



Item.....
Meeting..... 2009 Jul 20

COUNCIL REPORT

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**TO:** CITY MANAGER **DATE:** 2009 July 14  
**FROM:** DIRECTOR PLANNING AND BUILDING **FILE:** 90300-20  
*Reference: Evergreen Line*  
**SUBJECT: EVERGREEN LINE - UPDATE**  
**PURPOSE:** To provide Council with the current status of the Evergreen Line Rapid Transit Project.

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**RECOMMENDATIONS:**

1. **THAT** Council endorse the “Essential Elements”, as outlined in Section 3.0 of this report, as preliminary items to be addressed as the design advances on the Evergreen Line Rapid Transit Project.
2. **THAT** copies of this report be sent to the Executive Project Director, Evergreen Line Rapid Transit Project; Minister of Transportation and Infrastructure; Burnaby MLAs; and the City’s Transportation Committee.

**REPORT**

**1.0 BACKGROUND**

At its meeting of 2008 March 17, Council received a staff report concerning the *Evergreen Line Rapid Transit Project Business Case* which had been released by the Province and TransLink on 2008 February 01. The *Business Case* favoured Advanced Light Rail Transit (ALRT) technology, which is SkyTrain or similar, for the Evergreen Line. It left open the question of alignment: either the Northwest Corridor via Port Moody or the Southeast Corridor via Cape Horn. These outcomes were in contrast to TransLink’s previous 2006 business case, which had favoured at-grade Light Trail Transit (LRT), specifically in the Northwest Corridor.

The City staff report provided detailed comments on the new *Business Case*. At that time, Council adopted a number of recommendations that covered the following areas:

- A request that the Province and TransLink undertake an evaluation of the business case for LRT technology in the Northwest Corridor, with reference to concerns expressed in the staff report regarding assumptions in the 2008 *Business Case*.

- Council’s continued support for the Northwest Corridor as the preferred route along with a request for a Provincial and TransLink commitment to ten “Essential Elements” identified by the City of Burnaby as being important to guide the planning and construction of rapid transit in the Lougheed Town Centre area.
- A request that the Province and TransLink re-consider the advisability of the anticipated Public Private Partnership (P3) funding approach given issues raised with regard to public accountability and transparency, transfer of revenue shortfalls to the public, and certainty of system integration with local communities.

Subsequent to Council’s actions, the Province and TransLink in 2008 April announced the selection of the Northwest Corridor via Port Moody for the Evergreen Line route. The previously-announced decision for ALRT technology was retained.

In 2008 October, then-Minister Falcon forwarded a letter to the Mayor acknowledging receipt of Council’s views and concerns associated with the 2008 *Business Case*. In the letter, the Minister reaffirmed the choice of ALRT technology as the chosen option and stated that a P3 approach would be one of the options considered in the procurement analysis process to be undertaken.

The purpose of the current staff report is to provide Council with a status update on the Evergreen Line Rapid Transit Project.

## 2.0 PROJECT OVERVIEW

In 2009 February, the Ministry of Transportation and Infrastructure provided additional information on the Evergreen Line, announcing that it would specifically be SkyTrain technology (rather than another ALRT system) to allow for the through routing of trains between the Evergreen and Millennium Lines.

Additional information was provided in 2009 May with the release of *Evergreen Line Rapid Transit Project: Project Description Report*. This report was prepared by the BC Ministry of Transportation and Infrastructure (the Project proponent) as an initial step in the Environmental Assessment process.

