

BEST PRACTICES for PLANNING
CENTRES **and** CORRIDORS



September 26, 2013



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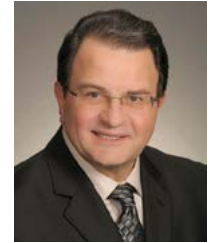
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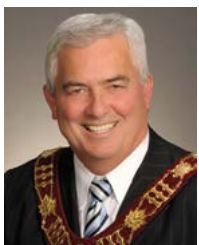
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A Message from York Regional Council

Well planned Centres and Corridors are fundamental components of creating healthy, sustainable communities. The Regional Municipality of York and our local municipalities are in the process of transforming how our Region grows and physically evolves.

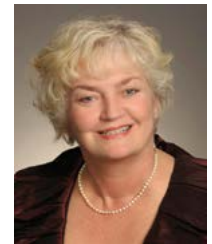
While significant progress has been made, there is more work to be done to plan and implement the desired changes.

The Best Practices for Planning Centres and Corridors provides an overview of how the Region has evolved since suburban development accelerated in the 1970s and the vision for Centres and Corridors in the future.

This document has been prepared in consultation with staff from local municipalities and government agencies as a useful resource and best practices for planning and implementing Centres, Key Development Areas and Corridors.

York Regional Council would like to thank all the contributors to this document. We hope you find it to be a valuable source for inspiration and innovation in building strong and vibrant communities.

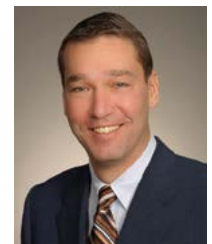
For more information or to provide comments on this document, please refer to the back of this publication for contact information of Regional staff.



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Introduction.

The Regional Municipality of York and our local municipalities are in the process of transforming how the Region grows and physically evolves. The goal is to concentrate much of the planned growth within the defined centres of Markham, Newmarket, Richmond Hill and Vaughan and along the Region's major transportation corridors, including Yonge Street, Highway 7, Davis Drive and Green Lane. Significant progress is being made, but there is more work to be done to plan and implement the desired changes.

This document has been prepared by York Region, in collaboration with Urban Strategies Inc., to assist local municipalities, government agencies, developers, designers and other “city builders” with the challenges of planning and developing Centres and Corridors. The document comprises two parts:

Section 1 describes the context for a centres and corridors approach to planning for growth. It provides an overview of how the Region has evolved since suburban development accelerated in the 1970s. It also describes the vision for Centres and Corridors, as reflected in the Official Plans of the Region and the local municipalities. Section 1 concludes by summarizing and illustrating development activity in the four Regional Centres.

Section 2 discusses the key challenges to be overcome in fully implementing the vision for Centres and Corridors. Many of the challenges, which are grouped under nine broad headings, were identified in consultation with staff from the local municipalities and government agencies who participated in a workshop held in December 2012. Other challenges have been identified previously by local municipalities and as well by developers actively

proposing and implementing projects in Centres and Corridors. Following the challenges in each sub-section, suggested approaches to addressing them are described, supported by relevant “best-practices” from both within the Region, elsewhere in the Greater Toronto Area and beyond.

Section 3 illustrates real world examples that exemplify the approaches discussed in Section 2. The built places highlighted in this section are intended to provide inspiration for the planning and implementation of Centres, Key Development Areas and Corridors.

The Best Practices for Planning Centres and Corridors is not a policy or guideline document. It is a resource—a compendium of innovations and best practices for city builders as well as residents with an interest in how their community is expected to grow. Since city building is an ongoing process and the development of York Region's Centres and Corridors is a decades-long undertaking, the Region intends to review this document periodically and update it with new challenges that emerge and new best practices.



1 Context

The concept of Centres and Corridors is fundamental to creating healthy, sustainable communities that meet the needs of a diverse population. This section describes how the Province, the Region and local municipalities are reshaping cities and illustrates the Region's emerging urban structure. The vision and goals for Centres and Corridors reinforce the importance of addressing the development challenges they face.

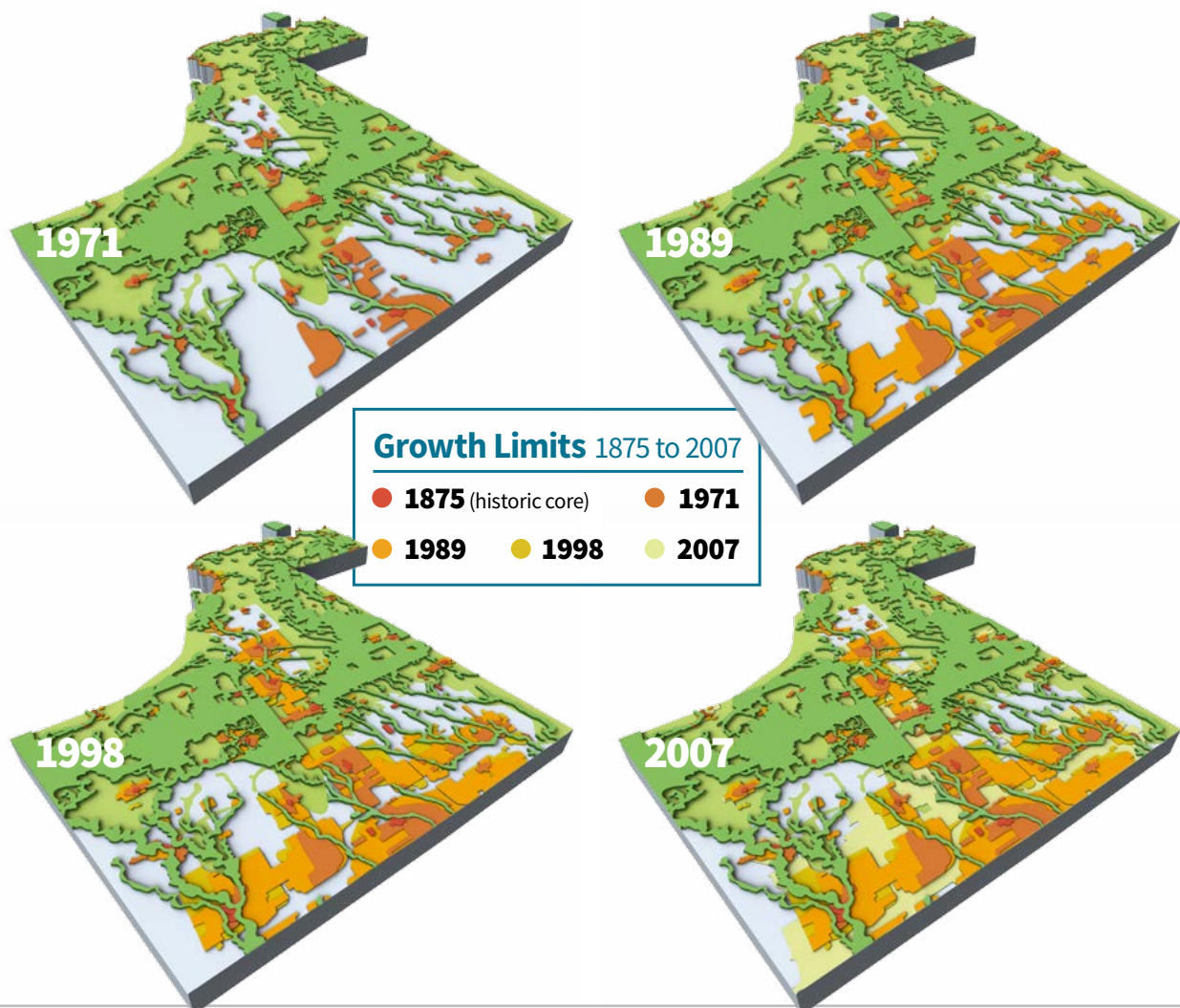
1.1 How We Design and Build Cities has Changed

City Building

Across the Greater Golden Horseshoe, municipalities are balancing outward growth with intensification to achieve a more sustainable urban environment.

The development of York Region over most of the past 40 years has occurred at a steady pace, following common patterns of land subdivision. Historic villages and natural features provide an identity for many communities within York Region.

The dominant pattern of residential neighbourhoods separated from both commercial uses and employment areas, and the low density of development combined with disjointed road networks, meant that residents were dependent on an automobile to move around.





There is growing recognition that this traditional suburban pattern, at the scale of an entire community, is not sustainable—economically, environmentally and from a quality-of-life standpoint. This pattern of inefficient use of land, energy and financial resources, has a range of adverse environmental impacts, and results in people spending an increasing amount of time driving.

Recognizing the need to find new ways to build our cities that protect valuable land, use resources wisely and create healthy, complete communities, governments at all levels have developed policies and programs aimed at achieving sustainable growth, including York Region’s Centres and Corridors program.

The Province of Ontario enacted the Oak Ridges Moraine Act and established the Greenbelt to protect significant natural features and important agricultural lands across York Region and beyond. This was followed by the Growth Plan for the Greater Golden Horseshoe, which establishes growth targets for regional municipalities and requires that 40% of a municipality’s growth, starting in 2015, occur through the intensification of built-up areas. It also identifies 25 urban growth centres, setting minimum density targets for each, and directs intensification to major transit station areas and intensification corridors. Metrolinx, the

provincial transit agency, subsequently prepared the Big Move Regional Transportation Plan, aimed at relieving congestion and supporting intensification with short-, medium- and long-term transit initiatives.

Since the Growth Plan was released in 2006, regional and local municipalities have been updating their official plans and other policy documents to align them with provincial policy and guide intensification. It is important to recognize that it is not only government land use policy that is reshaping cities to be more sustainable. Significant demographic trends are also supporting denser forms of development. As baby boomers become empty nesters and approach old age, many are choosing to move to city centres to be close to a range of amenities and services. At the same time, the so-called millennials, children of the baby boomers, are also choosing, in large numbers, to live, work and raise families in vibrant, mixed-use urban centres, where everything is close by and a car is not a necessity.

The combination of policy shifts and market trends is resulting in a more balanced approach to building cities, in which there are more choices of neighbourhood types and densities, more options for moving around and a greater mix of uses in all areas but especially in centres and along transit corridors.

The New Attitude to City Building

The principles below capture the essence of the new approach to planning sustainable cities



North Shore Tower, Port Credit Photo: Josh Reis



Seattle South Lake Union Photo: Andy Tucker (flickr.com)

Growing up, not out

- Making better use of land through infill and intensification
- Integrating development with transit, and other infrastructure investments
- Setting minimum density requirements in primary and strategic intensification areas

Mixing compatible land uses together, instead of separating them

- Opportunities to live/work/shop/play/learn in same area
- “24/7” complete communities
- Opportunities to age in place
- Providing a mix of housing options

Providing travel alternatives to the car

- Expanding the Regional rapid transit network and improving the reliability of transit services
- Building and expanding the pedestrian, cycling network to facilitate active travel and increase walkability across communities
- Incorporating Transportation Demand Management (TDM) measures, like ride-sharing, transit-pass incentive programs and parking management
- Encouraging cycling by providing user end facilities, such as bike racks and lockers, to employees
- Incorporate infrastructure for transportation powered by renewable energy (i.e. electric vehicle plug-in stations)



Oakville Plaza Photo: Royale LePage



Urban Swale, Portland Photo: flickr.com

Creating vibrant and successful public spaces

- Creating complete streets through design
- Place-making, including “outdoor rooms”
- Support walkable, safe, healthy and resilient communities respectful of the natural environment
- Designing flexible and accessible public spaces that respond to the needs of a diverse population
- Recognizing the importance of economic and cultural activity
- Government investments (including capital delivery programs) and partnerships to create high-quality places

Encouraging efficiency & sustainability through the planning process

- Providing incentives for projects that are water and energy efficient, above Ontario building code standards
- LEED certification for municipal buildings
- Making efficient use of water and waste water infrastructure and effectively managing stormwater
- Protecting sources of drinking water
- Maintaining a healthy connection to the Region’s natural environment

1.2 The Region's Emerging Urban Structure

The Structure

Centres and Corridors is the term used to describe the foundation of York Region's planned urban structure. Centres and Corridors provide a focus for urbanizing the Region and are also the focus for infrastructure and program delivery to support intensification and city-building.

The planning and development of Centres and Corridors are guided by *Vision 2051*, York Region's long-term guidance document that provides goals and actions related to creating strong, safe and caring communities, while recognizing that York Region is transforming into an intensified city region. *Vision 2051* states that the majority of the 640,000 new households targeted for York Region will be locating within the Region's urban areas, in particular, within the four Regional centres: Vaughan Metropolitan Centre, Richmond Hill/Langstaff Gateway Centre, Markham Centre and Newmarket Centre; and along the Regional corridors of Yonge Street, Highway 7 and portions of Davis Drive and Green Lane.

The Regional Official Plan provides policies to guide the Region to 2031 and embeds many of the longer term *Vision 2051* goals, including the vision and policy for the Regional Centres and Corridors. The Province reinforces this vision with the Regional Centres also designated as Provincial Urban Growth Centres within the Provincial Growth Plan *Places to Grow*.

The Vision

The following excerpts below from York Region's *Official Plan* describe the vision and policy intent for Centres and Corridors.

The Regional Centres are planned as the most important and intense concentrations of development within the Region. They are vibrant urban places for living, working, shopping, entertainment, cultural identity and human services. The four Regional Centres are strategically located in Markham, Newmarket, Richmond Hill and Vaughan, and are connected along the Regional Corridors to enhance the mobility of people and goods to, from and within these places. The Regional Centres will mature throughout and beyond the period of this Plan to become exciting "downtowns," containing the highest concentration and greatest mix of uses in the Region, including a range of employment and housing opportunities oriented to rapid transit.

The Regional Corridors are more than just the main arteries for moving people and goods between neighbourhoods and the Regional Centres. They are diverse places that support a range and mix of activities that enrich the character and meet the needs of the communities located along the Regional Corridors. The character and pace of development on Regional Corridors may be dramatically different along various stretches, including segments that are historical mainstreets, protected natural areas, or higher-density nodes.

The York Region Structure

Regional Centres

Markham Centre
Richmond Hill/Langstaff Gateway
Vaughan Metropolitan Centre
Newmarket Centre

Regional Corridors

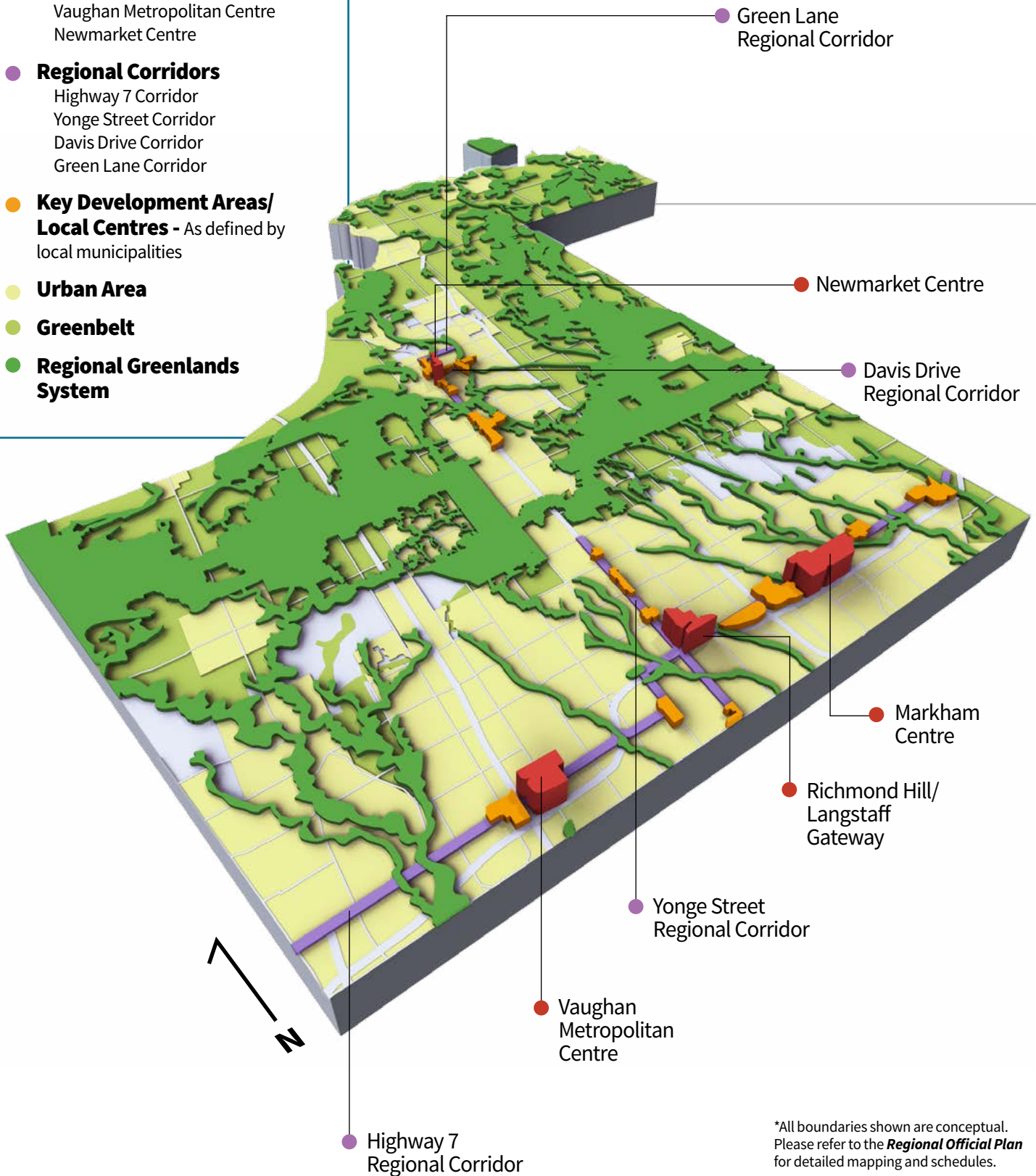
Highway 7 Corridor
Yonge Street Corridor
Davis Drive Corridor
Green Lane Corridor

Key Development Areas/ Local Centres - As defined by local municipalities

Urban Area

Greenbelt

Regional Greenlands System



*All boundaries shown are conceptual.
Please refer to the **Regional Official Plan**
for detailed mapping and schedules.

