has developed three-year initiatives to improve the quality of life for Edmonton citizens by making improvements to the public transit system. With a primary focus of *Shifting Edmonton's Transportation Mode*, ETS introduces the following 2011 – 2013 major initiatives:

1. Well Maintained Fleet (Initiative): A modern, wheelchair-accessible, well-maintained fleet will allow Edmonton Transit to improve service reliability, take advantage of emission improvements with newer technology and improve control of on-going maintenance costs.

Examples include the purchase of new fleet vehicles to replace existing, including 20 articulated buses, 12 community buses, and 26 DATS buses in 2011. To ensure the fleet is in a good state of repair, a mid-life engine replacement program was initiated in 2010, with upgrades to 55 buses planned for 2010 and 2011, and a mid-life bus refurbishment program proposed to commence in 2012. Currently 37 U2 LRVs are being retrofitted and work should be completed by 2013.

A well maintained fleet will allow ETS to operate in a more reliable manner and to move people more efficiently through the city. This initiative supports TMP Goal 10.1.

2. Service and Fleet Expansion (Initiative): To meet the growing demand for service and to support on-going municipal development, Edmonton Transit will continue to expand its service area and facilities to provide more frequent and convenient service.

Examples include: provision of new peak and off-peak bus routes, expansion of the LRT system (to NAIT in 2014), service quality improvements like premium bus service, more community bus routes and more frequent service. Additional equipment and infrastructure will be required to fully support the expansion and capacity improvements on the system, including 30 additional LRVs, 40 – 60 “growth” buses annually, new transit centres such as Lewis Farms and Eaux Claires, renovation of Westwood Garage, and a new bus garage by 2014.

Service and Fleet expansion enables ETS to meet public demand and encourages citizens to use more public transit and active modes of transportation.

3. Public Transit Safety and Security Perception (Initiative): Minimize customers / citizens concerns about public transit safety and security.

Examples include additional deployment of Inspectors at Transit Centres, Peace Officers dedicated to riding on buses and LRT, Security SMS (text messaging), customer communication plan, and better intelligence sharing with key community stakeholders. One measure of success could be the level of customer satisfaction with safety and security on ETS, with the goal of increasing it to 87% over the next 5 years.

Improving the safety and security of public transit gives citizens many choices for their mode of movement.

4. Reduce Fare Evasion (Initiative): Minimize fare evasion by introducing measures that will reduce attempts to evade paying full fare.

Initiative details include use of smart card technology, digital fare products and social marketing such as the B.O.B. (Behaviour on Bus) campaign.

A reduction in fare evasion adds lost revenue that can be used to improve service and keep fares affordable.

5. Customer Growth and Retention (Initiative): Focus on putting the customer first. Develop a customer value proposition by understanding customer behaviours, expectations and needs.

Examples include the ETS Customer Service Centre review, introducing more amenities at LRT stations and transit centres, and offering smart card and digital fare payment options. Additional examples include, introducing social media technology, hosting and participating in community-focused events (e.g., Leading the Way Youth Summit, Community Fair), social marketing to change public's travel patterns, and implementing Smart Bus. Smart Bus provides convenience by offering real-time schedule information, both through electronic devices and displays at major bus stops and in the open source data environment.

Finding ways to grow customer satisfaction leads to more citizens using public transit and / or more frequent use of public transit.

6. Employee Recruitment and Development (Initiative): Maintaining sufficient staffing levels to keep pace with service growth.

Examples include recruitment and training of 200+ Conventional, Community Service and DATS Operators, Professional Developmental Training for 500 ETS Operators, the completion of ETS workforce plans, employee enrolment in the *Corporate Leadership Development* pilot project, and succession planning.

7. Optimize Accessible Service (Initiative): Develop customer accessibility standards to optimize Conventional and DATS transit services, fleet and operations.

Initiative details include the implementation of web booking for DATS customers, improved IVR functionality to alert clients of delays, gathering stakeholder input on updating eligibility, introduction of in-person assessments, offering travel training for mobility challenged customers (including newcomers/immigrants, senior citizens and people with disabilities) and updating business practices to improve customer service.