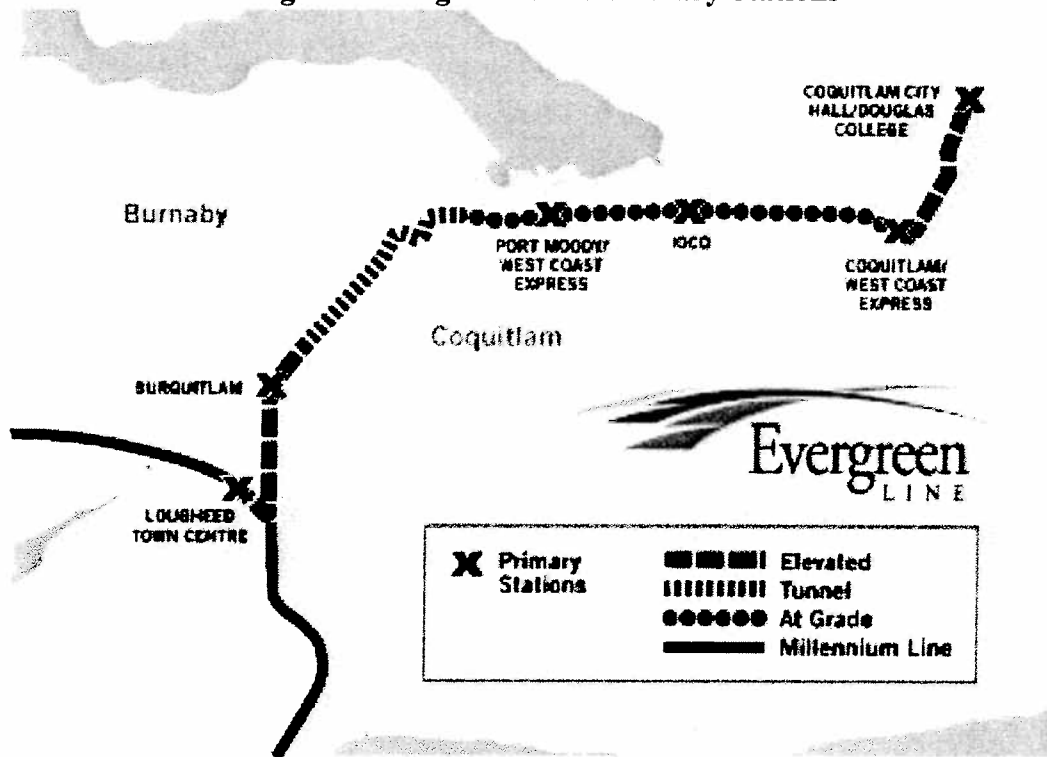
### 2.1 General Alignment and Station Locations

The *Project Description Report* indicates that the Evergreen Line is planned to follow the alignment shown in *Figure 1*, (see next page). It is expected to run 11 kilometres from the existing Lougheed Town Centre Station, elevated on North Road and Clarke Road to Burquitlam, and then tunnelled north of Como Lake Avenue, emerging at the bottom of the Clarke Road hill in Port Moody. From there, the Line is to transition to an at-grade alignment paralleling the CPR right-of-way and continue to Coquitlam West Coast Express Station, transitioning back to an elevated guideway northward along Pinetree Way to a planned terminus just north of Guildford Way, at Douglas College.

As shown in **Figure 1**, the proposal for the Line includes six “primary” (confirmed) stations on opening day:

- Lougheed Town Centre;
- Burquitlam Plaza;
- Port Moody West Coast Express;
- Ioco Road;
- Coquitlam West Coast Express; and
- Coquitlam City Hall / Douglas College

**Figure 1: Alignment and Primary Stations**



According to material provided by the Ministry, up to two additional opening-day stations will be considered based on their ability to shape land use, stimulate increased ridership, promote transit-oriented development, and be affordable. Cameron Street is one of four candidate areas being considered for these two additional stations.

Based on the preliminary design work completed to date, the elevated sections of the Line account for about 50 percent of its length, while the at-grade and tunnel sections account for about 30 percent and 20 percent, respectively.

**2.2 Operational Criteria**

The *Project Description Report* states that the system will be designed to achieve a target running time of approximately 13 minutes between Lougheed Town Centre Station and the terminus near Douglas College at Coquitlam City Centre. It further anticipates that operating

frequency will result in a train every three minutes during peak travel times, capable of delivering a peak-hour capacity of 10,400 passengers in 2021. Operating hours for the Evergreen Line are proposed to be consistent with the existing SkyTrain operations.

### 2.3 Project Development Schedule

A preliminary schedule is provided in the *Project Description Report*. Some anticipated milestones and estimated completion dates are listed by quarter of each year as follows:

- *Project Description Report* to Environmental Assessment Office Q2 2009
- Municipal liaison on Reference Concept Q3 2009
- Preliminary design consultation Q4 2009
- Initiate procurement Q4 2009
- Environmental Assessment Certificate issued Q3 2010
- Conclude procurement Q4 2010
- Start construction Q4 2010
- Construction completion Q3 2014
- Testing and commission Q4 2014
- Operational service Q4 2014

### 2.4 Environmental Assessment Process

The *Project Description Report* was prepared as an initial step in the process to obtain an Environmental Assessment Certificate under the BC *Environmental Assessment Act*. The Assessment will consider the potential environmental, economic, social, heritage, and health effects of the Project.

