

GROWTH AND RESILIENCY IN TOWER IN THE PARK SITES ACROSS THE GGH

Prepared by the Centre for Urban Growth and Renewal for
The Ontario Growth Secretariat

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THE TOWER RENEWAL PARTNERSHIP

Tower Renewal is a model to transform Canada's remarkable stock of mid-century apartment towers and their surrounding neighbourhoods into more complete communities, resilient and healthy places, fully integrated into their growing cities. Led by the Centre for Urban Growth + Renewal and supported by a group of core partners, the Tower Renewal Partnership is a collaborative initiative working to preserve and enhance this key housing resource through research, advocacy and demonstration projects. The Tower Renewal Partnership's goal is to enable reinvestment into these dynamic neighbourhoods, working toward building lower-carbon, healthier and more complete communities.

www.towerrenewal.com

PROJECT TEAM

The Centre for Urban Growth and Renewal (CUG+R) is a non-profit research organization founded in 2009 with the mission to engage in cross-disciplinary research initiatives fundamental to achieving livable and sustainable urban, suburban and rural environments. CUG+R is a founding member of the Tower Renewal Partnership, a collaborative initiative working to preserve and enhance this key housing through research, advocacy and demonstration projects. TRP's goal is to enable reinvestment into these dynamic neighbourhoods, working toward their emergence into low-carbon, healthy and complete communities. This study has been prepared by CUG+R with academic advisors from the University of Toronto John H. Daniels Faculty of Architecture, Landscape, and Design. This project was supported by the Ontario Growth Secretariat.

Report Prime Contributors:



Cover image Kilburn Park, Alison Brooks Architects

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00. EXECUTIVE SUMMARY

This report outlines policy and urban design strategies for infill and intensification on aging Tower Sites as a tool to achieve the Growth Plan's goals of more complete, healthy and resilient communities.

With nearly 2,000 postwar Apartment Towers in the Greater Golden Horseshoe spread across virtually every upper-and single-tier municipality, the potential of this housing and neighbourhood resource is significant. Mid-century apartment housing accounts for the majority of the purpose-built rental stock in the region and is home to some of the most vulnerable populations. Today, many of these Apartment Tower Sites are surrounded by underutilized open space and are, in contrast, located adjacent to areas identified as having potential for growth and intensification. Tower Sites represent a significant opportunity to realize provincial policy objectives related to climate change action, smart growth, affordable housing, poverty reduction and economic development. Through targeted investment, these neighbourhoods can evolve into more complete, liveable and resilient communities with the ability to foster local economies and allow for a mix of uses. These currently isolated communities can transform into well connected neighborhoods.

Opportunity for Infill in Apartment Tower Neighbourhoods

Apartment Tower Neighbourhoods have typically not been a focal point for potential intensification, despite the large underused parcels of land that exist in many Tower Sites. Implementing appropriately scaled intensification on Tower Sites has the potential to provide transit-supportive densities within close proximity to our expanding regional network of planned and existing transit corridors, Mobility Hubs, and identified Urban Growth Centres. Infill opportunities can not only facilitate appropriate mixed-tenure residential and mixed-use growth, but can also aide in fostering community investment in traditionally underserved neighbourhoods. With the successful enactment of the RAC (Residential Apartment Commercial) Zone, a bylaw which allows a broad mix of uses within Tower Neighbourhoods in Toronto, a next step in updating the policy framework of these neighbourhoods would entail setting guidelines related to larger scope mixed-use growth. And, in particular, aligning with the goals of more compact, low-carbon and complete communities with an emphasis on infill and intensification envisioned in the Growth Plan.

Lessons from International Case Studies

Across the European Union, Apartment Tower Neighborhoods have evolved into dynamic complete communities through new residential and commercial infill developments, upgrades to public realm, and the retrofit of existing Towers. The transformation of their postwar apartment tower neighbourhoods through targeted green refurbishment and integrated processes of neighbourhood renewal,¹ has led these neighbourhoods into becoming models for low carbon communities, and centres of social and economic development. This study explores and draws on lessons from the EU on how Tower Neighbourhoods have been reimagined using a series of strategies related to achieving well designed mixed use growth.

¹ Tower Neighbourhood Renewal in the Greater Golden Horseshoe: An Analysis of High-Rise Apartment Tower Neighbourhoods Developed in the Post-War Boom (1945 -1984), (2010) ERA Architects, planningAlliance and the Cities Centre at the University of Toronto in

A New Vocabulary of Design Intervention

To date, no municipality in Ontario has developed design guidelines to specifically address infill on Tower Sites. Many of the urban design guidelines available focus on solutions for familiar urban conditions whereas many of these Tower Sites are located in the inner and outer suburbs where the needs and conditions are quite different. This study explores how to harness the potential of the suburban condition of our Tower Neighbourhoods and develop a framework for interventions and strategies specific to tower typologies in order to create more complete communities through strategic infill.

Through calibrated zoning, official plan policies, and design guidelines, Tower Renewal and site transformation is possible. This report creates a framework from which to build policies and guidelines to ensure best-in-class site transformation and Tower Renewal



Landschaftsarchitekten Berta Kroeger Plaza

01. INTRODUCTION

OPPORTUNITIES FOR NEIGHBOURHOOD TRANSFORMATION TOWARD COMPLETE, RESILIENT AND HEALTHY COMMUNITIES

Targeted infill development on post-war Apartment Tower Sites can support key Provincial goals related to urban growth and resiliency. When tied to a strategy of Tower Renewal, carefully implemented mixed-use infill and thoughtful site redesign can enable goals of achieving more complete communities, mitigate climate change through building retrofits and low carbon growth, improve housing quality while maintaining affordability, and integrate currently isolated Tower Neighbourhoods into local neighbourhoods and the region at large.

This study was developed by the Centre for Urban Growth and Renewal in partnership with the University of Toronto in order to address the barriers faced in implementing Tower Neighborhood transformation through high quality infill on Tower Sites within the Greater Golden Horseshoe. The study titled, 'Growth and Resiliency in Tower in the Park Sites across the Greater Golden Horseshoe: Planning for Tower Infill Toward More Complete Communities', will address the lack of clarity on how to leverage infill and intensification of aging Tower Sites as a tool to achieve broad goals of the Growth Plan.

Core to the opportunity of Tower Renewal are urban interventions large and small, which positively contribute to neighbourhood liveability and broader neighbourhood resilience. Using international case studies as the departure point, this study examines exemplar approaches to urban design representing a range of contexts and scales of intervention in the context of Tower Block Neighbourhoods. Combined with local best practice, it is the aim of this report to provide a foundation of innovation in design thinking and planning opportunities for our inherited stock of hundreds of higher density Apartment Neighbourhoods found throughout the region.

PROBLEM STATEMENT

While design strategies toward achieving more complete, resilient and healthy communities within historic city centres, brownfields and new communities are well understood and often codified within design policies and guidelines, a vocabulary of intervention within our aging Tower Block Neighbourhoods is less well understood and often lacking from planning and design toolkits.



Image courtesy of Jesse Colin Jackson

THE REPORT OVERVIEW

Within the broader scope of Tower Renewal, this report looks specifically at infill and select urban design strategies on Tower Sites and how they can contribute to more resilient, healthy and complete communities as a key component of an extensive Tower Renewal Package. Policies and guidelines related to tower infill and intensification are in their early stages, and several gaps still exist in gauging and framing high-quality infill development on these sites. This research will provide insight into how municipalities across the region, with a focus on Toronto, Mississauga and Hamilton, are addressing the opportunities for tower infill, while assessing current gaps and challenges, and identifying innovative tools and design interventions to accelerate change.

Following the 2010 report, “Tower Neighbourhood Renewal in the Greater Golden Horseshoe”, this study examines four key types of Tower Sites found throughout the Greater Golden Horseshoe, which are indicative of broad urban contexts and opportunities. These Types include:

1. Towers and Arterial Roads
2. Towers and Shopping Centres
3. Large Tower Clusters
4. Towers within Lower-Rise Neighbourhood

Further, this study will place focus on four exemplar international case studies. Each case study is representative of one of the four Types, and each illustrates innovative, and in some cases surprising responses to growth and diversification, and provides a broad set of lessons for application in the local context.

Examining these international precedents within the local planning policy and development context, the study will make recommendations as to how to engage in Tower Renewal in the GGH.

All together, these Types represent a substantial amount of Tower Sites in the GGH (inner ring) (See Section 5 for Statistics). They also represent sites where a range of densities and approaches toward mixed use are desired and appropriate. Focus on these Types provide instructive approaches as municipalities throughout the GGH develop unique processes to tower infill and the redevelopment of older suburban areas in response to transit investment, growth pressures, as well as reinvestment to kickstart investment in low-growth areas.

METHODOLOGY

The study was built from three foundational studies which include:

- Tower Neighbourhood Renewal in the Greater Golden Horseshoe: An Analysis of High-Rise Apartment Tower Neighbourhoods Developed in the Post-War Boom (1945 -1984), prepared by ERA Architects, planningAlliance and the Cities Centre at the University of Toronto in 2010;
- Vertical Poverty: Declining Income, Housing Quality and Community Life in Toronto's Inner Suburban High-Rise Apartments, a study done by United Way Toronto in 2011; and
- Toward Healthy Apartment Neighbourhoods: A Healthy Toronto By Design, a report done by Toronto Public Health and the Centre for Urban Growth and Renewal in 2012

This study, Growth and Resiliency in Tower in the Park Sites Across the GGH was undertaken in six parts: through a series of consultation activities, a policy analysis, the development of typologies through mapping and statistical data, the evaluation of international case studies to reveal strategies for tower site transformation and a high level evaluation of traditional and alternative planning frameworks in Ontario and their ability to enable comprehensive tower renewal.

Consultation

Consultation played a significant role in both the development and execution of this study. The six consultation activities listed below have contributed to framing the problem and direction of this research.

Consultation Activities that contributed to this research included an Intermunicipal Roundtable: held on November 28, 2016 in Hamilton, Ontario, the Tower Renewal Action Forum held on October 5, 2017 at the Evergreen Brick Works, an Intermunicipal Questionnaire distributed to municipal partners in Toronto, Mississauga, Hamilton and Ottawa in November, an Interministerial Workshop held on January 17th, 2018 at Evergreen Brickworks and Individual Discussions: with the City of Mississauga, Brampton, Toronto and Hamilton looking at innovative tools for preplanning and achieving community benefit on Tower Sites (Full summary of consultation activities available in Appendix).

Policy Analysis

As part of this study, a policy analysis was performed to understand the scope of provincial growth and transportation objectives in relation to tower neighbourhoods.

The updated 2017 Growth Plan was analyzed along with The Big Move Regional Transportation Plan to understand how growth is structured within the GGH. This provided context around the disconnect between growth and intensification targets, planned transit and tower neighbourhoods.

A review of the in-force and proposed Regional Transportation Plans was done to identify how transit plans relate and interact with tower neighbourhoods within the region. Official plans from Toronto, Hamilton, and Mississauga were then analyzed to see how the Growth Plan was being implemented within the three cities at a high level. Finally, a second review of the three official plans was done to look at each city's approach for implementing growth policies in the context of apartment tower neighbourhoods.

Mapping and Statistical Data

Mapping and statistical findings were achieved using a software program called QGIS, an open-source geographic information system. QGIS supports viewing, editing, and analysis of geospatial data. To use this program for our study, first, we collected all relevant data from municipal and provincial open sources. This information was then cross-referenced with our internal database through which other research was completed for the 2010 report Tower Neighbourhood Renewal in the Greater Golden Horseshoe such as tower locations. Any missing data was manually added by overlapping QGIS search results with Google maps using materials such as existing and funded rapid transit systems. Once all data was collected, different Geoprocessing tools were used to calculate desired buffer distances, to overlap and clip towers points, and to find the percentage of towers in a predetermined area. Finally, editing the mapping for publication required using Adobe programs to graphically represent data findings. This methodology is the most essential to show comparisons between our Ontario sites and International case studies.

International Case Studies

As part of the analysis into the four identified apartment tower typologies (see Section 05), four international cases studies, each representing a different typology, was chosen. All international case studies are examples that illustrate positive transformations to the public realm, open space, connectivity, land-use and built form that contribute toward complete and healthy communities, but do not mimic the traditional city.

Site analysis focused on active transportation and transit networks; pedestrian and vehicular circulation; parking; building use; open space, including public, semi-public and private spaces; and infill history and strategies. The analysis process included the accumulative research from a number of study tours conducted since 2010; neighbourhood and project research through various internet sources; and Google Maps and Google Street View. Data used to create all base maps and diagrams were sourced from Open Street Map, © OpenStreetMap contributors, whose data is available under the Open Database License; and Google Maps. All photos of the international case studies were taken during one of the case study tours except for: Kilburn Park, images were sourced from Alison Brooks Architects; and Wilhelmsberg where some of the images were sourced from Landzine.

The case studies were then assessed utilizing the Evaluation Framework's six themes (see Section 6), and building from that assessment the framework itself was further developed.

Planning Framework

The discussion of planning frameworks was informed by municipal consultations which revealed that many municipalities are finding the traditional planning framework challenging in regards to addressing tower renewal. The Community Planning Permit, a new tool developed by the Province in 2007, was mentioned on numerous occasions. To explore and analyze the Community Planning Permit system, a variety of thesis studies, articles, existing precedence, and an informational handbook developed by the province was reviewed in order to establish whether this was a tool that could encourage and enable comprehensive tower renewal.

02. WHAT IS COMPREHENSIVE TOWER RENEWAL?

Tower Renewal is the transitioning of our inherited legacy of postwar Tower Neighbourhoods to meet the needs, challenges and opportunities of 21st century urbanism. It will ensure that Ontario's postwar rental housing stock is maintained as a sustainable and vital housing resource, while creating more resilient, healthy, secure, and complete communities across the province.

Comprehensive Tower Renewal represents a coordinated investment that will result in three primary outcomes:

1. Excellence in deep energy retrofit to sustain, enhance, and transform our postwar tower housing stock into comfortable and high-quality low-carbon housing;
2. Excellence in mixed-use neighbourhood design, that leverages existing neighbourhood assets and aligns with broader city building goals of growth and transit planning; and
3. Excellence in social and economic investment toward community resilience, demonstrating a community led approach toward more healthy and complete communities.

The widespread implementation of Tower Renewal across Ontario can lead to affordable, high-quality rental housing, lower-carbon cities and net-zero growth through:

- Maintenance of, and addition to, the affordable housing stock;
- Higher quality rental housing;
- Implementation of crucial health and safety standards in our rental housing; and
- A wide diversity of uses and activities within neighbourhoods to support local economies and better connections to the city as a whole.

Comprehensive Tower Renewal works through a full-community lens. It is broad in scope, inclusive in process, and geared toward overall neighbourhood resilience. Furthermore, it is positioned to be supportive of parallel regional and local initiatives, such as investments in rapid transit, community hubs, and mixed-use growth.

Tower Renewal is a strategic framework, but its implementation must be done in a manner that is flexible and responsive to neighbourhood context, community needs, and local aspirations.



Demonstrate GHG Emission Reduction Potential

through improved housing stock



Demonstrate Innovation in Partnerships, Programming, Service Provision and Community Amenities

through new community opportunities



Demonstrate Excellence in Mixed-Use Apartment Neighbourhood Design

through urban design, infrastructure & smart growth

03. STRUCTURING GROWTH AND TRANSPORTATION IN THE GREATER GOLDEN HORSESHOE

OVERVIEW OF GROWTH PLAN

The Growth Plan for the Greater Golden Horseshoe (Growth Plan) was first released in 2006, with an updated edition in effect since July 1, 2017. The 2017 Growth Plan contains overarching growth policies for the Greater Golden Horseshoe region, to which municipal and regional Official Plan (OP) policies must conform. The Growth Plan's broad aim is to plan for the region's growth in a way that "supports economic prosperity, protects the environment, and helps communities achieve a high quality of life." To this end, Policy 2.2.1(2) of the plan states that growth will be focused to the region's delineated built-up urban areas, strategic growth areas, and areas with existing or planned transit. Further, Policy 2.2.1(4) states that applying the policies of the plan will support the achievement of complete communities featuring a diverse mix of land uses, improve social equity and overall quality of life, provide a diverse range of housing options, and expand access to transit, public services, open spaces, and food options.

In order to achieve these goals, Policy 2.2.2(4) of the plan mandates that all municipalities in the region develop a strategy to target growth to delineated built-up areas, which will "encourage intensification generally to achieve the desired urban structure." Further, these strategies will identify the appropriate type and scale of development and transition to adjacent areas, identify strategic growth areas that will be a key focus for development, and ensure that zoning and development support the achievement of complete communities. The Growth Plan then goes on to identify and outline policies related to "strategic growth areas", including Urban Growth Centres and Transit Corridor and Station Areas. Broadly, the Growth Plan mandates that these strategic growth areas will be located in close proximity to transit, and will need to meet required density targets for both residential and employment land uses.

Although Tower Neighbourhoods are prevalent throughout the region and provide opportunities for infill, Tower Apartment Neighborhoods have not been specifically identified as potential areas for intensification within the Growth Plan.

OVERVIEW OF REGIONAL TRANSPORTATION PLAN

Under provincial legislation, Metrolinx is mandated to provide leadership in the coordination, planning, financing, development and implementation of an integrated, multi-modal transportation network that conforms with the policies of Ontario's Growth Plan for the Greater Golden Horseshoe. Additionally, they are to comply with other provincial transportation policies and plans in the regional transportation plan area.²

In 2008, Metrolinx released The Big Move Regional Transportation Plan (RTP), the current 25 year RTP for the Greater Toronto and Hamilton Area (GTHA). The document outlines a long-term strategic plan for an integrated, multi-modal, regional transportation system. The Plan identifies strategically placed corridors for transit infrastructure, which are to be intensified with residential and employment densities to provide enough density to support the cost of the infrastructure.

The Big Move places major transit routes along these intensification corridors, which are then linked through a series of nodes known as Mobility Hubs. Mobility Hubs are strategically placed major transit stations that serve as a critical destination and transfer point where different modes of transportation come together in an area where there are intense concentrations of people working, living and playing. "Mobility Hubs vary in size but generally comprise of a transit station and surrounding area that can be comfortably accessed by foot, approximately an 800-meter radius. However, the actual hub boundary should be determined based on the specific physical characteristics, neighbourhood context, and planning framework of each site".³

Mobility Hub plans should align with existing plans, including Secondary Plans, Community Improvement Plans, Community Planning Permits, local and regional Official Plan designations, and Corridor Studies. The Big Move aims to have the majority of the regions population, living and working within 2 km of some form of rapid transit.

Metrolinx is in the process of updating this strategy, with the 2017 release of the Draft 2041 Regional Transportation Plan for the Greater Toronto and Hamilton Areas. Since the release of the "Big Move" in 2008, the GTHA has become a more complex landscape when it comes to mobility with the population expected to increase from 7.2 million people in 2015 to 10.1 million in 2041,⁴ and with an ever-growing demand for housing in central Toronto, increasing housing prices and growing equity challenges there are strong implications for future mobility throughout the region. The updated RTP works to "manage growth and address climate change to 2041," working in concert with the Growth Plan which will "encourage intensification generally to achieve the desired urban structure."

Over the next 15 years the province of Ontario is investing over 32 Billion in new subways, light rail, rapid busways and regional express rail throughout GTHA with a focus on investment in areas primarily outside of the downtown core of Toronto in the inner suburbs of Scarborough and North York, the surrounding municipalities of Vaughan, Mississauga, and Markham, as well as the City of Hamilton.⁵ The region is in

² Metrolinx. (2016) Discussion Paper: for the Next Regional Transportation Plan (GTHA)

³ Metrolinx. (2011). Mobility Hub Guidelines.

⁴ Metrolinx. (2016) Discussion Paper: for the Next Regional Transportation Plan (GTHA)

⁵ Burda, C., Collins-Williams, Mike, Kingdon, Alicia. (2016) Suburbs On Track: Building transit-friendly neighbourhoods outside

a critical position to take full advantage of this investment to coordinate planning objectives, improve transportation infrastructure and its surrounding neighbourhoods. Intensification is an opportunity to expand the mix of uses and density, while also making best use of transportation investments. The Growth Plan calls for the development of complete communities that not only minimize distance between living and working spaces but utilizes a fast, reliable and integrated transportation system to keep people and goods moving.

One third (34%) of Tower neighbourhoods within the GTHA are located within walking distance (500 m) to existing and already funded rapid transit station which includes Mobility Hubs, Subway Lines and GO Rail Stations as seen in Section 5. Tower Neighbourhoods in the GTHA in close proximity to Mobility Hubs would greatly benefit from integrated planning strategies that would connect the needs and future objectives of infill on Tower Sites with the Mobility Hub catchment area planning can create mutually beneficial and efficient plans and investments that can meet both municipal and provincial objectives.

MUNICIPAL GROWTH PLAN IMPLEMENTATION

The Toronto Official Plan

Consistent with the Growth Plan, the Toronto Official Plan (OP) sets out a desired urban structure that concentrates growth to strategic areas that are well served by transit, with a focus on the Downtown, Centres and Avenues. While the Avenues are important corridors along major streets, the Centres include four provincially identified areas outside of the Downtown core, including the Scarborough, North York, Etobicoke, and Yonge-Eglinton Centres, where intensification will be targeted. In order to implement the desired intensification of a broad range of uses within the Centres and Avenues, these growth areas are typically designated Mixed-Use within the OP.

In contrast to growth areas, the OP states that “stable” areas, including lands designated Neighbourhoods and Apartment Neighbourhoods, will not be targeted for significant growth in the coming years. Rather, OP policy related to Apartment Neighbourhoods aims to reinforce the existing physical character of these stable urban areas. Despite this broad policy direction, the OP does acknowledge that sensitive infill may be permitted within Apartment Neighbourhoods, where this intensification can be shown to contribute to quality of life, and to conform to a set of development criteria.

With significant investment in transit infrastructure throughout the GTA “Centres” including the Sheppard East LRT, Eglinton Crosstown LRT, Scarborough Subway Ext., Scarborough LRT, Crosstown West LRT, Spadina Ext., and the Regional Express rail, the City’s secondary plans lay out policy direction toward transit supportive densities and mixed use development to ensure efficient use of transportation and facilities and to further enhance infrastructure and services to provide increased transit, pedestrian and cycling options. While language and direction are clear in regards to the need for transit supportive densities, out of date zoning bylaws make intensification linked with complete communities challenging.

Hamilton Official Plan

As Hamilton is a much smaller municipality than Toronto, the Growth Plan only identifies one Urban Growth Centre within the city: Downtown Hamilton. Similar to Toronto's OP, the Hamilton OP sets out the municipality's urban structure, which is composed of, among other elements, Urban Nodes (including the Downtown Urban Growth Centre, and Urban Corridors), and Neighbourhoods. According to Policy E.2.1, Nodes and Corridors within Hamilton are "the focus of reurbanization activities (i.e. population growth, private and public redevelopment, and infrastructure investment)." However, one major difference between the approach of the Toronto and Hamilton OPs, is that Hamilton's plan also states that intensification will be more widely encouraged throughout the city's built-up area, including in "stable" areas such as Neighbourhoods, provided that proposed development adheres to a number of evaluation criteria related to context, use, scale, transition, and amenity space.

With large investments in new LRT on the Main-King and a portion of James Corridor in Hamilton, with connections to GO Transit the Hamilton Planning Department has already taken steps to pre-zone the LRT Corridor to re-urbanize and permit land uses to support residential and commercial intensification. They are utilizing the interim control bylaw which temporarily freezes some land uses while the municipality is studying or reviewing its policies.⁶