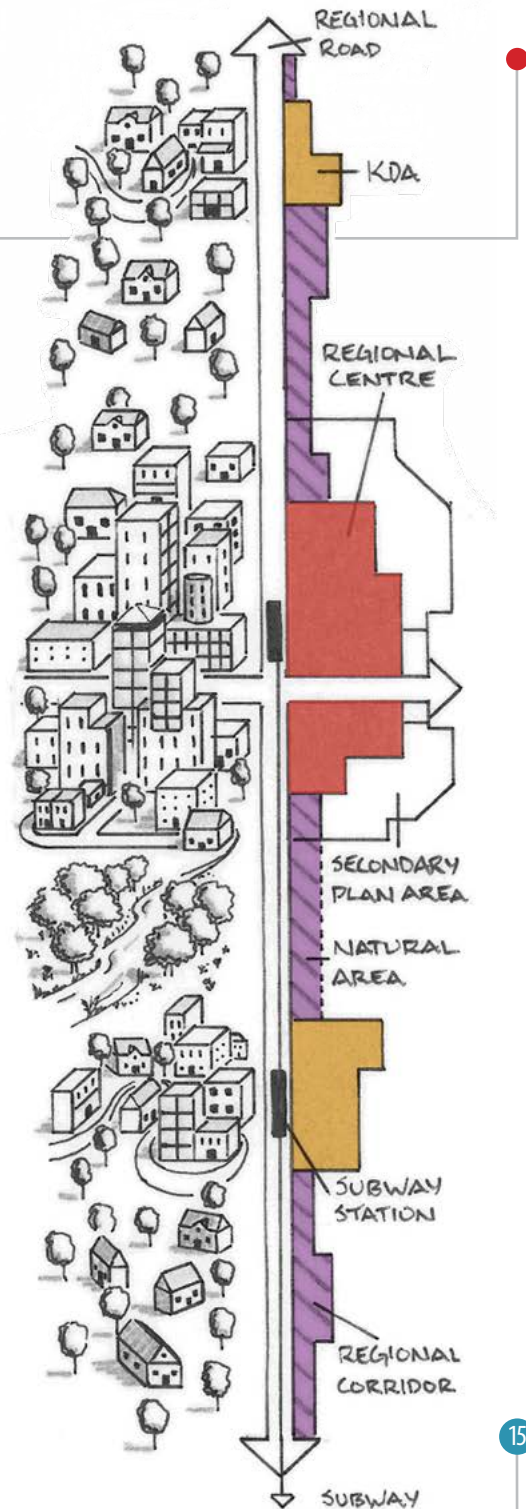
The Region's Official Plan directs that comprehensive secondary plans for Regional Centres and Key Development Areas along Regional Corridors be prepared by local municipalities and include, among other things:

- a fine-grained street grid that incorporates sidewalks and bicycle lanes
- an urban built form that is massed, designed and oriented to people, and creates active and attractive streets for all seasons
- a minimum requirement that 35% of new housing units be affordable, offering a range of compact housing forms and tenures, and intrinsically affordable units for low and moderate income households
- policies that sequence development in an orderly way, coordinated with the provision of human services, transit and other infrastructure
- policies to ensure excellence in urban design and sustainable construction methods
- policies that establish urban greening targets, which may be achieved through urban forest canopy, green walls, requirements for on-site greening
- provisions for an urban public realm, including passive and active parks and meeting places, such as urban squares, which incorporate art, culture and heritage, and that contribute to a sense of place and clear identity
- policies to ensure natural and recreational connections and enhancements to and within local and Regional Greenlands Systems
- policies to require innovative approaches to urban stormwater management, including alternatives to conventional retention ponds, low-impact development, green roofs, and water capture and reuse
- requirements for new school sites to be constructed to an urban standard, including the consideration of alternative site size and design standards, multi-storey buildings and shared facilities

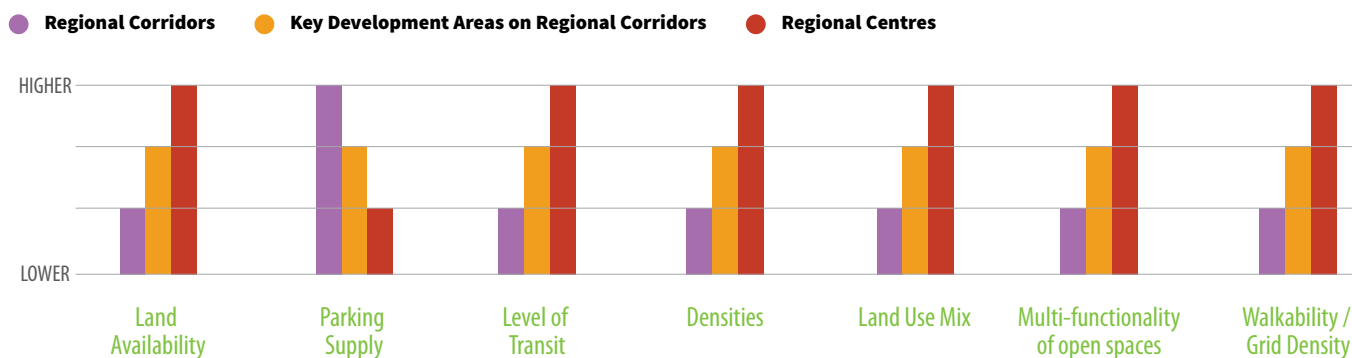
In addition to Regional Centres and Corridors, the **Official Plan** recognizes that Local Centres and Corridors are important components of the local urban structure:

Key Development Areas/Local Centres on Regional Corridors

include intensification areas on Regional Corridors and areas located within a reasonable and direct walking distance from all planned subway stations and select rapid transit stations, as identified by local municipalities. Key development areas are planned to reflect the local character of the area and contain the highest densities and mix of uses within and along a Regional Corridor.



Characteristics of the Regional Centres, Key Development Areas and Regional Corridors



A Variety of Urban Places

Each centre and corridor will physically evolve in its own way, guided by the vision of local municipalities and other city builders, in addition to Official Plan policies. As the diagram above illustrates, each of the three types of priority intensification areas will have distinct fundamental characteristics. Regardless of their differences and similarities, the varying nature and mix of uses and the design of buildings, open spaces and streets will ultimately give each centre and corridor its unique identity.

Land Availability

Generally, Regional Centres historically contained significant commercial sites with large parking areas, creating the potential for large-scale change through redevelopment. Key Development Areas (KDAs) and the Regional Corridors in between may also contain large commercial properties, but generally land ownership is more fragmented and sites are less deep.

Level of Transit and Parking Supply

Being hubs within a transit network that includes regional and inter-regional systems, Centres benefit from high levels of transit service, which should result in lower parking ratios over time. The KDAs and Regional Corridors may not have the same intensity of transit service and therefore may have higher parking ratios to accommodate a higher level of car use.

Level of Transit and Densities

The high level of transit service in Regional Centres can support highest densities of development, and will help ensure that transit infrastructure and service are financially sustainable. Overall, densities in KDAs and the balance of the Regional Corridors may not be as intense but are

intended to remain transit-supportive and sensitive to the surrounding context, which may include low-rise neighbourhoods.

Land Use Mix

The scale, location and accessibility of Regional Centres sets them up to function like a downtown, with a broad mix of residential, office, commercial and institutional uses. KDAs may also have a mix of uses, but most will be dominated by housing and supporting commercial uses. Some segments of Regional Corridors will have a strong retail presence mixed with residential development, while others will be mostly residential.

Multi-Functionality of Open Spaces

The intensity and diversity of uses in a Regional Centre will place heavy demands on public open space, requiring them to be multi-functional and durably built. Open spaces may be multi-purpose in KDAs but generally less so. Along Regional Corridors, open spaces are more likely to have a primary role as amenity space for residents.

Walkability/Grid Density

In Regional Centres, KDAs and Regional Corridors, all development should encourage walking. In Regional Centres a fine-grained network of streets will be critical to ensuring walking is a primary mode of travel and is complemented by higher order transit services. The context and site characteristics in KDAs may make it harder to achieve a tight grid of streets. Along Regional Corridors, opportunities to introduce new streets may be limited, and the integration of mid-block pathways may be the key to achieving walkability.

1.3 Centres and Corridors Today

Emerging Places

York Region's Centres and Corridors are at various stages of development. Major residential developments have been built or are set to be built in the four Centres, accommodating a significant share of the Region's population growth since 2007. Employment growth has not been as strong as residential, but additional major office buildings are in the pipeline for the Vaughan Metropolitan Centre and Markham Centre.

Anticipated Growth

York Region is anticipated to grow to 1.5 million residents and 780,000 jobs by 2031. As stated in the Provincial Growth Plan, starting in 2015 and for each year thereafter, a minimum of 40% of residential intensification must be achieved within the built-up area to accommodate future growth. It is anticipated that a large share of the Region's intensification target of 90,720 housing units as set out in Table 2 of the Regional Official Plan, will be accommodated in the Region's Centres and Corridors.

Secondary plans have been prepared or are in the process of being prepared for the four Regional Centres that will achieve a planned density of 200 people and jobs per hectare by 2031. Table 1, below, shows the planned population and employment from 2031 to 2051 for each Regional Centre. Regional Corridors are being planned

and targets will be implemented through local planning policies. Targets will be monitored through regular Regional reporting to identify trends and progress.

Markham Centre has been the most active of the Regional Centres, having had the benefit of nearly 20 years of planning work and a greenfield condition allowing for intensification with minimal redevelopment of existing uses. It is anticipated that the other Regional Centres will also see increased levels of development in the coming years due to a number of factors including: major transit infrastructure investments, including the Spadina subway extension and delivery of the Viva Rapidways; the detailed secondary planning exercises for the Centres by local municipalities; planned servicing improvements and market demand factors.

Table 1: Planned Growth, 2031 to 2051

Population, Employment and Associated Density	Markham Centre	Richmond Hill/ Langstaff Gateway	Vaughan Metropolitan Centre	Newmarket Centre/UGC	Totals
Residents (people)	17,000	48,000	25,000	5,300	94,500
Employees (jobs)	10,000	31,000	11,500	7,700	57,000
Areas (hectares)	410	117	119	45	691



Markham Centre Rendering Photo: vivaNext



Richmond Hill/Langstaff Gateway Photos: vivaNext

● Regional Centres

Markham Centre

The *Markham Centre Plan* continues to take shape as an existing urban place with a multitude of active development sites. The original *Markham Centre Plan* (OPA 21) was adopted by Markham in 1997 and set the stage for this new urban centre. Between 2007 and 2010, 30% of all multi-unit residential units in the Region were built in Markham Centre making this the most active intensification area in the Region.

Richmond Hill/Langstaff Gateway Centre

The Richmond Hill/Langstaff Gateway Centre is a joint urban centre linked by Yonge Street and shared by Richmond Hill and Markham. The transportation capacity of the area is limited to approximately 7,000 residential units without the subway. An environmental assessment is underway - additional wastewater servicing capacity will be required to achieve the forecasted population and employment. The *Richmond Hill Regional Centre Design and Land Use Study* (North of 407) has been completed and the Secondary Plan is to follow. The *Langstaff Gateway Secondary Plan* (South of 407) was approved in 2011.



Vaughan Metropolitan Centre Rendering Photo: City of Vaughan



Newmarket Centre Rendering Photos: vivaNext

Regional Centres ●

Vaughan Metropolitan Centre

Development Activity is increasing in the *Vaughan Metropolitan Centre (VMC) Secondary Plan* as the subway moves to completion. Over 7,000 residential units and 77,000m² (approximately 800,000 square feet) of office use is currently approved or proposed. The Secondary Plan was initially adopted by Vaughan Council in 2010 and has been moving towards final approval. Vaughan Council held a public meeting on October 16, 2012 and endorsed modifications to the Plan, which was then forwarded to the Region for comment and endorsement in December 2012. The Secondary Plan has been appealed to the Ontario Municipal Board. The Region has now endorsed the Secondary Plan with modifications and continues to press forward with the City.

Newmarket Centre

The Town of Newmarket released a draft concept and visualization of the *Newmarket Centre Secondary Plan* for review. The *Newmarket Centre Secondary Plan*, which includes the Newmarket Urban Growth Centre and the Yonge Street and Davis Drive Regional Corridors, is currently being crafted. The Town and Region are conducting a Transportation Study in partnership for the Centre. The Draft Secondary Plan is targeted to be released late 2013 by the Town.



vivaNext Rapidway Construction on Highway 7 Photo: York Region

● Regional Corridors

Highway 7 Corridor

Highway 7 is the spine that connects three out of the four Regional Centres – Richmond Hill/Langstaff Gateway Centre, Markham Centre and Vaughan Metropolitan Centre. The long-term vision will transform Highway 7 into a multi-use urban street with medium and high-density residential development that supports an integrated community where residents live, work, play, and learn. The construction and realization of the Rapidway for viva Bus Rapid Transit along Highway 7 is helping to move this vision forward and will connect with viva, GO Transit, YRT and other transit systems.

Yonge Street Corridor

Yonge Street, has connected communities between Lake Ontario and Lake Simcoe since the 1800s, and as such it has seen a tremendous amount of change. The Rapidway, along portions of Yonge Street, will transform Yonge Street from the Richmond Hill/Langstaff Gateway Centre at Highway 7 to Newmarket Centre. This Corridor provides connections to viva, GO Transit, YRT and higher order transit services such as the planned Yonge Subway extension.

The Rapidway will encourage prestige businesses and professional offices, high-density residential units, great shopping and entertainment uses to locate along the Yonge Street Corridor.

Davis Drive Corridor

Davis Drive in Newmarket, provides important connections to Newmarket Centre, shopping, entertainment, a regional hospital and medical facilities, and transit services including GO Transit, viva and YRT. The realization of the Rapidway along Davis Drive is working to transform surrounding uses into a vibrant, mixed-use urban corridor.

Green Lane East Corridor

The Green Lane East Corridor abuts areas that were previously undeveloped and presents an opportunity to connect new urban and mixed-use communities with shopping, employment and support connections to other transit services, including the GO Transit Train and Bus Terminal.



2 Best Practices

While much progress has been made in planning and building Centres and Corridors, there remain many challenges associated with transforming car-oriented suburban environments into compact urban places that are friendly to transit users, pedestrians and cyclists. This section discusses key challenges commonly identified by planners, urban designers and developers and describes a range of best practices that can be considered to address them.



• 2.1 Infrastructure



The Challenges

The essential structure of the urban area has been largely set by the historic pattern of macro infrastructure, and environmental and geographic features. While the Greenbelt, river systems and environmentally sensitive areas have established the broad context for growth management in York Region, the pattern of land use and intensity going forward must be coordinated with planned major highway, road, transit and servicing infrastructure.

While a broad infrastructure base is in place, the Region is going through a process of significant new investment in infrastructure. How to fund and phase that infrastructure, and how to ensure that urban development matches that investment, is key to the efficient and full development of Centres and Corridors.

Planning Infrastructure at All Scales

At the macro scale, major transit lines, highways and water and sewer systems establish the 'big bones' of the urban region. At the mid-scale, major civic facilities, mobility hubs, feeder transit routes, district energy systems and collective parking facilities support the local geography of growth. At the micro scale, the quality of the streetscape, the retail provision, area public spaces and other place making initiatives can set an immediate environment conducive for growth. Successful implementation of a Centres and Corridors approach must involve the planning, coordination and delivery of infrastructure at all scales.

Phasing and Coordination of Infrastructure

The successful intensification of Centres and Corridors relies on the presence of a suite of existing and planned hard infrastructure, notably transit infrastructure but often road and utility improvements as well. It is this infrastructure that can accommodate the new transit demands, allow for increased pedestrian activity and facilitate reduction in required parking provisions— all necessary to support intensification. Coordinating investments in public infrastructure to facilitate private development is challenging in light of overlapping jurisdictions among infrastructure providers and the long lead time often required to plan, finance and implement major public works.



vivaNext Construction Photo: vivaNext



Markham District Energy Construction Photo: Loozrboy (flickr.com)

The Approaches

The integration of infrastructure and land use plans will help ensure the continuous and seamless development of Centres and Corridors. Implementing the plans in a coordinated way usually requires ongoing communication and cooperation among infrastructure providers and developers as capital projects move forward.

Integrated Planning

Prepare comprehensive infrastructure investment and growth management plans for key Centres and Corridors.