City staff have a place on a Working Group associated with the Environmental Assessment process. That group will be involved in the review of the Terms of Reference for the Environmental Assessment, as well as the review of the actual Assessment prepared in response to those Terms of Reference.

Staff will keep Council apprised of the progress of the Environmental Assessment, along with information on any significant issues that may arise.

### 2.5 Public Consultation

Ministry staff have advised that they anticipate conducting two rounds of public consultation in the fall. One will solicit public commentary on the Terms of Reference for the Environmental Assessment. The other will focus on the Evergreen Line's preliminary design.

### 2.6 Project Budget and Funding

The cost of the Project is listed in the *Project Description Report* as \$1.4 billion. The budget includes the estimated costs of construction, systems, vehicles, property, engineering, project management, environmental works, public consultation, and contingencies.

In terms of funding, the Federal Government had previously committed \$66.7 million for the Evergreen Line under the Public Transit Capital Trust announced in the 2008 Budget. In a 2009 February news release, the Federal Government and the Province announced that an additional \$350 million will be made available for the Evergreen Line under the Building Canada Fund. These additional funds are to be made available after final Project details are defined, a contribution agreement is executed, construction has begun and actual costs are incurred on the Project. It was noted that the Province has committed \$410 million to the Project with TransLink proposing to contribute \$400 million. According to the news release, the remaining balance of \$173 million is proposed to be funded by Project partners, including a possible Public Private Partnership and potentially through transit-oriented land development.

However, as discussed below, there is some uncertainty about TransLink’s ability to provide for its allocation of \$400 million, plus any additional share to make up the remaining shortfall, and thus, some uncertainty as to the security of adequate funding for the Project to advance.

## 2.7 The TransLink Funding Component

As part of its efforts to develop a funding strategy to implement its *Transport 2040* long-term strategy, which includes the construction of the Evergreen Line, TransLink has recently completed an extensive public consultation program to explore options. Results from the process are anticipated in September. From a review of TransLink materials used in this consultation program, it is clear that the ability for TransLink to actually provide the intended \$400 million towards the Evergreen Line Project is not assured.

In its explanation of the available service and funding options under consideration, TransLink has indicated that the choice of funding level will have direct implications on the various elements of the transportation network. These elements include transit service, rapid transit, roads and bridges, cycling, customer information, and safety. TransLink consulted on the following three funding options:

1. **Existing Funding Levels:** In the event that no funding increases (beyond inflation) are obtained, then TransLink has indicated that there would need to be “drastic cuts” to existing service levels, with a 40 percent reduction in bus service and a reduction in existing SkyTrain service. No new rapid transit lines would be built under this scenario.
2. **New Funding of \$260 million:** To keep pace with growth in the region and add 160 new buses, 100 new SkyTrain cars, upgrade Expo Line stations, and provide modest road and cycling improvements, TransLink has stated that it would need an additional \$260 million annually. To raise this amount under its available funding mechanisms, it would need to increase the fuel tax by three cents (to 15 cents/litre), double the parking sales tax to 14 percent, increase transit fares and property taxes at rates above inflation, and introduce a new Transportation Improvement Fee which would be an annual registration fee on vehicles. This could be a flat fee of \$165 annually, or could span a range from \$100 to \$200 depending on various factors, such as each vehicle’s fuel efficiency. However, even with this additional \$260 million annually, TransLink has indicated that

there would still not be sufficient funds for any new rapid transit lines, including the Evergreen Line.

- 3. New Funding of \$450 million:** For TransLink to implement all the elements of *Transport 2040*, including the Evergreen Line and other rapid transit lines, it has indicated that it will require \$450 million annually above existing funding levels. To achieve this, or any level above \$260 million, there would need to be new sources of revenue that are not available within TransLink's existing legislation. Potential sources identified by TransLink include portions of the Carbon Tax and Property Transfer Tax collected by the Province, the introduction of Road User Fees and a Goods Movement Fee. TransLink's Mayors' Council on Regional Transportation has called on senior governments to assist with funding. At the \$450 million funding level, TransLink indicates that there would be the ability to implement major rail and/or bus rapid transit expansion projects, including the Evergreen Line.

