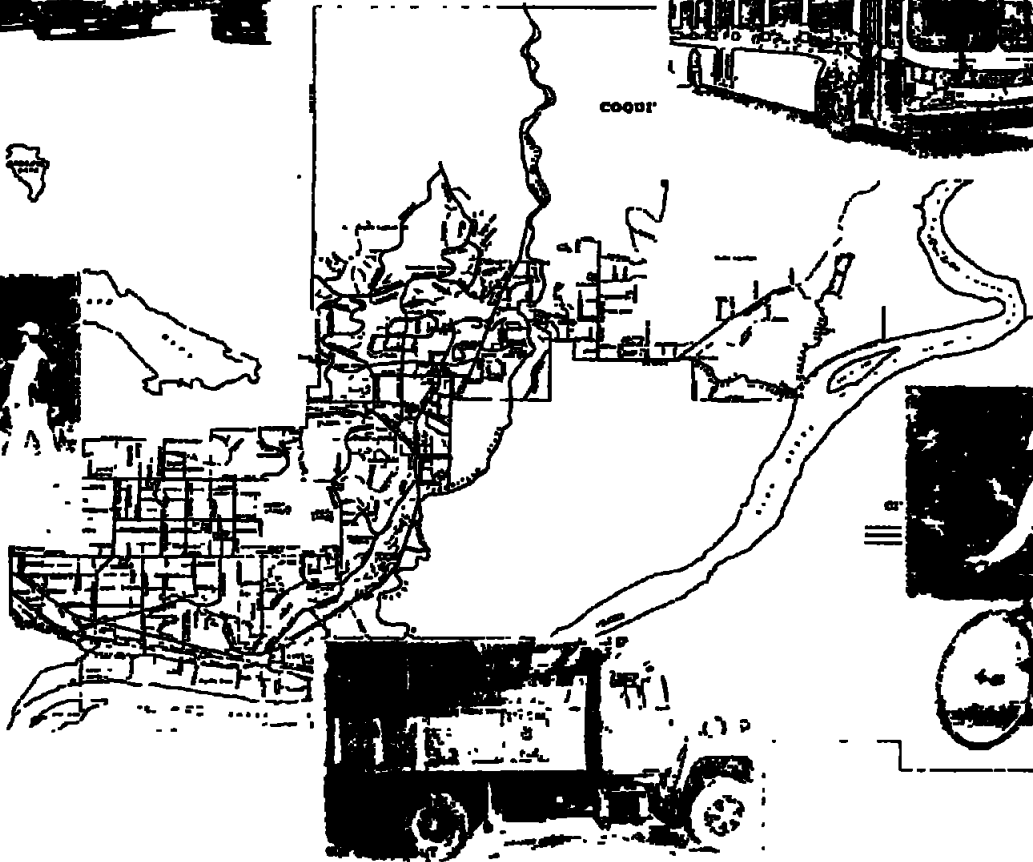
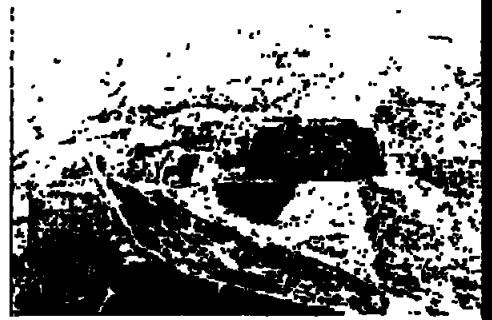


Citywide Official
Community
Plan

City of Coquitlam Strategic Transportation Plan



CITY OF
COQUITLAM



Approved by
Coquitlam City Council
December 3, 2001

Strategic Transportation Plan – Summary

STRATEGIC TRANSPORTATION PLAN BRIEF

Transportation is consistently identified by residents of Coquitlam as one of the most important issues facing the City. With significant growth in population and employment projected over the next 20 years, and the potential impacts of transportation decisions by other provincial and regional agencies, the City must have a clear long-term vision and pro-active policies to provide direction and shape short-term decision-making on Coquitlam's transportation system.

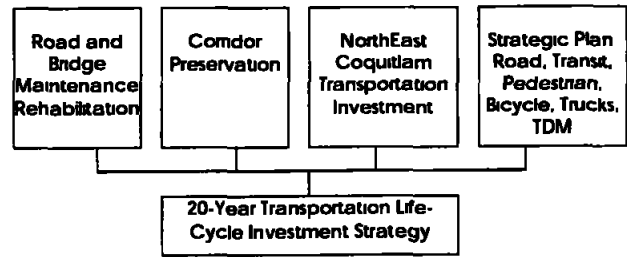
As a result, City Council authorized staff to prepare the Coquitlam Strategic Transportation Plan (STP) in conjunction with the development of the Citywide Official Community Plan. The STP examines and recommends improvements for all modes of travel in the City through to the year 2021 and beyond.

Input and feedback from the public and other agencies were cornerstones to the development of the STP. Public input was achieved through several forums, including Town Hall Meetings, Open Houses as well as through meetings of the City's Transit and Transportation Advisory Committee. Additionally, discussions were also held with key provincial, regional and municipal agencies to obtain feedback and to ensure that the STP provided a coordinated strategy.

The **Road Network Plan** component of the STP recommends several roadway improvement projects to address existing and forecast areas of congestion, and identifies strategies to maintain and preserve mobility for automobile travel as well as for the movement of goods and services, along existing roadways. The **Transit Service Strategy** presented in the STP provides guidance on critical strategic initiatives, major transit services, transit priority measures as well as support strategies. The STP also provides a comprehensive **Bicycle Network Plan** and **Pedestrian Network Plan** as integral parts of the

long-term transportation system for the City of Coquitlam.

The most critical element of the STP is the Implementation and Phasing Strategy which identifies \$116 million in transportation improvements over the next 20 years, of which some \$63 million would need to be undertaken by City of Coquitlam. The Plan identifies opportunities for partnerships that would reduce Coquitlam's share of these investments, which will be partially dependent on the pending update of TransLink's Strategic Transportation Plan, and the anticipated urban transportation investment initiative by the federal government.



The STP also contributes to an overall 20 year transportation life-cycle investment strategy by outlining the framework for not only guiding capital plan decision-making, but also to assist in priority setting and aligning transportation investments in life-cycle maintenance, rehabilitation and new major/minor projects. It is also anticipated that the direction for the City's transportation system and the policies of the STP will serve to influence and guide discussions of investment priorities with regional, provincial and federal governments.

The implementation of the STP and coordination with other agencies will be essential in achieving Coquitlam's commitments to the Livable Region Strategic Plan goals, community liveability, economic vitality, and environmental sustainability.

Strategic Transportation Plan – Summary

1. Introduction

The City of Coquitlam has experienced rapid growth in recent years, growing by 33% between 1991 and 1999. Population and employment in the City are expected to continue to grow at significant rates to approximately 206,000 residents and 71,000 jobs by 2021.

As part of the “*Growth Concentration Area*” of the Greater Vancouver Regional District, the City has embraced the goals of the Livable Region Strategic Plan (LRSP) which was approved in 1993. In this regard, Coquitlam is committed to a comprehensive approach to shaping growth and development within the City by: protecting the Green Zone, building complete communities, achieving a compact metropolitan region and increasing transportation choice.

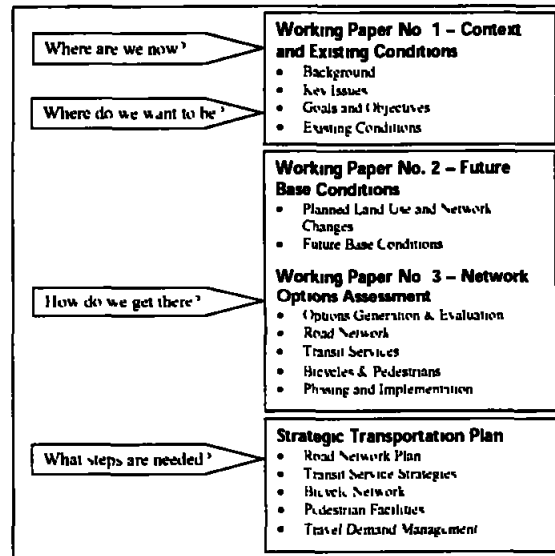
To support the goals of the LRSP and to address transportation needs within Coquitlam over the next 20 years, the City initiated the Strategic Transportation Plan (STP) in conjunction with the development of the Citywide Official Community Plan (OCP). The STP examines and recommends transportation improvements for all modes within the City to 2021 and beyond. The STP not only identifies road improvements to address key areas of congestion and mobility for goods and services, but also recommends facilities and programs to increase the attractiveness of transit, cycling, and walking within Coquitlam.

The STP differs from traditional planning initiatives in a number of important ways:

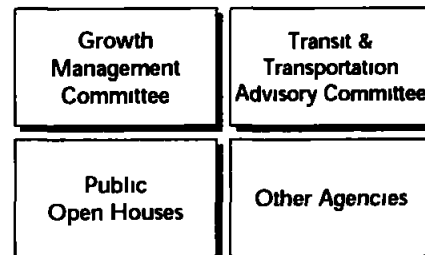
- STP was developed in conjunction with the City’s Citywide OCP, rather than in isolation;
- STP addresses issues and concerns publicly identified by Coquitlam residents and others;
- STP considers both supply and demand measures, rather than simply focussing on strategies to provide more roads in response to growing travel demand;

- STP forms a component of the City’s overall transportation strategy which includes maintenance, rehabilitation and other investment strategies; and
- STP is based on City commitments to high-priority improvements such as the United Boulevard Extension, and the NE Coquitlam OCP.

The STP was developed as illustrated below



To ensure that broader concerns and ideas were considered, the STP included several opportunities for input and direction to be provided by City Council, the Transit and Transportation Advisory Committee, and the general public. Consultations were also held with the Ministry of Transportation, TransLink and adjoining municipalities.



2. Goals and Objectives

The goals of the STP define the mission, purpose, and direction for the development of the transportation system. The overall strategy behind the STP was to recommend a transportation vision that considers four key goals and several objectives. The goals and objectives are summarized below.

Goal 1 – Community & Environmental Quality. Provide transportation infrastructure and services that enhance quality of life in Coquitlam, as well as the quality of the natural environment.

- Enhance road network hierarchy
- Preserve neighbourhood streets
- Connect communities
- Recognize land use connections
- Preserve historical and natural environments
- Minimize pollution
- Support healthy lifestyles
- Maintain emergency access

Goal 2 – Mobility. Provide for the safe, convenient, and accessible movement of people, goods, and services throughout the City.