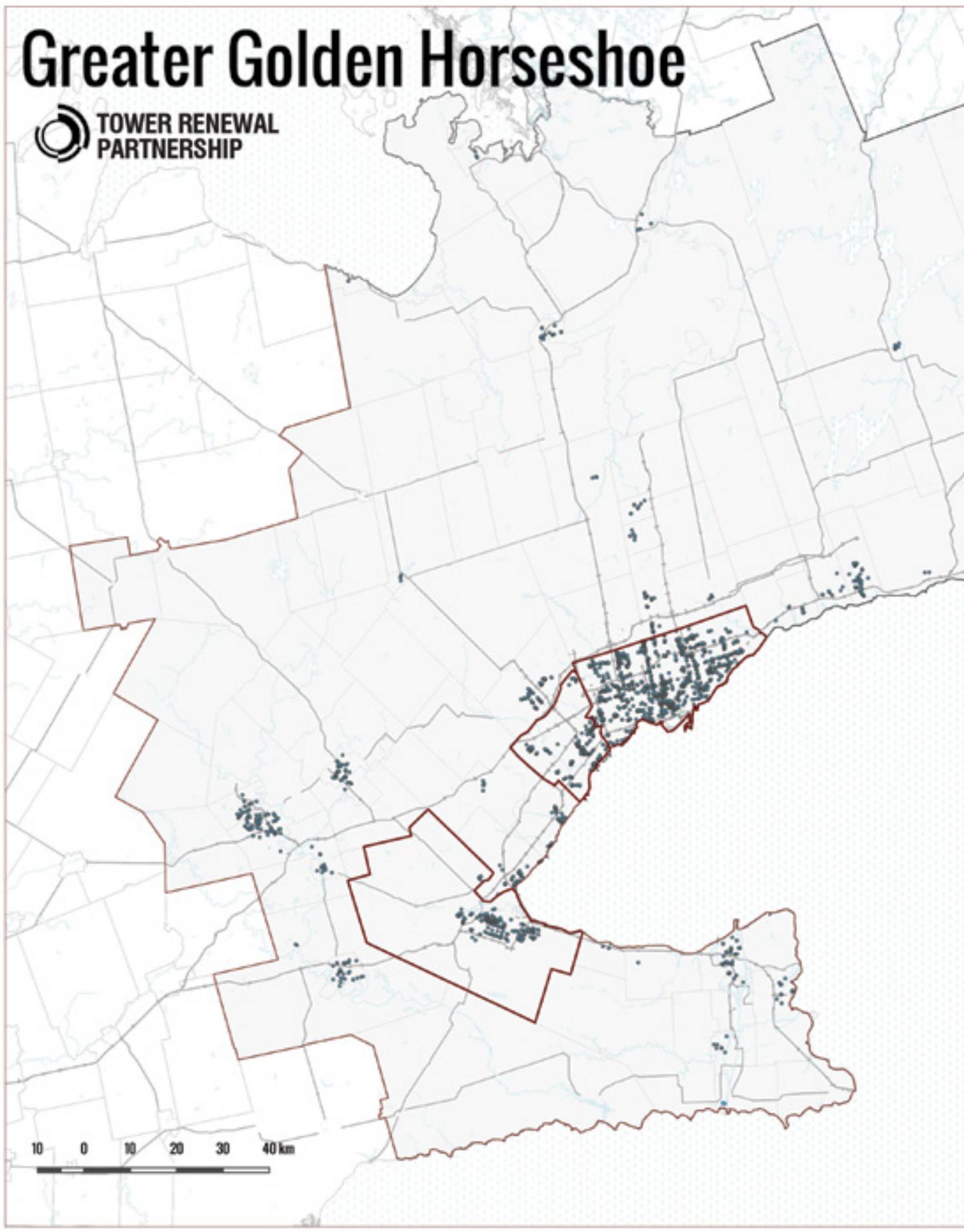
Mississauga Official Plan

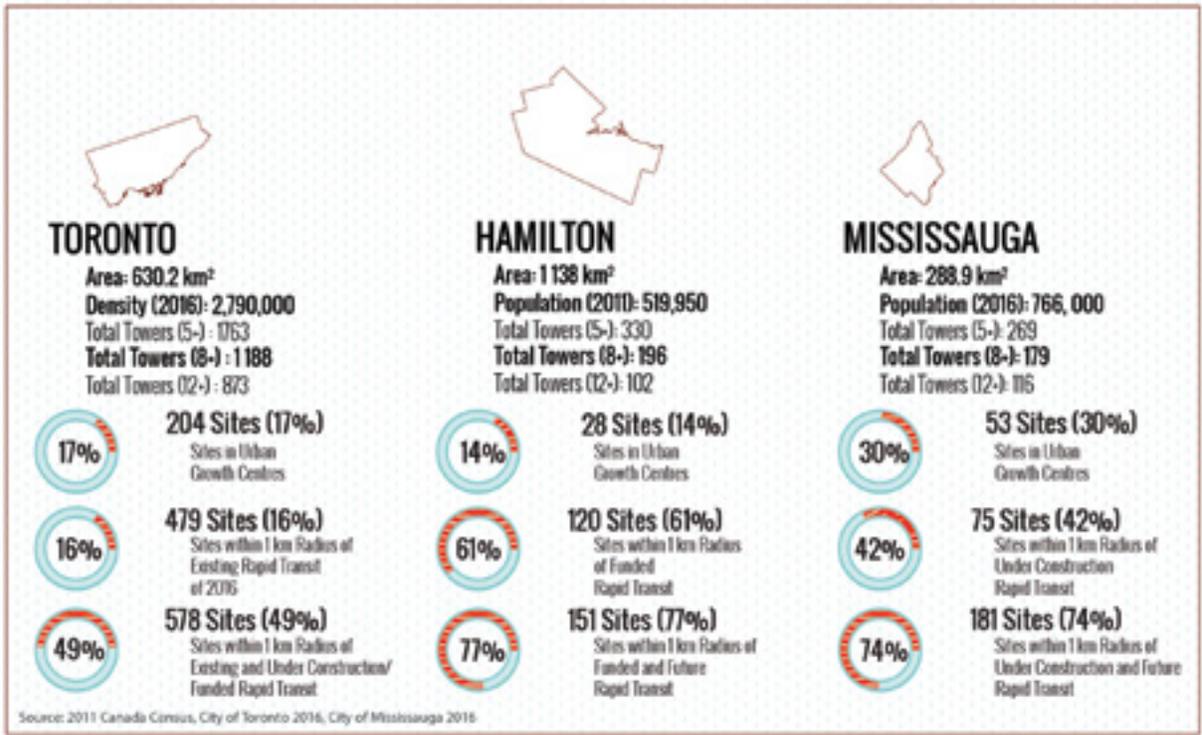
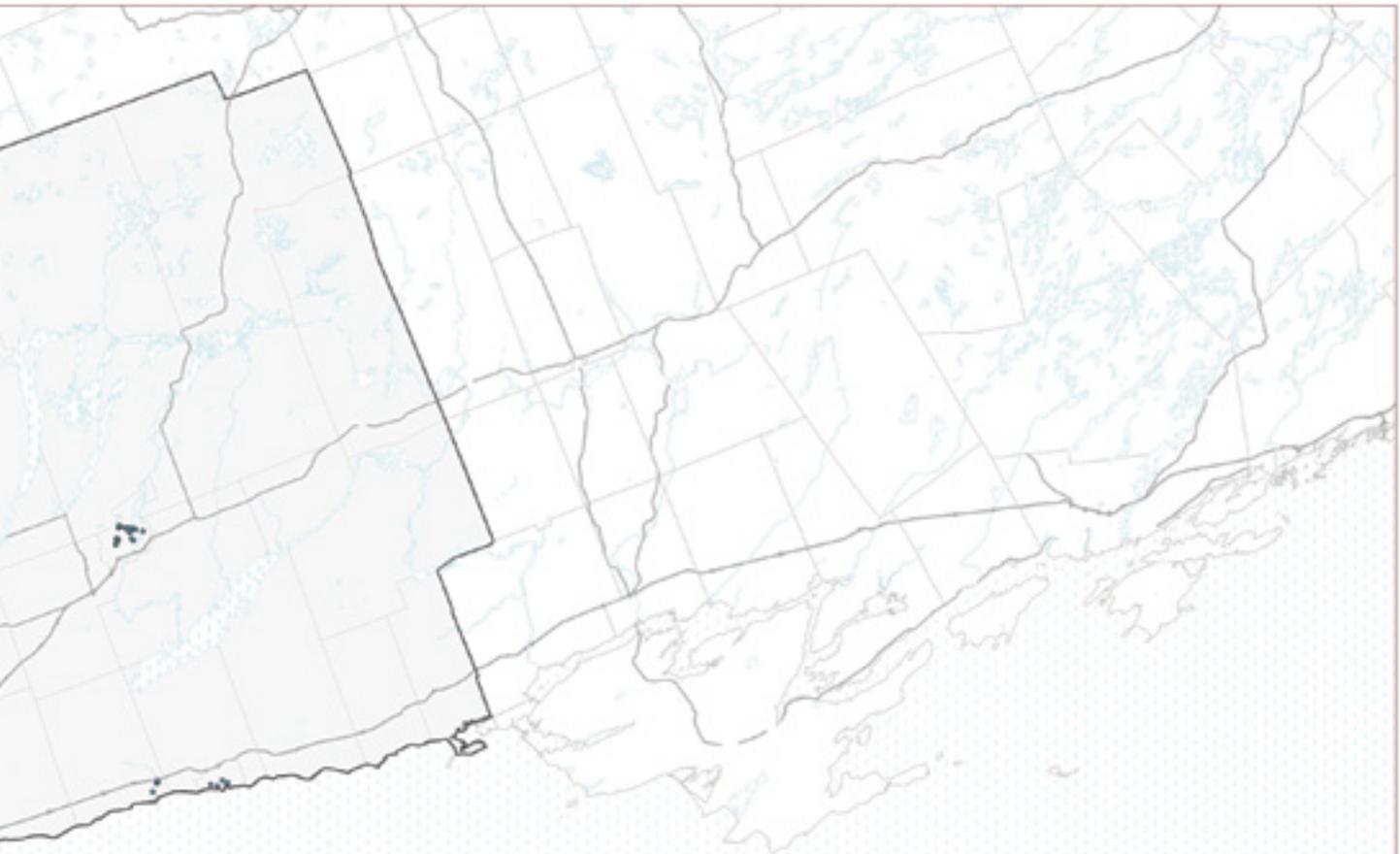
The Growth Plan identifies Downtown Mississauga as an Urban Growth Centre. In addition to this provincially designated growth area, the Mississauga OP also identifies a series of nodes, corridors, and major transit station areas. According to Section 5.3 of the OP, the Downtown will see the highest densities, tallest buildings, and greatest mix of uses, with Major Nodes providing a mix of population and employment uses at densities less than the Downtown, but greater than elsewhere in the city. In contrast, Neighbourhoods are not a focus for intensification in Mississauga, and are regarded as stable residential areas where existing character is to be preserved. Interestingly, the Mississauga OP identifies a series of 22 Neighbourhood Character Areas within the city, and offers specialized urban design policies for each neighbourhood. Unique to both Toronto and Hamilton, a substantive portion of Mississauga's urban growth centre consists of the inner suburban type Tower Neighbourhoods which are the focus of this study.

The planned LRT along the Hurontario Corridor is planned with twenty-two (22) stops and a dedicated right-of-way, connections will be made to the Milton and Lakeshore West GO lines, along with local transit links like MiWay, Brampton Transit, Züm, and Mississauga Transitway at Square One. According to the Hurontario-Main Corridor Secondary Plan, necessary growth will be implemented through rezoning key sites with potential for higher density mixed use, zoning regulations to implement planning policies as well as the use of a Holding provision proposed for sites where higher densities can be achieved in the long term.

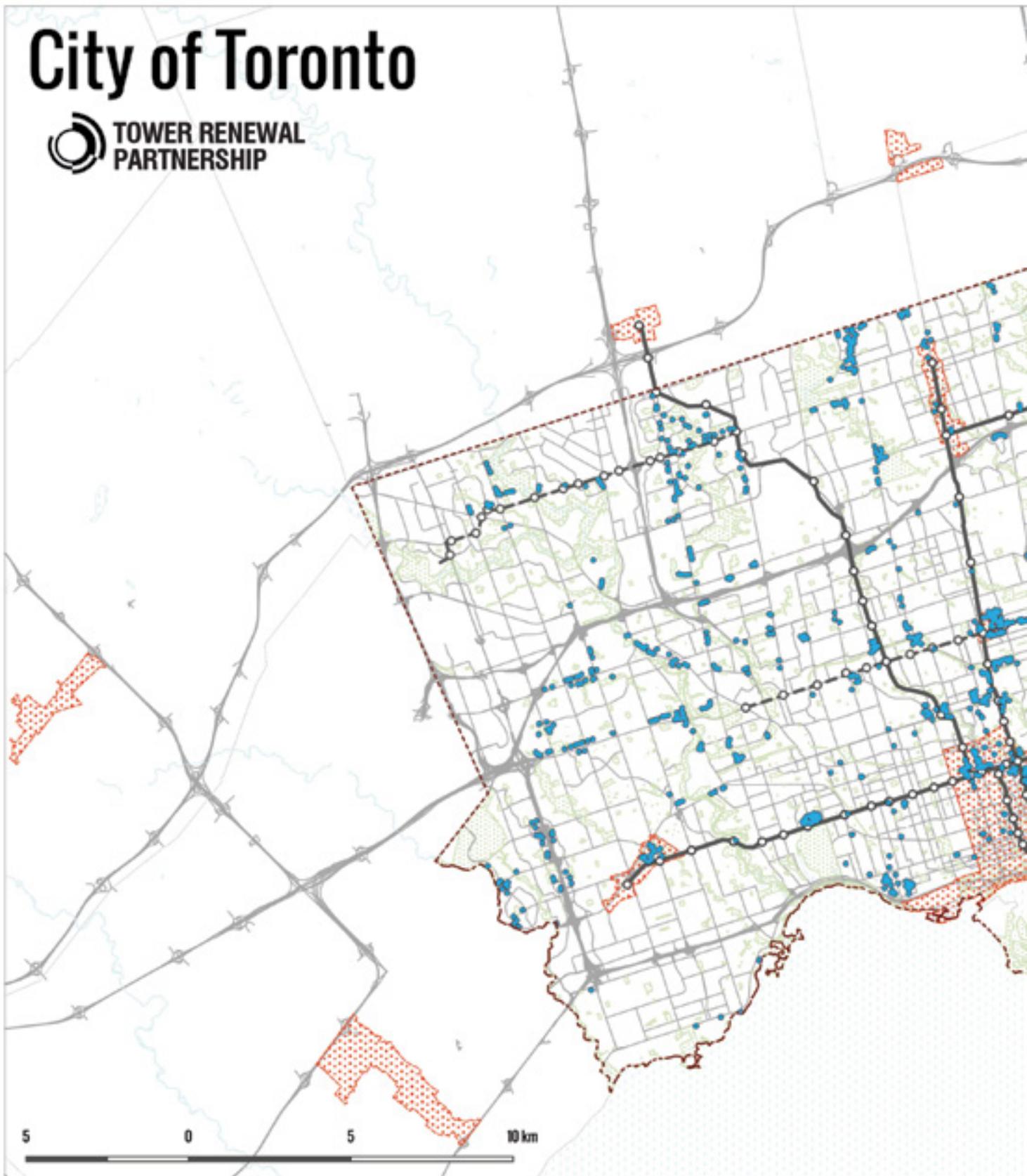
⁶ Burda, C., Collins-Williams, Mike, Kingdon, Alicia. (2016) Suburbs On Track: Building transit-friendly neighbourhoods outside the Toronto Core. Ryerson City Building Institute.

Greater Golden Horseshoe



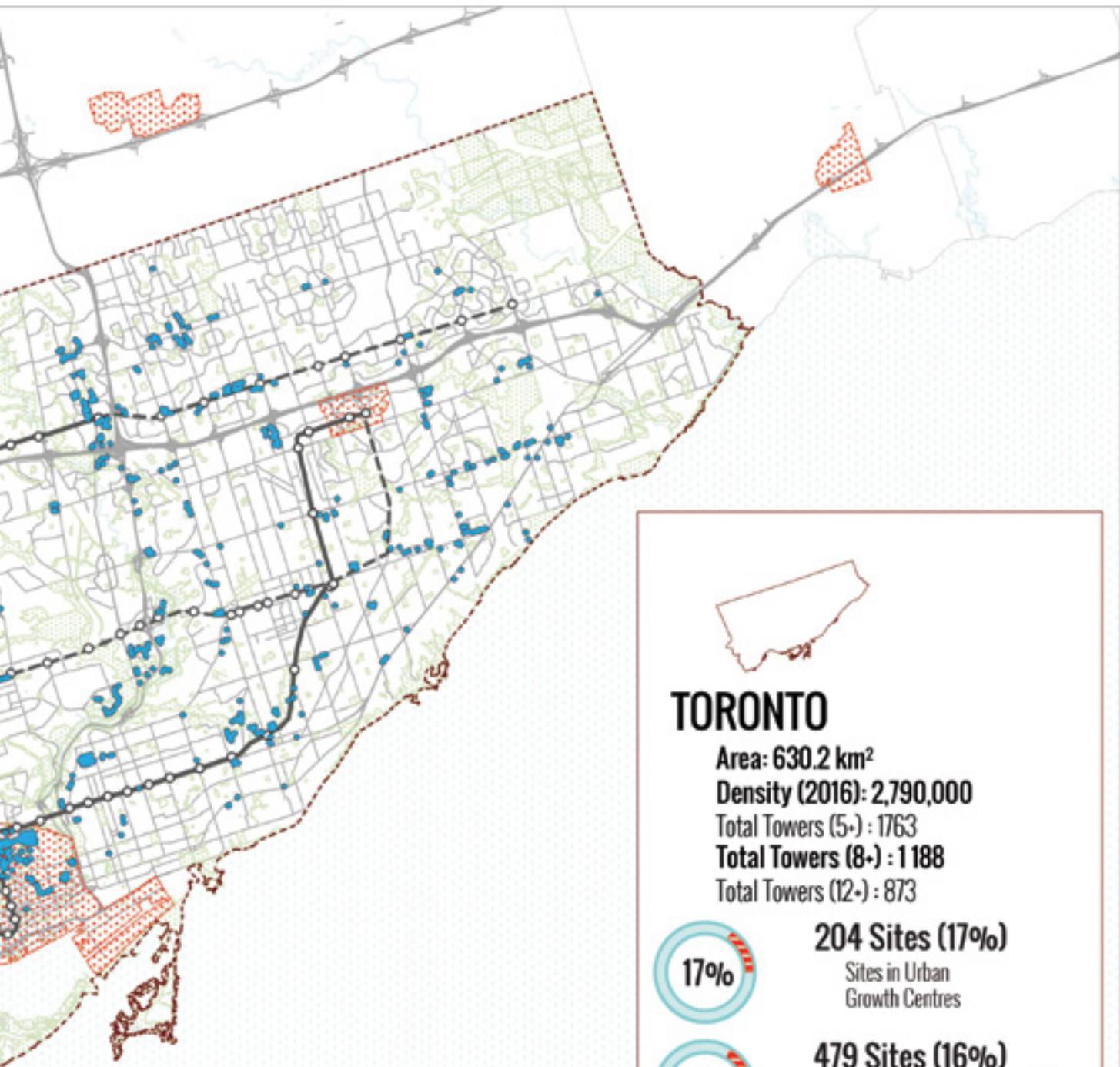


City of Toronto



Legend

- | | | |
|--|--|----------------------------------|
| • Tower | — Existing Rapid Transit | ▒ Lakes and Rivers |
| ○ Existing Rapid Transit Station | - - - Under Construction/ Funded Rapid Transit | ▒ City Boundary |
| ○ Under Construction/ Funded Rapid Transit Station | ▒ Parks | ▒ Urban Growth Centre Boundaries |



TORONTO

Area: 630.2 km²
Density (2016): 2,790,000
Total Towers (5+): 1763
Total Towers (8+): 1188
Total Towers (12+): 873



204 Sites (17%)
 Sites in Urban Growth Centres



479 Sites (16%)
 Sites within 1 km Radius of Existing Rapid Transit of 2016



578 Sites (49%)
 Sites within 1 km Radius of Existing and Under Construction/ Funded Rapid Transit

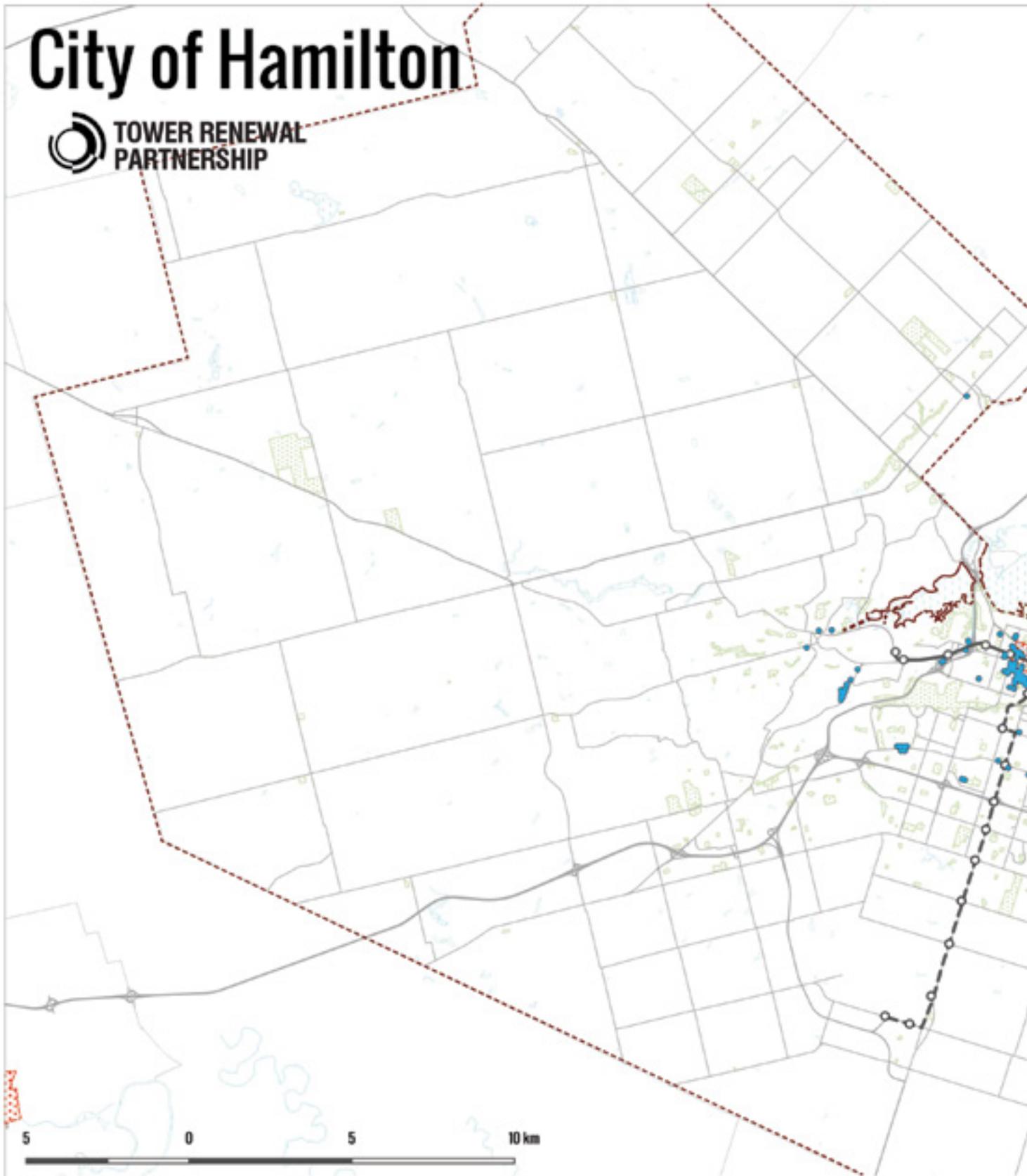
Source: City of Toronto 2016

— Roads
 — Freeway

— Ramp
 — Collector

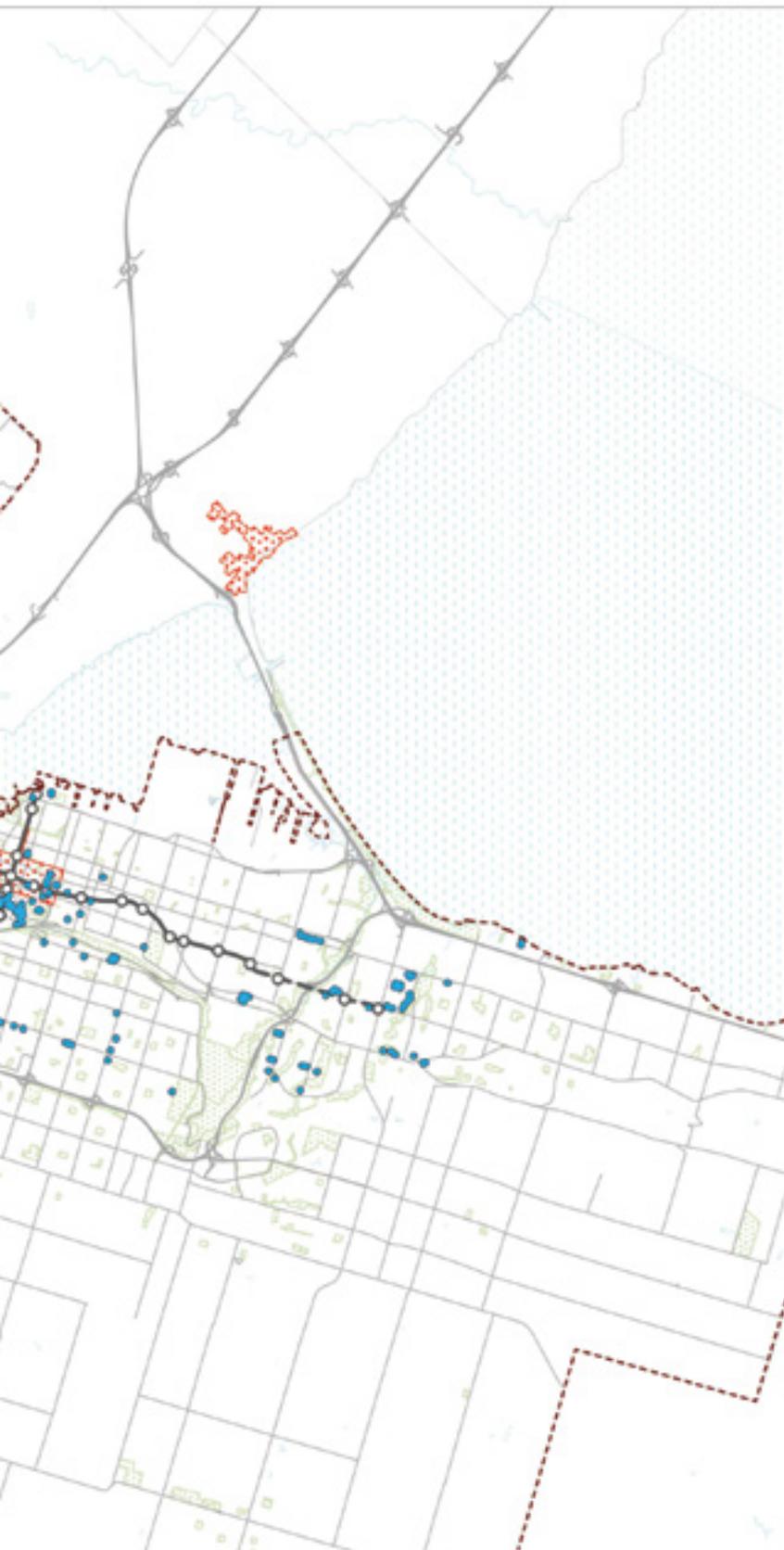
— Arterial

City of Hamilton



Legend

- Towers
- Future Rapid Transit Station
- Existing/Under Construction Rapid Transit Station
- Existing/Under Construction Rapid Transit
- - - Future Rapid Transit
- Urban Growth Centre Boundaries
- City Boundary
- Lakes and Rivers
- Parks



HAMILTON

Area: 1 138 km²

Population (2011): 519,950

Total Towers (5+): 330

Total Towers (8+): 196

Total Towers (12+): 102



28 Sites (14%)

Sites in Urban Growth Centres



120 Sites (61%)

Sites within 1 km Radius of Funded Rapid Transit



151 Sites (77%)

Sites within 1 km Radius of Funded and Future Rapid Transit

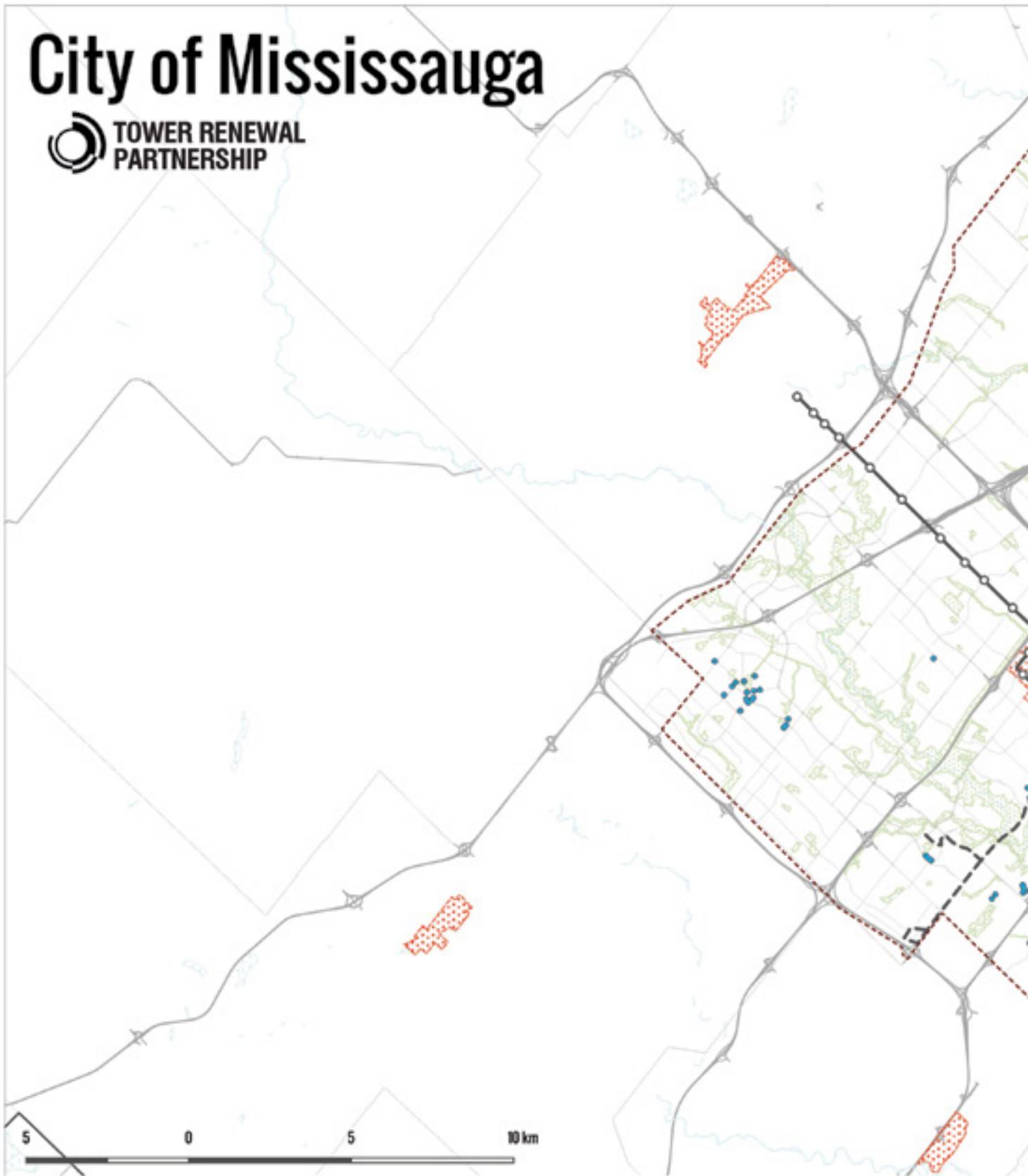
Source: 2011 Canada Census

Roads
Expressway / Highway

Freeway
Ramp
Rapid Transit

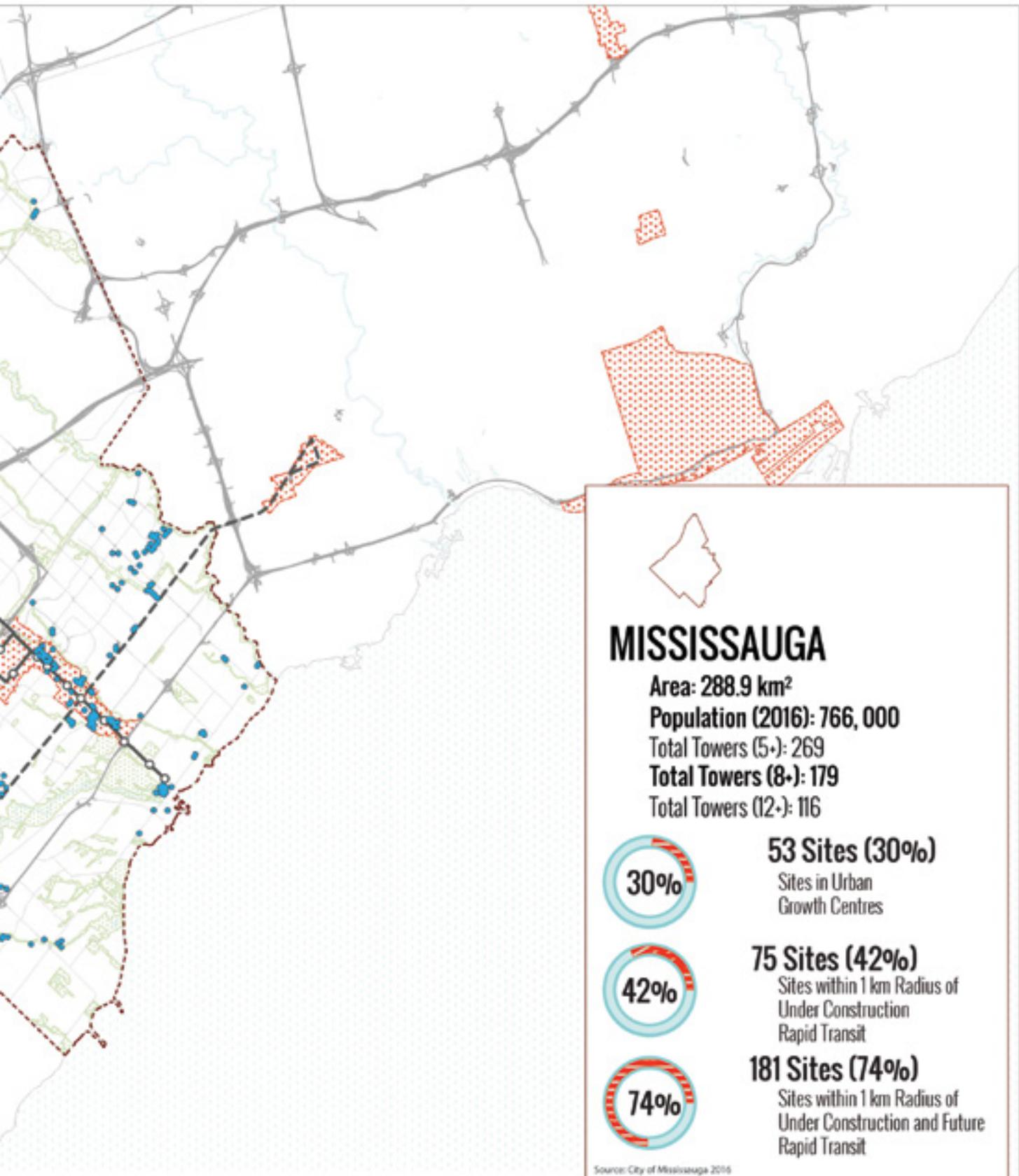
Arterial

City of Mississauga



Legend

- | | | |
|--|---|--------------------------------|
| • Tower | — Existing/Under Construction Rapid Transit | Parks |
| ○ Existing/ Under Construction Rapid Transit Station | - - - Future Rapid Transit | Urban Growth Centre Boundaries |



