



## 4.0 TRANSPORTATION

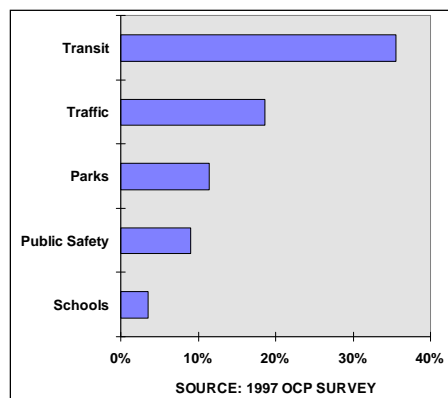
### Road Network Transit Pedestrians Cycling Automobiles

To be effective, transportation in the City of Richmond must respond to changes in the community's priorities. There is increasing concern over traffic congestion, noise and air pollution, safety, accessibility for all groups, and the amount of paved area and the lack of green. Future transportation solutions will need to be sustainable, environmentally, economically, and socially. As a result, transportation objectives must be coordinated with other plan objectives.

*Transportation is affected by:*

- *Growth and development patterns;*
- *Environmental concerns ;*
- *Desires for lifestyle improvements;*
- *Desires for increased safety;*
- *Demographic changes.*

#### Top Five Improvements Requested by Residents



#### Guiding Principles

Richmond's transportation objectives and policies are based on the following guiding principles:

- To support the concept of a vibrant City Centre complemented by neighbourhoods with a strong sense of community through a dramatically improved transit system using neighbourhood service centres as major transfer points, and safe, direct, and attractive walking and cycling connections to local destinations;
- To ensure that jobs and business travel needs are met through efficient and convenient connections for people and goods movement;
- To support the productive use of agricultural land through improved farm access and by discouraging the development of new major roads which negatively impact on farming;
- To support the Livable Region Strategy and reduce automobile dependency for regional travel by reducing the travel demand and by shifting the primary travel mode from single-occupant automobile to transit (including light rapid transit), walking, rolling, cycling, carpool and other transportation modes such as non-fixed crossing facilities (sea buses and barges);
- To ensure that new developments provide adequate transportation services to meet the travel demand generated.



## 4.1 ROAD NETWORK



*Sharing the road*



*Giving carpools priority*

### ISSUE:

The network of road infrastructure (from sidewalks to traffic signals) forms the basis of travel, whether by foot, bike, transit, or car. In the past, Richmond's dominant mode of travel has been the car. As the city changes, alternatives to the car are becoming more important, as are lifestyle, neighbourhood livability, economic, and environmental issues. These changes need to be reflected in the basic road network.

### OBJECTIVE 1:

**Achieve road infrastructure which reflects stronger integration of non-automobile travel modes.**

### POLICIES:

- a) Redistribute road capacity to facilitate and help shape the travel demands of various road users (see sections below on transit, pedestrians, and cycling);
- b) Create shorter blocks to improve local circulation by all travel modes, particularly where land use is more intensive;
- c) Create transit-friendly streets along bus routes (bus stops, bus bulges, bus lanes, etc.);
- d) Incorporate cycling provisions into all future major road projects;
- e) Create appealing streets and pathways for walking, rolling and cycling by improving streetscapes with tree boulevards, pedestrian-friendly lighting and signals, curb extensions, bike lanes/paths, sidewalks with minimal driveway crossings, and wider sidewalks in high-volume pedestrian areas;
- f) Program traffic signals to provide pedestrians, cyclists, and transit vehicles with priority at designated intersections;
- g) Identify and require road network improvements for automobiles, transit, cycling, walking and rolling in pace with the travel demand generated by new development as part of the development review process.