- Move people, goods, and services
- Transportation choices for individuals of all ages and physical abilities
- Integrate modes
- Address and enhance safety
- Enhance regional connections
- Maximize use of existing roadways
- Preserve mobility on key corridors
- Support transit services and facilities
- Support safe bicycle travel
- Support safe pedestrian travel
- Facilitate commercial access
- Support rail and marine services

Goal 3 – Quality of Transportation. Provide transportation infrastructure and services that support long-term municipal and regional land use and economic policies and actions.

- Complement local policies and plans
- Support regional and provincial initiatives
- Support urban design objectives
- Provide flexibility to support changing land use and economic conditions

Goal 4 – Affordability. Provide transportation infrastructure and services in a cost-effective and efficient manner that makes the best use of existing and future resources.

- Cost-effective infrastructure
- Maximize use of existing investments
- Encourage non-Single Occupant Vehicle (SOV) travel
- Manage congestion
- Provide priority measures for transit and other high-priority vehicles
- Recognize full ongoing costs
- Consider alternate revenue sources

3. Road Network Plan

Coquitlam's road network provides accessibility to land and offers mobility to support social and economic activity within the City. The road network consists of municipal roadways (local streets, collectors, and City arterials), regionally significant roads (known as the Major Road Network or MRN), and provincial highways. The STP recognizes that the roadway network is a multi-modal facility serving single- and high-occupancy vehicles, goods and services, transit, cycling, and walking. In this regard, the roadway network improvements to maintain mobility are integrated with long-term decisions on other modes.

The Road Network Plan provides direction for the long-term development of Coquitlam's street network and includes a range of strategies to address projected long-term delays and congestion. The STP also provides direction on initiatives to maximize the use of existing roadways. As efficient goods movement is critical to the economic development and prosperity of the community, the STP also includes direction on the truck route network in Coquitlam.

Key Factors

The STP for Coquitlam is shaped by growth patterns and transportation decisions within the City and region-wide. The long-term population and employment forecasts for Coquitlam and other municipalities fundamentally shape the transportation demands of the Region. The demographic forecasts outlined in the LRSP for 2021 are recognized within the assessment of future transportation conditions and improvement strategies. In this regard, the timing of growth and development within the City and Region-wide could influence the phasing of the recommended improvements.

In addition to the forecast changes in growth, planned transportation improvements also shape the direction for the City's STP. While there are several regional and provincial scale improvements that have been identified as part of recent planning initiatives, the STP for Coquitlam recognizes those key transportation strategies such as the completion of United Boulevard Extension, further improvements to the Cape Horn Interchange, widening of Highway 1 and the Port Mann Bridge as well as the provision of the North South Crossing. The STP also assumes the provision of SkyTrain to the Coquitlam Regional Town Centre, along with five stations for inter-modal connections. The STP is also based on the direction for roadway, transit, bicycle and pedestrian improvements identified in the Northeast Coquitlam OCP, including the two proposed crossings of the Coquitlam River. While some of these improvements affect the direction of the STP, they will also shape land use patterns within the City and influence local and regional goals for growth and development.

Key Issues & Problem Areas

Input received from stakeholders and a review of existing and future conditions provides insight into the key road network issues that are addressed within the STP. These issues include:

- Areas of recurring congestion and delay.
- Discontinuous roadway system in the established areas of the City.
- Limited arterial and collector roadway system with growing development pressures.
- Challenges of the City's topography as well as natural and built areas of the community.
- Maximizing effectiveness, affordability and long-term continuity of the existing major road systems within the City.
- Integration of transportation facilities and services utilizing the roadway and land uses.
- Effective movement of goods and services within and through the City.

Road Network Plan

The Roadway Network Plan for Coquitlam is designed to address those existing and future issues facing the City in the long-term. The process of developing the Plan includes the identification and evaluation of optional major transportation improvements as well as the identification of other roadway network enhancements. It should be recognized that the Roadway Network Plan is consistent with the direction for other modes as part of an integrated transportation strategy.

A. Major Improvement Areas

Throughout the City, there are three primary areas that experience significant recurring delays and that are anticipated to worsen with further growth and development. As part of the STP process, a range of improvement strategies was considered, including minor improvements and major changes to the area network. For each of the optional improvement strategies, the evaluation framework examines the overall potential “benefits” and “costs” of each candidate improvement. Benefits include traffic diversion, relief to congestion, travel time savings, and accommodation of non-automobile modes. Costs include capital and property costs, as well as the community, environmental, and construction impacts. The evaluation of the major improvement areas is briefly highlighted below.

i. Lower Lougheed Corridor

This area encompasses the Lougheed Highway corridor between North Road and the Coleman Road on-ramp. The following three options are intended to address existing and projected delay and congestion throughout the corridor, but particularly in the Lougheed / Brunette / Blue Mountain triangle area, which currently experiences recurring congestion during peak periods. The optional

road improvement strategies examined in the STP include:

- a) *Minor intersection improvements* – addition or lengthening of turn lanes at the Brunette, King Edward, and Schoolhouse intersections.
- b) *Grade separation* – underpass of Lougheed Highway beneath Brunette Avenue and Blue Mountain Street, with limited connections between intersecting roadways.
- c) *Tunnel and widening* – tunnel for westbound left turns from Lougheed to Brunette, plus widening of Lougheed Highway to six lanes from North Road to Coleman on-ramp.

The benefits and costs of each of the improvement options are highlighted below.

Evaluation Criteria	Options		
	Minor improvements	Grade-separation	Tunnel & widening
Benefits			
Travel time savings (\$mil / yr)	Moderate	\$1 65	\$0 69
Traffic diversion	○	●	○
Congestion relief	○	●	○
Transit benefits	○	●	○
Non-motorized modes	○	●	○
Costs / Impacts			
Capital costs (\$ mil)	\$1 1	\$17 7	\$25 4
Property costs (\$ mil)	-	\$10-16	\$7 5
Community impact	●	○	○
Environmental impact	●	●	○
Construction impact	●	○	○/○
Preferred Options	✓		
Ratings	● High benefit ○ Low impact	● Moderate benefit ○ Moderate impact	○ Low benefit ● High impact

✓ - short-term improvement

Overall, the preferred long-term improvement strategy is the grade-separation option because it offers the most substantive benefits and would offer a longer-term solution to congestion problems. In the short term, however, the completion of the United Boulevard Extension and minor intersection improvements would serve to defer grade separation. The City should continue to examine the grade-separation option at a functional level of planning and design. It

Strategic Transportation Plan – Summary

should be noted that grade separation at the Loughheed / Brunette intersection must be supported by improvements to the Highway 1 interchange at Brunette Avenue, which is under the jurisdiction of the Ministry of Transportation.

ii. United Boulevard Connections

Two major options were examined to address the lack of north-south connections between United Boulevard and Loughheed Highway, as well as projected delays through the existing Highway 1 underpass. The optional roadway improvements include:

- a. *King Edward widening* – expansion of existing underpass beneath Highway 1 to provide two northbound and three southbound lanes.
- b. *Schoolhouse overpass* – continuation of Schoolhouse Street over Loughheed Highway, Highway 1, and CPR to connect with United Boulevard, with limited connections to Loughheed Highway.

The benefits and costs of the optional improvement strategies are highlighted below.

Evaluation Criteria	Options	
	King Edward widening	Schoolhouse overpass
Benefits		
Travel time savings (\$mil / yr)	\$0.68	\$0.11
Traffic diversion	●	○
Congestion relief	●	○
Transit benefits	○	○
Non-motorized modes	●	●
Costs / Impacts		
Capital costs (\$ mil)	\$10.8	\$20.0
Property costs (\$ mil)	-	-
Community impact	●	○
Environmental impact	●	○
Construction impact	●	●
Preferred Options	✓	
Ratings	● High benefit ○ Low impact	○ Moderate benefit ○ Moderate impact ○ High impact

✓ - short-term improvement

Based on this assessment, the King Edward widening option is the preferred long-term strategy because it offers more significant

benefits at a much lower capital cost and with fewer impacts. The City has previously undertaken some functional design on this concept and should continue to assess grade-separation of the railway tracks prior to implementation.

iii. Barnet / Loughheed Corridor

This area incorporates the Barnet / Loughheed corridor between Johnson Street and the Coquitlam River in Port Coquitlam. The two options considered for this corridor are intended to address existing delays, as well as projected growth in traffic volumes in both the east-west and north-south directions. It should be noted that the evaluation is consistent with the Northeast Coquitlam OCP and assumes the two proposed crossings of the Coquitlam River north of Loughheed Highway.

- a. *Minor intersection improvements* – additional through and turn lanes at Johnson, Pinetree, and Westwood intersections
- b. *Grade separation* – lowering of Loughheed Highway into underpasses beneath Pinetree Way and Westwood Street, with full connections at each location.

The benefits and costs of each option are highlighted in the table below.

Evaluation Criteria	Options	
	Minor improvements	Grade-separation
Benefits		
Travel time savings (\$mil / yr)	Moderate	Moderate
Traffic diversion	○	○
Congestion relief	○	●
Transit benefits	○	●
Non-motorized modes	○	●
Costs / Impacts		
Capital costs (\$ mil)	\$0.83	\$23.8
Property costs (\$ mil)	-	\$9.0
Community impact	●	○
Environmental impact	●	●
Construction impact	●	○
Preferred Options	✓	✓
Ratings	● High benefit ○ Low impact	○ Moderate benefit ○ Moderate impact ○ High impact

✓ - short term improvement

The results indicate that the grade-separation option is the preferred long-term strategy for the Barnet / Lougheed corridor. The minor intersection improvements option would not accommodate the anticipated growth in traffic, particularly in the north-south direction. In the short term, however, minor intersection improvements would serve to defer grade separation. In the interim, the City should continue to examine grade separation at a functional level of planning and design to confirm geometric configurations and address impacts on adjacent accesses and egresses.

B. Other Improvements

In addition to the major network improvements, the Road Network Plan includes strategies for other corridors and key intersections to accommodate long-term growth within the City of Coquitlam. It should be recognized that these improvements are used to guide the broader area plans for the network, and do not substitute for the development of local-area transportation improvements associated with site- or area-specific land use plans.

Figure 1 illustrates the long-term network improvements for the City of Coquitlam, including intersection improvements, corridor widening as well as transit priority measures.

C. Corridor Preservation

In addition to the identification of capital road improvements, Figure 1 also identifies locations in which to maintain and maximize the use of existing major corridors, while accommodating growth and development – also referred to as “corridor preservation.” Within Coquitlam, there are several corridors where existing land uses and planned development could reduce overall mobility through these corridors without thoughtful strategies to mitigate the impacts of growth.

