



# REPORT TO MAYOR AND COUNCIL

**PRESENTED:** MARCH 10, 2008 - SPECIAL MEETING  
**FROM:** ENGINEERING DIVISION  
**SUBJECT:** SOUTH OF FRASER AREA TRANSIT PLAN, PROVINCIAL TRANSIT PLAN AND OTHER RELATED STUDIES

**REPORT:** 08-51  
**FILE:** 8500-5

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## RECOMMENDATION(S):

**That** Council receive the South of Fraser Area Transit Plan, Provincial Transit Plan and Other Related Studies report; and

**That** Council endorse the draft South of Fraser Area (SoFA) Transit Plan in principle, subject to:

- a) A supplement being added to the draft SoFA Plan to reflect an appropriate share of the additional buses contained in the recently announced Provincial Transit Plan as well as the projects, and their timing, related to the SoFA area contained within that Plan;
- b) TransLink committing to achieving equity in the provision of bus transit service across the region including the SoFA area in terms of hours of service per capita as quickly as possible.
- c) The immediate commencement of planning for the new facilities and infrastructure identified in the Provincial Transit Plan and by the Provincial Gateway Program such as the Willowbrook Mall Transit Exchange, the 202 Street Transit/HOV Tunnel, 202 Street Park and Ride/Transit Exchange and Bus Lanes on Highway 1, Fraser Highway Bus Rapid Transit Line and 200/202 Street Bus Rapid Transit Lines.
- d) TransLink forwarding to the Township of Langley for comment an amended Seven Year Implementation Plan based on the SoFA Plan as supplemented to reflect the above conditions;
- e) The Plan acknowledging the need for further significant rapid transit projects in the Plan's timeframe beyond those projects identified in the Provincial Plan, and that the Plan will be further amended in the future as information is available to support the inclusion of those projects in the Plan; and
- f) The SoFA Plan identifying the need for improved connections to Abbotsford.

**That** Council strongly endorse TransLink making a request for Federal funding for essential transit facilities South of the Fraser and in Metro Vancouver; and

**That** Council authorizes the staff to forward a copy of this report along to TransLink and to each of the other South of the Fraser Area (SoFA) municipalities.

## **EXECUTIVE SUMMARY:**

There have been several key transportation plans and initiatives undertaken within the South of Fraser Area over the past year that address many of the transportation needs of the Township. The plans are interrelated and have identified similar projects and initiatives.

These studies include:

- South of Fraser Area Transit Plan (SoFA Transit Plan)
- Provincial Transit Plan
- Provincial Gateway Program
- Roberts Bank Rail Corridor Study
- Community Rail Study
- Township Master Transportation Plan

The SoFA Transit Plan identified key transit improvements as part of a 2031 vision for the Delta/Langley/Surrey/White Rock Area. The key components of the vision are Rapid Bus Transit and expansion of the Frequent Transit Network (FTN). The Provincial Transit plan identifies additional Rapid Bus Transit routes, as expansions to Rail Rapid Transit along with the addition of a significant number of buses which allows for expansion of the South of Fraser Transit fleet sooner than the draft SoFA Transit Plan currently projects.

The Provincial Gateway Program primarily affects Langley through the Highway 1/Port Mann expansion with the

- planned Rapid Bus Transit/HOV lanes on Highway 1
- a new Park and Ride/Transit Exchange in the vicinity of 200 Street along with a Transit/HOV tunnel in the vicinity of 202 Street with direct connections to Highway 1.

The Provincial Transit Plan also shows a Rapid Bus Transit Line north of Highway 1 on 200 Street connecting to the Golden Ears Bridge and does not include the proposed Transit Exchange/Park and Ride or Transit tunnel at 202 Street.

The Roberts Bank Rail corridor study recommended the construction of an overpass of the CP Rail line and the Langley Bypass which would provide a four lane alternative link to 200 Street between 72 Avenue to 53 Avenue or 56 Avenue. This new arterial road link would provide direct connections to Willowbrook Mall which staff has recommended to TransLink as the optimum location for the new Willowbrook Park and Ride/Transit Exchange. The Provincial Transit Plan shows the extension of the Rapid Bus Line on Fraser Highway to Langley Centre. Willowbrook Mall is the logical terminus of both these lines and which is further enhanced by the provision of the 196 Street arterial corridor.

The Community Rail study undertaken by the Township examines the feasibility of re-introduction of passenger rail service in the Langley's. The study identifies a number of significant obstacles that would need resolution before such a service could be established. The finalization of the study was delayed to allow for the incorporation of the findings of the other studies into the document but does not include the latest information on the Provincial Transit Plan. Due to the number of significant obstacles, the time and resources required to pursue further work, the significant duplication that the proposed service now has with the SoFA Transit Plan and Provincial Transit Plan along with the lack of analysis on potential ridership or a cost/benefit analysis staff does not recommend pursuing Community Passenger Rail at this time. The Community Rail Study also examined only a lower cost infrequent peak hour service which would be difficult to compete with the more frequent Rapid Bus Transit, Skytrain Expansion and expanded Frequent Bus Network services identified in the SoFA Transit Plan and the Provincial Transit Plan. Staff recommends that the issue be re-examined only if the City of Surrey can show that passenger rail service can be successful and a cost effective alternative on the Surrey portion of the line between the proposed Newton and Cloverdale stations. This section of line has far fewer challenges than the Langley portion and should only be used as a guide for ridership potential and not cost implications.

The Township completed a draft Master Transportation Plan which it took forward to Council in February of 2007 and the public in March of 2007. Finalization of the study was delayed until such a time as the major regional studies underway that affect Langley could be completed and implemented into the final plan. Staff is currently amending the final plan to reflect these changes and anticipate providing Council further information on the Master Transportation Plan in April/May of 2008.

**PURPOSE:**

To provide Council with information on the South of Fraser Transit Plan, Provincial Transit Plan, Provincial Gateway Program, Roberts Bank Rail Corridor Study and the Community Rail Study and seek Council endorsement of the SoFA Transit Plan based upon reconciling the various recommendations of each of those studies and amending the plan accordingly.

## **BACKGROUND/HISTORY:**

The Township of Langley Engineering Department has been actively working with Federal, Provincial, and Regional governments on several initiatives to address the increasing transportation needs of the Township within the context of the overall growth of the South of Fraser Area. All of these plans are interconnected and discuss transit related components within the Township of Langley. These plans include:

- The South of Fraser Area Transit Plan (SoFA) which is intended to provide the vision for the 2031 transit network for the South of Fraser communities of the Township of Langley, City of Langley, City of Surrey, City of White Rock and Corporation of Delta.
- The Provincial Transit Plan which was recently announced by the Provincial Government and is intended to strengthen the Provincial Transportation Network, foster economic growth and support Provincial climate action goals.
- The Provincial Gateway Program which includes the Port Mann/Highway 1 widening as far east as the 216 Street Interchange and the provision of Bus Rapid Transit on Highway 1 as well as new Transit Facilities along the Corridor.
- The Roberts Bank Rail Corridor Study completed in the Spring of 2007 led to an agreement in principle between the four affected Municipalities, the Railways, Transport Canada, TransLink, the Vancouver Port Authority and the Ministry of Transportation to construct nine new grade separated crossings of the CP Rail corridor over the next eight years. The location of the new proposed crossings may impact future decisions made with respect to the optimal location for new Transit Facilities.
- The Community Rail Study undertaken by the Township of Langley to examine the feasibility of the re-introduction of passenger rail service, termed Community Rail, along the CP Rail corridor through the Langley's.
- The Township Master Transportation Plan which is intended to guide the development of the Township transportation network to 2021. There are several other studies related to the Master Transportation Plan including the Willowbrook Traffic Analysis, the Aldergrove Traffic Study, the Road Forms Guidelines Study, the Neighbourhood Traffic Calming Policy, the Bicycle Network Update, the Road Network Classification Strategy, a Traffic Signal Timing Practices Review and an Intersection Safety Guidelines Study.

