



Maple Ridge - Pitt Meadows Area Transit Plan

Final Summary Report

July 2004



PREFACE



This summary report is the outcome of the Maple Ridge - Pitt Meadows Area Transit Plan, a project of TransLink in partnership with the Districts of Maple Ridge and Pitt Meadows. The plan identifies specific transit service improvements to be implemented over the next four years (2004 to 2007), and scopes out priorities for year five (2008). The Area Transit Plan supports TransLink's Three-Year Plan and Ten-Year Outlook, as well as the Official Community Plans and Transportation Plans of the municipalities. However, the improvements described in this report are subject to available funding and approval under the TransLink's Annual Transportation and Financial Plan, and the Three Year Plan (2005-2007) Implementation Strategy.

Acknowledgement



TransLink would like to acknowledge the invaluable contributions of the Maple Ridge - Pitt Meadows Public Advisory Committee and Technical Advisory Committee in the development of the Area Transit Plan. In addition, acknowledgement is extended to **Urban Systems Limited, The Mustel Group, T. Partridge & Associates Limited, and Lauga & Associates Consulting Limited**, who provided technical assistance in preparing the plan.

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Papers Available

In addition to this Summary Report, the following technical papers are available for distribution:

- Maple Ridge - Pitt Meadows Area Transit Plan – Technical Report
- Pitt Meadows/Maple Ridge Area Plan Research

Additional Copies and Information

Additional copies of this report and other technical papers can be obtained by contacting:

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PURPOSE AND SCOPE

The Maple Ridge - Pitt Meadows Area Transit Plan (ATP) is the sixth of seven planned Area Transit Plans to be developed by TransLink since 1999 in partnership with the municipalities of the Greater Vancouver Regional District (GVRD). This plan is the culmination of eight months of public consultation and technical activities and continues a new approach of community-driven transit planning for the region. It addresses bus service improvements for the Districts of Maple Ridge and Pitt Meadows, but will benefit many surrounding communities as well.

The primary objectives of the plan are to:

1. Identify short- to medium-term (one to four years) service improvements and longer-term (to five years) transit priorities for Maple Ridge and Pitt Meadows, including both local service improvements within the area and regional services connecting Maple Ridge and Pitt Meadows with major regional centres; and
2. Develop a strategy combining TransLink and municipal efforts for implementing these transit service improvements and related support measures.

The plan has been developed to support TransLink's Three-Year Transportation and Financial Plan (2002-2004) and the new Three-Year Plan (2005-2007) and Ten-Year Outlook to 2013. These plans establish the actions that TransLink will take over the next decade to address transportation needs in Greater Vancouver. It is expected that transit ridership will grow from approximately the current 144 million annual riders (end of 2003) to around 170 million annual riders in 2007, and continue to climb in the subsequent five years.

To accommodate this ridership growth and to attract new riders to the system, TransLink proposes to:

- Expand the rapid transit system
- Consider new water-based crossings of Burrard Inlet
- Expand the bus fleet by approximately one third by 2013, including new electric trolleys, articulated and conventional buses, and Community Shuttle vehicles
- Increase service on high-demand services, provide new suburb-to-suburb links, introduce a new B-Line service, and expand Community Shuttle services across the region.

The ATP recommends specific transit improvements for Maple Ridge and Pitt Meadows and a timetable for introducing them. The scope of the ATP is as follows:

- Existing services. The ATP provides an opportunity to evaluate the performance of existing bus services and identify potential improvements through route modifications, enhanced service frequencies and/or extended service hours. Opportunities to improve services while enhancing cost-effectiveness – through the use of Community Shuttles, for example – are considered where appropriate. Expansion of the West Coast Express train service was not examined in the ATP, because improvements to this service are subject to the completion of work being undertaken through the Northeast Sector Rapid Transit Study, as well as improved rail access and rate agreements under proposed Federal Government legislation.
- New services. The ATP also identifies and examines the potential of expanding transit to new markets where there are opportunities to increase ridership through the provision of attractive services. These new markets may include expanding local-area services to facilitate transit travel within the community and/or establishing new connections to key regional destinations, particularly across the planned new Fraser River Crossing.
- Support measures. The ATP examines strategies to enhance transit as an attractive and efficient mode of travel for residents, employees and visitors of both communities. In some cases, transit priority measures will be needed to minimize the impact of traffic congestion on transit customers. Further, land use and transportation demand management (TDM) strategies will also reduce the need to drive within and outside the communities, and increase opportunities for the provision of attractive transit services. Infrastructure measures to support transit – shelters, pedestrian accessibility, park-and-ride facilities, etc. – are also an important component of the strategy to make transit more attractive in Maple Ridge and Pitt Meadows. As well, Maple Ridge and Pitt Meadows have recognized that they need to work to increase land use density, encourage a broader mixture of land uses, and support transit oriented community and site design to encourage increased transit ridership locally and to regional destinations.
- Implementation strategy. The focus of the ATP is on implementation. Consequently, a key component of the Plan is an implementation strategy to identify priority initiatives — new transit services, improvements to existing routes, transit priority measures to improve service reliability, new and expanded transit facilities – that can be implemented over the next five years. These priority initiatives are to be selected because they are feasible and affordable, and will have a significant influence on transit usage in both communities.

This plan meets a commitment described in TransLink's 2000 Strategic Transportation Plan to develop community-based Area Transit Plans which will identify specific transit service improvements within each of seven sub-areas of the region. The implementation strategy is broken down into three distinct phases, as follows:

1. Year One (September 2004) Service Improvements – This phase of the plan includes one new Community Shuttle service and conversion of

two other local services to Community Shuttles. These improvements are currently planned for implementation in September 2004. Funding has already been approved as part of the 2004 Transportation Plan.

2. Years Two to Four (2005-2007) Service Improvements – This phase comprises significant improvements to local services, as well as improvements to regional routes serving Maple Ridge and Pitt Meadows, including a new direct service to SkyTrain and new services across the new Fraser River Crossing, which will open in late 2007. The commitment to implement these improvements is subject to their being approved as part of TransLink's 2005, 2006 and 2007 Annual Transportation and Financial Plans, however, they are incorporated within the draft three-year plan and funding and implementation strategy which will be taken to the TransLink Board for its consideration in the fall of 2004.
3. Year Five (2008) Service Priorities – This phase of the plan incorporates additional improvements to local and regional services. The commitment to implement these improvements is subject to a review of the ATP in approximately four years.

PROCESS

The development of the Area Transit Plan involved both technical and consultation activities during the period beginning in August 2003 and ending in April 2004. In preparing the ATP, there were several forums for input and discussion on future transit services and facilities needed in Maple Ridge and Pitt Meadows as highlighted below.