**OBJECTIVE 2:**

**Manage traffic flow for efficient and convenient travel while enhancing neighbourhood livability.**

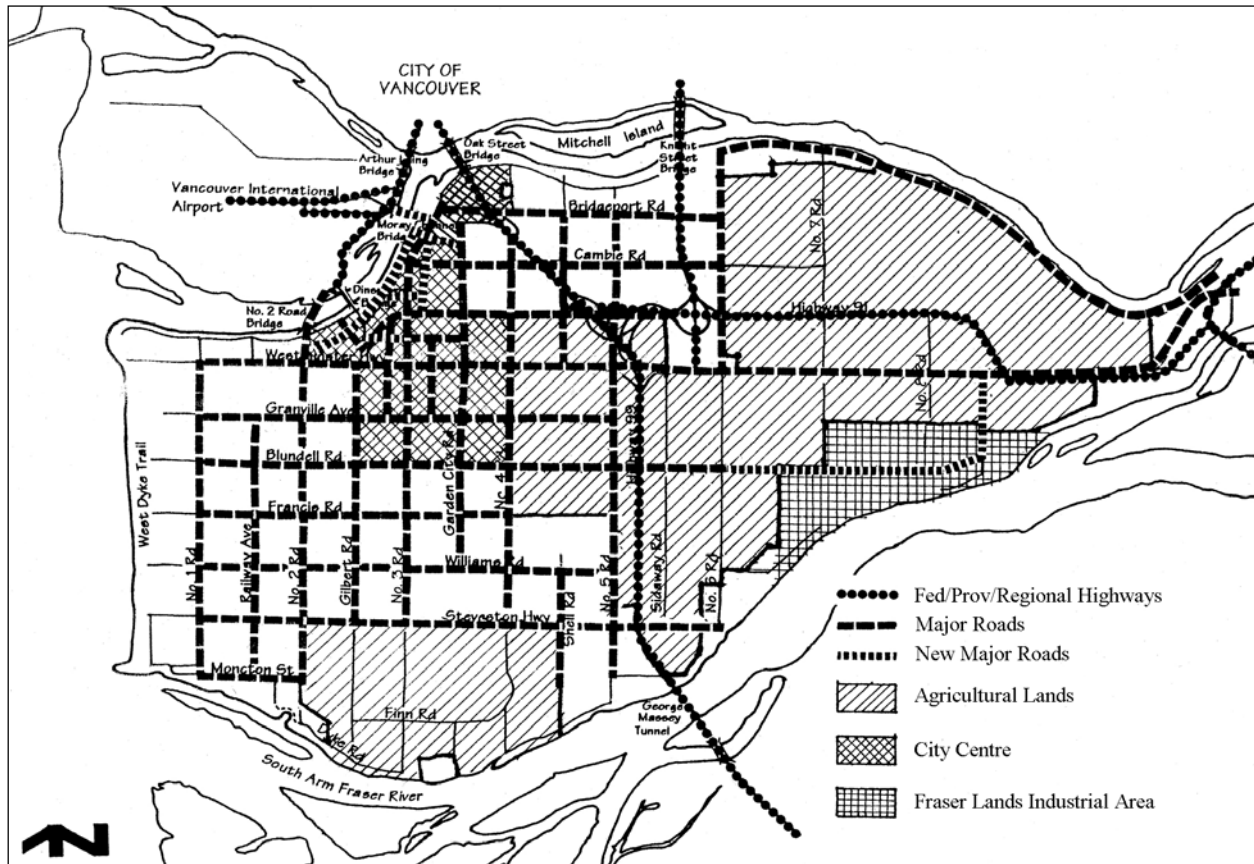
**POLICIES:**

- a) Use a system of major and minor roads which directs through traffic to major roads and minimizes traffic intrusion into residential neighbourhoods;
- b) Maintain major roads as the primary corridors for the efficient movement of through traffic (transit, cyclists, and automobiles), with appropriate allowances for local circulation in areas of intense land use activity;
- c) Require lanes parallel to major roads to discourage individual driveways which impede traffic flow and create safety hazards for motorists, cyclists, and pedestrians;
- d) Use traffic calming measures on minor roads where necessary to discourage through traffic and speeding and to increase safety in residential neighbourhoods;



*Traffic calming using a traffic circle*

**Major Roads** *Bylaw 8381  
2009/09/14*





- e) Work with senior governments and other agencies to integrate local, regional, provincial and federal roads to facilitate efficient regional travel while balancing the local community's needs.

