



Report to: Development Services Committee

Meeting Date: November 19, 2018

SUBJECT: **RECOMMENDATION REPORT**
Robinson Glen Community Design Plan
(Ward 6)

PREPARED BY: Jim Greenfield,
Senior Planner, Urban Design

REVIEWED BY: Ronji Borooah, City Architect

RECOMMENDATIONS:

- 1) That the staff report dated November 19, 2018, titled "Recommendation Report, Robinson Glen Community Design Plan" be received;
- 2) That the Robinson Glen Community Design Plan, dated November 2018, prepared by MBTW Group, be endorsed subject to:
 - Section 2 "Sustainable Development Principles" being updated following completion and acceptance of the Future Urban Area Community Energy Plan to the satisfaction of the Director of Planning & Urban Design;
- 3) That the urban design principles and guidance contained in the Robinson Glen Community Design Plan be used in the evaluation of development applications within the Robinson Glen Secondary Plan area;
- 4) That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE

The purpose of this report is to review the community design guidelines, as proposed in the Robinson Glen Community Design Plan (CDP) (attached in Appendix A). The report recommends that the design guidelines be used in the evaluation of future development applications with the Robinson Glen Secondary Plan.

BACKGROUND

Robinson Glen is a future neighbourhood in North Markham's Future Urban Area (FUA). The proposed neighbourhood consists of approximately 184 hectares (455 acres) of land as illustrated in Figure 1. In accordance with Markham's strategy for accommodating growth to 2031, at build-out the FUA will have approximately 45,000 residents and 16,000-18,000

jobs in three distinct new communities (Robinson Glen, Berczy Glen, Angus Glen) and a Future Employment Block (Figure 1).

The future development of the FUA lands is guided by the approved 2017 Conceptual Master Plan (CMP) that identifies a high level Community Structure Plan and the accompanying policy framework. The Community Structure Plan includes a protected Greenway System, a transportation network, an integrated open space network, and broad land use categories developed in accordance with Markham and York Region Official Plan requirements. The Conceptual Master Plan was developed through a highly collaborative process, in close consultation with agencies and landowners, residents and other members of the public.

The Conceptual Master Plan was informed by the findings of a number of City-led concurrent background studies, including a subwatershed study, master transportation study, as well as water and wastewater studies. In addition, North Markham FUA Urban Design Guidelines (UDG) were prepared by the City to identify urban design principles to be applied while developing Secondary Plans and Community Design Plans for the new communities in the FUA. This Community Design Plan is a non-statutory document that provides additional details of the vision, streets and blocks, organization of schools and parks, built form, density, transportation network and public realm considerations beyond the policy framework of the Secondary Plan. The Community Design Plan will be used to develop, and review future plans of subdivision and site plan applications.

DISCUSSION

The Robinson Glen Community Design Plan contains many components; the subsections below are significant or unique elements within the development block:

Vision for Robinson Glen Community:

Robinson Glen is envisioned as a healthy, complete, compact, resilient, and innovative community. The Robinson Glen Community Design Plan implements this vision by building upon Markham's recognized leadership and innovation in community design. This community design plan provides guidance for all design elements of the future development including a legible street network, seamless integration with existing and planned communities, and enhancement of the greenway system. This design guidance will support building connected, complete, walkable, transit supportive, and sustainable neighborhoods in Robinson Glen.

Robinson Glen Community Demonstration Plan:

The Robinson Glen Demonstration Plan (Figure 2) illustrates a community design that is consistent with policies and practices in Markham while incorporating innovative design guidance. The proposed Demonstration Plan aligns with direction

from the Conceptual Master Plan and studies, and supports the Secondary Plan. Alternative design solutions for local streets and block configurations may be pursued in implementing draft plans of subdivision and/or site plans.

Greenway System:

The Greenway System is a key environmental and organizing feature in the Future Urban Area and is integral to the design of the Robinson Glen community. The Community Design Plan recognizes the significance of the Greenway System as an essential community component. This community edge requires special consideration with regard to neighbourhood transition, design and access. The Community Design Plan ensures adequate preservation, restoration, enhancement and integration of the Greenway System within residential neighborhoods and open spaces and parks system. The Plan includes detailed guidance on the sensitive interface with the urban areas and active transportation networks. Public views and public access to the Greenway system, where appropriate, are maximized by the design elements.