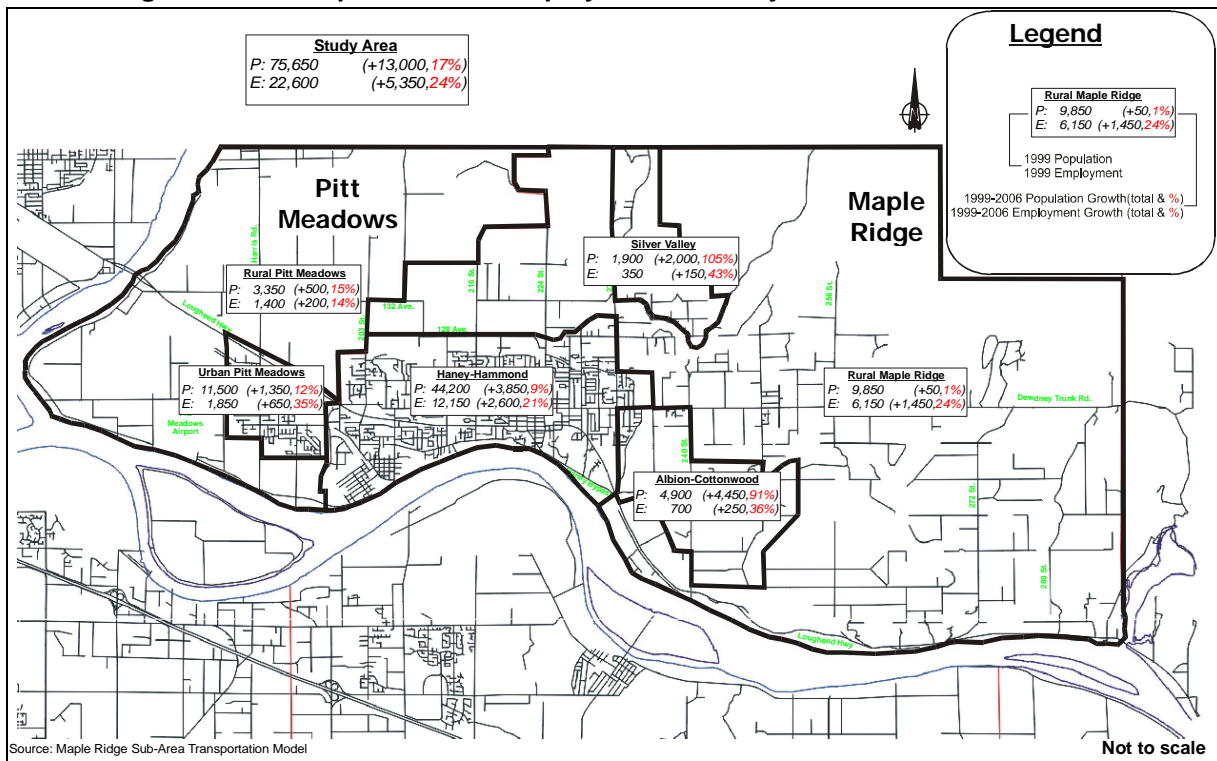
- Public Advisory Committee (PAC). The PAC consisted of 10 members of the general community, representing both Maple Ridge and Pitt Meadows and appointed by the District Councils. The Committee provided general input and direction to the project team, particularly with respect to issues identification and concept review.
- Public Open Houses. Public forums at Maple Ridge Municipal Hall and Pitt Meadows Municipal Hall in October 2003 and at Maple Ridge and Pitt Meadows Libraries in February 2004 were used to provide opportunity for broader community input. Public input was also gathered from the public through written correspondence, phone calls, e-mails, and website submissions.
- District Councils. Workshops were held during the study process with both District Councils to update them on the direction of the process and to receive feedback on all aspects of the Plan.
- Operator Focus Groups. Focus groups were held with transit operators to provide input on those key transit issues facing each community and on the candidate options being considered in order to provide feedback based on experience in delivering the services.
- Technical Advisory Committee (TAC). This committee comprised staff from both Districts, as well as West Coast Express, Coast Mountain Bus Company, and the Fraser River Crossing project. The committee provided overall technical direction to the project with input from a range of stakeholders, including surrounding municipalities.
- Market Research. A telephone market research survey was conducted in January and February 2004 to gather statistically valid input from a cross-section of GVRD and Mission residents on travel patterns, transit usage, and potential usage of many of the proposed service concepts.



MARKET ANALYSIS

The Districts of Maple Ridge and Pitt Meadows consist of both rural and urban/suburban environments. Overall, the residential densities are relatively low, with pockets of higher density development around the town centres of both communities. Beyond the urban core areas, residential densities are typically rural with fewer than five residents per hectare. As illustrated below in Figure 1, the current population and employment within Pitt Meadows is approximately 14,850 people and 3,250 jobs, respectively, and there are approximately 60,850 people and 19,350 jobs in Maple Ridge. Combined, this represents 3.9% of the population and 2.3% of the employment within the Greater Vancouver Regional District. Maple Ridge and Pitt Meadows are expected to grow by 18% and 12%, respectively, or 17% overall by 2006. It is also anticipated that 24% more jobs will be created within the communities by 2006.

Figure 1: 1999 Population and Employment and Projected Growth to 2006



Over the next 20 years, residential growth is anticipated in both communities. Areas where significant growth is planned include Bonson's Landing in Pitt Meadows and Albion, Cottonwood, and Silver Valley in Maple Ridge. Employment growth will be focused in the Maple Ridge Town Centre area, and in Maple Ridge Industrial Park.

The level of automobile ownership strongly influences the success of transit. Generally, as automobile ownership increases within a community, the use of transit declines. Automobile ownership per household is relatively high in Maple

Ridge and Pitt Meadows and the 24-hour transit mode share is correspondingly low. This presents a significant challenge to the success of transit within the two communities.

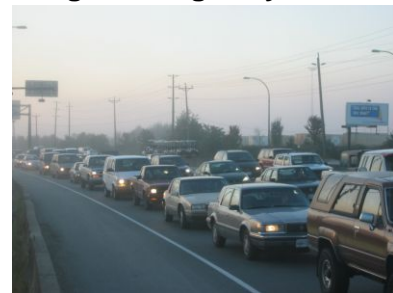
Transit supports approximately 4% of all trips generated from both communities, among the lowest transit mode shares in the region. During a typical weekday, over 82% of the trips generated from Maple Ridge and Pitt Meadows are made by car, followed by walk/bike trips which account for approximately 12% of all daily trips. Transit usage is highest where service levels are high, namely along the Dewdney Trunk Road, Harris Road, and Hammond Road corridors. As noted below, the West Coast Express train service has been very successful in capturing a significant share of those commuters from this area traveling to and from downtown Vancouver.

Analysis of travel patterns suggests that just over half of afternoon peak hour trips generated by Maple Ridge and Pitt Meadows are to or from other areas of the region. Other trips remain entirely within the Districts. This pattern underscores the transportation challenges facing Maple Ridge and Pitt Meadows, which have very limited transportation connections with surrounding communities. It also confirms that transit needs to serve two distinct travel markets – local and regional.

Key external destinations for Maple Ridge - Pitt Meadows residents include the Northeast Sector communities, Burnaby/New Westminister, Mission, downtown Vancouver, and Abbotsford. Of these markets, only the Northeast Sector and downtown Vancouver are served by direct transit connections from Maple Ridge and Pitt Meadows. Transit – predominantly West Coast Express – captures the majority of trips to and from downtown Vancouver because it is highly competitive with the private automobile in terms of travel time and comfort. On the other hand, transit accounts for only 2% of trips between Maple Ridge - Pitt Meadows and the Northeast Sector.