In these areas, the City will need to consider strategies to preserve corridor mobility balanced with the preservation of property and area accessibility on an ongoing basis. Accordingly, the City will need to undertake the development of Corridor Strategic Plans (CSP) to proactively address the need to optimize transportation capacity while preserving access to development lands for future growth. In this regard, the CSP will be integrated with land use strategies and will consider a range of initiatives such as:

- compatible land uses and development controls
- access re-definition and consolidation
- access restrictions
- minor intersection improvements
- support roadways
- improved signage
- right-of-way protection
- pavement and rehabilitation requirements

The long-term Road Network Plan for the City of Coquitlam will incorporate those long-term capital improvements and corridor preservation strategies as well as the recommended improvements identified in the Northeast Coquitlam OCP. Figure 2 illustrates the long-term Road Network Plan for the City.

Goods and Services Movement

The STP supports the mobility of goods and services through the provision of a more efficient road network. The objective of the STP, however, is not to significantly alter the existing truck route network through the designation of additional routes as this is an inter-municipal issue. Instead, the objective is to recognize the existing truck route network within a local and regional framework, as well as the role of other arterial roads in the movement of goods and services to access local destinations within the City as the most direct connection from a designated truck route. Figure 3 illustrates the recommended truck route network for the City of Coquitlam.