Cultural Heritage:

The Robinson Glen block includes eight identified cultural heritage resources on the subject lands. The Community Design Plan acknowledges their importance within the community and offers guidance to conserve, promote and integrate cultural resources as a contributor to Robinson Glen's place making and identity. Design strategies to celebrate heritage resources are illustrated in the Community Design Plan and detailed guidelines are included for future development proposals.

Transportation Networks:

The street and block pattern for Robinson Glen community is based on a modified urban grid and a well-defined street hierarchy of interconnected arterials, collectors, local streets and public lanes. This urban street network supports walkability and accessibility to schools, transit, public parks and retail and personal services. Public sidewalks are provided on both sides of all streets; multi-use trails along collector roads connecting cycling routes to the planned off-road trail system; and to the existing and the planned cycling facilities in the abutting communities.

Parks and Open Space System:

Public parks in Robinson Glen community are prominently located and integrated with stormwater management facilities, school sites and the Greenway system. An extensive public trail network is being planned to ensure good access, connectivity within this community and with the neighboring communities and many opportunities for active transportation. Where possible, housing fronts directly onto parks and the Greenway system to create public views, to protect the Greenway, and to ensure good use and public safety.

Residential Neighborhood Areas:

Robinson Glen neighborhoods range from low density, predominantly ground-related homes to midrise and high rise apartments in proximity to transit corridors along both Kennedy Road and Elgin Mills Road. Residents in each neighborhood will have access to public parks, schools, retail, personal service and local transit within a 5-10 minute walking distance. The location and design of all residential neighborhoods reflect the principle of co-locating school sites and local parks to create hubs as community focus areas.

Community Park and Secondary School Co-location:

A unique feature of the Robinson Glen Block is a proposed co-located Community Park and Secondary School that will perform as a strategically located neighbourhood focus area and provide for community services. These facilities deliver a centralized community hub that may include shared access to meeting spaces, library, community gym and park facilities. These facilities share amenities for efficient land use, resident convenience, and create a key gathering space for the community.

Regional Mixed Use High Density Node:

A key component of the Robinson Glen community is the Regional Mixed Use High Density Node at the major intersection of Major Mackenzie Drive and Kennedy Road. The block is anticipated to include a mix of residential, office and commercial retail uses with potential for high rise built form. This concentration of development will be easily accessible by regional transit routes and the active transportation network. The development of this block may be phased over time with the introduction of retail pads and may include future opportunities for intensification. The block could also support mixed use and residential buildings to support retail businesses and offer residents the opportunity to work, live and play in the same neighbourhood.

Mixed Use Neighbourhood Corridor and Nodes:

The Robinson Glen mixed use neighborhood corridor and nodes are proposed along Kennedy Road, Elgin Mills Road, and the northern east-west collector street. These nodes deliver local community amenities such as retail and commercial services within walking or cycling distance of most residents. The design guidance for the mixed use nodes are intended to host medium densities to better serve retail demand similar to a ‘main street’ providing a concentration of uses at key gateway intersections.

Innovative Sustainable Community Features:

The Robinson Glen Community Design Plan addresses the following innovative sustainable design features of the new community by including detailed design guidance and by illustrating:

- Use of integrated green infrastructure; and
- Implementation of strategies contained in Future Urban Area Community Energy Plan (CEP) (under development) including solar strategy for built form and tree planting.

CONCLUSION AND NEXT STEPS

The Robinson Glen Community Design Plan is a complementary document to the Official Plan Amendment application. The draft Robinson Glen Secondary Plan accompanied by the Community Design Plan builds on the Council Endorsed CMP and provides the necessary framework to guide the development and review of future plans of subdivision and site plans for the community.

Staff will update Section 2 ‘Sustainable Development Principles’ of the Community Design Plan subject to the completion and acceptance of the Future Urban Area Community Energy Plan. This Community Energy Plan is intended to reduce community energy needs by building a strategy at a community scale. Detailed guidance and coordination will be included in the Robinson Glen CDP once the CEP is finalized between the City and the landowners.

FINANCIAL CONSIDERATIONS

Not applicable.

HUMAN RESOURCES CONSIDERATIONS

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The Robinson Glen Community Design Plan aligns with Building Markham's Future Together through "Growth Management", Transportation/Transit, Environment, Municipal Services, Parks, Recreation, Culture and Library Master Plan/Public Safety and Diversity and Accessibility.