The roadway network in Maple Ridge and Pitt Meadows is well developed, but connections to other parts of the region are highly limited and represent one of the primary challenges facing the Districts at present. Currently, only one roadway connection – Lougheed Highway – provides a connection to the GVRD. The Albion Ferry provides modest service across the Fraser River and often operates at capacity. A further roadway connection across the Fraser River is provided at Mission. The planned Fraser River Crossing will significantly enhance travel options for Maple Ridge - Pitt Meadows residents and offers an opportunity for new transit connections across the Fraser River.

Lougheed Highway



Within Maple Ridge and Pitt Meadows themselves, there are opportunities to expand the reach of transit into developing communities and to enhance transit connections within the established parts of the Districts.

TRANSIT ISSUES



Transit services in Maple Ridge and Pitt Meadows are primarily bus-based with five local routes and one regional connection, but also include West Coast Express commuter rail and TrainBus services. The system is focussed around the Haney Place transit exchange in central Maple Ridge, with secondary exchanges at Meadow Ridge Plaza and Pitt Meadows and Maple Meadows Stations. All bus services are operated by Coast Mountain Bus Company directly or under contract to West Coast Express in terms of the TrainBus.

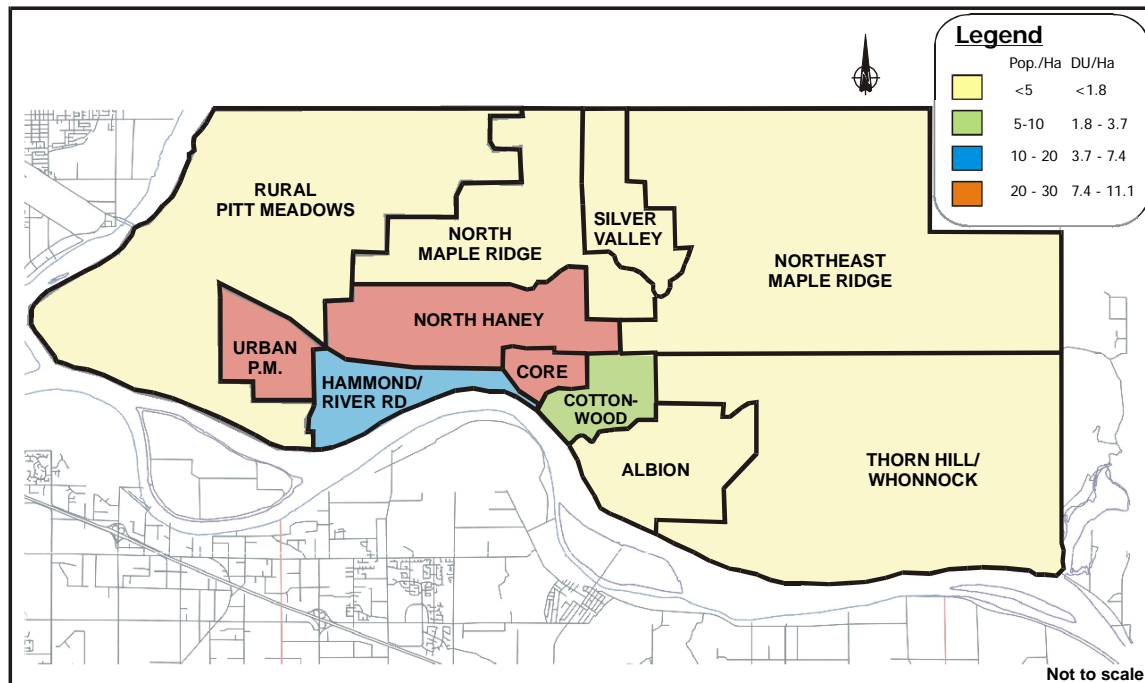
The Albion Ferry is a vehicle and passenger ferry providing a connection across the Fraser River between Fort Langley (McMillan Island) and the Albion area of Maple Ridge. The ferry, which is in service daily from approximately 5:00 AM to 1:00 AM, is operated by a subsidiary of TransLink – Fraser River Marine Transportation.



The performance of the existing conventional transit system was analyzed using several sources of information, including a comprehensive ridecheck survey undertaken in Spring 2003. Route 701 – the one conventional regional connection to and from Maple Ridge and Pitt Meadows – is, by far, the best performing route in the sub-area (excluding West Coast Express train or TrainBus). All of the local routes perform relatively poorly, with those serving East Maple Ridge among the poorest performers region-wide. Based on the ridership review, all of the local services are more suited to Community Shuttles. This service involves using minibus vehicles which have a 20-25-passenger capacity and are more suited to providing service for lower density residential neighbourhoods. This service can be provided more cost-efficiently than using conventional 40 foot buses, and therefore service coverage and frequency can be improved.

The performance review also considers service coverage. Only small portions of Maple Ridge and Pitt Meadows – representing approximately one-quarter of the population of the area – have access to transit services with peak frequencies of 15 minutes or better. The remaining urban area of Maple Ridge is well covered by services operating every 30 minutes during the peak. There are large areas of both communities that are beyond the maximum desirable walking distance for most passengers (450 m). Approximately one-quarter of the residents of Maple Ridge and Pitt Meadows live beyond a reasonable walking distance to any transit service. It is important to note, however, that these areas generally have densities well below 20 persons/hectare (Figure 2), the minimum density warranting Community Shuttle service.

Figure 2: Existing Population and Dwelling Unit Densities



Key transit issues were identified through public consultation, operator focus groups, discussion with municipal staff and Councils, and technical review. The primary issues affecting transit are briefly highlighted below.

Regional Services

- Need for a direct connection to SkyTrain for faster and expanded regional connections
- Occasional overcrowding on Route 701 during peak periods
- Need for improved and more direct connections from East Maple Ridge through to Northeast Sector, SkyTrain, or downtown Vancouver
- Long travel times and poor reliability due to traffic congestion
- Need for transit connections across Fraser River via the Albion Ferry and/or the Fraser River Crossing
- Need for transit connections to Mission and Abbotsford

Local Services

- Need for expanded service coverage in growing areas such as Bonson's Landing and Albion/Cottonwood
- Need for expanded coverage within existing service areas to reduce walking distances to transit and improve connections to key local destinations
- Need for improved service frequencies to make transit more attractive and expanded service hours, especially during evenings and Sundays

- Low ridership on large buses is viewed as inefficient and costly, particularly in East Maple Ridge
- Need for service to and from Golden Ears Provincial Park to offer recreational opportunities to those without access to private automobiles

West Coast Express

- No WCE stations east of Port Haney Station, especially considering the amount of growth and development that has occurred in the Albion/Cottonwood area in recent years
- Lack of park-and-ride facilities at Port Haney Station and limited bus connections require many commuters to drive across Maple Ridge to use park-and-ride facilities at Maple Meadows Station
- Limited hours of train service.