An accessible transit system, gives citizens many choices for their mode of movement, providing transit options for persons with mobility challenges (TMP Strategic Goal 5.3).

ALIGNMENT WITH STRATEGIC DIRECTION (SEE DESIRED OUTCOMES SECTION, ABOVE):

Alignment to “The Way Ahead”, City of Edmonton Strategic goals is mentioned in each of the initiatives (see Desired Outcomes section, above).

START-UP BUDGET REQUIREMENTS:

Having outlined ETS’ seven major initiatives, the following sub-initiatives showcase several of the most important public transit activities to be completed over the next several years:

1. Smart Bus [\$31M] - Edmonton Transit’s fleet and operations has reached a size that requires new tools and practices to manage on-road operations across the city. In addition, customer expectations for accurate route and schedule information are increasing. Proven “Smart Bus” systems are available in the transit industry and designed to help improve gaps, in terms of managing operations, improving service reliability, providing additional information for service planning and improving the amount and quality of information available to ETS customers.

Automated Bus Stop Announcements are being implemented in several other Canadian jurisdictions (e.g. Winnipeg, Ottawa, and Toronto). ETS was an early adopter of low-floor buses, as well as numerous other accessibility features, including a fully accessible LRT with automated stop announcements (ASA). Disabled groups are advocating that the City adopt ASA on buses as a necessary feature to meet the City’s goal of “universal access.” Components of a complete Smart Bus solution include:

- Automated Bus Stop Announcements (ASA)
- Automated Vehicle Location (AVL)
- Computer Aided Dispatch (CAD)
- Real-Time Customer Information
- Automated Vehicle Health Monitoring (AVM)
- Automated Passenger Counters (APC) and
- Security Cameras with real-time video feed to the ETS Control Centre

Funding has been approved (\$3.4M in 2011 and 2012) for the initial installation of Smart Bus technology on 50 buses. Following an evaluation of the components, full deployment to all ETS buses would be undertaken in 2013 and 2014 (estimated \$31M is required).

2. Smart Card [\$26M] – Replace obsolete, costly, manual, paper-based fare distribution and collection system with account-based, one-card technology. Budget allocation of \$26M over four years to fully implement. Initiative is currently unfunded.

3. Westwood Garage Renovation [\$62.4M] - 60 year old garage requires major renovations to modernize and meet required specifications. Currently, partial funding of \$29M is available; however, further unfunded \$33.4M is required to complete full rehabilitation.

4. Northeast Garage [\$109M] – by 2014 the size of the ETS fleet needed to meet ridership growth will require a new garage; \$13M to purchase land funded; unfunded capital budget is \$109M.

5. Heritage Valley Park and Ride [\$22M] – \$22M required in anticipation of growth requirements and expiration of Century Park, Park and Ride lease in 2015. The expansion of Park and Ride facilities supports the TMP Goal 5.4.

6. Fleet and Equipment Rehab [\$42M] - The Edmonton Transit bus fleet must be replaced on a regular and predictable basis, in accordance with an industry-standard 18-year design life for conventional 40 foot low-floor and articulated buses, and 7 years for community service buses. Replacement of buses also allows Edmonton Transit to take advantage of design and technology improvements (e.g., “clean” diesel engines, corrosion protection). In order to maintain the buses for the expected lifespan, a comprehensive maintenance program is needed. For the vehicles with an 18-year design life, mid-life refurbishment of key components is required (body and frame, engine, transmission, etc.). Mid-life refurbishment is a cost effective way to ensure buses can operate for their expected lifespan. Other components, such as bus camera systems, Automated Passenger Counters, fareboxes and radios, are also replaced at the end of the component lifecycle.

On January 20, 2010, City Council approved the funding plan to replace the DATS fleet, originally purchased in 2005. These buses have a design life of 7 years. For 2012 and 2013, funding is available from the Financial Stabilization Reserve.

The wear and tear on the bus fleet is substantial and leads to the need for timely replacement of older buses to avoid service interruptions and increasing maintenance and repair costs. Upgrading of the ETS fleet with modern equipment will increase service reliability and avoid considerable maintenance costs, offer the potential to reduce greenhouse gas emissions and present a safe, clean, and modern bus fleet image that helps to improve customer service and increase ridership.

