

Southeast and West LRT Line – Source of Funding and Phasing Schedule

Recommendation:

That Transportation and Public Works Committee recommend to City Council:

That the Southeast to West LRT Capital Project 11-66-1673, with Phase 1 funding for \$200 million be financed by:

- a. Provincial Green TRIP - \$130 million
- b. Municipal Sustainability Initiative - \$38.972 million
- c. Tax Supported Debt - \$31.028 million

as outlined in Attachment 2 of the April 12, 2011, Finance and Treasury Department report 2011FS3879, be approved.

Report Summary

This report details options for staging and funding the Southeast to West LRT project.

Previous Council/Committee Action

- At the February 16, 2011, City Council meeting, the following motion was passed:

Southeast and West LRT Line – Source of Funding and Phasing Schedule

- a) Outlining a proposal for a design-build for the Southeast to West LRT line originating from the Maintenance Facility, and that the report describe how much can be built with

the available funds, as well as recommendations for how to phase the project and prioritize the phases.

Government Relations Strategy to Fund the LRT Network

- b) Options for a government relations strategy to secure funds to complete the LRT network in a timely fashion.

- At the January 25, 2011, Transportation and Public Works Committee meeting, the following motion was passed:

That Administration provide a report to Transportation and Public Works Committee, as soon as possible that:

- a) identifies options for cost and source of funds for preliminary engineering for the Southeast and West LRT line
- b) identifies options for a schedule for phasing in the Southeast to West LRT line with an accompanying engineering schedule
- c) outline the amount of funding needed for land purchases
- d) identifies options for funding scenarios for the various LRT line options including P3 funding options

Report

This report addresses the above Council motions except the Government Relations Strategy, which will be addressed in a separate report to Council.

This report recommends funding the project into two phases. The costing of Phase 1 estimated at \$200 million includes preliminary engineering for the entire line and all the land for the Southeast and Downtown stages and only critical land purchases for the West. Phase 2 costing estimated at \$3 billion, includes detailed design, LRT and maintenance facility construction, purchase of light rail vehicles and remaining land requirements.

Preliminary Engineering

- Preliminary engineering for the continuous Southeast to West LRT can be completed as one assignment or split into segments depending on priorities. Completing the preliminary engineering for the complete line offers efficiencies and places the City in an appropriate position to evaluate construction delivery and allows the City to deliver stages of construction more quickly (“shovel-ready”) when funding envelopes become available.
- Completing the preliminary engineering for the entire 27 Kilometre corridor at this time will also provide more accurate information on the alignment. This will increase the cost efficiency of land opportunity purchases and allow Administration to more accurately address utility line assignments; land use and development permit applications along the corridor.
- To complete the preliminary engineering for the entire line the cost is estimated at \$40 million (\$25 million for Southeast and Downtown; \$15 million for West) and could be completed by second quarter of 2013.

- The timelines presented assume that design of the LRT system will proceed per the approved concept plans. Should Administration receive direction to change the concept plans, these timelines will be impacted.
- At key milestone points, City Council and the public will be provided with project updates on the design process. Public input will be gathered to determine local impacts to develop strategies to mitigate those impacts and for design elements such as aesthetics (bridge and station architecture), landscaping and neighbourhood integration.
- The timelines and cost estimates are intended for planning and budgetary purposes only, with assumed funding approval for preliminary engineering in April 2011. A refined timeline and estimated cost to complete preliminary engineering can be provided at the time of contract award in June 2011.

Land

- Through the concept planning exercise, Transportation Department has identified initial property requirements and cost estimates for each line. During preliminary engineering, property requirements will be refined and confirmed. Land opportunity purchases are temporarily financed by Land Enterprise until the project receives approved funding.
- The Southeast LRT line requires approximately \$115 million based on the concept plans. Through

opportunity purchases, approximately \$20 million of the property is presently being pursued.

- The West LRT line requires approximately \$85 million based on the concept plans. Through opportunity purchases, approximately \$16 million of the property required is presently being pursued.
- Priority land purchases would be those properties along the initial stages, those available for opportunity purchase, and portions of property undergoing active development activity.
- Although the planning is still ongoing for the Downtown connection of the West to Southeast LRT line, initial estimates for the Downtown LRT property requirements have been developed. Based on the current Downtown Concept Plan approximately \$15 million is required.
- From the total land estimated to be purchased for \$215 million, \$160 million is recommended to be funded in Phase 1. The remainder of the land requirements (\$55 million) are unfunded and are included in Phase 2 of the project.
- The \$160 million consists of all the land requirements for the Southeast line at \$115 million and the downtown connection at \$15 million and sufficient funding to purchase only critical land for the West line estimated at \$30 million.

Preliminary Engineering and Land Considerations

- Part of the decision making in moving forward with the LRT extension is whether to invest in land and

preliminary engineering on a staged basis or for the entire line.