BUSINESS UNITS CONSULTED AND AFFECTED:

The draft CDP was circulated to internal departments and external agencies. Comments received have been reflected in the Final Draft CDP where appropriate.

RECOMMENDED BY:

B. Karumanchery

Biju Karumanchery, M.C.I.P., R.P.P.
Director of Planning and Urban Design



Arvin Prasad, M.C.I.P., R.P.P.
Commissioner, Development Services

ATTACHMENTS:

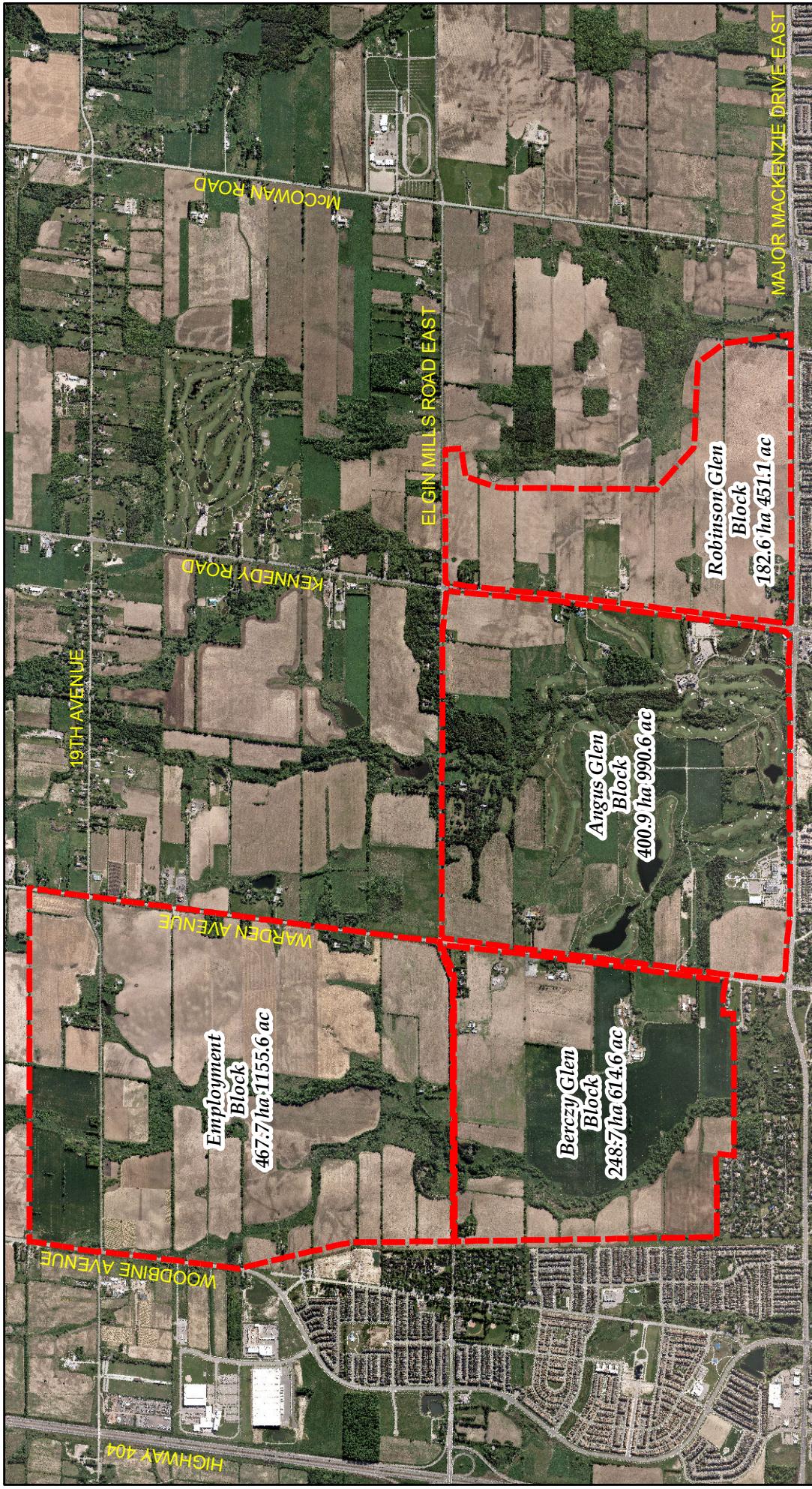
Figure 1 – Context Plan

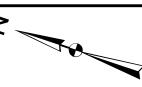
Figure 2 – Robinson Glen Community Demonstration Plan