Albion Ferry

- Delays of three to five sailings are now commonplace
- Future of the ferry service in the context of the new Fraser River Crossing
- Transit connections to the ferry in the short term

Passenger Facilities & Amenities

- Need for improved passenger facilities at Haney Place exchange and future redevelopment of the exchange
- Need for improved passenger facilities at bus stops, such as shelters, benches, and schedule information
- Reliability of accessibility aids, which are occasionally out of service on infrequent routes

Other Issues

- Low development densities, which make the provision of high-frequency transit services impractical and increase walking distances to transit
- High automobile ownership, which translates into relatively low transit usage
- Traffic congestion delays, which affect transit operations and make transit less competitive with the private automobile
- Rail crossings at several locations throughout both communities, which delay transit vehicles and contribute to reliability issues
- Poor route performance, with some routes costing TransLink over \$16.00 per rider to provide

SERVICE CONCEPTS & EVALUATION CRITERIA

Several regional and local service concepts were developed and evaluated to address those key transit issues identified during the ATP process. These concepts include:

Regional Services

- New connection between Haney Place and Braid SkyTrain Station
- New connection between Haney Place and Surrey Central SkyTrain Station via the new Fraser River Crossing with transit priority measures on each side of the crossing
- New connection between Haney Place and Langley Centre
- Extension of Route 701 eastward to 256th Street in Maple Ridge
- Improvement of TrainBus service between Waterfront Station and Haney Place
- Extension of TrainBus service or SkyTrain connection from Haney Place to Mission
- Passenger-only Albion Ferry

Local Services

- New Community Shuttle route serving the Albion/Cottonwood neighbourhood, with connections to Albion Ferry, Planet Ice, and Port Haney WCE Station
- Conversion of local routes serving East Maple Ridge to Community Shuttle services
- Conversion of Routes 705 and 712 to Community Shuttle, modification of routes to improve local connections and extend local service into Pitt Meadows, and improvement of off-peak frequencies
- New recreational service to Golden Ears Provincial Park on summer weekends
- New Dial-a-Bus services for evenings and Sundays in core areas of Maple Ridge and Pitt Meadows
- Conversion of East Maple Ridge routes to Dial-a-Bus service
- New Dial-a-Bus service for Silver Valley area

These concepts are based on the following brands in TransLink's 'family' of services:

- Bus – the majority of bus service providing core local services throughout the region and limited-stop services on select corridors;
- Express Coach /TrainBus – services using higher-capacity highway coaches and operating over long distances on highways between suburban centres and downtown Vancouver or other major town centres;
- B-Line- frequent limited-stop rapid bus service in major urban travel corridors using articulated buses, intelligent transportation systems such as real time schedule displays, and assisted by transit priority measures such as bus lanes to make the service more reliable in traffic congestion; and
- Community Shuttle – fixed-route, fixed-schedule or demand-responsive services that have a 20-25 passenger capacity, providing a high degree of accessibility for local trips using smaller vehicles and connections to other bus services.



The service concepts were evaluated using the criteria shown in the table below. This evaluation process, conducted with input from the Technical and Public Advisory Committees, led to the development of the recommended plan.

Expansion of the West Coast Express train service was not examined as part of the ATP, because improvements to this service are subject to the completion of work being undertaken through the Northeast Sector Rapid Transit Study, as well as improved rail access and rate agreements under proposed Federal Government legislation.

Table 1: Evaluation Criteria

Category	Criteria	Description
Ridership (2008)	Total AM peak hour boardings New AM peak hour boardings Annual boardings Market potential	Estimates of potential ridership; identifies whether potential market for concepts will grow over time
Cost	Annual operating cost Annual debt service cost Cost per boarding (annualized) Cost per new boarding (annualized)	Provides a means of comparing the costs and cost-effectiveness of various concepts
Community Support	Market research Public consultation	Considers whether concepts are supported by general public
Service Quality	Connections Service hours Service frequency Travel time (end-to-end) Expanded coverage	Considers overall service quality and how various measures adhere to TransLink's Service Design Guidelines (e.g., number of transfers, service hours, minimum frequencies); considers whether concepts will extend service to underserved markets
Implementation	Ease of implementation	Considers potential issues associated with implementation (such as the need for transit priority measures or new roadways)
Policy Considerations	Consistency with other plans and policies	Considers whether concepts support other TransLink and municipal plans and policies

RECOMMENDED PLAN

The Area Transit Plan for Maple Ridge and Pitt Meadows identifies significant improvements to bus services for the next five years. The focus for the ATP has been on the expansion of regional services beyond the one existing route serving Coquitlam Station, and on modifying local services to improve cost-effectiveness while also expanding transit services to growing areas of the community. The Plan is divided into three distinct parts – Year One improvements to be undertaken in September 2004, Years Two and Three (2005 and 2006) improvements, and Year Four (2007) service improvements and Year Five (2008) priorities, to be reviewed further in the ATP update before implementation. The implementation strategy for all ATP improvements and priorities is outlined below.