Lakes and Rivers
 City Boundary

Roads
 Arterial
 Collector
 Freeway

Collector
 Freeway

Summary

The Growth Plan mandates that growth within the region be targeted towards delineated built-up urban areas, strategic growth areas, and areas with existing or planned transit. The Toronto, Hamilton and Mississauga Official Plans have responded to this provincial policy direction by outlining the urban structures within their municipal boundaries that will be targeted for growth, and those that will remain relatively stable in the coming years. However, as can be shown in Section 5, many Tower Sites exist outside of these strategic growth areas, presenting a barrier to intensifying these sites to increase investment, revitalization and community benefit. Further analysis and discussion of growth policies within different urban structures and land use designations will be presented in Section 4 Policy Analysis of this report.

As transit infrastructure expands in the three municipalities, zoning bylaws must catch up with the land use and intensification requirements necessary to support this transit infrastructure. A trend towards rezoning has begun using tools available within the existing planning framework. A transition to the Community Planning Permit System for pre zoning would allow for clear density targets and expectations for “as-of-right” zoning along transit corridors as opposed seeking approvals through Section 37 on a case by case basis.

Complete Communities and Tower Renewal

There are strong links between provincial policy objectives and Tower Neighbourhood Renewal. One of the main tenets of the Growth Plan is to encourage infill development (intensification) in existing settlement areas in order to achieve more compact built environments, including the provision of complete communities, lower energy demands, active transportation, good transit services, reduced greenhouse gas emissions, efficient use of existing and planned infrastructure and protection of natural systems and productive farmland. A focus on Tower Neighbourhood Renewal is the missing link in fulfilling growth plan objectives as it can support and have the greatest impact on the creation of complete communities as envisaged by the Growth Plan for the Greater Golden Horseshoe. These buildings often contain large populations yet lack much of the local conveniences associated with complete communities. Further they often sit on large, underused parcels of land, and are frequently located in parts of municipalities that have high potential for intensification. According to our 2010 Study, Tower Neighbourhood Renewal in the Greater Golden Horseshoe, 14 percent of Apartment Towers are located within Urban Growth Centres and 55 per cent are located near (within 250 metres) to arterial roads.

Mixed-use intensification of these sites can contribute to the complete community goals of the Growth Plan, as Apartment Towers are often isolated, with relatively poor access to key community services, employment, cultural facilities and shopping areas. Intensification provides an opportunity to introduce these types of amenities, particularly in areas identified for future regional rapid transit. Undertaken through thoughtful urban design and a calibrated planning approach, the currently fragmented and isolate apartment clusters can become integrated, connected and complete communities.

While today most of the region's Apartment Neighbourhoods exist outside of planned Urban Growth Centres, an increasing number are adjacent to newly opened, under-construction and planned rapid transit. This is changing both the planning context and investment viability of these neighbourhoods, presenting the conditions where infill toward comprehensive Tower Renewal and complete communities is both a supportable and viable endeavour. The next section of this study explores typical typologies of Tower Neighbourhoods found throughout the region which may pose future and present opportunities for design thinking in response to new policy and economic pressures and opportunities.

04. POLICY ANALYSIS

TOWER RENEWAL IN THE CURRENT POLICY CONTEXT

The Growth Plan for the Greater Golden Horseshoe (2017)

As previously discussed in Section 3, the Growth Plan for the Greater Golden Horseshoe (Growth Plan) contains overarching growth policies for the Greater Golden Horseshoe region, to which municipal and regional Official Plan (OP) policies must conform. Broadly, the Growth Plan states that growth will be focussed to the region's delineated built-up urban areas, strategic growth areas, and areas with existing or planned transit, in order to support complete communities, make efficient use of land and infrastructure, make transit viable, and support a range and mix of housing options. Also of relevance to this policy analysis, Policy 2.2.6(2) of the Growth Plan states that municipalities will support the achievement of complete communities by planning to diversify their overall housing stock across the municipality.

Below is a summary of the policy analysis looking at Toronto, Mississauga and Hamilton's Official Plans and their approaches to implementing growth policies in the context of Tower Apartment Neighbourhoods.

The Toronto Official Plan and Tower Neighbourhoods

Toronto's in-force and emerging Official Plan policy both support and limit intensifying the city's Apartment Neighbourhoods. While the Official Plan stresses that significant growth is generally not anticipated in these areas, it also states that infill may be permitted where it improves residents' quality of life, and fulfills a set of broad development criteria.

As the emerging OP policies introduced through Official Plan Amendment (OPA) 320 acknowledge that many Apartment Neighbourhoods are in need of physical and social transformation, and establish more nuanced guidelines through which to permit and evaluate infill proposals within these areas, they represent a positive step in municipal policy. However, OPA 320 does not empower the creation of tools intended to steer context-sensitive intensification within tower neighbourhoods, and to harness the community benefits that should accompany development of these areas. While OP policy requires the creation of Secondary Plans, Avenue Studies, design guidelines, and performance standards in growth areas such as the Centres and Avenues, similar implementation tools are not mandated within in-force or emerging Apartment Neighbourhood policy. As a result of unclear direction regarding growth, and broad development policies that do not take specific site condition or context into account, there is not clear clear direction on desired forms of intensification in these neighbourhoods.

While the majority of growth in Toronto is planned for, and is taking place within its Centres and Avenues, increasingly, development is also occurring as Apartment Infill. At present a number infill applications are currently under review or in construction. However, ambiguities as to clear expectations around development within Apartment Neighbourhoods often resulting in many of these applications being resolved at the Ontario Municipal Board. In response several emerging studies and planning frameworks, including The Yonge and Eglinton Midtown Study, Finch West Secondary Plan and Sheppard East Study are placing focus on Tower infill.

Mississauga Official Plan and Tower Neighbourhoods

Similar to the Toronto OP, Mississauga's OP acknowledges that Neighbourhoods, including Apartment Neighbourhoods, are stable areas where existing character is to be preserved. However, the Mississauga OP states that higher density uses may be proposed in sites identified by a local area review, along corridors, or in conjunction with existing Apartment Sites. Mississauga's OP also identifies a series of 22 Neighbourhood Character Areas, some of which include high-density Tower Sites, and sets out land use, design, and site specific policies for each Neighbourhood Character Area. This finer-grained policy layer allows a more nuanced and site-specific approach to development within Tower Neighbourhoods. In addition, a large number of Apartment Neighbourhoods exist with the Mississauga's Urban Growth Centre, where intensification is being targeted. As a result, the development of coherent Tower infill strategies is an imperative in meeting Growth Plan targets within Mississauga.

Hamilton Official Plan and Tower Neighbourhoods

Unlike the Toronto and Mississauga OPs, Hamilton's OP can be interpreted to have taken a more permissive approach to intensification within the city's residential areas. The Hamilton OP describes residential intensification as a key component of the city's growth strategy, and states that it will be encouraged throughout the city's built-up area, with 40% targeted to Neighbourhoods, provided that such intensification is compatible with the existing function and character of the neighbourhood. As a result of this policy direction, the OP also mandates the creation of a number of implementation tools aimed at facilitating residential intensification, including zoning permits throughout the built up area, and detailed design guidelines that address a variety of contexts. While Tower infill guidelines do not presently exist, the OP frames a context in which they are supported and anticipated.

Policy Summary and High Level Findings

As shown in Section 3 of this report, a minority of Tower Sites exist within planned growth areas in the Greater Golden Horseshoe, providing an opportunity for the establishment of nuanced approaches for the design and evaluation of tower infill within these areas. Further, the map in Section 3 and 5 shows that the majority of Tower Sites within the GGH are located outside of areas planned for significant growth, both at the provincial and municipal levels.

While the majority of sites are located in areas where growth is currently not contemplated by local authorities, a challenge is posed to the realization of comprehensive Tower Renewal through infill development. In addition, where growth is anticipated, a process of evaluation which sets clear goals and expectations for site infill and Tower Renewal at present are not in force.

There is a significant opportunity for the refinement of municipal policy to support building retrofit, site wide renewal and achieve maximum benefits from infill projects through the careful calibration of municipal policies and programs. As part of this study, innovative tools and alternative planning frameworks are explored to move toward a more streamlined approval system, more positive built form and community benefit.

Achieving this will require coordination among divisions within municipalities to provide the direction, incentives, and regulations to shape and support Tower Renewal.

HIGH LEVEL FINDINGS

- Growth and transformation on Tower Sites is consistent with many city initiatives and stated objectives, yet contradictory to existing zoning, making Tower infill a complex, uncertain and timely process;
- Official Plan policies related to Apartment Neighbourhoods are favourable to many aspects of Tower Renewal, yet unclear in regards to growth. Interpretations by district planners vary widely, resulting in lack of coordination;
- Existing built form guidelines, including townhomes, mid-rise, and tall buildings do not address the specificity of apartment infill, rendering most proposals non-conforming. Greater flexibility and/or Apartment Zone specific guidelines are required;
- Mechanisms for introducing public realm improvements, such as rights of way / easements through tower clusters to provide direct access to public transit and other amenities are complicated by fragmented private ownership, and lack of clarity of mandate of the municipality to engage in these initiatives. Solutions to providing public access are required to unlock sites.



05. LOCAL TYPOLOGIES: AN ANALYSIS OF FOUR TYPICAL 'TYPES' OF TOWER SITES IN THE GREATER GOLDEN HORSESHOE

TOWER STOCK IN THE GREATER GOLDEN HORSESHOE

The region's Apartment Towers generally follow the 'Tower in the Park' model, yet these ubiquitous conditions contain several variations that impact potential strategies for renewal. While the significant open space with the 'Tower in the Park' model suggests an opportunity for the addition of new uses and site reordering in line with the goals of Tower Renewal, characteristics of site geography, lot size and ownership impact this potential. Additional areas of opportunity and constraint are the adjacent land uses that form the broader neighbourhood- from commercial centre to low-rise residential neighbourhoods. For the purpose of this study, four base typologies were identified for analysis and testing.

These include:

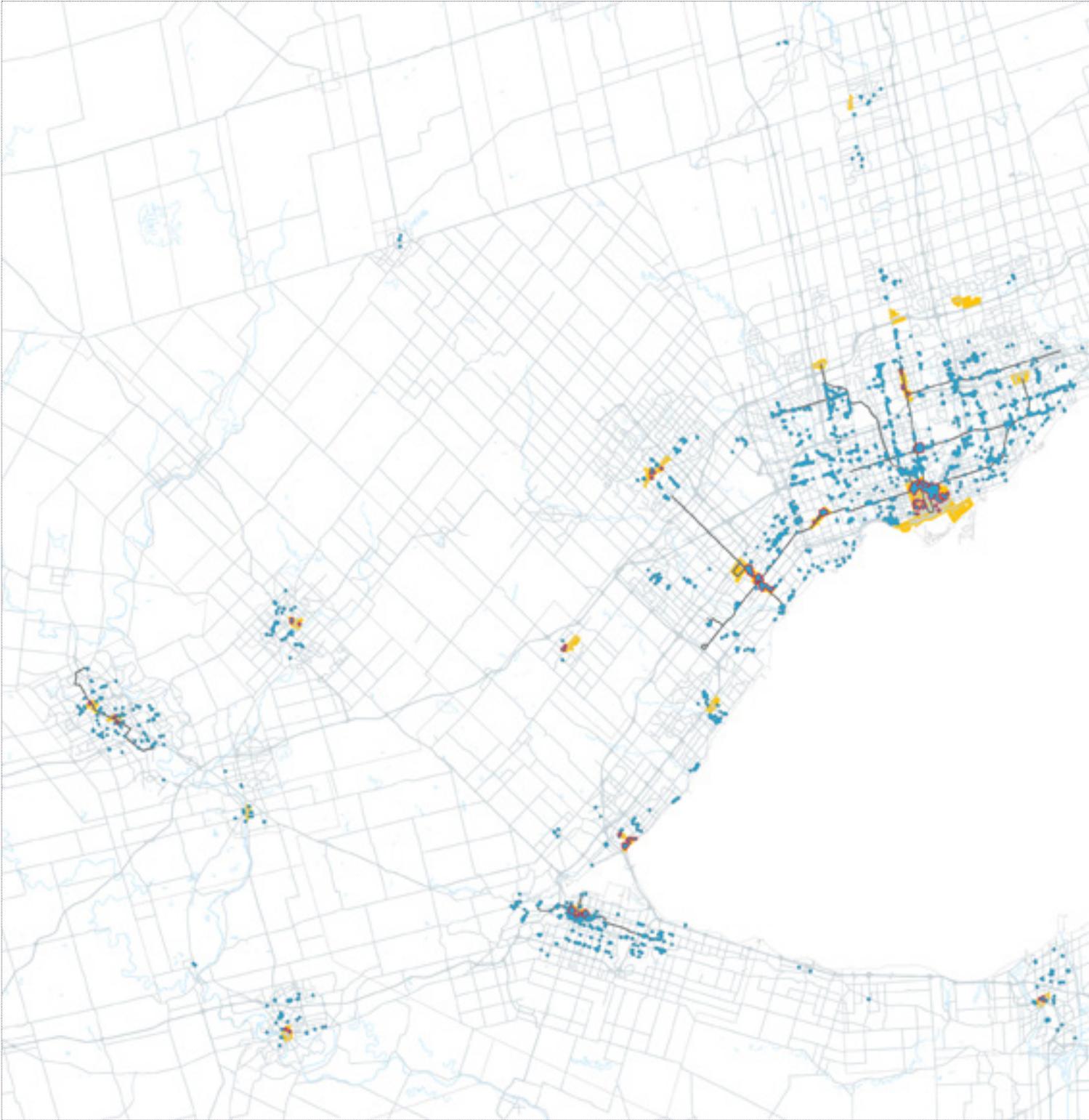
- Towers and Arterial Roads
- Towers and Shopping Centres
- Large Tower Clusters
- Towers within lower-rise Neighbourhoods

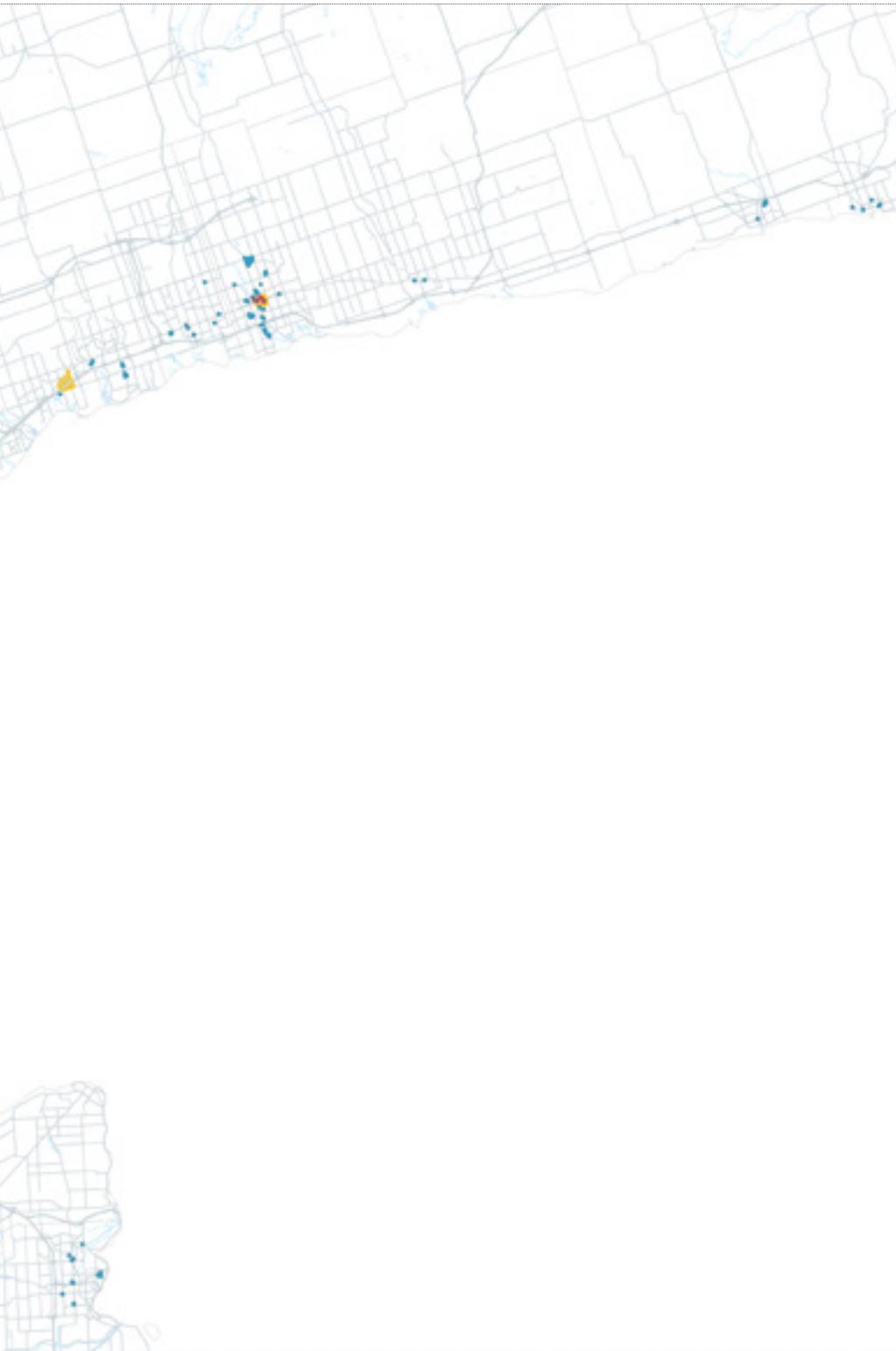
Introducing these four base typologies are five maps illustrating the relationship between

- Urban Growth Centre and Apartment Towers
- Rapid Transit and Apartment Towers
- Arterial roads and Apartment Towers
- Shopping Centres and Apartment Towers
- Large Clusters of Apartment Towers

They will be referenced throughout the report. Through GIS analysis statistical information was gathered to demonstrate the prevalence of Tower Sites and clusters throughout the region and their relationship to designated Growth Centres, Rapid Transit, Arterial roads and Shopping Centres.

URBAN GROWTH CENTRE AND APARTMENT TOWERS





14% OF TOWERS ARE WITHIN URBAN GROWTH CENTRE

14% Towers within Urban Growth
Centre (424)

-  Existing and Funded Rapid Transit
-  Towers
-  Towers within Urban Growth Centre
-  Urban Growth Centre

RAPID TRANSIT AND APARTMENT TOWERS





35% OF TOWERS ARE WITHIN 500M OF RAPID TRANSIT

- 6%** Towers 500m within mobility hubs (169)
- 8%** Towers 500m within go stations (235)
- 30%** Towers 500m within existing and funded rapid transit (912)
- 35%** Towers 500m within mobility hubs, go stations and planned and funded rapid transit (1064)

-  Example site, see following page
-  Existing and Funded Rapid Transit
-  Towers
-  Towers near Rapid Transit
-  GO Transit Stations
-  Mobility Hubs

PRIORITY TRANSIT CORRIDORS AND APARTMENT TOWERS





24% OF TOWERS ARE WITHIN 500M OF A MAJOR TRANSIT STATION AREA ALONG THE DESIGNATED PRIORITY TRANSIT CORRIDORS

-  GO Priority Transit Existing and Funded Rapid Transit
-  GO Priority Transit Stations
-  Existing and Funded Rapid Transit
-  Towers
-  Towers near Rapid Transit
-  Mobility Hubs

RAPID TRANSIT AND APARTMENT TOWERS



Example Site: Sheppard and Kennedy, Toronto

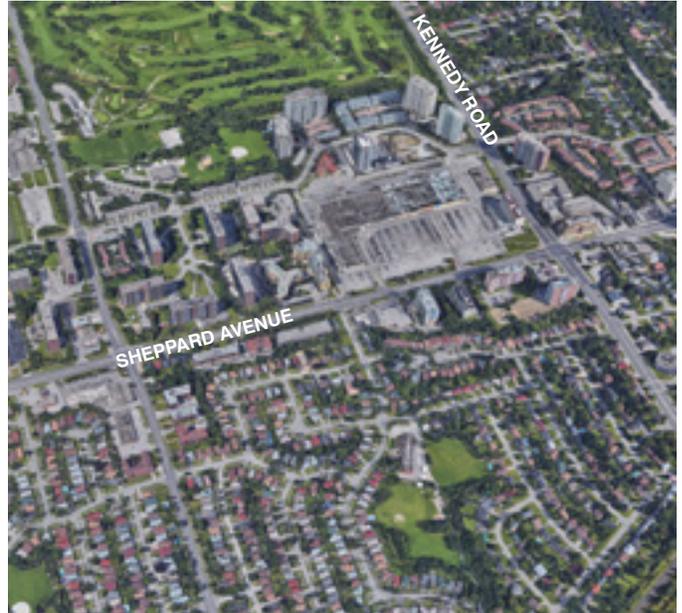
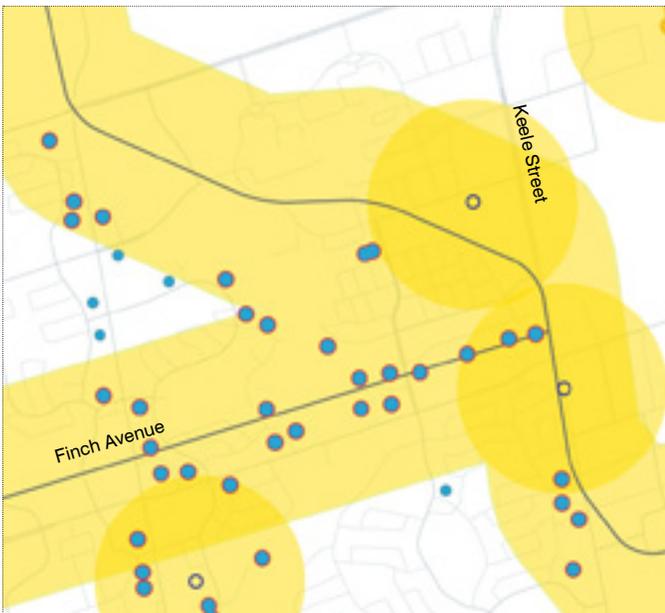


Image Courtesy of Google Earth



Example Site: Jane and Finch, Toronto

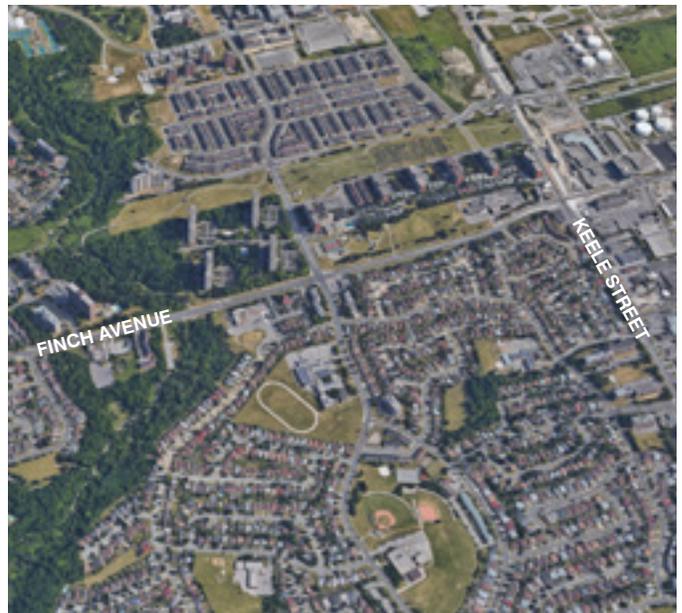


Image Courtesy of Google Earth

ARTERIAL ROADS AND APARTMENT TOWERS



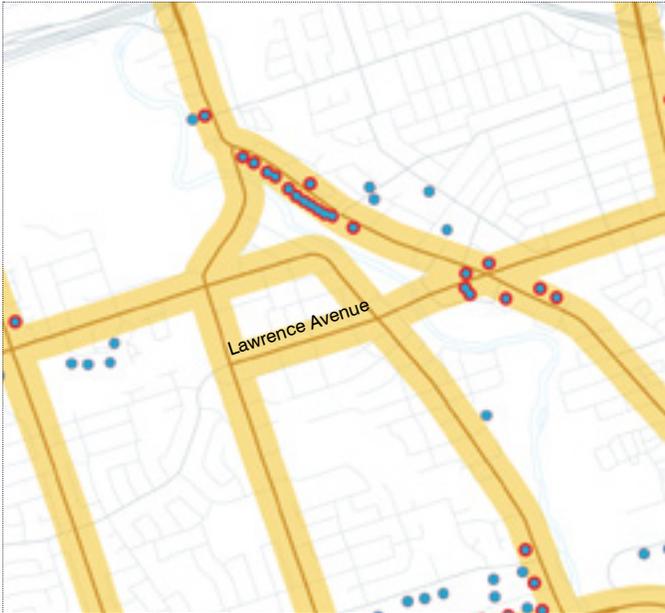


49% OF TOWERS ARE ADJACENT TO ARTERIAL ROADS

49% Towers within 100m of arterial roads (1496)

-  Example site, see following page
-  Rapid Transit Systems
-  Towers
-  Towers 100m from Arterial
-  Arterial
-  100m from Arterial

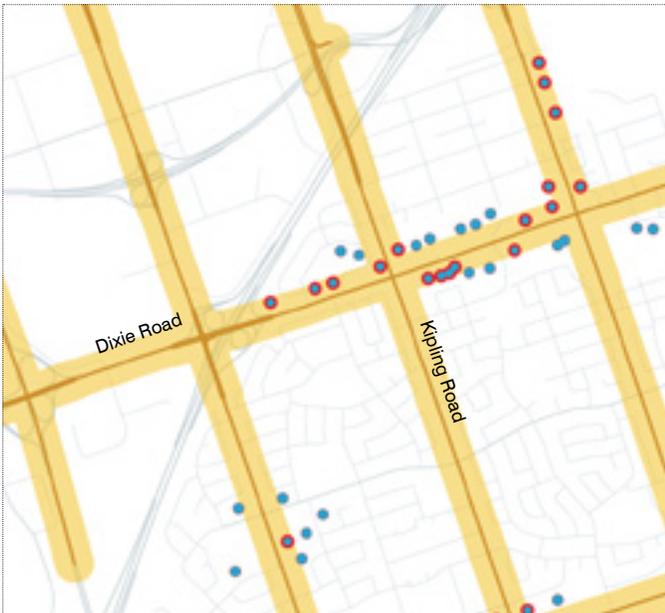
ARTERIAL ROADS AND APARTMENT TOWERS



Example Site: Weston Road, Toronto



Image Courtesy of Google Earth



Example Site: Dixie and Kipling, Toronto



Image Courtesy of Google Earth

- Rapid Transit Systems
- Towers
- Towers 100m to Arterial
- Arterial
- 100m from Arterial

Description

Much of the Apartment Tower stock in the GGH is located along arterial roads. As part of the 'neighbourhood unit' planning framework in which much of the tower stock was conceived, higher density residential and commercial uses were located along high capacity arterial roads, whereas local community uses such as schools and community centres were located within neighbourhood interiors. 'Tower in the Park' sites were often set far back from arterial roads with private roads and drive aisles servicing individual buildings. In the best of cases, Tower Sites were designed in groups with cohesive landscape plans which connected sites to one another and to amenities in the neighbourhood interior. Today, sites are often separated from one another and from the neighbourhood at large by fencing, operating as isolated sites. These sites, however, contain significant opportunity as transformative investments in rapid transit come online.