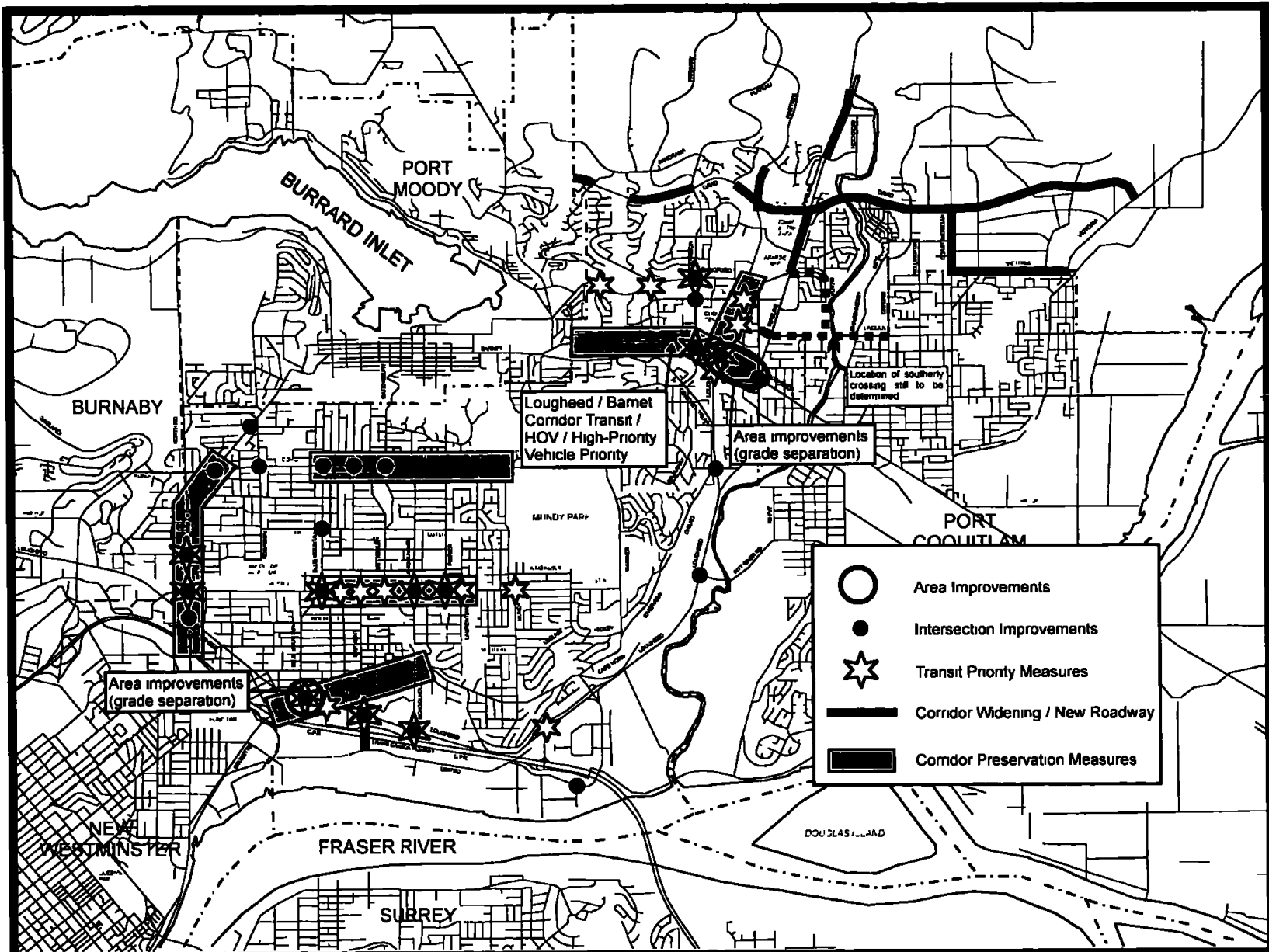


Figure 1. Long-Term Road Network Improvements

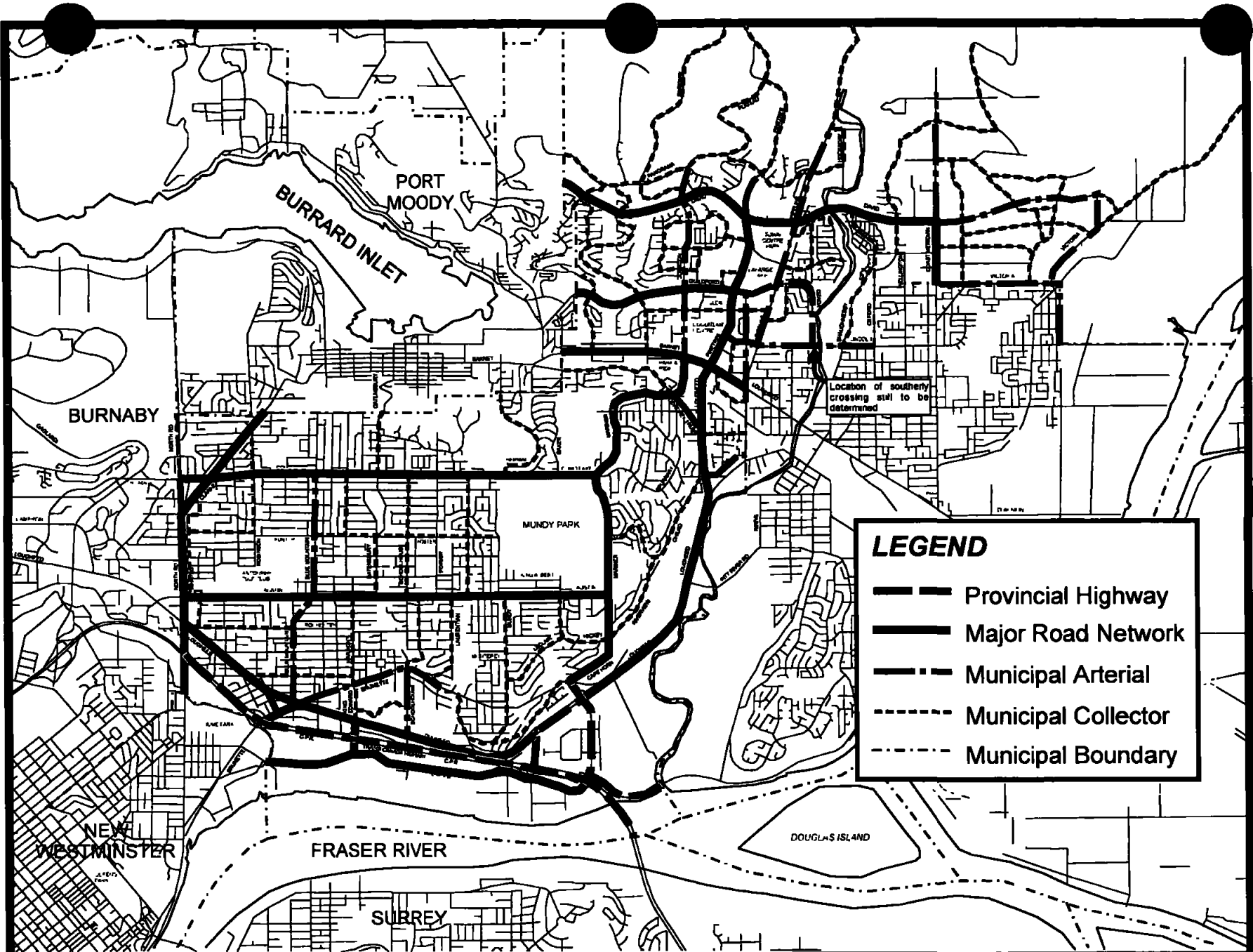


Figure 2. Road Network Plan

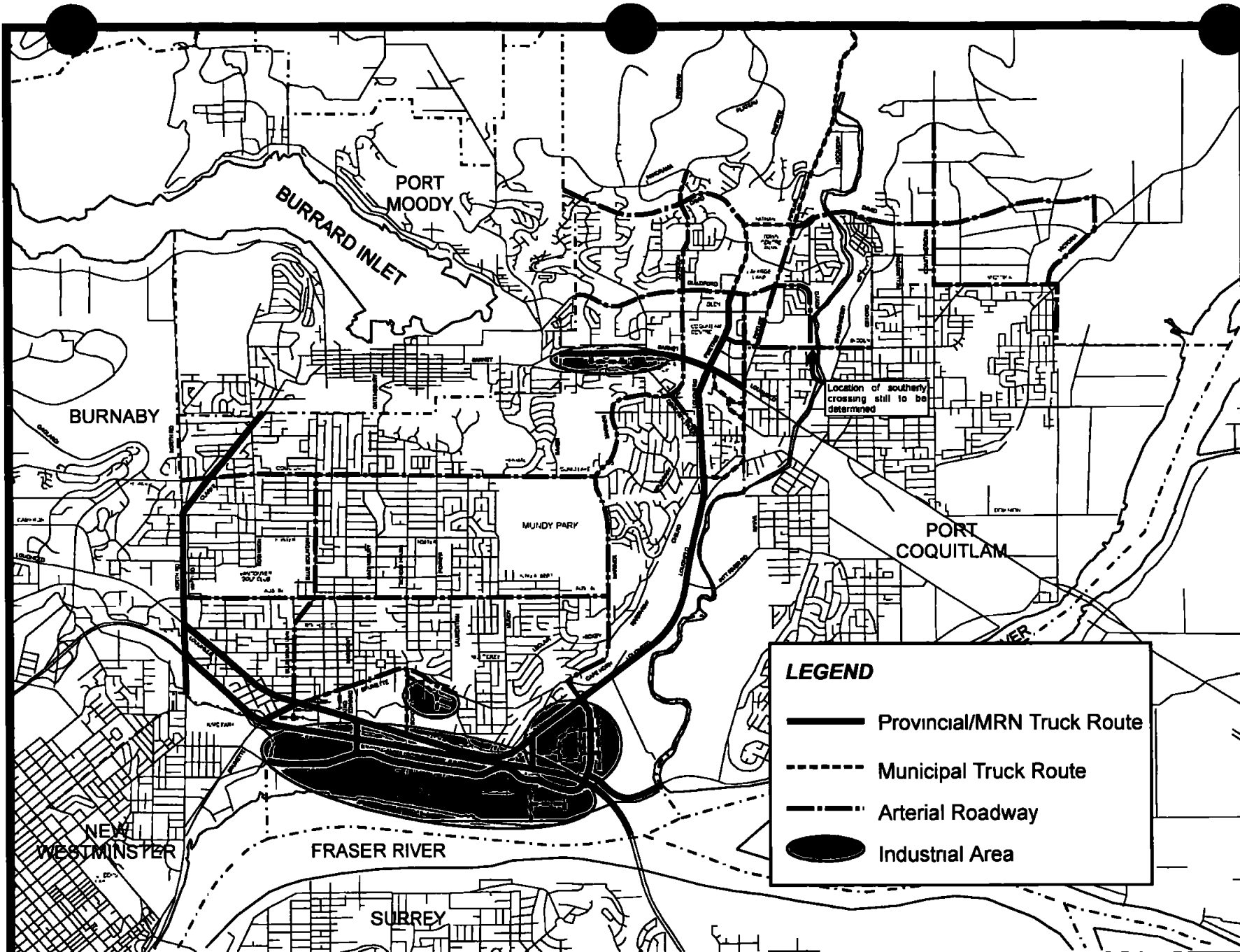


Figure 3. Long-Term Truck Route Network

4. Transit Service Strategy

Residents of Coquitlam have identified transit improvements as a key priority to support the planned population and employment growth targets of the Livable Region Strategic Plan.

The Transit Service Strategy presents a long-term vision for transit services in the City of Coquitlam. This strategy recognizes that current responsibility for transit planning rests with TransLink, but that the City must continue to consider and advance the needs and interests of its residents and businesses.

The objective of the Transit Service Strategy is to address four primary aspects of transit service for the City, including strategic initiatives, major transit service strategies, transit priority measures as well as transit supportive strategies. The following discussion highlights the long-term direction for each component of the Transit Service Strategy.

A. Strategic Transit Initiatives

There are several strategic transit issues that need to be addressed for Council and the community in order to ensure the long-term success of transit in the City of Coquitlam. Those strategic initiatives to be pursued by the City, in partnership with TransLink are highlighted as follows:

i. **Port Moody-Coquitlam SkyTrain.** The provision of SkyTrain between Lougheed Station and Coquitlam Regional Town Centre is fundamental to meeting the long-term transportation needs of Coquitlam and to achieving growth targets. The STP and OCP are founded on the premise that SkyTrain would be operational within the next 10 years.

ii. **Fare Structure Review.** The City should encourage a review of the existing fare structure to consider better alternatives to the existing zone-fare system in order to recognize Coquitlam's role in the Growth Concentration Area, and any inequities in the current fare structure.

iii. **Service Delivery Review.** In support of the City's goal for a transit system that serves a broader range of target markets, the City may want to investigate alternative service delivery models to ensure that attractive and affordable services are provided in Coquitlam.

iv. **B-Line.** Frequent, direct service is planned for implementation in 2002 to provide a fast connection between the Lougheed Station of Millennium SkyTrain and Coquitlam Regional Town Centre. With this improved service, it is anticipated that the B-Line will generate transit ridership in the Guildford Way, Clarke Road, and North Road corridors in advance of the implementation of the Port Moody-Coquitlam SkyTrain.

B. Transit Services

TransLink has a program for conducting Area Transit Plans for the Northeast Sector in consultation with municipalities and the public. Through the Northeast Sector Area Transit Plan process, Coquitlam residents identified numerous issues with the transit service including:

- low service frequency
- limited hours of service
- circuitous routing
- complexity of service
- unreliable connections
- limited range of transit services and markets served

The Northeast Sector Area Transit Plan anticipates significant changes to bus services in the area to satisfy Coquitlam's transit needs.

In addition to the short-term improvements, the City will also want to ensure that the provision of long-term bus services is consistent with anticipated growth. Although the objective is not to define routing for buses, the STP provides direction on what corridors should be designed to support high-frequency bus services.

Figures 4 and 5 illustrate the broad direction for the long-term transit service strategy for Coquitlam. The key components of the transit strategy are highlighted below.

- **Activity centres and transit exchanges**, such as the Regional Town Centre and other major activity centres, as well as major exchange facilities, are the focus of many services needed in the City of Coquitlam.
- **Primary transit corridors** provide direct connections along the arterial road network between activity centres and major transit exchanges. High-frequency service, improved passenger amenities, and, in some cases, transit priority measures will be provided along these corridors.
- **Conventional transit corridors** provide direct connections along arterial and collector roadways between local and regional destinations with attractive service frequencies.
- **Neighbourhood service areas** are areas where transit would be provided using either conventional buses or smaller vehicles, depending on the demand for transit in each area. In these areas, the focus would be on providing attractive service to local destinations and quality connections to higher level bus services and/or SkyTrain. These areas are illustrated in Figure 5.

C. Transit Priority Measures

Transit priority measures are intended to support transit along high-frequency corridors where priority access for transit vehicles at intersections and bridgeheads would reduce delays to transit vehicles by allowing them to bypass congestion.

A wide variety of transit priority measures are considered in the STP and are highlighted in Figure 1. These include:

- queue jumpers, which allow buses to bypass congestion at intersections or bridgeheads.
- traffic signal priority, which detect the presence of buses and adjust signal timings to allow them to pass
- bus-activated signals, which are signals that are activated only by transit vehicles, and often control access to and from transit exchanges.

D. Transit Supportive Strategies

Additional steps must be taken throughout the community to make transit more attractive. This involves the evolution toward transit-friendly communities – environments in which transit can operate most effectively, while accommodating customers' needs. Three general categories of transit supportive strategies are presented within the STP, including land use mixture and density, transit-oriented design practices and transit facility features and amenities