## **DISCUSSION/ANALYSIS:**

For each of five plans/programs/ studies, there is attached to this report an appendix providing detailed discussion and analysis; following is a synopsis of each followed by a status position on the Township Master Transportation Plan.

**South of Fraser Area (SoFA) Transit Plan**

The Township began working with TransLink in 2006 on the development of a Long Range Transit Vision (2031) for the South of Fraser Area (SoFA). Phase 1 of the plan involved an examination of the current travel patterns, changing population and employment projections and significant public consultation to determine the future transit needs for an estimated \$1 million people in the SoFA by 2031. The plan was further refined to establish proposed transit services for intermediate time frames for 2011 and 2021. In the development of the plan, the timing and provision of services was constrained due to financial considerations however the Provincial Transit Plan provides additional and very significant resources to relieve those constraints

1. Attachment A illustrates the current transit network with the SoFA.
2. Attachment B illustrates the current travel patterns of Langley residents based upon a 2004 travel survey
3. Attachment C illustrates the proposed 2031 SoFA Transit Plan vision prepared by TransLink as of November of 2007. The 2031 vision maps focuses on frequent transit services and rapid transit services and does not show local bus or community shuttle services. Local, community shuttle, and peak hour services will be examined as part of Phase II of the plan. The proposed plan enhances connections between regional town centers and communities within the SoFA by providing Bus Rapid Transit on Fraser Highway and 200 Street and by providing frequent bus service on routes such as 96 Avenue, 88 Avenue, 208 Street, 64 Avenue, Highway 10, and 32 Avenue/24 Avenue. The plan focuses on improving internal movements with the SoFA by creating a more complete grid system.
4. Attachments D and E illustrate the proposed 2011 and 2021 Transit Plan prepared by TransLink. As seen in Attachment D, there are improvements in services between Langley and Abbotsford, White Rock and Surrey and a new connection across the Golden Ears Bridge by 2011. The 2021 plan shown in Attachment E builds upon the plan to incorporate Bus Rapid Transit on Highway 1 and Bus Rapid Transit on Fraser Highway to Surrey. The 2031 network incorporates further improvements such as Bus Rapid Transit on 200 Street and frequent bus service on 208 Street.

**Provincial Transit Plan**

On January 14, 2008, the Provincial Government announced a Provincial Transit Plan that included an expansion to all levels of transit within the Province at an estimated cost of \$14 billion by 2020.

**Provincial Transit Plan Improvements**

Proposed Improvement	Cost
Skytrain extension to UBC – 12 km	\$2.8 billion
Skytrain extension to Guildford and Fleetwood – 6 km	\$1.1 billion
Evergreen Line Construction – 11 km	\$1.4 billion
Upgrade to Expo Line Stations: 6 car trains, storage track, system upgrades, maintenance and storage facilities	\$2.0 billion
Nine new Rapid Bus lines, seven of which will be in the Metro Region, including along the King George Highway and Fraser Highway	\$1.2 billion
1,500 new, clean energy buses and related maintenance infrastructure, of which approximately 900 are planned for Metro Vancouver	\$1.6 billion
<b>Total Estimated Cost</b>	<b>\$11.1 billion</b>

The Provincial Transit plan assumes financial commitments from the Federal Government (\$3.1 billion), TransLink (\$2.75 billion) and local governments (\$500 million) along with \$4.75 billion from the Province. The local government share is related to municipalities outside the lower mainland. The Federal government has not made any financial commitments to date and staff recommends that Council support TransLink seeking the necessary funding. TransLink has estimated an additional \$100 million per year in annual operating costs with the Provincial Transit Plan.

One of the major differences between the Provincial Transit Plan and the SoFA Transit Plan is a 6 km extension of Skytrain to Fleetwood and Rapid Bus Transit to Langley Centre. The current SoFA Transit Plan shows Rapid Bus Transit from Surrey Central to Willowbrook Mall. The proposed expansion improves the provision of Rail Rapid Transit in the South of Fraser Area as compared to the current SoFA Transit Plan.

There are 7 new Rapid Bus lines planned for the Metro Vancouver region including King George Highway, 152 Street, Fraser Highway, Highway 99, Highway 1, and 200 Street north of Highway 1 to Maple Ridge. A new Park and Ride/Transit Exchange is proposed at Willowbrook Mall which would be the terminus for both the Fraser Highway and 200 Street Bus Rapid Transit lines.

The Provincial Transit Plan also indicates Bus Rapid Transit along 200 Street from Highway 1 to the Golden Ears Bridge to Lougheed Highway to Coquitlam. The Township has sufficient rights of way to provide dedicated bus lanes on 200 Street from 86 Avenue to Willowbrook Drive. This would allow for a linkage along 86 Avenue to the new Transit Exchange/Park and Ride proposed for the south side of Highway 1 in the vicinity of 202 Street. A transit/HOV tunnel with connections to Highway 1 has also been proposed along 202 Street connecting 86 Avenue to 88 Avenue in Walnut Grove.

The Provincial Plan currently proposes an additional 900 buses for the Metro Vancouver Region which could enable the SoFA Transit plan to be amended to rectify the regional disparity in the provision of transit services in a shorter time frame than previously envisaged.

### **Provincial Gateway Program**

The Provincial Gateway Program includes the widening of the Port Mann Bridge and Highway 1 from McGill to 216 Street and the Province and TransLink have reached an agreement to provide Bus Rapid Transit along the corridor on dedicated Bus/HOV lanes. The project is intended to provide fast, frequent bus service between Burnaby, Coquitlam, Surrey and Langley with connecting buses to Abbotsford and communities north of the Fraser River via the Golden Ears Bridge.

The Province is contributing \$150 million and TransLink is contributing \$30 million for buses and facilities needed for the project. The current scope is to provide the following facilities:

- Initially, 20 buses with 10-15 minute frequency during rush hours increasing over time with ridership.
- A transit only priority two-way access ramp to/from the median HOV lanes via Government Street for access to Lougheed Town Centre Station in Burnaby.
- Median on/off ramps for HOV/Buses at the 156 Street Interchange in Surrey along with a transit loop either within or in the vicinity of the 156 Street Interchange.
- A Median on/off ramps for HOV/Buses in the vicinity of 200 Street to 204 Street along with a transit loop in the vicinity of the 200 Street Interchange.

- A minimum of 1,000 park and ride spaces south of the Fraser River.

Over the past several months, Township staff has been working cooperatively with both TransLink and the Gateway Program to examine options for the Transit Exchange/Park and Ride facility near 200 Street and is now beginning to refine conceptual plans.

The Township has also been working with Gateway Program staff on

1. alternatives to provide additional capacity to/from Highway and across Highway 1 have been examined. This includes additional on/off ramps to the 192 Street Overpass,
2. the widening of the 208 Street overpass, and
3. a new interchange at Highway 1/216 Street which will also accommodate cyclists and pedestrians.

### **Roberts Bank Rail Corridor (RBRC) Study**

The Roberts Bank Rail Corridor Study was initiated because of the third berth and second terminal proposed by the Vancouver Port Authority and the resulting increased train traffic and its impact on the road/rail interface through Delta, Surrey and Langley. The agreement in principle identifies 9 new grade separation projects to be constructed over the next 8 years at an estimated cost of \$308 million. The funding partners are Transport Canada, the Ministry of Transportation, TransLink, the Vancouver Port Authority, the Railways and the municipalities.