Statistics

GIS analysis determined that 49 per cent of apartment Tower Sites within the region are located adjacent (100m) of arterial roads and 80 per cent are set back (250m), further 30% percent of apartment towers are located within in close proximity (500m) to an LRT transit station.

Examples

- Jane and Finch (Toronto)
- Dixon and Kipling (Toronto)
- Sheppard East (Toronto)
- Lawrence East (Toronto)
- Bloor Street East (Mississauga)
- Hurontario Corridor (Mississauga)
- Dufferin and Eglinton (Toronto)
- Jane and Trethewey (Toronto)
- Weston and Lawrence (Toronto)

SHOPPING CENTRES AND APARTMENT TOWERS





33% OF TOWER ARE WITHIN 500M OF SHOPPING CENTRES

20% Regional Shopping Centre (115)

4% Community Shopping Centre
(383)

12% Neighbourhood Shopping Centre
(620)

33% Total of Shopping Area by Towers
Neighbourhoods (1025)

■ Example site, see following page

— Rapid Transit Systems

• Towers

• Towers within 500m of Shopping Centre

● 500m buffer from Neighbourhood
Shopping Centre

■ Neighbourhood Shopping Centre:
40,000-99,999 m²

● 500m buffer from Community
Shopping Centre

■ Community Shopping Centre:
100,000-400,000 m²

● 500m buffer Regional
Shopping Centre

■ Regional Shopping Centre:
40,000m² or greater?

SHOPPING CENTRES AND APARTMENT TOWERS



Example Site: Stoney Creek, Hamilton

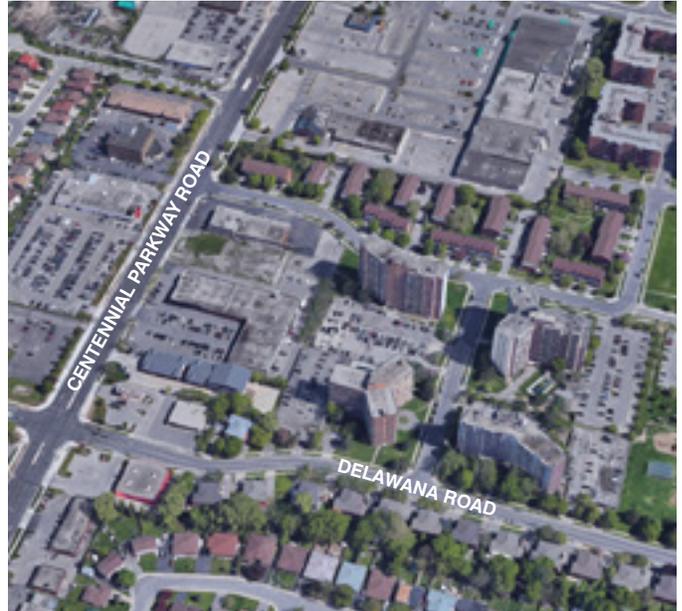
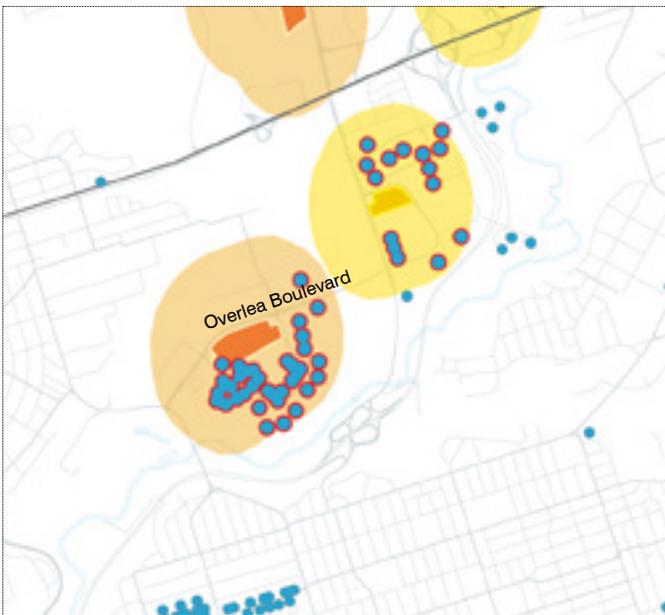


Image Courtesy of Google Earth



Example Site: Thorncliffe Park, Toronto



Image Courtesy of Google Earth

- Rapid Transit Systems
- Towers
- Towers within 500m of Shopping Centre
- 500m buffer from Neighbourhood Shopping Centre
- 500m buffer from Community Shopping Centre
- 500m Buffer Regional Shopping Centre
- Neighbourhood Shopping Centre: 40,000-99,999 m²
- Community Shopping Centre: 100,000-400,000 m²
- Regional Shopping Centre: 40,000m² or greater?

Description

Throughout the region, neighbourhood, community and regional shopping centres are co-located with clusters of Tower Sites. This integration of higher density housing and commercial uses was the realization of planning objectives aimed at creating many of the goals of planning today: densities to support self-sufficient sub-regional, and mixed-use at district scale. As a result, the region contains dozens of examples of tower clusters located adjacent to small and large scale shopping centres. However, while co-located, towers and shopping areas are almost consistently separated from one another by fences and roadways, and rarely reflect today's goals of walkable and integrated communities. They do, however, provide a foundation from which the goals of 'Complete Communities' can build.

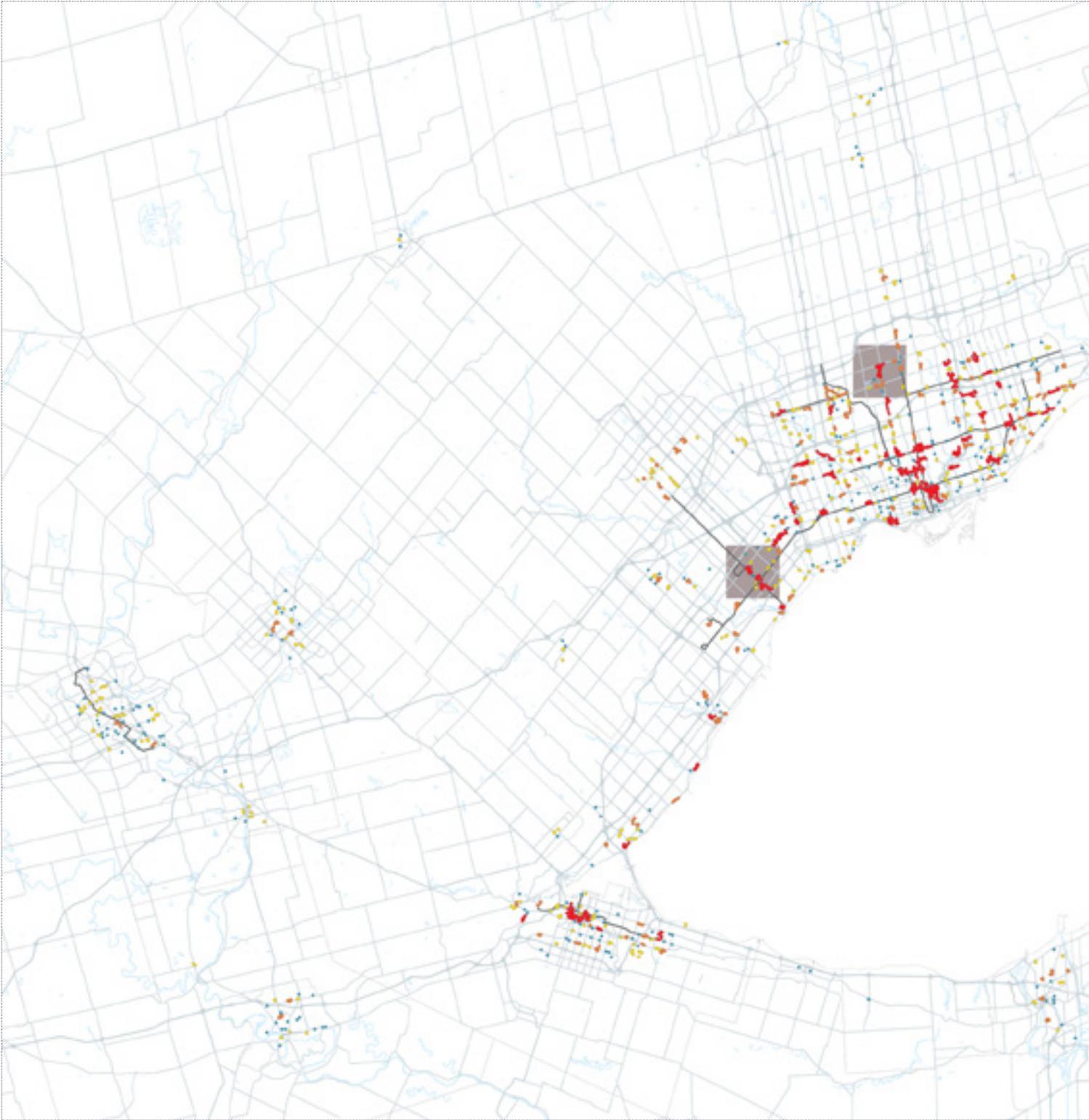
Statistics

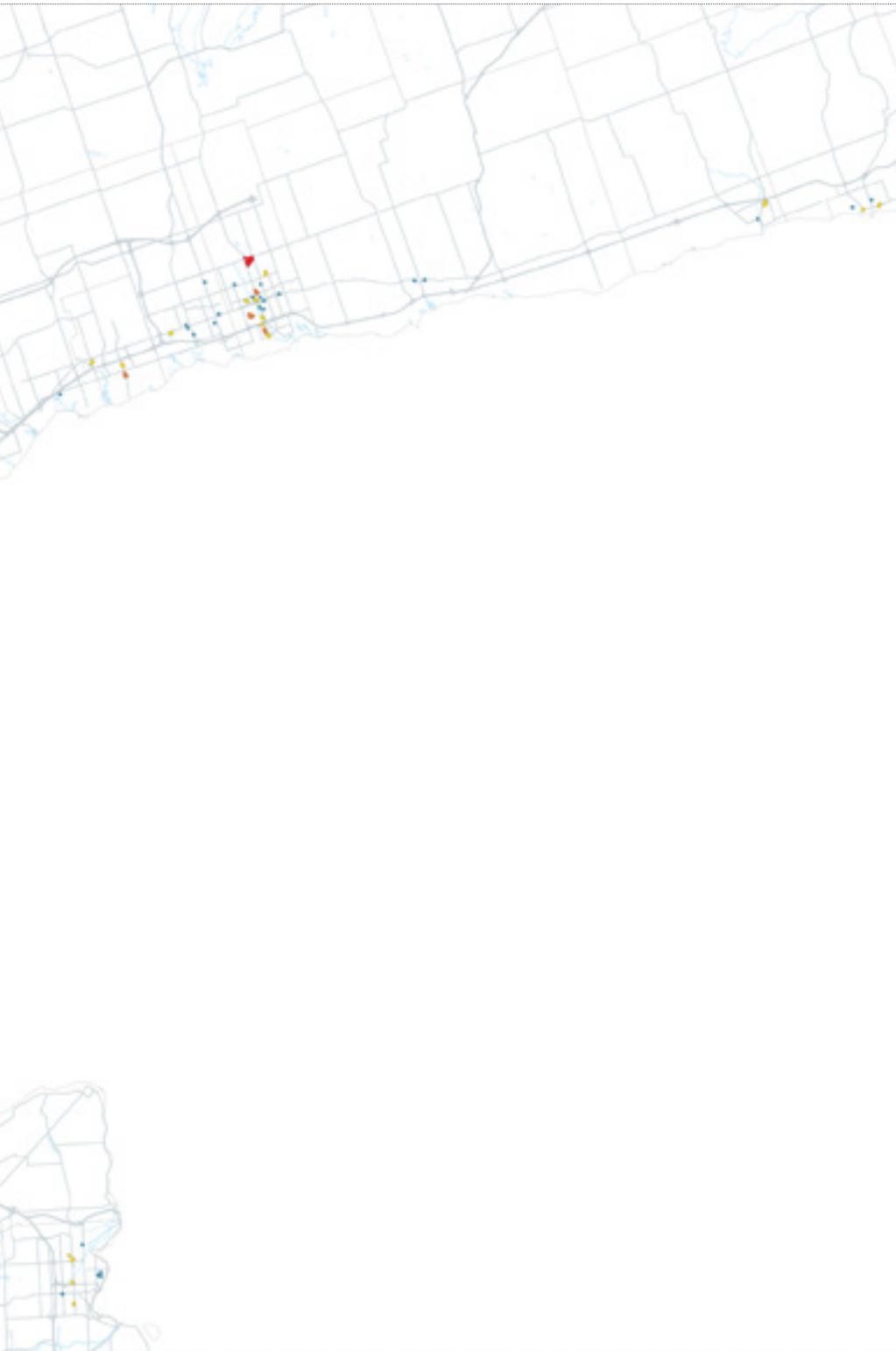
There is a substantial opportunity for connections to be made between tower clusters and shopping centres providing much needed amenity to residents with just over 33 per cent of tower clusters located within walking distance (500m) to a regional shopping centre (4 per cent), Community shopping centre (12 per cent) or a neighbourhood shopping centre (20 per cent).

Examples

- Eastgate Square (Hamilton)
- Thorncliffe Park (Toronto)
- Biddlewood Mall (Toronto)
- Bramalea City Centre (Brampton)
- Warden and Bamburgh (Toronto)
- Square One (Mississauga)
- Jane Finch Mall (Toronto)
- Fairview Mall (Toronto)
- Bathurst and Steeles (Toronto)

LARGE CLUSTERS OF APARTMENT TOWERS





49% OF TOWER ARE LOCATED IN CLUSTERS OF 10 OR MORE

10% Isolate Towers (299)

23% Tower Cluster of 2-4 (722)

18% Tower Cluster of 5-9 (548)

49% Tower Cluster of 10 plus (1511)

(Cluster consist of towers within 100m of one another)

 Example site, see following page

 Rapid Transit Systems

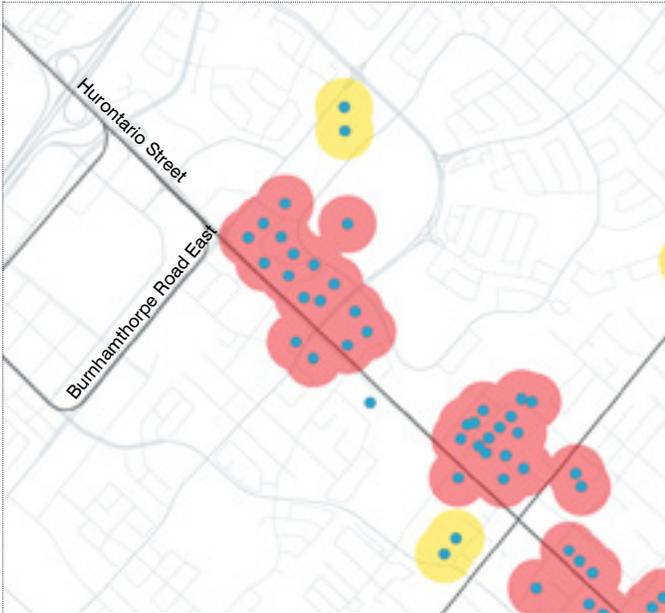
 Tower Cluster 10 plus

 Tower Cluster 5-9

 Tower Cluster 2-4

 Isolated Tower

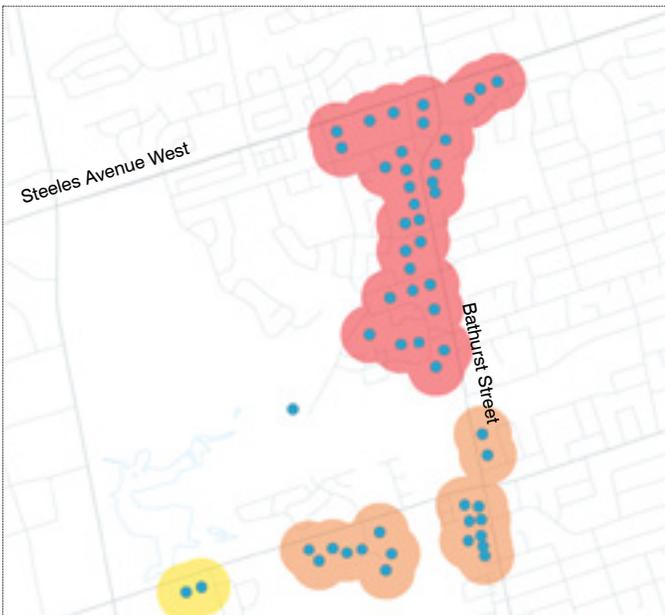
LARGE CLUSTERS OF APARTMENT TOWERS



Example Site: Hurontario Street, Mississauga



Image Courtesy of Google Earth



Example Site: Bathurst and Steeles Avenue, Toronto

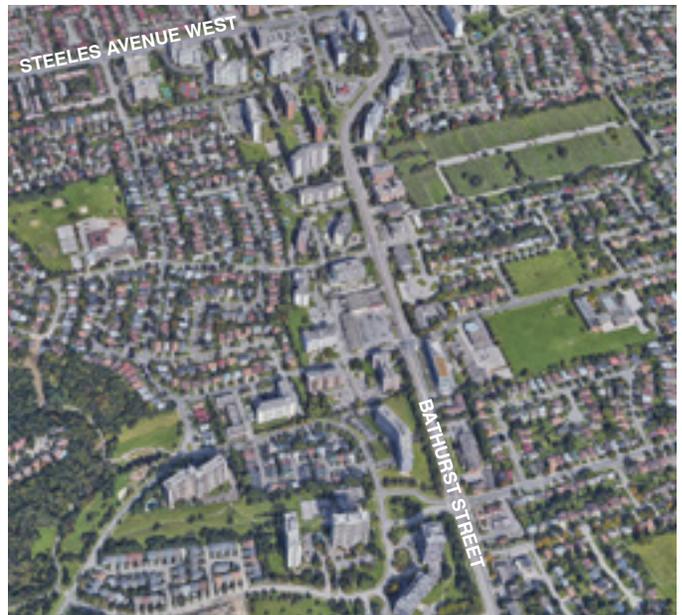


Image Courtesy of Google Earth



Description

Throughout the region, groupings of tower clusters exist with ten or more towers. These clusters create conditions where towers and their grounds isolate themselves from the local urban context within the neighbourhood. Often adjacent to many conditions, including shopping centres, arterials and neighbourhoods, and home to many thousands, they contain multiple opportunities to create a more complete communities and connect to the public realm.

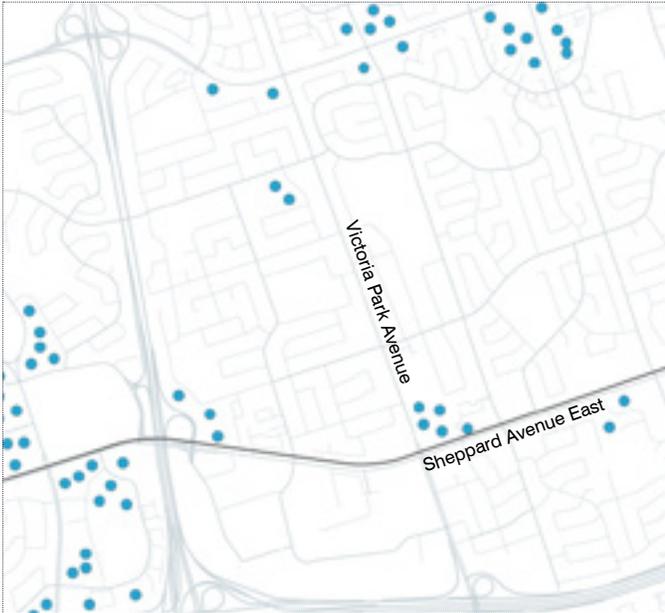
Statistics

With over 49 per cent of Apartment Towers in clusters of ten or more, large apartment clusters are a ubiquitous form throughout the region. Large cluster also range from 5 - 9 at 18 per cent and 2 - 4 at 23 per cent. These large clusters create significant concentrations of population. Of these large clusters, over 78 per cent contain more than 1,000 households, and 40 per cent contain more than 2,000 households. The largest of these Apartment Tower clusters contain more than 10,000 households. In contrast, isolated towers only represent 10 percent of towers throughout the region.

Examples

- Bathurst and Steeles, (Toronto)
- Don Mills Peanut, (Toronto)
- Bramalea, (Brampton)
- Bloor and Dixie, (Mississauga)
- Burnhamthorp and Hurontario, (Mississauga)
- Dixon and Kipling, (Toronto)
- Kipling and Finch (Toronto)

TOWERS WITHIN LOWER-RISE NEIGHBOURHOODS



Example Site: Victoria Park and Sheppard Avenue, Toronto

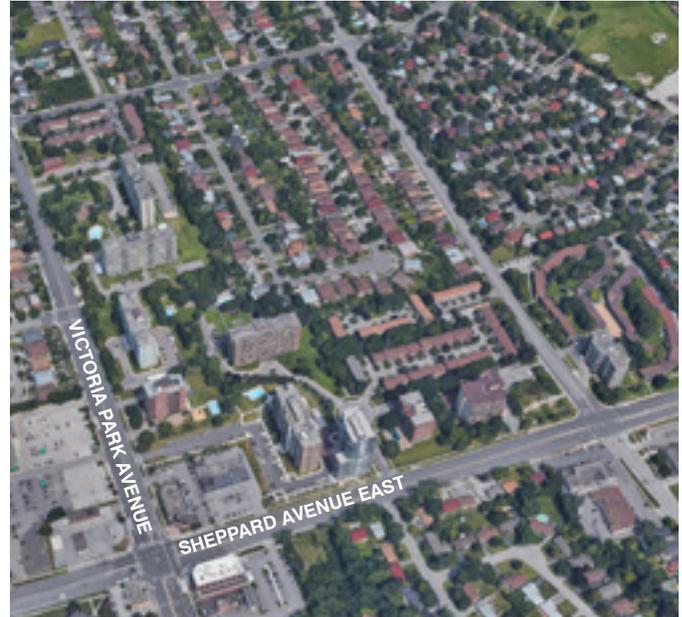
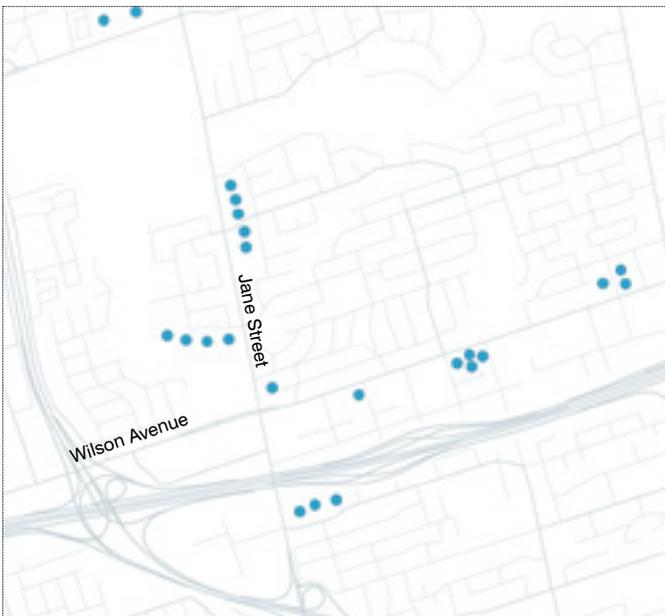


Image Courtesy of Google Earth



Example Site: Jane Street and Wilson Avenue, Toronto



Image Courtesy of Google Earth

— Rapid Transit Systems

• Towers

Description

A large number of Tower Sites are located directly adjacent to lower rise residential neighbourhoods. Conceived as part of the housing mix of new suburban areas, towers and housing were primarily co-located in residential zones. In fact, while Apartment Neighbourhoods will engage arterials, shopping centres and other urban conditions on one of their edges, the majority also interface directly with lower-rise neighbourhoods on one or more of their other edges. And yet while interfacing with lower rise neighbourhoods, they are often isolated from them by fencing, setbacks and other features. Strategies that improve conditions within Tower Sites and engage adjacent communities provide opportunities for achieving complete communities at the local scale.

06. COMPLETE COMMUNITIES AND TOWER NEIGHBOURHOOD: AN EVALUATION FRAMEWORK

Building from a series of workshops, interviews and site tours with Ontario municipalities (including Toronto, Ottawa, Hamilton, Mississauga and Brampton), the Province of Ontario's Growth Secretariat, and international jurisdictions including London, Hamburg, Berlin, and Amsterdam, a high level framework has been established for the evaluation of positive transformations within Tower Neighbourhoods. This framework also builds from work related to Tower Renewal conducted in collaboration with Toronto Public Health and United Way of Toronto and York Region.

This framework is not meant to be definitive nor exhaustive, but a high level lens through which changes to neighbourhood configuration can be viewed, and from which nuanced and area specific frameworks and guidelines may be built.

For the purpose of this study, the framework was used in the evaluation of international case studies (see Section 7), from which specific strategies for consideration in the Ontario context has been developed (see Section 5).

The framework includes the following six themes:

1. *Open Space*
2. *Pathways and Connectivity*
3. *Community Amenity*
4. *Built Form, Siting and Interface*
5. *Parking, Servicing and Site Logistics*
6. *Enhanced Condition of Existing Buildings*

Each of these themes are explored in further detail below.