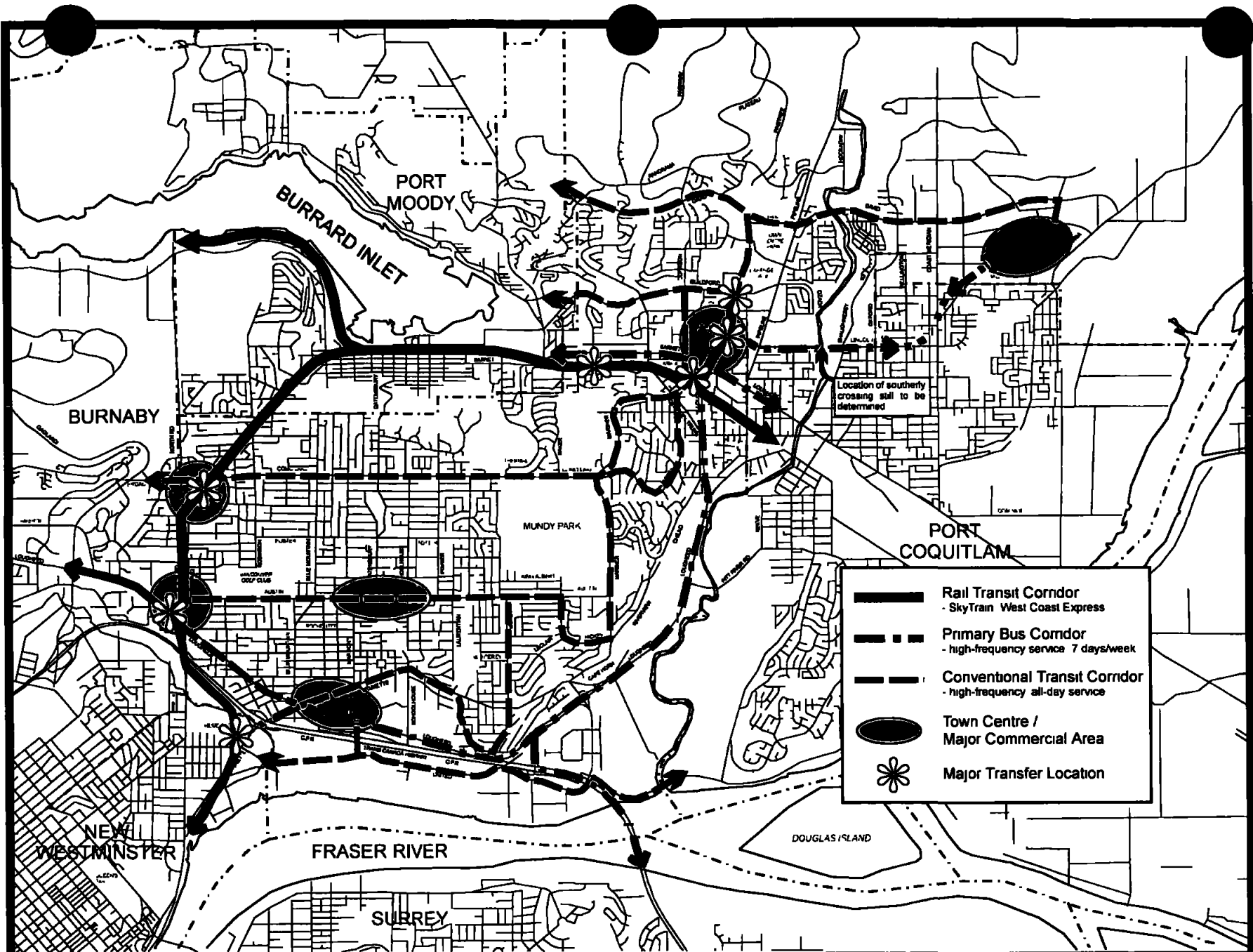


Figure 4. Long-Term Transit Corridors

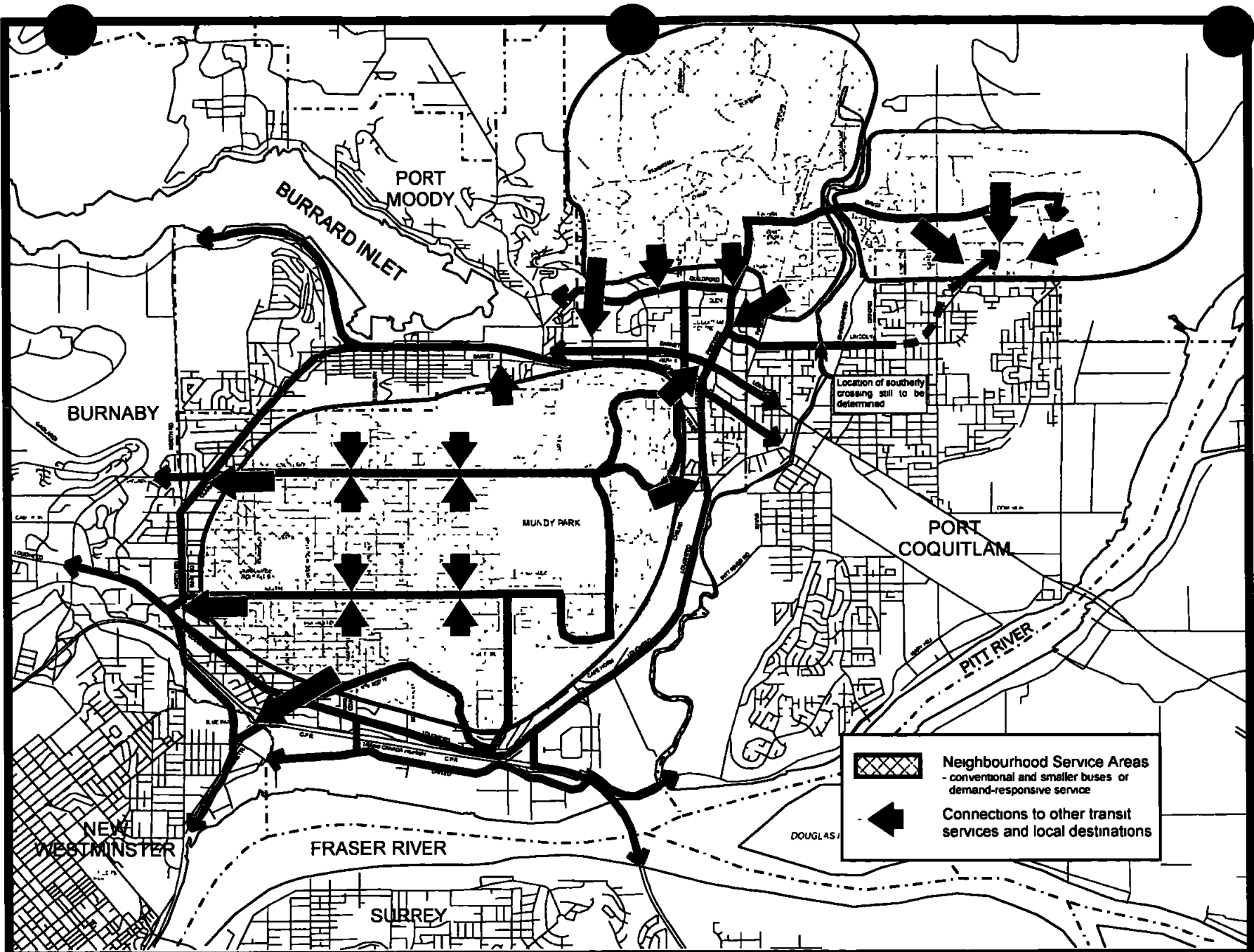


Figure 5. Long-Term Neighbourhood Transit Service Areas

5. Bicycle Plan

Cycling in the City of Coquitlam has gained increasing prominence over the past 20 years. Once considered a vehicle predominantly used for leisure and recreation, the bicycle is now seen as a viable mode of transportation for many types of trips. To accommodate travel by bicycle on the road network and to secure funding for bicycle network improvements from other sources, the City must develop an effective strategy to integrate bicycles into the municipal transportation system.

The Bicycle Plan outlines conceptual on-street alignments and corridors for which site-specific designs and connections will be needed prior to implementation. It is anticipated that the City will work with the community further in selecting specific standards and treatments for crossing locations. This may be undertaken in coordination with regional and provincial bicycle planning programs, such as offered by the Insurance Corporation of British Columbia (ICBC).

The emphasis of the Bicycle Plan is on on-street commuter routes, rather than off-street recreational cycling facilities, which are being addressed in the City's proposed Master Trails Plan.

A. Bicycle Facility Types

Proper implementation and maintenance of bicycle facilities is critical for fostering and encouraging travel by bicycle. The STP includes comprehensive guidelines for the design and maintenance of bicycle facilities. Guidelines for the following five types of facilities are provided.

- **Shared bicycle routes** are generally located on local streets with low traffic volumes and speeds. They are designated through the provision of signage.

- **Marked wide curb lanes** are used on minor collector, major collector, and arterial roads, where higher traffic volumes require that additional space be provided to accommodate bicycles. Wide curb lanes are generally identified with signage and bicycle stencils marked on the pavement.
- **Bicycle lanes** are separate travel lanes designated for the exclusive use of cyclists and are used on high-volume arterial roadways and urban highways. Bicycle lanes are marked as separate lanes with solid white lines.
- **Paved shoulders** are used on high-volume roadways with rural cross-sections (no curb and gutter).
- **Multi-use pathways** are off-street facilities designed for all non-motorized users. They are preferably hard-surfaced to accommodate all users.

B. Bicycle Network Plan

The Bicycle Network Plan illustrated in Figure 6 identifies a citywide network of bicycle facilities that link regional and local destinations throughout Coquitlam. A key component of the Plan is the provision of connections to the bicycle networks of adjacent municipalities to accommodate regional bicycle trips. The use of existing streets integrates bicycles into the transportation system in a consistent manner and ensures that the network can be implemented affordably and in a reasonable timeframe.

Where the on-street bicycle network does not provide connections to some areas of the City, the City's proposed Master Trails Plan will provide the necessary connections.

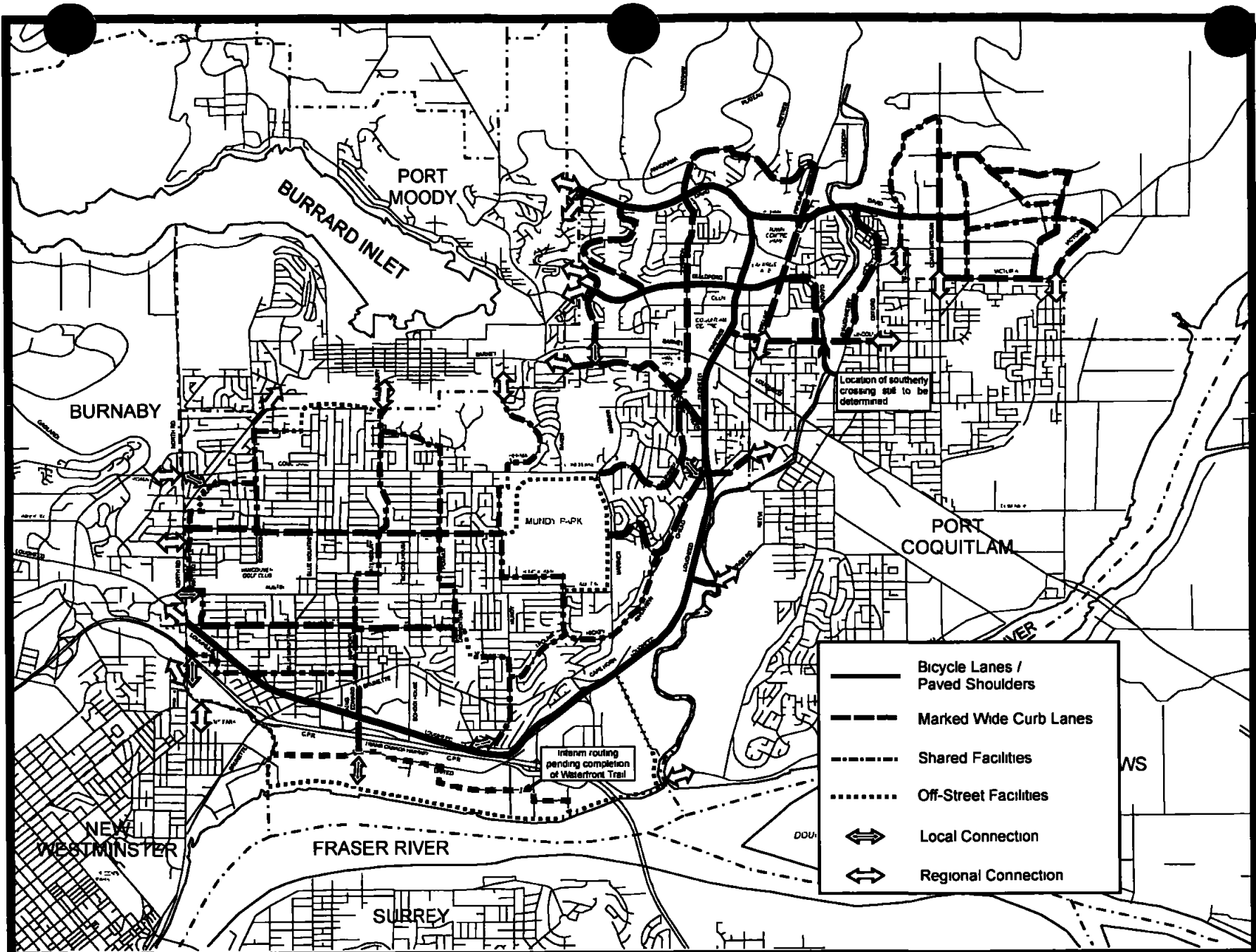


Figure 6. Bicycle Network Plan

6. Pedestrian Plan

Walking is the most fundamental form of transportation. Walking can be the mode of choice for an entire trip, and it comprises a portion of all trips to connect with other modes such as an automobile or transit. Because sidewalks and walkways serve as the primary facilities for accommodating pedestrian travel, steps must be taken to ensure that a continuous network is in place throughout the City.

The Pedestrian Plan provides a strategy for enhancing connectivity to, from, and within key City-serving pedestrian areas, such as commercial areas, City-serving parks, and major recreation facilities. Although pedestrian access to and from elementary schools, local transit stops, and neighbourhood parks is also a high priority for the City, these improvements are more suited to a local area or neighbourhood plan review.

The approach taken within this STP with respect to City-serving pedestrian areas and roadways is to identify critical gaps in the existing sidewalk network, particularly along arterial and collector roadways and bus routes. The objective is to identify gaps where no sidewalks are currently provided on either side of those roadways. Within the City-serving pedestrian areas, gaps in sidewalks along local streets have been identified to recognize the need to encourage pedestrian facilities within these areas.

Figure 7 highlights the City-serving pedestrian areas that are considered a priority in the development and implementation of sidewalks or other pedestrian facilities, as well as the roadways in which no pedestrian facilities are provided either within the pedestrian areas or along the collector and arterial street system.