Appendix A – Robinson Glen Community Design Plan, Final Draft –
October 2018

CONTEXT PLAN

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ROBINSON GLEN COMMUNITY DEMONSTRATION PLAN

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H Denotes the current location of cultural heritage resources.

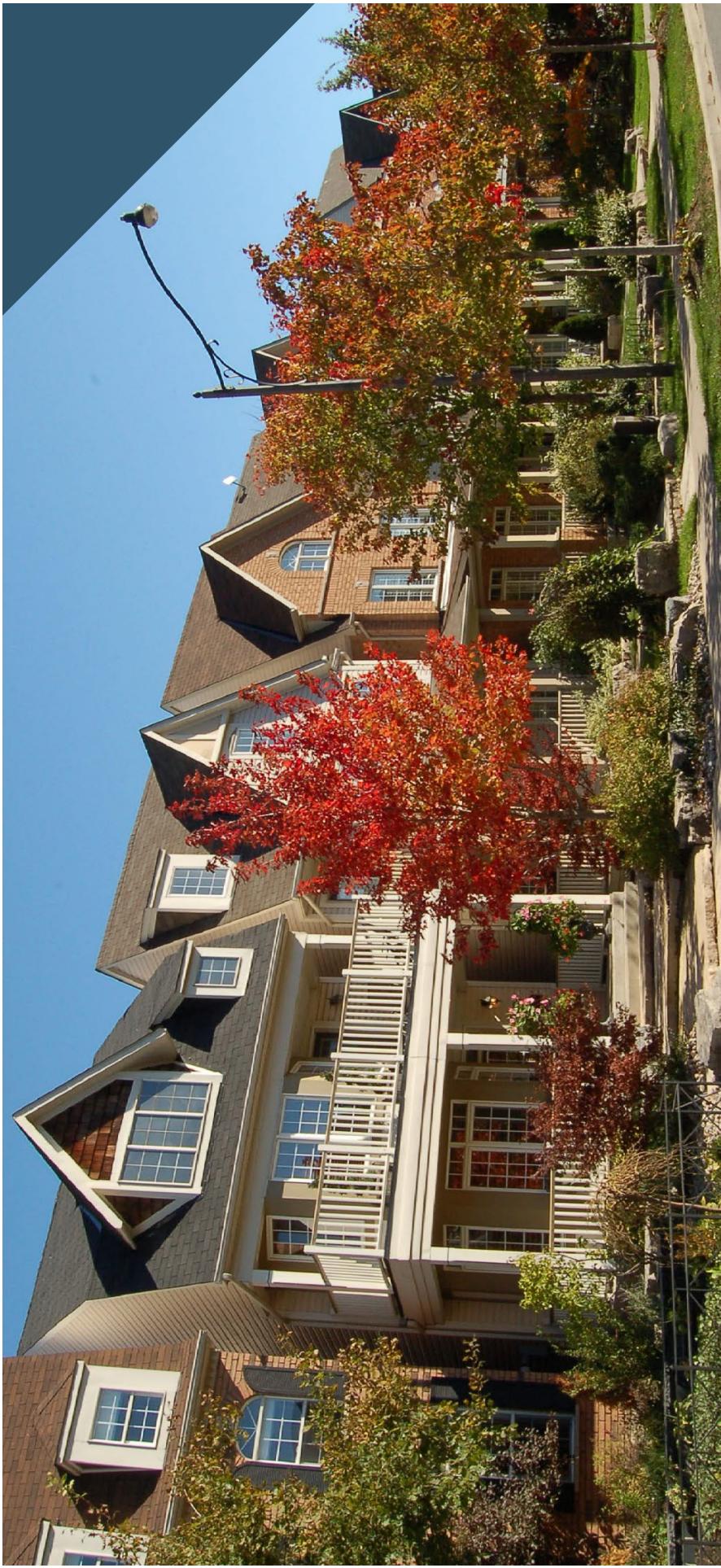
Robinson Glen Demonstration Plan Scale 1:4000