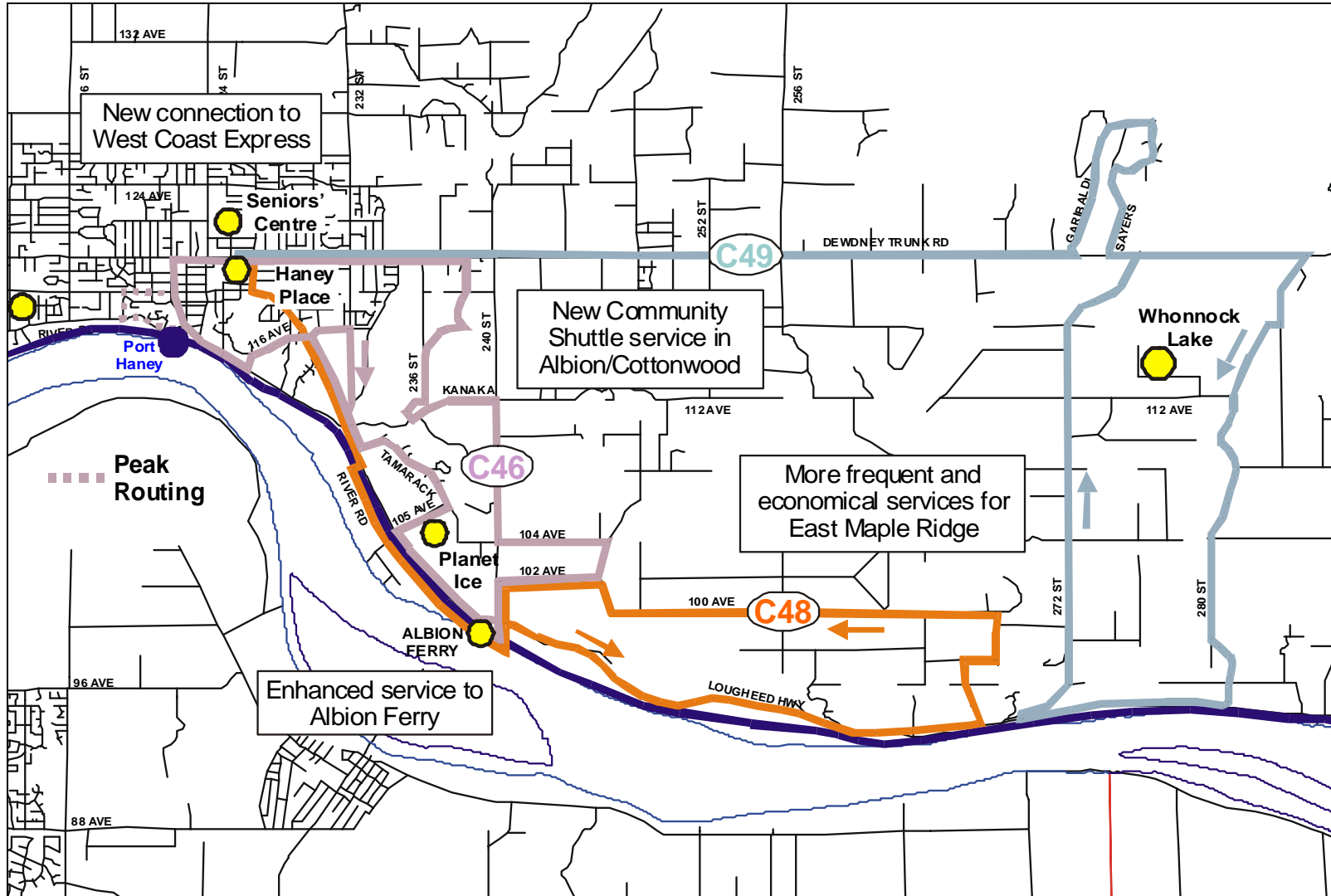
Year One (2004) Improvements

The following bus service improvements, illustrated in Figure 3 and planned for implementation in September 2004, will address several issues with local transit services in Maple Ridge.

- Implementation of a new Community Shuttle route (C46) in the Albion/Cottonwood area of Maple Ridge. This residential area is developing rapidly and is currently underserved by transit. There were numerous requests for this service during the ATP process. Route C46 would add service within the neighbourhood and provide peak connections to West Coast Express. The route would also significantly enhance connections to the Albion Ferry.
- Conversion of Routes 721 and 722 to Community Shuttle (Routes C48 and C49), modification of routings, and improvement of frequencies. The rural areas of East Maple Ridge (Whonnock, Ruskin, and Thornhill) are currently served by very limited conventional bus services that are not cost-effective. Conversion to Community Shuttle will improve the cost-effectiveness of these services and a slight increase in frequencies to 120 minutes throughout the day will make the service more attractive. Routing of the C48 service will be modified slightly to improve directness and to avoid duplication with other services.

These service improvements are depicted in the following diagram. It should be noted that final routings and service characteristics will be developed by Coast Mountain Bus Company, a subsidiary of TransLink with responsibility for planning and implementing annual bus service improvements.

Figure 3: Year One (2004) Service Improvements



Years Two to Four (2005-2007) Improvements

This phase of the ATP includes significant expansion of transit services in Maple Ridge and Pitt Meadows. The following service improvements – shown in Figure 4 and Figure 5 – are recommended for implementation during this period:

- Implementation of a new peak-period service (Route 702) between Haney Place and Braid SkyTrain Station. There have been numerous requests for a direct connection between Maple Ridge - Pitt Meadows and SkyTrain.
- Extension of the eastern portion of Route 701 from 248 Street to 256 Street in East Maple Ridge, and elimination of the South Haney extension of Route 701. The South Haney extension will be served by improved local services.
- Incremental expansion of TrainBus service between Maple Ridge and downtown Vancouver. During this time period, two additional westbound and two additional eastbound trips would be added each weekday, and five round trips would be offered on Saturdays, Sundays, and holidays.
- Implementation of a new regional route (Route 703) between Haney Place and Langley Centre via the new Fraser River Crossing, 200 Street, and Willowbrook Mall. This will be a new regional town centre connector serving growing north-south travel demands across the Fraser River. The implementation of this service improvement will coincide with the opening of the new Fraser River crossing which will be in late 2007 or 2008.
- Implementation of a new peak-period route (Route 704) from Haney Place to Surrey Central SkyTrain Station via the planned Fraser River Crossing, Walnut Grove Park-and-Ride, and Guildford Mall.
- Implementation of a new peak-period feeder route connecting the Walnut Grove neighbourhood in Langley with the Maple Meadows WCE Station, timed to meet each train. The implementation of this service improvement will coincide with the opening of the new Fraser River crossing which will be in late 2007 or 2008.
- Conversion of Routes 705 and 712 to Community Shuttle services (Routes C44/C45) and modification of routings to provide a north-south crossover at Laity Street and 216 Street. This modification would also include an extension of Community Shuttle services into Pitt Meadows to expand local connections. Midday frequencies would be increased to 30 minutes on both routes.
- Increase in peak frequency on Route C46 in the Albion/Cottonwood area to 30 minutes. Demand for this service is expected to increase rapidly

as development continues and residents become more familiar with the new service.

- Implementation of a new recreational and pilot summer service between Haney Place and the Alouette Lake Day Use Area in Golden Ears Provincial Park. The summer pilot service would operate during daytime hours on summer Saturdays, Sundays, and holidays. Interest in this service among the community is relatively high. Maintenance of this service improvement will be dependent upon this service meeting specified performance standards.
- Implementation of Friday and Saturday evening Dial-a-Bus services in the core areas of Maple Ridge and Pitt Meadows (Figure 5). Dial-a-Bus represents a cost-effective alternative to providing fixed-route, fixed-schedule services when and where demand for transit is relatively low. Service can generally be provided more directly and more frequently than traditional transit services. Dial-a-Bus is recommended as a regional pilot project in these communities because evening and Sunday services are currently not provided on local routes in Maple Ridge - Pitt Meadows, and there is an opportunity to test Dial-a-Bus as a new type of transit service.
- Elimination of Route 709. This route will become redundant with the extension of Route 701 to 256 Street.
- Construction of new Albion West Coast Express Station with park-and-ride facilities near the existing Albion Ferry to provide a new station nearer to the growing Albion/Cottonwood area of Maple Ridge.
- Expansion of park-n-ride facilities at Maple Meadows Station to accommodate increased demand associated with the opening of the Fraser River Crossing. The timing and degree of these changes will be dependent upon the use of the new WCE Albion Station.
- Provision of transit priority measures at the new Fraser River Crossing to support bus movements to and from the bridge.
- Adjustment of local routes (C46, C48, C49) to coincide with opening of planned Albion West Coast Express Station.