- The main advantages of investing in a total approach to land and preliminary engineering include:
 - a) increased accuracy of capital cost estimates for the entire line
 - b) project readiness for grant application to other orders of government
 - c) cost effectiveness of land opportunity purchases and accommodating adjacent land development
- The main disadvantage of investing in a total approach to land and preliminary engineering is that if the entire project does not receive funding the stranded costs of the portion of the line not built could have been used to fund the stage or stages that are ready to proceed now.
- It is recommended that preliminary engineering for the entire Southeast to West LRT line be approved in the amount of \$40 million. Completing all the preliminary engineering will ensure that the entire project is ready for advancement regardless of how it is staged.
- It is recommended that all the land requirements for the Southeast to Downtown portion of land be fully funded for \$130 million and that only the key land acquisitions for the West line be funded at \$30 million for a total of \$160 million.

Staging Options

- After preliminary engineering of the 27 kilometre Southeast and West LRT System is completed, construction could be phased based on funding availability. The following provides a recommended staging

scenario, along with the estimated cost to deliver each stage. Estimated costs reflect projected cost escalations in the year 2016.

Attachment 1 provides a map of the proposed construction staging. It also includes land and engineering costs within each stage whereas the following uses the phased approach where the land and engineering costs are included in Phase 1.

Stage 1 - Whitemud Drive / 75 Street Transit Centre to Centre West Station *Estimated Cost - \$ 1.4 billion*

- The first stage at minimum of the new Southeast and West LRT System is to construct from Centre West Station to the Whitemud Drive/75 Street Station.
- The Whitemud Drive/75 Street Station is the minimum south boundary to provide a connection to the new operations and maintenance facility. The operations and maintenance facility must be included in the first stage as it is required to store and maintain the trains for the new system.
- This south boundary would also include the transit centre and park 'n ride north of Whitemud Drive, providing the opportunity for multiple transportation modes to feed into the new LRT system.
- Providing a connection to the existing Churchill Station is a vital interchange point between the existing LRT system and the new LRT system and is the minimum north extension of the new line. This ensures that riders on the Southeast LRT can access the existing system,

providing connections to major recreational (Commonwealth Stadium and Rexall Place) and institutional (University of Alberta, NAIT and various hospitals).

- The current LRT control centre is located at Churchill Station. Extending the first leg of the new system to Churchill provides a cost effective way of controlling the system through a direct connection to the existing control centre; thereby, eliminating the need for a temporary remote operations centre.
- Extending to the Centre West LRT station provides operational benefits in terms of staging trains and it also is an opportunity to provide LRT service closer to the a key downtown employment and shopping district.

Stage 2 – Whitemud Drive/75 Street to Mill Woods Town Centre *Estimated Cost - \$275 million*

- Extending the system south to Mill Woods Town Centre will generate greater ridership and result in more operating savings than extending the system west to Campus Station at Grant McEwan University and NorQuest College. Downtown destined riders can transfer to the existing LRT system to reach their destinations.
- Mill Woods currently has some of the highest transit ridership in Edmonton and, therefore, would generate greater LRT ridership than by extending through Downtown.

Stage 3 – Centre West Station to Grant MacEwan/NorQuest (107 Street) *Estimated Cost - \$175 million*

- The next stage would be extended to the western most Downtown LRT Station, south of 104 Avenue and east of 107 Street.
- This extension would service all of the remaining section of Downtown, providing various transfer opportunities between the existing and new LRT systems. It also offers connection to Grant McEwan University and NorQuest College.

Stage 4 – Grant MacEwan/NorQuest (107 Street) to Jasper Place Transit Centre

Estimated Cost - \$375 million

- Continuing west, the extension would service the residential and commercial areas along 104 Avenue and Stony Plain Road.
- It would terminate at the relocated Jasper Place Transit Centre on the southeast corner of Stony Plain Road and 156 Street, providing an interchange point between the local bus network and LRT.

Stage 5 – Jasper Place Transit Centre to West Edmonton Mall Transit Centre

Estimated Cost - \$475 million

- Continuing the extension to the West Edmonton Mall Station would service a number of residential neighbourhoods along the corridor, along with Meadowlark Mall, Misericordia Hospital and West Edmonton Mall.
- It would terminate at the West Edmonton Mall Transit Centre, providing an interchange point between the local bus network and LRT.

Stage 6 – West Edmonton Mall to Lewis Farms Transit Centre

Estimated Cost - \$300 million

- The final stage of the West LRT would extend the system beyond the west leg of Anthony Henday Drive to the Lewis Farms Transit Centre and park 'n ride.
- This extension would generate regional LRT ridership due to the park 'n ride being located adjacent to Anthony Henday Drive.

Financing Available for SE to West LRT Line

- The report titled “Funding Models for Fast Tracking LRT Construction” was received for information by Transportation and Public Works Committee on January 25, 2011, and provided an overall strategy for financing the NAIT LRT and the Southeast to West LRT lines. It was premised on a 1/3 municipal and 2/3 other orders of government sharing approach.

City Financing

- After financing the NAIT Line, (approved by City Council on February 16, 2011) \$156.972 million remains available for the Southeast to West line as follows:
 - a) Tax supported debt in the amount of \$118 million. The \$118 million represents \$235 million originally approved, less \$117 million that is currently required and approved. Debt servicing costs are included in the 2011 budget and will need to be approved for the 2012 budget.
 - b) Municipal Sustainability Initiative in the amount of \$38.972 million. The \$38.972 million represents \$60 million originally approved less

\$21.028 million that is currently required and approved.