- (A) Mixed-use high-rise towers with integrated retail and office located at key arterial road intersections. The addition of mixed-use towers will provide a variety of density options for the Robinson Glen community. The towers will also serve as a visual focal point for the community, helping to define the overall character of the community, aligning with the objective of home is a priority development.
- (B) A co-located Secondary School and Community Park designed on a community facing point in a shared central location within the community. The block is architecturally bounded by three collector streets, framed by a grid of built form and designed to create a distinct footprint and contribute to branding and community identity.
- (C) Tenants in social or height, situated in appropriate locations, answer to a local point of entry, but also on the south side of Major McKenzie Drive.
- (D) One of three collector street entries into the Robinson Glen Community from Kenesky Road, according to size and design, will include access to the Greenway and other community amenities, and be located in a high visibility location, one to open to the encourage active and healthy lifestyles.
- (E) Dual use urban open spaces will be located along Kenesky Road, connecting the community to the southern edge of the community.
- (F) Residential buildings will utilize a stepped or oriented toward the collector street and utilize a transition to the existing Major McKenzie Drive. Residential zones around Major McKenzie Drive, along with the surrounding residential areas, will be zoned to a strict community entrance.
- (G) Landscaped pathways framing the collector street, provide the public realm and provide 'green infrastructure' to enhance safety.
- (H) Collector street intersections provide an opportunity to connect a sense of place through enhanced built form and landscape treatments. Streets for all 'pedestrian' types will be utilized through careful coordination of active transportation infrastructure.

- (I) Aerial roads are framed by planting, forming a strong street wall with strategic openings that provide visual and physical security, interaction and movement, while maintaining a sense of enclosure.
- (J) Neighborhood service nodes along Kenesky Road, will define the entrances and boundaries of the Robinson Glen Community and provide opportunities to integrate retail and community uses.
- (K) Parcels and urban planters provide passive recreational opportunities for residents and visitors.
- (L) A place of worship offers a more economic communities and provides space for social gathering.

----- SUBJECT LANDS



Robinson Glen Block

COMMUNITY DESIGN PLAN

Markham Future Urban Area

Final Draft: November 2018

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INTRODUCTION

1.0



1.0 INTRODUCTION

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The MBTW Group has been retained by the Robinson Glen Block Landowners to prepare a Community Design Plan (CDP) for the Future Urban Area (FUA) lands within the Robinson Glen Block. The subject lands are bounded by Major Mackenzie Drive to the south, Elgin Mills Road to the north, Kennedy Road to the west, and the boundary of the Greenbelt Plan Area to the east.

The subject lands are a total of 184 hectares (455 acres) and are presently being used for agricultural purposes, with existing structures limited to farmsteads and a small number of single detached residential buildings. Surrounding uses include residential development to the south, the Angus Glen Golf Club to the west and farmland to the north and to the east.

A legible street network will ensure the Robinson Glen Community seamlessly integrates with surrounding existing and planned developments. A strategic distribution of uses and densities, with an engaging public realm, will reflect the FUA vision for a complete community. Compact development and the integration of sustainability practices will establish the Robinson Glen Community as a model of effective community design, building upon Markham's recognized leadership and innovation in planning and urban design.

Objectives include:

Optimize land use distribution to promote a sustainable approach to development

1.1 Vision

The community vision for the Robinson Glen Community is rooted in an extensive municipal planning process, which included public consultation and a Conceptual Master Planning exercise, led by the City of Markham. This vision builds on the York Region vision for "strong, caring, safe communities" and the Markham FUA vision of a new neighbourhood that "will be designed as a complete, compact, healthy and accessible community."

Robinson Glen will be an innovative and resilient community, sustainably and effectively utilizing land with clear and easy access to centralized community amenities, including transit, parks, schools and the Greenway System, through a system of interconnected trails and streets. The community will form a strong urban edge along Major Mackenzie Drive, focusing densities along transit corridors anchored by a mixed use destination. Simple public art gestures will be utilized as informal wayfinding tools to connect the Robinson Glen Community with its heritage.