Markham Centre Plan

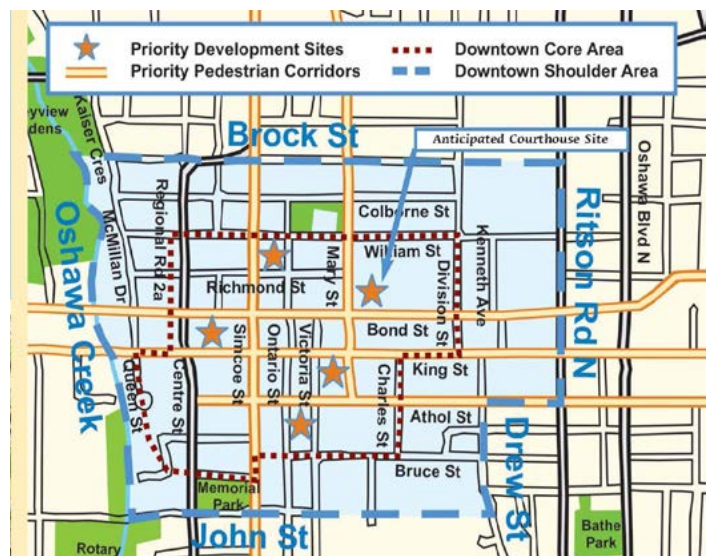
In 2004, the City adopted *The Markham Centre Plan* which established a framework for creating Markham's new downtown based on a fundamental decision to focus on sustainable growth in the Centre that would support and sustain rapid transit investment. When complete in 2031 or beyond, Markham Centre will be a live-work-play community of over 30 million square feet of residential, commercial and institutional buildings; and be home to over 41,000 residents and 39,000 employees. District energy (Page 30) is forecasted to reduce greenhouse gas emissions by as much as 50 per cent.



Markham Centre Plan Photo: City of Markham

Oshawa Downtown Action Plan

The City of Oshawa established a *Downtown Action Plan (DAP)* in 2005 to guide revitalization and investment in the core. The DAP sets out a number of critical tasks, including: acquiring land for priority development projects and public space enhancements; developing a new downtown parking strategy; and enhancing the Central Business District Community Improvement Program. Since 2005, the City has located public institutions, like the LEED Gold Durham Region courthouse, in the Downtown, and provided financial incentives to encourage investment and development. These proactive decisions led to a decrease in commercial vacancy rates from 20 per cent in 2006 to 11 per cent in 2010, and an increase of 15 new food services establishments since 2006.



Oshawa Downtown Action Plan Photo: City of Oshawa

The Approaches •

Infrastructure Working Groups

Form intergovernmental and interdepartmental working groups to coordinate infrastructure and plan investments as far ahead as possible.

Town of Oakville Midtown Business and Development Plan

Midtown Oakville is identified as an Urban Growth Centre and an Anchor (Mobility) Hub, and needs to accommodate an estimated 20,000 new residents and employees by 2031. It includes the Oakville GO Station on the Lakeshore West Line and a bus loop for Oakville Transit. The Business and Development Plan identifies four main objectives: 1. Put transit oriented development first; 2. Create a great place; 3. Achieve Provincial growth targets; and 4. Emphasize sustainable development. A financial analysis, which demonstrated the economic feasibility of the proposed developments, informed the transportation concepts, land use mix, height, density and phasing elements of the Plan.

In 2012, Metrolinx, the Town of Oakville, and the Region of Halton collaborated to complete the Metrolinx Midtown Oakville Mobility Hub Study building on the May 2011 Livable Oakville Official Plan and the June 2008 Draft Midtown Business and Development Plan. It focuses on the redevelopment of publicly-owned lands around the Oakville GO station, the majority of which is owned by Metrolinx. Midtown Oakville is planned to be a vibrant, mixed-use urban centre with a variety of residential, employment and retail opportunities provided through walkable, transit-oriented development.



Town of Oakville Midtown Business and Development Plan
Photo: Town of Oakville



Town of Oakville Midtown Business and Development Plan
Photo: Urban Strategies

• The Approaches

Front-end Significant Public Investment

Front-end significant public investments in infrastructure, recognizing the long-term return from private development and growth.

Viva Rapidway

Investing in public transit will help reduce congestion, strengthen the economy, shape communities, provide people with more transportation options, and create jobs. In 2008, the Province of Ontario announced the \$1.4 billion for Metrolinx's York vivaNext bus rapid transit (BRT) project. The Rapidway includes 41 kilometers of rapid transit in York Region: Highway 7 from Helen Street in Vaughan to Unionville GO Station; Yonge Street from Highway 7 to Davis Drive; and Davis Drive from Yonge Street to the Southlake Regional Health Centre. The vivaNext 'rapidways' will be a BRT system where viva vehicles will travel in dedicated bus lanes in the centre of the road for the majority of the route. The routes will connect with GO Transit, Brampton's Züm service and the TTC's Spadina subway extension.

Markham District Energy

In 1999, the City of Markham created Markham District Energy, an energy utility owned by the City and operated EcoLogo, a certified community energy systems provider. Currently, three energy plants are operating in Markham Centre providing thermal energy for the heating and cooling of buildings totalling nearly six million square feet. As Markham Centre grows, its goal is to have 100 per cent of all new buildings connected to the system. When fully developed, this system will achieve a 50 per cent efficiency gain in the community resulting in an equivalent 50 per cent reduction of local emissions.



vivaNext Station Prototype Photo: vivaNext



Markham District Energy Plant Photo: CDEA

The Approaches ●

Waterfront Toronto Intelligent Community

Waterfront Toronto is creating Canada's first and most advanced open-access ultra-high speed fibre optic broadband community network in Toronto's waterfront as an incentive for creative type industries and entrepreneurs to locate in the area. This system will revolutionize how residents and businesses receive services, promote economic growth and development, and enable innovation. East Bayfront and West Don Lands will have internet connection speeds up to 500 times faster than typical North American networks. Research from 2012, has shown that the initial investment of \$1.26 billion by the Governments of Canada, Ontario and the City of Toronto for the development of Toronto's Waterfront has generated \$3.2 billion in economic output for the Canadian economy.

Development Incentives

Use development charge credits and landowner cost-sharing agreements to encourage developers to build infrastructure.

Brampton, Mount Pleasant Village

In Brampton, a group of local developer/landowners entered into a cost sharing agreement with the City of Brampton for the development of a transit oriented, environmentally sustainable Mount Pleasant Village Mobility Hub. The City signed a Memorandum of Understanding with the Mount Pleasant Village Landowners and the Mount Pleasant Secondary Plan Landowners who will supply the City's one-third share of the project. The mobility hub was one of the projects the city successfully submitted for Infrastructure Stimulus Funding from the federal and provincial governments. The infrastructure grant money given to the city from the upper tier governments amounts to \$23 million.



High-Speed Fiber Optic Wireless Along the Waterfront
Photo: Waterfront Toronto



Brampton, Mount Pleasant Mobility Hub Photo: City of Brampton

• 2.2 Streets



The Challenges

Streets are an essential element of a city's public realm. They not only facilitate the movement of people and goods; they also provide a setting for commerce, culture and daily social interaction. They are both the connectors between destinations and the glue that ties communities and districts to one another. An active, interesting street is arguably the best indicator of a successful centre or corridor.

Roads Designed for a Suburban Context

The typical patterns of suburban roads are designed primarily to move high volumes of vehicles and are not pedestrian friendly. The generous width and transportation function of suburban arterial and major collector roads makes them uncomfortable for walking, cycling and inhibits double-sided retail activity. Streets serving Centres and Corridors need to encourage active transportation while balancing the needs of all modes of travel. If a range of mobility choices are not provided in the early phases of development, downsizing the vehicular capacity of major streets will be difficult.

Resistance to Fine-Grained Street Networks

The development industry generally prefers street layouts that maximize block sizes and the amount of developable land overall. A fine-grain grid of streets, however, is fundamental to relieving pressure on major roads and establishing a walkable environment. Frequent local streets shorten walking distances and provide optional routes for all modes of transportation. Yet some developers may resist a grid pattern of many local streets because they believe it decreases the amount of land for development and increases their infrastructure costs.



Highway 7, Markham Photo: Urban Strategies



Commercial Node, Markham Photo: Urban Strategies

The Approaches

While designing and building pedestrian-friendly local streets in a Centre or Corridor generally should be easy, transforming collectors and arterials to assume the character and multiple functions of an urban street is a far greater challenge. Starting with standards and guidelines that recognize the complex role of a street and embracing the tried and true urban grid are critical first steps.

Complete Street Standards and Guidelines

Complete Streets are designed to be safe, convenient, attractive and provide comfortable access for every user regardless of transportation mode. Municipalities are increasingly adopting alternative development standards and urban design guidelines that support the concept of complete streets.

What is a “complete street”

A complete street is designed for people of all ages and abilities and all modes of transportation including walking, biking, transit and vehicles. The illustration (see page 33) identifies a number of elements that can be introduced to help create a complete street. Some of the elements in the illustration are common, others innovative, but all help to achieve the objective of creating streets which are multi-functional, accessible and safe. The illustration was jointly developed by the Toronto-based firm of Sweeny Sterling Finlayson & Company and the Toronto Centre for Active Transportation. Other tools and approaches for improving the mobility, design, and sustainability of streets can be found through the website of the Toronto Centre for Active Transportation at tcat.ca.

South Yonge Street Corridor Streetscape Master Plan

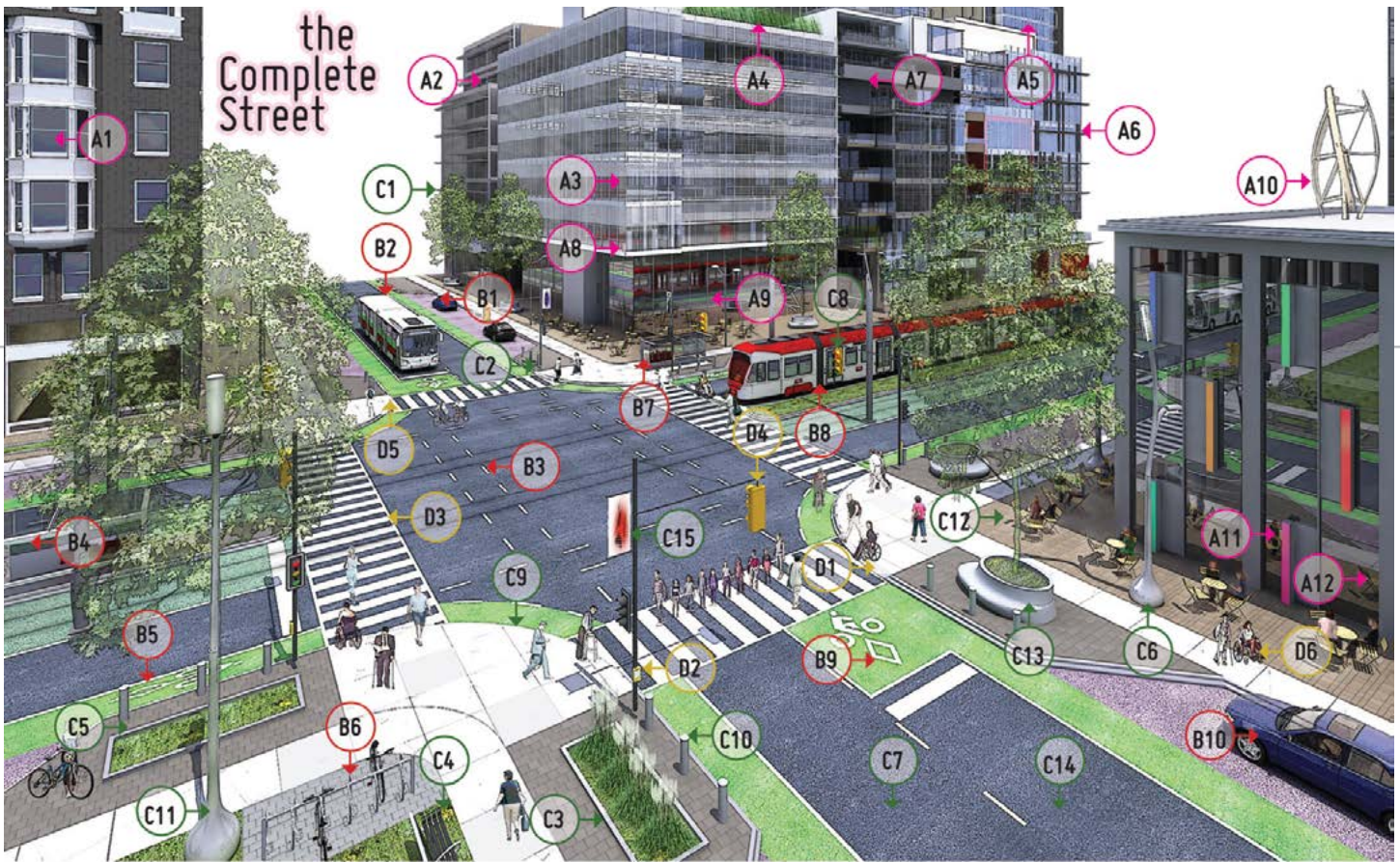
York Region collaborated with local municipalities and stakeholders to develop a bold, sustainable and achievable streetscape vision for Yonge Street between Steeles Avenue and Bantry Avenue. The Master Plan outlines streetscape design criteria and an implementation and phasing strategy to create spaces that are accessible and pedestrian-friendly.

The Master Plan recommends standard treatments and approaches to ensure that as development occurs on Yonge Street, the streetscape elements implemented along corridor will create a unified vision.

“Complete Streets are designed to be safe, convenient, attractive and provide comfortable access for every user regardless of transportation mode”



South Yonge Street Corridor Streetscape Photo: EDA Collaborative



A Buildings

- A1 Preserved heritage buildings
- A2 Step-backs create pedestrian comfort
- A3 Architectural features at corners
- A4 Green roofs manage storm water
- A5 Continuous street wall of buildings
- A6 Articulated street facades add detail
- A7 Outdoor living and amenity space
- A8 Canopies and overhangs provide shelter
- A9 Large windows bring life to the street
- A10 Rooftops generate power and reflect heat
- A11 Articulated entrances and windows
- A12 Active uses to animate the street

B Mobility

- B1 Lay-bys for drop-off and parking
- B2 Integrate public transit in mixed traffic
- B3 Bike lanes through intersections
- B4 Safe transit shelters in wide medians
- B5 Signed, demarcated bike lanes
- B6 Secure bike storage and Velib or Bixi type bike rental stations
- B7 Transit shelters with integrated digital info board, mobility hub and WiFi
- B8 Dedicated lanes for rapid public transit with signal priority
- B9 Dedicated bike lanes and bike boxes
- B10 Electric car stations and bike parking

C Streetscape

- C1 Continuous, native species, street trees
- C2 Consolidated garbage, organics, recycling and newspaper boxes
- C3 Rainwater irrigated planters with salt-resistant species
- C4 Quality benches and street furniture
- C5 Porous paving materials
- C6 Integrated seating with street lights
- C7 Underground utility lines
- C8 Highly visible traffic lights (LED)
- C9 Slow-speed curb radii
- C10 Bollard lighting
- C11 Lighting that renders natural colours
- C12 Cafes and restaurants at corners
- C13 Integrate public art and furniture
- C14 Minimize traffic lanes width
- C15 Integrate signage and public art

D Accessibility

- D1 Accessible raised sidewalks with bump-outs at crosswalks
- D2 Audible transit signals timed for demographics and accessibility
- D3 Continuous pedestrian paths with high-contrast crosswalks
- D4 Signal priority for pedestrians and cyclists
- D5 Accessible curb-cuts
- D6 Accessible sidewalks allow freedom of movement for all

• The Approaches

York Region Designing Great Streets Guidelines: A Context Sensitive Solutions Approach

Using the latest techniques in urban design, geometry and land-use planning, the Designing Great Streets Guidelines will move York Region towards developing street “typologies” that provide greater design flexibility that reflect detailed consideration of daylighting triangles, traffic lane widths, curb radii and bicycle facilities. The guidelines include a decision making process to encourage engineers and planners to develop alternative solutions that promote all modes of transportation, including walking, cycling and transit. Designing great streets using a context solutions approach will help York Region build roads that support complete communities.

Durham Region Arterial Corridor Guidelines

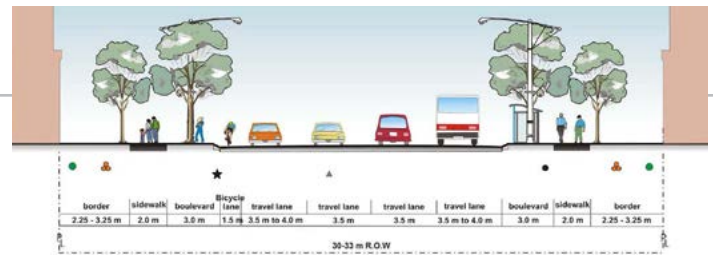
Durham Region’s Arterial Corridor Guidelines (www.durham.ca/departments/planned/planning/transportation/ACG.pdf) establish detailed guidelines for eight different types of arterial roads, based on their transportation functions, adjacent land uses and intended character. Balancing the multiple functions of a right-of-way, the illustrated guidelines show how major streets can be made more comfortable for pedestrians, more supportive of adjacent uses and more attractive.

Niagara Region Complete Streets

Niagara Region has initiated Complete Streets for Niagara, a three-phase study intended to produce model policies and guidelines, recommendations for implementation and a pilot project. The study commenced with a discussion paper released in 2012, which is available at www.niagararegion.ca/government/planning/pdf/NRCompleteStreetsPaper2012.pdf.

The Hurontario Main Street Master Plan

The Hurontario Main Street Master Plan illustrates how Peel Region’s “main street” will balance the needs of all transportation modes when light rail transit is introduced to the corridor.