A partner's implementation team has been formed to oversee and guide the direction of the program and projects. A technical working group has been formed to examine specific details related to the project. The Township is actively participating on both of these groups. TransLink has also hired a project manager to oversee the project on their behalf.

The Township is involved in the following projects:

- Mufford Crescent/64 Avenue Overpass and Extension
- 196 Street/192 Street/54 Avenue Overpass combination
- 232 Street Overpass

The Mufford Crescent/64 Avenue Overpass and extension was initiated by the Township several years ago. It has been identified as the highest priority project for the Township in the RBRC program. Following the signing of the agreement in principle in the summer of 2007, the Township awarded the contract for a "Design Feasibility and Investigation on the 64 Avenue Overpass and Extension" to McElhanney Consulting in the fall of 2007. The study includes further detailed examination of the preferred alignment with respect to road design, structural design, land tenure, geotechnical issues, and environmental issues. A draft report was submitted by McElhanney in February, 2008. Staff anticipates bringing forward additional information on the Mufford Crescent/64 Avenue Overpass project in a future Council Report

### **Community Rail Study**

The Township of Langley hired UMA Engineering to undertake a high level analysis of the costs, benefits and some of the issues related to the feasibility of re-introducing passenger rail service, termed Community Rail, for the Township of Langley. The study builds upon work completed by UMA for the City of Surrey and the Fraser Valley Heritage Railway Society (FVRHS) on the viability of a similar type of service from the New West Rail Bridge to Cloverdale. The City of

Surrey and the FVRHS are pursuing the implementation of a Heritage Train in time for the 2010 Olympics which could potentially be expanded to a Community Rail System.

The report examined the following issues:

- Existing usage of the rail corridor
- Constraints to operating a Community Rail system through Langley
- Issues in Operating a Passenger Rail Service
- Review of existing Bus and Rail Services in Langley
- Improvements to Transit services
- Description of Community Rail Model
- Potential Stations, land use, employment and population in catchment areas
- Traffic assessment of corridor
- Potential Safety Impacts
- Range of Capital and Operating Costs

After reviewing the study, its conclusions and its recommendations staff propose that the feasibility of a Commuter Rail passenger service be re-examined in the future following the proven successful implementation of a similar type of service in Surrey between Newton and Cloverdale. Current plans are for a heritage rail service which does not provide sufficient levels of service. If future expansion to a commuter/LRT type of service is viable on that portion of the corridor, then the Township may wish to undertake further study on the numerous issues and details identified in the current study.

### **Master Transportation Plan and related studies**

The Master Transportation Plan is to guide the development of the Township transportation network to 2021. The draft Master Transportation plan was completed in October, 2006. Following a Council report in February of 2007, the Township undertook additional public consultation in March, 2007.

Due to the number of outstanding issues to be resolved related to significant Provincial and Regional Projects and studies, the draft Master Transportation Plan was not brought forward to Council. Staff is currently incorporating the major recommendations of related studies such as the SoFA Transit Plan, Provincial Transit Plan, Provincial Gateway Program and RBRC Study into the Master Transportation Plan.

Over the past year, the Township has continued working with TransLink and cycling groups to produce an update to the Bicycle Route Map which will be incorporated into the Master Transportation Plan. Similarly, staff is incorporating the findings and recommendations of the Willowbrook Traffic Analysis, Aldergrove Traffic Study, Road Forms Guidelines Study, Road Network Classification Strategy and Neighbourhood Traffic Calming into the Master Transportation Plan. We anticipate bringing forward a report to Council providing further details on the Master Transportation Plan in April/May of 2008.

Respectfully submitted,

Paul Cordeiro  
MANAGER, TRANSPORTATION ENGINEERING  
for  
ENGINEERING DIVISION

APPENDIX 1	SOUTH OF FRASER AREA (SOFA) TRANSIT PLAN
ATTACHMENT A	CURRENT TRANSIT NETWORK
ATTACHMENT B	CURRENT TRAVEL PATTERNS (2004)
ATTACHMENT C	2031 SOFA TRANSIT PLAN VISION
ATTACHMENT D	2011 SOFA TRANSIT PLAN
ATTACHMENT E	2021 SOFA TRANSIT PLAN
ATTACHMENT F	2020 RAPID TRANSIT NETWORK
ATTACHMENT G	2020 RAPID BUS NETWORK
APPENDIX 2	PROVINCIAL TRANSIT PLAN
APPENDIX 3	PROVINCIAL GATEWAY PROGRAM
APPENDIX 4	ROBERTS BANK RAIL CORRIDOR (RBRC) STUDY
APPENDIX 5	COMMUNITY RAIL STUDY

### **Appendix 1: South of Fraser Area (SoFA) Transit Plan**

The Township began working with TransLink in 2006 on the development of a Long Range Transit Vision (2031) for the South of Fraser Area (SoFA). Phase 1 of the plan involved an examination of the current travel patterns, changing population and employment projections and significant public consultation to determine the future transit needs for an estimated \$1 million people in the SoFA by 2031. The plan was further refined to establish proposed transit services for intermediate time frames for 2011 and 2021. In the development of the plan, the timing and provision of services was constrained due to financial considerations.

Attachment A illustrates the current transit network with the SoFA. The existing transit system is primarily serviced by community shuttle and local bus routes. There are currently no routes which would be considered to be part of the frequent transit network. The existing transit system does not provide for efficient connections between areas of the SoFA and is more oriented towards providing service to the west to connect to Skytrain. Attachment B illustrates the current travel patterns of Langley residents based upon a 2004 travel survey. The survey indicated that of the estimated 284,200 daily trips from Langley, 69.7% were internal to Langley. A further 17.3% were to Surrey, Delta and White Rock, 5.5% to Abbotsford and points east for a total of 92.3% of the daily trips being made within the SoFA. This type of travel pattern is not well served by the current transit

Attachment C illustrates the proposed 2031 SoFA Transit Plan vision prepared by TransLink as of November of 2007. The 2031 vision maps focuses on frequent transit services and rapid transit services and does not show local bus or community shuttle services. Local, community shuttle, and peak hour services will be examined as part of Phase II of the plan. The proposed plan enhances connections between regional town centers and communities within the SoFA by providing Bus Rapid Transit on Fraser Highway and 200 Street and by providing frequent bus service on routes such as 96 Avenue, 88 Avenue, 208 Street, 64 Avenue, Highway 10, and 32 Avenue/24 Avenue. The plan focuses on improving internal movements with the SoFA by creating a more complete grid system.

Attachments D and E illustrate the proposed 2011 and 2021 Transit Plan prepared by TransLink. As seen in Attachment D, there are improvements in services between Langley and Abbotsford, White Rock and Surrey and a new connection across the Golden Ears Bridge by 2011. The 2021 plan shown in Attachment E builds upon the plan to incorporate Bus Rapid Transit on Highway 1 and Bus Rapid Transit on Fraser Highway to Surrey. The 2031 network incorporates further improvements such as Bus Rapid Transit on 200 Street and frequent bus service on 208 Street.