The Robinson Glen Community will be designed in a manner that combines compatible amenities and functions to optimize the use of land. The CDP seeks to provide direction on opportunities to co-locate and/or campus schools and parks, and innovative measures for managing infrequent regional storm flows on land that otherwise provides recreational and educational benefits to community residents. This approach is designed to adhere to the City of Markham's Official Plan strategic objective "*increase adaptability in the community through the introduction of green infrastructure (water, waste, energy), innovative technology, resource conservation and other sustainable practices to address long term climate change impacts*" (Policy 2.2.2.5)

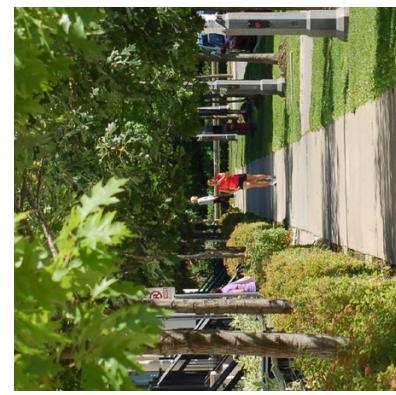


Provide a community structure that is defined by a legible public realm and strong connections to the Greenway System



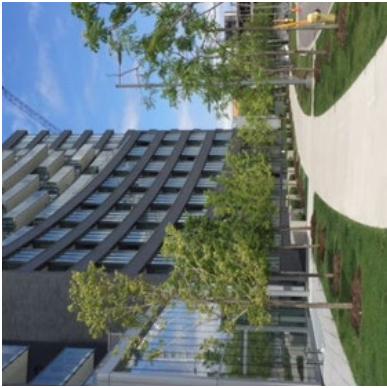
The Robinson Glen Community will provide a cohesive community structure that establishes strong connections to the adjacent Greenway System and trails network through block structure and street orientation. The connected network of streets and trails is defined by a strong urban edge on Major Mackenzie Drive and provides multi-modal access to parks and opens spaces. Simple wayfinding gestures, opportunities for public art, community focal points and key public spaces will contribute to the creation of a sense of identity for the Robinson Glen Community.

Promote walkability & healthy living by connecting key neighbourhood destinations through a cohesive network of trails, pathways & sidewalks



The Robinson Glen Community will provide accessible and multi-modal connections to various destinations, including the Greenway System, centralized schools, parks and open spaces and retail opportunities. Meandering trails in the Greenway System will be strategically accessed from the multi-use pathways and sidewalks lining local community streets and collector streets (respectively). Opportunities for biking will be supported by bicycle infrastructure at key destinations. Multi-modal connections will provide direct access to transit stops along Major Mackenzie Drive, Kennedy Road and Elgin Mills Road.

Plan Major Mackenzie Drive as an urban transit corridor anchored by a mixed use destination at a key intersection in the City



The design of the Robinson Glen Community is guided by objectives of transit supportive and pedestrian-oriented development, achieving the Conceptual Master Plan principle of increasing travel options in the FUA and upholding the City of Markham's Official Plan (2014) goal to support "patterns of growth and land use that will ultimately require less travel for everyday activities and which encourage travel by transit, cycling and walking." The Robinson Glen Community will focus densities along the Major Mackenzie Drive corridor to provide a large proportion of residents with direct access to planned higher order transit routes. A mixed use node at the major intersection of Major Mackenzie Drive and Kennedy Road will anchor the community within the larger City fabric.

Demonstrate a full range of housing types and land uses



The Robinson Glen Community will be planned to enable the development of a range of housing types and tenures, contributing to the development of a compact, complete community that supports a diverse population as outlined in the Conceptual Master Plan for the FUA. The residential community will be supported by a range of community facilities, including elementary and secondary schools, a system of parks and open spaces, mixed use centres and corridors, and access to the Greenway System.

1.0 INTRODUCTION

1.2 Context

1.2.1 A City-Led Initiative

The City of Markham has undertaken a city-led Conceptual Master Plan (CMP), dated September 2017, process for the FUA lands to guide all future development; a process that is nearing completion. As the first stage of detailed planning, the CMP process is intended to provide a high-level community structure for the FUA, forming the basis of more detailed Official Plan Amendments or Secondary Plans for each “block”, namely Berczy Glen, Angus Glen, Robinson Glen, and the Employment Block. This highly collaborative and public CMP process, initiated in 2013, has been underpinned by several comprehensive background studies including a subwatershed study, water and wastewater servicing studies, and a transportation study. Together, these studies are intended to satisfy the Master Plan component of the Municipal Class Environmental Assessment (EA) process.