Durham Region Arterial Corridor Guidelines Photo: Durham Region



Hurontario Main Street Master Plan Photo: Dialogue



Street Network Schedule - Vaughan Metropolitan Centre Photo: Urban Strategies

{ “The street network for a Centre or Corridor should interconnect with existing streets in the surrounding area as much as possible”

The Approaches •

Establish a Grid Pattern

Establishing a grid pattern of streets and blocks will provide development flexibility and encourage the development of local streets. There are countless ways to configure a grid network of streets. The patterns of historic downtowns and neighbourhoods considered highly walkable can provide guidance; however, contemporary development forms may not suit a grid modeled on a 19th century or early 20th century precedent. The street network for a centre or corridor should interconnect with existing streets in the surrounding area as much as possible. The size and shapes of blocks should respond to the intended land use pattern: blocks for employment uses, for example, may need to be larger than mostly residential blocks to accommodate the footprint of an office or institutional building. Generally, however, the perimeter of a block should not exceed 600 metres and its maximum length should be 150 metres.

Vaughan Metropolitan Centre Secondary Plan

The Secondary Plan for the Vaughan Metropolitan Centre is based on a grid of streets that results in blocks of varying sizes. Blocks adjacent to the future subway station are sized to optimize their development potential and accommodate public open space. Longer blocks are divided by pedestrian laneways, which may be City-owned or private but publicly-accessible. The dedication of new local streets and mews is encouraged by allowing landowners to include them when calculating the maximum permitted density on adjacent blocks.

Transportation Demand Management

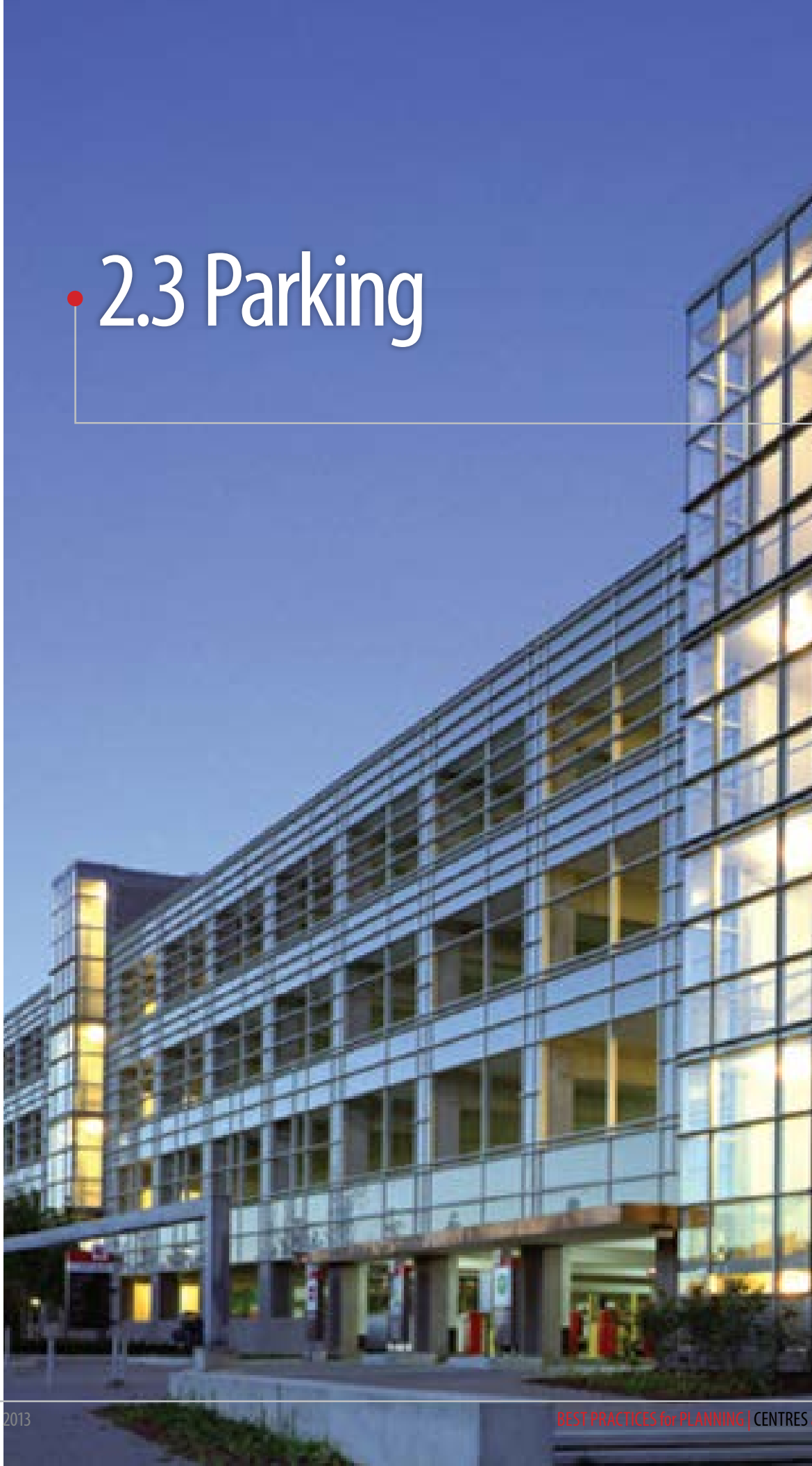
In addition to building facilities for pedestrians and cyclists, another key to achieving more complete streets is to discourage car use through Transportation Demand Management (TDM). The rapid growth projected for York Region will place increased pressure on its infrastructure, in particular, the transportation system. Transportation Demand Management is the use of policies and education programs to shift single-occupant vehicle trips to other methods of transportation such as walking, cycling, carpooling and transit use.

Smart Commute, Greater Toronto and Hamilton Area

Smart Commute is a TDM initiative in the Greater Toronto and Hamilton Area that assists local employers and commuters to explore different methods of commuting. Smart Commute's goal is to “ease gridlock, improve air quality and reduce greenhouse gas emissions while making one's commute less expensive and more enjoyable”.

In addition to the initiatives provided by Smart Commute, this organization also has a program named Carpool Zone. Employees from a number of registered workplaces are able to match their schedule with fellow commuters. From this match, a carpool schedule can be created.

2.3 Parking



The Challenges

Even as Centres and Corridors become more transit-oriented and pedestrian-friendly, they must continue to accommodate cars. In the early phases of development, when planned transit infrastructure may not be fully in place, the demand for parking, particularly for employment uses, will be high. But demand should diminish over time, and parking lots should be replaced by development that integrates structured parking.

High Suburban Parking Ratios

To attract homebuyers and commercial tenants, developers may demand high initial parking ratios. Residents and businesses moving to a centre or corridor, regardless of how well it is served by transit, may seek the best of both worlds—good access to transit and ample, inexpensive parking. This is a particular challenge to attracting major office tenants whose employees live throughout the region – the amount of parking required to make the first developments commercially viable can result in very unattractive surface parking solutions. The key technique is to take the long view. Parking ratios can be steadily reduced as transit and active transportation options become more available and the pedestrian environment improves.

The ‘law of large numbers’ also applies in parking provision; as more parking is provided, its efficiency of use can be improved. That is why wherever possible in urban situations collective rather than dedicated parking provision should be sought. Considering the occupancy levels of typical suburban parking lots (i.e., rarely full and only at peak times during the day but almost empty much of the rest of the time), one fully-utilized collective parking facility can be the equivalent of two dedicated lots.



Surface parking lot in the Vaughan Metropolitan Centre
Photo: Urban Strategies



Surface parking lot At York Region Headquarters
Photo: Urban Strategies

● The Challenges

{ “Most parking in Centres and Corridors should be located in structures”

Cost of Structured Parking

Structured parking, while expensive, will typically be required for more intensive development. To minimize the impacts of surface parking and maximize land for development, most parking in Centres and Corridors should be located in structures, either underground where feasible or above ground where appropriate. The cost of structured parking, however, is many times greater than that of surface parking and often cannot be covered by competitive commercial rents or the budget for an institutional development. A phasing plan for the conversion of surface lots to parking structures, and the encouragement of shared parking solutions, can be a key strategy in achieving the desired built form in the long run.

Oversupply of Parking

A high provision of parking in early phases might result in an oversupply of parking as the use of alternative modes increases over time. Accepting high parking ratios may be necessary to attract highly desirable types of development in Centres and Corridors at the outset, but the challenge is to reduce the ratio in concert with improvements in transit service and the encouragement of collective parking solutions.



Go Transit parking garage in Oakville
Photo: EllisDon



Surface parking lot in the Vaughan Metropolitan Centre
Photo: Urban Strategies

The Approaches

As ongoing development in Centres and Corridors increases land values, surface parking will be less and less desirable from a landowner's perspective. Municipalities have a critical role to play, through policies and management, in preventing the development of excessive parking at the outset and preparing for the redevelopment of existing parking lots.

Adopt Reduced Parking Standards

City of Vaughan Parking Standards Review

In 2010, the City of Vaughan completed a city-wide review of its parking standards. The City has since drafted a bylaw that will implement the recommended standards for “higher order transit hubs” in the Vaughan Metropolitan Centre, to encourage transit-oriented development. The by-law establishes minimum and maximum parking requirements for a range of uses, including the standards which are illustrated in Table 2.

Yonge-Eglinton Centre

As part of the City of Toronto's focused review for the Yonge-Eglinton Centre area, the minimum parking requirements have been significantly reduced to reflect the high level of pedestrian accessibility in the neighbourhood and the proximity to existing and planned rapid transit lines. The reduced minimum parking requirements proposed are illustrated on Table 3.

Shared Parking - City of Toronto Zoning Bylaw No. 569-2013

Shared parking is generally described as two different uses on the same site or neighbouring sites sharing the use of one parking space. Shared parking could be applicable between an entertainment use (with low morning and afternoon usage but high evening usage) and an office building with high daily use and low evening use. In the newly enacted City of Toronto By-law No.569-2013 “Downtown Parking and Loading Zone” section, there is a table that provides an occupancy rate for each use for the morning, afternoon and evening periods. For each use, the required parking spaces are multiplied by the occupancy rate. The minimum number of spaces is then taken as the greatest aggregate for the morning, afternoon or evening period.

Table 2: Proposed Parking Standards, City of Vaughan

Use Category	Primary Centres/Intensification Areas	
	Minimum	Maximum
Retail: Shopping Centre, Supermarket	3/100m ²	4.5 surface parking
Office: General office	2/100m ²	3 surface parking
Office: Medical Office Building	3/100m ²	4.5 surface parking
Multiple Family Dwelling: Bachelor/1 Bedroom	0.85/unit	1.2 spaces/unit
Multiple Family Dwelling: 2 Bedroom	0.95/unit	1.4 spaces/unit
Multiple Family Dwelling: 3 Bedroom	1.15/unit	1.7 spaces/unit

Table 3: Minimum Parking Requirements, City of Toronto

Use Category	Condominium	Rental
	Housing Unit	Housing Unit
Bachelor	0.2 spaces/unit	0.2 spaces/unit
One-bedroom	0.4 spaces/unit	0.4 spaces/unit
Two-bedroom	0.6 spaces/unit	0.6 spaces/unit
Three-bedroom	0.8 spaces/unit	0.8 spaces/unit
Visitor (min and max)	0.1 spaces/unit	0.1 spaces/unit
Non Residential	1.0 spaces/300m ²	1.2 spaces/unit

• The Approaches

North York Centre Secondary Plan

The City of Toronto's North York Centre Secondary Plan sets a maximum parking requirement for rapid transit adjacent developments using an equation that scales the number of parking spaces permitted based on the distance from the centroid of the parking floor plate to the entrance of the rapid transit station; the closer the development is to the station, the lower the maximum permitted parking becomes. Immediately next to subway station entrance the maximum parking rate is 0.9 spaces per 100m² of commercial area, which increases to 1.4 spaces per 100m² at 500 metres from the station entrance. A maximum residential rate of 1.2 spaces per unit is applied to projects with direct access to rapid transit vs. 1.4 spaces per unit in all other areas of the centre.

Manage Non-Residential Parking through a Municipal Agency

Many urban growth centres, such as Oakville and Mississauga have municipal parking authorities and are considering larger scale collective parking initiatives for their centres. The development of the North York centre was greatly assisted by the construction of a major public garage at the time of developing the city centre. The City of Markham has adopted a parking management strategy for Markham Centre that involves establishing a municipal parking authority and includes the following initiatives:

- The City will manage 35%-50% of total commercial parking supply through area parking facilities funded by cash-in-lieu payments from landowners
- Establishment of maximum end-state parking supply targets for all uses
- Minimum requirement for parking in structures
- Surface parking allowed on interim basis (through temporary by-laws/holding provisions)
- Parking Implementation and Phasing Plans required as part of site plan approval
- Enacting cash-in-lieu of parking bylaws and provisions in development process
- Metered on-street parking on key streets
- Establishing urban design standards/guidelines for parking facilities and implementation of parking charges



Markham Centre Mixed-use Development with Applied Parking Standards Photo: Metrolinx

The Approaches •

Consider Stratified Parking Arrangements

A stratified parking arrangement is one where a parking facility is located above or underneath a municipal property such as a street right-of-way or a public park. This arrangement is often pursued in circumstances where there are land and/or design constraints to providing on-site parking facilities. This approach, where appropriate and feasible, can increase the efficiency of land through a flexible approach to parking design and land ownership. Legal agreements among the participating parties, in the form of stratified title agreements or encroachment agreements, would be required to permit such a parking configuration. Examples of stratified parking arrangements include:

- The City of Markham, where the underground garage for a high-rise condominium by Times Group Inc. in Markham Centre extends beneath an urban park
- The City of Toronto, where the underground garage for the 51-storey Bay-Adelaide Centre extends beneath a public park and the municipal right-of-way for Temperance Street
- The City of Mississauga, where the development agreement between the City and a major City Centre developer accommodates the creation of future municipal rights-of-way for new public streets above a large underground parking garage built by the developer



Bay-Adelaide Centre, Toronto
Photo: Geekaroo (via Urban Toronto)



Uptown Markham - River Park by Times Group Corporation
Photo: Times Group Corporation

2.4 Open Space



The Challenges

Parks and other public open spaces are essential to building healthy, attractive and sustainable communities, and this is no less true in the denser environment of a centre or corridor. Ensuring residents and workers in evolving Centres and Corridors have good access to a range of open spaces is an ongoing challenge for a number of reasons.

Availability and Proximity of Public Land

Not all Centres and Corridors contain, or have easy access to, parks and open space systems to begin with. While existing neighbourhood parks and conservation lands close to Centres and Corridors might become important amenities, the development of Centres and Corridors involves the creation of significant new parks and public open space systems. Where public land is not available for park purposes, the acquisition of private land, either vacant or already developed, will be required.

Standard Parkland Dedication Requirement

The usual formulae for determining the amount of parkland to be dedicated with development are not generally practical in Centres and Corridors. The Ontario Planning Act allows municipalities to require 2% of land proposed for commercial or industrial uses and 5% of land for residential uses to be dedicated for parks; alternatively, municipalities can require one hectare of parkland for every 300 dwelling units. In the higher density environment of a centre or corridor, where typically there are multiple property owners and sites of varying sizes, requiring parkland on a percentage basis would result in not enough parkland overall and very likely a patchwork of undersized open spaces. On the other hand, the alternative formula could result in a supply of parkland that is as much as or more than the land occupied by buildings—a development with 300 apartments on one hectare (approximately 3 times the area of the lot) would require one hectare of parkland.



Hilton Suites Conference Centre, Markham Centre
Photo: City of Markham



Community Park, Markham Centre Photo: Urban Strategies

● The Challenges

Cash in Lieu

Accepting cash in lieu of parkland raises other issues. Instead of a land dedication, municipalities may accept cash in lieu of parkland, which can be used to acquire or improve parkland anywhere in the city. Applying the above formulae to determine the cash contribution, however, poses other issues. Applying the percentage formula may not result in enough funds to acquire parkland to meet the needs of the community. And if the alternative formula were applied, the potential cash contribution would comprise a significant portion of development costs, creating a disincentive to develop.

Expensive Land

Land in Centres and Corridors is relatively expensive. Often the most appropriate location for a park or other public open space is also very attractive for development, escalating its value. Whether a municipality relies on cash-in-lieu contributions or other funding sources to acquire parkland, in quantitative terms, it can get more for its money by building significant parks outside of a centre or corridor. At the same time, municipalities recognize that parks enhance the quality of life experienced within the community and the value of surrounding properties.

Diverse Demands on Public Open Space

The intensity and diversity of activities in Centres and Corridors require planning for a variety of open space types. Although traditional parkland per capita ratios typically will not be achievable in a centre or corridor, people living and working in them will expect their daily open space needs to be met. This is a matter of doing more with less by providing different types of highly accessible and high-quality open spaces with programming flexibility.



Heritage Woodlot, Richmond Hill Regional Centre
Photo: Urban Strategies



Black Creek Corridor, Vaughan Metropolitan Centre
Photo: Urban Strategies

The Approaches

Municipalities are recognizing that traditional suburban approaches to planning and acquiring parks present a challenge in Centres and Corridors. Existing policies and standards are being reconsidered, and comprehensive plans are based on public realm frameworks aimed at establishing complex networks of open spaces and linkages. Below are examples of “park-building” strategies.

