

## SOUTHEAST LRT GREEN TRIP PROPOSAL

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### SUMMARY/ISSUE

Direction to include Southeast LRT (10 Avenue S to Douglas Glen) as part of the Calgary Region's Green TRIP application for Provincial funding.

### PREVIOUS COUNCIL DIRECTION/POLICY

At its Regular Meeting of 2010 July 19, Council directed as follows (NM2010-30, Alderman Hawkesworth):

"NOW THEREFORE BE IT RESOLVED that in order to begin the construction of the South East leg of LRT, City Council direct Administration to prepare an Agreement for signing with the Government of Alberta under the Green Trips funding program, such Agreement to be presented to City Council for approval at its November 8, 2010 meeting. FURTHER BE IT RESOLVED that Administration be directed to also present financing options to City Council to leverage additional resources to enable construction of an initial phase of the SE LRT that will include the at grade components from 10th Avenue South in the downtown to Douglasdale."

At its Regular Public Hearing Meeting of 2010 July 26, Council directed as follows (LPT2010-58):

"1. Direct Administration to complete a pre-design study prior to seeking a P3 type of funding mechanism and to fund that study from Calgary's Green TRIP Provincial grants, when such funds are available;

2. Prepare an Agreement for signing with the Government of Alberta and Calgary Regional Partnership, under the Green Trips funding program to enable construction of an initial phase of the SE LRT that will include the at-grade components from 10th Avenue South in the downtown to Douglas Glen, such agreement to be presented to City Council for approval no later than the 2010 November 08 Combined Meeting; and

3. Present financing options to City Council to leverage additional resources that may be needed."

At its 2010 November 08 Combined Meeting, Council reviewed C2010-69 and approved the following motion:

"REFER, Moved by Alderman S. Keating, Seconded by Alderman P. Demong, that Report C2010-69 be referred to the Administration and that an item be brought back to Council no later than the 2011 January 19 through the Regular Meeting of the SPC on Land Use, Planning and Transportation."

### ADMINISTRATION RECOMMENDATIONS:

That the SPC on Land Use, Planning and Transportation recommends that Council direct Administration to:

1. File the recommendations in report C2010-69.
2. Approve Option 3 Phase 1 as the basis for Calgary's application to Alberta Transportation based on the amounts budgeted by The Province for the Green TRIP program, including the following:
  - \$200 million for 50 light rail vehicles to enable future 4-car train operation;
  - \$10 million for Southeast LRT pre-design; and
  - \$15.6 million for Southeast BRT enhancements.
3. Approve in principle Option 3 Phase 2 as the basis for Calgary's application to Alberta Transportation for the remainder of the announced Green TRIP funding, including the use of the majority of remaining Green TRIP funds for construction of Southeast LRT/BRT, pending the findings from the Southeast LRT pre-design work.
4. Report back to the SPC on Land Use, Planning and Transportation with updates on the Green TRIP program and any required capital budget adjustments no later than 2011 March.

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5. Forward this report as a matter of urgent business to the 2011 January 24 meeting of Council.

### INVESTIGATION

#### Green TRIP

In 2010 June, Alberta Transportation announced that the first release of funds under the Green TRIP program would take place in 2011 February. Green TRIP will support transit projects that demonstrate the ability to reduce the number of vehicles on roads and reduce greenhouse gas emissions. A total of \$800 million has been allocated to the Calgary Regional Partnership (CRP) under the program. CRP municipalities have agreed that 80% of the region's funding, or \$640 million, will be allocated to The City of Calgary. Green TRIP funding can cover 2/3 of the cost of an eligible project. The remaining 1/3 must be contributed by The City. Therefore, City of Calgary projects that meet Green TRIP criteria could be funded up to a total project cost of \$960 million with \$320 million committed by The City of Calgary.

The Province has identified that \$470 million will be the amount available province-wide under Green TRIP for the first three years (2011 to 2013) – Phase 1. The balance of the \$2 billion (Phase 2) will be available on a “pay on progress” basis, subject to available provincial annual budgets. Under the agreed upon allocation formula, this would provide \$150.4 million of Green TRIP funding for City of Calgary projects with a total value of \$225.6 million including City funds in Phase 1.

At Council's direction, the first phase of the Southeast LRT, from 10 Avenue S to Douglas Glen, has been included in the draft Green TRIP proposal for the Calgary Region. This proposal is due to the Province no later than 2010 January 31.

Given that only partial funding is available in the short term, and with no certainty on the timing of future funding, there are merits to considering alternatives to using 100 per cent of the Calgary Green TRIP funds for the Southeast LRT. These options are discussed in detail in Attachment 1 and summarized below.

Option 1 proposes the purchase of 50 Light Rail Vehicles (LRVs) plus funding for Southeast LRT pre-design work, land acquisition and other initial steps. Pre-design is required to provide a more detailed design of the route which will give more accurate cost estimates, staging / service options and identify environmental and utility issues to be addressed at the time of construction. This work is necessary to prepare the project for the next steps of implementation which would include securing funding, detailed design, and construction. When timing for the availability of additional Green TRIP funding is announced, The City will then be in a better position to begin construction of the first segment of the Southeast LRT.

The purchase of 50 LRVs will provide additional CTrain service capacity to handle growth in customer demand created by Calgary's growth and new inter-municipal regional transit services, and allow for higher capacity service using four-car train operation. Approved funding for the purchase of 20 LRVs can be used to provide the required 1/3 Calgary contribution. Additional detail on the need for a total of 50 LRVs is included in Attachment 2.