On several occasions, Burnaby has raised concerns about the sustainability of available funding and the ability to pay for the Evergreen Line in relation to other transportation commitments made in the region. Linking this to the question of technology choice, a previous staff report referenced a 2004 October 1 GVRD report which noted that: *"Barring major new funding from unidentified funding sources, and without significant re-orientation of regional funding towards this project from other priorities, it would be appropriate to guide decisions on technology based on a reasonable likelihood of available funding. This essentially rules out SkyTrain as a viable choice."*

The Province's decision to switch the Evergreen Line to the more expensive ALRT technology, over TransLink's previously-favoured LRT, results in an increased need for Project funding. In late 2006, TransLink had estimated the cost of at-grade LRT at \$0.97 billion. However, the 2008 *Business Case* indicates a cost for its preferred ALRT technology of \$1.4 billion, representing an additional cost of \$0.43 billion or 44 percent<sup>1</sup>. As such, this decision to use a more expensive technology has made it more difficult to advance the Project.

Staff will monitor the results of TransLink's service and funding options review, when available, and will advise Council of the impact of that process on the advancement of the Evergreen Line Project.

## 2.8 Municipal Integration Fund

In 2001, a Municipal Integration Fund (MIF) was created to fund at-grade improvements (bus loops, sidewalks, passenger drop-off areas, etc.) at proposed rapid transit stations. MIF totalled \$60 million, of which \$35 million was allocated to the Millennium Line and \$25 million was

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<sup>1</sup> The same 2008 *Business Case* states that at-grade LRT would cost \$1.25 billion, an increase of \$0.28 billion or 29% from the value given just 16 months previously for the same technology. By comparison, ALRT costs rose only 10%, from \$1.27 billion in 2006 to \$1.4 billion in 2008. The 2008 *Business Case* states that the capital cost of ALRT is only 12% greater than LRT. However, this is a very different conclusion from the 31% cost differential determined in 2006. The 2008 *Business Case* gives no explanation for why the cost estimates had changed, and thus why the cost differential between the two technologies had decreased so much.

held in reserve for what is now called the Evergreen Line. At that time, construction of the latter route, with SkyTrain technology, was seen as imminent. MIF was cost-shared equally between TransLink and the municipalities.

MIF funds allocated for the Millennium Line were spent on that project. TransLink's \$12.5 million share (50%) of Evergreen Line MIF funds was carried on the books for five years. In 2006, preliminary design of the Evergreen Line had been completed, based on at-grade LRT technology, and the project was ready to advance to detailed design. It was anticipated that integration into the urban fabric would be achieved within the detailed design process, rather than as a separate task. The \$12.5 million in MIF funds that had been held in reserve were thus released by the TransLink Board to help fund the project's detailed design.

### 3.0 CITY OF BURNABY ISSUES

During 2006, there were a significant number of technical meetings between Burnaby staff and the consultants for the Evergreen Line, as the design advanced on what was then a project based on LRT technology. With the switch to ALRT technology, there is a need to re-investigate all aspects of the Line as it relates to the City.

Based on the previous discussions and recent *Project Description Report*, City staff have reviewed and identified a number of "Essential Elements" that are considered important to help guide the planning and construction of the Evergreen Line as it relates to the City of Burnaby. These elements include the following:

1. **Access Agreement:** As part of the implementation of the Millennium Line, the City entered into an Access Agreement which outlined the roles, responsibilities and commitments for the three agencies involved in that project (the Provincial government, TransLink and the City of Burnaby). The City's objective in pursuing that agreement was to achieve the best possible integration of the new rapid transit system within Burnaby. This experience proved that (particularly in situations where budget and timetable are fixed) clear definition of scope, authority, regulatory process, and cost-sharing of various aspects of the project are important to protect the interests of all parties as the project advances.
2. **Centre median alignment:** Agreement to a centre median alignment on North Road to mitigate noise and visual impacts. This is the only alignment which does not significantly impact the existing and future land use plans contained within the adopted Lougheed Town Centre Plan. This centre median alignment is consistent with previous TransLink commitments made with respect to the Evergreen Line.
3. **Like-for-like replacement:** One of the key principles used during the construction of the Millennium Line was that of like-for-like replacement. This ensured that the project replaced what was there before they began construction with an equivalent item, if relocation or reconstruction was required. In particular, for the Evergreen Line, like-for-like replacement items include:

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- North Road / Austin Road intersection: Careful siting of the guideway columns and provision of adequate lane capacity and widths is required to protect roadway capacity and safe and efficient turning movements at this key Town Centre intersection.
  - Number of lanes: Currently, on the Burnaby side, North Road has two southbound lanes and a parking lane in the section north of Sullivan Street, and three southbound lanes to the south of Sullivan Street (plus auxiliary turning lanes at select locations). This lane configuration needs to be maintained, given the Town Centre traffic flows in the area.
  - Access to Lougheed Mall: Based on the preliminary assessment of the centre median ALRT alignment undertaken by the City, it would appear that the existing mid-block (between Austin and Cameron) northbound left turn lane into Lougheed Mall can be maintained. However, for safety and operational purposes, the design should include a traffic signal and careful column placement to mitigate potential sightline obstructions.
  - Current standards: Where City infrastructure is impacted by the Project, it should be reconstructed by the Project to current standards in terms of materials, lane widths, etc.
  - Capacity increases: Where the City wishes to increase the capacity of impacted infrastructure (e.g., pipe diameter, number of lanes), the cost differential for the increased capacity would typically be at City expense.
4. **Consideration of a station at Cameron Street**: Although a potential station at Cameron has been identified for consideration, the Province has stated that it will construct no more than two of four such potential stations. A potential station at Cameron Street would allow better access to the Evergreen Line from the northern half of the core area of Lougheed Town Centre. The relationship would be similar to Gilmore Station on the Millennium Line, which serves the western half of Brentwood Town Centre. This latter station has attracted a considerable amount of redevelopment in the area directly surrounding the station and, as a result, has made a visible contribution to realizing the objectives of the Brentwood Town Centre Plan for development served by transit. The Lougheed Town Centre Plan makes provision for 18,000 residents and 7,000 employees by 2021 (rising subsequently to 23,000 and 12,000 respectively by 2041). Most of these are within the 1,000-metre service radius of the proposed Cameron Station. In addition, there is existing and potential development on the Coquitlam side of North Road. As such, development in the Cameron Street area would benefit greatly from the addition of a station at Cameron Street and would deliver increased ridership to the Line.
5. **Town Centre median and guideway treatment**: The introduction of the ALRT guideway into the Town Centre areas has proven to be a highly unflattering and overpowering element of the developing urban landscape. Both the Lougheed and



Brentwood Town Centres have suffered from the bleakness and harshness of monolithic columns and guideway. To help address this from the outset, the Project should include more appropriate materials for median treatment within Lougheed Town Centre. This could include a combination of pavers and irrigated landscaping, instead of asphalt capping. Large structures (known as “bents”) that typically span all or part of the roadway to support the ALRT guideway have proven to be especially unattractive elements of the streetscape. Every effort should be made in the design phase to avoid the use of these bents, especially within the Town Centre area.

6. **Station design and integration:** The connection of the Evergreen Line with the existing Lougheed Town Centre Station will present a number of design and integration issues that will be of importance to the City. Changes to the station area should include:

- The introduction of the Evergreen Line guideway, station platform, and integration with the existing Lougheed Town Centre Station;
- Probable reduction in bus service from Coquitlam, as some routes will be replaced (in whole or in part) by the Evergreen Line;
- Introduction of new Rapid Bus service to and from Highway 1 at Government Street, providing service via Highway 1 to Surrey and Langley; and
- The need to upgrade the pedestrian environment adjacent the station and in the bus loop.

These changes will likely have implications on the functionality and spatial requirements associated with the existing bus loop at the station, and its connection to the adjacent road network. The City will need to have a key role in the consideration of proposed responses to these issues.

Assuming the introduction of a station at Cameron Street, the City will also need to be a full partner in the design and integration deliberations to ensure that it will effectively support both the Evergreen Line and Lougheed Town Centre Plan objectives.

With the demise of the Municipal Integration Fund, it is important that the design and implementation of all such station integration work be funded by the Project.

7. **Protection for future redevelopment proposals:** The proposed alignment of the elevated guideway as it approaches Lougheed Town Centre Station is expected to traverse private parcels of land. The design needs to take into consideration the potential impact on the ability of the remaining redevelopment parcels to be effectively buildable within the context of the adopted Lougheed Town Centre Plan.