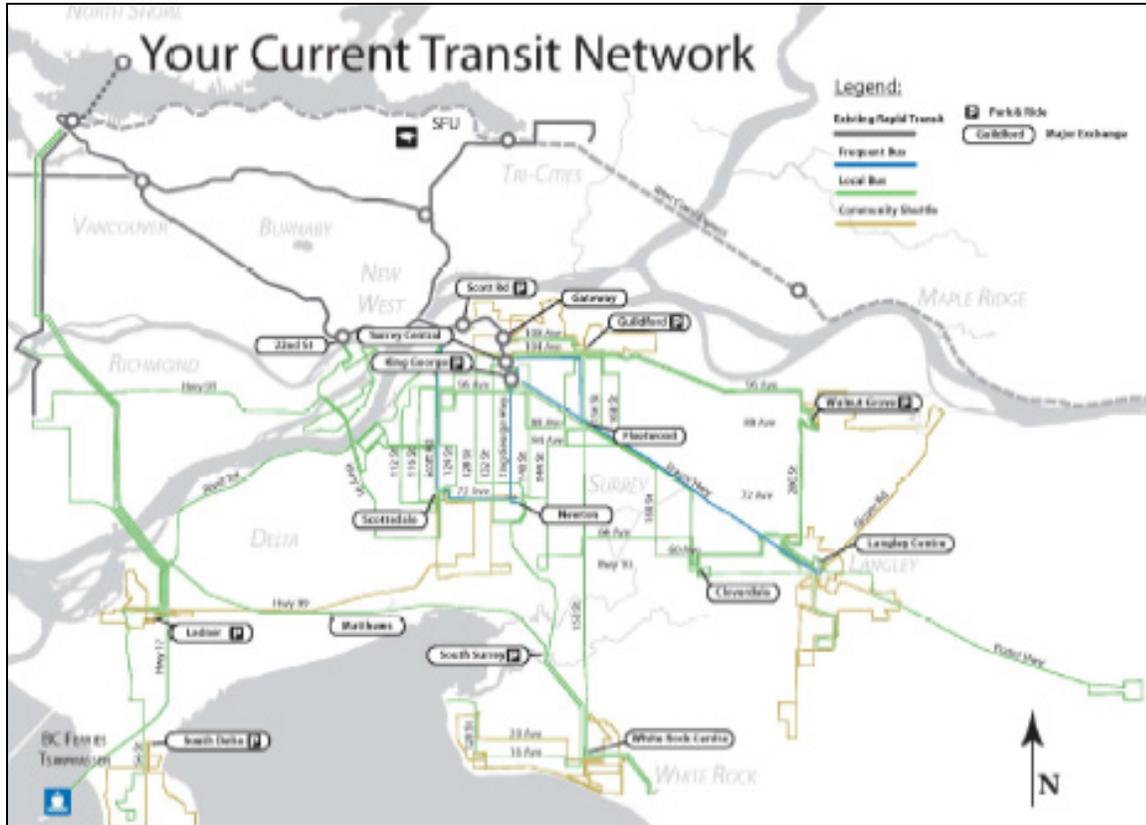
Concerns with TransLink's current 2031 SoFA Transit plan include the rate of expansion, the lack of regional equity in levels of service and the absence of a long term vision that includes long term rail expansion. The current plan is based upon expanding the current fleet from 224 by adding another 375 buses by 2031 for a total fleet of over 600 buses. The following table summarizes the major improvements proposed by TransLink in the SoFA from 2007-2013.

Short Term South of Fraser Area Service Plan

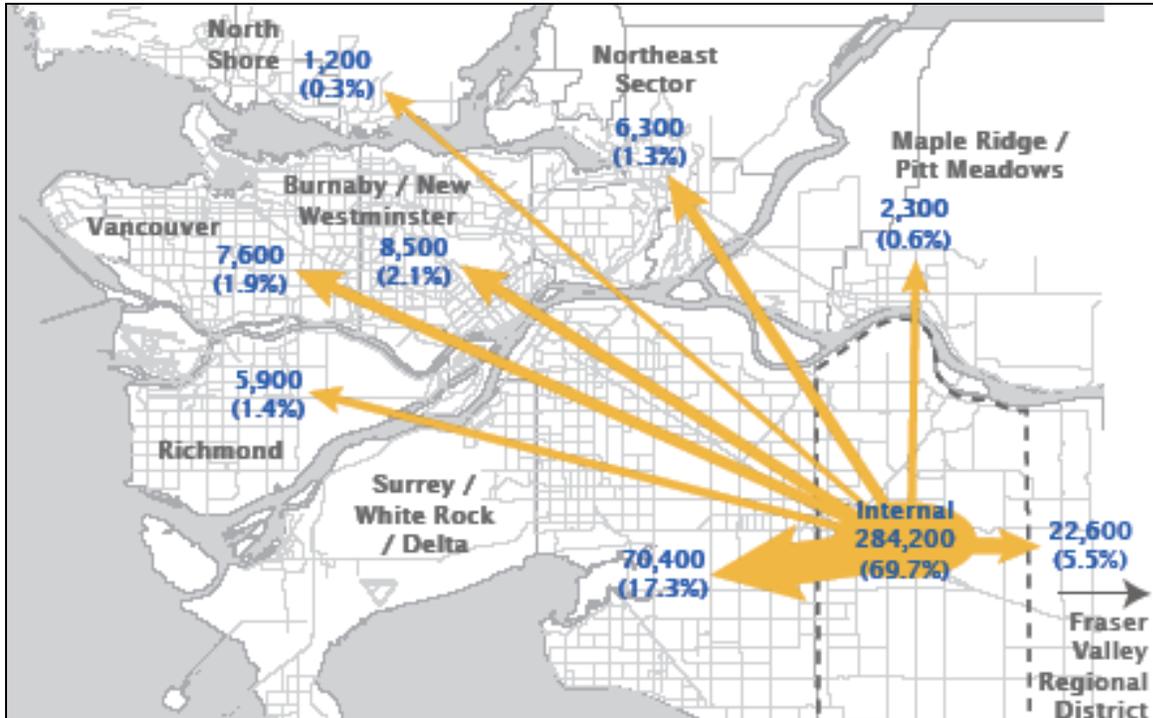
Year	Proposed Improvements
2007	Add 18 buses Expand Frequent Transit Network: King George Hwy, Scott Road, Fraser Highway Community Shuttle: Clayton Heights New connection from Aldergrove to Abbotsford
2008	Add 41 buses Complete Frequent Transit Network on: King George Highway, Fraser Highway Add 64 Ave and 88 Ave routes Through service, Scott Road to 72 Ave 152 Street Improvements and other service improvements in Surrey
2009	Add 48 buses New Golden Ears Bridge Connection between Langley and Maple Ridge Integrate SoFA routes with Canada Line at Bridgeport Station All day South Surrey local service New West Whalley Community Shuttle and other service improvements in Surrey
2010/11	New Newton Community Shuttle Route Improve levels of Service in SoFA on key routes to minimum of 30 minutes New Transit Infrastructure and improved exchanges
2012	Add 23 buses Limited B-Line service on Fraser Highway: Langley Centre to Surrey Centre Improved Scottsdale to Langley Service via 64 Ave New Route connecting from Surrey to Walnut Grove Improve Community Shuttle service in Surrey/White Rock and Delta
2013	Add 52 buses Rapid Bus from White Rock to Guildford Rapid Bus on Highway 1/Port Mann Bridge New Community Shuttle in South Surrey/White Rock

The Township's concerns are with the timing of the overall improvements proposed by 2031. Significant concerns are related to the late implementation of the frequent service on 208 Street in Willoughby which is the Township's area of greatest growth. Similarly, there are concerns with the late implementation of the Rapid Bus Transit on 200 Street which is currently undergoing rapid development. The timing of this improvement should be more closely linked with the proposed Gateway Program and Provincial Transit Plan Improvements

ATTACHMENT A: Current Transit Network



ATTACHMENT B: Current Travel Patterns (2004)



