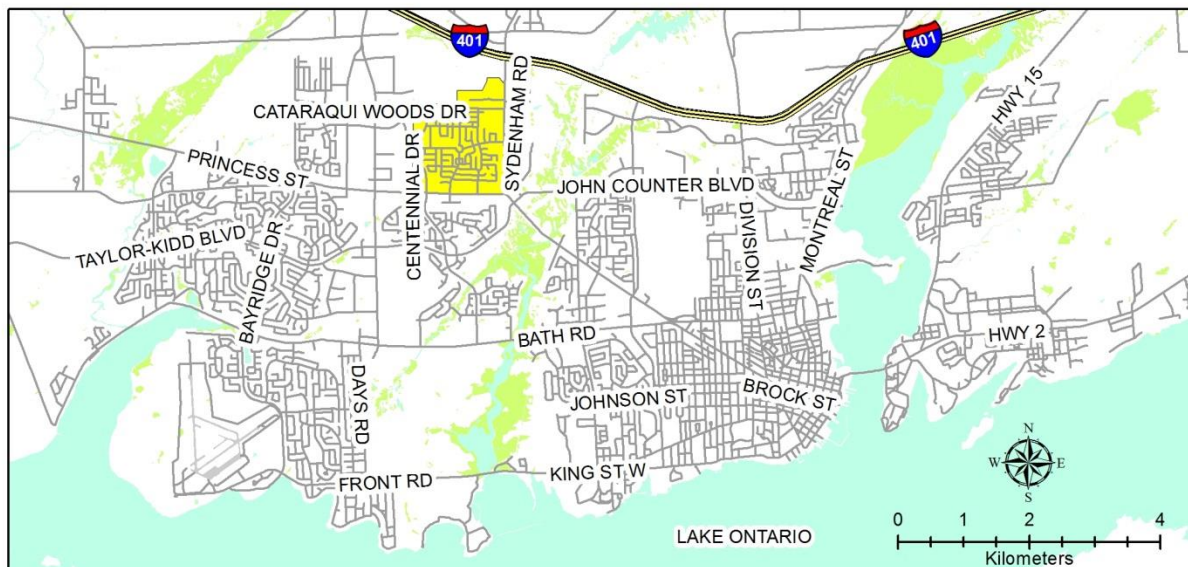


## EXECUTIVE SUMMARY

The late 1980s and early 1990s bore witness to the emergence of New Urbanist theories of neighbourhood development. New Urbanist development theory seeks to return development patterns to their Pre-War roots of grid patterned streets; away from conventional neighbourhood design that is built upon curvilinear streets and culs-de-sac. In Kingston Ontario, this movement appeared as the principles behind the 1993 Alternative Master Plan for the Cataraqui North Neighbourhood (see Map E-1) which replaced its predecessor the 1990 Master Plan for Cataraqui North (revised in 1991), which was based on conventional neighbourhood design.



Map E-1: The Cataraqui North Neighbourhood within the City of Kingston.

Most research into New Urbanist neighbourhoods focuses on comparisons between New Urbanist communities and neighbouring conventional suburban development. Indeed, little research has focused on the implementation of New Urbanist plans. As such, this research examines the implementation of the Cataraqui North Neighbourhood to determine which elements of the Cataraqui North Alternative Master Plan have not been implemented and why. This case study research utilizes this information to propose recommendations for the completion of the Cataraqui North Neighbourhood and to propose ways to improve the implementation of future New Urbanist Secondary plans in Kingston.

This research was performed utilizing a mixed-methods approach and was executed in two phases (see Figure E-1). The first phase compares eleven elements between the 1993 Cataraqui North Alternative Master Plan with its predecessor to determine which of the two contain characteristics that are thought to increase active transportation. The second phase of the research is a single case study in three parts:

1. **Conformity Testing** – Examined 54 elements from the 1993 Alternative Master Plan to determine if the elements of the Plan were implemented;
2. **Document Analysis** - Determine mechanisms which allowed for non-conformity;
3. **Semi-Structured Interviews** – Conducted with ten stakeholders including: municipal planners, proponent planners, developers and an engineer who were involved in various stages of the implementation of the Cataraqui North Neighbourhood so that the decision process which led to non-conformity could be better understood and lessons learned from the implementation of the neighbourhood could be assessed.