8. **Involvement of community partners:** While it is understood that there will be public consultation at certain times during the Project, there are a number of key participants that should be more regularly consulted during the planning and construction phases.

This should include, but not necessarily be limited to, the North Road Business Improvement Association, Loughheed Mall management, and managers of major commercial properties on either side of Cameron Street. Their involvement in a more regular and structured consultation is considered important given potential right-of-way, access, integration, and disruption issues that may arise with these groups.

#### **4.0 LIAISON BETWEEN THE CITY AND THE PROJECT**

To date, staff have had a few introductory meetings with the Project's Ministry staff and their consultants, but have not yet reviewed any conceptual plans or other details for the Project. The Project staff were recently provided with a preliminary road geometric for incorporating SkyTrain within a centre median alignment, prepared by City staff. This drawing shows a proposed guideway alignment along with needed lanes, including turning lanes, lane widths, signal locations and suggested associated column locations. This geometric will be the City's basis for achieving the successful integration of the Line within the North Road alignment through more detailed review and discussion with Ministry staff as the overall design is developed by the Project.

##### **4.1 Proposed Project Integration Meetings**

The City's past experiences with the Millennium Line planning and construction processes highlight the need for maintaining a close liaison with the Project Managers in dealing with the myriad of details that emerge. During the Millennium Line project, a Project Integration Committee approach was utilized where City and Project staff met on a frequent and regular basis to deal with the range of issues having mutual interest. While the North Road frontage involves a significantly shorter length of affected right-of-way, the Project Integration Committee still has validity as an approach for the City to contribute into and guide the design development for the Evergreen Line. As such, staff would intend to formalize this approach with the Project Managers.

##### **4.2 Requested Confidentiality Undertaking**

The Project Management staff representing the Ministry recently requested that City staff sign a Confidentiality Undertaking. Such an undertaking would apply to designs, plans, specifications, data, and the like relating to the Project. It would preclude the participating staff from disclosing the confidential information to anyone (even anyone within City government) without first receiving approval of the Project.

Staff have declined to sign such an undertaking as it would significantly erode the ability to keep Council regularly informed of progress on the Project, or with respect to emerging issues. Staff are well aware of the need for confidentiality in certain matters, such as land acquisitions and exploratory and hypothetical alignment options, and fully intend to respect that need for confidentiality as part of its day-to-day proceedings. However, we are equally aware of the need for Council and the public to be kept informed of the progress of the Project as it relates to the best possible integration with the adjacent community and the redevelopment plans for the Loughheed Town Centre area.

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### 4.3 Offer from the Project Managers to Meet with Council

Management staff for the Evergreen Line Project have indicated their willingness to meet with Council at its convenience to provide a general status update and answer any questions that members of Council may have during the project process. Staff would propose to confirm arrangements for such a meeting, at Council's discretion.

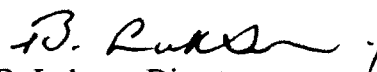
### 5.0 NEXT STEPS

As indicated, the planning process associated with the Evergreen Line ALRT Project is in its preliminary stages. During the third and final quarters of this year, it is anticipated that there will be an increased and more regular liaison between Project and City staff in developing the conceptual framework for the Evergreen Line as it relates to the City.

As mentioned, City staff intend to pursue a structured series of Project Integration Committee meetings with the Project staff, so that as much certainty as possible can be defined during the conceptual design phase of the Project. This is particularly important in the event that a P3 procurement option is chosen where budgets and timetable for the Project are fixed and bids are related to specified design parameters.

As the technical meetings on the Project proceed, staff will provide further status reports to Council to keep them abreast of the Project and to identify any significant issues of interest to Council. In addition, staff will continue to monitor the on-going discussions regarding TransLink's larger funding issues, and advise Council as appropriate. Staff will also be involved in the Environmental Assessment of the Evergreen Line as it relates to Burnaby.

This report recommends that Council endorse the "Essential Elements", as outlined in Section 3.0, and that copies of this report be sent to the Executive Project Director, Evergreen Line Rapid Transit Project; Minister of Transportation and Infrastructure; Burnaby MLAs; and the City's Transportation Committee.

  
B. Luksun, Director  
PLANNING AND BUILDING

JSB/SR:jc

Copied to:	Deputy City Manager	Director Engineering
	Director Finance	O.I.C. RCMP
	Fire Chief	City Solicitor