**OBJECTIVE 3:**

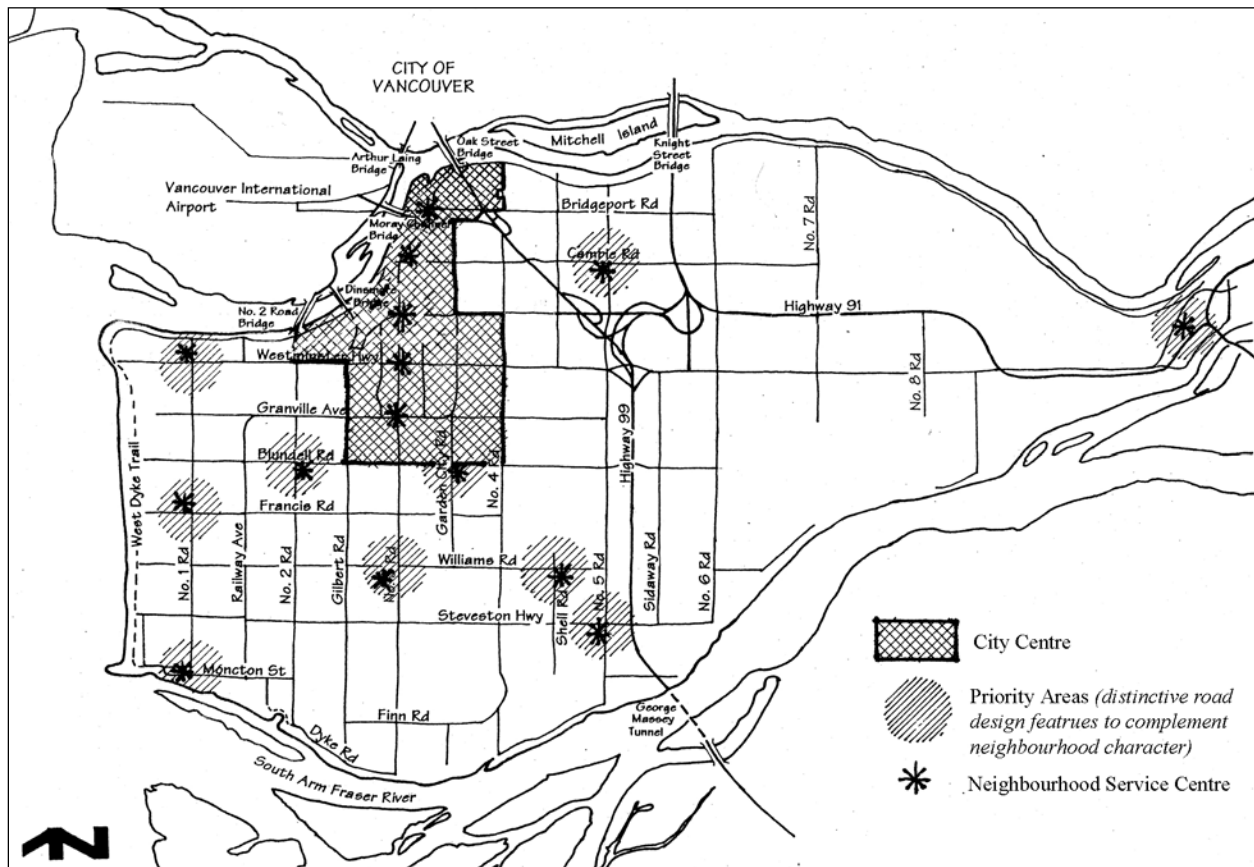
**Provide distinctive design features in the road network to complement neighbourhood character and to emphasize landmark locations.**

**POLICIES:**

- a) Integrate the design of roads at landmark locations (gateways, entrances to neighbourhoods and visitor districts, rapid transit stations, parks, etc.) with civic beautification elements such as public art, special boulevard trees, and other decorative features.

