

## EXECUTIVE SUMMARY – Transit Expansion and How Vancouver Compares

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### OBJECTIVE

The project was informed by Goal 4 of the Greenest City 2020 Action Plan, seeking to make walking, bicycling, and public transit preferred transportation options. Specific to the research performed was the following question: “How does Metro Vancouver’s transit expansion compare with that of other cities around the world?”

### METHOD

Initially a series of metrics were devised for comparing urban regions using factors such as population, density, and transit ridership, as well as relevance and similarity to Metro Vancouver in politics, culture, and transit technology. From this, a list of potential peer cities with Metro Vancouver was generated and after a series of revisions was cut to the final dozen cities examined in depth, taking examples from North America and abroad.

The regional characteristics and transit systems of the peer cities were all examined in detail using another series of metrics that allowed for direct comparisons. Results following from this were then placed side-by-side to determine how Metro Vancouver compared with other urban areas. This was done both for transit projects in the recent past (since 1980) and for either currently underway transit expansion or advanced transit proposals.

### SUCCESS OF LOCAL TRANSIT

Metro Vancouver’s public transit system is one of the best performing in North America. When compared with a sample of ten peer cities with similar regional populations (2 – 2.6 million residents) Metro Vancouver’s transit ridership was equivalent to nine of the peer cities combined, both in terms of absolute daily ridership and per capita daily ridership.

In fact among all major regions of Canada and the United States, only eight have higher overall daily transit usage. All of these regions are significantly larger than Metro Vancouver (from 3.8 – 20 million residents). When per capita daily ridership is examined, Metro Vancouver comes in third in North America, behind only New York City and Toronto.

Investments made in regional transit continue to pay off. Recently released 2011 Census information shows that since 2006 Metro Vancouver has had the highest growth in transit, up to nearly 20% of all commutes, of any Canadian region. Similarly, the City of Vancouver boasts nearly 30% of commutes by transit, as well as the sharpest drop in car commuting of any Canadian city.

## INVESTMENT OVER TIME

Since the 1980s, the Metro Vancouver region has seen over \$4 billion invested in rapid transit, culminating in the creation of the SkyTrain system and its three lines (Expo, Millennium, and Canada Lines). Though the investment is significant, it has also been successful, as touched on above. Compared to larger East Coast cities, often with legacy rail systems, there has been significantly higher per capita investment in Vancouver. However when put up against regions of similar size and with little or no previous rapid transit systems, the numbers are much closer to the average amount spent per capita. Indeed of all the cities that have undertaken large rail investment strategies, Vancouver stands out as one of the few with a significant mode shift towards transit.

## FUTURE PLANS

Currently the only major transit infrastructure project underway is the Evergreen Line, a Millennium Line SkyTrain extension that will provide continuous service from VCC-Clark Station in Vancouver to Port Moody and Coquitlam via Lougheed Station, bringing rapid rail transit to the Tri-Cities area. In both absolute and per capita terms, this is a low amount of spending when compared with ambitious plans in Toronto, Ottawa, Calgary, Denver, or Seattle.

In spite of the dearth of funding, a number of high-impact, cost-effective projects exist. A light rail system in Surrey, the Burnaby Mountain Gondola to Simon Fraser University, and the Broadway Subway Millennium Line extension west to UBC are all projects of regional merit. When combined with improved bus service in the region, the cost for a full build-out of rapid transit would take about \$8.3 billion.

The number seems high, but in truth this level of investment would place Metro Vancouver in the midst of a pack of regions seeking to expand transit systems. The primary difference between them is that the proposals for Metro Vancouver would create a doubling of the number of rapid transit riders to over 800,000 daily boardings at a cost per boarding lower than any of the peer cities researched for this report.

## THE CASE FOR BROADWAY

Rapid transit down Broadway to UBC is the proposal with the single largest impact. Daily ridership projections show it to carry as many as the Evergreen Line, Surrey light rail system, and Burnaby Mountain Gondola combined. The relatively high capital cost (\$3 billion) and per kilometre cost (\$238 million per km) are offset by what is by far the lowest cost per new boarding of any transit project in North America either underway or proposed.

The per kilometre cost is higher than the average light rail line, but easily fits within the range of heavy rail costs researched, appropriate given the high volumes the line would carry. Projected costs are also less per kilometre than expected for other tunneled transit lines underway in densely developed urban areas such as Toronto, Seattle, New York, and San Francisco. Utilization of the Broadway Subway to UBC

would also have the highest number of boardings per kilometre for any project save those in Manhattan.

Since the 1980s, continual investment in rapid transit has helped transform Metro Vancouver into one of the premier transit regions in North America at a modest sum. Today, the system's expansion is stressed by a dearth of funding for a slew of proposed projects, such as the Burnaby Mountain Gondola, Surrey rapid transit expansion, and the Broadway Subway to UBC. These projects represent a substantial opportunity to propel our region forward through wise infrastructure spending, producing long-term benefits for Metro Vancouver, British Columbia, and Canada.

The attached appendix includes full details of the research. The three presentations present each peer city, set Metro Vancouver in context, and present key indicators. They are organized according to geography:

Presentation 1: Western North American Peer Cities

Presentation 2: Eastern North American Peer Cities

Presentation 3: Global Peer Cities