Figure 4: Years Two to Four (2005-2007) Service Improvements

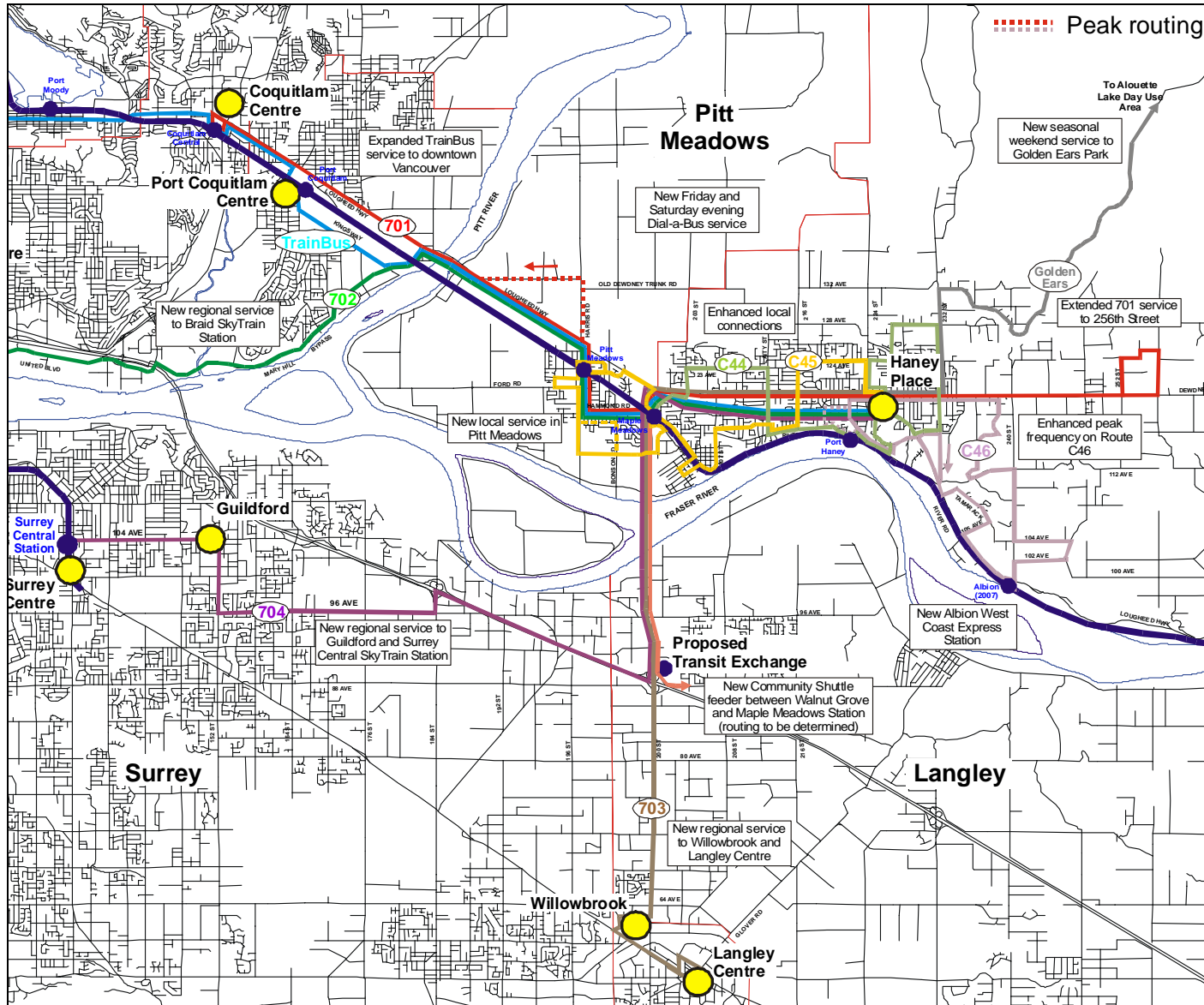
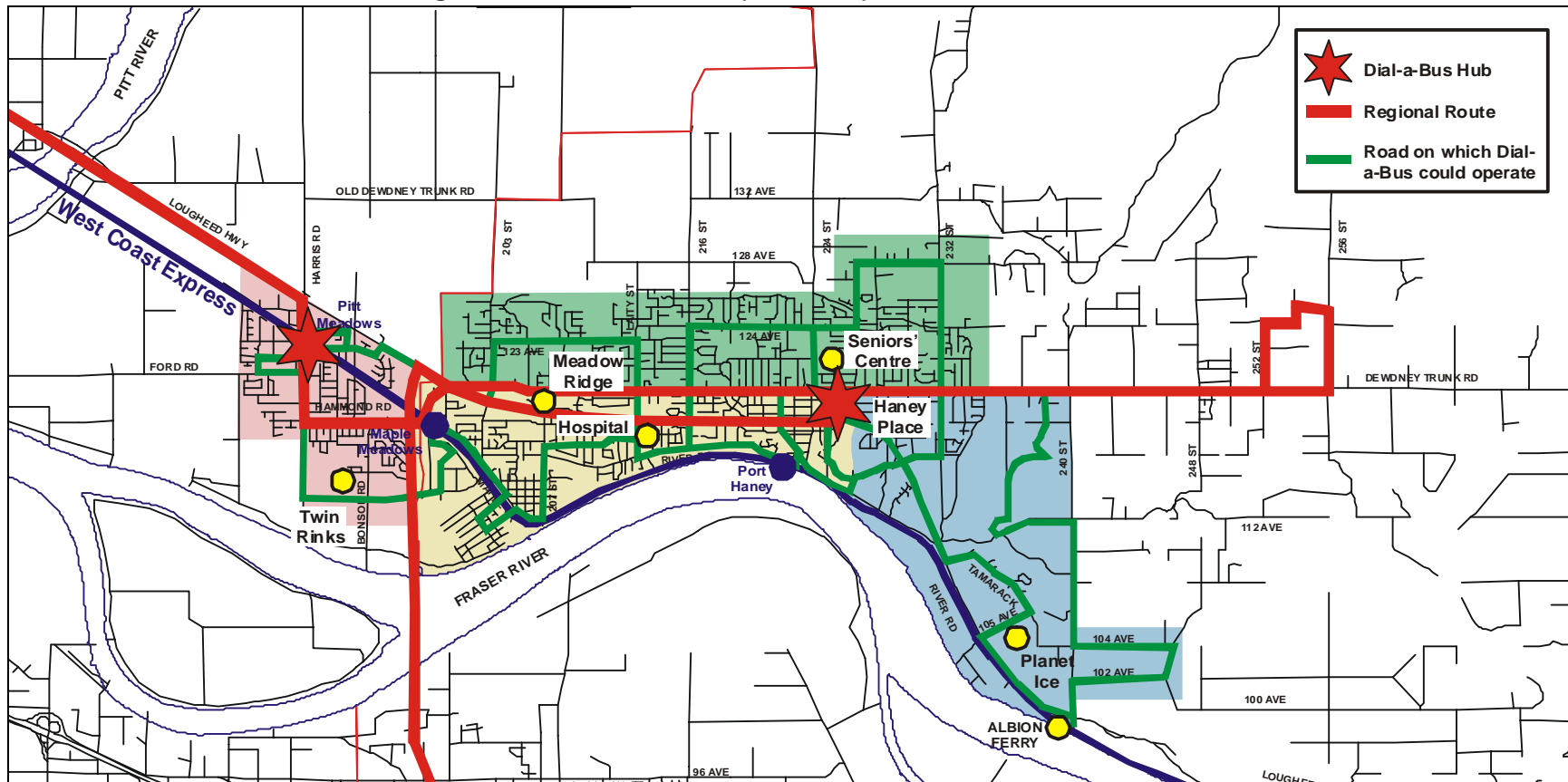