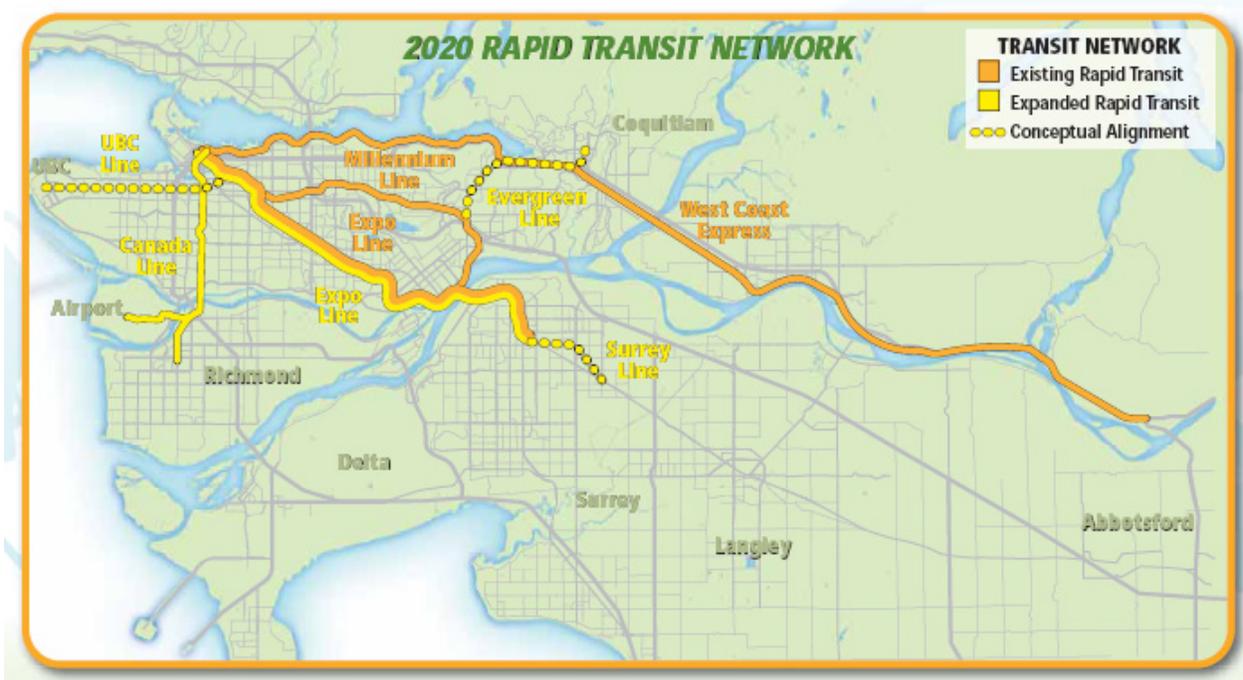
ATTACHMENT C: 2031 SoFA Transit Plan Vision



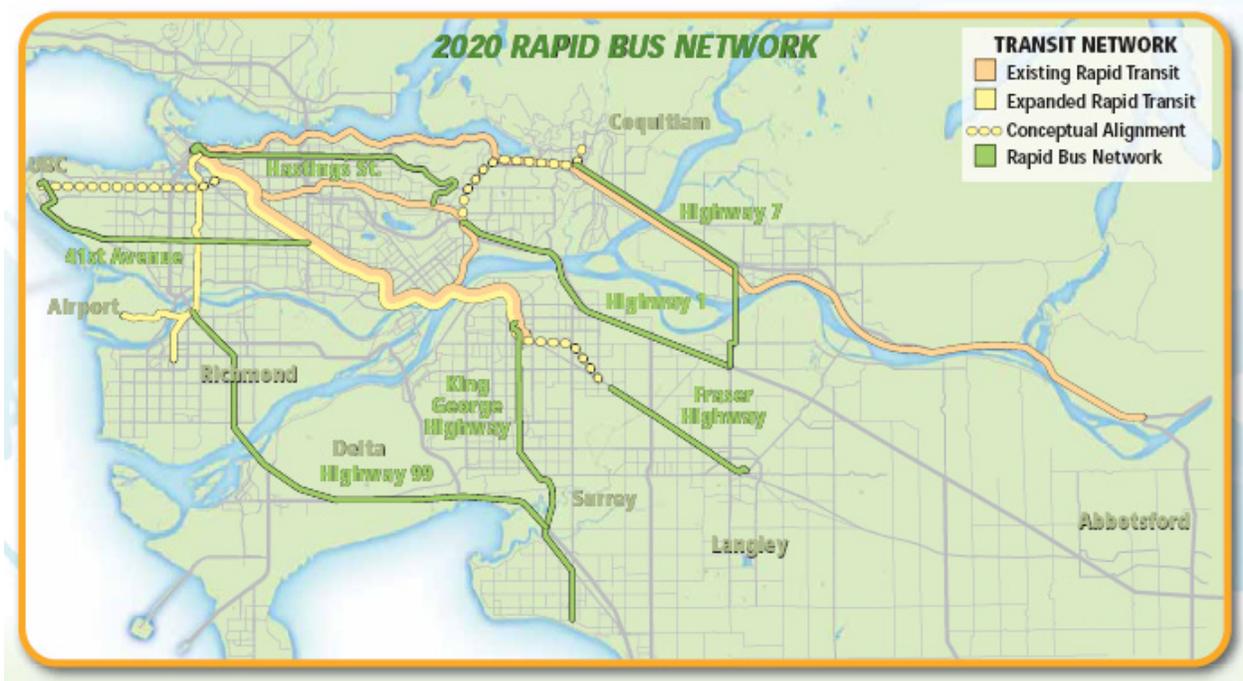


ATTACHMENT E: 2021 SoFA Transit Plan





ATTACHMENT G: 2020 Rapid Bus Network



**Appendix 2: Provincial Transit Plan**

On January 14, 2008, the Provincial Government announced a Provincial Transit Plan that included an expansion to all levels of transit within the Province at an estimated cost of \$14 billion by 2020. Attachment F illustrates the proposed 2020 Rapid Transit Network and Attachment G illustrates the proposed 2020 Rapid Bus Network. The plan includes expansion to Skytrain, the implementation of Rapid Bus Transit Lines and 900 new buses to the region wide fleet. The following table summarizes the main components of the plan.

Provincial Transit Plan Improvements

Proposed Improvement	Cost
Skytrain extension to UBC – 12 km	\$2.8 billion
Skytrain extension to Guildford and Fleetwood – 6 km	\$1.1 billion
Evergreen Line Construction – 11 km	\$1.4 billion
Upgrade to Expo Line Stations: 6 car trains, storage track, system upgrades, maintenance and storage facilities	\$2.0 billion
Nine new Rapid Bus lines, seven of which will be in the Metro Region, including along the King George Highway and Fraser Highway	\$1.2 billion
1,500 new, clean energy buses and related maintenance infrastructure, of which approximately 900 are planned for Metro Vancouver	\$1.6 billion
<b>Total Estimated Cost</b>	<b>\$11.1 billion</b>

The Provincial Transit plan assumes financial commitments from the Federal Government (\$3.1 billion), TransLink (\$2.75 billion) and local governments (\$500 million) along with \$4.75 billion from the Province. The local government share is related to municipalities outside the lower mainland. The Federal government has not made any financial commitments to date and staff recommends that Council support TransLink seeking the necessary funding. TransLink has estimated an additional \$100 million per year in annual operating costs with the Provincial Transit Plan as opposed to the current SoFA Transit Plan. The source of this funding has not yet been identified.

One of the major differences between the Provincial Transit Plan and the SoFA Transit Plan is a 6 km extension of Skytrain to Fleetwood and Rapid Bus Transit to Langley Centre. The current SoFA Transit Plan shows Rapid Bus Transit from Surrey Central to Willowbrook Mall. The current alignment is conceptual and would require further study to determine the optimum alignment. The proposed expansion improves the provision of Rail Rapid Transit in the South of Fraser Area as compared to the current SoFA Transit Plan but does not fully rectify the regional disparity in the provision of these services.