Key City-Serving Pedestrian Areas

- Burquitlam
- Lougheed Station
- Maillardville
- Lougheed corridor (Brunette to Schoolhouse)
- Austin Heights
- Poirier
- Como Lake Village
- Mundy Park
- Town Centre
- Town Centre Park
- Northeast Coquitlam Village

Although the objective of the STP is to identify key locations where a sidewalk should be provided on at least one side of the street, the ultimate goal of the City should be to provide the following level of sidewalk coverage in new developments and throughout the municipality:

- Arterials: Both sides
- Collectors: Both sides
- Local streets: One side

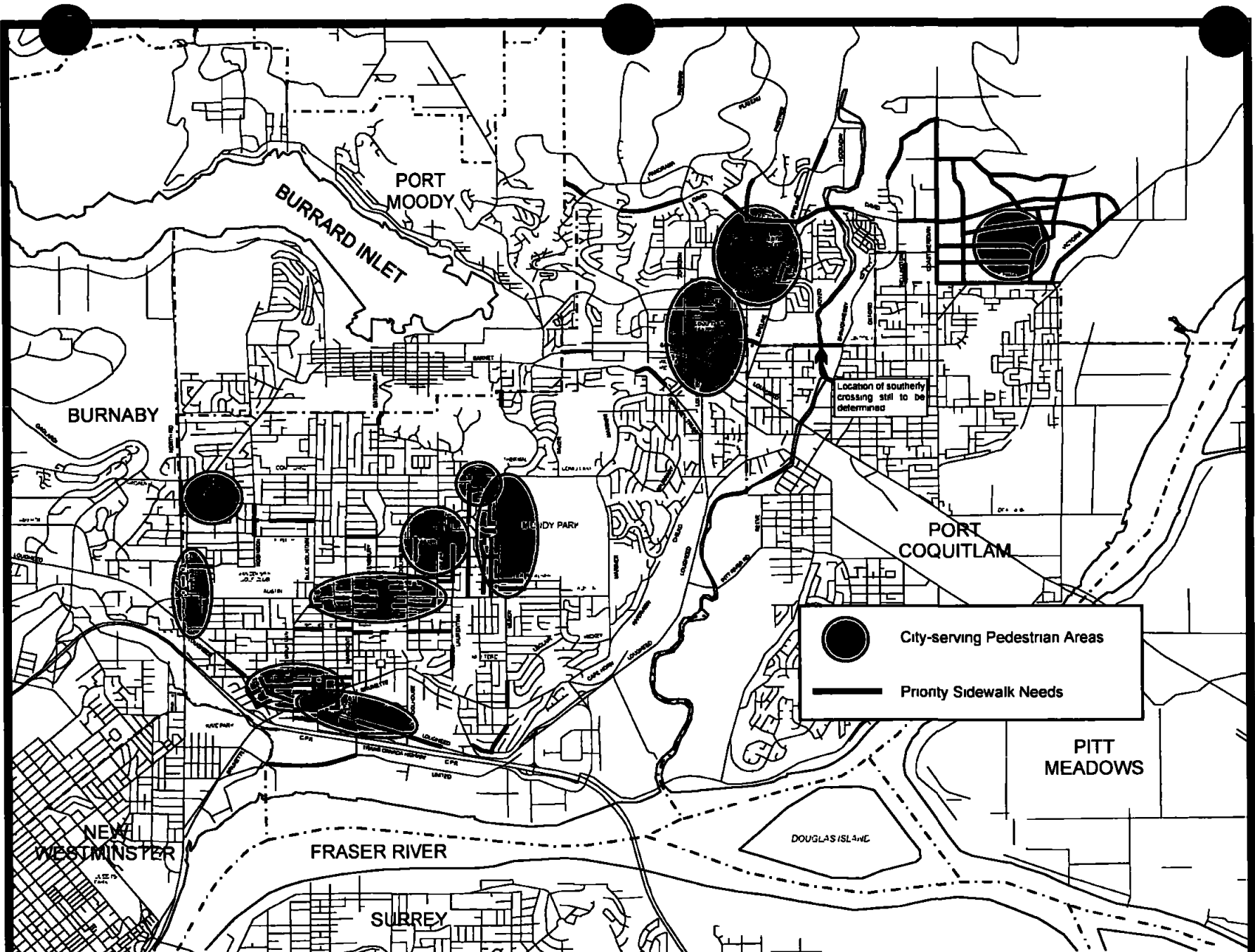


Figure 7. Pedestrian Network Plan

7. Travel Demand Management Plan

Travel demand management (TDM) describes programs intended to influence the demand for travel, particularly travel by single-occupant vehicles (SOV). The primary goals of TDM programs are to reduce the amount of travel, to change the modes of travel for some trips (changing to transit, cycling and walking), and to change the time of travel for some trips to less congested times. The TDM Plan discusses initiatives that Coquitlam can undertake to manage travel demand, both for trips within the municipality and for trips to and from Coquitlam.

Key principles for the development of a TDM Plan for Coquitlam include:

- **TDM is a regional initiative** in which TransLink will implement most TDM programs. Programs implemented by Coquitlam should support and be consistent with regional programs.
- **The City should lead by example** by implementing TDM programs for municipal employees in concert with Coquitlam employers and institutions.
- **TDM must be flexible** to enable people to drive alone, when necessary and appropriate.
- **Implementation of disincentives should be linked to incentives.** Incentives (often called “carrots”) should be implemented before or at the same time as disincentives (“sticks”). People cannot be forced to change travel patterns unless there are choices and incentives already in place.
- **TDM programs must be monitored.** Unsuccessful TDM programs in other communities have generally failed because they were not monitored and maintained on an ongoing basis and, as a result, people gradually fell back into their old travel habits.

In 2000, TransLink approved a Strategic Transportation Plan for the region, which described three key TDM programs:

- **Transportation pricing,** which means charging for use of the transportation system. TransLink determined that the most effective pricing methods would be tolls and parking charges, which relate directly to the use of facilities, rather than annual fees.
- **Encouraging non-SOV use** by enhancing transit services and facilities and providing carpooling and vanpooling services.
- **Parking management,** which is intended to avoid an over-supply of parking and to price parking at a level that discourages SOV automobile travel.

In support of these regional TDM programs, there are a number of opportunities for Coquitlam to implement TDM programs at a municipal level, as described below.

- **TDM program for municipal employees** could include preferential parking for carpools and vanpools, flexible work arrangements, a guaranteed ride home program for employees who rideshare or take transit, and financial incentives such as a monthly transportation allowance or subsidized transit passes.
- **Employer trip reduction programs** for other employers, which can be voluntary or mandated by the municipality. These programs would be similar to the TDM program for Coquitlam employees.
- **Parking management.** This could involve changes to parking requirements specified in development bylaws to ensure that new developments do not contain an over-supply of parking. Other municipal parking management initiatives include time-limited parking, permit zones and parking pricing.

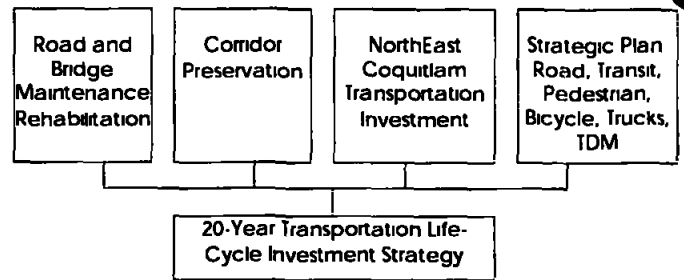


8. Implementation and Phasing Strategy

The STP is intended to provide long-term direction for the City's transportation system, and to achieve this vision the implementation and phasing strategy is necessary to provide a framework for advancing specific transportation improvements, and most importantly for the effective advocacy of Coquitlam's transportation program with regional and provincial agencies. The STP also provides the basis for assessing certain concepts through more detailed review and analysis.

There are a number of factors that will continually shape and influence the ultimate development of the City's transportation system over time. Although the implementation of the STP may be affected by some unforeseen changes, the basic direction and balance of the transportation system should not be significantly altered.

While the STP provides a comprehensive list of transportation improvements to achieve the goals for all modes of travel, it is important to recognize that this is only a portion of the City's investment in transportation facilities. A balanced investment strategy over the next twenty years will ultimately consider all transportation improvements as well as ongoing life cycle costs for the maintenance and rehabilitation of existing assets as illustrated below. Additionally, those transportation systems identified and approved as part of the Northeast Coquitlam OCP have been assumed within the STP and not accounted for in the overall costs for implementation. Finally, the City will also want to continue to invest in managing existing systems through corridor preservation strategies which are also an important long-term investment in the transportation system.



A. Implementation Costs

Affordability and life-cycle considerations are fundamental goals of the STP. A number of assumptions have been outlined in the STP that were used to develop a cost-sharing framework for improvements for all modes of travel. The following table summarizes the total cost of improvements for each mode, as well as the proportions of those costs to be shared between the City and other agencies.

Category of Improvements	Total Cost (\$mil.)	Other Agencies (\$mil.)	City Cost (\$mil.)
Roadway Network	\$ 96.1	\$ 47.3	\$ 48.8
Transit Priority	\$ 1.5	\$ 1.5	\$ 0
Bicycle Facilities	\$ 15.4	\$ 4.0	\$ 11.4
Pedestrian Facilities	\$ 3.0	\$ 0.4	\$ 2.6
Total	\$ 116.0	\$ 53.2	\$ 62.8

The total cost to implement all improvements recommended in the STP is estimated at over \$116 million, with the City's share of the cost of almost \$63 million. Over \$38 million of this total cost for the City is attributable to the three major improvement strategies identified in the Road Network Plan.

The City's current expenditure for capital improvements on the arterial road network is approximately \$1.7 million per year. At this level of funding, the City's available resources would

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be approximately \$34 million over the 20-year timeframe of the STP.

As such, the City's assumed resources for capital expenditures fall approximately \$29 million short of the City's share of the total cost for all STP improvement initiatives. This would strongly suggest that the City should continue to explore alternative cost-sharing strategies, particularly for the major roadway improvement strategies, as highlighted below. Potential options to address these financial shortfalls may include:

- Accepting higher levels of congestion in some areas
- Deferring implementation of some improvements beyond 20 years
- Increasing "other" agencies' portion of cost sharing
- Changes to development cost charges or taxes to offset costs
- Offsetting costs through local development initiatives
- Examining alternative funding sources and project delivery methods

B. Phasing Strategy

The rate of growth within the City not only impacts the overall timing of demands for travel and transportation improvements, but also affects the affordability of improvements. In this regard, revenue generated from Development Cost Charges is affected by the rate of growth in the City, and therefore the City's ability to finance transportation improvements. It is important, therefore, that the City coordinate the phasing of transportation improvements on an ongoing basis to growth in the community, in concert with the City's DCC strategy.

The following discussion summarize the phasing strategy for the STP improvements over the next 20 years into short-, medium-, and long-term time horizons.