Option 2 proposes to allocate all Green TRIP funds to Southeast LRT construction (10 Avenue S to Douglas Glen). Initially, during the first two to three years, pre-design work, land acquisition and other initial steps are required. Since these steps are required before construction can start, much of the initial funding cannot be spent. As well, construction can only begin when the balance

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of the Green TRIP funds are made available. Pending availability of full Green TRIP funding, and identification of matching funds, it is anticipated that construction of the Southeast LRT could begin after 2013.

Option 3 (recommended) is a combination of LRT service growth plus a phased approach based on the certain (2011-2013) and uncertain (2014 onward) cash flows of Green TRIP funding.

Option 3 Phase 1 includes the purchase of 50 LRVs (\$200 million), funding for the Southeast LRT pre-design (\$10 million) and BRT projects to improve the performance of existing southeast BRT service (Routes 302 and 305) in the short term (\$15.6 million). Candidate projects, including short transit-only lanes and queue jumps at intersections, will be identified early in the Southeast LRT pre-design work in 2011 for short-term implementation (2011 & 2012). The LRV purchase is identical to Option 1 (see Attachment 2). The Southeast LRT pre-design would be similar to Option 1 but would not fund land purchase in the short term since land is not normally purchased on mass until a project is fully funded.

In Option 3 phase 2, when additional Green TRIP funding is announced, the remaining Green TRIP funds would be allocated towards transit projects based on the results of the Southeast LRT pre-design work, the schedule for remaining Green TRIP funding, and the review of transit capital priorities for the 2015-2017 business plan and budget cycle. Administration recommends that, in principle, the majority of funds in Phase 2 would be dedicated to Southeast LRT or more significant Southeast BRT Route 302 enhancements (e.g. extensive bus lanes that can be transitioned to LRT).

### **Southeast LRT**

Southeast LRT has been identified as the next priority in the construction of the six lines

of Calgary's LRT network. An overview of Southeast LRT is provided in Attachment 3.

Functional studies have been completed for the entire length of the Southeast LRT. However, work cannot commence on construction of Southeast LRT until pre-design work is completed that will fine-tune the design, provide an accurate cost estimate, examine additional funding options, and determine construction phasing. The pre-design work can be funded under the Green TRIP program and will require at least 18 to 24 months to complete. This work can be used should the City proceed on a P3 basis.

A BRT service (Route 302) has been serving southeast Calgary since September 2009. In September 2010, two park and ride lots were opened at Douglas Glen and McKenzie Towne. Ridership on the Southeast BRT continues to grow, and is currently serving approximately 2,800 riders per day. Further growth in population and employment in Southeast Calgary plus additional transit priority measures will result in continued growth of ridership on this route. Additional roadway and transit facility improvements for Southeast BRT can be implemented in the short and medium term to increase the bus travel speed and attractiveness of this service prior to the construction of Southeast LRT. Major transit priority enhancements will be identified and evaluated by the pre-design work with the intent to determine the feasibility of pre-building portions of Southeast LRT as a busway that can transitioned to LRT running ways when the funding required for LRT is available.

### **Financing Options**

Procurement strategies and financing options, including use of Green TRIP funding, are outlined in the Attachments.

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### IMPLICATIONS

#### General

Continued expansion of the public transit system is critical to achieving Calgary's smart growth objectives as outlined in the Municipal Development Plan. LRT and BRT are critical elements of the Primary Transit Network outlined in the supporting Calgary Transportation Plan. New LRT and BRT lines and extensions will make transit travel more advantageous and will shape future urban development patterns and influence more sustainable, transit-oriented communities.

#### Social

LRT and BRT expansion enhances mobility choice and improves access to employment and other services for people with limited mobility.

#### Environmental

Movement of people on transit makes the most efficient use of natural resources, allows for a more compact city and offsets the need for motor vehicle travel, resulting in fewer impacts to natural areas and the existing built environment. LRT directly reduces greenhouse gas emissions. Power for LRT operation in Calgary is sourced from zero-emission wind power.

#### Economic (External)

Public transit improvements provide mobility for all Calgarians, enhances economic development opportunities in station areas, and enables goods movement on parallel roadway corridors.

### BUSINESS PLAN/BUDGET IMPLICATIONS

The Southeast LRT was not contemplated in the 2009-2011 business plan and capital budget or the 2009-2018 Transportation Infrastructure Investment Plan (TIIP). Green TRIP funding will provide 2/3 of a proposed project's cost while 1/3 of the cost must be contributed by The City.

Timing of the program beyond the initial three years is not yet known. Based on communications with the Province as well as the Calgary Regional Partnership, The City of Calgary share of this program for the next three years could provide funding for \$225.6 million in eligible projects for which The City would be required to contribute \$75.2 million. Sufficient funds are available in Program 664-07W for the purchase of 20 LRVs to cover the City's contribution. Over the life of the program, the Green TRIP funds could support \$960 million of Calgary projects based on a \$320 million contribution by The City. Matching funds for this total contribution have not yet been allocated within capital budgets. To utilize Green TRIP funds, budget reallocations will be necessary to utilize portions of funds already earmarked for other projects thus deferring or delaying those projects.

There will be no impact on the operating budget for 2011.

### RISKS

The Green TRIP funding application is subject to approval by Alberta Transportation under the terms and guidelines of the Green TRIP program.

The balance of the Green TRIP funding beyond the initial three years is subject to available Provincial annual budgets.

### ATTACHMENTS

1. Green TRIP Cash Flow and Proposal Options
2. Need for Fifty Light Rail Vehicles Under Green TRIP Program
3. Southeast LRT Overview