

LONG-TERM TRANSPORTATION PLAN

The City of North Vancouver and Urban Systems Consultants Limited are submitting a nomination for the Long-Term Transportation Plan (Plan) developed for the City of North Vancouver under the TAC's Sustainable Transportation Award category.

The submission is organized in two sections: The first section describes the nominated Plan, while the second section discusses how this Plan succeeds under the four submission review criteria.

1.0 DESCRIPTION OF THE PLAN

1.1 *Background*

The City of North Vancouver is located on the North Shore, in the Metro Vancouver area (Appendix 1). The City has enjoyed a century of rich history, transforming from a tiny logging community into the dynamic urban centre. In the last decade, substantial changes occurred in the City and the Metro Vancouver region. The City recognizes that as it aims to meet the needs of the community today, it must also balance the social, economic and environmental impacts of its activities to ensure a vibrant community for future generations. As such, the Official Community Plan (OCP) developed in 2002, gives the highest priority to walking, cycling and transit modes.

Development of the Long-term Transportation Plan started in 2006, and this plan has been completed and will be considered for endorsement by the City Council in April of 2008. The Plan is intended to provide a strategic vision of the multi-modal transportation system to serve the City of North Vancouver for the next 20 years and beyond. This is a progressive transportation plan, designed to support walking, transit and cycling; to work toward a balanced transportation system that is strongly integrated with the City's other plans and programs and with our neighbouring municipalities; and to support efficient movement of people and goods. The emphasis of the Plan is to increase use of alternative travel modes, as that would result in health benefits from active living, vibrant streets, paths and places, lower per capita green house gas emissions and less impact on the environment. The Plan supports creation of complete streets that would provide safe access and mobility for all users whether they are pedestrians, cyclists, transit users, drivers, able or with disabilities.

1.2 *Plan's Goals & Objectives*

The City's OCP outlines the long-term goals and objectives for the development of the community along several "Policy Paths". Each Policy Path addresses a different topic, each with a set of goals and objectives through which the City will manage future planning and development. The Transportation Plan goals and objectives were developed to reflect the community vision and its success will ultimately be measured against this broader vision. These Policy Paths are summarized in Appendix 2 of the submission.

In support of the OCP, specific transportation goals were established at the outset to guide the Plan as follows:

- **Livability.** The Transportation Plan will contribute toward the overall Vision of becoming a vibrant, diverse and highly liveable community, where quality of life and community well-being are vital.

- **Mobility.** The Transportation Plan will support the safe, efficient, and accessible movement of people, goods and services throughout the City and beyond our boundaries.
- **Integration.** The Transportation Plan will support the development and integration of all modes of travel in order to offer more choice to the residents, workforce, and visitors of the City.
- **Affordability.** The Transportation Plan will recognize the financial constraints of the City and promote the development of transportation infrastructure and services that will best support the goals of the Plan.
- **Environment.** The Transportation Plan will support alternative means of transportation, namely walking, cycling and transit and promote strategies to manage travel demand in an attempt to reduce local greenhouse gas emissions.

1.3 *Features of the Plan*

The Long-term Transportation Plan presents a vision for each of the primary modes of travel walking, cycling, transit and the road network, and provides guidance regarding a Travel Demand Management (TDM) strategy. Each component of the Long-Term Transportation Plan contains several features designed to achieve the overall policy objectives for the City of North Vancouver. These features are very much interdependent to ensure that the resulting transportation system improvements are seamless and that the overall vision for a sustainable community is achieved. The key features of the Plan designed to support the overall OCP Policy Paths are illustrated in Appendix 3 and summarized in subsequent sections of our submission.

1.3.1 Pedestrian Plan

The Pedestrian Plan is an essential feature of the City's transportation system. The primary features of the plan are briefly highlighted as follows:

- **Pedestrian Areas and Generators.** The Pedestrian Plan defines four key pedestrian areas throughout the City in which different implementation priorities and treatments may be considered to reflect their different levels of demand for walking (Appendix 4). The Pedestrian Areas include pedestrian precincts, primary pedestrian generators, secondary pedestrian generators and low density residential areas.
- **Pedestrian Treatments.** The Pedestrian Plan includes a range of treatments for each pedestrian area to improve safety, comfort, and convenience, including: sidewalk standards, sidewalk width and accessibility, landscaped boulevards, narrower crossings, curb letdowns, marked crossings, enhanced crosswalk treatments, important connections, accessible pedestrian signals, countdown timers, providing street furniture, enhanced wayfinding signage and maps, public facilities, accessible bus stops, safer design using CPTED principles, street lights, and building design guidelines.
- **Greenways.** The City's Greenways Plan has identified a network of on-street and off-street greenways throughout the community to support recreational walking and cycling. These greenway links are an integral part of the Pedestrian Plan.