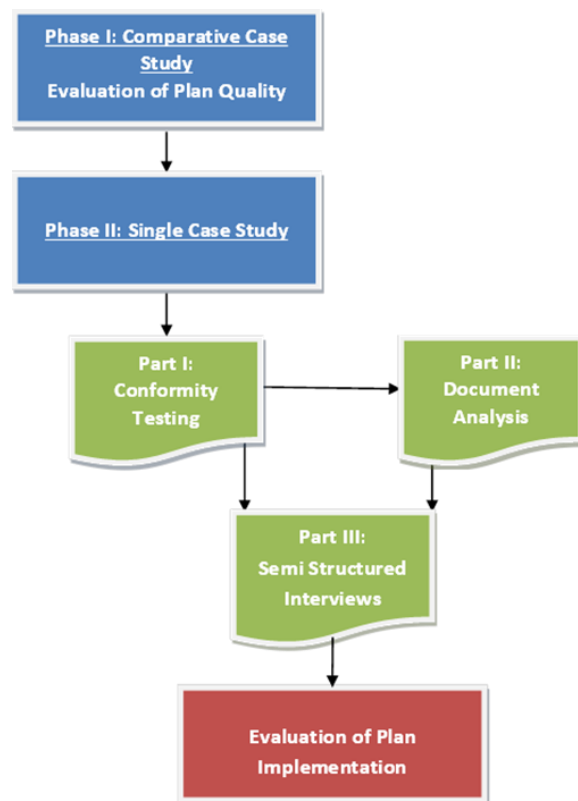


Figure E-1: Research Method Flow Chart.

In the 1980s the Dacon Corporation began assembling a land owners group in what would become the Cataraqui North neighbourhood. Although landowners within the neighbourhood changed through the decade that followed the one constant within the developer group was Dacon acting as the lead developer. The result was a development proposal in 1990 (revised in 1991) based on conventional suburban design with curvilinear streets, central parkland running behind homes with schools and churches acting as the community focal point (see Figure E-2).

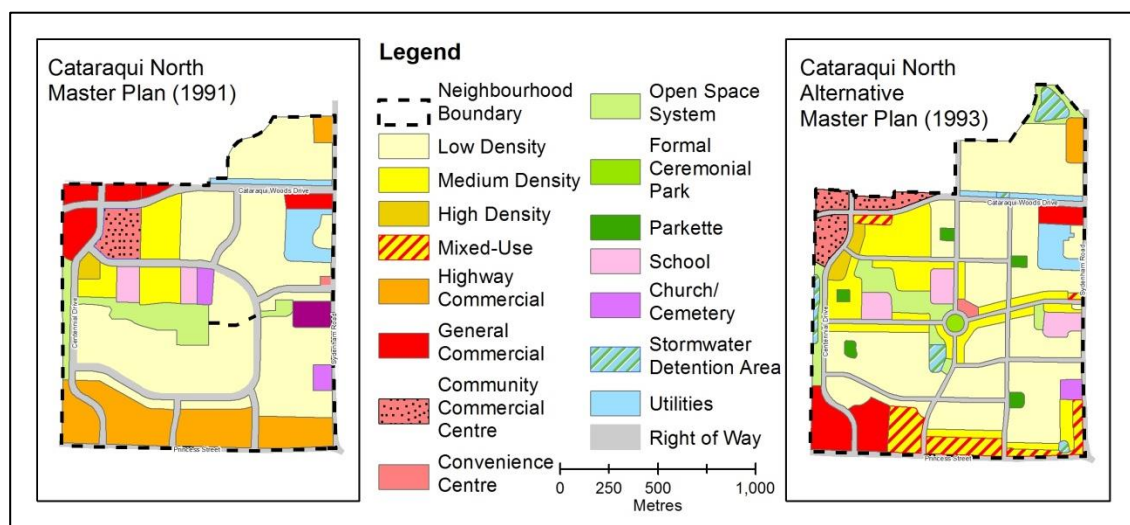


Figure E-2: Comparison of the 1991 Cataraqui North Master Plan (left) and the 1993 Alternative Master Plan (right).