Priority Areas for Distinctive Road Design and Pedestrian Improvements

Bylaw 8381  
2009/09/14





*Street with local neighbourhood character*

#### **OBJECTIVE 4:**

**Provide road infrastructure and implement traffic management measures to facilitate the efficient movement of goods and services for commercial, industrial, and farm purposes.**

#### **POLICIES**

- a) Support the increasing interaction between Lulu and Sea Islands generated by the airport, using existing and new links, e.g. RapidBus/Light Rapid Transit, Airport Connector;
- b) Ensure major roads can accommodate commercial and industrial vehicles for safe and efficient city-wide distribution of goods and services;
- c) Establish a network of local and collector streets in commercial and industrial areas to provide efficient, convenient access, and connection to major arterials;
- d) Restrict the development of new major roads in the Agricultural Land Reserve to avoid jeopardizing farm viability, except for service roads intended to serve adjacent industrial land;
- e) Establish design standards for, and a network of, farm access roads to maintain and improve the productivity of agricultural land.



## 4.2 TRANSIT



*Taking the bus helps the environment*

### ISSUE:

Increasing transportation choice is a key goal of the Livable Region Strategic Plan. The single most effective method of doing this is through a transit system that is comparable to the car in convenience, reliability, and ease of use. This is particularly true for Richmond, where historical development patterns have favoured car use, and the overall transit service offered has not been sufficiently competitive. To make a difference, the approach to transit planning and delivery needs to be strategic, including meeting the travel needs of the whole community by combining various forms of transit (from light rail to smaller shuttle buses), and providing the local community with a more active role in planning and design of transit services.

### OBJECTIVE 1:

**Enhance transit service to a level comparable with the private automobile as a primary choice for travelling.**

### POLICIES:

- a) Promote fast, frequent, convenient, accessible, and reliable transit service as the basis for maintaining current ridership and attracting new transit users;
- b) For regional transit service, promote RapidBus/Light Rail Transit between Richmond and Vancouver via Sea Island to link up the airport; promote direct and frequent bus service to other municipal town centres and major destinations, e.g. U.B.C., Metrotown, Whalley, South Surrey;
- c) For local transit service, use a grid system to enhance east-west connections and to provide direct links to and from neighbourhood service centres, recreational destinations, high schools, and major employment centres;
- d) Consider using small, convenient, accessible neighbourhood-friendly shuttle buses to serve local neighbourhoods;
- e) Promote a City Centre circulator bus with discounted fare to encourage the use of transit for short trips;
- f) Improve physical access (e.g. sidewalks, bus stop pads, etc.) to local transit for people with disabilities;