- **Five-Year Horizon (2006).** The population of Coquitlam is expected to grow by 18,000 people over the next five years. The City's portion of the high-priority projects recommended in the STP is estimated to be almost \$7.6 million, as identified in the following table and illustrated in Figure 8.

Project	City Cost (\$ millions)
Road Improvements	
Lower Lougheed corridor intersection improvements	\$0 55
Barnet / Lougheed corridor intersection improvements	\$0 42
Austin Avenue / North Road	\$0 45
Corno Lake Avenue / Clarke Road	\$0 60
Lougheed Highway / Pitt River Road	\$0 38
Transit Priority Measures	
Queue jumpers (5 intersection)	\$0 00
Signal pre-emption (4 intersection)	\$0 00
Lougheed Highway / Coquitlam Station access	\$0 00
Bicycle Facilities	
Bicycle lanes (3 0 km)	\$3 20
Marked wide curb lanes (6 4 km)	\$0 09
Shared routes (14 0 km)	\$0 07
Pedestrian Facilities	
Sidewalks (13 3 km)	\$1 79
Total	\$7.66

- **Five- to 10-Year Horizon (2006 to 2011).** By 2011, Coquitlam will house approximately 156,000 residents. The recommended medium-term improvements represent a total expenditure of over \$12 million for the City. The cost allocations are highlighted in the table below and illustrated in Figure 9.

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Medium-Term Improvements

Project	City Cost (\$ millions)
Road Improvements	
King Edward Street widening	\$5 40
Lougheed Highway / North Road	\$0 45
Cameron Street / North Road	\$0 23
Austin Avenue / Blue Mountain Street	\$0 08
Austin Avenue / Schoolhouse Street	\$0 45
Como Lake Avenue / Gatersbury Street	\$0 45
Guildford Way / Johnson Street	\$0 20
Johnson Street / Glen Drive	\$0 45
Transit Priority Measures	
Signal pre-emption (4 intersections)	\$0 00
Bicycle Facilities	
Marked wide curb lanes (14.9 km)	\$3 95
Shared routes (8.9 km)	\$0 05
Pedestrian Facilities	
Sidewalk (9.6 km)	\$0 62
Total	\$12.33

- **10- to 20-Year Horizon (2011 to 2021).** By 2021, the population of Coquitlam is expected to reach 206,000. Assuming that growth to the year 2021 is realized, the total City costs for the recommended improvements would be almost \$43 million as summarized below and illustrated in Figure 10.

Long-Term Improvements

Project	City Cost (\$ millions)
Road Improvements	
Brunette / Lougheed grade-separation	\$17 00
Barnet / Lougheed grade separation	\$16 40
Clarke Road / Kemsley Avenue	\$0 45
Austin Avenue / Poirer Street	\$0 45
Como Lake Avenue / Robinson Street	\$0 63
Como Lake Avenue / Blue Mountain Street	\$0 08
Como Lake Avenue / Porter Street	\$0 45
Lougheed Highway / Como Lake Avenue	\$0 16
Lincoln Avenue widening	\$0 54
Pipeline Road widening	\$1 85
United Boulevard / Burbridge Street	\$0 22
Foster Avenue / Blue Mountain Street	\$0 43
Transit Priority Measures	
Queue jumpers (6 intersections)	\$0 00
Signal pre-emption (6 intersections)	\$0 00
Bicycle Facilities	
Bicycle lanes / shoulders (13.5 km)	\$3 00
Marked wide curb lanes (18.2 km)	\$1 05
Shared routes (7.4 km)	
Pedestrian Facilities	
Sidewalks (5.8 km)	\$0 22
Total	\$42.80

All of the long-term transportation improvements for the 20-year timeframe of the STP are highlighted in Figure 11

C. Implementation Guidelines

There are a number of interrelated activities that are needed to advance the implementation of many of the transportation facilities and services recommended within Coquitlam. These initiatives are briefly highlighted below.

- **Brunette / Lougheed grade separation** functional planning and design in connection with land use planning strategies.
- **Barnet / Lougheed grade separation** functional planning and design and impact assessment of adjacent properties and traffic patterns.
- **King Edward Street** widening functional design and review of grade-separating the railway.
- **Cost estimates** identified in the STP are based on a conceptual level of design and should be refined to establish project budgets, and to determine appropriate DCC levels.
- **Corridor Strategic Plans** to maintain mobility along key corridors while accommodating development-related traffic growth. The City will want to develop a policy framework that will enable and guide this process.
- **Truck route bylaw** updates to reflect modifications proposed in the STP and to further recognize the role of the arterial road network in the movement of goods and services to and from local destinations.

Strategic Transportation Plan – Summary

- **Development applications review** to consider the most practical and economical approach to achieve many improvements identified in the STP.
- **Strategic transit initiatives**, such as SkyTrain should be pursued along with advancing specific service and facility improvements.
- **Transit Fare Review** that considers equitable ways of achieving transit and transportation goals of the City.
- **Area Transit Plans and Implementation strategies** will need to be monitored and evaluated in terms of effectiveness. Where necessary, the City may explore alternative implementation strategies.
- **Transit / HOV / HPV Priority Strategies** should be implemented to enhance reliability of transit on high frequency corridors, and other high priority vehicles such as carpools and trucks where appropriate.
- **Bicycle Network Plan** refinements through direct consultation with cycling advocates of the City and in partnership with other regional and provincial cycling programs.
- **Bicycle facilities integration with Road Renewal** along collector roadways would provide an economical approach toward implementing many recommended facilities in the City.
- **Pedestrian Plan** implementation requires further collaboration with residents on a location-specific basis.
- **TDM programs for municipal employees** should be re-initiated to set an example that encourages other landowners in the City.

- **Citywide TDM Programs** should be explored for specific areas of the City and through the development permit process to increase use of non-SOV modes of travel.

D. Integration

Coquitlam's STP is founded on the goal of integrating land use and transportation both within the City and regionally. In fact, the successful implementation of the STP will rely on effective coordination of all levels of planning and development, from site specific land use plans and decisions through to the direction for growth and development as guided by the City's OCP.

In addition to those local factors that will shape Coquitlam's transportation system, the City will want to ensure that regional and provincial commitments to transportation facilities and services are maintained, and that these strategies continue to serve the local transportation needs of the community, as well as shape growth and development patterns.

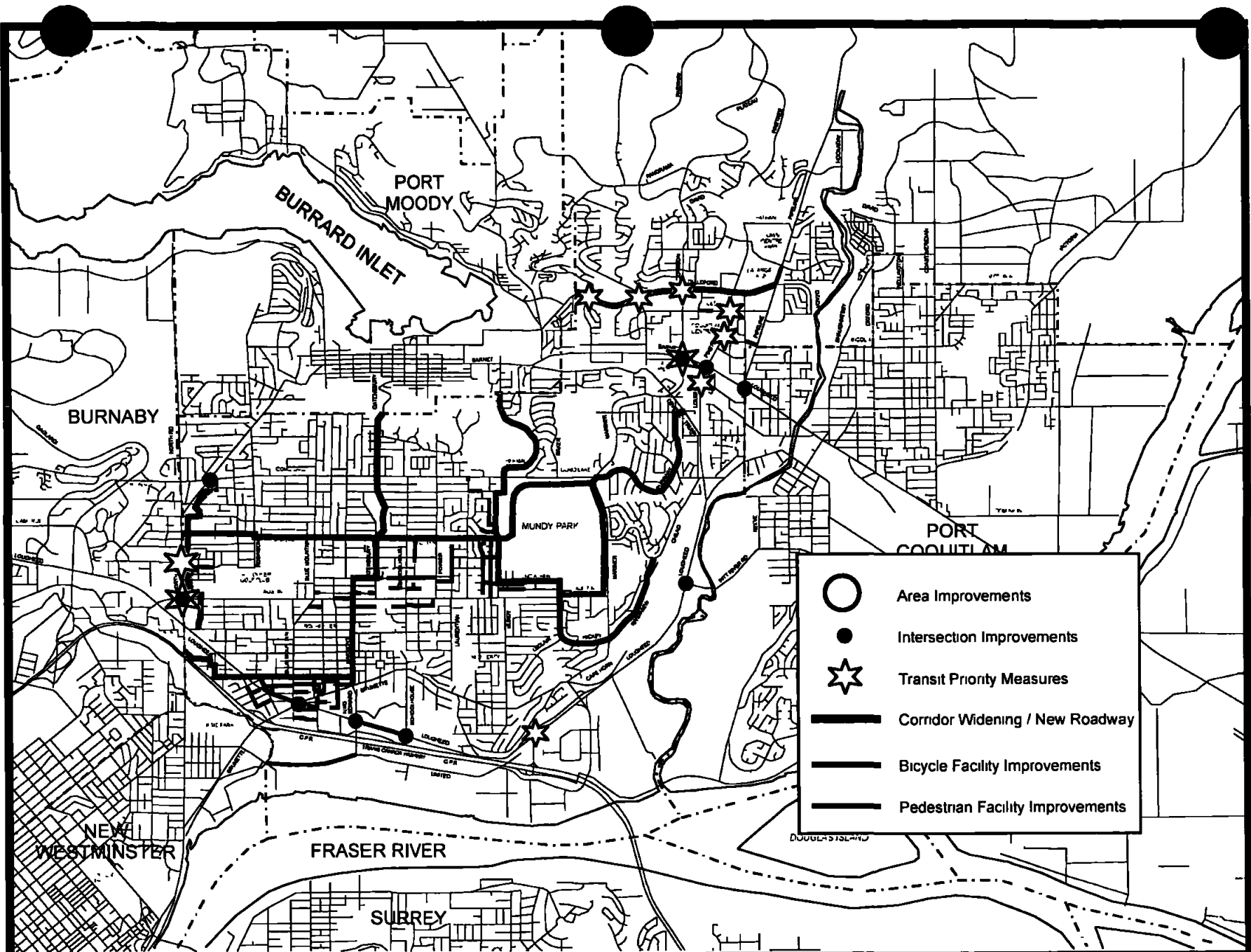


Figure 8. Short-Term Capital Improvements (0 to 5 years)