The 40-foot low floor buses purchased in 1993/1994 will be beyond their rated design life within the period 2012-2014. This project will replace these buses with Clean Diesel buses. Failure to undertake the bus replacement and refurbishment programs can result in increased maintenance cost and the risk of not providing reliable service due to equipment shortages. Ultimately, this reduces ridership, increases costs and reduces the overall effectiveness of the public transit system.

The 37 U2 LRVs are being retrofitted to provide an additional 15 – 20 years of operational life at a total cost of \$42.8M. Work includes repairing body corrosion, refinishing the interior and exterior, replacing obsolete and worn electrical and mechanical components and upgrading passenger communication and security systems. The work is underway and scheduled to be complete in 2013.

7. Bus Fleet and Equipment Growth [\$68M] - Additional buses must be added to Edmonton Transit’s fleet to meet increased demand for public transit service resulting from general growth in the city and changing travel patterns.

Conventional 40-foot diesel buses are required for fixed-route/fixed-schedule service in developing areas of the city, and to provide additional capacity on existing routes “downstream” from the developing areas. Community service buses are required to accommodate the increasing needs of the aging population, and are also utilized on routes with lower passenger demand (off-peak services, initial implementation phase of new bus routes and for “developer-funded” service).

It is estimated that in 2012, 54 40-foot low-floor diesel buses and 5 community buses will be required. In 2013 and 2014, a total of 72 40-foot low-floor diesel buses and 9 community buses will be required.

The buses are required to accommodate public transit needs in developing areas and to increase capacity on bus routes in developed areas, in adherence to Council approved Transit Service Standards (Policy C539).

Further, additional support vehicles are required for operations, facilities and maintenance staff, including front-end loaders, heavy duty trucks and inspector/security vehicles.

Approximately \$68M is required over 2012 – 2014, to fully accommodate transit fleet growth needs.

8. LRT (LRVs and NAIT line) – The design has been completed for the NAIT LRT extension. It will extend the line approximately 3.5 km from Churchill Station north to NAIT. Three new stations will be opened in April 2014 (MacEwan, Kingsway/Royal Alex and NAIT). Service will operate from NAIT to Health Sciences using 3-car trains. The total cost of the project is \$755M. An additional 20 LRVs (SD160) are on order to provide service on the NAIT LRT line. Cars will be delivered from March 2012 – January 2013. Costs are part of the NLRT budget. The expansion of the LRT (TMP Strategic Goal 5.1) may increase transit ridership and transit mode split.

9. LRT System Upgrades [\$41.6M] – The train signal system is being replaced on the line from Churchill to Clareview with a total project cost of \$31.1M. The project will be completed in mid 2011 and will replace obsolete control equipment as well as improve operational flexibility for incident management. The Electrical Traction Power system is also being upgraded to operate 4-car trains by March 2011 and 5-car trains in the future. Total cost of the project is \$10.5M.

10. LRT Central Station Roof Replacement [\$54.6M] – in 2012 / 2013 the roof on Central Station and the Jasper Avenue road surface will be replaced. The project will provide better waterproofing of the station roof, and repair damaged roof cross-beams and the road surface that forms the roof of the station.

11. LRT Station Rehabilitation [\$14.6M] –2011 projects: (1) Coliseum Station platform rehab will be completed (\$1.3M) (2) the installation of a pedway connection across Health Sciences Station from the U of A Hospital to the new Edmonton Clinic (\$5M) will include a heated waiting area plus escalator and elevator access to the Health Sciences platform. (3) an escalator replacement program will be initiated, starting with Churchill Station. The program will replace escalators at the end of their design life (up to 2 stations per year over the next ten years). Planned spending is \$8.3M to the end of 2014.

TARGET DATE FOR COMPLETION OF PROJECT PLAN (SEE START-UP BUDGET REQUIREMENTS SECTION, ABOVE):

Alignment to The Way Ahead

- This Council Initiative aligns to The Way Ahead and the Way We Move (see Desired Outcome section for explanations).

Alignment to Relevant Civic Agency

- Please indicate which Civic Agency (if any) this work aligns to