THE REPORT: HEALTHY TORONTO BY DESIGN: TOWARD HEALTHY APARTMENT NEIGHBOURHOODS

(TPH & CUG+R, 2012)

recommends thirty-six actions in the positive transformation of Apartment Neighbourhoods. Measures built from the eight core themes of place based Public Health evaluation, and include:

1. Natural Environment
2. Built Environment
3. Transportation
4. Housing
5. Income and Employment
6. Education
7. Food Security
8. Health Services

These have been used as a basis for site strategies explored here.

1. OPEN SPACE

Open space is a fundamental aspect of the tower-in-the-park form of housing. Properly designed, this open space can support resident and wider community activity, link properties to broader assets (such as shops services and rapid transit), create attractive microclimates, and support best in class sustainable landscape practices. These inherited open spaces are an asset toward achieving more complete and sustainable communities.

Yet while examples of high quality open space exist on the best of tower-in-the-park sites, the open space of many sites today struggle with lack of programming, poor quality, loss of amenity (such as pools which have been removed), and a high percentage of surface parking, roadways and impermeable surfaces. Enhancing this open space to create cohesive and well designed spaces for a range of uses and users is a core considerations when contemplating tower infill and site renewal. The establishment of a clear hierarchy of space, from public, semi-public and private use can enhance use, legibility and safety. Moreover, it can transform currently unutilized space into a space at the centre of community life.

As infill projects often require a net loss of open space, site plan design to ensure open space is of high quality and performative is paramount. In sites where infill is not contemplated, mechanisms for open space improvement should be encouraged.

2. PATHWAYS AND CONNECTIVITY

Tower Neighbourhoods at their best are designed as interconnected campuses, with paths, cycle networks and public right of ways linking towers to one another and to local community assets, such as parks, services, retail and rapid transit. Currently in the GGH, the majority of sites are isolated and fragmented from one another, with fences preventing access to school, shops, transit and other amenities. In many cases former links have been enclosed with new barriers. Linking these towers to one another, their neighbourhoods, and the city at large should be a core consideration when contemplating site transformation.

3. COMMUNITY PROGRAMMING AND AMENITY

Tower Neighbourhoods world wide have emerged as hubs of mixed-use development, supporting local residents and the community at large through an array of social, community and commercial uses. Integrated along public realm networks at the base of buildings, new structures and temporary pop-ups, these uses support community life and enable Tower Neighbourhoods to emerge as local hubs. While today's towers are often single-use and disconnected from neighbourhood amenity, the introduction of community focused and commercial mixed-use large and small provides an opportunity for apartment sites to emerge as more complete communities.

4. BUILT FORM, SITING AND INTERFACE

Tower Neighbourhoods are defined by their modern site planning, buildings and landscapes. The evolution of these neighbourhoods through the introduction of new built form requires the use of design strategies that differ from those typically applied to the 'traditional' areas of the city such as those found closer to the central city. While grade-related, mid-rise and high-rise forms that address the street-related historic city are well established, these models may not respond to the context and opportunities of modern tower neighbourhoods. Globally, the adaptation and infill of these neighbourhoods provide several models which enhance existing conditions, respond to broader neighbourhood contexts, and support the goals of providing cohesive open space networks and well services neighbourhoods as described above. Increased density has also enabled these neighbourhoods to reach a critical mass to support local economies and emerge as hubs. Design innovation toward well considered and site specific infill is a key element in Tower Neighbourhoods emerging as more complete communities.

5. PARKING AND SERVICING

Parking and servicing are core to the function of any neighbourhood. The scale of the open space within Tower Sites has enabled site logistics to generally be accommodated at the surface. While in some cases that is well considered, in general waste storage, loading, drive aisles and parking fragment sites, decrease the quality of open space, and create no go zones at the base of buildings. One reason for the disorder at the base of tower often relates to the initial strategy of waste management; originally most towers were designed to use internal incinerators to address garbage. As these were phased out due to environmental concerns, waste was managed through a large volume of outdoor bins, often left in open air at the base of buildings.

Globally, strategies have been developed to conceal and consolidate waste logistics, share drive aisles and parking infrastructure to reduce redundancies, and design roadways and surface parking to enhance user experience through 'green' and pedestrian focused strategies. Minimizing the impact of bins, drive aisles and surface parking, and enhancing user experience is key to the success of positive Tower Neighbourhood transformation.

6. ENHANCED CONDITION OF EXISTING BUILDINGS

Enhancements to Tower Neighbourhoods could be conducted in concert with enhancements to existing buildings themselves. Key areas that can be enabled through site infill include enhancements to grade conditions to improve the interface of lobbies and ground floor amenity to the public realm; the enhancement of existing amenities within towers, and most importantly, ensuring the maintenance of affordability.

In addition to the above opportunities, the most successful examples of site-wide Tower Renewal globally, mixed-use infill, improvements to open space, and sitewide transformation is conducted in concert with the full renewal of existing towers toward healthy, comfortable and low-carbon housing through deep retrofit. While financing deep retrofit through development alone is often a challenge, a series of emerging federal and provincial programs are making deep retrofit increasingly viable.

Linking site investment through infill and site transformation to enhancements to existing housing within tower neighbourhoods is a key goal.

07. LOOKING INTERNATIONALLY: LESSONS IN TOWER SITE TRANSFORMATION

Core to the development of Tower Renewal has been extensive international research into the various means and strategies used towards tower neighbourhood investment and transformations to meet the goals of the 21st Century urbanism. A summary of study tour findings can be found in within the report Tower Neighbourhood Renewal in the Greater Golden Horseshoe summarized here in Appendix. Building from this work and subsequent study tours conducted since 2010, four exemplar case studies were selected, showcasing innovative approaches to site wide renewal in contexts indicative of those found with the GGH.

Selected case studies are are follows:

- 1. Towers and Arterial Road (Complete Streets):** Bijlmermeer, Amsterdam, The Netherlands
- 2. Towers and Shopping Centre (Community and Commercial Hubs):** Wilhelmsberg, Hamberg, Germany
- 3. Towers within Lower-Rise Neighbourhoods (Sensitive Infill):** Kilburn Park, London, United Kingdom
- 4. Large Tower Cluster (Linking Districts):** Marzahn, Berlin, Germany



CASE STUDY 1 TOWERS AND ARTERIAL ROAD

Bijlmermeer, Amsterdam, The Netherlands



Satellite view of site; Google Maps



City-neighbourhood map (showing rail transportation) | 5km | ⌚

Introduction

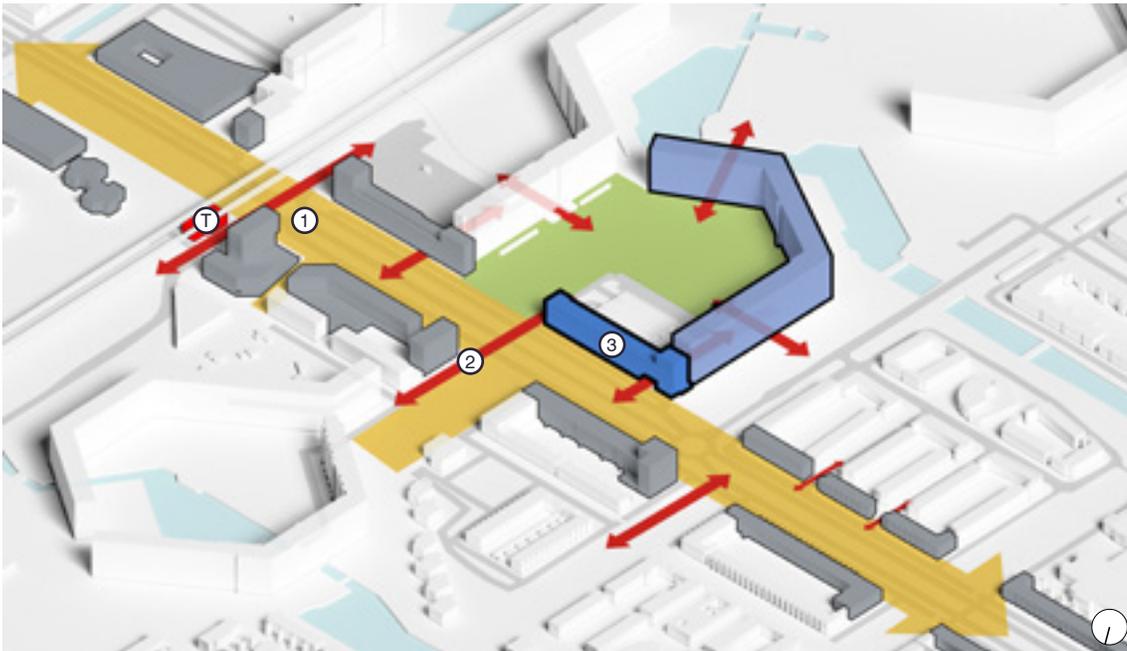
The Bijlmermeer is a large postwar neighbourhood that was planned on the edge of the Amsterdam region in the 1960s and 70s. Consisting of large volumes of mass housing, the neighbourhood was defined by slab blocks in open space. In the 1990s, a program of reurbanization began consisting of selective demolition, refurbishment, and infill of various housing forms. Catalyzed by the expansion of the Metro, the districts' mid and low-rise housing forms were integrated into the modern landscape, were used to create a finer grain ground plan to frame streets and open space, and used to expand housing tenures and opportunities for mixed-uses.

This process of re-urbanization introduced several experiments in adding new housing forms adjacent to, or directly connected with older modern housing. New building forms were creatively used to frame a program of pedestrian and cycle networks through modern housing complexes and along newly formed 'complete streets', clearly defining the public realm.



Figure-ground plan | 500m | ⌚

Key Interventions (Complete Community and Built Form)



- ① Complete street with public realm framed by retail
 - ② Permeable frontages connecting to pedestrian and public transit networks
 - ③ Infill framing inner courtyards enabling smaller local communities
- New building directly affixed to the edge of existing modern housing

T Transit Hub

Site analysis



Transit, Pedestrian & Bike circulation



Vehicular Circulation & Parking



Transit, Pedestrian & Bike circulation



Green Space

LEGEND

- Pedestrian Route
- Bike Route
- Transit Route
- Vehicular Route
- Parking
- Public Green Space

Building Uses

- Residential
- Residential Apartment
- Commercial
- Institutional

Site Photos



Infill building next to original apartment block



Permeable Street Frontage



Strip mall next to planted boulevard



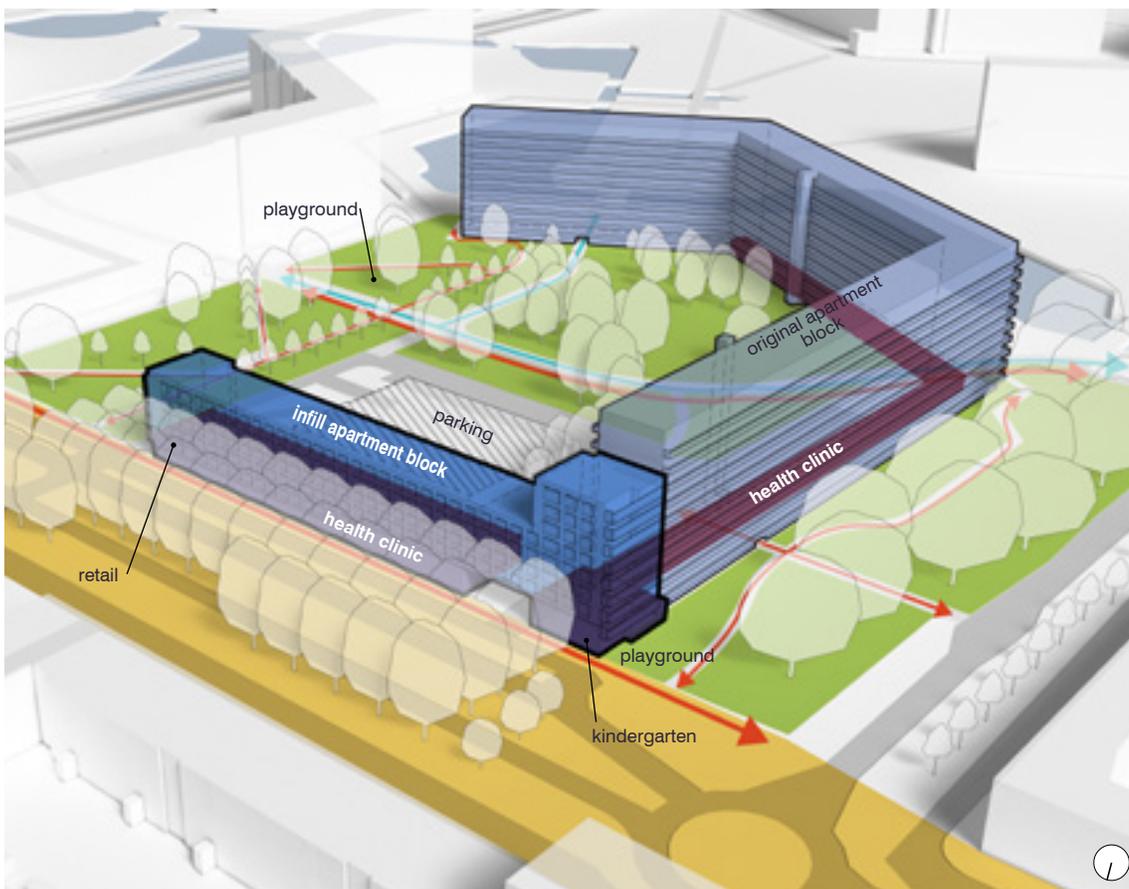
Infill building viewed from street



Neighbourhood public space

Case Study

Of the several interventions in the neighbourhoods, one infill intervention has been explored in detail. In this example, a street bounded by modern housing was transformed into a complete street via modification of the right-of-way-- such as cycle paths, an expanded public realm, with the addition of mixed-use infill bounding each site. The introduction of this streetwall of new mixed-use housing created a series of unique conditions to interface with the existing modern housing. By affixing directly to existing housing, and framing courtyard landscapes in the interior of the site, the new housing addressed both the front and back sides of their sites. Interior courtyards and permeable tower façades allowed for the integration of a local and regional public network of pedestrian and cycling infrastructure which connected to local transit hubs and community parks.



building site analysis

CASE STUDY 2 TOWERS WITHIN LOWER-RISE NEIGHBOURHOOD

Kilburn Park, London, United Kingdom



Satellite view of site; Google Maps



City-neighbourhood map (showing rail transportation) | 5km | ⌚

Introduction

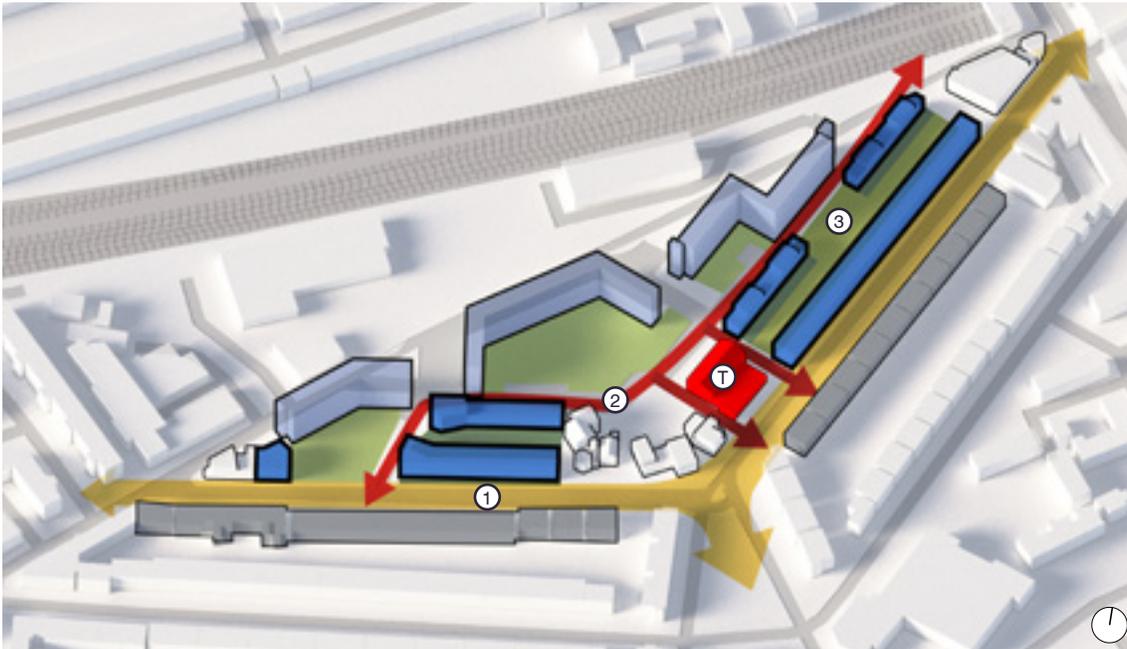
Originally developed as council housing bounded by a rail line and a historic neighbourhood in the 1960s and 70s, the South Kilburn tower block went through a mixed-tenure estate regeneration between 2010 and 2015, adding new high caliber affordable housing.¹ The program included the retrofit of existing towers, and replacement of a small collection of low-rise buildings with a higher density collection grade related housing.



Figure-ground plan | 500m | ⌚

¹ Alison Brooks Architects, <http://www.alisonbrooksarchitects.com/project/bronte-fielding/>

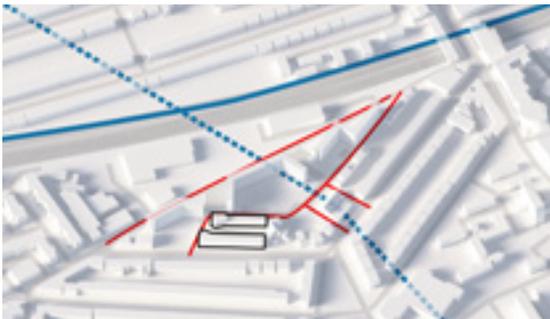
Key Interventions (Complete Community and Built Form)



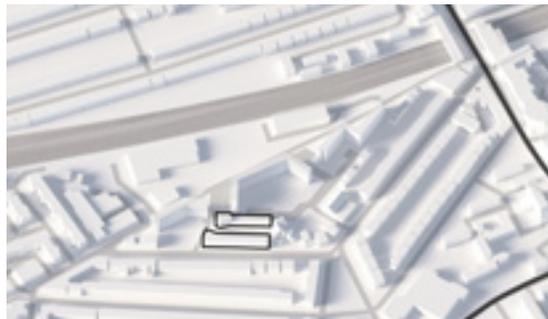
- ① Complete streets with public realm framed with low rise neighbourhood sensitive residential infill
- ② Consolidation of parking and drive aisles with pedestrian friendly interior right-of-way access
- ③ New private and semi-private open space typologies enabling smaller local communities and the enhancement of existing courtyards

T Transit Hub

Site analysis



Transit, Pedestrian & Bike circulation



Vehicular Circulation & Parking



Building Uses



Green Space

LEGEND

- Pedestrian Route
- Bike Route
- Transit Route
- Vehicular Route
- Parking
- Public Green Space

Building Uses

- Residential
- Residential Apartment
- Commercial
- Institutional

Site Photos



Public green space
within site
copyright: Alison Brooks
Architects Ltd;
[http://www.
alisonbrooksarchitects.com/
project/ely-court/](http://www.alisonbrooksarchitects.com/project/ely-court/)



Infill apartments viewed
from street
copyright: Alison Brooks
Architects Ltd;
[http://www.
alisonbrooksarchitects.com/
project/ely-court/](http://www.alisonbrooksarchitects.com/project/ely-court/)



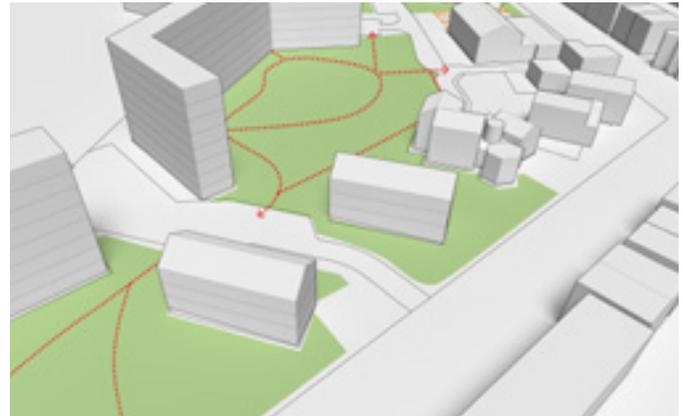
Infill apartment viewed
from street
copyright: Alison Brooks
Architects Ltd;
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alisonbrooksarchitects.com/
project/ely-court/](http://www.alisonbrooksarchitects.com/project/ely-court/)



Infill apartments from
shared green space
copyright: Alison Brooks
Architects Ltd;
[http://www.
alisonbrooksarchitects.com/
project/ely-court/](http://www.alisonbrooksarchitects.com/project/ely-court/)

Case Study

Through a strategy of lower rise infill, new housing was added to the neighbourhood in a manner responsive to the adjacent traditional low-rise neighbourhoods while thoughtfully integrated into the tower complex. Four storey mews townhomes introduced a missing frontage to the main residential street while being sensitive to the historical Victorian villas across the street. The scheme reinstated a mews street along the interior of the shared block drawing pedestrians and vehicles into a safe shared space that provided greater connection to the street and the local public transit; newly defined garden squares; and centralized community amenities. While net open space was reduced in this strategy, remaining open space was enhanced and a robust program of community amenity added to the broader complex.



building site analysis (before)



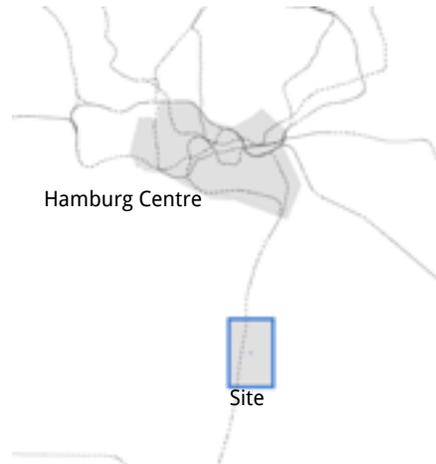
building site analysis (after)

CASE STUDY 3 TOWERS AND SHOPPING CENTRE

Wilhelmsburg, Hamburg, Germany



Satellite view of site; Google Maps



City-neighbourhood map (showing rail transportation) | 5km | ⌚

Introduction

The Berta Kröger Plaza is the main commercial hub of the Wilhelmsburg quarter anchored by the Luna Center Mall and the Wilhelmsburg S-bahn Station (Rapid Transit Hub). The commercial shopping centre is directly adjacent to several blocks of modern housing. Through a program of building refurbishment, public space investment and new commercial infill at the towers' ground floor, the area has been transformed into a cohesive hub.



Figure-ground plan | 500m | ⌚

Key Interventions (Complete Community and Built Form)



- ① Interior focused commercial frontages connected through interior public realm network. Connecting existing towers with infill mixed-use podium to frame network for public space
- ② Infill providing opportunities for greater diversity in scale and commercial space typologies
- ③ Shared right-of-way, parking and servicing focused along arterial edges

T Transit Hub

Site analysis



Transit, Pedestrian & Bike circulation



Vehicular Circulation & Parking



Building Uses



Green Space

LEGEND

- Pedestrian Route
- Bike Route
- Transit Route
- Vehicular Route
- Parking
- Public Green Space

Building Uses

- Residential
- Residential Apartment
- Commercial
- Institutional

Site Photos



Apartment block with covered walkway and public plaza



Pedestrian walkway
copyright: Hanns Joosten
<http://www.landezine.com/index.php/2015/12/berta-kroger-plaza-by-relais-landschaftsarchitekten/>



Pedestrian walkway viewed from apartment building
copyright: Hanns Joosten
<http://www.landezine.com/index.php/2015/12/berta-kroger-plaza-by-relais-landschaftsarchitekten/>



Retail infill with pedestrian walkthrough



Landscaped parking lot

Case Study

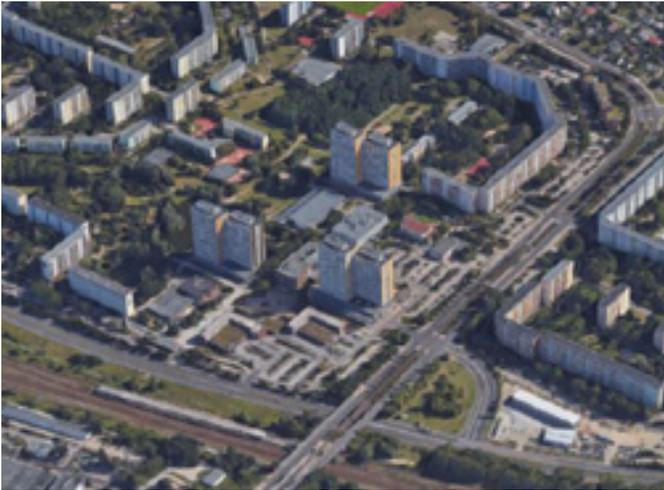
As a strategy to expand commercial and community uses within the neighbourhood, and define the network of public space, two existing towers were connected with a single storey mixed-use podium. This podium provides small scale commercial space facing and activates the sites interior public space. The podium also provides connections to the parking area along the street face which services both the towers and commercial program. This addition helped frame the broader network of public space connected to the shopping centre and transit hub. With a focus on the site interior and parking and servicing along the exterior arterial edges, the internal public realm still acts as a cohesive link between the different commercial typologies and the semi-private courtyard spaces nearby.



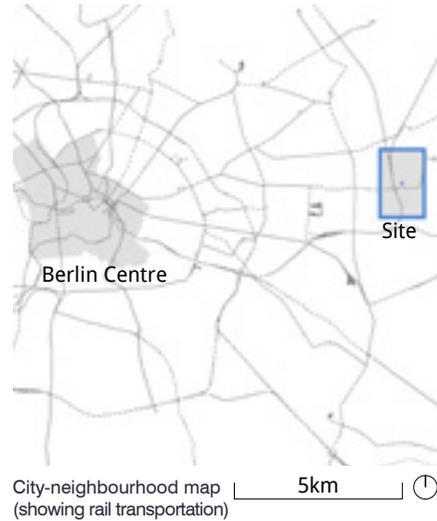
building site analysis

CASE STUDY 4 LARGE TOWER CLUSTER

Marzahn, Berlin, Germany



Satellite view of site; Google Maps



City-neighbourhood map (showing rail transportation) | 5km | ⌚

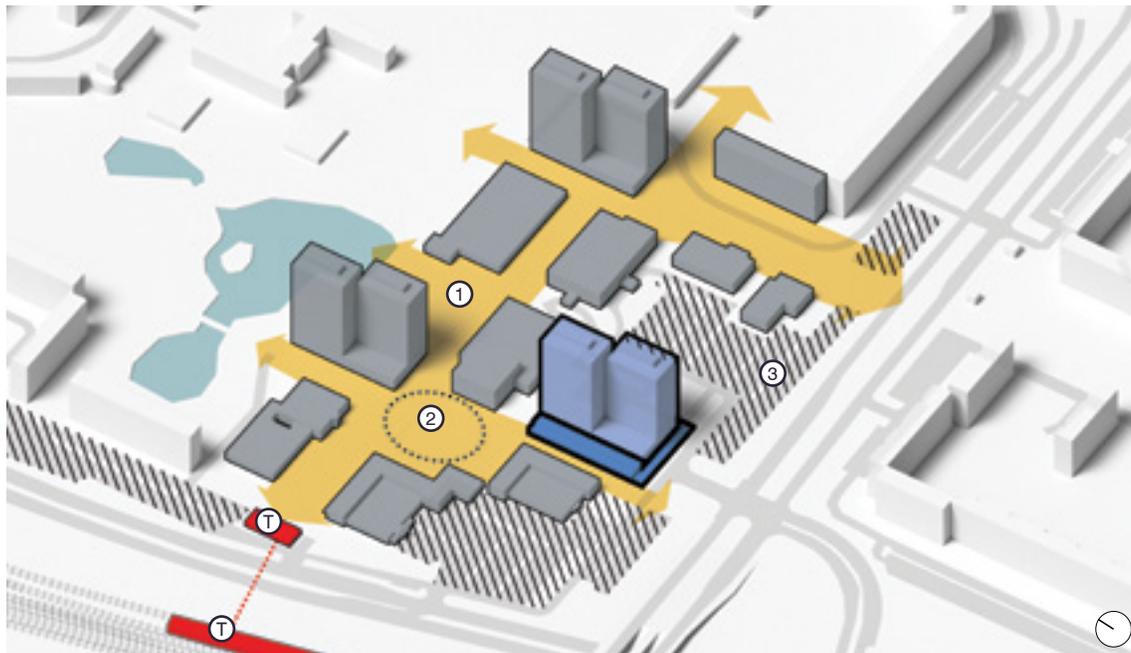
Introduction

Marzahn is a large district of many dozens of apartment blocks developed by the former German Democratic Republic as a major expansion of East Berlin. Following reunification in the 1990s, a program of building refurbishment, mixed-use infill, new community facilities and the establishment of outdoor markets has transformed the former dormitory district into an active and diverse hub. Wedged in between an intersection of wide arterial roads and rail infrastructure, the urban form turns its frontages toward an interior pedestrian focused public realm and concentrates parking and servicing along the edges. A central plaza and flexible spaces are framed by strategic infill that works to provide a pedestrian urban scale not possible along the wide arterial edges.