There are 7 new Rapid Bus lines planned for the Metro Vancouver region including King George Highway, 152 Street, Fraser Highway, Highway 99, Highway 1, and 200 Street north of Highway 1 to Maple Ridge. There is an inconsistency between the two plans related to the Bus Rapid Transit on Fraser Highway which extends to Willowbrook Mall in the SoFA Transit Plan and to Langley Centre in the Provincial Transit Plan. The SoFA Transit Plan also includes Bus Rapid Transit on 200 Street from Highway 1 to Willowbrook Mall but not until after the 2020 time horizon identified by the Provincial Plan which excludes this service.

A new Park and Ride/Transit Exchange is proposed at Willowbrook Mall which would be the terminus for the Fraser Highway Bus Rapid Transit line. The 200 Street Bus Rapid Transit line would also terminate at Willowbrook Mall. The Robert's Bank Rail Corridor Study includes the construction of a new rail overpass along the 196 Street corridor which would provide an alternative north/south arterial route from 53 Avenue to 72 Avenue which would be immediately adjacent to Willowbrook Mall. The Provincial Plan and SoFA Transit Plan should be clarified to include the 200 Street Bus Rapid Transit Line from Highway 1 to Willowbrook Mall and the Fraser Highway Bus Rapid Line from Fleetwood to Willowbrook Mall along with the new Park and Ride/Transit Exchange at Willowbrook Mall within the 2020 horizon.

The Provincial Transit Plan also indicates Bus Rapid Transit along 200 Street from Highway 1 to the Golden Ears Bridge to Lougheed Highway to Coquitlam. The SoFA Transit Plan indicates this route would be served by frequent transit buses and not Bus Rapid Transit. The Township has sufficient rights of way to provide dedicated bus lanes on 200 Street from 86 Avenue to Willowbrook Drive. This would allow for a linkage along 86 Avenue to the new Transit Exchange/Park and Ride proposed for the south side of Highway 1 in the vicinity of 202 Street. A transit/HOV tunnel with connections to Highway 1 has also been proposed along 202 Street connecting 86 Avenue to 88 Avenue in Walnut Grove. Township staff has concerns with the proposed Rapid Bus Line on 200 Street north of Highway 1 contained in the Provincial Transit Plan. With the current plans for the Transit/HOV tunnel, the Park and Ride/Transit Exchange at 202 Street and the fact the 202 Street is a 4 lane arterial roadway that is currently underutilized; staff would suggest an alternative alignment be examined. The Bus Rapid Transit Line north of Highway 1 should utilize 202 Street and the one way couplet (199A Street and 201 Street) to access the Golden Ears Bridge.

The Provincial Plan currently proposes an additional 900 buses for the Metro Vancouver Region. The SoFA Transit Plan currently proposes a fleet of 600 buses by 2031 servicing the South of Fraser Area. With the proposed changes from the Provincial Transit plan with respect to increased Bus Rapid Transit and additional buses, the SoFA Transit plan should be amended to rectify the regional disparity in the provision of transit services in a shorter time frame.

As noted above, Staff have concerns with the inconsistencies between the two plans in the types of service to be provided, the location of major transit facilities, the specific alternative routes available, and the timing and staging of improvements.

### **Appendix 3: Provincial Gateway Program**

As part of the Provincial Gateway Program, the Province is undertaking the widening of the Port Mann Bridge and Highway 1 from McGill to 216 Street. As part of the project, the Province and TransLink have reached an agreement to provide Bus Rapid Transit along the corridor on dedicated Bus/HOV lanes. The project is intended to provide fast, frequent bus service between Burnaby, Coquitlam, Surrey and Langley with connecting buses to Abbotsford and communities north of the Fraser River via the new Golden Ears Bridge.

The Province is contributing \$150 million and TransLink is contributing \$30 million for buses and facilities needed for the project. The current scope is to provide the following facilities:

- Initially, 20 buses with 10-15 minute frequency during rush hours increasing over time with ridership.
- A transit only priority two-way access ramp to/from the median HOV lanes via Government Street for access to Loughheed Town Centre Station in Burnaby.
- Median on/off ramps for HOV/Buses at the 156 Street Interchange in Surrey along with a transit loop either within or in the vicinity of the 156 Street Interchange.
- A Median on/off ramps for HOV/Buses in the vicinity of 200 Street to 204 Street along with a transit loop in the vicinity of the 200 Street Interchange.
- A minimum of 1,000 park and ride spaces south of the Fraser River.

Over the past several months, Township staff has been working cooperatively with both TransLink and the Gateway Program to examine options for the Transit Exchange/Park and Ride facility near 200 Street. The current concept is for a Transit/HOV tunnel connecting 86 Avenue in Willoughby to 88 Avenue in Walnut Grove along the 202 Street alignment. The tunnel would also have access to Highway 1 in both the east and west directions to service traffic going both to/from Abbotsford and Vancouver. This access arrangement/tunnel configuration would allow Transit/HOV vehicles to avoid the 200 Street interchange. The tunnel also provides direct access for buses to 202 Street which is a direct route to/from the Golden Ears Bridge. The tunnel would also allow for access to 86 Avenue to 200 Street south to Willowbrook Mall which is consistent with the future vision for Rapid Bus Transit on 200 Street south of Highway 1. As noted earlier, the Bus Rapid Transit north of Highway 1 proposed by the Provincial Transit Plan should examine the use of 202 Street and the one way couplet of 199A Street and 201 Street to access the Golden Ears Bridge.

Staff is continuing to work with TransLink and the Gateway Program to refine conceptual plans for the proposed Transit Exchange/Park and Ride facility. The current plan includes a 2 to 3 lane tunnel under Highway 1, on/off ramps from the median in all directions, a transit exchange to accommodate upwards of 20 buses together with an 800-900 vehicle Park and Ride facility. It is anticipated that the tunnel would also accommodate cyclists and pedestrians. Single occupancy vehicles would not be allowed to use the tunnel and must use the 200 Street Interchange.

The Township has also been working with Gateway Program staff on several other aspects of the Highway 1/Port Mann project as they relate to Langley. Alternatives to provide additional capacity to/from Highway and across Highway 1 have been examined. This includes additional on/off ramps to the 192 Street Overpass, the widening of the 208 Street overpass and a new interchange at Highway 1/216 Street. The 200 Street interchange was also constructed to accommodate cyclists and pedestrians and the new 216 Street interchange will also accommodate cyclists and pedestrians.

The Township is currently working with Gateway staff to examine alternative configurations for the 216 Street Interchange. Options include a partial cloverleaf or a diamond configuration. Staff has begun preliminary discussions with the Gateway Program on potential cost sharing arrangements for construction of the facilities within Langley. The Township's 5 years capital budget will have to be adjusted to reflect the latest cost estimates and the negotiated cost sharing arrangement for these facilities. The Township must also adjust its capital budget to allow for the construction of the related municipal road infrastructure that connects to these facilities as well as the new Golden Ears Bridge by the 2013 time frame. Examples of these projects include 208 Street north and south of Highway 1, 216 Street north and south of Highway 1, 96 Avenue in Walnut Grove, 86 Avenue in Willoughby and 202 Street in Willoughby.

#### **Appendix 4: Roberts Bank Rail Corridor (RBRC) Study**

The Roberts Bank Rail Corridor Study was initiated as a result of the proposed third berth and second terminal proposed by the Vancouver Port Authority and the resulting increased train traffic and its impact on the road/rail interface through Delta, Surrey and Langley. The agreement in principle identifies 9 new grade separation projects to be constructed over the next 8 years at an estimated cost of \$308 million. The funding partners are the Corporation of Delta, the City of Surrey, the City of Langley, the Township of Langley, TransLink, the Ministry of Transportation, Transport Canada, the Vancouver Port Authority and the Railways.

A partner's committee has been formed to oversee and guide the direction of the program and projects. A technical working group has been formed to examine specific details related to the project. The Township is actively participating on both of these groups. TransLink has also hired a project manager to oversee the project on their behalf.