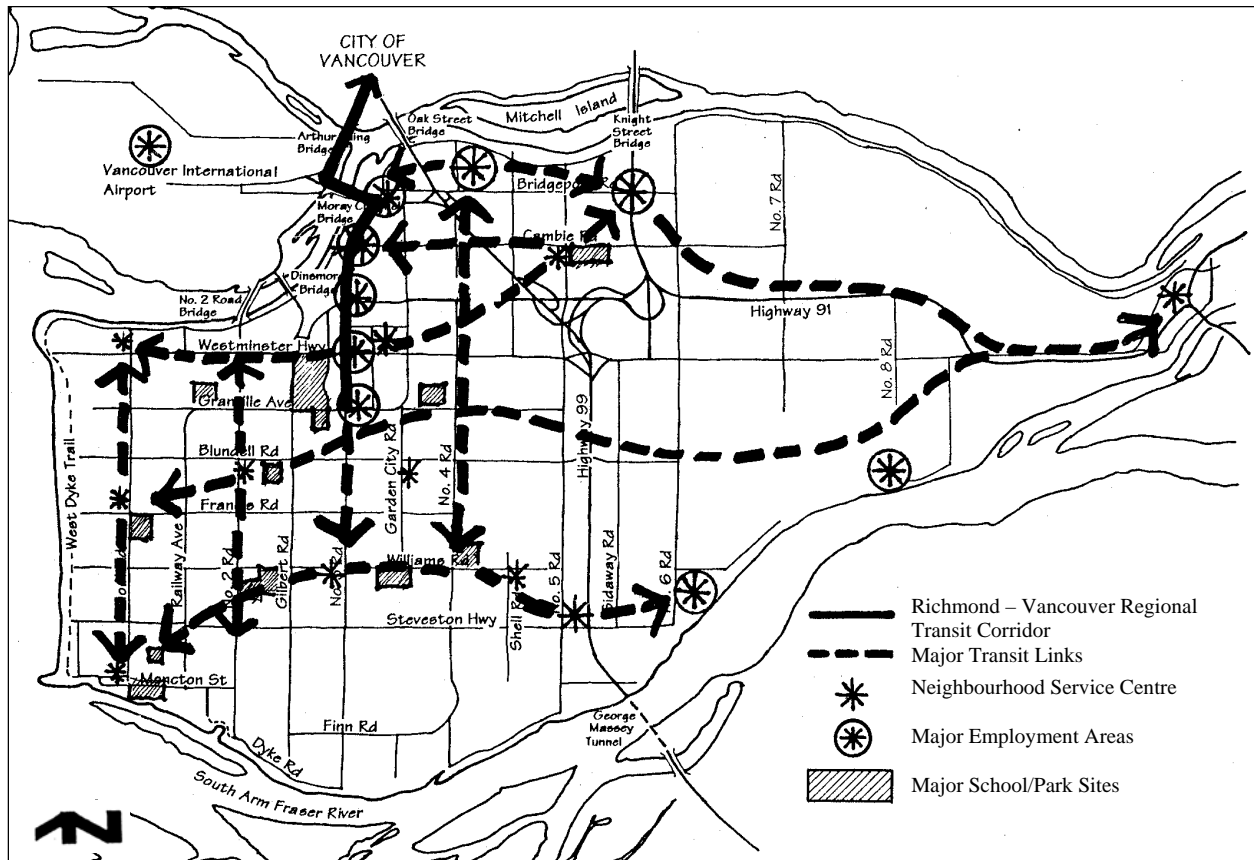


*On-road light rapid transit*



- g) Improve HandiDart and similar services to meet the special travel needs of people who are not served by the regular transit system;
- h) Provide greater certainty for everyone's travel needs by creating a city transit authority, or by increasing local control over transit planning within a regional system.

### Major Transit Network





## 4.3 PEDESTRIANS

### ISSUE:

To walk, roll and bike short distances benefits personal and environmental health. Travel distances to shops, schools, job sites, and recreation areas are getting smaller as more people live closer to these facilities. To encourage walking, the conditions for walking along streets, walkways and pathways need to be appealing (pleasant, safe, direct, and convenient).

### OBJECTIVE 1:

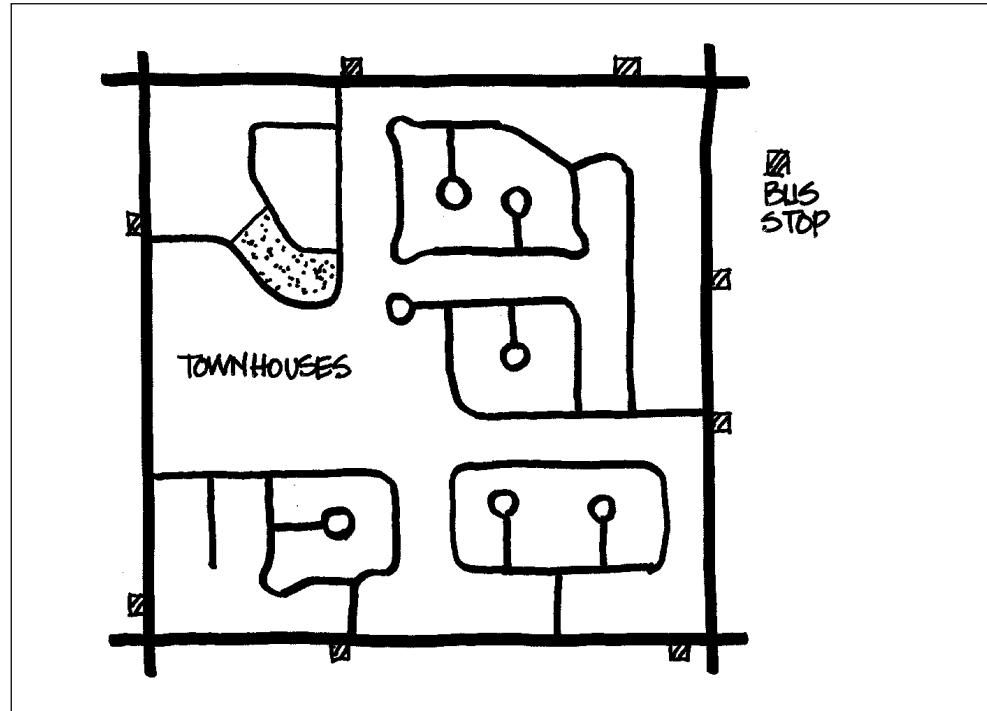
**Make walking the primary alternative for travel over short distances.**