In 1992 the Township of Kingston halted review of the Cataraqui North Master Plan to undertake a review of the Kingston Township Official Plan. At the same time, planning consultants for the proponents had put together a new design for the neighbourhood as an academic exercise based on what would later be recognized as principles of new urbanism. The Official Plan review resulted in policies to develop walkable communities that were not as automobile dependant; diversification of land uses; a greater housing mix and; connectivity both within neighbourhoods and to the surrounding area.

Weinstein + Associates, the consultants retained to develop the Cataraqui North Master Plan, presented the new design to their clients. It was received warmly by Dacon who recognized an opportunity to market a neighbourhood as opposed to simply selling houses. The design was based on a grid pattern street network with a hierarchy of parks and a mixed-use community focal point (see Figure E-2 and E-3). This change in neighbourhood design methods from Clarence Perry's conventional neighbourhood unit was reflected in designs by new urbanist firms such as Duany Plater-Zyberk.

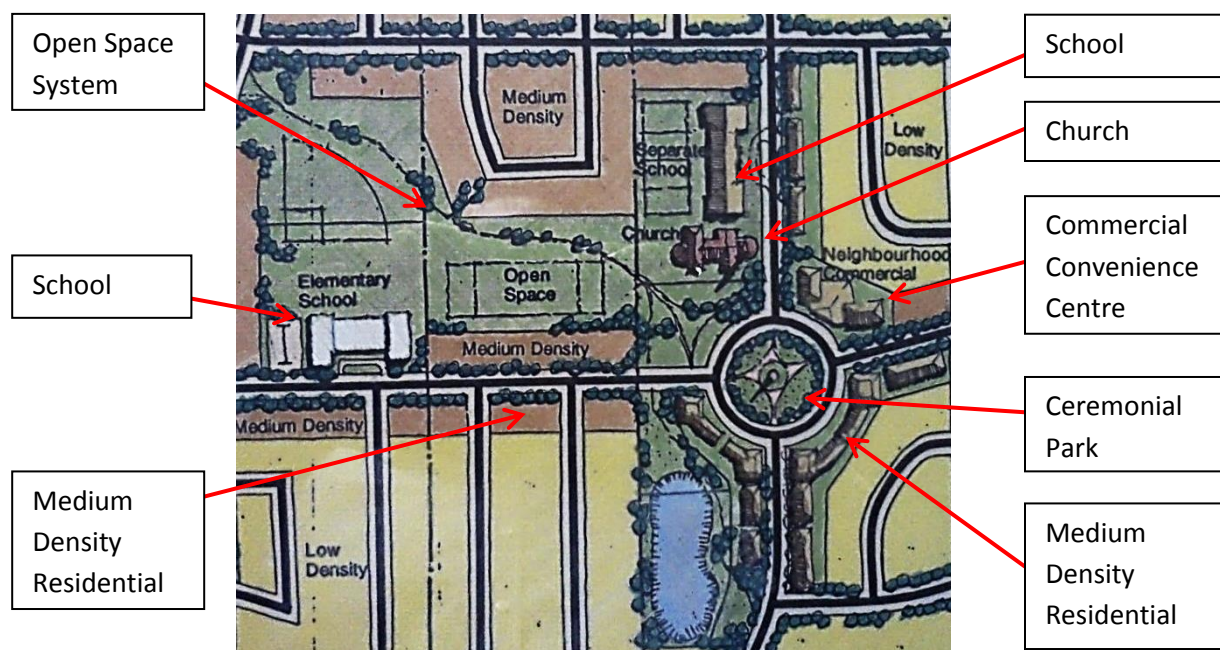
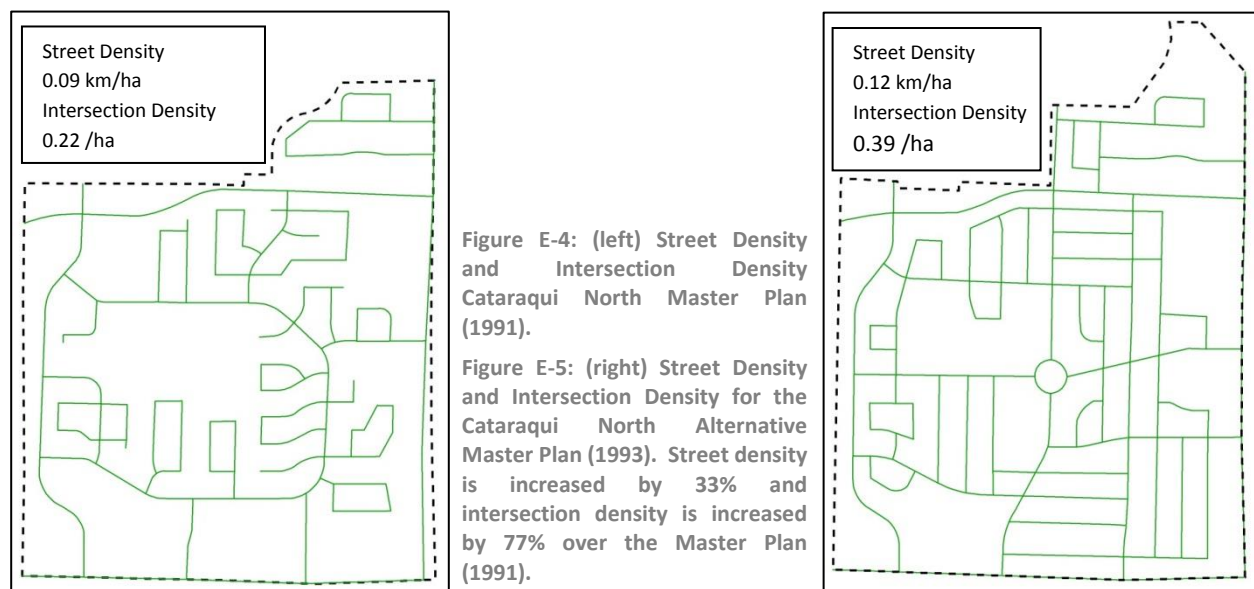