The grade separation projects were categorized as those primarily benefiting rail operations and those primarily benefiting road operations. The funding from each of the partners will reflect the location of the project and the relative benefits to each. The Township is involved in the following projects:

- 232 Street Overpass
- 196 Street/192 Street/54 Avenue Overpass combination
- Mufford Crescent/64 Avenue Overpass and Extension

The 232 Street Overpass was identified as primarily benefiting rail operations by allowing the expansion of the Rowlison Rail siding to accommodate longer trains. Township staff has identified some preliminary issues related to the project such as maintaining local road access, the proximity to the 232 Street Interchange and the potential impact to Trinity Western University. The 232 Street Overpass project will not be funded by the Township and is a lower priority project.

The 196 Street/192 Street/54 Avenue Overpass projects are a combination of 3 grade separations projects that would service the Campbell Heights area, provide an alternative north/south link parallel to 200 Street and enhance east/west connectivity between Surrey and the Langleys. The RBRC study identified that there were alternatives available for the provision of these overpass project that should be examined in further detail. ISL Engineering has been contracted by TransLink to undertake a more detailed examination of the available options to identify the optimum configuration. The Township is cost sharing the study and is actively participating in the development and review of options. The study is being conducted in 3 phases with completion by the summer of 2008. Pending the identification of the optimum combination of overpass projects and associated road works, a cost sharing arrangement must be negotiated and the Township's 5 year capital budget adjusted accordingly.

The current proposal indicates that a grade separated crossing of the Langley Bypass and 196 Street with potential connections to the Langley Bypass is a viable option. This overpass along with the associated road works would allow for a continuous north/south link along 196 Street from 72 Avenue to either 56 Avenue or 53 Avenue. As noted earlier, this alternative link would allow for direct access to potential Willowbrook Mall Transit Exchange/Park and Ride Facility as well as the Rapid Bus on Fraser Highway and a convenient connection to the 200 Street Rapid Bus Line.

The Mufford Crescent/64 Avenue Overpass and extension was initiated by the Township several years ago. It has been identified as the highest priority project for the Township in the RBRC program. Following the signing of the agreement in principle in the summer of 2007, the Township awarded the contract for a "Design Feasibility and Investigation on the 64 Avenue Overpass and Extension" to McElhanney Consulting in the fall of 2007. The study includes further detailed examination of the preferred alignment with respect to road design, structural design, land tenure, geotechnical issues, and environmental issues. The Township has also initiated preliminary discussions with the Agricultural Land Commission. A draft report was submitted by McElhanney in February of 2008. Staff anticipates bringing forward additional information on the Mufford Crescent/64 Avenue Overpass project in a future Council Report.

### **Appendix 5: Community Rail Study**

The Township of Langley hired UMA Engineering to undertake a high level analysis of the costs, benefits and some of the issues related to the feasibility of re-introducing passenger rail service, termed Community Rail, for the Township of Langley. The draft report was prepared in February of 2007 but was not amended until December of 2007 to allow for work to be completed on other related studies such as the SoFA Transit Plan, Provincial Gateway Program and the Roberts Bank Rail Corridor Study to be completed. The report has incorporated some of the elements of these projects but does not include changes as a result of the recently announced Provincial Transit Plan. The study builds upon work completed by UMA for the City of Surrey and the Fraser Valley Heritage Railway Society (FVRHS) on the viability of a similar type of service from the New West Rail Bridge to Cloverdale. The City of Surrey and the FVRHS are pursuing the implementation of a Heritage Train in time for the 2010 Olympics which could potentially be expanded to a Community Rail System. The existing rail line is currently underutilized by rail traffic and does not have the significant challenges associated with the Langleys.

The report examined the following issues:

- Existing usage of the rail corridor
- Constraints to operating a Community Rail system through Langley
- Issues in Operating a Passenger Rail Service
- Review of existing Bus and Rail Services in Langley
- Improvements to Transit services
- Description of Community Rail Model
- Potential Stations, land use, employment and population in catchment areas
- Traffic assessment of corridor
- Potential Safety Impacts
- Range of Capital and Operating Costs

The existing usage of the track is up to 4 trains a day by Southern Rail of BC to service local freight and up to 22 trains a day by CN Rail and CP Rail as the primary route for the Deltaport Container and Coal facility. The existing freight traffic has issues related to the impact on the community, impact on traffic congestion, and safety. Many of the issues identified in the report have been addressed through the RBRC study which plans to implement several new grade separation projects along the corridor. The existing rail line crosses several major roads including Provincial Highways and elements of the TransLink Major Road Network such as Highway 10, Fraser Highway, 200 Street and Mufford Crescent.

Key constraints to the implementation of Community Rail include:

- Must provide a new corridor for the Community Rail Traffic, or
- Provide dedicated trackage on the existing corridor, or
- Reroute all freight traffic to the northern route, or
- Provide a new freight corridor to the south

In all cases, it was determined that Community Rail is not viable in the Langleys unless there was a physical separation between the rail traffic and freight traffic. The Township has several concerns with the provision of a passenger rail service including:

- A new Commuter Rail corridor within the Langleys is outside of the existing land use and development plans of both Langleys. It would require significant land acquisition and construction costs. It would also result in a series of additional at-grade crossings of the new Commuter Rail line across existing roads. The Township has just spent considerable effort in cooperation with its partners to reach an agreement in principle to eliminate at-grade crossings through the RBRC Study. This option may be cost prohibitive.
- Providing dedicated trackage on the existing corridor would require the agreement of Transport Canada, BC Hydro and the Railways. As part of the RBRC study, Transport Canada, the Railways and the Vancouver Port Authority are providing funding to construct grade separated crossing in part to address the existing road/rail issues, but also to accommodate the future road/rail traffic growth as a result of the expansion of Deltaport and the continuing growth in the affected communities. The current projection of 28-38 trains per day with longer trains was not identified as requiring double tracking the line for freight purposes within the short term. Transport Canada, the railways, and BC Hydro would have to agree to give up the future ability to double track the freight rail line and dedicate the remaining right of way for passenger rail. Township staff also has concerns with issues such as whistling and pedestrian safety related to the locations of the potential stations, pedestrian/cyclist access, fencing and the conflict between the need to meet “anti-whistling” requirements which prohibits the presence of pedestrians along the rail right of way.
- Rerouting the freight traffic to the northern line along the Fraser River also has some significant challenges. The study identified the need to address the “Y” junction further to the east in Delta to allow for access to the Port facilities but there are several other issues that the report does not examine. The northern route is owned by CN Rail which is in direct competition with CP Rail for freight traffic. The report does not examine the future rail traffic on that corridor with or without the additional traffic going to Delta. The existing rail line parallel to the Fraser River already has existing community issues related to Fort Langley and Walnut Grove as well as communities to the west in Surrey which would be impacted.
- A new freight corridor to the south would impact the Brookwood/Fernridge and Campbell Heights Neighborhoods as well as Campbell Valley Park. Brookwood/Fernridge extends as far south as 16 Avenue. The Campbell Valley Park extends from 20 Ave south to 4 Avenue. The topography south of 16 Avenue between 204 Street and 216 Street includes several hills that would prohibit the establishment of a rail line due to the severe grades. The establishment of a rail corridor north of 16 Avenue would impact future residential, commercial and industrial development in Brookwood. The cost of establishing a new freight rail corridor may be cost prohibitive.