### POLICIES:

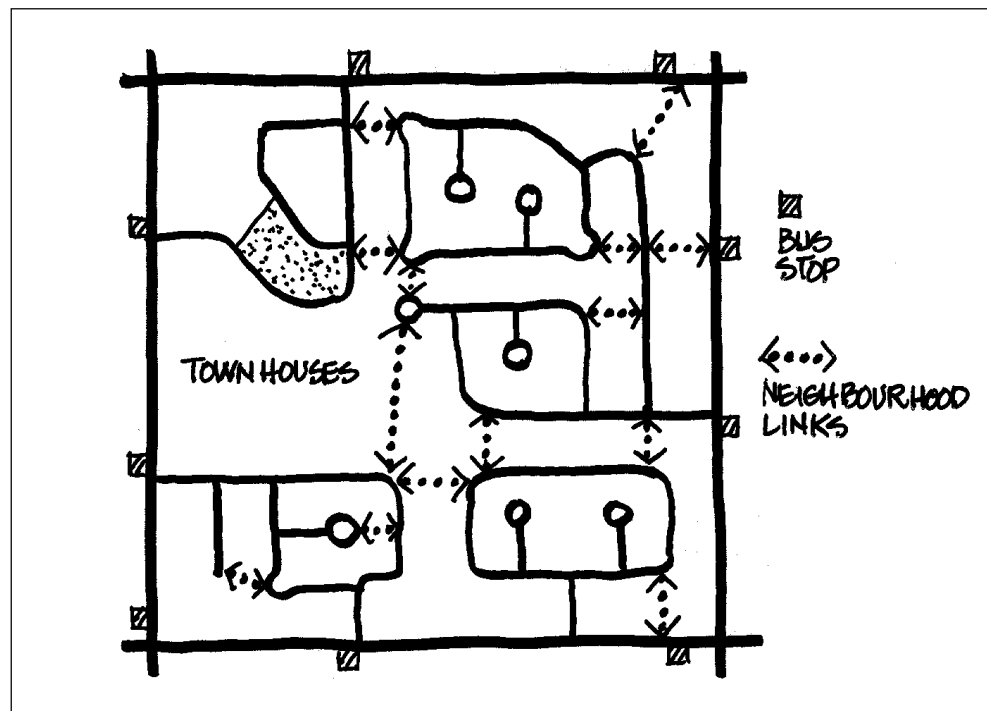
- a) Place high priority on implementing continuous and direct sidewalks, walkways and pathways to schools, neighbourhood service centres, recreational destinations, bus stops, and other high-volume pedestrian areas;
- b) Introduce shorter blocks in high-volume pedestrian areas;
- c) Support the “main street” function of high-volume pedestrian areas through special road design measures which calm traffic;
- d) Increase pedestrian safety on sidewalks and pathways by providing adequate lighting and public visibility to minimize the potential for crime;
- e) Provide appropriate measures of protection from moving traffic at crosswalks, e.g. traffic signals, overhead signs, curb extensions, special pavement marking and texture, and other traffic calming measures;
- f) Provide extended crossing times, wheelchair ramps, and audible signals at crosswalks for people with disabilities and special needs;
- g) Provide landscaped boulevards and, where appropriate, curb parking as roadside protection for pedestrians from moving traffic;
- h) Encourage continuous weather protection for pedestrians in the City Centre, at neighbourhood service centres and other retail districts, e.g. canopies, awnings;
- i) Encourage “walk to school” programs, e.g. walking school buses, to increase safety and to reduce school-related automobile trips;



- j) Require direct and convenient designated walkways from the street to building entrances of major developments which are located some distance away from the street front.