Modify Parkland Dedication Requirements

Markham Parkland Dedication Review

Under the Planning Act, municipalities can require parkland contributions less than the maximums established in the Act. Markham recently completed a review of its parkland dedication by-law, policies and practices, in light of the City’s growth and urban structure objectives, which emphasize the development of Centres and Corridors. The study recommends the City’s policies respecting the conveyance of land for park purposes be updated to relate more directly to population rather than land area or dwelling units. For high-density developments in the City’s Centres and Corridors, the following parkland dedication rates are recommended:

- 1.2 hectares per 1,000 people for the portion of a development up to 2.5 FSI
- 0.9 hectares per 1,000 people for the portion of a development between 2.5 and 5.0 FSI
- 0.6 hectares per 1,000 people for the portion of a development between 5.0 and 8.0 FSI
- 0.3 hectares per 1,000 people for the portion of a development greater than 8.0 FSI

Town of Richmond Hill

The Town of Richmond Hill has undertaken an extensive town-wide study and assessment of the Town’s existing park system and future park needs. The Town’s methodology included five levels of analysis, including:

Functional Analysis - Is the existing parks inventory functioning as intended?

Population Service Level Analysis - How many hectares of parkland per 1,000 residents will be required?

Distribution Analysis - Can residents walk to park within 5 minutes?

Recreation Facility Needs Analysis - How much parkland is required to meet targets for anticipated facility needs?

Concept Plan Analysis - If a planning study or concept plan has been prepared, how much land would be needed to realize that concept?

Although this study was undertaken town-wide the same methodologies could be adapted for use within a centre or corridor. The Town of Richmond Hill also noted that in addition to parkland acquisition, cash-in-lieu funds are important for covering the currently unfunded costs of park redevelopment and urban park development (e.g. urban squares, linear parks) - park needs that are prominent in intensification areas such as the Centres and Corridors.

City of Hamilton Parkland Dedication

The City of Hamilton has modified its conveyance rates based on density ranges, as follows:

Parkland Dedication, City of Hamilton

Density	Conveyance Rate
<20 units/ha	5%
20-75 units/ha	1 ha/300 dwelling units; except for townhouse dwellings which is at 0.6 ha/300 dwelling units
75-120 units/ha	0.6 ha/300 dwelling units
>120 units/ha	0.5 ha/300 dwelling units

City of Toronto Parkland Dedication

The City of Toronto has established a parkland dedication rate of 0.4 hectares per 300 dwelling units for its “parkland acquisition priority areas”, which include its built-up centres. It also caps the dedication or cash-in-lieu requirement based on a proportion of the land area: 10 per cent on sites less than one hectare, 15 per cent on sites of one to five hectares and 20 per cent on sites greater than five hectares.

• The Approaches



Millway Avenue Rendering, Vaughan Metropolitan Centre Photo: Urban Strategies

Comprehensive and Holistic Planning

Vaughan Metropolitan Centre Secondary Plan

The Secondary Plan for the Vaughan Metropolitan Centre (VMC) is based on an interconnected network of major parks and open spaces that includes neighbourhood parks, pedestrian streets, a central linear open space, urban squares and environmental open spaces. Neighbourhood parks will have frontage on at least three streets to maximize their visibility and accessibility. The planned environmental open spaces include Black Creek and will incorporate stormwater management facilities, naturalized areas and park amenities. In total, the plan calls for approximately 44 hectares of public open space, representing 24 per cent of the VMC. The City is currently preparing a Streetscape and Open Space Master Plan to guide the detailed planning and design of the open space system.

Optimize Access to the City-wide Network

Port Credit Village, Mississauga

Port Credit Village is a mixed-use project along the City of Mississauga's Lake Ontario waterfront. The project includes 225 condominium apartments, 167 street-fronting townhouses and 18 live-work townhouses. Port Credit Village is within easy walking distance of the Port Credit GO Station (commuter rail) and market area of the historic Port Credit community. The development of the brownfield site as Port Credit Village linked the East and West Villages of Port Credit via a main street and once again opened the waterfront to the public. A gathering space and market area defined by public plazas, restaurants and other small-scale retail shops and office spaces complements the project's well-designed townhouses, live-work units and low- and mid-rise apartment units that all benefit from increase access to improved transit networks.

The Approaches •



Port Credit Village, Mississauga Photo: Urban Strategies



Sherbourne Commons, Toronto Photo: Phillips Farevaag Smallerberg



Markham Centre and Civic Mall Photo: jrala.ca



Market Square, Guelph Photo: City of Guelph

Maximize Usability and Quality of Open Spaces

As demonstrated in the most liveable downtown and inner-city neighbourhoods, if parks and other open spaces are creatively designed and durably constructed, they don't need to be large to meet many of the needs of residents

and workers. Illustrated on this page are examples of successful multi-purpose open spaces built or planned within densely developed neighbourhoods.

• 2.5 Water & Waste



The Challenges

Most large-scale developments are required to manage storm water on site, typically through a system of pipes and retention ponds that control the quality and quantity of storm water. This approach can be costly and often conflicts with the density and open space objectives of an area. There are more efficient and compatible ways to deal with storm water, and innovative solutions for solid waste management and waste water recycling are also taking hold.

Land Consumption

Storm water management ponds can significantly reduce the land available for development and parkland. Depending on the quantity of run-off they need to store and treat, and how they're designed, ponds can consume a significant portion of the land in a centre or corridor.

Maintenance Requirements

The burden of owning, managing and maintaining ponds is proving costly for municipalities. Many ponds are not well maintained to begin with, which often leads to dam blockages or other failures in the system. Dredging, which should occur at least every ten years, is costly and often not budgeted in advance.

Single Purpose Ponds

Ponds perform an important environmental role and can be attractive but otherwise traditional ponds do not have much value as a community amenity. For safety and liability reasons, most ponds are fenced to prevent public access and often are isolated from larger open space systems.

Impacts of Traditional Waste Collection

Space for traditional garbage storage and collection is often difficult to find within high density mixed use developments in urban centres and can affect the quality of public spaces. In addition, contamination rates (recyclables placed in with garbage) are highest within multi-storey residential and commercial developments.



Stormwater Pond, Richmond Hill Regional Centre
Photo: Google Maps Satellite Image



Black Creek Stormwater Pond, Vaughan
Photo: Urban Strategies

The Approaches

There have been many recent innovations in stormwater management, water conservation, inflow and infiltration reduction, and waste collection, particularly for highly urban environments. New approaches view run-off as a resource and incorporate low impact development technologies adaptable to a range of community elements (right-of-ways, open spaces, parking lots, buildings). Where ponds are necessary or desirable, they are being integrated with nature and designed as a component of larger public open spaces.

Integrated Stormwater Management

Honda Canada Campus in Markham

The Honda Canada Campus in Markham includes three buildings: a four-storey, 138,000-square-foot head office building; a 71,000-square-foot technical centre for research and development, engineering and training; and a 224,000-square-foot parts distribution centre. Each building will be designed to meet strict LEED®. The campus utilizes biofilters, infiltration galleries, natural drainage, rainwater harvesting, permeable pavement and rain gardens instead of traditional pipes and ponds to manage storm water.

York University Life Sciences Building

The York University Life Sciences Building is a four-storey building with leading-edge technologies for advanced biomedical and cellular imaging, electrophysiology and bioanalysis, and 120,000-square-feet of laboratories, where graduate and undergraduate students are welcome to work and learn. It uses permeable paving, an infiltration gallery and rainwater harvesting, in addition to subsurface storage.

Hurontario Street Revitalization, Collingwood

The Silva Cell is a modular suspended pavement system that uses soil volumes to support large tree growth and provide powerful on-site stormwater management through absorption, evapotranspiration, and interception. As part of its downtown revitalization, the Town of Collingwood installed the Deep Root Silva Cell system below 8 blocks of sidewalks for healthy, mature trees to spread their root while preserving the heritage feel of the downtown.



Honda Canada Campus
Photo: Schollen and Associates



York University Life Sciences Building
Photo: NXL

The Approaches •

Accessible Open Space Features

Pioneer Park in Richmond Hill

Pioneer Park, located just northwest of the intersection of Major Mackenzie Drive West and Trench Street (adjacent to York Central Hospital), is a 26-hectare open space parcel that receives stormwater discharge from the surrounding Don Head Village community. The Toronto Region Conservation Authority, with funding from three levels of government, undertook the first major pond rehabilitation project in Canada by rehabilitating the aging stormwater infrastructure (built in 1985) to provide modern standards of water quality treatment, erosion control and flood control. In the process, a more accessible and attractive open space feature was created.

Uptown Markham

Uptown Markham is a master planned community located along an 88-acre parcel of land south of Highway 7 and located 1 kilometer from Main Street Unionville. The site has direct access to major traffic arteries and public transit stations. The first phase, which consists of one mid-rise and two high-rise buildings, is directly within the green confines of the Rouge River Valley, one of the GTA's greatest natural asset and the largest urban park in North America. It is one of a few wilderness areas left in South-Central Ontario, is on the northern edge of the Carolinian life zone, and has been largely untouched by development. The 35 hectare site preserves and provides access to almost 20 hectares of natural and landscaped parkland, bike trails and of course the Rouge River itself.



Hurontario Street, Collingwood Photo: DeepRoot



Pioneer Park, Richmond Hill Photo: Town of Richmond Hill



Uptown Markham Site Plan Photo: Condo Toronto Homes

• The Approaches

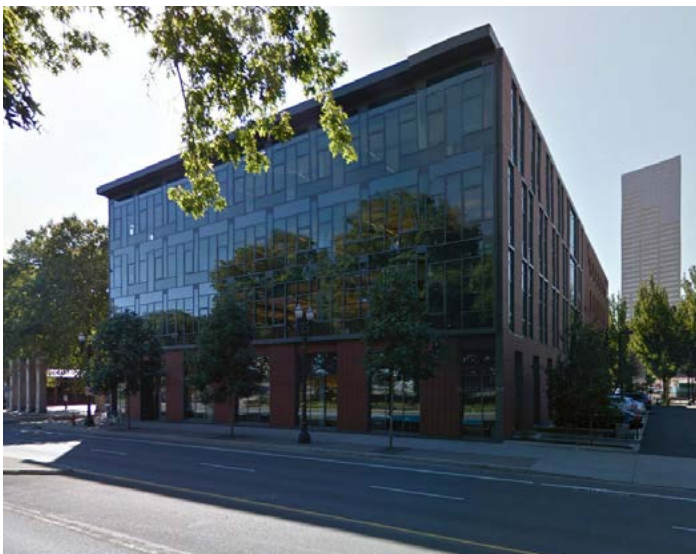
Water Conservation

Mercy Corps Global Headquarters, Portland, Oregon

The Mercy Corps project included water conservation strategies, which focused on reduction of use combined with filtering and retaining stormwater on site.

Potable water use was reduced by 40% by installing water-saving plumbing fixtures, such as low-flow faucets and dual-flush toilets. Landscape plants are xeriscaped to eliminate the need for irrigation water, resulting in a more than 50% reduction of potable water consumption for irrigation. On-site paving is pervious to encourage direct ground infiltration during rainfall.

A 3,800 square foot vegetated roof not only filters water and slows stormwater discharge but also contributes to better air quality in the downtown area and reduces the urban heat island effect.



Mercy Corps Global Headquarters, Portland Oregon
Photo: Google Maps Street View

Inflow and Infiltration Reduction

Inflow and infiltration is surface water and groundwater entering the sewage system. Inflow and infiltration takes up space in the pipe that is required for existing residents and future growth. As sewage systems age it is more likely that infiltration will occur.

York Region together with their local municipal partners have ongoing programs for inflow and infiltration reductions that are relied on as mitigation measures to support the development and implementation of the Region's water and wastewater master plans. Some of the tools, techniques and technologies used for controlling and reducing inflow and infiltration include:

- Replacing or rehabilitating defective sections of pipes and/or maintenance holes using trenchless technologies such as pipe bursting, relining or cured-in-place-pipe (CIPP)
- Rehabilitating defective spots in a sewage line by sealing the hole, crack or joint using a cement-based grout or chemical-based material to fix the defect
- Disconnecting known inflow sources such as cross-connected storm sewers, foundation drains or downspouts
- Defining more stringent standards for new construction as it relates to public and private infrastructure through development, local and Regional initiatives
- Developing new standards and guidelines to outline specific performance requirements for inspecting and testing the construction of sanitary sewer systems in new developments. Furthermore, the Region-wide (Sanitary Sewer Inspection, Testing, and Acceptance Guideline) is currently under review to provide more stringent testing requirements.

Three-Stream Waste Integration

Three-stream waste systems allow residents to conveniently manage organics, recyclable materials and residual wastes on the same floor they reside. This eliminates the burden to drop off materials at a common collection area in or outside of the building. Some local municipalities in York Region now require three-stream waste systems in high-rise residential buildings, which could come in the form of:

- Single chute systems with tri-sorting equipment and lock-out chute doors – User selects before opening disposal unit. At the bottom of the chute, the waste is diverted by the tri-sorter. When one door is open, all others stay locked to prevent concurrent disposal resulting in cross contamination.
- Dual chute systems with bi-sorting equipment on one chute and lock-out chute doors on the bi-sorted chute
- Triple chute systems
- Three-stream manual sort and storage with no chutes, for smaller buildings



Majestic Court Multi-Residential Development, Markham
Photo: York Region

Majestic Court Multi- Residential Development, Markham

Majestic Court is a 16-storey LEED Gold Certified residential project along Regional Corridor Highway 7 in Markham Centre. Among other water and energy efficient features, this development is equipped with a three stream waste sorting and collection system. Building management staff also distributed materials and posted notices in common areas to educate residents how to operate the system and promote waste diversion.

● The Approaches

Richmond Hill GoingUP Multi-Residential Three Stream Program

In 2009, the Town of Richmond Hill initiated three-stream collection in three multi-residential buildings.

In 2012, the GoingUP program was in place in 31 of 81 high-rise buildings (38 per cent of buildings) or 4,532 units (46.7 per cent of the total units) in Richmond Hill. The program continues to rollout to the remaining buildings with five additional buildings to be launched in 2013. The GoingUP program supports both new buildings with three-stream collection systems built in as well as older buildings with manual separation. Building management distribute Town supplied materials to residents. Town staff support the program with a launch event in each building, educational resources, workshops and audits.



Photo: Town of Richmond Hill

The Approaches •



Automated Waste Collection System Photo: Envac

Vacuum Waste Systems

Montreal, Quartier des Spectacles (QDS)

Montreal may soon be home to Canada's first in automated vacuum waste removal system – a technology commonly implemented in new developments in Europe. The system sucks waste into a network of underground tubes and transports it to a central processing location. Although the system is costly and invasive upfront, among others, the advantages are: significant lower emission of greenhouse gas; eliminates heavy waste collection vehicles in urban areas; users can dispose their waste or recyclable items anytime, any day of the week; and increases the level of recycling due to the environmental awareness of the users. This system is more easily implemented in conjunction with other infrastructure works. In Montreal, the streets in the QDS are already planned to be upgraded in order to replace ageing sewers, aqueducts and power-lines. The Envac waste-collection system will cost an additional \$8.2 million.



Automated Waste Collection System
Photo: Envac

• The Approaches



Quayside Village Photo: Cohousingconsulting.ca

Grey Water Recycling

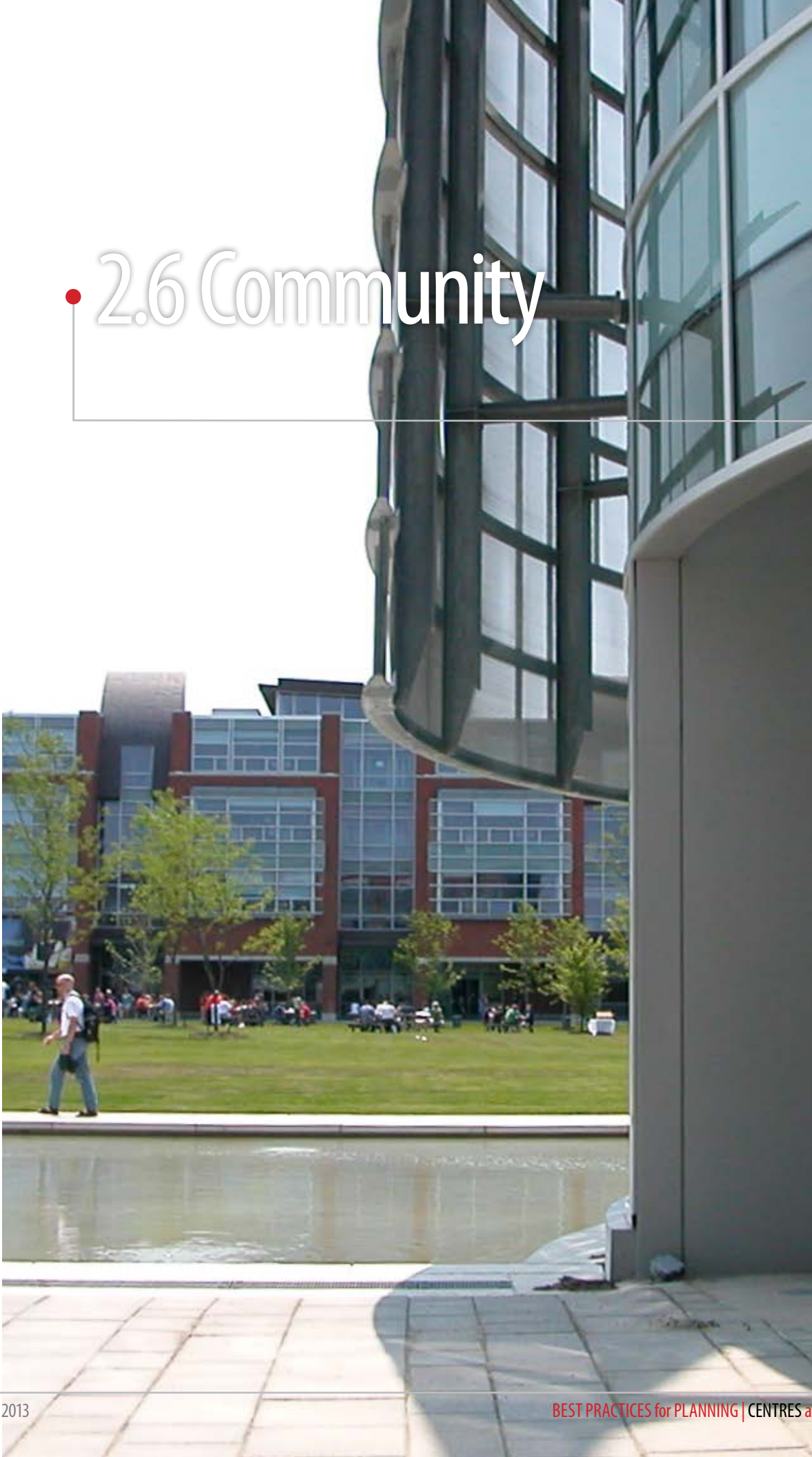
Grey Water Recycling, Quayside Village, West Vancouver

Grey water recycling involves using water from domestic activities such as bathing and laundry for non-potable uses including toilet flushing and irrigation. Proper storage, treatment, and regular water quality monitoring can address health concerns related to grey-water recycling. In the 20-unit Quayside Village co-housing apartment complex, greywater from household activities is collected and recycled for toilet flushing. The water recycling system consists of a septic tank to remove solids and grease, a biofilter, slow sand filter, ozone generator and contact tank.