1.3.2 Bicycle Plan

Cycling is a very important mode of transportation in the City and region-wide for both local and long-distance trips, and a safe and attractive network of bicycle facilities to accommodate cyclists is vital. The primary features of the Bicycle Plan (Appendix 5) include:

- **Bicycle Network.** The Bicycle Plan includes an extensive network of new and enhanced facilities within the City that will be integrated with the initiatives of the neighbouring municipality.
- **Design Guidelines.** The Bicycle Plan presents a comprehensive set of guidelines for the design, construction, and maintenance of bicycle facilities. The design guidelines provide direction on the design of on-street and off-street routes as well as crossing treatments.
- **Bicycle Support Strategies.** In addition to providing a comprehensive network of bicycle facilities with attractive crossings, to make cycling more convenient, plan includes safe and secure bicycle parking at key locations throughout the City (both short-term and long-term bicycle parking).
- **Greenways.** The City's Greenways Plan has identified a network of on-street and off-street greenways throughout the community to support recreational walking and cycling and these are an integral part of the Cycling Plan.

1.3.3. Transit Strategy

In the Metro Vancouver Region, TransLink is responsible for transit planning, implementation and funding. The purpose of the Transit Strategy included in the Plan is to confirm support for many planned transit enhancements in the City and identify other desired improvements to increase ridership and customer satisfaction. The primary features of the Transit Strategy (Appendix 6) include:

- **Improved Accessibility to Transit.** The core elements largely involve the direction of TransLink, however, Plan includes support to bolster accessibility standards and practices within the City.
- **Increased Local Area Frequency and Coverage.** The Plan proposes services increases with conventional and small buses through additional fleet and service hours.
- **Expanded Frequent Transit Network along key corridors.** TransLink has identified a range of main roads in the Metro Vancouver area where service levels will be at least 15 minutes, 15 hours per day, 7 days a week. The Plan has identified several main transit corridors in the City that should be part of the frequent network service.
- **Transit Priority Treatments along each of the frequent transit corridors** where delays and congestion exist today or are anticipated to get worse in the future. These treatments include, but are not limited to signal coordination, bus bulges, intersection queue jumpers, and dedicated bus lanes.
- **U-Pass Program.** The U-Pass program for education institutions has been introduced in the Metro Vancouver Region few years ago and has been successfully implemented at two universities, University of British Columbia and Simon Fraser University. The Transportation Plan supports the expansion of the U-Pass Program to the local Capilano College. As well, the plan includes that the City work with TransLink to examine the potential of developing a similar, transit pass program for new developments located on main transit corridors.
- **Expanded SeaBus Service and Enhance Terminal** to improve transit service to downtown Vancouver and connections to other rapid transit networks that serves other areas of the Lower Mainland.

1.3.4 Road Network Plan

The roadway network represents a critical component of the City's transportation system, as it supports not only automobile traffic, but transit, walking, cycling and goods movements. Effectively, it is the skeleton of the overall transportation system. The primary objective of the Road Network Plan

is to provide a strategy for managing the existing road network and to promote the integration of all travel modes into the system, particularly along major roadways where most improvements have traditionally been oriented to moving single-occupant cars. The primary features of the Road Network Plan include:

- **Updated Roadway Classification System.** The Plan recommends that designation for some roadways is adjusted to better reflect their current and planned long-term role and function.
- **Emergency and Disaster Response Routes.** The plan identifies emergency and disaster response routes within the City to ensure that design standard and practices do not significantly inhibit access and response time for emergency vehicles.
- **Road Network Improvement Strategies.** The Plan provides for improvement strategies for the road network to reflect the integrated goals for transit, bicycle, pedestrian and goods movement, as well as opportunities for other safety and mobility improvements to existing facilities.
- **Parking Strategies.** The parking strategy is intended to meet the City's goals to increase the economic potential of the City's commercial areas while maintaining the residents' quality of life.
- **Protect Neighbourhoods.** The Plan supports traffic calming initiatives throughout the City to ensure residents' safety and neighbourhood livability (Appendix 7).

1.3.5. Goods & Services Movement Strategy

The movement of goods and services around the City is critical to supporting the local, provincial, and national economies, but at the same time can have impacts on local neighbourhoods that need to be managed. The Goods and Services Movement Strategy identifies several initiatives designed to maintain efficient movement of goods in the City while minimizing community impacts.