*Typical subdivision with limited pedestrian access*



*Example of enhanced neighbourhood*



## 4.4 CYCLING

### ISSUE:

Cycling has particular relevance for Richmond because the land is flat, making it easier to travel for longer periods without tiring. Cycling is also a flexible alternative to transit and the car, as it can be used for both short and long distances, and provides health and environmental benefits similar to walking. Promoting cycling as a key Richmond travel mode requires the establishment of a cycling network, supportive strategies for integrating cycling with other travel modes, and convenient end-of-trip facilities for cyclists.

### OBJECTIVE 1:

**Promote cycling as an appealing and environmentally friendly travel choice.**

### POLICIES:

- a) Continue rapid implementation of the Cycling Network Plan to complete the network of on-street and off-street bicycle routes connecting major destinations within Richmond and to the rest of the region;
- b) Integrate the designated cycling network with the network of trails and greenways;
- c) Work to develop a cycling route that circumnavigates Lulu Island to connect recreation, natural, industrial, and neighbourhood areas;
- d) Establish convenient cycling connections from local neighbourhoods to the designated cycling network;
- e) Establish local cycling connections for short-distance trips to neighbourhood service centres, schools, and recreational facilities;
- f) Require bike parking, storage, and other end-of-trip facilities at all major developments;
- g) Place high priority on implementing cycling improvements to increase cyclist safety through the City's major capital works program;
- h) Continue partnerships with senior governments to cost-share cycling improvements;



*Cycling to local destinations*



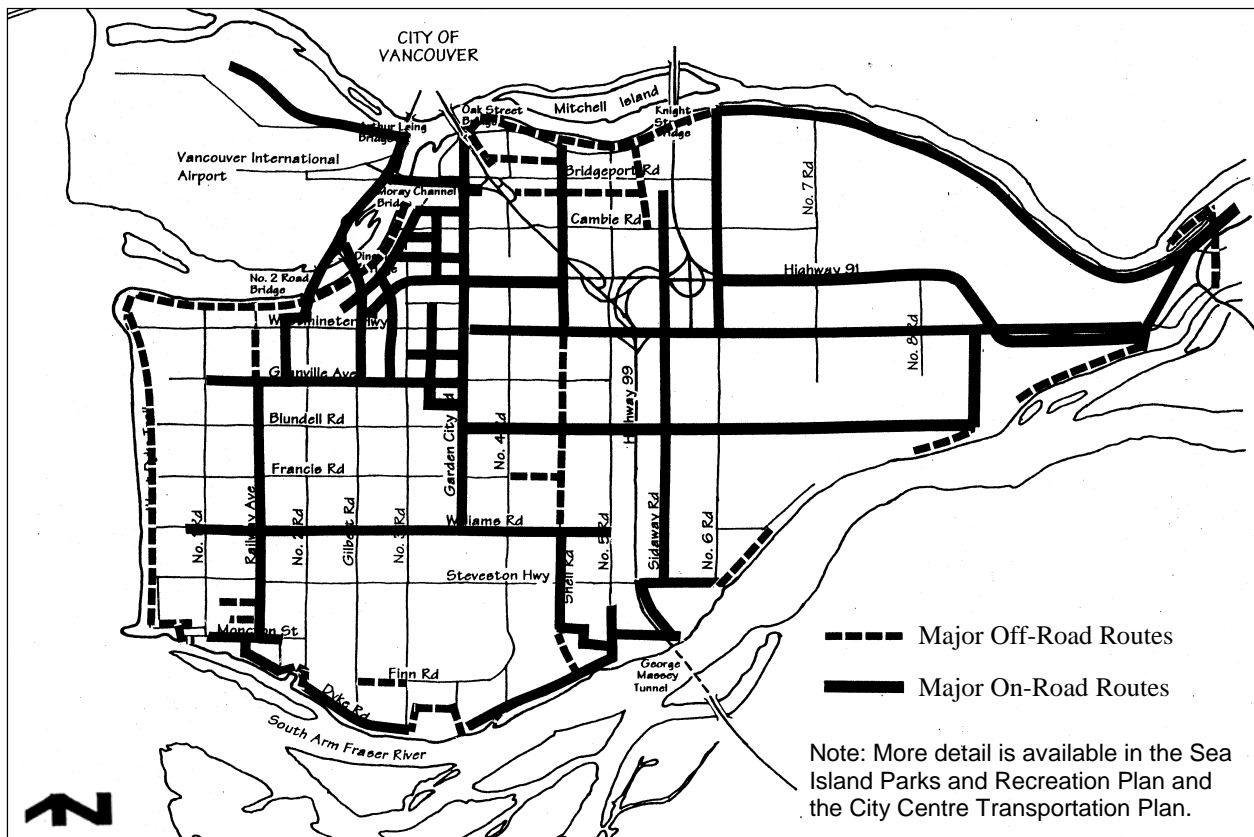
*Bike racks provide end-of-trip cycling facilities*