Figure E-3: The Proposed Community Centre of the Cataraqui North Alternative Master Plan (1993). Source: Weinstein Leeming + Associates. 1993. *Cataraqui North Kingston Township, Ontario Alternative Master Plan*. For: Dacon Corporation Ltd., George Binnington, Jerome Taylor, Carlo Mazzolin, G. L. Sands and J. Sousa.

The Cataraqui North Alternative Master Plan can be considered a more complete and superior Secondary Plan than its predecessor containing more characteristics that are thought to increase active transportation such as:

- A 77% greater intersection density which increases connectivity within the neighbourhood by providing alternate routes for pedestrian travel and improving pedestrian connectivity to local amenities (compare Figures E-4 and E-5).

- A 33% increase in street density which was partially responsible for more than doubling the neighbourhood residential density allowing for the wide variety of retail types that were proposed for the neighbourhood to be supported by local consumers.
- A greater mix of land uses that would allow people to live and shop close to where they work reducing dependence on the automobile.
- An almost equal proportion of medium and low density housing which could increase affordability within the neighbourhood and allow for aging in place providing services within walking distance for the elderly as well as young families.
- A redesigned community “hub” with a variety of land uses ensuring that the community would retain its focal point even in the event of a school site not materializing.



The 1993 Alternative Master Plan for Cataraqui North contributed to New Urbanist planning in Canada. The designers of the plan put forth their best ideas and developed theories on the neighbourhood unit through the creation of this plan. Alternative Master Plan was received by Township planning staff with great excitement and quickly approved.

Unfortunately, the Cataraqui North Neighbourhood was not implemented in conformity with the principles set out in the 1993 Alternative Master Plan. Only 26% of the 54 recommendations made by the Alternative Master Plan were implemented, while 50% were not in conformity and 24% were in partial conformity (see Table E-1 and Figure E-6).