- **Minimize Delays Along Truck Routes,** by coordinating traffic signals along truck routes, enhancing movement for trucks along key corridors, and maintaining left-turn bays at all major intersections along designated truck routes.
- **Signage Strategy** to ensure that truck drivers understand the designated truck routes in the City of North Vancouver.
- **Effective Use of Freight Infrastructure** connecting Port facilities (at the City's waterfront) through the development of a broader regional strategy that not only makes effective use of Port facilities, but maximizes the available transportation systems for both rail and road that connect with each area.

1.3.6 Travel Demand Management (TDM) Strategy

The Travel Demand Management (TDM) Strategy includes regional initiatives, municipal programs, and private sector and other agency initiatives. Key components of the TDM Strategy include:

- **Integrated Land Use and Transportation Planning.** Land use policies and decisions within the City can have the greatest influence on travel demands and mode choice. To that end, the TDM strategy highlights those land use policy directions contained in the OCP that are fundamental toward a sustainable transportation system.
- **Parking Management Strategies.** One way to discourage excessive automobile use and encourage the use of other modes of transportation is to limit the supply of parking. Those recommended parking supply strategies to be implemented in the City include bylaw parking maximums, reduced and flexible zoning bylaw requirements, restriction of principal use facilities and parking permit areas.

- **Leadership.** The Transportation Plan includes number of initiatives that the City has begun to encourage its own employees to use alternate forms of transportation.
- **Education & Awareness.** Many residents are not aware of the transportation options available to them. An important part of a TDM program and initiative is marketing and education efforts intended to encourage a shift in travel patterns and greater use of alternative modes of transportation. These include distribution of the existing information from other groups and agencies, and developing and running more locally generated programs.

1.4 Process for the Plan Development

The Plan has been developed with broad community participation to ensure that the values and interests of the community are reflected in the Plan. Process included several opportunities for public input: open houses; interactive public workshops (representatives of resident community associations, business groups, emergency services, community groups such as youth and seniors, advisory bodies and other agencies); workshops with the Council Advisory groups; and external agencies responsible for transportation planning within and around the City (regional transportation agency (TransLink), neighbouring municipalities (District of North Vancouver and District of West Vancouver), Vancouver Fraser Port Authority, provincial transportation agency (Ministry of Transportation), and the Squamish Nation).

1.5 Financial Planning and implementation (Next Steps)

Each of the core components of the plan contains several inter-related features designed to achieve the overall policy objectives for the City. However, significant costs are involved with implementing many of these features. In order to ensure the success of the Transportation Plan, an implementation strategy will set priorities for these features while taking into account the financial resources available to the City. Prioritization of the key features of the Plan will mainly be based on how each of these features satisfy the City's long term goals as outlined in the City's Official Community Plan (Appendix 8). The other criteria to be considered for the process include feedback from the community, potential to contribute towards GHG reductions and cost.

2.0 HOW PLAN SUCCEEDS UNDER EACH EVALUATION CRITERIA

2.1 Development and Enhancement of Sustainable Urban Transportation

The nominated Plan supports all three legs of the stool for a sustainable transportation system, social, economic and environmental based on the following:

- Emphasis of the Plan is on walking, cycling and transit, leading to health benefits from active living and less pollution, and vibrant and safer streets. The Plan supports creation of complete streets that would provide safe access and mobility for all users whether they are pedestrians, cyclists, transit users, drivers, able or with disabilities. The implementation of the Plan's features would result in a transportation system that provides safe and equal access to everyone without any negative effects on others or future generations;
- Once implemented, the Plan will result in a transportation system that offers variety of transportation choices, and is well integrated with the Metro Vancouver regional transportation plan and neighbouring municipal plans. The resulting transportation system will be more affordable, would operate fairly and efficiently, and would support efficient movement of goods throughout the City.
- The Plan includes actions that would limit GHG emissions, air pollutants and less impervious surfaces such as: priority being placed on non-automobile modes, encouragement to use

alternate fuel vehicles such as electrical vehicles/hybrids, and integration of the plan with the land use plan.