City staff reported to Development Services Committee on two occasions, in October 2016 with a preliminary report, and most recently in September 2017 for the purposes of endorsing the Community Structure Plan (the Structure Plan) which identifies a high-level community structure and vision for the FUA lands (Figure 12 of the CMP). It is intended that the community structure will be further detailed and refined through Secondary Plans for each concession block. The Structure Plan is organized around a defined Greenway System, and identifies a general transportation network, open space network, and broad land use categories including Residential Neighbourhood Area, Mixed Use Neighbourhood Corridor and Mixed Use Regional Corridor.

The Structure Plan is intended to provide for a range of housing, population-based employment, and supporting retail needs for the community while contemplating transit-supportive densities along Major Mackenzie Drive, Warden Avenue, Elgin Mills Road and Kennedy Road. Schools, parks and other community uses are generally distributed across the FUA lands on an equitable basis. Collectively the Neighbourhood Area lands are expected to achieve a minimum density of 70 residents and jobs per hectare, and 20 units per hectare consistent with provincial,

regional and local policy within each Secondary Plan area. The Employment Area is expected to accommodate primarily general employment uses, with opportunities for business park uses, ancillary and local retail and services at appropriate locations.

1.2.2 Site Analysis

The subject lands, forming the eastern community of the FUA, have frontages on two existing Regional Arterial Roads (Major Mackenzie Drive and Kennedy Road to the south and west, respectively) and one future Regional Arterial Road (Elgin Mills Road to the north). There are presently no public roads on the subject lands, only private access roads servicing the rural residential properties and agricultural lands.

The current land uses of the subject lands include agricultural, rural residential and open space uses. As outlined in the City of Markham Official Plan (2014) and the CMP, natural heritage features and cultural heritage resources represent significant spatial and structural elements of the FUA (described in more detail in Section 1.2.3 of this CDP). The Greenway System forms the immediate eastern edge of the Robinson Glen Community, stretching in a general north-south direction.

A small cedar treed area near Major Mackenzie Drive and Kennedy Road may require compensation in order to fulfill the plan objectives for transit-supportive higher density development. The resolution of this area will be established through Secondary Plan Policy.