Purple Pipe System (Recycled Water System), City of Guelph

The purple pipe system is a community-wide system that delivers recycled, treated water to homes, businesses and industries for laundry washing, toilet flushing and irrigation. Colour coding the water pipes help reduce the chances of accidental cross-connection and human ingestion of recycled water. Using treated recycled water can reduce potable water demand, and conserve and extend the lifespan of existing potable water supplies within the community or region. The City of Guelph is currently studying the potential for supplying non-potable water to the downtown intensification areas through a purple pipe system. The need arises from Guelph's heavy reliance on its groundwater supply and ongoing wastewater capacity challenges.

• 2.6 Community



The Challenges

Access to schools, libraries, recreation facilities and human services centres will be vital to supporting active, socially connected lifestyles and achieving complete, healthy neighbourhoods in Centres and Corridors. However, in built up areas there are limited spaces for community facilities and their typical form can make for a difficult fit.

Large Standard Footprints

The standard footprints of most community facilities are large and not consistent with the goal of a compact, transit-oriented community. School boards usually require a minimum of 2.4 hectares (6 acres) for an elementary school, including the building, playground, staff parking, and a pick-up and drop-off area. The Provincial funding formula for schools doesn't currently support the construction of multi-storey elementary schools, and while adjacency to a city park can reduce the open space requirement, it doesn't eliminate the need for a separated playground. Community centres also typically require large sites to accommodate a range of facilities (meeting rooms, gym, pool and/or a rink) as well as surface parking.

When and For Whom?

Which community facilities will be required and when is difficult to determine when the timing of development and the demographics of future residents is uncertain. Whereas the population make-up of a traditional low-density neighbourhood, and by extension its community facility needs, is fairly predictable, the same cannot be said of a growing centre or node. High and medium density forms of development might attract young singles and couples, who might not rely heavily on proximity to community facilities, but apartments and townhouses are just as likely to attract elderly singles and couples as well as families with children, who tend to have a greater need for such facilities. Although the precise needs might be uncertain during the initial phases of development, the municipality, school boards and other social service providers need to plan for a range of community facilities over the long term.



Pierre Elliot Trudeau High School
Photo: Bing Maps Satellite Image



Stouffville District Secondary School
Photo: Bing Maps Satellite Image

The Approaches

The significant land requirement associated with most community facilities is a challenge not easily overcome. Innovative designs and new development models, however, have been used to reduce building footprints and create efficiencies. Since every centre and corridor is different, ultimate solutions will likely need to be customized to respond to site constraints and partnership opportunities.

Build Up Rather Than Out

Build up rather than out. Creative building design and partnerships with developers can help integrate community facilities in a compact built environment. Accommodating community facilities in stand-alone multi-storey buildings or vertically integrating them within mixed-used developments has proven effective in optimizing the use of land in high-density areas. In many cases, outdoor amenity spaces associated with schools and community centres has been located on rooftops, and parking has been located underground.

Bill Crothers Secondary School, Markham

This 4-storey school building is in a compact, mixed-use community well served by public transit. Bill Crothers has indoor and outdoor sports facilities as well as a performance hall and computer labs. The LEED™-certified school building incorporates a range of sustainable design elements and technologies that reduce water and energy consumption.

North Toronto Collegiate Institute, Toronto

The redeveloped North Toronto Collegiate Institute is located between two new residential condominium towers in midtown Toronto. The four-storey secondary school accommodates 1,200 students and houses classrooms, a 600-seat theatre, a library and a triple gymnasium. School amenities are accessible to the public after school hours. The 156,000 square foot facility also incorporates heritage components of the original school.



Bill Crothers Secondary School
Photo: Zasa



North Toronto Collegiate Institute
Photo: World Architecture News

The Approaches ●

Vastra Hamnens Skola, Malmo, Sweden

Western Harbour is a new sustainable community in Malmo Sweden on a former industrial park. The district is an internationally leading example of a densely built urban environment. It will also be a driving force in Malmö's development towards environmental sustainability. Although the community is mostly mid-rise, it is also home to Scandinavia's tallest tower the "Turning Torso" and Vastra Hamnens Skola, a new 5,000 m² school located on a 12,300 m² site across the street from the Turning Torso. The school accommodates 410 pupils aged 6-16 years and has a flexible floor plan so it can adapt with changing requirements. The school is characterized by ecological and environmental thinking.

Hampden Gurney Church of England Primary School, London, UK

Hampden Gurney Church of England Primary School is a Church of England Voluntary Aided Primary School in the Diocese of London. Originally established in 1863, the school has been rebuilt several times over the years. During the early 1990s, the school's trustees set about planning the building of a new school with state of the art facilities to lead the way forward into the 21st century. The planning and vertical redevelopment of the school, which is located on a small urban parcel, has resulted in an innovative, child and teacher friendly facility. The building incorporates open-air play decks and residential apartments that funded the redevelopment of the site. This 'school in the sky' shows a unique solution to maximising land use.



Sweden, The Western Harbour Photo: DKV Architecten



Hampden Gurney Church of England Primary School
Photo: Urban Strategies

“Pairing school facilities and community amenities, on the same site, promotes an efficient use of space and cost savings”

Design and Build Joint-Use Facilities

Joint-use facilities are increasingly popular in compact urban settings. Pairing school facilities and community amenities, on the same site, promotes an efficient use of space and cost savings in building construction and operations. The successful development and implementation of joint-use facilities requires a strong partnership between stakeholders, based on a set of shared principles, detailing the coordination of financing, construction and operation of the facility.

Langstaff Discovery Centre, Richmond Hill

In the heart of a growing community sits the Langstaff Discovery Centre, a multi-use complex combining a community centre, two schools (public and Catholic) and a sports facility. Located steps from the Richmond Hill urban growth centre and accessible by different travel modes, these amenity spaces offer a range of community services and activities that serve a diverse population. Beyond partnering on the construction of the complex, the Town of Richmond Hill and the two school boards share operating and maintenance costs.

Wellesley Community Centre, Toronto

The Wellesley Community Center is located in one of the Toronto’s densest neighbourhoods – St. Jamestown. This 50,000 square foot public facility combines a community centre, public library and daycare and has a covered outdoor play area on its rooftop. The building is oriented to the street, with library and gymnasium activities visible to passers-by.



Langstaff Discovery Centre Photo: Town of Richmond Hill



Wellesley Community Centre Photo: Zasa

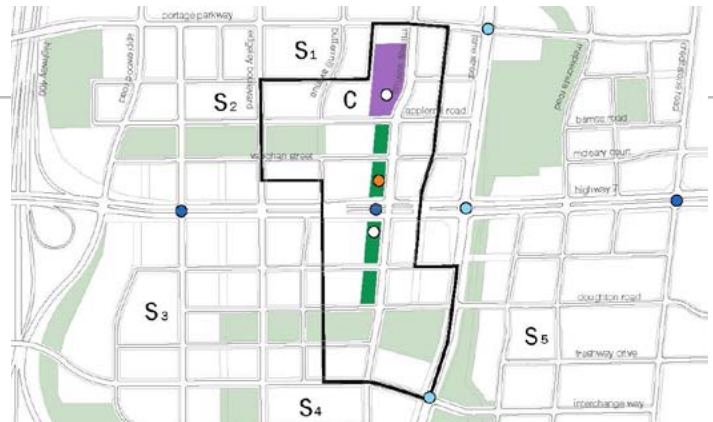
Reserve or Identify Sites

Where there is limited access to existing community facilities and publicly owned land, municipalities should plan for community facilities as a component of future privately led development. Depending on the size of the area and the expected pace of development, it may be appropriate to designate one site for the planned facility, or identify multiple potential locations to ensure that when a facility is required, land will be available.

The Approaches

Vaughan Metropolitan Centre (VMC)

The secondary plan for the Vaughan Metropolitan Centre identifies a generous zone for community and cultural amenities around the future subway station. It also identifies five potential sites for elementary schools, the most that would ever be required to serve the target population for the area. One of the school boards will purchase a site only when the need for an elementary school becomes apparent. If an individual site is not required, it becomes available for private development.



VMC - Community Services and Cultural Facilities Schedule
Photo: City of Vaughan

Railway Lands Redevelopment, Toronto

Plans for Toronto's Railway Lands, between Spadina Avenue and Bathurst Street included a site for an elementary school and community centre and another for a library. The former, which is across the street from a park intended for school use, continues to be reserved for community facilities. Meanwhile, a library will be located in the base of a condominium to be completed in 2013.



Railway Lands - Fort York Boulevard Library Photo: KPMB

Bessarion-Leslie Context Plan, North York

In 2002, City Council adopted the Bessarion-Leslie Context Plan to guide redevelopment. The required Community Services and Facilities (CS&F) Review identified a need for one joint-use community facility, to include two elementary schools, Public and Catholic JK-8 of approximately 4,600m² each (50,000ft²) and a community recreation centre up to 4,600m² (50,000ft²), among others, to be provided on the Canadian Tire lands. The Canadian Tire redevelopment project proposes a total of 3,458 residential units. Through Section 37 of the Planning Act and bonusing negotiations, two park blocks, a community centre, public library, daycare facility and a school, were secured through a \$5.6 million contribution from the redevelopment.



North York - Canadian Tire Redevelopment Plan
Photo: Concord Adex

• 2.7 Employment



The Challenges

A true mixed-use centre or corridor should include a significant proportion of employment uses, including office employment and retail, to optimize the transit system and maintain a vibrant public realm. Yet major office employers and retailers often seek locations that meet requirements not always found in a centre and corridor. The ability to inexpensively satisfy high parking demands is a major impediment to achieving more office employment in the Centres and Corridors.

Parking Requirements

Even where the transit service is frequent and accessible, major office buildings and retail destinations typically require a large amount of parking supply. Even if a relatively high modal split can be achieved, a substantial proportion of office workers will still be driving to work and therefore require parking.

Many strategies can be employed to work with this reality and still make growth centres compelling locations. Parking demand management, business-sponsored car-pooling, emergency taxi guarantees, dedicated local shuttle buses and other such initiatives can have dramatic effects on the demand for parking spaces.

Creating a Unique Jobs Magnet

Urban growth centres and higher intensity corridors can do much to make their environments more attractive to office workers and thus encourage those making the locational decisions. The shopping and service convenience of a well-provided and pedestrian accessible centre is enormously helpful to those living stressful, time-challenged lives. That strong sense of place and a range of amenities are needed to attract office development to urban locations.



Highway 7 Corridor, Vaughan Metropolitan Centre
Photo: Urban Strategies



Colossus Movie Theatre, Vaughan Photo: Urban Strategies

The Approaches

Frequently the most successful strategy for attracting private office development has been for the municipality, public institutions, or sometimes the Province, to locate major public buildings in the centre. The prominence of public buildings can attract private investment and a population base that would help support office development in the Centres and Corridors.

Attract an Institution

Public institutions such as municipal offices, colleges and universities can help generate additional development and redevelopment projects on lands in proximity to those institutions.

Mississauga City Centre

The City Centre, located in Downtown Mississauga, extends 5 blocks north from Burnhamthorpe Road to Rathburn Road. It is now a “civic campus” that is the home of the most important civic uses: City Hall, the Central Library, the Living Arts Centre, the Sheridan College Campus, and the 9,000-square metre Civic Square. Transformation on such a large scale required incremental implementation, immediate actions and catalytic projects.

The decision by Sheridan College to consolidate and locate its business programs in the City Centre was a catalytic project that brought a new focus to Downtown Mississauga. Youth and higher learning is adding to the already well-established downtown functions - local government and cultural centres, as well as the retail business, office and residential areas. Planning is well underway for Phase II of Sheridan’s Hazel McCallion Campus to be located just north of the existing building. Phase II will initially accommodate 1,000 full-time students when the new building opens in September 2015, bringing the total projected enrolment of the campus to 3,600, and 5,500 full time students as of September 2017.



Mississauga Civic Centre Photo: City of Mississauga



Sheridan College's Hazel MacCallion Campus
Photo: Routhwaite Dick & Hadley Architects Inc.

The Approaches •

Balance Private and Public Parking

North York City Centre Secondary Plan

An objective of the Secondary Plan is to reduce the reliance on the use of the automobile, attain a high transit modal split, and to ensure that development levels do not exceed the capacity of the infrastructure. To meet this objective, the Plan includes Parking Management policies that strictly regulate the supply of parking so as to attain an overall average auto driver modal split of no more than 33 per cent (in the p.m. peak hour) for all new development. The Plan also states that in areas found deficient in parking, that the Toronto Parking Authority be encouraged to provide parking facilities. The Plan does not permit private commercial parking lots for non-accessory parking.

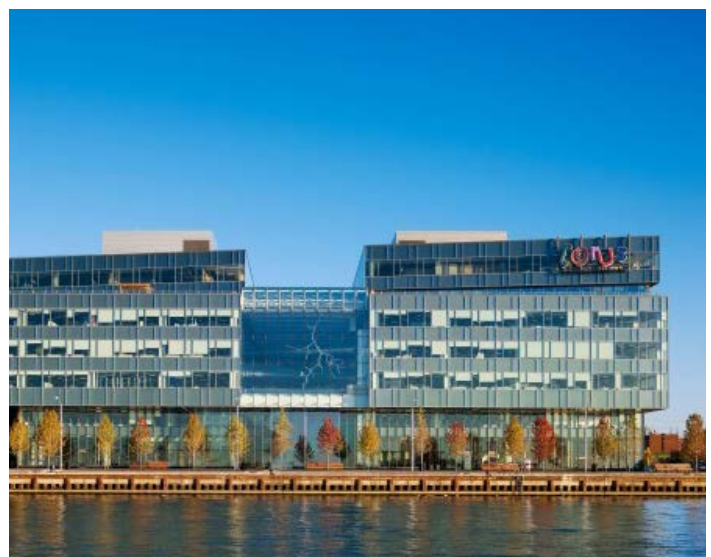
Create Incentives for Office Development

Toronto - Financial Incentives for Offices in Mixed Use Buildings

Although Toronto is experiencing tremendous growth in condominium development, developers face challenges in including large contiguous office space in such developments. In 2012 and 2013, City Council adopted/amended a City-wide CIP that enables the Imagination Manufacturing Innovation Technology (IMIT) program to provide financial incentives for office buildings, including mixed use buildings. The policies differentiate between sites inside and outside Transit Corridors (within 800 metres of a transit station) and must meet the minimum GFA size requirements to receive the grants. The incentive will amount to a grant-back of 60 per cent of the municipal taxes paid on the office space over ten years. As a requirement of the grant, businesses must participate in a City-endorsed hiring initiative.



North York Civic Centre Photo: Metrolinx



Corus Entertainment Building Photo: Waterfront Toronto

2.8 Housing



The Challenges

A range and mix of housing choices in Centres and Corridors will help sustain a diverse population and workforce and will be critical to achieving complete communities. In particular, a healthy balance of ownership and rental housing, with affordable options in each category, will be important. A lack of rental options limit housing opportunities for young people ready to leave home, low and moderate income residents, and seniors looking to downsize.

In York Region, purpose built rental units accounted for only 1% of all housing starts between 2007 and 2011. Through land use policy and financial incentives, regional and local governments play an essential role in encouraging and facilitating affordable housing.

Limited Funding Available

Federal and provincial funding for affordable housing has not kept pace with the demand for such housing and in fact has declined overall in recent years. This has placed a greater responsibility on regional and local municipalities to find creative ways to support housing initiatives. While regional housing agencies play an important role, governments increasingly are looking to the private sector to help fill the gap.

Few Affordable Housing Incentives

In a strong real estate market, where demand for all forms of housing is high, there is little incentive for traditional developers to build affordable housing. Demand for condominium housing in particular has remained consistently high in the Greater Toronto Area for many years, encouraging both new construction and the conversion of rental apartments to condos. In an effort to satisfy municipal requests for a significant share of affordable units in new housing projects, a common response from developers has been to build more small units that might meet the financial criteria for affordability but are only suitable for the smallest households.