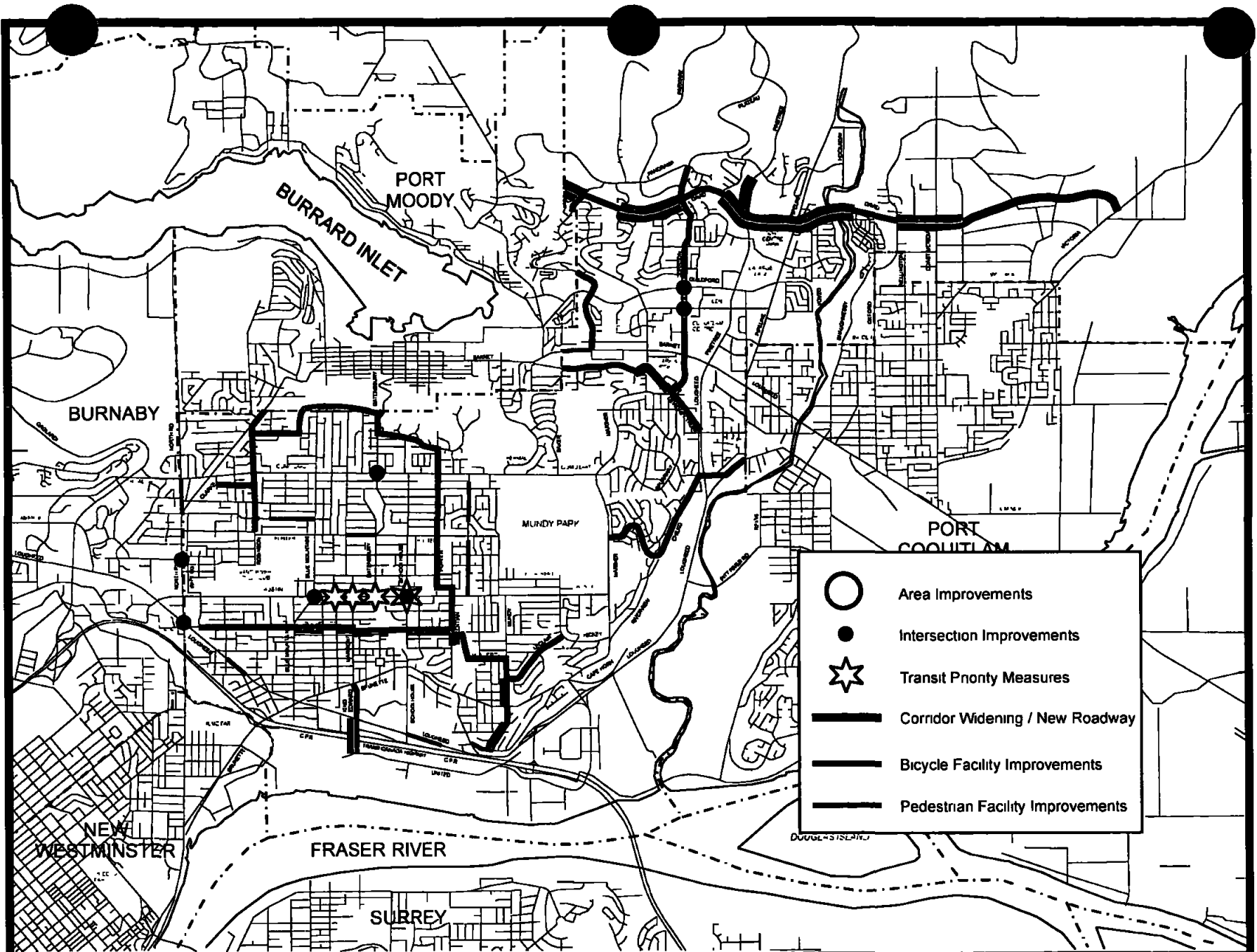


Figure 9. Medium-Term Capital Improvements (5 to 10 years)

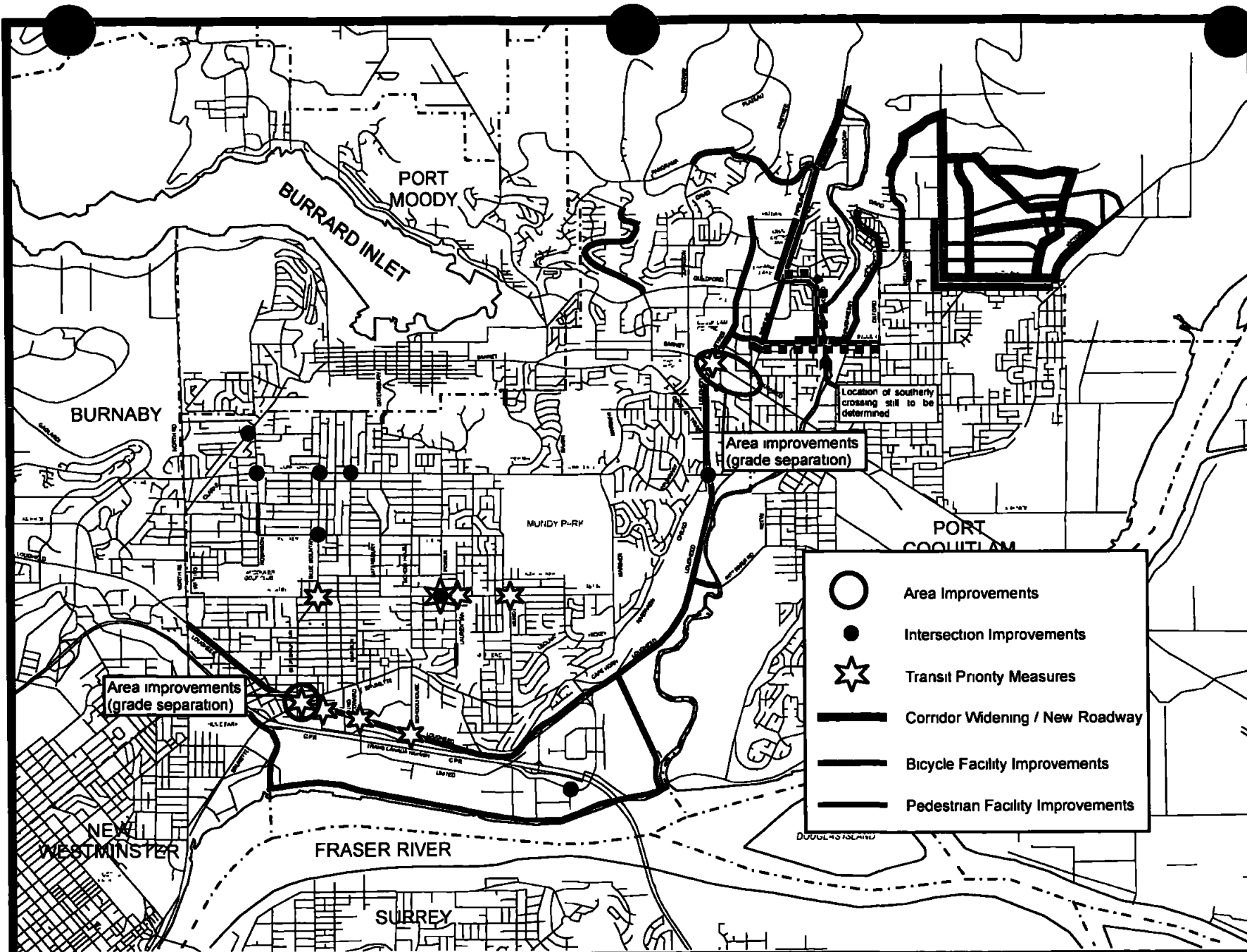


Figure 10. Long-Term Capital Improvements (10 to 20 years)

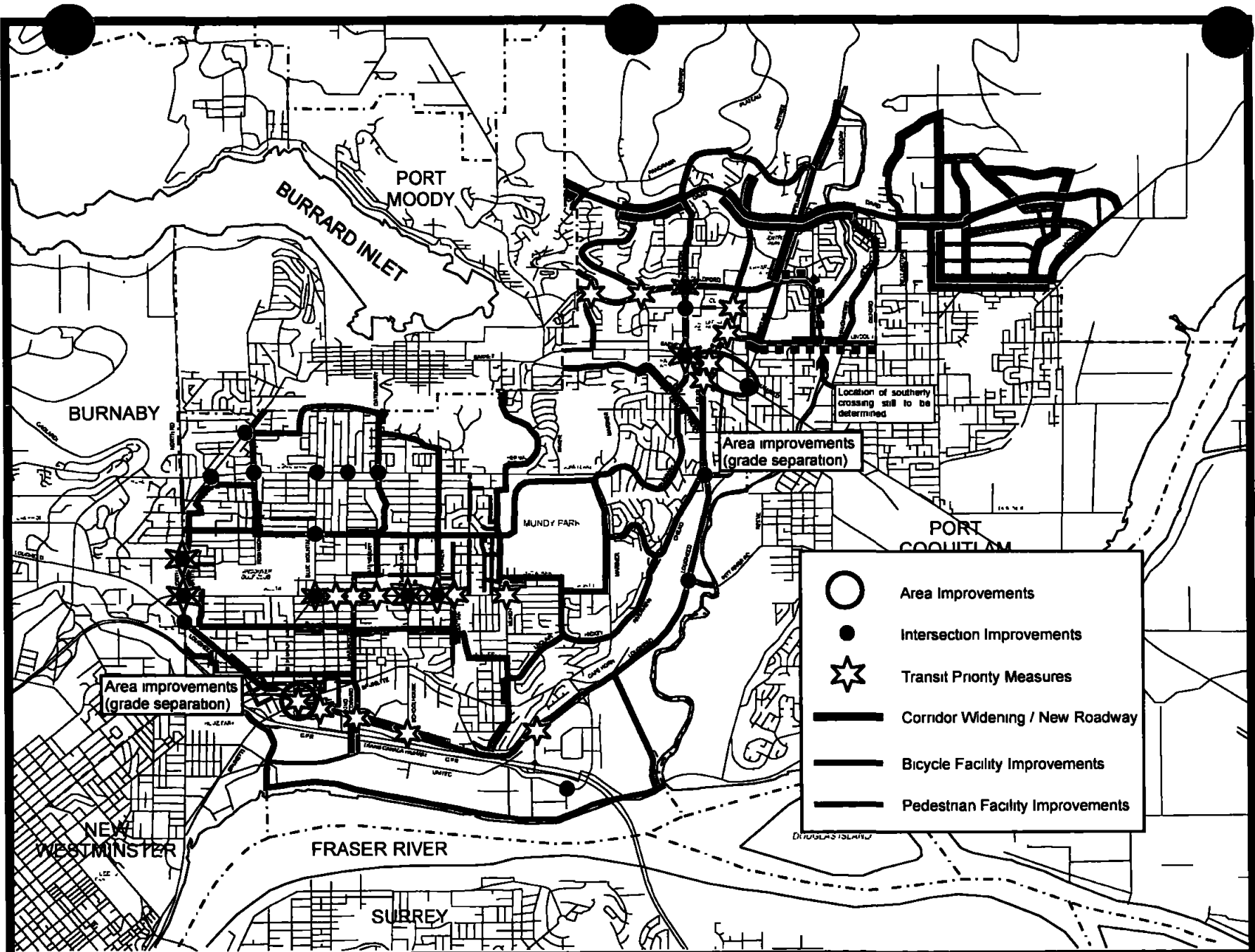


Figure 11. Long-Term Transportation Improvements