- The study also identified several other obstacles or challenges that would have to be overcome such as Railway Safety Act and other regulatory requirements, substantial track construction and utility relocation, double tracking at stations, meeting the needs of handicapped/disabled persons, providing cycling and pedestrian facilities and connections, new and adjusted transit routes to link to the rail service, significant traffic signal and railway equipment upgrades, pedestrian conflicts with rail traffic and parking requirements for stations. All of these would require significant resources for the planning, design and construction of a facility. A major issue identified in the report would be the requirement for the operator of the service to assume full liability for the service and the related safety concerns associated with the interaction of pedestrians, cyclists, passenger trains, freight trains and vehicles.
- TransLink had done an analysis of the corridor and the requirements to undertake a higher level of service Light Rail Transit Line and estimated the cost to be \$700 million. It should be noted that the passenger rail service is not included in either the SoFA Transit Plan or the Provincial Transit Plan. Portions of the study are also out of date as the new SoFA Transit Plan and Provincial transit plans provide for significantly expanded Rail and Bus Rapid Transit Lines as well as strengthening the east west routes and enhancing connections between SoFA communities such as providing connections to Abbotsford, Maple Ridge, White Rock and Guildford.
- The passenger rail service would duplicate to a certain extent the proposed SoFA Transit Plan and Provincial Transit Plan services. In particular, the proposed frequent buses along Highway 10 and 64 Avenue as well as the Bus Rapid Transit on King George Highway and the Skytrain Expansion/Bus Rapid Transit along Fraser Highway. The proposed Skytrain extension and Bus Rapid Transit facilities are located on more direct routes and would be accommodated through dedicated right of way such as median bus lanes with transit pre-emption at signalized intersections.

Despite these constraints, the study further examined the potential of providing passenger rail service as a limited lower standard peak hour service only. In this analysis, the study assumes that a portion of the existing right of way would be available for a dedicated passenger rail track to run along side the freight traffic. The study identified the issues involved in obtaining the use of the required rail right of way. The study further reviewed the level of existing bus service in the Langleys exclusive of recent changes to Provincial Transit Plan. A description of the Community Rail model is provided along with potential station locations. A high level analysis is undertaken of the traffic and safety impacts, potential vehicles and operating and capital costs.

The study made the following conclusions:

- Langley is not well served today by transit service compared to other areas in Metro Vancouver.
- There is some safety and traffic conflict issues associated with the re-introduction of passenger train service along the Langley's Community Rail corridor in the CP/SR Subdivision, but these safety and traffic issues can be mitigated and addressed. A safety management plan would be required to address these issues.
- The re-introduction of reliable and frequent passenger service to serve the Langleys east of the Surrey/Cloverdale area can not be undertaken unless there is a physical separation between the freight and passenger rail traffic with the passenger rail being provided its own dedicated track.

- The draft SoFA transit plan does not include the expansion of Skytrain or Bus Rapid Transit in the short term.
- The Cloverdale to Langley area is not well linked to areas to the east such as Abbotsford.
- The study assumes that all of the required rail infrastructure will be in place to accommodate the road/rail interface. The RBRC study recommendations improve this safety issue by providing grade separation at some locations but are not necessarily needed for the passenger rail traffic by itself.
- The passenger rail service could potentially draw ridership away from possible Bus Rapid Transit which requires further modeling and analysis.
- The success of the system would rely upon strong community, political and financial support. A limited peak hour service would require an estimate \$112 of capital plus an annual \$6 million in operating costs. This does not include property acquisition, utility relocation, double tracking portions of the corridor, contingencies, engineering and design costs, project management costs, consulting, legal and public consultation fees, environmental impact studies and mitigation, permits, interest on debt and payments to South Rail as compensation to potential business impact.

Staff has the following comments on the conclusions of the study:

- The study has made an assumption that the service could be provided within the existing corridor. Staff has concerns that this is highly unlikely due to the future impact this would have on future rail expansion and the need for the rail companies to agree to give up this future expansion capability. All of the other options identified for the separation of freight and passenger traffic have significant community and cost issues which also make them highly unlikely to occur.
- The SoFA Transit Plan and the new Provincial Transit plan along with the other studies completed have addressed many of the existing issues related to public transit in the Langleys. The expansion of Skytrain to Fleetwood, Bus Rapid Transit (BRT) on 200 Street, BRT on Fraser Highway, BRT on Highway 1, frequent bus service on routes such as 208 Street, 64 Avenue, 88 Avenue and 96 Avenue as well as new Transit Exchange/Park and Ride facilities and the new service to Abbotsford provide significantly improved service. Many of these services are a duplication of the proposed Community Rail service. The study did not undertake an estimate of rider potential which would be significantly influenced by the low level of peak hour service, circuitous route for some travelers, and the potential alternative services available.
- The safety issues have been examined only at a high level. There are numerous issues that can only be fully identified and addressed upon the detailed design stage. There are significant concerns with the safety of the interaction of pedestrians within the passenger rail/freight rail corridor. The implementation of a secondary rail corridor creates new issues by introducing new at-grade road/rail crossings.

- The study estimated capital costs at \$112 million and annual operating costs of \$6 million but did not estimate rider potential or potential revenue. With the lack of detailed investigation or design, the low level of service provided, potential competing services, and the numerous items not included as part of the cost estimate, staff has significant concerns with both the cost estimate and the viability of the service. None of the required funds have been identified by the Federal, Provincial, Regional or local governments or agencies.
- The RBRC study identified several at grade crossings in the Langley/East Surrey area that address some of the existing road/rail traffic and safety issues. The Community Rail study states that a peak hour 20 minute service does not require these grade separations. Staff is concerned that a 20 minute peak hour service, in conjunction with the competing BRT and transit services now identified would not generate sufficient riders to justify community rail service. A higher level Light Rapid Transit (LRT) type of service would be required to be competitive. TransLink previously estimated the cost of an LRT service at \$700 million. This type of more frequent service would require additional grade separation to address the road/rail traffic and safety issues.

The Commuter Rail Study made the following recommendations:

- The Community Rail corridor should be protected for future transportation options through the OCP of both the City and Township and in TransLink new Outlook for 2040 Strategic Transportation Plan.
- TransLink, the City and Township of Langley, the Corporation of Delta the Provincial government, GVRD and other agencies should be encouraged to directly support, through financial, manpower or other in-kind contributions, the efforts of the City of Surrey and the Fraser Valley Heritage Railway Society to upgrade the entire community rail corridor, with a first priority being to enable a heritage Community Rail service to operate between Newton and Cloverdale stations by late 2009, in time for the 2010 Olympics.
- Regional efforts should be made to finding a longer term regional solution to enhancing the movement of freight and container traffic so that it avoids moving traffic in the Cloverdale to 232 Street portion of the Page Subdivision by using another corridor.

Staff has the following concerns with the recommendations and suggests the following alternative approach:

- The Community Rail corridor is inconsistent with the current OCP and neighbourhood plans and is also not identified in the SoFA Transit Plan, Provincial Transit Plan, Provincial Gateway Program, RBRC Study or the draft Master Transportation Plan. Due to numerous issues identified in the study, the lack of any rider potential or cost/benefit analysis and the significant barrier associated with providing a dedicated track for passenger rail service, staff does not recommend incorporating a Community Rail Corridor into any of the Township's current plans or other Provincial/Regional Plans at this time.

- The Township has significant funding and manpower issues related to the planning and implementation of the works already identified in the other Provincial/Regional studies as well as the draft Master Transportation Plan. Due to the significant barriers associated with the feasibility of a Commuter Rail Corridor staff does not recommend investing further resources to the proposed passenger rail service at this time.
- Staff recommends that the feasibility of a Commuter Rail passenger service be re-examined in the future following the proven successful implementation of a similar type of service in Surrey between Newton and Cloverdale. Current plans are for a heritage rail service which does not provide sufficient levels of service. If future expansion to a commuter/LRT type of service is viable on that portion of the corridor, than the Township may wish to undertake further study on the numerous issues and details identified in the current study.