Important features of the Plan that were not implemented include:

- Only 7 of 9 connections to boundary roads were built. The proposed traffic dispersion model may not come to fruition and major streets may act as collector streets instead;
- Breaking from the proposed street grid network by implementing 13 culs-de-sac;

- Failure to implement mixed-used corridor along Princess St;
- Not implementing the traffic circle in the heart of the neighbourhood or the associated ceremonial park;
- Building a few apartments at the centre of the community instead of community commercial convenience centre;
- No public elementary schools implemented within the neighbourhood;
- A shortfall of 2349 residential dwelling units within the neighbourhood;
- A failure to achieve an equal proportion of low and medium density housing units.

Table E-1: Summary of implementation conformity with the recommendations of the Cataraqui North Alternative Master Plan (1993).

	Number of Criteria Questions	Conformity	Partial Conformity	Non-Conformity
<b>Commercial Land Use</b>	6	1 (17%)	1 (17%)	4 (67%)
<b>Parks and Open Space</b>	9	2 (22%)	4 (44%)	3 (33%)
<b>Transportation</b>	11	5 (46%)	1 (9%)	5 (46%)
<b>Housing and Density</b>	19	5 (26%)	4 (21%)	10 (53%)
<b>Transit</b>	4	1 (25%)	3 (75%)	0 (0%)
<b>Schools</b>	5	0 (0%)	0 (0%)	5 (100%)
<b>Total</b>	54	14 (26%)	13 (24%)	27 (50%)

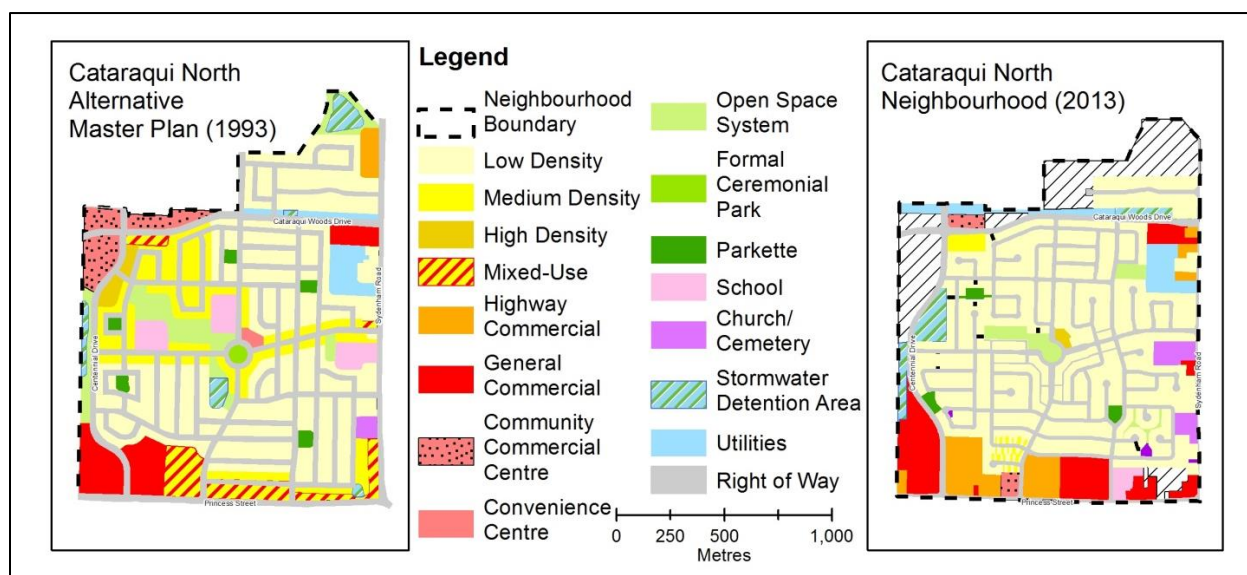


Figure E-6: Comparison between the 1993 Alternative Master Plan (left) and the Cataraqui North Neighbourhood as of 2013 (right).