Figure 5: Years Two to Four (2005-2007) Dial-a-Bus Service Zones



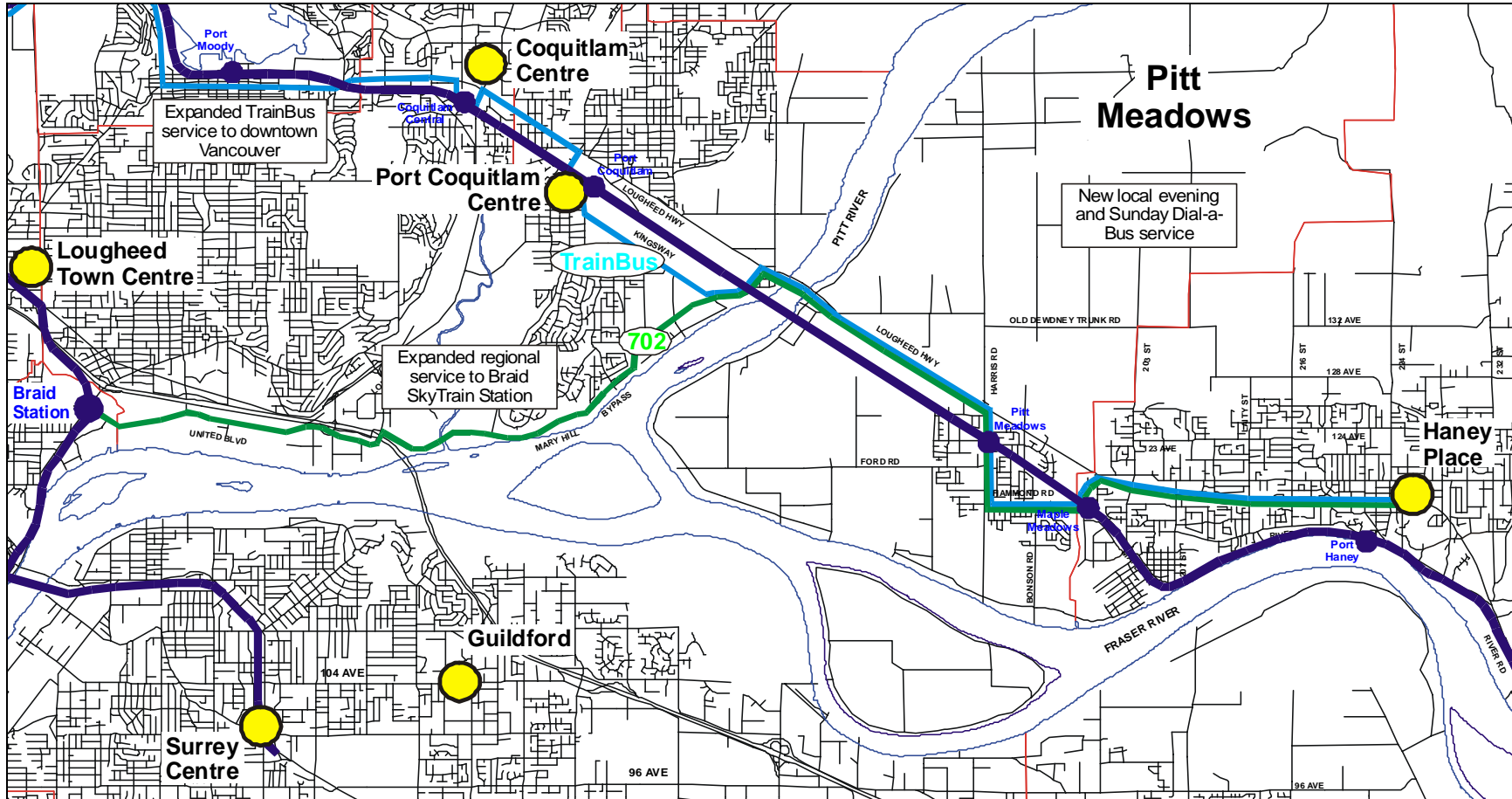
Year Five (2008) Service Priorities

The following service priorities are recommended for consideration in Year Five (2008), subject to additional review by TransLink. The implementation of these priorities will entail additional planning and community consultation work.

- Expansion of Route 702 to all-day service between Haney Place and Braid SkyTrain Station.
- Expansion of TrainBus service between Haney Place and downtown Vancouver to hourly service seven days per week.
- Expansion of Dial-a-Bus services in the core areas of Maple Ridge and Pitt Meadows to all evenings and Sundays.

These priorities are illustrated in Figure 6 below. Dial-a-Bus services will be configured as illustrated in Figure 5 previously.

Figure 6: Year Five (2008) Service Priorities



Other Opportunities Not Included in Plan

The ATP explored several other concepts to expand transit locally and region-wide, although some of these opportunities are not included in the recommended plan. For some concepts, the anticipated demands over the ATP timeframe and the resource requirements do not suggest them as high-priority initiatives at this time, particularly relative to other recommended services. This does not imply that these concepts would never become transit opportunities in future or that other agencies should not pursue them as part of a local initiative.

The specific initiatives considered in the ATP and not recommended in the five-year plan are briefly highlighted below.

- Bus service to Mission was explored as an opportunity based on local interest and that of Mission District Council. Extensions of TrainBus or the proposed Braid Station or Surrey services were all considered. The expectation was that the cost for service to Mission that could not be captured by farebox revenue would be offset by the primary beneficiary – namely Mission – without additional charges to GVRD residents. The technical review found that the costs would far exceed the revenue that could be expected from ridership, even with premium fares. As well, Mission and BC Transit indicate that their current priorities are on expanded local services within the community and on stronger connections with Abbotsford. Based on the revenue shortfall and the priorities of Mission Council and BC Transit, additional bus services to Mission are not included in the five-year plan.
- Albion passenger-only ferry service was also explored in the ATP process as a “transit” alternative to the significant services recommended across the Fraser River Crossing. The passenger-only ferry would require that all customers arrive and depart at the terminal by car (pick-up, drop-off or park-and-ride), transit, walking, or biking. On the demand side, analysis indicates that the passenger-only ferry service would attract – at most – 110,000 passengers per year. It is estimated that this would produce annual revenue of approximately \$227,000. This takes into consideration premium fares that would require passengers transferring from buses to pay an AddFare of \$1 and non-transit users to pay \$3 per crossing.

The annual costs for a passenger-only ferry service (18 hours per day, seven days per week) were estimated for a 12-passenger vessel based on experience elsewhere in the Lower Mainland and other communities across North America. In addition to the vessel capital and operating costs, costs associated with the terminal facilities were considered in the review. To avoid continued use of the existing south-side terminal – which is located on First Nations land – an alternate location in Fort Langley was also considered. Overall, the total annual operating and capital cost for a single 12-passenger ferry could range from \$630,000 to \$730,000 per year. Therefore, the revenue generated from this service would be approximately 30% to 35% of the annual costs, resulting in a shortfall of approximately \$400,000 to \$500,000 each year. Because of the challenges with operating a passenger-

only ferry service without significant population and/or employment in the immediate area, and the limited connections to attractive regional transportation services throughout the day, it is anticipated that the revenue shortfall could be even greater than projected.