Figure-ground plan | 500m | ⌚

Key Interventions (Complete Community and Built Form)



- ① Complete mixed-use interior community connected through the public realm network
- ② Flexible interior public plaza framed by low-rise mixed-use infill
- ③ Consolidation of parking, drive aisles and loading along arterial edges

T Transit Hub

Site analysis



Transit, Pedestrian & Bike circulation



Vehicular Circulation & Parking



Building Uses



Green Space

LEGEND

- Pedestrian Route
- Bike Route
- Transit Route
- Vehicular Route
- Parking
- Public Green Space

Building Uses

- Residential
- Residential Apartment
- Commercial
- Institutional

Site Photos



Market in nearby plaza



Entry to shopping arcade



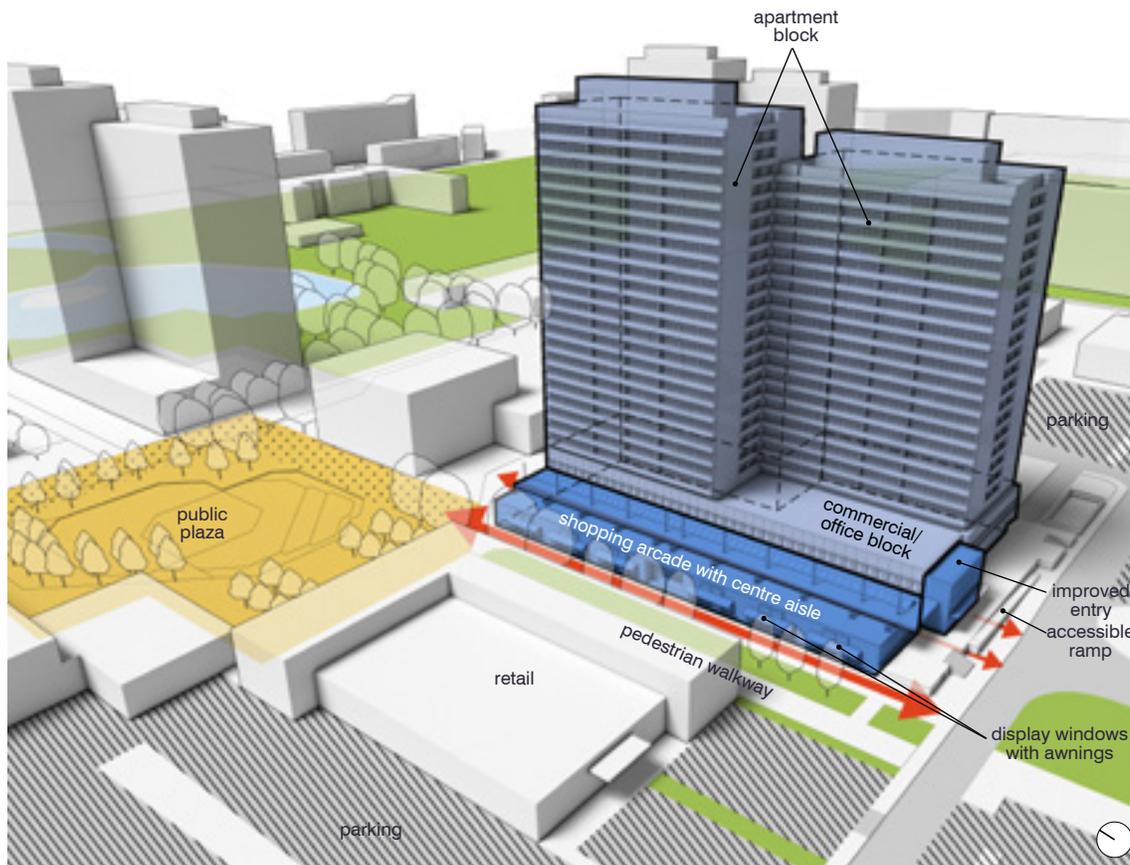
Pedestrian walkway



Interior of shopping arcade

Case Study

Marzahn contains many noteworthy interventions. Of particular note is the infill of a commercial arcade and large format grocery store added to the base of an existing tower. Through an addition and the reworking of the tower's ground floor, an existing single-use tower has been modified into a retail anchor framing the broader site's interior public space. With surface parking, loading and other 'big box' retail logistically located toward the arterial road, and fine grain retail frontage located toward the site interior adjacent to the S-Bahn rapid transit station, a typical suburban form of retail has been used to support the 'urbanization' of the tower neighbourhood, while using existing auto-based infrastructure to its advantage.



building site analysis

STRATEGIES AND FRAMEWORK

All examples illustrate positive transformations to the public realm, open space, connectivity, land-use and built form that contribute toward complete and healthy communities, but do not mimic the traditional city. These examples provide a series of lessons for the many hundred tower neighbourhoods throughout the GGH, located primarily in suburban locations, to evolved as places of genuine connectivity, convenience and urbanism.

Through each, a series of general, and specific strategies have emerged. These include:

GENERAL STRATEGIES

- Link individual sites to broader neighbourhood amenity including parks, schools, community centres, commerce and transit
- Link adjacent sites to one another to provide access to community and commercial amenity, and link to neighbourhood assets
- Enhance open space through programming and articulation of uses
- Design open space for micro-climate conditions that increase comfort, community use and safety
- Design infill to define both public frontage and site interior
- Program site with social and commercial amenity at public frontage and site interior
- Link frontage of existing building to public realm
- Minimize on-site surface parking
- Enhance existing building
- Enhance existing towers and design new infill with permeable frontages
- Ensure affordability is maintained

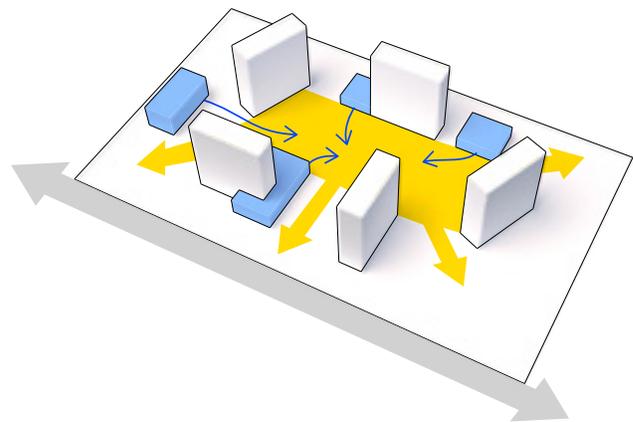
THE FOLLOWING IS A SUMMARY OF HIGH LEVEL STRATEGIES FOR EACH TYPOLOGY:

TOWERS AND SHOPPING CENTRE

- Leverage mall anchor to create open pedestrian zone fronting commercial area
- Link pedestrian space directly to apartments sites
- Create opportunities for micro retail and community services
- Design open space for community gathering, and supporting adjacent commerce (ie patios)
- Link open space to broader public realm, parks, recreation spaces, and apartment amenity
- Link open space to rapid transit

LARGE TOWER CLUSTER

- Link tower clusters through cohesive open space network
- Front open space with community and commercial amenity at base of towers and in new free standing structures
- Link open space to adjacent neighbourhood amenities, such as parks and schools
- Integrate open space with access to rapid transit
- Focus public activity on site interior, create mixed-use hub, with parking and services at the edges
- Introduce additional housing, as well as civic, community and commercial amenity



Interior Public Space

TOWERS AND ARTERIAL ROAD

- Transform arterial road into complete street integrated with active transportation
- Improve open space within tower site and create improved frontage to street
- Bound frontage with new mixed-use infill, with face to both street and tower site open space
- Enhance open space to support complementary uses of infill, such as commercial and community amenity
- Link tower site to adjacent amenity on complete street, and site interior, such as schools, parks and other amenity
- Introduce complementary uses within site interior, such as base of tower

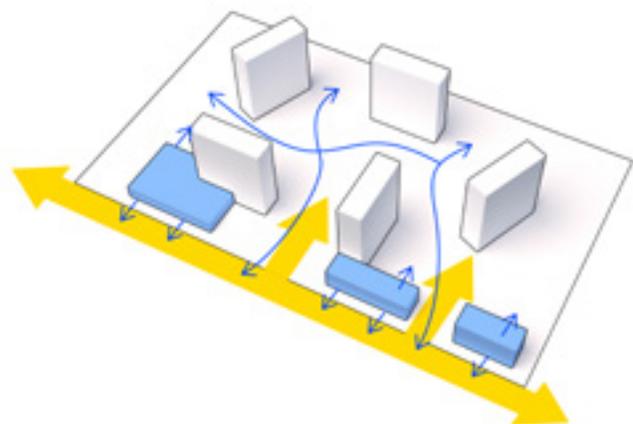
TOWERS WITHIN LOWER-RISE NEIGHBOURHOOD

- Introduce grade related housing fronting street edge and site interior
- Introduce interior terraced gardens and street front porches
- Connect tower site interior to street edge through enhanced open space, pathways and connections
- Introduce new shared street for pedestrians, active transportation and vehicles bounding new infill (mews)
- Create secondary network of paths and connections linking neighbourhood street to site interior and adjacent community amenity
- Introduce community amenity fronting street edge and site interior

In all cases, the existing tower blocks have undergone a program of rehabilitation. Together the urban design improvements, transit investments, commercial and residential infill, and the tower retrofit make each project an exemplar approach to site wide Tower Renewal.

EVALUATION CASE STUDIES FRAMEWORK CHART

The following chart is an evaluation framework that was developed through the analysis of the four international case studies. This chart was used to distill case study finding into six flexible high level strategies that can be applied to the various tower typologies.



Street Public Space

	Towers and Arterial Road Bijlmermeer	Towers within Lower-rise Neighbourhood Kilburn	Towers and Shopping Centre Wilhelmsberg	Large Tower Cluster Marzhan
1. OPEN SPACE				
1.1 Define and enhance	<p>Public realm: Framed within complete street</p> <p>Semi-public: Infill frames and enhances interior courtyards</p> <p>Private: Ground floor terraced gardens framing inner courtyard</p>	<p>Public realm: Framed within residential street</p> <p>Semi-public: Infill frames and enhances interior courtyards</p> <p>Private: New low-rise residential infill with interior facing ground floor terraced gardens and street front porches</p>	<p>Public realm: Framed within interior facing commercial frontages</p> <p>Semi-public: Planting defines residential courtyards from adjacent public realm</p>	<p>Public realm: Framed within mixed-use community with interior facing frontages</p> <p>Semi-public: Planting defines residential courtyards from adjacent public realm</p>
1.2 Community gathering	Public plazas with street frontage framed by retail Smaller local community gatherings within interior courtyards	Intimate to small local community gathering spaces within interior courtyards	Public plaza anchoring interior public realm framed by retail and smaller local community gathering spaces	Public plaza anchoring interior public realm framed by mixed-use and smaller local community gathering spaces
1.3 Linked network	Continuous open space network connecting different clusters of tower parcels	Different tower parcels connected by a central woonerf, 'shared street'	Continuous open space network connecting different clusters of tower parcels	Continuous open space network connecting different clusters of tower parcels
1.4 Outdoor comfort	Wind break from infill for courtyard and street front Shade from enhanced tree canopy along street front and courtyard	Wind break from infill for courtyards and street front Enhanced tree canopy in courtyards	Shade from enhanced tree canopy using soil cell technology in public plaza; and covered walkways and breezeways	Wind break and shade from podium and new building infill framing public realm
1.5 Sense of security	Improved sightlines with new street and courtyard frontages	Improved sightlines with new street and courtyard frontages	Upgraded exterior lighting and interior facing frontages	Integrated rapid transit station
1.6 Spaces for all	Playground in courtyard Direct access to bicycle network and adjacent parks	Upgraded and relocated playground to the central courtyard	Playground and sports court in residential courtyard	School playgrounds and sports courts integrated into residential courtyards

	Towers and Arterial Road Bijlmermeer	Towers within Lower-rise Neighbourhood Kilburn	Towers and Shopping Centre Wilhelmsberg	Large Tower Cluster Marzhan
2. PATHWAY AND CONNECTIVITY				
2.1 Connecting to Neighbourhood amenity, services and retail	Mixed-use infill with commercial and community services along ground floor accessible from street and tower site open space	Access to existing community amenity enhanced with new shared street and new mid-block pedestrian connections	Shopping centre, podium infill and tower ground floor with commercial frontages facing interior public realm Library anchored between public realm and residential courtyard	Free standing and podium infill with commercial and community services framing interior public realm
2.2 Active transportation network	Regional bicycle network and multi-use path systems integrated into community		Regional trails and bicycle network connected to site along arterial edges	Connected to neighbourhood park trail system
2.3 Public transit	Connection to local rapid transit station through integrated active transportation network and public realm along street front	Connection to local rapid transit station enhanced with new mid-block pedestrian connection	Mobility hub with direct connection to community through interior public realm	Local rapid transit station directly linked to community with underground connection accessible from interior public realm's outdoor market area
2.4 Adjacent parks and natural areas	Tower site connected to adjacent park and natural areas through formal pathways and strong visual language			Tower site connected to adjacent park and natural areas through formal pathways and strong visual language

	Towers and Arterial Road Bijlmermeer	Towers within Lower-rise Neighbourhood Kilburn	Towers and Shopping Centre Wilhelmsberg	Large Tower Cluster Marzhan
3. COMMUNITY AMENITY				
3.2 New infill	Daycare and health centre located along ground floor of mixed-use infill		Food market and eateries with patio space framing public realm in new podium infill connecting two existing towers	Institutional and community services framing interior public in purpose built infill
3.3 Ground floor	Health centre expanded into ground floor of original tower		Retail expanded onto ground floor of existing towers with interior frontages	Most residential towers with 2-storey podium with retail and community services Existing retail buildings podiums have been upgraded and expanded over time
3.3 Outdoor Market			Outdoor market held in interior public plaza connecting to rapid transit station	Outdoor market held in interior public plaza connecting to rapid transit station
4. PARKING AND SERVICING				
4.1 Parking	Parking consolidated along interior edges with multi-level parking Lay-by parking along arterial edges	Parking consolidated along interior edges	Surface parking focused along arterial edges Shopping centre with integrated multi-level parking structure	Surface parking focused along arterial edges
4.2 Access and servicing	Site access and servicing limited to interior edge	Site access and servicing limited across interior central shared street	Servicing focused along arterial edges	Servicing focused along arterial edges
4.3 'Greening' surface parking			Surface parking with enhanced planting and at source stormwater management	

	Towers and Arterial Road Bijlmermeer	Towers within Lower-rise Neighbourhood Kilburn	Towers and Shopping Centre Wilhelmsberg	Large Tower Cluster Marzhan
5. BUILT FORM, SITING AND INTERFACE				
5.1 infill	Mid-rise infill directly attached to existing building reinforcing and framing street front	Single and double storey residential infill reinstating block and street pattern	One storey podium attached to two existing buildings with covered breezeways connecting interior public realm to perimeter parking and arterial edges	Expanded podium and commercial buildings framing and enhancing public realm
5.2 Frontages	Permeable frontages with covered breezeways	Frontages onto street enhanced with front porches	Permeable frontages with covered breezeways	Lobby upgrades with extruded frontages
5.4 Expand housing and tenure options (low / mid / high rise)		Single tenure buildings were replaced with high quality, mixed tenure development Income from private sale homes used to cross subsidise the affordable housing		

08. FINDINGS: TOWER INFILL STRATEGIES FOR MORE COMPLETE TOWER NEIGHBOURHOODS

Building from the assessment of these international examples, the Tower Renewal site framework has been developed as follows:

1. OPEN SPACE

- Define and enhance open space through definition of public, semi-public and private spaces
- Create opportunities for community gathering and passive use through site design
- Link open spaces to adjacent commercial, community and civic uses
- Improve microclimate and outdoor comfort
- Improve Sense of Security through improved sight lines, bounded spaces, and lighting
- Program spaces for all age groups
- Reduce Hazards such as Traffic Blind Spots
- Integrate at-source stormwater management control in Tower Sites open space with Low Impact Development (LID) practices

2. PATHWAYS AND CONNECTIVITY

- Link Tower Sites to adjacent neighbourhood amenity, services and retail
- Integrate Tower Sites into regional active transportation networks and improve cycling related infrastructure
- Integrate public transit and stations with Tower Sites
- Link Tower Sites to adjacent parks and natural areas with formal pathways and strong visual connections
- Introduce or expand carshare program access in Tower sites
- Improve site accessibility

3. COMMUNITY AMENITY (RESIDENT AND NEIGHBOURHOOD WIDE)

- Introduce or link to public community services, such as community centres, health service clinics, and libraries
- Introduce mixed-use activity in new infill buildings
- Introduce or expand existing ground floor retail and community services
- Include retail with community benefit such as grocery stores
- Provide space for lease to social enterprise, such as community incubator, community kitchens, and health services
- Introduce or expand outdoor food focused programming, such as community allotment gardens, orchards, and cooking stations
- Introduce outdoor vending in open spaces connected to public realm
- Lobby and multi-purpose room upgrades

4. BUILT FORM, SITING AND INTERFACE (TO ENHANCE THE ABOVE; NEW RESIDENTIAL AND COMMERCIAL TO SUPPORT NEIGHBOURHOOD)

- Introduce neighbourhood sensitive infill responsive to context of tower neighbourhoods
- New built form which enhances overall site renewal, supporting public realm, open space and neighbourhood connections
- Podium infill for new or expanded community services and retail opportunities
- Permeable frontages for increased pedestrian connectivity
- Expanded housing and tenure options (low/mid/high rise)

5. PARKING AND SERVICING (MINIMIZE IMPACT)

- Optimize underground parking facilities and rationalize surface parking to allow conversion to alternative uses
- Consolidate access to site and servicing with possible easement agreements
- 'Greening' of surface parking for increased pedestrian comfort and at-source stormwater management best practices with improved and safer pedestrian circulation
- Rationalize waste storage in enclosed and separated indoor/outdoor areas with purpose built storage and sorting spaces

6. BUILDING CONDITION (IMPROVE)

- Maintain affordability of existing tower
- Improve ground floor of existing buildings, their public interface and resident amenity
- Enhance comfort and performance of existing tower through deep retrofit (through participation in complementary program)

7. COMMUNITY VALUE

- Identify the diversity of communities, cultural groups, organizations and institutions within a neighbourhood
- Involve community members as experts
- Engage in community mapping to understand the perceptions, values, needs and strengths of the neighbourhood
- Enable community ownership through providing an avenue for active participation throughout the development process

09. THE LOCAL CONTEXT

TOWER RENEWAL AT HOME

The international case studies assessed here provide a key framework from which to engage in transformation interventions in the GGH.

While there are few examples of comprehensive tower renewal in the GGH, there are emerging precedent projects helping to build a case and framework for optimal site and campus wide transformation. Below are a list of some of the successes to date, as well as, an outline of the primary challenges municipalities face in transforming isolated undersevice Tower Sites into complete, well connected communities.

CAMPUS TRANSFORMATION

The premier example of campus wide transformation can be found in Parkway Forest, located at the terminus of Toronto' Sheppard Subway. A project planned in concert with the development of the Sheppard Corridor Secondary Plan, the project combines substantial infill housing within an Apartment Neighbourhood, linked with improvements to open space, direct connections to rapid transit and the creation of a new community centre, and other community benefits.

The project was made possible through the accumulation of four large and contiguous sites, together consisting of five high-rise apartments, two mid-rise apartments, and two low-rise rental complexes.

Developed in partnership with the City of Toronto through the Secondary Plan process, the final project included the retention of the five tower block buildings, and the addition of over 2,200 new units, through new condominium towers, mid-rise and grade related buildings. The project includes the replacement of the some 330 rental units, secured through the City's rental replacement policies. Here, mid and low-rise rental buildings were removed to enable the condominium towers that replaced units at comparable rents in new structures.

Through infill that thoughtfully addresses the existing tower landscape, integrated public realm, and community benefits that include affordable retail space for not for profit groups and community agencies, Parkway Forest contains many lessons for which future campus scale tower infill projects can build.

The project was primarily made possible through ‘campus’ consolidation by a single owner. It was also supported through coordination with the broader Secondary Plan for the Sheppard corridor. Here, an active planning department worked with the owner to craft a scheme which supported the long term vision for the transit corridor, with the specifics of the complex site, resulting in a Secondary Plan framework which supported the project, and clearly outlined development potential and site responsibilities.

Through this process, many of the goals of the framework explored here (see Section 6), have been satisfied through creative and site specific approach to site and building design.

One area for improvement, the project did not enable substantive reinvestment in the existing towers.

Emerging Planning Frameworks

Parkway Forest is the only campus scale infill and transformation project in the GGH to date. However, a series of Secondary and Area plans are underway along existing and future rapid transit corridors, which may enable such development in future.

These include (but are not limited to):

- Midtown in Focus: proposed Yonge-Eglinton Secondary Plan
- Emery Village Secondary Plan - Finch Avenue West and Weston Road
- Hurontario - Main Corridor Secondary Plan
- Dundas Connects - The Dundas Corridor Master Plan
- Draft Downtown Hamilton Secondary Plan
- Setting Sail: West Harbour Secondary Plan

As transit investment triggers Secondary Plans, Site and Area Specific Plans, CCP Plans and other planning activities, there is a significant opportunity to build from the success of Parkway Forest and work from the framework provided in this report in shaping positive investment in Tower Neighbourhoods at the campus scale.

SINGLE SITE INFILL

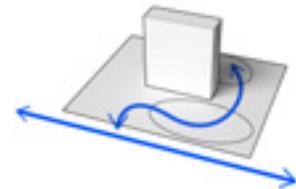
Infill on single, or in some cases two adjacent sites, has become an increasingly common phenomena in the GGH. Located primarily within Urban Growth Centres, these projects have added substantive density on what are complex and often tight site conditions.

Projects have included condominium, rental and affordable housing infill on a variety of site conditions – urban and constrained as well as tower-in-the-park sites with large area of open space and surface parking. Responding to a wide variation in context, market value and local planning framework, the best of these examples illustrate a variety of strategies for implementing Tower Renewal.

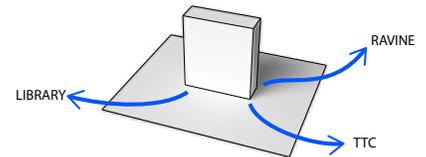
These include:

- Securing the preservation of affordable housing in existing towers;
- Provision of new affordable housing in site infill;
- Upgrades and expansion to resident amenity;
- Introduction of new mix-use on site;
- Improvements to open space;
- Expansion of semi-public space through sites;
- Connections from sites to adjacent amenities (ie, new through block connections); and
- In the case of a not-for-profit tower, infill development was used to fund substantive investment in the existing tower.

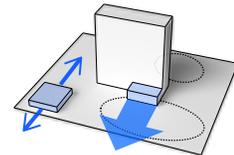
Taken together, there are many positive examples of site level Tower Renewal.



Enhance open space and connect to public realm



Connect to neighbourhood amenities



Add site amenities and built form

SELECTED EXAMPLES INCLUDE

250 Davenport, Toronto

The project included pre-zoning and sale of a portion of the open space at a Toronto Community Housing site to fund renewal of an existing TCHC tower. Located in central Toronto, the infill project is able to generate substantive revenue for use by TCH to upgrade the existing buildings, and other properties in their portfolio. The site plan was developed in partnership with TCHC and with resident input, and provides shared open space, amenity and programming with community partners. The project is currently under construction.

66 Isabella, Toronto

Through the expansion of an existing rental tower on a tight urban site, the project includes several hundred units of new rental, expanded resident amenity, and podium retail facing commercial main street. Requiring the reworking of some units to accommodate the addition, affected tenants were secured units in the existing or new units without changes to rents.

190 Clark Blvd, Brampton

Winner of a 2016 Brampton Urban Design Award, this project introduces a 26 residential tower within an existing tower site. Replacing a one storey parking deck at the rear of the 14 storey apartment tower site, the tower and four storey podium provide expanded residential amenity shared by both buildings, enhance open space amenity at the front of the site, and directly connect the site to an adjacent park through an on site right of way.

Danforth Village, Toronto

Lead by Options for Homes, the project includes the addition of a 16 storey tower atop former surface parking at the rear of an existing tower site. The project provides a range of market and affordable home ownership options, and connects the site to an adjacent park. The project also includes open space and amenity upgrades to the existing tower site.

THE RAC ZONE

A recent policy direction in the City of Toronto provides a model for municipalities region wide to support and expedite small scale site transformation towards complete communities. The Residential Apartment Commercial zoning removes single use restrictions on Tower Sites to promote diverse mixed-use activities. Enacted in 2017, the RAC Zone allows the full list of mixed-use activities allowed on a commercial main street within over 500 Tower Sites in Toronto's inner suburbs. Removing requirements for a rezoning or minor variance, this permissive zoning is aimed as encouraging small scale, high impact activities to support community life, from fresh food pop-ups, to business incubators, to large scale City services such as libraries and community centres. The first generation of 'RAC' projects are now getting off the ground, setting the stage for an incremental transformation toward more complete communities. As larger scale site investments are contemplated, initiatives that support the goals of RAC zoning should be integrated into site strategies.

KEY PROGRAM OPPORTUNITIES TOWARD COMPLETE COMMUNITIES:

- Provide access to fresh food
- Provide access to core municipal and partner services
- Provide commercial space for local enterprise
- Incubate local enterprise through support and training services
- Introduce extra-curricular and education for children and youth
- Introduce newcomer settlement support and adult education programs
- Introduce preschool and family resource services
- Promote public health education
- Provide programs and facilities for physical fitness



Rac Zoning Mapping



Thorncliffe Park Cafe, 2018

10. THE PLANNING FRAMEWORK

CHALLENGES AND CONSIDERATIONS

The above showcases several local successes in achieving site Tower Renewal, illustrating trends toward more complete communities, and the establishment of precedents and strategies for future projects.

However, there remain challenges which require solutions to enable more widespread Tower Renewal. These include:

1. Fragmented Sites
2. Uneven development due to Market Zones
3. Limited Geography of Planned Growth
4. Lack of clear community investment framework for Tower Sites
5. Funding Full Tower Retrofit

These are explored in more detail below:

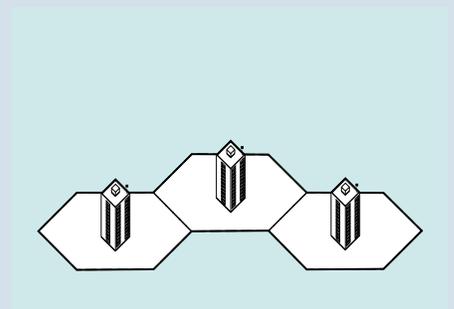
Fragmented Sites

While the best examples of Tower Neighbourhoods were originally designed in cohesive groupings, and integrated into their wider neighbourhood context, less considered Tower Sites were not. Likewise, sites which originally considered site connectivity between towers have often been fragmented due to changes in site ownership, resulting in fencing separated towers from one another, and the community beyond.

This presents a challenge for both modest and more extensive site improvements. While groupings of towers generally provide ample room for infill, improved open space and new connections, single sites often pose challenges. Irregular property configurations, location of underground parking, set-back requirements and the location of the existing building can limit infill opportunities. Moreover, as most Tower Sites are located in clusters and not in isolation, investments that take the broader neighbourhood into account, rather than a single site, would optimize impact. Achieving broader investment for neighbourhood benefit, such as a walkway linking towers sites to local amenity, are complicated by multiple owners.