2.2 *Degree of Innovation*

Several innovative approaches have been used to develop the Plan:

- ***Integration of Plan with the overall community plan and other various City's plans such as land use plan, Park and Greenways plan, Social Plan and Greenhouse Gas Local Action Plan.*** Typically, transportation plans follow the direction from the overall community plan, however, they may not be well integrated with other community plans. To that extent, implementation of this Plan will not only help to achieve Transportation goals, but many other City goals that are outlined in various policies and documents. In fact, the specific directions for the Transportation Plan have been aligned with the overall OCP Policy Paths to ensure that North Vancouver will achieve its broader community vision and goals as summarized in Appendix 2 and highlighted in the examples below.
 - A people-oriented, accessible and vibrant community
 - Reduced local greenhouse gas emissions
 - A healthy local economy supported by efficient movement of goods and services
 - Community well being through active living
 - Sense of place through great places, streetscapes and paths for people to interact.
- ***'Brownfield' Transportation Plans.*** Many urban and suburban transportation plans are working with expanding development boundaries along with ongoing increases in population and employment. Well established communities present not only some of the biggest challenges to really influence transportation choice with attractive alternatives, but perhaps offer the best opportunity to create solutions that are scaled to the existing and planned densification of the community with sustainable transportation solutions. In this regard, the Plan provides a distinctly different and enhanced range of transportation alternatives to the community that fit within the established urban environment and will serve the growth and development which is largely comprised of significant infill development patterns.
- ***Integration of all travel modes into the one system in the roadway network strategy.*** Unlike traditional transportation plans, this Plan designs roadway network improvements to support walking, cycling, transit and goods movement along dedicated routes. Improvements for the roadway network are concentrated on safety issues and making other modes of travel more attractive, rather on mobility of general purpose traffic.
- ***Inclusion of how the Plan features satisfy the City's long term goals as outlined in the City's Official Community Plan in the prioritization of improvements.*** Typical prioritization evolves around measurable benefits, costs, environmental impacts and to some extent public support. The process used in this Plan adds another layer which is how many community goals across various disciplines will be fulfilled with a specific improvement.

2.3 *Transferability to Other Canadian Communities and Organizations*

The process used to develop the Plan and a "toolbox" to respond to community growth while preserving assets for future generations is transferable to other smaller communities that are faced with the growth pressures and need to minimize impacts to our environment.

The Transportation Plan for North Vancouver can be a model for a range of community sizes and those experiencing different forms of growth including greenfield to brownfield development. The

following highlights some of the attributes of this rather unique process and Transportation Plan that are transferable to a range of communities in Canada.

- ***The process.*** The process has been engaging and transparent for all stakeholders, including the advisory committees of Council and the broader public through workshops, open houses as well as on-line information and surveys. The process started from the broader City vision for a sustainable and livable community that has become a hallmark of many large and small communities in Canada. The development of transportation strategies engaged stakeholders in various workshops and ideas sessions to not only confirm the most pressing issues, but the potential range of strategies that should be explored to address them. Ultimately, the development of transportation strategies were therefore meaningful to the community and applicable to the broader vision for the community as presented in the City's Official Community plan.
- ***Alignment with Sustainability (OCP Policies and Vision).*** Ultimately, it wasn't the City's goal to simply develop a Transportation Plan to guide future investments in capital facilities, services and programs. Rather, the City's goal has been to identify the directions for the transportation system that will enable the City to achieve other goals toward a sustainable future. In doing so, the City's Policy Paths articulated by the OCP have become the recognized vision for the community in which each Plan must support. In this regard, the Transportation Plan for any community can and should be designed with the larger intent of supporting community goals and aspirations. Ultimately, this approach has increased the important role of transportation in the community and increased support from all stakeholders as represented by various committees of Council that have participated in the planning process.
- ***Integration of land use and transportation plans.*** The Transportation Plan for North Vancouver highlighted the importance of historical land use decisions in reducing vehicle trips, and more importantly increasing transit travel. The City Centre for North Vancouver supports a large concentration of population, employment and commercial uses that create demands for two way trips during peak and off-peak periods. These land use patterns combined with transit services results in a transit mode share of almost double that of surrounding areas of the City and neighbouring municipalities. In this regard, the Transportation Plan can continue to reinforce effective growth decisions around the types, mixture and form of land use throughout the City.

3.4 Added Value

The City embarked on a journey to develop a long-term vision for transportation system that enhances the role of walking, cycling and transit as priority modes for the community. The Plan lays out an aggressive strategy to make these modes even more attractive, with accessible services and facilities. The Roadway Network Plan provides the value added element of the overall strategy. Rather than identify improvements for mobility of cars, the Roadway Network Plan outlines the strategy for improving safety and integrating priorities for pedestrians, cyclists and transit. Along key pedestrian and bicycle corridors, enhanced sidewalks and on-street bicycle facilities are identified in the Roadway Network Plan along with appropriate crossing treatments at major and minor intersections. In areas of recurring congestion and where Rapid Bus or frequent transit services will be provided, the Roadway Network Plan identifies transit priority improvements that should be considered in support of making transit an even more attractive mode of travel. This approach ensures that future spending on roadway facilities either through capital plans or local area improvements maintains priorities on walking, cycling and transit within North Vancouver.