*Cyclists can connect to transit*

- i) Work with the transit authority to provide full access to transit services by cyclists.

### Cycling Network Plan (Major Routes)





## 4.5 AUTOMOBILES

### ISSUE

Automobiles (cars, trucks, vans, etc.) will continue to be a major travel mode in Richmond, even after transit, walking, and cycling become important travel modes. As such, accommodating automobiles within a changing transportation system, and managing their impacts, are major issues. Also important is the transition towards less reliance on the car (especially single-occupant cars), and encouragement of efficiencies in the use of cars, and of land for parking purposes.

### OBJECTIVE 1:

**Implement strategic transportation improvements to reduce reliance on the automobile, while recognizing its key role in the overall transportation system.**

### POLICIES

- a) Place priority on implementing the City Centre Transportation Plan to reduce congestion and enhance circulation in the downtown area;
- b) Support limiting the use of existing travel lane capacity by single-occupant automobiles at all regional and provincial bridges/highways and give priority to high-occupancy vehicles (high priority vehicles (HPV) HOV lane designations).

### OBJECTIVE 2:

**Manage travel demand at source to reduce single-occupant automobile travel.**

### POLICIES

- a) Introduce employer incentives to encourage trip-reduction programs such as telecommuting, discounted monthly bus passes, bonuses/rewards for cycling and walking, coordinated carpool programs, etc.;
- b) Reduce school-related automobile trips and traffic congestion by encouraging “walk to school” programs, e.g. walking school buses;
- c) Introduce trip-reduction programs for high school and college students such as rewards for transit, cycling, and walking;



*Walking to school*



- d) Partner with public- and private-sector agencies to raise awareness of the benefits of travel alternatives to the single-occupant automobile;
- e) Support the establishment of shared automobile ownership such as “car co-ops” to provide cost-efficient, convenient access for occasional automobile users and to reduce parking requirements.

### OBJECTIVE 3:

**Manage parking and loading activities by balancing the need for convenient access with efficient traffic flow.**

### POLICIES

- a) Establish parking requirements to ensure a reasonable parking supply at major developments in a manner which recognizes the decreasing demand for automobile use;
- b) Introduce appropriate bylaws to ensure handicapped parking is provided in existing and new developments;
- c) Provide passenger curbside loading and unloading in intensive land use areas in a manner which minimizes any adverse impact on traffic flow;
- d) Permit curb parking in high-activity areas with adequate road capacity, to encourage short-term stays for the benefit of adjacent businesses;
- e) Prohibit curb parking in areas where curb lane capacity is required to facilitate safe and efficient traffic flow;
- f) Reduce individual at-grade downtown parking lots by encouraging centralized public parking facilities;
- g) Allow reduced parking requirements for new developments located near major transit corridors and for developments sharing parking facilities for mixed-use purposes;
- h) Support the use of pay parking at major developments as a transportation demand management tool to reduce automobile use and encourage transit, walking, and cycling.



*On-street parking*