The true failure in the implementation of the plan was the failure to implement the focal point of the community, which was based on the combination of the commercial centre, ceremonial park and schools. Instead, the neighbourhood is left with a simpler and poorly-defined open space to fill that void (see Figure E-7).

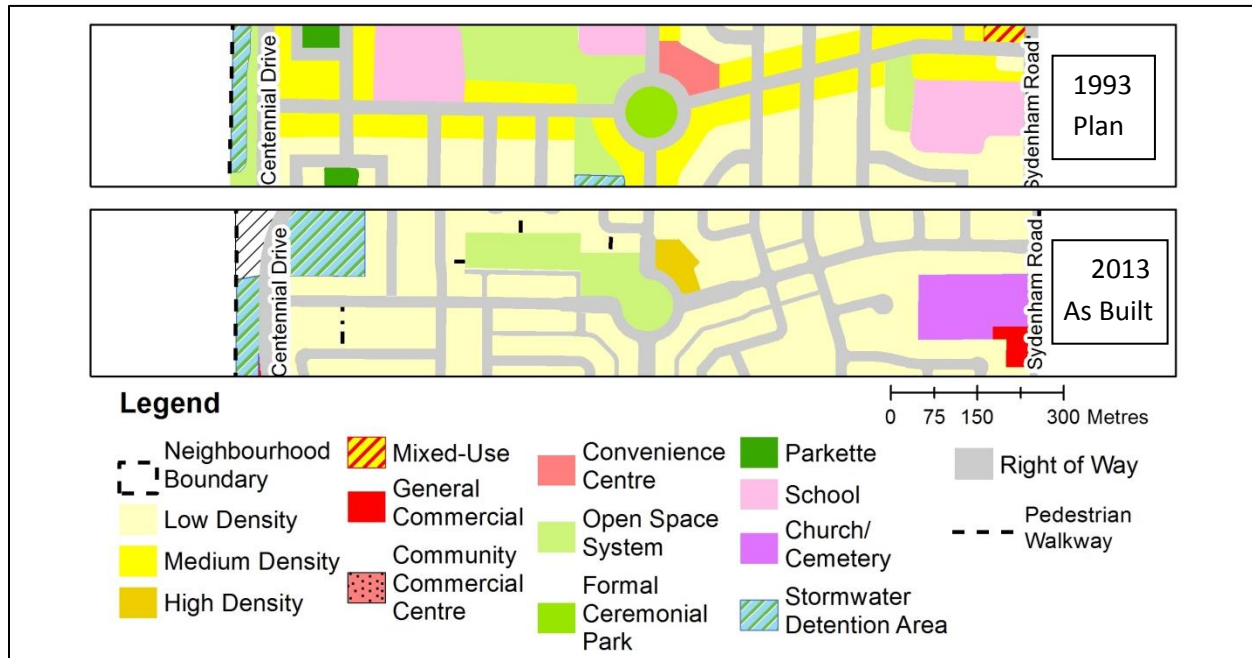


Figure E-7: Comparison of the Community Hub, Planned (above) vs. Built (below). The Cataraqui North Alternative Master Plan (above), features convenience commercial, hierarchy of parks and school sites; Cataraqui North Neighbourhood as built (below) contains only open space as well as High and low density residential land uses.

Development in the Cataraqui North Neighbourhood did not build the complete streets found in the best new urbanist projects, but it did create a built form that fosters a more walkable streetscape than other conventional suburban developments in the former Kingston Township. This was accomplished by re-introducing pre-war streetscapes through reduced lot size, shallow front yard setbacks and requirements that garages be in line with housing. Furthermore, these requirements went on to be successfully replicated in other neighbourhoods throughout the City. However, one requires somewhere to walk to for the streetscape to reach its potential for fostering a walkable environment.

