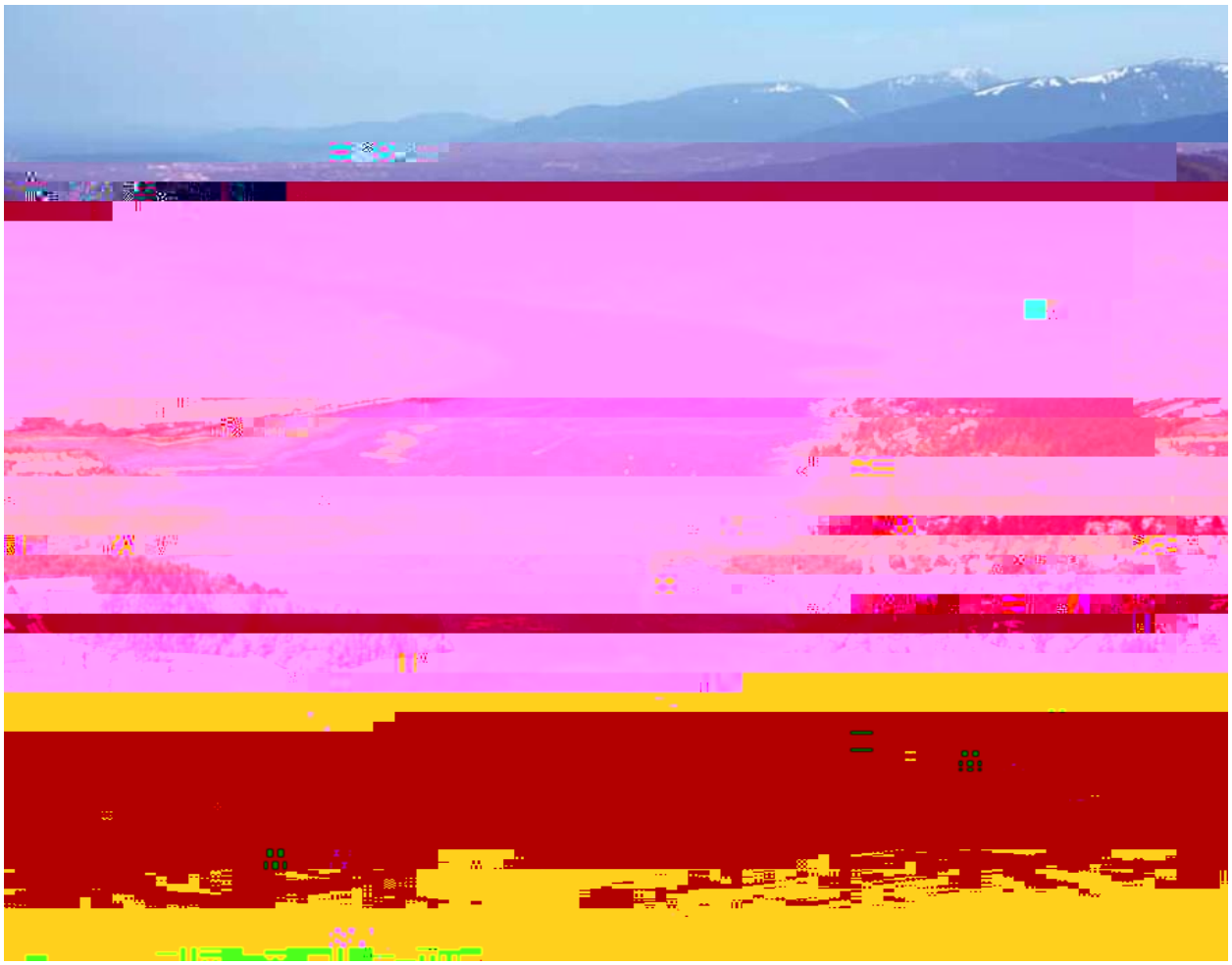
Evaluating the Walkability of Transit Oriented Development in Metro Vancouver's Northeast Sector



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EXECUTIVE SUMMARY

Overview

Transit oriented development (TOD) has long been endorsed by proponents of New Urbanism and Smart Growth as a more walkable and livable alternative to suburban sprawl (CNU, 1998; Ewing, 1999). Major benefits include an increase in quality of living, lower transportation costs for citizens, lower environmental impacts from development, and less traffic congestion at a regional scale (Newman and Kenworthy, 1996). While there are many ways of evaluating TODs, many researchers argue that assessing the walkability of these neighbourhoods is the best way of assessing their functionality.

TOD has been especially prevalent in Metro Vancouver as a key aspect of its vision for a compact, livable region with a transit-oriented urban form (Metro Vancouver, 2009). The objective of this report is to evaluate the quality of the pedestrian environments in three suburban town centres that have been developed in advance of high capacity transit service in the northeast sector of Metro Vancouver. The neighbourhoods, which were chosen based on the locations of future rapid transit stations, are Moody Centre, Inlet Centre and Coquitlam Centre.

Methods

The research involved two primary methods for each study neighbourhood: A street network analysis using geographic information systems (GIS), and an urban design assessment of a neighbouring commercial street. From these analyses, a series of design

interventions are suggested to improve the urban design and street network connectivity throughout the study area.

Key Findings and Recommendations

The analysis showed varying levels of urban design and street network connectivity throughout the three study neighbourhoods. Based on this observation, some recommendations reflect issues that were present in a single neighbourhood, while others reflect issues in all three locations:

Recommendation #1:
Improve street network connectivity by reducing block sizes in neighbourhoods around Skytrain stations

Urban Design Principle: *Connectivity*
Neighbourhoods: *Moody Centre, Inlet Centre, Coquitlam Centre*

Recommendation #2:
Enhance pedestrian accessibility at Moody Centre by providing an additional access route over the rail corridor

Urban Design Principle: *Accessibility*
Neighbourhoods: *Moody Centre*

Recommendation #3:
Fit building heights to road widths to avoid shadowing of key commercial streets

Urban Design Principles: *Human Scale, Enclosure*
Neighbourhoods: *Moody Centre, Inlet Centre, Coquitlam Centre*

Recommendation #4:
Encourage more variety in building articulation, building materials, building colours and accent colours in new developments

Neighbourhoods: *Inlet Centre, Coquitlam Centre*
Urban Design Principle: *Complexity, Imageability*

Recommendation #5:
Maintain long sightlines in new developments, and place interesting landmarks where long sightlines are not possible

Urban Design Principles: *Imageability, Enclosure*
Neighbourhoods: *Moody Centre, Inlet Centre, Coquitlam Centre*

Recommendation #6:
Design and construct a tree-lined median along St. Johns Street

Urban Design Principles: *Imageability, Enclosure, Human Scale*
Neighbourhoods: *Moody Centre*

Overall, transit-oriented developments in the Northeast Sector appear to be doing well in terms of their walkability. Solid land use planning at the municipal and regional scale over the past decade has resulted in the creation of vibrant, walkable neighbourhoods that are well located to capture the benefits of TOD living around future stations of the Evergreen Line. At this time, connectivity problems remain in all of the neighbourhoods, along with a few urban design flaws regarding building aesthetics and human scaling. It is hoped though that these issues can be ameliorated through some of the design interventions suggested in this report.