TCHC Regent Park Revitalization Photo: TCHC



TCHC CityPlace Block 32, Toronto Photo: TCHC

The Approaches

In the absence of stable, long-term public funding for affordable housing, some municipalities have leveraged a range of financial and policy tools to encourage more housing diversity from developers. Non-profit organizations and socially-conscious developers are also finding ways to build affordable housing.

Financial Incentives for Affordable Housing

Section 28 of the Planning Act permits municipalities to designate Community Improvement Plan (CIP) project areas, such as Centres and Corridors, and adopt CIPs that contain financial incentives intended to help develop, redevelop, rehabilitate and/or maintain the targeted area. CIPs give municipalities the power to acquire land and issue grants, loans and other incentives for affordable housing.

Peterborough Affordable Housing CIP

Under its Affordable Housing CIP, the City of Peterborough will waive development charges and municipal fees such as planning application fees, parkland fees, and cash-in-lieu of parking fees for affordable housing projects. The City also offers a Tax Increment Grant Program, whereby an annual grant to property owners will reimburse a portion of the municipal property tax increase resulting from increased assessment. The program would be implemented over a period of 9 years. For the first 5 years the grant would be equivalent to 100% of the municipal tax increase with the property owner gradually paying the full amount of taxes from years 6 to 9. Affordable housing projects located in the Central Area may also qualify for additional funding under the Central Area CIP incentive programs. These programs include a grant to property owners who redevelop their properties for residential purposes and a cancellation of the property tax increase on a brownfields property or former industrial site during its environmental remediation and redevelopment periods.



Peterborough, Ontario Photo: Window Film Peterborough



City of Peterborough Official Plan, Community Improvement Schedule
Photo: World Architecture News

The Approaches •

York Region Development Charges Grant

Non-profit groups building affordable rental housing in York Region can apply for grants equal to Regional development charges payable on the development. To receive this grant, eligible organizations must meet predefined criteria and enter into an agreement with York Region. Between 2003 and 2010, the program helped create 299 affordable rental units across the Region.

City of Toronto Fee Waivers

The City of Toronto waives building permit and planning application fees for non-profit housing. Eligible projects must meet a set of criteria related to land ownership and leasing status, rents charged, occupant's household income requirements, etc. The St. Claire multi-faith affordable housing project and Lester B. Pearson Place benefited from this program.

Short-term Incentives for Rental (STIR) Program, Vancouver

The City of Vancouver initiated the STIR Program as a 2-year pilot program that offers city-level incentives to encourage the development of new market rental housing. Qualified projects could benefit from a development cost levy waiver, parking requirement reductions, increased density and expedited permit processing. From 2009 to 2011, approximately 1,668 new market rental units began construction under the program.

Toronto – Section 37 for Affordable Housing

The City of Toronto is proposing to amend its Section 37 policies in its Official Plan to add new policies related to affordable housing. The proposed amendment will allow, as a Section 37 community benefit, condominium-registered rental units to be conveyed to a non-profit housing provider as affordable rental units, and will explicitly authorize affordable ownership as an eligible Section 37 community benefit.



Toronto Fee Waiver Project - Lester B. Pearson Place, Toronto

Photo: Daily Commercial News



STIR program Project - Lido Development Vancouver

Photo: Bosa Properties

• The Approaches

Establish an Affordable Housing Fund

Regional and local municipalities can establish reserve funds to acquire lands for affordable housing projects. In Centres and Corridors, the funds can be used to make early purchases while land is still relatively affordable. Land can then be resold to developers with conditions for building affordable units.

City of Charlotte Land Acquisition Fund, North Carolina

The City of Charlotte first established an acquisition fund to purchase land near light rail transit stations for mixed-income housing. With the subsequent acquisition of a 6.8 hectare land parcel, the City issued an RFP to developers for affordable housing to be built on site. A total of 80 affordable units were created alongside 820 market units, retail space, a hotel and community park.



Scaleybank Station, Charlotte North Carolina

Photo: Google Maps Streetview

Support Non-Profit Organizations

Non-profit organizations are excellent resources for understanding housing needs and mobilizing affordable housing development in communities. What non-profit organizations need are skills, expertise and financial support to take on a greater role as affordable housing developers.

Tony Wong Place, Markham

Tony Wong Place is a 120-unit affordable housing project initiated by Markham Interchurch Committee for Affordable Housing (MICAHA), a non-profit, private affiliation of churches in Markham. This development contains units that serve individuals, families and seniors with low to moderate income and persons with disabilities. Funding for this 5-storey building came from federal and provincial grants, regional and local grants equal to development charges, reduced parkland dedication fees, tax rebates, and private fundraising.



Tony Wong Place, Markham

Photo: Tony Wong Place

The Approaches •

Promote development models for intrinsically affordable housing

Seeing the demand for affordable housing as a market opportunity, innovative developers are gradually discovering ways to make units affordable without government grants and without making them small.

Options for Homes

A private Toronto-based organization, Options for Homes has created a unique funding and development model to build intrinsically affordable apartments. Cost savings are achieved through:

- A “no frills” approach to construction and marketing that excludes luxurious amenities, costly marketing campaigns, model suites and real estate commissions.
- Having future buyers cooperatively govern project financing and development. Options for Homes secures lands, development approvals, selects builders and prepares plans while future buyers manage project financing and construction.
- Selling homes at cost to buyers, taking a second mortgage based on market and at cost price differential. Owners repay the second mortgage when they sell the unit. About 90 per cent of buyers remain in these homes for 10 years on average.

Between 2000 and 2012, Options for Homes built 2,350 units in the Greater Toronto Area and in the Kitchener-Waterloo area. Municipal development fee credits and loans made some projects financially feasible.



Village by the Park, Options for Homes

Photo: Options for Homes



Village at Guildwood

Photo: Options for Homes

2.9 Place-Making



The Challenges

The role of urban design, architecture, landscape architecture and engineering in creating attractive, meaningful and sustainable places is well understood and increasingly promoted. Yet achieving design excellence is an ongoing challenge. Urban design requires collaboration among the many professionals and stakeholders involved in city-building, but municipalities traditionally have lacked the tools to ensure private development is high-quality.

Limitations of Planning Tools

Official Plans and zoning by-laws can only go so far in regulating design. Under the *Ontario Planning Act*, municipalities have the authority to regulate the general form of buildings through official plan policies and zoning. And, under site plan control provisions, they can approve or not approve drawings that display “the massing and conceptual design of the proposed building” and “matters relating to exterior design, including without limitation the character, scale, appearance and design features of buildings, and their sustainable design,” among other matters. Policies and regulations that attempt to prescribe the detailed design of a development, in most contexts, are not desirable; they would inhibit the architectural variety that cities seek. While zoning is a useful tool in shaping development, many matters of site plan control, in particular those relating to the aesthetics of a building and its landscape, become subject to discussion and negotiation between an applicant and the municipality, with applicants having the right to ultimately appeal their site plans to the Ontario Municipal Board.

Lack of Urban Design Resources

Municipalities have limited urban design resources in house. Whereas a developer will have a team of design professionals working on a project, many municipalities lack the breadth of expertise to properly evaluate the design of a proposal, particularly complex projects typical to Centres and Corridors.

Perceived Cost of Great Design

There is a perception that better design imposes additional costs on a project. Where better design involves higher quality materials or advanced building systems, for examples, the short-term costs often will be higher, but this is not always the case. And it can usually be demonstrated, but rarely is, that the long-term costs of a poorly designed development, to both the landowner(s) and the municipality, in terms of maintenance, quality of life and city image, are high.



Condominium Development, Richmond Hill
Photo: Urban Strategies

The Approaches

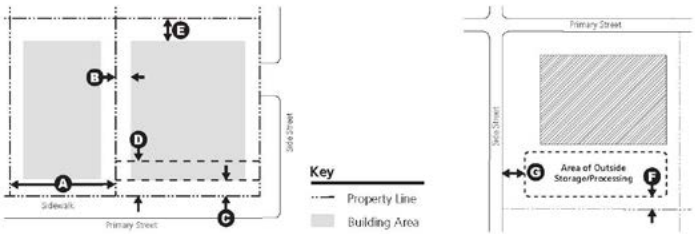
The standard for design excellence should be high in Centres and Corridors. Their density makes them the most visible and heavily used places within a community, and they become an essential part of a city’s identity. To attract investment and activity, Centres and Corridors need to be attractive and durably built. They also provide a range of opportunities for infrastructure, buildings and open spaces that incorporate green design and green technologies.

Take a Form-Based Approach to Zoning

Form-based zoning places less emphasis on regulating land use and focuses instead on performance standards related to the form of development and its relationship to streets and open spaces. In the United States, detailed form-based codes have been used to regulate the development of new communities where the design vision has been clearly articulated. The recent trend in Canada has been to modify existing zoning by-laws on an area or site-specific basis with performance standards that provide greater certainty about the form of buildings and the streetscape conditions they will support. Performance standards can include maximum setbacks (not just minimums), angular planes or stepback requirements, and regulations regarding key elements of a building’s facade (e.g., entrances, windows, porches, balconies).

North Oakville Urban Cores, Oakville, and Port Credit Village, Mississauga

The zoning by-law for North Oakville includes performance standards for the area’s designated Urban Cores intended to ensure buildings frame streets and have proportions and parking arrangements that contribute to a pedestrian-friendly environment. The zoning for Port Credit Village in Mississauga includes detailed built form standards based on the master plan developed for the lands.



6.10.2 Building Types Permitted and Related Standards							
Building Type	Max. Floor Space Index	Min. Lot Frontage A	Min. Side Yard Set-back B	Min. Front Yard and Flankage C	Max. Front Yard and Flankage D	Min. Rear Yard Set-back E	Max. Height
Office Building Employment Building	3	15 m	3 m	3 m	24 m	7.5 m	15 storeys

Note: Notwithstanding the setbacks above the minimum setback for a yard abutting a residential zone shall be 15 m.

Town of Oakville - North Oakville Urban Core Zoning Bylaw
Photo: Town of Oakville



Port Credit Village, Mississauga Photo: tbaird.com

“Unlike zoning, guidelines can be used to direct the design of infrastructure and other capital projects in the public realm”

Prepare Comprehensive Urban Design Guideline

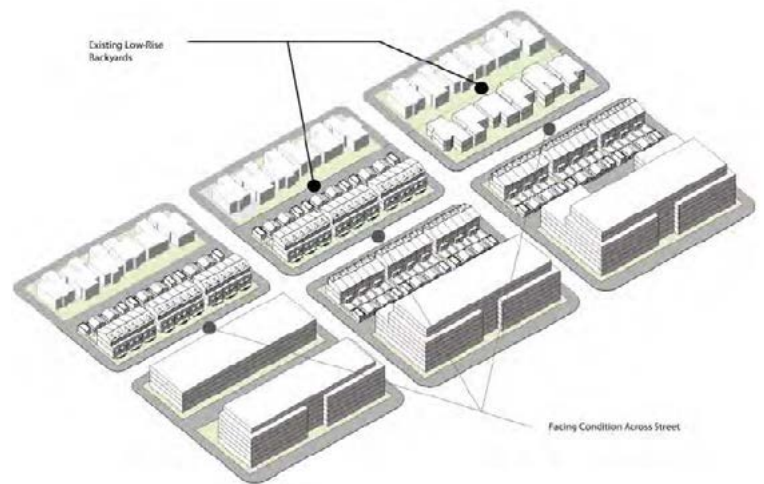
Urban design guidelines prepared by a municipality provide an opportunity to prescribe how elements of both the public and private realms of an area should be designed, while allowing for exceptions and some flexibility in how they are interpreted on a case-by-case basis, which a zoning by-law cannot do. Also unlike zoning, guidelines can be used to direct the design of infrastructure and other capital projects in the public realm. It is widely recognized that illustrated urban design guidelines are a critical supplement to Official Plan policies and zoning by-laws, since they often clarify the intent of policies as they apply to an area and describe how buildings, streets and open spaces should perform.

Markham Built Form, Height and Massing Study

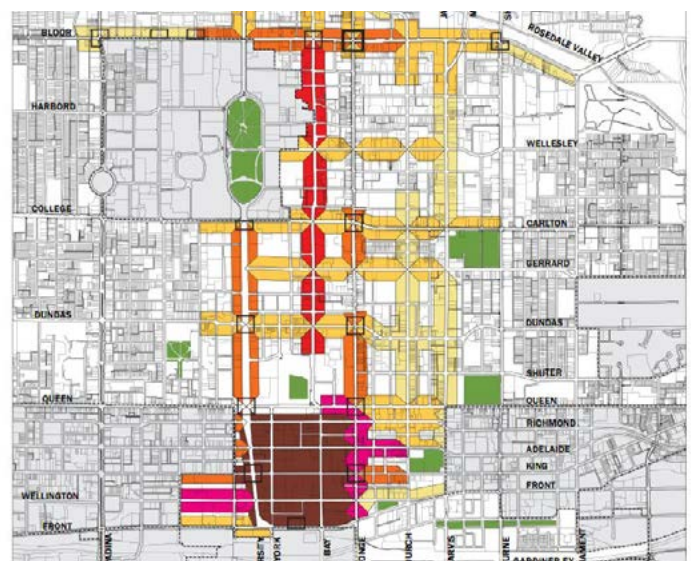
The City of Markham completed its Built Form, Height and Massing Study in 2010. It includes guidelines on a wide range of urban design elements, including the public realm, streets and blocks, building location, built form, tall buildings, transition, and parking and loading.

Tall Building Guidelines, Toronto

Toronto’s Design Criteria for Review of Tall Buildings have helped ensure new tall buildings across the city have a form that contributes to attractive and comfortable streetscapes and minimizes adverse impacts on the surroundings. The Downtown Tall Buildings: Vision and Supplementary Design Guidelines, adopted in 2013, provide greater detail on how tall buildings in the city’s core should perform based on the desired character of specific streets. For more information, visit www.toronto.ca/planning/tallbuildingstudy.htm.



Markham Built Form, Height and Massing Study
Photo: Metrolinx



Downtown Tall Building Guidelines, Toronto
Photo: Urban Strategies and HPA

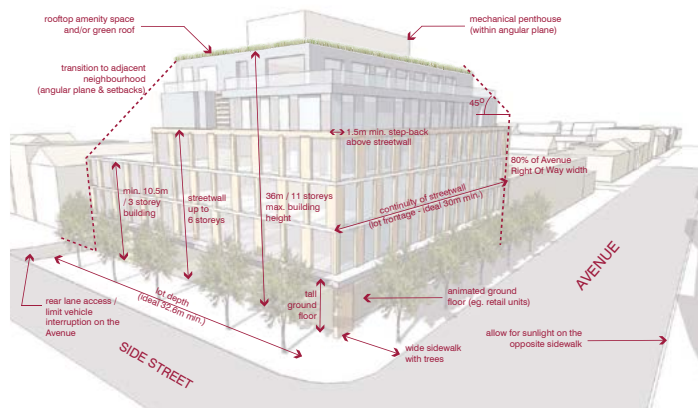
• The Approaches

Toronto Avenues and Mid-rise Buildings Study

The City of Toronto also completed a city-wide study to determine how to intensify development along its key corridors (Avenues) in a way that is compatible with adjacent neighbourhoods through appropriately scaled and designed mid-rise buildings. The City is also in the midst of preparing a series of area-specific Avenue studies, which are intended to guide corridor intensification. More information is available at www.toronto.ca/planning/midrisestudy.htm and www.toronto.ca/planning/studies.htm#ongoing.

Community Design Plans, City of Ottawa

The City of Ottawa has prepared a number of Community Design Plans (CDPs) for areas of the city targeted for growth. CDPs look comprehensively at an area and describe a long-term vision for how it should evolve. They provide direction for zoning and include public realm and built form guidelines. The City has also prepared general design guidelines for a range of street types and development formats. For more information visit www.ottawa.ca/en/city-hall/planning-and-development/community-plans-and-design-guidelines/community-plans-and-studi-0 and ottawa.ca/en/city-hall/planning-and-development/community-plans-and-design-guidelines/design-and-planning-0-1.



Toronto Mid-rise Building Study
Photo: City of Toronto



Centretown Community Design Plan
Photo: Urban Strategies

The Approaches ●

Toronto Green Standard

The Toronto Green Standard (TGS) is a two-tier set of performance measures with supporting guidelines related to sustainable site and building design for new private and public development. The standards are designed to work with the regular development approvals and inspections process. New planning applications are required to document compliance with Tier 1 environmental performance measures. Applicants who also choose to meet Tier 2, a voluntary higher level of environmental performance, may be eligible for a development charge refund. Two studies laid the ground work for the TGS, including one that looked at the cost versus the savings of implementing green development. For more information, visit www.toronto.ca/planning/environment/greendevdevelopmenthtm#instructions.



Green Roof Photo: ArchiEnvironmental



Urban Swale, Portland Photo: flickr.com

● The Approaches

Establish a Design Review Process

To ensure significant development proposals as well as major capital projects are subjected to an appropriate urban design review process, municipalities are increasingly going outside the corporation and seeking the advice of reputable design professionals, either through a peer review process or by constituting a design review panel. A peer review process can be informal and conducted on a case-by-case basis.

Vaughan Design Review Panel

Vaughan Council approved a new Design Review Panel pilot project in 2011. Panel members provide professional recommendations to the City on proposed high density development projects in the City. The Panel acts as an advisory body to the City's Planning Department and meets on a monthly basis depending on the number of development applications. Members providing professional experience in the following areas: planning, urban design, landscape architecture, architecture, ecology, heritage, and social/cultural issues related to design.