Multiple towers under a multiple owner. 905 East



Multiple towers under a multiple owner

Uneven development due to Market Zones

The key opportunity for site improvement on Tower Sites is through leveraging private development based on a negotiated site application process. As has been demonstrated in successful local examples, new mixed-use infill creates revenue, an impetus for broader site improvements, and an expanded population through infill can help support the viability of local retail and services.

However, development within the region is a-symmetric, with the majority concentrated in a small number of geographic areas. As a result, a limited number of 'hot' market zones attract development, and generate substantial revenues, upon which a portion can be directed toward site improvements toward Tower Renewal. The majority of Tower Sites however, are located outside of these zones, in areas of depressed markets, where incentives may be required to kickstart developments, and where the opportunity for project revenue to support sitewide improvements may not exist to the same scale, or at all.

Attracting investment to moderate and weak market zones, and enabling site investment through these developments, is a core challenge. As market zones change, such as in locations where transit investment is changing local conditions, the planning framework can anticipate and respond to ensure positive net benefits are achieved.

Limited Geography of Planned Growth

Located throughout the region, the majority of Tower Neighbourhoods are located outside of planned areas of growth. A full 86% of towers are located outside of Growth Centres identified in the Growth Plan. Inclusion of tower neighbourhoods within areas of cities contemplated for growth and investment is increasing as local planning is calibrated with investments in rapid transit and areas beyond those outlined in the Growth Plan are adopted by municipalities.

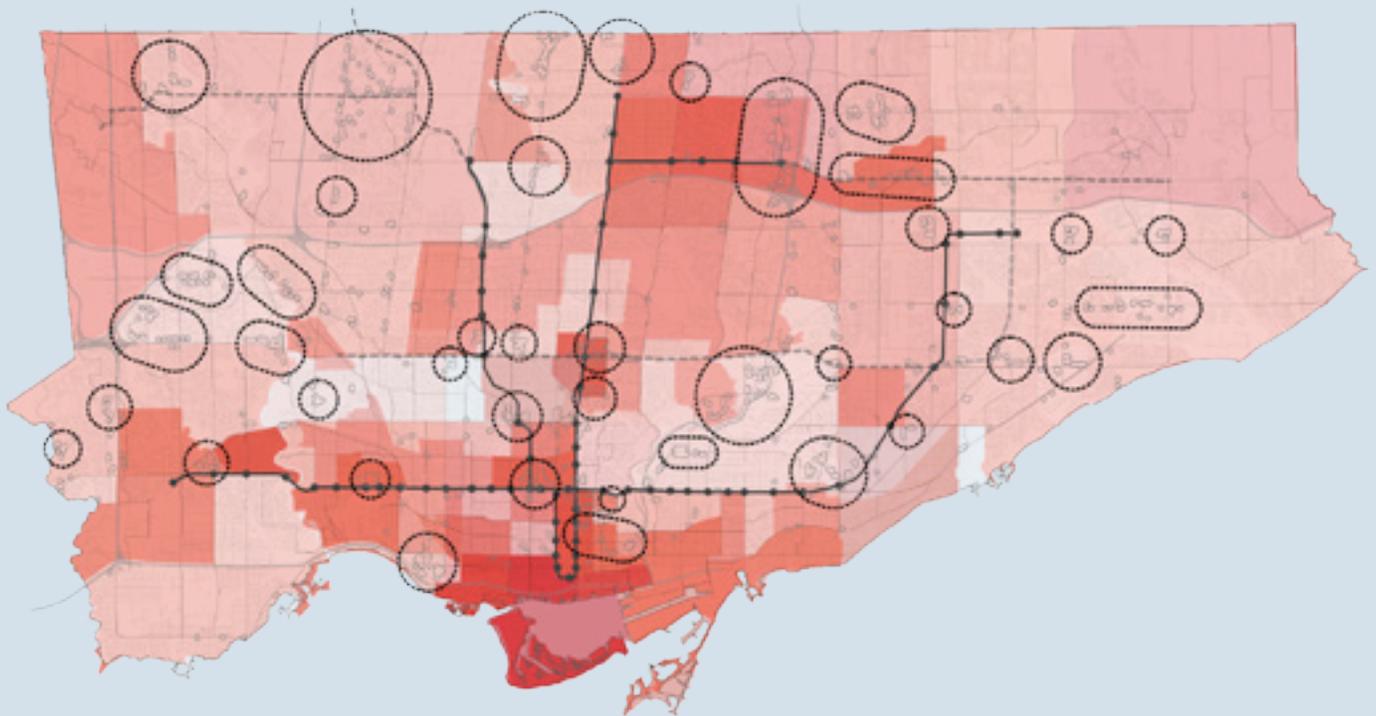
Nonetheless, the majority of towers exist in areas where growth and investment has not yet been contemplated. These areas generally coincide with areas of weak or depressed markets (see Market Zones above). Market conditions coupled with policies suppressing growth and investment create substantial obstacles for positive change toward complete communities.

PLANNING REQUIREMENTS NOT CALIBRATED FOR TOWER INFILL

Currently, planning frameworks are generally calibrated to traditional areas of development such as Urban Growth Centres in the historic City Centres. To optimize the transformation of Tower Sites, the planning framework in which to address the following considerations should be established:

- Parameters for securing a reduction in open space
- Parameters for securing a reduction in parking
- New built form in site interior
- Inclusion of public program such as community facilities
- Linking sites to adjacent sites and neighbourhood amenity
- Securing community programming

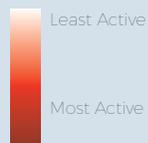
Apartment Towers + Market Zone Map of the City of Toronto



Legend

-  Tower Neighbourhoods with High Social Need
-  Existing Towers
-  Existing Rapid Transit
-  Funded Rapid Transit

Qualitative Market Heat Map



* Base active high rise development, townhouse sales volume and average price, and CMHC rent zones

Lack of clear community investment framework for tower sites

While selected projects illustrate positive steps toward site Tower Renewal, many proposed projects are in dispute. Lack of clarity as to expectations of community investment, and the scale and nature of infill in various contexts have made the process difficult for planning authorities and applicants. What can and should be achieved on Tower Sites through the development process is currently an open question. Establishing a consistent framework from which municipalities and applicants can work may aid in better calibrating proposals to provincial and municipal goals of enabling more complete and healthy communities.

Funding Full Tower Retrofit

The refurbishment of existing towers to meet today's standards of health and comfort, reduce energy use and GHG production, and address state of repair is a core aspect of Tower Renewal. However, achieving Tower retrofit through site infill has been found to only be viable in limited circumstances. As it is very capital intensive, it is a scale of investment outside the bounds of typical development (\$10-15 Million / tower).

The formula where this may be viable is as follows: projects with large development potential, in a 'hot' market zone, owed by a not-for-profit housing provider. This scenario, as was the case with 250 Davenport, creates the revenue opportunity, and the mandate for the use of this revenue toward site and building improvements. (Participation by a not-for-profit developer increases this opportunity further). Outside of these circumstances, generating the large sums required for tower retrofit through site development may be unlikely.

As a result, complementary programs aimed at supporting tower retrofit, such as those contemplated under the National Housing Strategy, are likely the primary means by which physical tower upgrades can be funded. Use of these programs, in concert with investments in resident amenity, open space, and other forms of community benefit are possible through through site infill, can be used together for full project Tower Renewal.

Although these challenges are varied, each can be addressed through the adoption of a new planning framework called the Community Planning Permit System which provides alignment with planning documents already in place and allows for a flexible approach to achieve the desired outcomes of comprehensive Tower Renewal.

PLANNING FRAMEWORK

As illustrated in the International Case Studies (Section 7), the potential for Tower Sites, campuses and neighbourhoods to become model low carbon, healthy, complete communities is substantial and scalable. While the principles of complete communities that underpin Tower Renewal are already embedded in the planning policies of Ontario municipalities, the specific tools required to address coordinated planning at the campus scale are often not in place for Tower Neighbourhoods; with significant focus placed on the development of central cities, brownfield sites and other areas targeted for growth and regeneration.

However, two key opportunities are emerging which may catalyze the opportunities of campus scaled transformation: the GGH's expanding rapid transit network and the establishment of the Community Planning Permit (CPP) system.

The CPP was developed by the Province as a new planning process which places focus on pre-planning through zoning that is more flexible, predictable, and secures community benefit and project expectations at a district scale. This process is ideally suited to manage the planning challenge of improving Tower Neighbourhoods; linking these towers to one another, their neighbourhoods and the city at large.

The second opportunity is the creation of Major Transit Station Areas (MTSAs) as identified zones for pre-planning in conjunction with existing or planned rapid transit infrastructure.

With 35% of the Region's towers within 500m of existing and funded rapid transit lines, and as MTSA planning zones are defined, the inclusion of adjacent Tower Neighbourhoods for mixed-use growth provides a substantial opportunity to realize Tower Renewal goals and enhance complete communities throughout the GGH. This coordination will provide Tower Neighbourhoods with better connections to transit, while supporting MTSA intensification requirements.

Building from these opportunities, this section of the study seeks to explore the opportunities of Tower Neighbourhood transformation through a framework of pre-planning measures that are stackable, inclusive in process and will result in targeted transformation rather than ad hoc outcomes. This new framework is explored in order to begin a conversation on how Ontario's municipalities can activate Tower Sites into more integrated, diverse and productive districts that in turn can support the implementation of the Growth Plan.

WHAT IS A COMMUNITY BENEFIT?

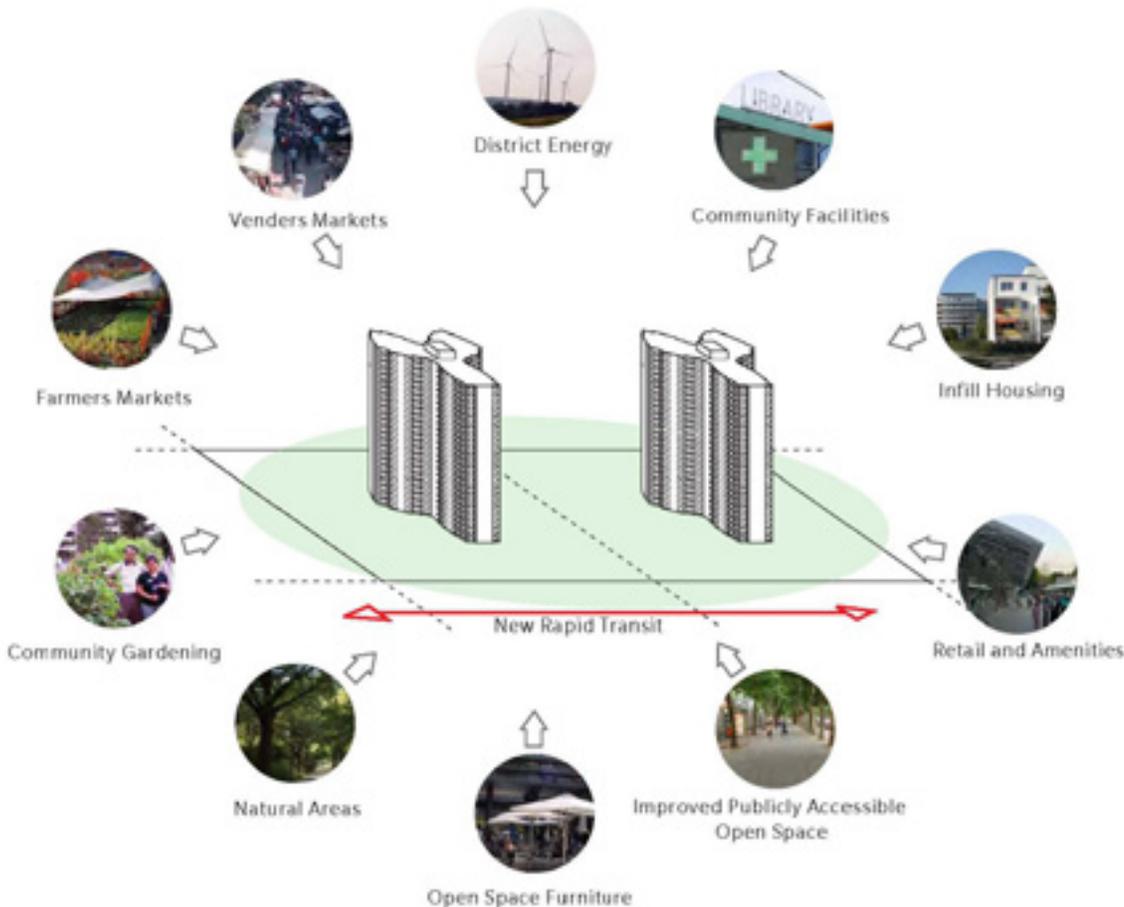
Community benefits are defined as additional physical, social and economic benefits for a local community that are leveraged by dollars already being spent on major infrastructure and land development projects¹. A core part of the larger Tower Renewal program is to use the proceeds of infill development on Tower Sites to subsidize energy, quality, comfort and safety retrofits as well as to expand opportunities for economic diversification and social infrastructure.

¹Grazer, Dina (2016) Community Benefits and Tower Renewal. Evergreen City Works Discussion Paper.

WHAT IS OPTIMIZED SITE TRANSFORMATION?

Optimized tower renewal encompasses building retrofits, community impact, physical site transformation and connectivity. It enables the integration of new mixed infill housing with upgrades to site design, campus scale planning to address fragmentation in ownership, and neighbourhood connectivity, and amenity. It also includes mixed tenure and mixed-use infill housing which can complement and improve the site condition and experience for existing residents and the broader community. Coupled with tower retrofit and community investment, strategic infill can have a transformative impact in realizing comprehensive renewal.

Creating Sustainable and Vibrant Neighbourhoods



Limitations of the Current framework

In the current planning framework, there are limitations to securing a holistic package of desired outcomes related to improved site design, open space, connectivity, community amenity and benefits, servicing, building condition, GHG reduction and overall conservation on Tower Sites. Though initiatives and objectives are consistent with municipal and provincial growth and transformation objectives, in the current policy framework, towers generally have not been contemplated for growth and investment. As a result, tower neighbourhood infill tends to be a timely, complex and uncertain process that often results in partially realized or suboptimal outcomes.

There are a number of planning and zoning mechanisms within the current system being applied to achieve pre-planning and tower site transformation. Mechanisms include planning tools such as Site Plan Control, and Secondary Plans and zoning tools such as the Interim Control Zoning Bylaw, Holding Bylaws, Section 37 Agreements, and Conditional Zoning. Despite the potential of these mechanisms and the creative application of these tools by planning departments, none of these tools are a panacea for comprehensive Tower Renewal. Each of these mechanisms has significant limitations in their ability to achieve optimal site and neighbourhood transformation due to issues related to implementation, scope and lack of a thorough engagement process. See chart (pg. 95) for an outline of these tools, their intent and their limitations in achieving resilient and complete communities in Tower Neighbourhoods.

CURRENT TOOLKIT FOR TOWER NEIGHBOURHOOD RENEWAL

Tool	Application	Tower Renewal Mechanism	Limitations
ZONING			
<i>Interim Control Zoning Bylaw (Section 38 of the Planning Act)</i>	Puts a temporary freeze on some land uses while the municipality is studying or reviewing its policies. The freeze can be imposed for only a year, with a maximum extension of another year.	A mechanism for preplanning. Prohibiting development to proceed until a study or review concludes what development type of development is required to achieve the desired objectives of the Growth Plan and Official Plan.	» While it does identify requirements to meet objectives, it does not provide implementation mechanisms
<i>Holding Bylaw (Section 36 of the Planning Act)</i>	A Holding By-law is a tool to manage and stage growth to ensure that land is ready for development. The bylaw provides zoning permission for use, height, and density, etc	Outlines preconditions that must be fulfilled before the land use is permitted. Similar to Conditional Zoning - conditions are often related to servicing and traffic.	» While this tool is very useful for evaluating impacts and ensuring there is adequate infrastructure in place, it is limited in providing “as-of-right” conditions » Public consultation is not required within this process.
<i>Agreements (Section 37 of the Planning Act)</i>	‘An incentive-based system that enables municipalities to authorize increases in the height and density of a development otherwise permitted by a zoning by-law, in return for the provision of community benefit (MMAH, 2018).’ In this process the local councillor negotiates with the developer to leverage benefits. Can result in very politicised decision making.	Section 37 is currently the primary mechanism for securing contributions such as community amenity, affordable housing, and green space improvements.	» Often result in municipalities under zoning in order to better leverage contributions. » Tool has shown to be limited in its ability to provide the comprehensive needs of a site. » Decisions are Ad Hoc, and rushed often resulting in little community benefit.
<i>Conditional Zoning (Section 34 of the Planning Act)</i>	The Planning Act has never enacted the regulations required to allow for its use. Conditional zoning is a more simplistic and direct tools which allows for the imposition of ‘one or more prescribed conditions on the use of land or the erection, location or use of buildings or structures and impose one or more prescribed conditions on the use, erection or location (OPPI, 2015).’	Would provide some benefits beyond and land use planning in regards to site transformation and complete communities. More enforceable and straightforward tool than a Holding bylaw. This process would include a series of stakeholder meetings held to develop a set of standards and criteria for development in a specific area.	» Not presently a legally viable option » Ontario must develop regulations to define prescribed conditions » Ministry is focused on encouraging the use of Community Planning Permits instead of conditional zoning.

PLANNING

Site Plan Control (Section 41 of the Planning Act)

Is a design refinement process that builds upon zoning, requires official plan (OP) policies and a site plan by-law for implementation. Regulates certain external building, site and boulevard design matters (character, scale, appearance, sustainable streetscape design) to ensure that the development proceeds in a safe and aesthetically pleasing way.

Examines the design and technical aspects of a proposed development to ensure it is attractive and compatible with the surrounding area, contributing to the economic, social and environmental vitality of the city. Features such as building designs, site access, and servicing, waste storage, parking, loading and landscaping are reviewed.

- » No prescribed process to obtain public input.
- » It is limited to a technical review.
- » Does not contribute to provision of amenity or community benefit.

Secondary Plan

Policy Document applied to areas where significant redevelopment is expected. Secondary Plans establish local development policies to guide growth and development in defined areas of a city where significant physical changes are expected and desired.

Adapts and implements the objectives, policies, land use designations and overall planning approach of the City's Official Plan to fit with local contexts. It establishes local development policies unique to an area that will guide growth and change and promote a desired type and form in a specific area.

- » Currently, the most proactive tool for preplanning defining local issue and objectives and providing specific policies with more detailed direction.
- » An essential element to be layered in the preplanning process.
- » Does not have the level of legal weight that a Community Planning Permit has.

Sources

Ministry of Municipal Affairs and Housing (2018) Municipal Guide for facilitating Affordable Housing. Ontario <http://www.mah.gov.on.ca/Page16567.aspx#Community+and+land+use+planning+practices>
 Howson, E & Drozd, A. (2015). Conditional Zoning: A Missing Link? Ontario planning Journal Vol. 30. No. 5.

Pre-planning Towards Efficiency, Certainty and Complete Communities

With the Growth Plan's updated intensification targets for areas surrounding Priority Transit Corridors, municipalities must begin a process of proactively pre-planning intensification zones in order to achieve density targets and develop more connected, sustainable, mixed use communities. Today, there are a number of barriers related to the current regulatory framework, out of date zoning and a lengthy and unclear development process making infill and intensification a challenging process with significant financial risk¹. Pre-planning for greater intensification around transit infrastructure can result in less cars on the road, lower costs from a municipal budgeting perspective, increased opportunities for social interaction, more missing middle housing and the inclusion of the Region's tower neighbourhoods as potential intensification areas². Developing more transparent conditions for approval and the expected investment toward Tower Renewal goals will help achieve higher quality infill and community benefit.

In 2006, the Province made available the Development Permit System (DPS), a tool which allows more flexibility to address the challenges of traditional Euclidean Zoning and support intensification initiatives. For over a decade now, the Development Permit System, now called Community Planning Permits (CPP) has been contemplated but not taken up in a meaningful way. There have only been four successful case studies to date in Ontario, none of which have utilized the tool for intensification purposes.

With the release of the updated Growth Plan, 2017 we have reached a turning point. Municipalities across the GGH are dealing with increased intensification targets, housing and development pressures, GHG reductions and deep infrastructure needs, specifically in the inner ring suburbs and outer ring municipalities. The CPP can provide municipalities with a more comprehensive, flexible, community based design and planning framework to deal with these complex challenges and pressures.

¹ Graham, Kelly (2011) HOW CAN THE DEVELOPMENT PERMIT SYSTEM BE USED TO ACHIEVE INTENSIFICATION IN THE SUBURBS? Ryerson University.

² “

What is the Community Planning Permit System

Community Planning Permits (O. Reg. 173/16) formerly known as the Development Permit System is a new form of approval process that became available to Ontario municipalities in 2007 when Ontario Regulation 608/06 (Development Planning Permit) came into effect. Under the current system, there are often numerous approval processes that development applications are subject to, resulting in a challenging, lengthy and risky process.

The Community Planning Permit (CPP) is an alternative mechanism for planning approvals that provides a streamlined and flexible development approval process that makes possible “as-of-right” conditions and zoning for developers. The CPP is a mechanism that combines the approval process for zoning by-laws, minor variance, and site plan approval into one system throughout the development of a comprehensive plan for a site, campus or neighbourhood.

CPP is a way to accomplish comprehensive zoning of an area, align with plans already in place, and engage community and stakeholder input in order to address local planning issues and area specific frameworks and guidelines. A CPP is applied to specific areas like a Secondary Plan but has more statutory power. The system brings with it a number of additional tools including: allowing for discretionary uses, conditional approvals, variations to development standard requirements, and control over exterior design elements and vegetation. It enables a more fine-grained approach to local planning which addresses built form, parkspace, transit, and hard infrastructure needs with the opportunity to incorporate a range sustainability, affordability and community benefit measures. Development applications that do not address or achieve the outlined conditions of a CPP would be immediately denied and would not be able to be appealed by the OMB.

Establishing a CPP is a three stage process:

1. Building the CPPS foundation in the Official Plan which includes: creating a vision, community engagement, adoption and notice;
2. Developing the CPPS Framework through the Community Planning Permit Bylaw which includes: the development of the bylaw contents, community engagement, passing and notice; and
3. Establishing how to work within a Community Planning Permit System: Using the land use vision to develop a comprehensive development application.³

³ Ministry of Municipal Affairs and Housing (Ontario). (2008). Development Permit System: A Handbook for Municipal Implementation. Toronto: Queen's Printer for Ontario.

PERCEPTIONS AND IMPLEMENTATION TO DATE

Although successfully used throughout North America, including Vancouver and Calgary, this tool has not had a broad uptake in Ontario and instead, has been met with disinterest, skepticism and doubt. In 2014, a study that analyzed implementation factors explained the impressions of the CPP system (then DPS) in its early years. Many municipalities felt that their tools were sufficient to deal with planning issues and felt that there was no need to implement a new system. Those consulted did not believe that CPP would bring increased efficiency, certainty and scope in regards to environmental protection and public space improvements. In addition, concerns around appeal rights, the learning curve associated with the new system and high costs for implementation were mentioned. Notably, one planner stated that in the case of a more complex planning challenge that the tool would be considered.⁴ All the same, there seems to be an overall lack of understanding around the best way to utilize this planning tool.

The examples that have emerged in Ontario throughout the years include Lake of Bays, Carlton Place in Ottawa and more recently Brampton for Main Street North. These examples primarily utilized the tool to preserve, maintain and enhance areas of natural and built heritage. In the Carlton example, CPP was used in place of traditional zoning to enable staff to more strictly enforce the Official Plan.⁵

Today, for many municipalities the CPP is becoming a more desirable and necessary tool. There are a number of municipalities who are beginning to engage the Province for guidance and support to begin the process of implementing this new planning framework into official plans. In the City of Vaughan's 2018 Zoning Bylaw Review CPPs are outlined as a tool to be considered in a number of geographical concepts including intensification areas and Heritage Conservation Districts. The City of Mississauga is in discussion towards implementation of CPPs in the near future to deal with pairing new transit investments with intensification targets along the Hurontario Corridor.

⁴ Stoplar, Natalie. (2014) Development Permit System Policy Development in Ontario: Factors that Contribute to Implementation. University of Western Ontario

⁵ Netherly, Joe. (2011) Organizational Behavioural Obstructions Between Planners Implementing the Development Permit System. University of Western Ontario

Priority Transit Corridors, MTSAs and Mobility Hubs

Targeted infill and intensification on Tower Sites, in coordination with the Region's transportation investments, provide a significant opportunity to meet the Province's density targets and support vibrant, low carbon and resilient communities throughout the GGH. The updated Growth Plan, 2017 focuses on linking significant infrastructure investments with key growth areas. Strategic Growth Areas referred to as Intensification Areas include: Major Transit Station Areas (MTSAs), Mobility Hubs and Major Streets and Corridors. The Growth Plan, 2017 introduces Priority Transit Corridors as a means to account for the range of emerging higher order transit corridors that have been targeted for planning and intensification⁶. This critical update includes new policies that require updated zoning to be implemented for MTSAs and Mobility Hubs along these Priority Transit Corridors. Through prezoning with CPPs, these Corridors and Hubs can accommodate higher densities and transit supportive uses. The specific and strategic planning of these Intensification Areas is an opportunity to include the many Tower Sites in close proximity to Mobility Hubs and MTSAs to support density targets, as well as connect and provide the Region's vital Tower Neighbourhoods to better transit and amenity.

Major Transit Station Areas

The Growth Plan, 2017 defines MTSAs as: "The area including and around any existing or planned higher order transit station or stop within a settlement area; or the areas including and around a major bus depot in an urban core. MTSAs generally are defined as the area within an approximate 500 metre radius of a transit station, representing about a 10-minute walk." MTSAs located along Priority Transit Corridors or existing subways lines are required to meet the density targets established in the Growth Plan, 2017. These MTSA areas must be individually delineated in official plans.

To optimize provincial investments in higher order transit, the Province expects municipalities to complete detailed planning for MTSAs on these Corridors to support planned service levels. For MTSAs on Priority Transit Corridors, municipalities must delineate boundaries in a transit supportive manner that maximizes the size of the area and the number of potential users. In order to meet the density targets set out in the Growth Plan, 2017, each municipality must strategically identify and delineate MTSA boundaries and prezone to meet requirements. There is no one size fits all framework for these intensification areas, each MTSA and Mobility Hub should be planned with flexible values based principles layered with local conditions.

MAJOR TRANSIT STATION AREAS:

Major transit station areas on priority transit corridors or subway lines will be planned for a minimum density target of:

- a) 200 residents and jobs combined per hectare for those that are served by subways;*
- b) 160 residents and jobs combined per hectare for those that are served by light rail transit or bus rapid transit; or*
- c) 150 residents and jobs combined per hectare for those that are served by the GO Transit rail network.*

⁶ Yuen, Christie(2016) Leveraging Transit Infrastructure to Support Growth. Urban Strategies. Retrieved from: <http://www.urbanstrategies.com/news/leveraging-transit-infrastructure-support-growth/>

Mobility Hubs

Metrolinx has identified 51 Mobility Hubs that are planned and funded across the GTHA.⁷ Beyond transit stops, Hubs are expected to support diverse transit modes, serve as origins, destinations and transfer points; connecting people and places seamlessly. The Mobility Hub framework, much like Tower Neighbourhood Renewal has a specific set of objectives and principles to be met related to land use considerations, built form, transit and connectivity, amenity and community benefit. Like Tower Renewal, there is no “one-size-fits-all” approach. Each location presents unique challenges and opportunities based on its own context and conditions. Mobility Hub planning and investment is framed in around a catchment area made of four concentric zones:

- Primary Zone (250 m)
- Secondary Zone (500 m)
- Tertiary Zone (80 m)
- Larger Catchment Areas (6 km)⁸

Next Steps

With a significant number of Tower Sites identified within Urban Growth Centres in the GGH, with 35% within 500 meters of rapid transit and 24% within 500 meters of a Priority Transit corridor; there is a key opportunity to connect and coordinate the planning of Mobility Hubs and MTSA's with the infill and intensification plans for Tower Sites. Further, there is an opportunity to utilize as-of-right planning mechanisms such as the CPP or Conditional Zoning in order to reduce the complexity of development and ensure desired outcomes are met.