Appendix 1 City of North Vancouver within the Metro Vancouver Area



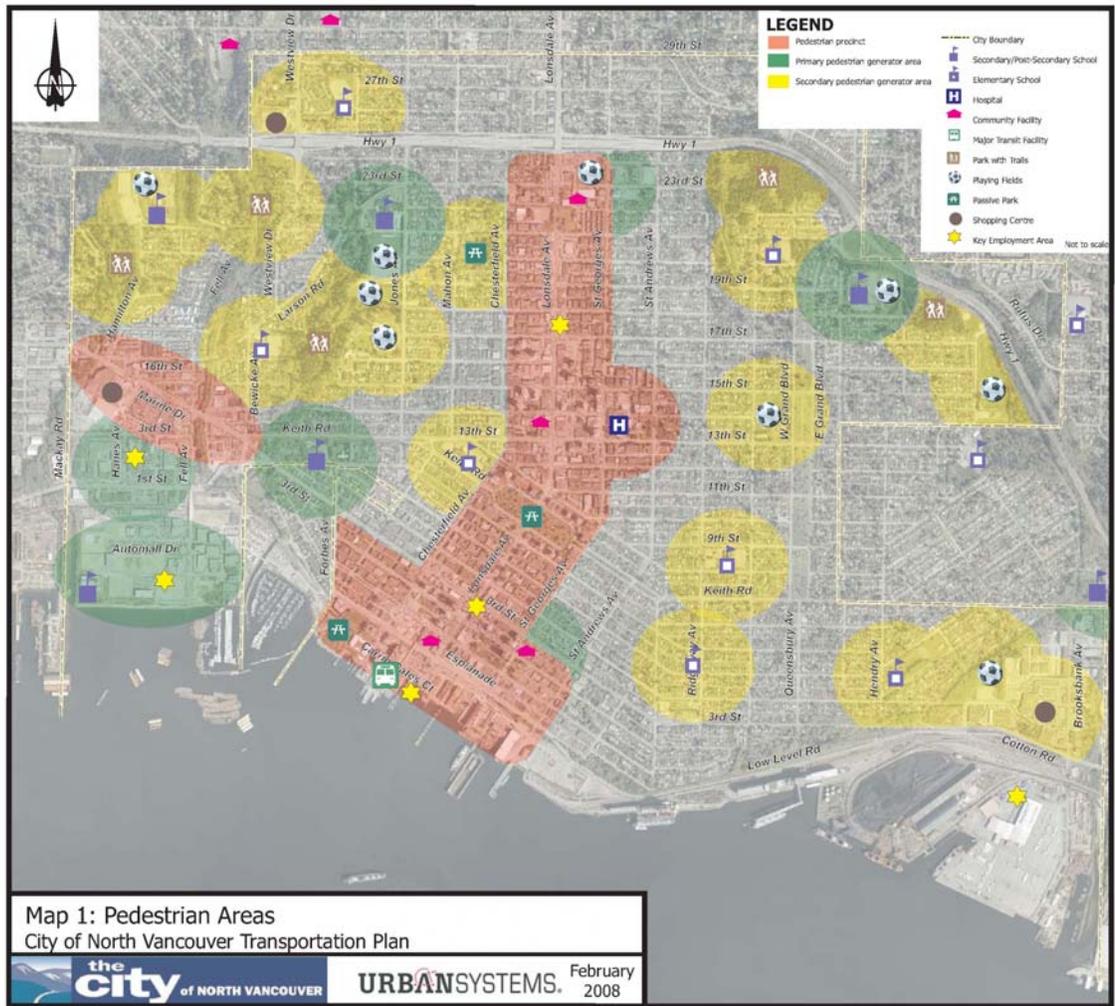
Appendix 2 Transportation Plan Relationship to the OCP Policy Paths