Toronto Design Review Panel

The City of Toronto Design Review Panel was approved by City Council as a pilot project in June 2006 and made permanent in November 2009. The Panel assists Council in fulfilling Official Plan objectives by providing staff with professional design advice on public and private development. The Panel's goal is to improve people's quality of life by promoting design excellence within the public realm, including the pursuit of high quality architecture, landscape architecture, urban design and environmental sustainability. The Panel is set up as an advisory body to City staff, and takes place as an additional stream of consultation within the existing framework of development review. There are 13 panel members, representing the architecture, landscape architecture, planning, engineering and heritage professions. Projects are subject to an initial Schematic Review and a Final Review.

The Approaches •

Create incentives for design excellence

Several municipalities in Ontario, including Markham, Vaughan, Oakville, Mississauga, Hamilton and Toronto, have established Urban Design Award programs to celebrate and promote outstanding projects of different types and at different scales. Award programs encourage developers and institutions to retain highly reputable designers for their projects, and they are effective in raising public awareness about the value of good urban design.

York Region's Sustainable Development through LEED Incentive Program

Minto Group's WaterGarden project received water and wastewater allocation credits from the Region's LEED Incentive Program. The site for the 6-storey mixed-use commercial and residential condominium is located on Yonge Street, in Old Thornhill. Once built, this development will respect the historical community with the retention and reuse of other heritage buildings on site. It will contribute to the housing mix in this portion of the Yonge Street corridor by providing several unit sizes. The streetscape will be enhanced through a more inviting public realm design and ground floor retail. Targeting LEED Gold certification, this mixed-use building features a green roof, a rainwater harvesting system for irrigation, water efficient fixtures, and a three-stream garbage, recycling and organic waste management system.



WaterGarden Development, Thornhill
Photo: Minto Group



WaterGarden Development, Thornhill
Photo: Minto Group

• The Approaches

Public Art

No two pieces of art are absolutely identical, nor are public spaces. How one interacts and experiences “place” is influenced by many things including, the relationship to the built and natural environment, form, function, colour, and texture. Public art is a simple way to provide an immediate and intimate connection to a public space. By incorporating art and cultural elements into a public space you can highlight the values or beliefs of a community. There are many ways to bring art and culture into a public space; it can be a large monument or sculpture, or a colourful banner hanging from a pole of a streetlight.

Civic Precinct Project - People Place, Richmond Hill

The Civic Precinct Project is a community engagement initiative aimed at creating a place where everyone can have input into the design and programming of space to truly make it a “people place”. The site itself is Town owned land and identified as a feasible site for a new Town hall. But with the timing of development for a new Town hall unknown, the Civic Precinct Project helps to create a vibrant place at a strategic location along Yonge Street at Major Mackenzie Drive in the Town of Richmond Hill. For more information or to get involved with the project visit www.richmondhill.ca/subpage.asp?pageid=people_place_richmond_hill



A place to walk. A place to talk. A place to meet.
A place to eat. A place to learn and contemplate.
A place to honour and celebrate. A place to...

Civic Precinct Project Plan, Richmond Hill Photo: Richmond Hill



Saint Albert the Great
Photo: St. Albert Gazette

The Approaches •

St. Albert, Alberta

The City developed a public art strategy for the downtown that includes mechanisms to secure funding for public art from public and private development. The City of St. Albert has created an interactive mapping application that allows residents to take a virtual tour of the community's dedicated public art. The Art in Public Places application uses Geographic Information System (GIS) data, colourful photos, and in-depth information to showcase the growing outdoor collection of sculptures, murals, art benches and other art found throughout St. Albert. The City is also planning to enhance the capability of the Art in Public Places Tour by adding QR codes to each specific piece, which provides art lovers with the opportunity to experience the collection directly from their smartphone.

City of Saskatoon Urban Design Program

The City of Saskatoon has developed an Urban Design Program with the goal to make Saskatoon competitive, livable, healthy, inclusive and distinctive by creating a strong identity and sense of place through design. The Streetscape Reserve, established in 1988, is funded by 43 per cent of the annual parking meter revenues, generating \$1.5 million annually. This program is limited to Downtown, Broadway and Riversdale Business Improvement Districts. The City-wide program funding is from an annual allocation of \$750,000 from Land Sales Administration Fees and is limited to executing small-scale projects, and to leverage partnerships between the various constituencies within the city. An Urban Design Program Committee functions to facilitate the coordination of streetscape and urban public space projects within the Administration.



Arabesque by Douglas Bentham, Saskatoon
Photo: Douglas Bentham



3 Built Places

This section describes and illustrates centres, key development areas and corridors that have pulled together many of the elements discussed in the previous section to create distinctive and successful places. Although each is unique, they offer inspiration and lessons for centres, key development areas and corridors in early stages of development as well as those with more opportunities for intensification and place-making.

The Centres

The precedents featured in this section demonstrate that repurposing suburban vehicular-oriented places into regional centres or ‘downtowns’ requires long-term planning, regional and municipal leadership, and successful coordination and partnership with the development industry.

Metrotown Centre, Burnaby, B.C.

Metrotown has been designed as a regional centre in the City of Burnaby. It occupies approximately 300 hectares and contains 13,000 residential units and 25,320 residents.

Metrotown has a long planning history. In the 1960s, Metrotown was originally conceived as a regional town centre through concurrent planning initiatives led by the City and the Greater Vancouver Regional District. It was formally established as a town centre in 1977. In the 1980s, large-format commercial and office development accelerated with the opening of the SkyTrain system.

Metrotown includes Central Park to the west, a commercial spine along Kinsway, and a mix of housing forms ranging from townhouses to low-rise apartments, and high-rise residential towers. From the 1980s to 1990s, development primarily took the form of large format commercial uses, differing from the original liveable downtown vision.

Recent and upcoming developments have a larger focus on mixed uses, re-establishing the vision for Metrotown as a mixed-use and walkable regional centre. The City has also established a ‘Community Benefit Bonus Policy’, which provides a framework for developers to achieve extra development density in return for providing a community benefit, including community amenities, affordable or special needs housing, or a cash in-lieu contribution. Metrotown includes a number of community facilities, including Central Park, Bonsor Recreation Complex and Burnaby’s main library branch. The public facilities are connected by the BC Parkway, an east-west urban trail running parallel to the SkyTrain Line.

{ In Canada and the United States, traditional suburban communities are transforming their centres into vibrant urban places for living, working and entertainment.

● 3.1 Centre Precedents



Metrotown Centre, Burnaby, B.C. Photo: Thomas Ian McLeod



Metrotown Centre, Burnaby, B.C. Photo: Regus



Metrotown Centre, Burnaby, B.C. Photo: Burnaby Tourism

3.1 Centre Precedents •

Belmar, Lakewood, Colorado

The Belmar development in Lakewood, Colorado was designed to create a walkable downtown on the site of Villa Italia, a former regional shopping mall. In 1998, the City of Lakewood decided to redevelop the obsolete mall and formed a public-private partnership with Continuum Partners, a Denver-based developer, to transform the 42-hectare site into a mixed-use walkable urban centre.

Coordinated infrastructure planning and development has been a key component of Belmar's success. The developer in coordination with the City designed a new grid-based urban street system, consisting of 22 urban-scale blocks. The City assumed ownership of the streets after completion. Belmar features wide sidewalks and narrow roads, encouraging walking and slowing traffic.

Belmar's built form includes three and four-storey buildings with street-level storefronts, creating a walkable environment. It contains a mix of uses including approximately 81,750 m² of retail space, 23,200 m² of office space, 800 residential units, and two educational institutions. Retailers include large-format chains, designed with ground floor parking below second-storey retail, as well as a mixture of local small-scale businesses. Parking is concentrated in three large public garages, and there are also 2,000 on-street spaces. Belmar features over 3.5 hectares of open space, including an urban park and public plaza, which is used for farmers markets and community gatherings.



Photo: Mountain Homes of Denver



Photo: Activerain



Photo: Blog at Belmar

● 3.1 Centre Precedents

Silver Spring, Montgomery County, Maryland

Silver Spring in Montgomery County is located in the greater Washington D.C. area. It is an urban mixed-use infill project anchored by restaurants, retail space, offices and cinemas. The area originally developed as a regional suburban shopping destination, but faced decline following the expansion of other shopping plazas in the region.

In the 1990s, the County launched a redevelopment effort to create a liveable downtown centre. To expedite the regulatory review, inspection and permit process, the County provided projects in the downtown a special priority 'green light'. The County engaged in a public-private partnership to create a central urban community, featuring a traditional street format, including two outdoor plazas.

Streetscape initiatives and transit improvements have encouraged transit use, and fostered a pedestrian-friendly environment. Some street sections are designed to be closed occasionally to allow pedestrian-oriented activities, including music and cultural festivals.

One of the key successes of the County has been the ability to attract large company headquarters, including Discovery Communications. Since 2000, Silver Spring has established over 37,160 m² of retail, 23,000 m² of office space, and 200 hotel rooms, and 1,200 residential units, with another 4,000 in the construction and planning phase.



Photo: Visit Montgomery



Photo: Activerain



Photo: Urban Relations

3.2 Key Development Area (KDA) Precedents

The KDAs

The following precedents include transit-oriented mixed-use developments that provide a mix of housing and commercial opportunities, community services, and parks and open spaces.

The Bridges, Calgary, Alberta

The Bridges is a multi-residential and mixed-use redevelopment project, located in the community of Bridgeland-Riverside, north of downtown Calgary. This City-led multi-phase project was initiated following the closure of the Calgary General Hospital. When complete, the Bridges will be home to 2,500 new residents on a total of 14.9 hectares.

The Bridges was designed to respond carefully to the surrounding residential context and improve connections for both new and existing residents to the Light Rail Transit (LRT) station. The Bridges features a number of pedestrian-friendly features, including wide, landscaped boulevards, distinctive pathways that encourage pedestrian activity and transit use. The open space system is one of the most significant characteristics of the Bridges, making up almost one third of the lands; it includes parks, plazas and a pathway with direct connection to the LRT station.

Land use and architectural design criteria ensure that the height, massing and scale of new buildings relate well to the surrounding lower-density residential environment.

The Bridges features innovative solutions to manage parking, including reduced parking standards that limit on-street parking for shoppers, visitors and the community facility. There are no park and ride or public parking facilities at the LRT station. In addition, to minimize impact on local streets, loading and servicing functions are accommodated through a rear-lane system.

{ Intensification of local centres and KDAs provide an opportunity to create focal points for residential uses, community services and amenities, while supporting the role of larger Regional Centres and Corridors.

• 3.2 KDA Precedents



The Bridges, Calgary, Alberta Photo: Urban Strategies



The Bridges, Calgary, Alberta Photo: Urban Strategies



The Bridges, Calgary, Alberta Photo: Urban Strategies

3.2 KDA Precedents •

Collingwood Village, Vancouver, B.C.

Collingwood Village is a high-density, mixed-use node centered at the Joyce-Collingwood SkyTrain Station in Vancouver. It is the largest master-planned community in British Columbia, with 2,700 units, 11.3 ha).

The land was originally assembled by the City's Vancouver Land Corporation, and later purchased by Concert Properties, and developed over 16 years. The City of Vancouver and the developer worked together closely to realize the project. The City identified surplus lands for development, worked to develop a vision for the area, and negotiated neighbourhood amenities with the developer, including a community centre, daycare and community policing centre.

Collingwood Village features blocks with small mid-block connections and pathways between buildings. Crowley Drive is a central street that serves as a major pedestrian route. Major buildings and parks front on the street, creating a pedestrian-friendly environment and enhancing public perceptions of safety.

The mix of land uses and residential densities support transit ridership. Commercial uses are located in closest proximity to the station area, with community services slightly further away from the station area, and high-density residential uses throughout. Over the course of the multi-phase project, parking standards have been adjusted based on evidence of decreasing levels of auto-dependency.



Photo: Concept Properties



Photo: Tomskeygroup

● 3.2 KDA Precedents

Mockingbird Station Area, Dallas, Texas

Mockingbird Station Area in Dallas, Texas is a mixed-use project designed and built at a rapid transit station, 6.5 kilometres north of downtown Dallas. The 4-hectare, mixed-use development contains approximately 16,000m² of retail, restaurant and amenity space, and 12,700m² of office space, as well as loft apartments. It is located immediately adjacent and connected to the Dallas Area Rapid Transit (DART) station.

The 'front door' of this innovative transit-oriented development is oriented towards the DART station and rail platform, rather than the freeway. The project incorporates a warehouse building, repurposed into loft apartments, and includes ground-floor retail uses. Due to the project's inventive features, it was difficult for the developer to obtain municipal approvals, infrastructure improvements and financing. The City and transit authority were wary of the project's unusual access and circulation patterns given its adjacency to transit.

Since opening in 2001, the Mockingbird Station development has experienced considerable success. The complex has recently undergone remodeling and expansion to accommodate a second phase of retail and entertainment uses.



Photo: Skyscraperpage



Photo: drumguy8800 (via wikipedia.com)



Photo: Madison Marquette (flickr)

The Corridors

These precedents highlight the importance of coordinating transportation, infrastructure investments and land use planning, and establishing a long-term vision that can be adapted and refined over time.

Rosslyn-Ballston Corridor, Arlington, Virginia

The Rosslyn-Ballston Corridor in Arlington, Virginia includes five subway station areas. In conjunction with the planning of the Washington Metro in the 1970s, Arlington County developed a corridor-wide plan based on broad development goals and a general land use plan, and created five sector plans for the major station areas, consisting of a vision, desired public improvements and urban design standards. The innovative corridor plan concentrated high and mid-density redevelopment around transit stations, and established appropriate transitions to the existing low-density residential areas. The early results in the 1980s were successful from a development perspective, but did not create inviting places for people.

By 1989, the Council re-evaluated the efforts to date, and created new sector plans, with a stronger focus on place-making and urban design, rather than density targets. The County established stronger architectural site planning controls and placed a larger emphasis on design interventions to humanize the streetscape.

Today, the corridor has developed as a dense urban corridor with distinct districts and varying densities, including high-rise commercial, residential, civic, cultural and educational uses, concentrated at each station area.

Recent initiatives have focused on creating a walkway and public space network to improve walkability and connectivity between station areas, and along the corridor. New programs include a corridor-wide wayfinding strategy and bike share program.

Corridors are diverse places that connect communities, key development areas and centres, and support a range and mix of activities.

• 3.3 Corridor Precedents



Rosslyn-Ballston Corridor, Arlington, Virginia Photo: Ccap



Rosslyn-Ballston Corridor, Arlington, Virginia
Photo: Commuter Page Blog



Rosslyn-Ballston Corridor, Arlington, Virginia Photo: Salukitecture

3.3 Corridor Precedents •

Dudley Village and the Fairmount/Indigo Corridor, Boston

The Fairmount/Indigo Line is a commuter rail service running from South Station in central Boston to the city's outlying areas. It passes through a number of low- and moderate-income neighbourhoods, including Dorchester Bay. From the 1980s to 2012, the rail station line had only five stations. From 2012 to 2015, five stations will be added to line, and the existing stations will be modernized.

The Fairmount/Indigo Corridor expansion includes a number of community-building initiatives, including a 'greenway' consisting of a series of public green spaces in proximity to the line and station areas. The greenway will create a green connection between all neighbourhoods along the corridor, linking existing and planned community amenities and recreational spaces.

One of the new community-based developments along the corridor is Dudley Village in Dorchester Bay, a new mixed-use development with 50 affordable rental housing units and commercial buildings, providing space for small businesses and youth and employment services. The project features green building technologies, and community rooms and laundry facilities powered by solar energy.



Photo: US Federal Highway Administration



Photo: Boston.com



Photo: City of Boston

● 3.3 Corridor Precedents

South Corridor, Charlotte and Mecklenburg County, North Carolina

The City of Charlotte and Mecklenburg County is North Carolina's largest metropolitan area. In 1994, the County introduced a regional integrated transportation and land use planning framework to guide growth and development in centres and along corridors.

The South Corridor (Blue Line) opened in 2007, as the first light rail corridor in the region. It runs on the original railroad right-of-way and connects the central downtown with a mix of commercial and industrial uses and residential areas, characterized with a high-level of underutilized land. The City is encouraging high-density housing around the new light rail stations, and has prepared station area development plans for the 8 station areas. The South Corridor includes streetscape initiatives to improve pedestrian and bicycle access and establish an attractive setting for development.

To further facilitate development, in 2005, the City Council developed a South Corridor Land Acquisition Fund to purchase land near planned transit stations along the corridor for future transit-oriented development and affordable housing. The City also formed a joint development project with the transit authority to establish mixed-use, mixed-income villages along the corridor. Developers have responded to the public commitment to the corridor with significant intensification projects.



Photo: Properscale



Photo: Skyscrapercity



Photo: Ashtonse

{ The planning and building of Centres and Corridors is work in progress around the world. New best practices will emerge on a regular basis. York Region will monitor successes within the Region and beyond, promoting them in future updates to this document or on the Centres and Corridors web site: www.york.ca/candc

The Regional Municipality of York welcomes your input and comments to this document. If you have suggestions to the Best Practices for Planning Centres and Corridors, please submit them to:

Community Planning Branch

Transportation and Community Planning Department
The Regional Municipality of York

Local: 905-830-4444 ext. 5000

Toll Free: 1-877-464-9675 ext. 5000

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September 26, 2013