Archival research and interviews with stakeholders involved in the development of the Cataraqui North Neighbourhood revealed that the various factors that resulted in non-conformity can be characterized into four broad themes:

1. Flexibility in Official Plan and Zoning By-Law;
2. General nature of the Official Plan mapping;

3. Disconnect between various approval authorities; and
4. Political/Economic Concessions.

Table E-2 outlines how the four themes affected the community design principles that were examined for conformity from the 1993 Alternative Master Plan. These failures led not only to the obvious shortcomings of implementation such as a shortfall in the number of dwelling units; a lack of housing mix; partially realized grid network, but also created cascading effects as well such as a loss of school sites; poorly defined parks; and long-term transit costs to the municipality.

Table E-2: Factors Resulting in Non-Conformity of New Urbanist Principles.

	<b>Factors Resulting in Non-Conformity</b>
<b>Commercial Land Use</b>	<ul style="list-style-type: none"> <li>• Political/Economic Concessions</li> <li>• Flexibility in Official Plan and Zoning By-Law</li> <li>• General nature of Official Plan mapping</li> </ul>
<b>Parks and Open Space</b>	<ul style="list-style-type: none"> <li>• Disconnect between various approval authorities</li> <li>• General nature of Official Plan mapping</li> </ul>
<b>Transportation</b>	<ul style="list-style-type: none"> <li>• Disconnect between various approval authorities</li> <li>• Political/Economic Concessions</li> </ul>
<b>Housing and Density</b>	<ul style="list-style-type: none"> <li>• Flexibility in Official Plan and Zoning By-Law</li> <li>• General nature of Official Plan mapping</li> <li>• Disconnect between various approval authorities</li> <li>• Political/Economic Concessions</li> </ul>
<b>Transit</b>	<ul style="list-style-type: none"> <li>• Flexibility in Official Plan and Zoning By-Law</li> </ul>
<b>Schools</b>	<ul style="list-style-type: none"> <li>• Flexibility in Official Plan and Zoning By-Law</li> <li>• Political/Economic Concessions</li> </ul>

This research resulted in recommendations for the future development of the Cataraqui North Neighbourhood that include:

1. Re-examination of remaining vacant lands;
2. Re-examination of the Princess Street corridor;
3. The creation of a transition zone between the Princess Street corridor and the Cataraqui North Neighbourhood; and
4. Improvement of pedestrian connectivity from the Cataraqui North Neighbourhood to the Princess Street corridor.

Lessons learned from the implementation of the Cataraqui North Alternative Master Plan led to recommendations for medium-sized communities such as Kingston for the creation and implementation of secondary plans based on the theories of new urbanism:

1. Secondary planning should be a municipally driven process;
2. Municipalities should be leaders and champions of the neighbourhood planning process;
3. Various approval authorities and all affected municipal departments should be stakeholders in the planning process from the outset;
4. The approval of a secondary plan and architectural controls should occur simultaneously and not left to a later date;
5. Developer input in the creation of neighbourhood design guidelines to ensure buy-in;
6. Municipal first right of refusal for school sites not optioned by school boards;
7. Provisions for neighbourhood functionality if school sites do not materialize;
8. Flexible zoning utilized only in conjunction with other development controls;
9. Use prescriptive zoning to meet neighbourhood objectives;
10. Secondary plan mapping should be detailed;
11. Re-examination of secondary planning area when dramatic change to the neighbourhood is proposed; and
12. Broad discussions and analysis about the potential long-term effects that proposed zoning amendments may have on the functionality of the entire neighbourhood.

The recommendations from this research are particularly appropriate for the suburbs of the City of Kingston. They may also be useful for development of atypical or innovative secondary plans in small to medium-sized municipalities. However, the majority of the recommendations are only pertinent for the implementation of any type of secondary plan within a small to medium-sized municipality such as Kingston. The applicability of the recommendations becomes limited for larger municipalities or those that experience rapid growth.

The findings of this research are a first attempt to examine factors that affect the implementation of the vision of secondary plans. Further case study research is required in similar municipalities (small to medium with slower growth rates) as Kingston to replicate the findings of this research. Similar case study research is needed for larger municipalities and those experiencing rapid growth to determine whether these findings are appropriate for those situations.