Transportation Plan features	Official Community Plan Policy Paths									
	Sense of Place	Land Use	Transportation, Mobility & Access	Community Well-Being	Environment	Parks & Greenways	Leisure & Culture	Community Infrastructure	Economy & Economic Development	Financial Planning
Pedestrian Plan 1. Pedestrian Areas & Generators 2. Pedestrian Treatments 3. Greenways	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓
Bicycle Plan 1. Bicycle Network 2. Design Guidelines 3. Bicycle Support Strategies 4. Greenways	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓	✓ ✓
Transit Strategy 1. Improved Accessibility to Transit 2. Increased Local Frequency & Coverage 3. Expanded Frequent Transit Network 4. Transit Priority Treatments 5. U-Pass Program 6. Expanded SeaBus & Enhance Terminal	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓		✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
Road Network Plan 1. Updated Roadway Classification 2. Emergency & Disaster Response Routes 3. MRN Improvement Strategy 4. Arterials, Collectors & Local Roads 5. Parking Strategies 6. Protect Neighbourhoods	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Goods & Services Movement Strategy 1. Minimize Truck Route Delays 2. Signage Strategy 3. Effective Use of Freight Infrastructure		✓ ✓	✓ ✓ ✓					✓ ✓ ✓	✓ ✓ ✓	✓ ✓
TDM Strategy 1. Land Use & Transportation Plans 2. Parking Management 3. Leadership 4. Education & Awareness	✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓

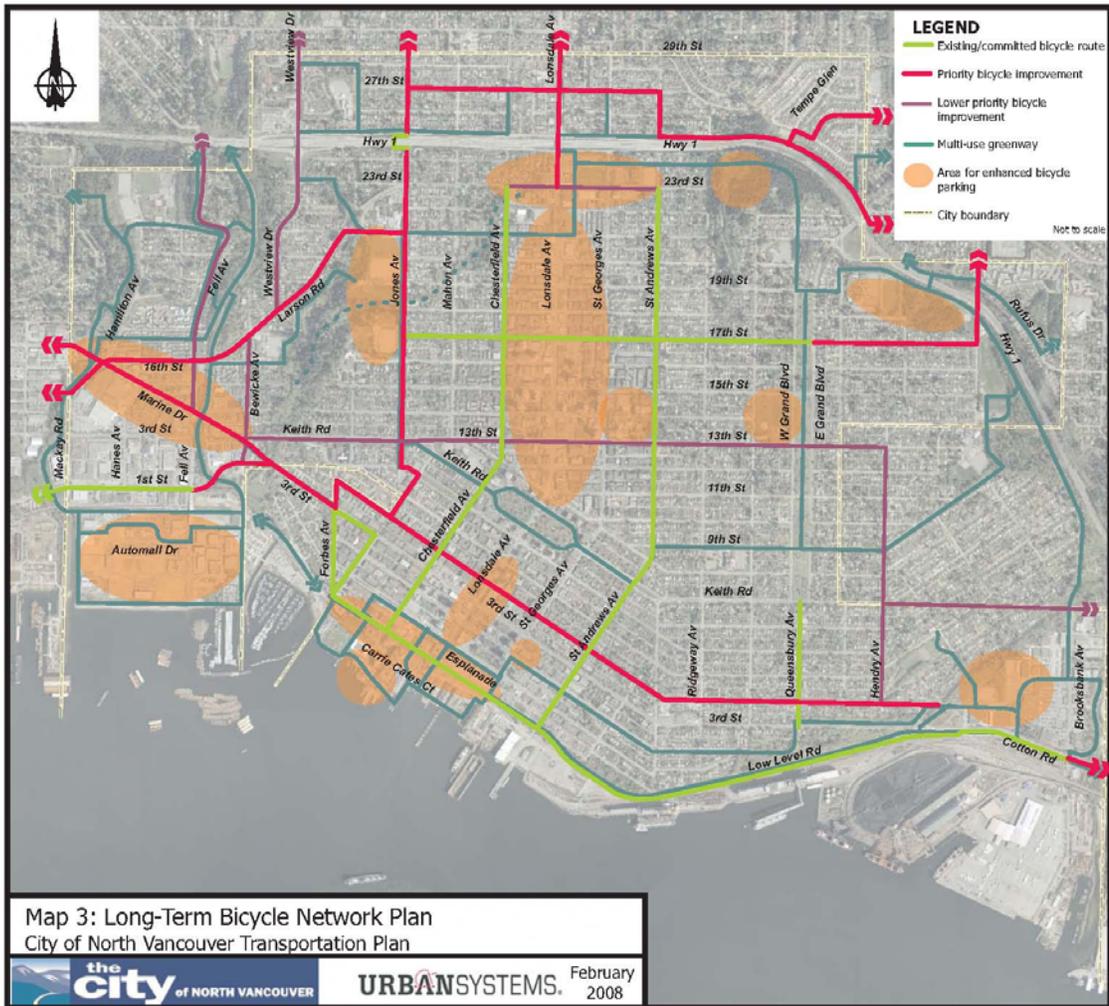
Appendix 3 Key Features of the Plan



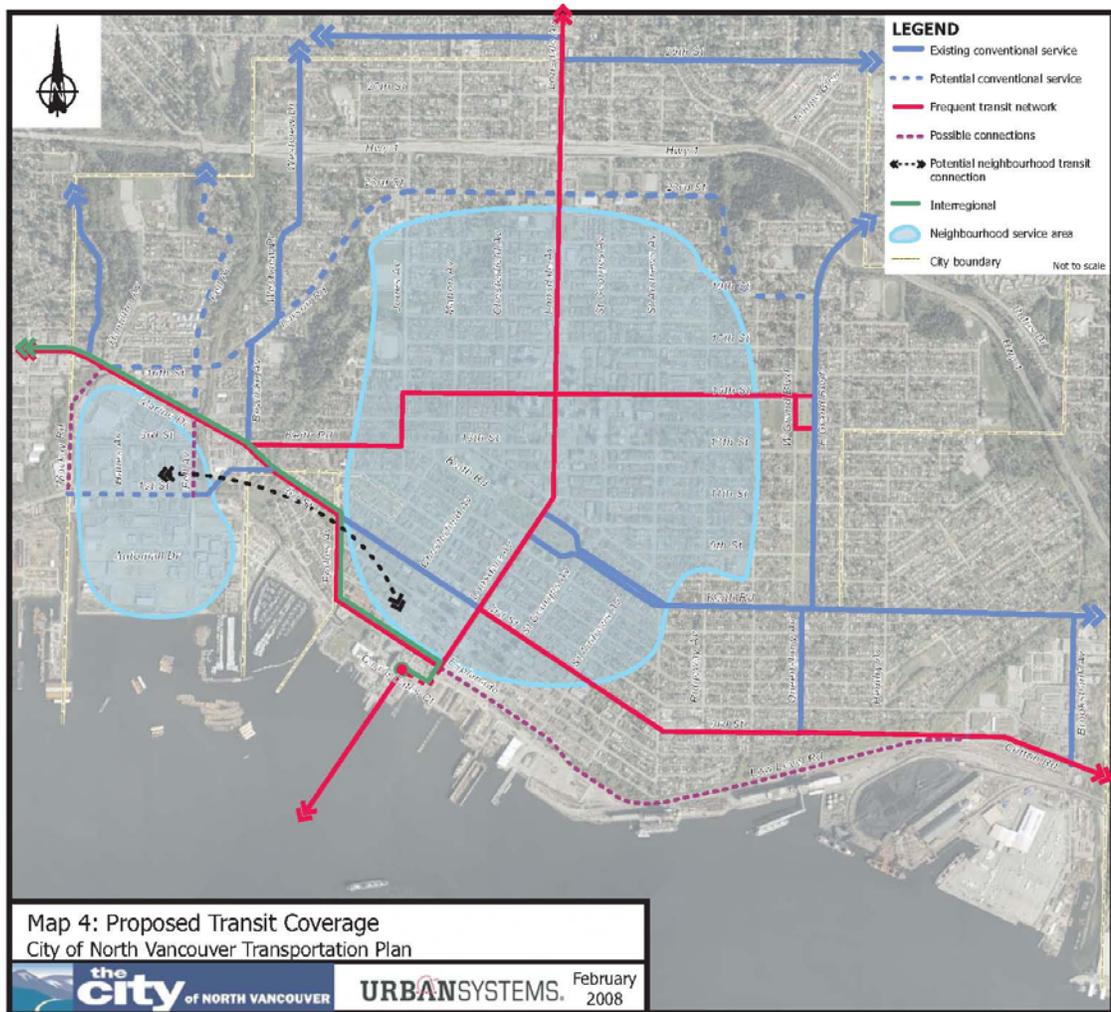
Appendix 4 Pedestrian Areas



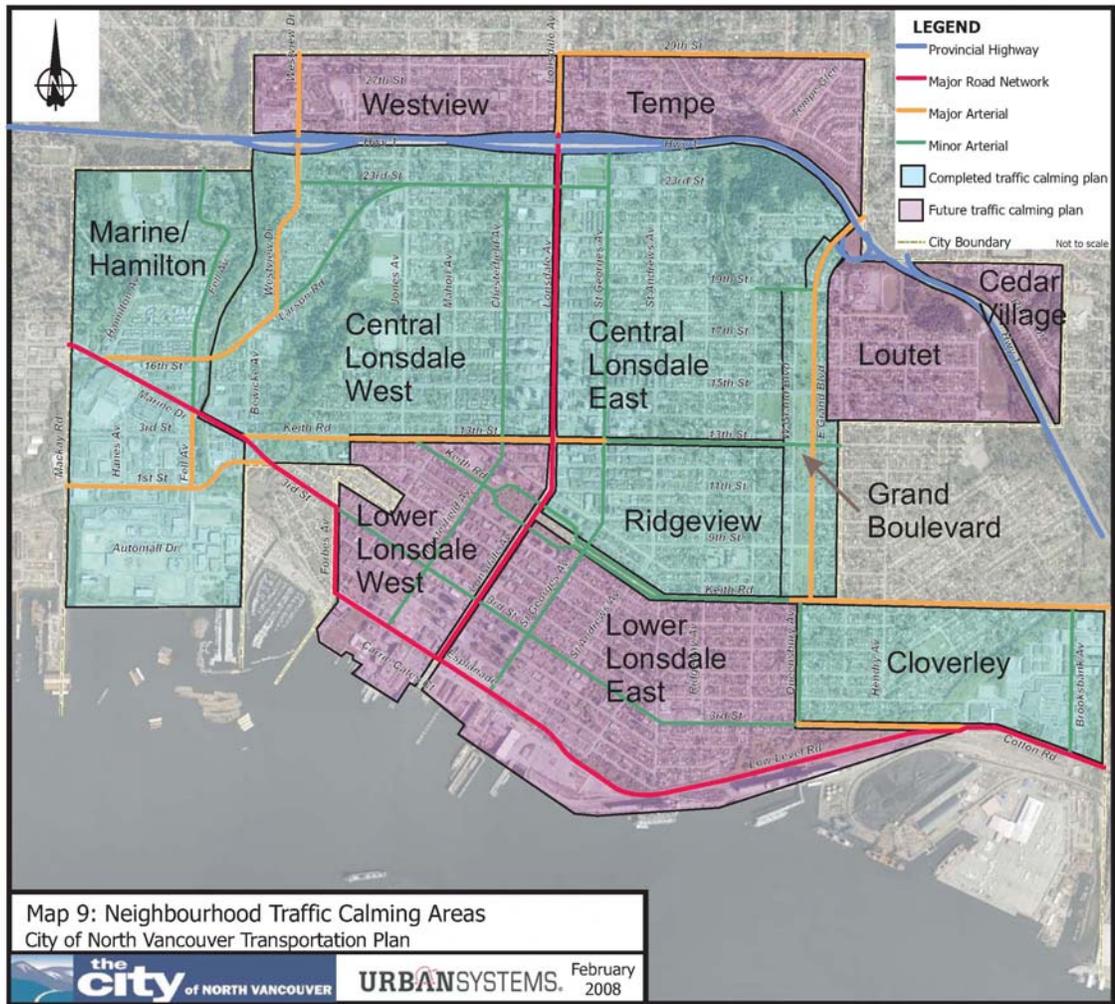
Appendix 5 Bicycle Network Plan



Appendix 6 Proposed Transit Coverage



Appendix 7 Neighbourhood Traffic Calming Areas



Appendix 8 Contribution to OCP Policy Paths

Transportation Plan features	Official Community Plan Policy Paths										Contribution towards Policy Path
	Sense of Place	Land Use	Transportation, Mobility & Access	Community Well-Being	Environment	Parks & Greenways	Leisure & Culture	Community Infrastructure	Economy & Economic Development	Financial Planning	
Pedestrian Plan 1. Pedestrian Areas & Generators 2. Pedestrian Treatments 3. Greenways	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	●●●
Bicycle Plan 1. Bicycle Network 2. Design Guidelines 3. Bicycle Support Strategies 4. Greenways	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	●●●
Transit Strategy 1. Improved Accessibility to Transit 2. Increased Local Frequency & Coverage 3. Expanded Frequent Transit Network 4. Transit Priority Treatments 5. U-Pass Program 6. Expanded SeaBus & Enhance Terminal	✓	✓	✓	✓	✓		✓	✓	✓	✓	●●●
Road Network Plan 1. Updated Roadway Classification 2. Emergency & Disaster Response Routes 3. MRN Improvement Strategy 4. Arterials, Collectors & Local Roads 5. Parking Strategies 6. Protect Neighbourhoods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	●●●
Goods & Services Movement Strategy 1. Minimize Truck Route Delays 2. Signage Strategy 3. Effective Use of Freight Infrastructure		✓	✓				✓	✓	✓	✓	●●●
TDM Strategy 1. Land Use & Transportation Plans 2. Parking Management 3. Leadership 4. Education & Awareness	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	●●●

High (Contributes to 8-10 OCP Policy Paths)
 Moderate (Contributes to 5-7 Policy Paths)
 Low (Contributes to 0-4 Policy Paths)