- The report identified that the balance of the City's share toward LRT expansion could be through additional tax supported debt and possible reallocation of funding from the deferral of transportation growth projects planned between 2012 and 2018.

Other Orders of Government Financing

- To date, the main sources of funding available from other orders of government are the Provincial Green TRIP program and the Federal Building Canada Fund.
- Of the \$800 million of Green TRIP funding committed by the Province to the Edmonton Region, \$692 million has been recommended by the Capital Region Board to fund the construction of North LRT and the design and land for Southeast to West LRT and \$40 million for North West LRT extension to the region totalling \$732 million for LRT expansion.
- To date, the City has submitted \$496.7 million to the Province for Green TRIP funding towards the NAIT LRT. This potentially leaves \$235.3 million of Green TRIP funding available for the remainder of LRT expansion.
- Financing is available to undertake Phase 1 - Preliminary Engineering and Land Acquisition for \$200 million (Attachment 3). Funding is not currently available to undertake any of the construction stages.

Budget/Financial Implications

- The Southeast and West LRT preliminary engineering and land costs can be submitted for project

approval by the Province under Green TRIP funding once the Capital Project is approved by Council. This is consistent with the Capital Region Board recommendation to the Province on Green Trip allocation.

- Funding the preliminary engineering (\$40 million) and land (\$160 million) through Green TRIP of \$130 million would require the City's share to be \$70 million. The City's share would come from Municipal Sustainability Initiative reallocated from NAIT \$38.972 million and debt reallocated from NAIT \$31.028 million.
- Short term financing costs are expected to be incurred as the City will have to provide back stop financing for the funding expected from Green TRIP. Should the Green TRIP cash be received within five years, the estimated total interest costs could be in the range of \$22 to \$29 million. The 2011 budget is able to fund the 2011 interest costs estimated at less than \$1 million which is presently in the existing 2011 budgeted debt charges. The 2012 interest costs estimated at less than \$3 million would be brought forward in the 2012 budget as either part of the project costs or part of the budgeted debt charges.
- With the approval of the amendment to the short term borrowing bylaw, the preliminary engineering and land purchases will not be subject to the timing of receiving funds from other orders of government. However, prior to any short-term borrowing taking place there needs to be project approval under the Green TRIP program.
- The financing risk of funding Phase 1 should this project not proceed to construction include;

- a) Land purchase costs
- b) Preliminary Engineering costs
- The risk associated with land cost recovery relates to the land acquisition costs in excess of market value in the form of damages, which may be payable in the compulsory acquisition of required properties. Potential land cost recovery is also very dependant on market value prices at time of sale. The total land cost loss in this scenario could be more than 50 percent. By comparison, opportunity purchases, where the City acts on properties offered for sale before compulsory land acquisitions start, typically do not incur significant costs over market value.
- Should any portion of the alignment be revised during or after the completion of preliminary engineering, that portion of the preliminary engineering would need to be revisited. Changes due to additional grade separations, adjustments in roadway geometry or station location, would require re-engineering of those site specific items. In the event of such a revision, the majority of the preliminary engineering completed would still be valid. The risk associated with these revisions would be the order of \$250,000 for additional grade separations and \$50,000 for roadway geometry and station locations.

Cash Flow Financing – Amendment to existing Short Term Borrowing Bylaw

- A key issue with funding this project is the timing of receiving cash from other orders of government. A borrowing bylaw to back stop the financing for the NAIT LRT was approved at the March 2, 2011, City Council meeting. A similar strategy

is required to finance the Southeast to West LRT preliminary engineering and land purchases, as the receipt of cash from other orders of government is not likely to be received when required. An amendment to the existing short term borrowing bylaw will be available for Council consideration at the April 27, 2011, City Council meeting.

- Interest costs are not presently eligible under the Green TRIP or the provincial fuel tax grant programs. Currently, only the Municipal Sustainability Initiative grant program allows interest as an eligible project cost.

Project Borrowing Bylaw

- A borrowing bylaw would be required for the City's share of project funding. The bylaw would be structured to be as flexible as possible by including the ability to have varying debt terms for each borrowing amount.
- The amount of the borrowing bylaw would initially include only the amount required for Phase 1, \$31.028 million.
- The borrowing bylaw will be available for first reading at the April 27, 2011, City Council meeting. The bylaw can be increased in the future to accommodate Phase 2 of the project.

Justification of Recommendation

Completing the preliminary engineering and land purchases for the Southeast to West LRT allows the City to be in a good position to determine possible delivery methods and funding strategies. The funding model for LRT is based on the City contributing one third and other orders of government contributing two thirds of the project costs.

Attachments

1. Southeast to West LRT Staging
2. Capital Profile 11-66-1673
3. Financing Available for South East to West LRT

Others Reviewing this Report

- R. Boutilier, General Manager, Transportation Department
- M. Koziol, General Manager, Capital Construction Department; Acting General Manager, Asset Management and Public Works Department
- D. H. Edey, General Manager, Corporate Services Department