The Draft 2041 RTP clearly outlines the need for official plans to align and support the integrations of transportation and land use planning. Now with policies that require municipalities to do so, pre-planning using the CPP, Conditional Zoning and the strategic delineation of MTSA's and Mobility Hubs to include Tower Sites can build a framework to connect the dots of transportation, land use and provision of amenity, particularly in inner suburbs throughout the region.

⁷ Metrolinx. (2015). Mobility Hub Profiles. http://www.metrolinx.com/en/regionalplanning/mobilityhubs/mobility_hubs_profiles.aspx

⁸ Metrolinx. (2011). Mobility Hub Guidelines.

Pre-Planning for Apartment Tower Neighbourhoods

As stated in section 4.2 of Toronto's in-force Official Plan "In these established Apartment Neighbourhoods, improving amenities, accommodating sensitive infill, where it can improve the quality of life and promoting environmental sustainability are key considerations. Residents in Apartment Neighbourhoods should have a high quality urban environment, safety, quality services and residential amenities."

While the above illustrates the policy direction, it does not present a clear implementation strategy. Consultations with the municipalities have illustrated that development proposals on Tower Sites are an issue, with such a varied set of objectives and challenges already discussed, developments often result in only a few goals being met. The Community Planning Permit system could provide the framework, processes and flexible zoning to enable comprehensive Tower Renewal through infill within Apartment Tower Neighbourhoods. Further, a focus on Tower Sites within the boundaries of Urban Growth Centres with secondary plans and in coordination with Mobility Hubs and MTSA's along Priority Transit Corridors could provide a solid foundation in which to test out this tool and begin a series of pilot projects which utilize the CPP.

With funding flowing toward Mobility Hub development, MTSA density requirements and with the implementation of secondary plans in neighbourhoods slated for growth, there is an opportunity for a coordinated effort toward the first round of CPPs for Tower Sites in the GGH that can demonstrate how this new planning framework can overcome challenges and unlock the potential of Tower Sites, connect them to their surrounding neighbourhoods and city at large.

11. FINDINGS, RECOMMENDATIONS AND CONSIDERATIONS

Through the analysis of international best practice and the tower landscape across the GGH, this study provides an evaluation of the opportunities for Tower Neighbourhoods to assist in implementing Growth Plan policies and achieve more complete communities across the Region. The following outlines key findings, recommendations and considerations to further engage this potential.

FINDINGS

1. The goals of complete communities require translation to the specific built form of Apartment Neighbourhoods.
2. The heterogeneous site conditions of Apartment Neighbourhoods require a values based approach to site infill and community investment.
3. The heterogeneous market conditions of Apartment Neighbourhoods require location specific, flexible and responsive planning tools and incentives.

RECOMMENDATIONS

1. Ensure that all Apartment Neighbourhoods are enabled to emerge as complete communities with access to the full range of services, amenities and opportunities to thrive.
2. Connect Apartment Neighbourhoods to their surrounding communities and unlock the potential of tower campuses.
3. Ensure that Apartment Neighbourhoods directly benefit from transit and other targeted public investments.
4. Use a values based approach to direct and evaluate physical transformation within Apartment Neighbourhoods considering enhancements to open space, pathways and connectivity, neighbourhood amenity, and with responsive built form that enhances neighbourhood attributes and is guided by community input.
5. Use a community benefits based approach to development within Apartment Neighbourhoods, ensuring improvement is commensurate with the scale and capacity of development.
6. Support and incent growth within Apartment Neighbourhoods which support goals of missing middle, affordable, diverse tenure and low-carbon housing.
7. Encourage the retrofit and renewal of apartment housing within Tower Neighbourhoods.

CONSIDERATIONS

1. Align municipal planning documents including Official Plans, Secondary Plans, Area Specific Plans, Mobility Hubs and MTSA Plans with the goals of Tower Renewal.
2. Build from the values based framework developed in this report to create an alternative framework for tower infill, shifting toward more values based development criteria which can become more detailed when geared towards a specific area or site in order to address local conditions.
3. Develop location specific initiatives to achieve community benefits toward Tower Renewal goals of more complete communities.
4. Include Tower Neighbourhoods, when possible within the boundaries of Mobility Hubs and Major Transit Station Areas (MTSAs) to ensure their connection to transit and integration in relation to growth and investment.
5. Engage in a CPP pilot to demonstrate comprehensive Tower Neighbourhood Renewal and the potential of campus wide transformation.
6. Explore and enable the use of alternative tools such as Conditional Zoning to support comprehensive Tower Renewal.
7. That the Province identify supportive roles in the piloting of CPPs that enable complete communities in Tower Neighbourhoods.

12. APPENDICES

C. MUNICIPAL CONSULTATION

There is a significant opportunity for the refinement of municipal policy to support the goals of Tower Renewal through building retrofit, site wide transformation and achieving maximum benefits from infill projects through the careful calibration of municipal policies and programs. Achieving this will require coordination among divisions within municipalities to provide the direction, incentives, and regulations to shape and support Tower Renewal.

CUG+R through its work as part of the Tower Renewal Partnership have established an Intermunicipal Platform and have been consulting with this group since 2016, in order to share best practice and craft policy alternatives. Inclusive of Toronto, Mississauga, Hamilton, and Ottawa this platform consists of senior staff from various divisions.

At present this group has identified the following key focus areas in ensuring municipal policy furthers the aims of Tower Renewal:

- Improving housing quality while maintaining affordability
- Achieving complete communities in tower neighbourhoods
- Mitigating climate change through building retrofits
- Integrating tower neighbourhoods into growth and transit planning

CONSULTATION ACTIVITY OVERVIEW

Intermunicipal Roundtable

The Intermunicipal Roundtable was held on November 28, 2016 in Hamilton, Ontario. The Roundtable convened Ontario's four largest cities Toronto, Mississauga, Hamilton and Ottawa to share how municipalities are already working to support tower neighbourhoods, and to identify strategies for future connectivity, sustainability and economic resilience. Participants from across the municipalities actively shared learnings and strategies. They also identified the supportive roles that might be played by other levels of government in order to develop a coordinated response to the renewal of hundreds of apartment tower neighbourhoods across Ontario. Following the Roundtable a letter was sent to the Province on behalf of the TRP and the four cities requesting the opportunity to work in partnership toward achieving Tower Neighbourhood Renewal in Ontario.

Tower Renewal Action Forum

The Tower Renewal Action Forum took place on October 5, 2017 at the Evergreen Brick Works. The event assembled international experts and local city-builders to explore innovative strategies for transitioning aging tower neighbourhoods to meet the demands of our 21st century cities. With over 150 stakeholders in attendance, there was representation from government, nonprofit, private, public and community associations. Workshops and panel discussions showcased best practices at home and abroad, to focus on housing resilience and rehabilitation, neighbourhood transformation, and the maintenance of affordability in our apartment tower neighbourhoods.

Intermunicipal Questionnaire

This questionnaire was distributed to all four municipalities in the Intermunicipal group in November and received back in December in order to survey each city about setting a 2018 agenda for Tower Renewal. The survey focused on key opportunities related to Housing Rehabilitation and Neighbourhood Resiliency.

Interministerial Workshop

On January 17th, 2018 the Tower Renewal Partnership hosted the first Provincial-Municipal Tower Renewal Workshop at Evergreen Brickworks, bringing together 30 representatives from ministries and municipalities to tackle the question of enabling buildings retrofits in Ontario. Discussion focused on identifying supportive policy and programs, outlining considerations for owner uptake and ensuring policy objectives are met, and implementation strategies. This workshop will lead to future collaboration between the participants in an effort to support the implementation of Tower Renewal province-wide.

Individual Interviews

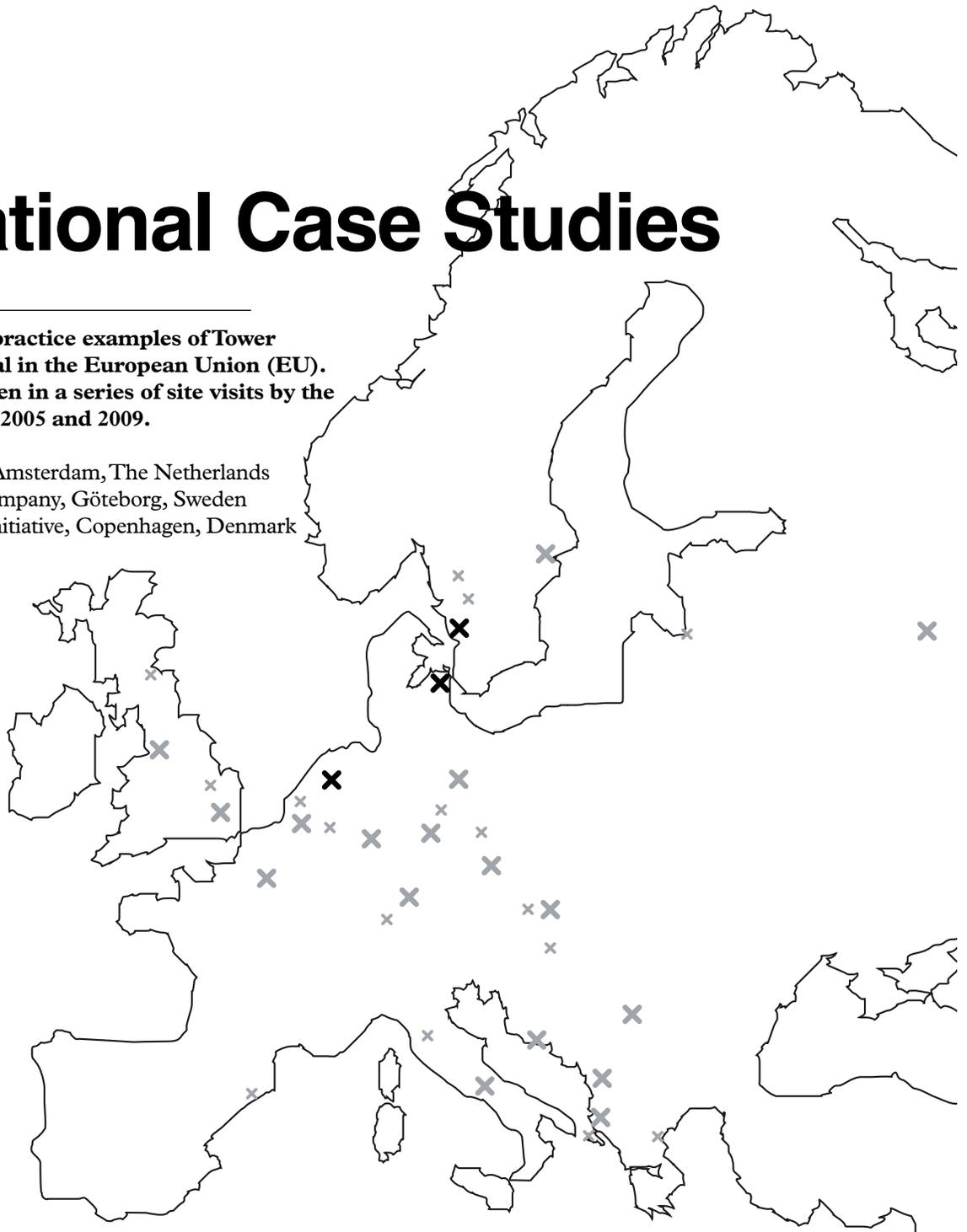
Discussion with the city of Mississauga, Toronto, Brampton and Hamilton looking at innovative tools for pre planning and achieving community benefit on Tower sites.

5.0

International Case Studies

The following are best practice examples of Tower Neighbourhood Renewal in the European Union (EU). Research was undertaken in a series of site visits by the research team between 2005 and 2009.

- 5.1 – The Bijlmermeer, Amsterdam, The Netherlands
- 5.2 – The Framtiden Company, Göteborg, Sweden
- 5.3 – The Kvarterloeft Initiative, Copenhagen, Denmark



Tower Neighbourhood Renewal Travel Research

- x** Case Studies Found in Section 5.0
- x** Additional Research Trips Conducted by the Project Team
 - x** Brief Site Visit
 - x** Extensive Site Visit



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5.1 The Bijlmermeer Amsterdam

History

A massive experiment in post war public housing, the Bijlmermeer consisted of 31 eleven storey high-rise blocks set in a honeycomb pattern in a large park landscape. The neighbourhood was constructed between 1967 and 1975 as a response to the enormous middle class housing shortage in Amsterdam. The middle class didn't arrive as planned, and instead, the Bijlmermeer attracted those with no other options. Over time, the Bijlmermeer became "a single-class, low-income and unemployed, ethnically diverse and increasingly non-white urban enclave" (B&H, 1993). The neighbourhood continues to serve as an entry point for newcomers, and is home to a mosaic of residents from over 30 different countries (B&H, 1993). The physical design of the neighbourhood has contributed to the crime, poverty and tenant dissatisfaction that the neighbourhood has experienced over its 40-year history (B&H, 1993). The original plans were not fully realized due to financial issues, which meant that stores and recreational facilities were not built,

and the planned metro link to central Amsterdam did not occur until the 1980's (H&W, 2003). Oscar Newman visited in 1972 and blamed the neighbourhood's degradation, vandalism, and lack of safety on the many 'indefensible' spaces that he observed (H&W, 2003).

Integrated Renewal

By the early 1990s, aging buildings, corporate financial problems, crime, poverty, and tenant dissatisfaction were major issues in the neighbourhood (B&H, 1993). Since then, the Bijlmermeer has become a laboratory for testing out innovative renewal strategies to address these issues. Importantly, the renewal program has focused on addressing the roots of social problems in combination with physical restructuring, and has been driven by community engagement.

Physical Restructuring

The Bijlmermeer's renewal has meant converting what had been a homogenous neighbourhood of high-rise



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...the Bijlmermeer has become a laboratory for testing out innovative renewal strategies... Importantly, the renewal program has focused on addressing the roots of social problems in combination with physical restructuring, and has been driven by community engagement.



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blocks into a mixed neighbourhood that offers a diversity of residential, business, recreation and shopping functions. To address the issue of concentrated poverty, renewal has included the demolition of half of the existing high rise flats, and the introduction of low-rise rental apartments and owner occupied single family dwellings (H&W, 2003). A mix of housing is intended to attract new, more affluent groups, and to provide existing residents with the opportunity to move around within the neighbourhood as their needs and desires change over time (H&W, 2003). Additionally, infill housing has been successful at breaking up and humanizing the scale of the original towers, and creating a range of safer and more active public, semi-public, and private outdoor spaces.

Building Renewal

The Apartment Towers that have been retained have been renovated to introduce mixed uses on the ground floors, improve waste management systems, energy use sub metering systems, district heating connections, renewable energy measures, as well as improved architectural finishes.

References

Blair, Thomas L & Edward D. Hulsbergen. (1993) Designing renewal on Europe's multi-ethnic urban edge: the case of the Bijlmermeer.

Helleman, G & Frank Wassenberg. (2003) The renewal of what was tomorrow's idealistic city. Amsterdam's Bijlmermeer high-rise.

Social investment

Socio-economic measures have focused on job creation and celebrating multicultural diversity through social programming (H&W, 2003). Among the newly introduced social services are a new police station, improvements to public transit, new educational facilities, a women's empowerment centre, and a centre to care for drug addicts (H&W, 2003). To develop the local economy, an employment advice bureau has been created, as have facilities for entrepreneurs starting out in business (H&W, 2003). Adjacent to the neighbourhood, a regionally significant employment centre called the ArenA and the AMC will offer 50,000 new jobs to the regional economy.



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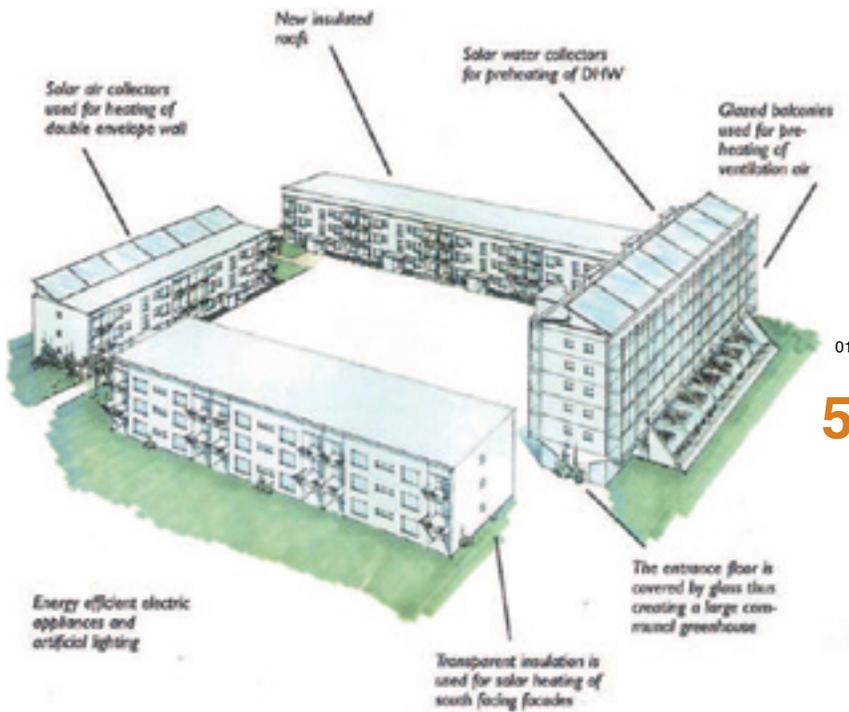
Images

- 01) Play environments and new housing at tower base
- 02) Renovations to tower entrances
- 03) Model of integrated bicycle networks and new development with the Bijlmermeer
- 04) Gathering places and new family housing
- 05) Infill housing attached to existing tower
- 06) Main street framed by mixed-use infill
- 07) Pedestrian environment
- 08) Tower refurbishment
- 09) Photo Voltaics on tower roof
- 10-11) Improved open spaces
- 11) Overview of portion of Bijlmermeer, showing existing towers integrated into new infill

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5.2 Framtiden Company Göteborg, Sweden

Framtiden

Forvaltnings AB Framtiden is a consortia of public companies responsible for the provision of market based affordable housing in the City of Göteborg (Göteborg) Sweden. Framtiden owns and operates over 70,000 units of housing.

Framtiden operates as a private company, and maintains its housing stock and programs through self generated revenue streams. Through subsidiary companies such as the parking authority, the development of new high end market housing for sale, and the general rental income generated through its existing housing stock, Framtiden generates financing to invest in the modernization of its older housing

stock, most of which dates from the 1960s and 1970s during Sweden's 'Million Homes Program'. A considerable portion of its rental stock is kept at the affordability threshold, a rate negotiated with Sweden's Tenant Organization. Housing for those in need is provided by Framtiden, with a rent subsidy provided by the Swedish Government. Recent reinvestment projects are consistent with the aims of Tower Neighbourhood Renewal, including green refurbishment, facilities upgrade, open space improvements and community programming, as well as the development of new units within older communities.

Case: Gardsten Solar House

Gardsten was built in the early 1970s

as part of the national 'Million Homes Program', on the periphery of Göteborg. By 1997 many of the neighbourhood's 2000 apartments were vacant. At this time, a subsidiary company of Framtiden called Gardstensbostäder was formed to undertake the comprehensive social and environmental renewal of the neighbourhood. Among the many projects that have transformed the neighbourhood, the award winning 'Solar House' project is an example of high-quality building refurbishment undertaken in a northern climate that improves energy and social conditions.

Environmental Sustainability

On the west side of Gardsten, the solar house project has transformed a series of three and six storey apartment blocks that are organized around shared courtyards. The refurbished buildings feature a new highly insulated building envelope, are connected to a district heating system, have solar panels on the roof that heat domestic

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Images

- 01) Diagram of Solar House courtyards
- 02) Detail of enclosed, operable balconies
- 03) Interior view of Community greenhouses
- 04) View of enclosed balconies and roof top solar water heaters
- 05) Section diagram through 'Solar House'. Illustration by Christer Nordstrom Arkitekter AB (from Solar Buildings in Gardsten Brochure)

hot water, feature enclosed balconies that reduce heat loss and increase the livable space of each unit, and feature new energy efficient appliances. Prior to renewal, utility costs were incorporated into tenant's rent, and consequently there was little incentive to conserve. Following the renovations, space heating, water, and electricity use is now metered separately for each unit, and tenants who conserve receive a rebate on their monthly rent. Between building upgrades and improved tenant conservation, building operating costs have been reduced by 45 per cent. As both an environmental and social strategy, ground floor spaces were turned into community amenities that include laundry facilities and greenhouses with composting equipment that transforms household organic waste into rich soil for gardening.

“Gardsten in north-east Gothenburg has developed from having been one of Sweden’s most problem-filled suburbs to an attractive residential area with major social and environmental qualities”.

“Gardstensbostader has consciously used its role as property owner and building contractor to lead and support a process of social development”.



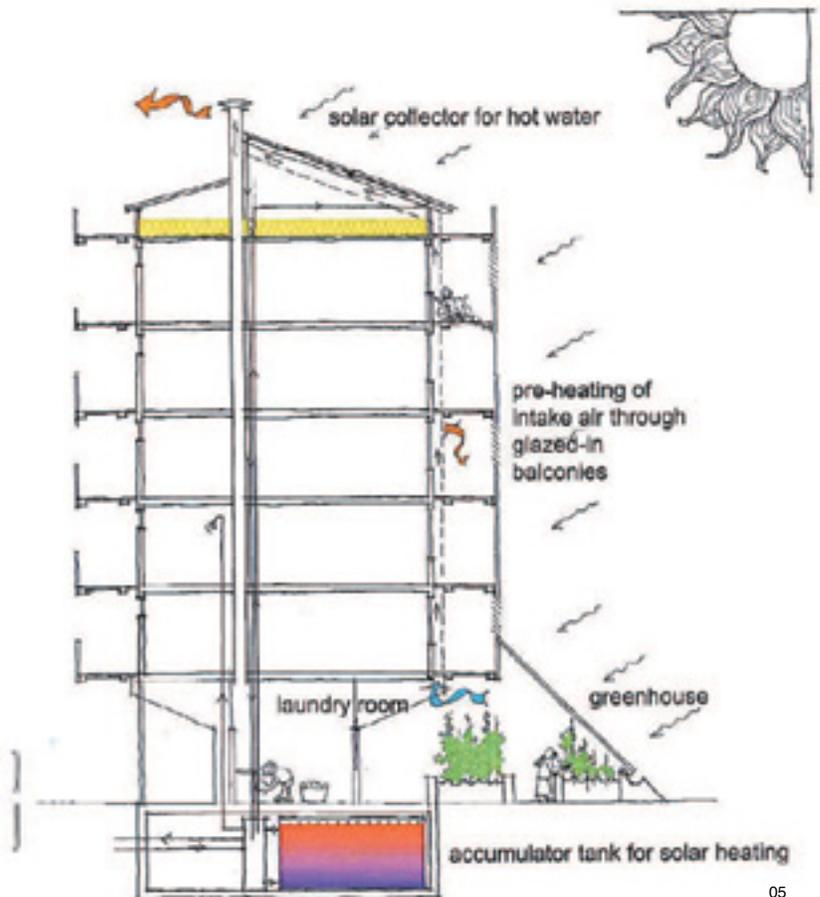
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Social Initiatives

Eighty three per cent of Gardsten residents are of non-Swedish origin, and prior to renewal efforts, the area suffered from high unemployment rates and stigmatization within the city of Göteborg. During the neighbourhood's renewal, Gardstensbostader was able to create 870 new jobs for Gardsten residents, many of them related to the building and landscape renovation work undertaken. Youth programs focussed on the renovation of neighbourhood green spaces, and new recreational programs were created. In 2005, 'The New Face of the Million Programme' exhibition brought a lot of positive attention to Gardsten from the rest of the city of Göteborg. This exhibit led to the feeling that Gardsten was now recognized as a living and vital part of the city and was an important symbolic moment to Gardsten residents.

References

The Enhanced Social Structure of Gardsten and Solar buildings in Gardsten (published by Gardstensostader).



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5.3 The Kvarterløft Initiative Denmark

History

Between 1997 and 2007, the Kvarterløft Initiative, which translates to ‘integrated urban regeneration’, has had a great deal of success in positively transforming a number of 1960s era public housing estates in Denmark. A federal program led by the Ministry of Refugee, Immigration and Integration Affairs, Kvarterløft projects were undertaken in neighbourhoods that tended to have large new immigrant populations, and that were growing increasingly socially, culturally and economically segregated from mainstream Danish society. A total of 12 neighbourhoods housing approximately 110,000 residents took part in the program, which conceptualized each neighbourhood as a distinct ‘urban regeneration laboratory’, where a set of coordinated projects were designed and implemented through a cooperative process. While each neighbourhood had a different set of specific issues and goals, at its core, the program’s central objective was to address the

roots of social and economic decline in troubled areas, and to build a more equitable and integrated society.

Renewal Process

The Kvarterløft model stresses citizen involvement, integrated solutions, and public private partnerships. In order to reach the most isolated and exposed groups of residents, including ethnic minority groups, the process is approached in three-steps: participation, interaction and then integration.

Institutional Structure

The Kvarterløft projects required that various agencies at different levels of government work together effectively. In each Kvarterløft neighbourhood, a local secretariat was established and tasked with finding and coordinating solutions that would work locally.

Branding

The Kvarterløft model recognizes that combating stigmatization is a difficult and long term process. In order to



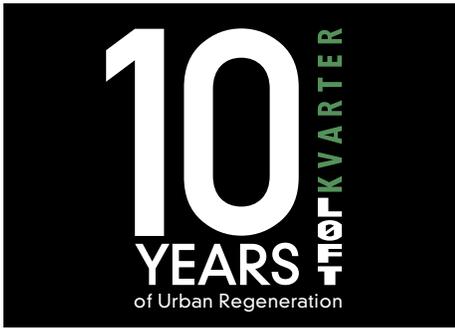
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gradually change a neighbourhood's negative image, a long term branding strategy needs to be developed that celebrates and communicates positive changes to a local and regional audience. Through websites, newsletters and neighbourhood magazines, many of the Kvarterløft projects engage locals in creating their own media in order to celebrate local success stories, encourage neighbourhood social organization, and to build local identity and pride. Some Kvarterløft neighbourhoods have stressed the use of signage and advertisements, issuing press releases to attract mainstream media coverage, and some have organized large cultural events to communicate positive stories about their neighbourhood. Physical renovation work that renews housing, courtyard environments and the neighbourhood landscape also has had a large impact on neighbourhood re-branding.

Project Highlights

Kvarterløft projects in the tower districts of Norrebro Park, Avedøre and Brøndby Strand in and around Copenhagen offer inspiration and lessons to Tower Neighbourhood Renewal efforts in the GGH.



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Where earlier urban restructuring projects in Denmark were met with conflict and criticism, the Kvarterløft initiative has largely been evaluated positively, and has garnered a great deal of international interest. The initiative has been the subject of numerous academic publications and conferences, and individual projects have won prestigious design and planning awards. As a model, what started out as a series of pilot projects has grown to influence mainstream Danish urban renewal and social housing legislation.



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Lessons

The experience from the Kvarterløft initiative suggests that for Apartment Tower Neighbourhood Renewal to address the roots of socio-economic segregation, and to bring long term positive change in the lives of local residents:

- the renewal program must be of a significant scope to have an impact;
- renewal measures must be comprehensive, including physical and social investments; and
- renewal must be understood as a long term process.

References

Kvarterløft: 10 years of Urban Regeneration. (2007). Copenhagen: The Ministry of Refugees, Immigration and Integration Affairs.

Images

- 01) New path and improved natural open space
- 02) Renewed towers and courtyards in Norrebro Park, Copenhagen
- 03) New shops and markets at base of towers
- 04) Overview image of neighbourhood
- 05) Well used Norrebro Park has been updated with new bicycle paths and improved open spaces and has become the heart of the renewed neighbourhood
- 06) Program book of 10 year anniversary of initiative
- 07) Youth sports programs in Brøndby Strand, Copenhagen
- 08 - 09) New lighting and amenities along Prags Blvd in Holmbladsgade, Copenhagen

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