The ATP includes significant transit services across the Fraser River Crossing serving increased travel between regional destinations in Pitt Meadows, Maple Ridge, the City of Langley, Langley Township, and Surrey. It is expected that these regional bus services would accommodate approximately 800,000 passengers per year and cost approximately \$2.5 million annually. In comparison, the ferry service between Fort Langley and the Albion area would be approximately 26-29% of the cost for the recommended bus services, yet carry – at most – 14% of the ridership. As such, priority has been given to the regional bus services crossing the FRC in the five-year ATP, and to other improvements to local bus services in Maple Ridge and Pitt Meadows.

- West Coast Express. The expansion of West Coast Express rail service has been identified by the community as a desired long-term transit improvement. Although WCE staff are working toward the long-term expansion of the rail service, the existing legislative and financial framework will prevent expansion until beyond the five-year timeframe of the ATP. For these reasons, expansion of the rail service is not included in TransLink's Three-Year Plan or the ATP. The expansion of this service is also dependent upon the results of examination of rapid transit for the Northeast Sector and its expected impact on WCE train ridership. Instead, the ATP focuses on local infrastructure improvements to support WCE, such as the introduction of a new Albion Station, and expansion of TrainBus services during off-peak periods.

Transit Supportive Measures

The Area Transit Plan identifies potential locations on the road network within Maple Ridge and Pitt Meadows where transit priority measures could be installed over the next five years to improve the reliability and cost-effectiveness of bus services. These potential measures include bus bypass lanes at congested intersections and bridgeheads, traffic signal priority for buses at certain locations, and intersection improvements to accommodate transit movements.

Within Maple Ridge and Pitt Meadows, transit priority measures should be considered for the following locations:

- Westbound Pitt River Bridge access (queue jumper for priority access to bridge)
- Haney Place exchange (signal priority for buses leaving exchange and turning on to Dewdney Trunk Road)
- Lougheed Highway / 226 Street intersection (eastbound left-turn bay and advanced left-turn signal for buses accessing Haney Place exchange)

TransLink will work in cooperation with the Districts of Maple Ridge and Pitt Meadows, and the Ministry of Transportation over the next five years to evaluate, design, and implement these transit priority measures as a key component of this Plan, and cost-share in these activities through the Transit Related Road Infrastructure Program (TRRIP).

Opportunities to improve transit operations along Lougheed Highway in Coquitlam and Port Coquitlam should also be considered in the future. Congestion along this corridor significantly affects Route 701 serving Maple Ridge and Pitt Meadows.

In addition to transit priority measures, the Plan identifies high-priority corridors and locations for improved passenger facilities such as wheelchair facilities, shelters, phones, garbage receptacles and benches, as well as enhanced pedestrian and cycling connections. These improved transit support facilities are a joint responsibility of the municipalities and TransLink and cost-shared funding can be obtained from TransLink. The municipalities also have an important role in making transit a more attractive alternative to driving by implementing transit-supportive and transit-oriented land use, site design, and streetscape policies in order to increase the efficiency and attractiveness of transit, and to improve its accessibility to more residents.

RESOURCE REQUIREMENTS AND PERFORMANCE TARGETS

The five-year plan proposes a significant expansion of bus services in Maple Ridge and Pitt Meadows. This expansion will require the following commitments by TransLink between 2004 and 2008:

- **24 more peak buses (171% increase) in scheduled service;**
- **119,000 more annual service hours (216% increase); and**
- **Additional annual operating and debt service costs of \$8.4 million (195% increase).**

The regional transportation model and market research findings were used to estimate annual transit ridership for all of the services in Maple Ridge and Pitt Meadows. The results indicate that expansion of the transit system will increase annual ridership by over 200%, from approximately 1.1 million annual riders today to over 3.5 million annual riders in 2008.

In addition to the overall ridership gains that are forecast, transit's mode share is expected to increase for a number of specific regional and local destinations, as illustrated in the table. For example:

- The AM peak hour transit mode share for internal travel within Maple Ridge and Pitt Meadows is expected to increase from approximately 3% to approximately 5.5%.
- The AM peak hour transit mode share for trips from Maple Ridge - Pitt Meadows to the Northeast Sector communities (Coquitlam, Port Coquitlam, Port Moody) is projected to increase from approximately 2% to over 4%.
- The AM peak hour transit mode share for trips between Maple Ridge - Pitt Meadows and Burnaby - New Westminster is forecast to increase from approximately 4% to over 14%.

The following table summarizes the total resource requirements and performance targets for the recommended improvements and compares them to existing service levels. In addition to increases in resources and ridership within the area, individual performance measures show positive results. For example, the trips per service hour are anticipated to increase, whereas the average per-rider cost to provide service is projected to decline.

Table 2: Resource Requirements and Performance Targets

	Existing Service	2008 Planned Service	% Change
Resources			
Annual Bus Service Hours	55,000	174,000	+216%
Peak Buses	14	38	+171%
Annual Total Bus Cost (\$ mil) ²	\$4.3	\$12.7	+195%
Annual Fare Revenue (\$ mil)	\$1.8	\$5.9	+228%
Performance Targets			
AM Peak Hour Ridership ³			
- from Maple Ridge - Pitt Meadows	60	250	+317%
- to Maple Ridge - Pitt Meadows	30	65	+117%
- within Maple Ridge - Pitt Meadows	375	665	+77%
- total	525	980	+87%
Annual Ridership (mil)	1.1	3.5	+218%
Annual New Transit Trips (mil)	n/a	1.37	n/a
Rides per Service Hour	20.0	20.1	+0.5%
Bus Cost per Bus Ride	\$3.91	\$3.63	-7%
Cost per New Ride	n/a	\$6.13	n/a
Cost Recovery	43%	46%	+7%
AM Peak Hour Transit Market Shares			
- all trips to/from Maple Ridge - Pitt Meadows	5.7%	5.8%	+2%
- trips originating from Maple Ridge - Pitt Meadows	11.5%	8.8%	-23% ⁴
- trips destined to Maple Ridge - Pitt Meadows	0.5%	1.2%	+140%
- trips within Maple Ridge - Pitt Meadows	3.2%	5.5%	+72%
- trips to/from NE Sector	2.0%	4.4%	+120%
- trips to/from Burnaby & New Westminster	3.7%	14.1%	+281%
- trips to/from Langley & Surrey	0.2%	1.0%	+400%

1 Does not include statistics for West Coast Express.

2 Total cost includes bus operating and debt service costs.

3 Excludes West Coast Express boardings.

4 Drop in transit mode share is a result of significant projected growth in AM peak hour auto traffic leaving Maple Ridge and Pitt Meadows to communities south of the Fraser River upon completion of the Fraser River Crossing.