INTRODUCTION 1.0

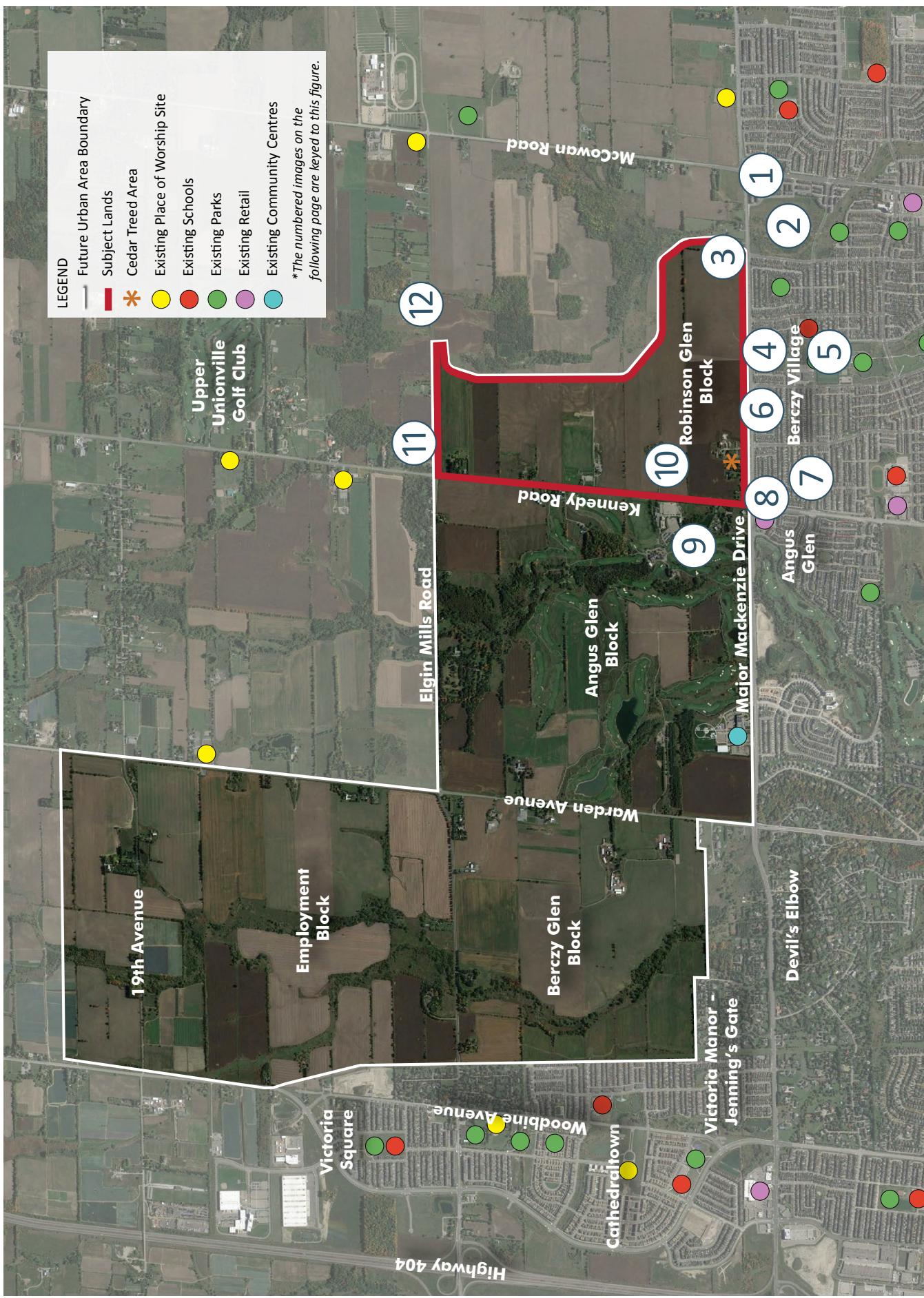
Adjacent Planned and Existing Uses

The Robinson Glen Community is surrounded by the following planned and existing uses:

- To the north: Elgin Mills Road, planned as a regional frequent transit network by 2031 to Kennedy Road and extended to Donald Cousens Parkway by 2041, forms the northern edge of the Robinson Glen Community. The block directly north of the Robinson Glen Community currently supports agricultural uses, woodlands, a children's camp, and the Upper Unionville Golf Club. A portion of these lands is designated as part of the Greenway System and Countryside Area on Map 1 – Markham Structure of the City of Markham Official Plan (2014). Additionally, parts of these lands fall within the Greenbelt Plan Area and the Rouge Watershed Protection Area.
- To the south: The subject lands are bordered by Major Mackenzie Drive, a proposed regional rapid transit corridor which will extend from Richmond Hill, through the FUA, to connect with a potential GO Transit Station at Donald Cousens Parkway. An established residential neighbourhood, Berczy Village, is located south of the subject lands. This existing community is composed primarily of low-rise residential buildings, including single detached and townhouse dwellings. The street network of Berczy Village represents a modified grid system, connecting a major collector street, minor collector streets and local streets throughout the neighbourhood. The community's open space network consists of parks and a Greenway System, which extends from the Greenway System along the eastern edge of the Robinson Glen Community. The community has two public schools, Pierre Elliot Trudeau High School and Beckett Farm Public School, located in close proximity to Kennedy Road.
- To the east: The subject lands are bordered by the Greenway System, forming part of Markham's natural heritage network. On Map 4 – Greenway System of the City of Markham Official Plan (2014), these lands are designated as Greenbelt Plan Area and Rouge Watershed Protection Area. The Robinson Creek flows from the block to the north of the subject lands passes through the subject lands and then runs south of Major Mackenzie Drive. The eastern interface provides access to and views of Markham's natural heritage features.
- To the west: The subject lands are bordered by Kennedy Road, which is proposed to have frequent transit service. The block to the west of the Robinson Glen Community, the Angus Glen Block, is the central block of the three residential blocks within the North Markham FUA. The current uses on this block include the Angus Glen Golf Club, and the Angus Glen Community Centre, as well as agricultural cultivation. This block will be developed in coordination with the Robinson Glen Community, to ensure cohesive and connected communities.

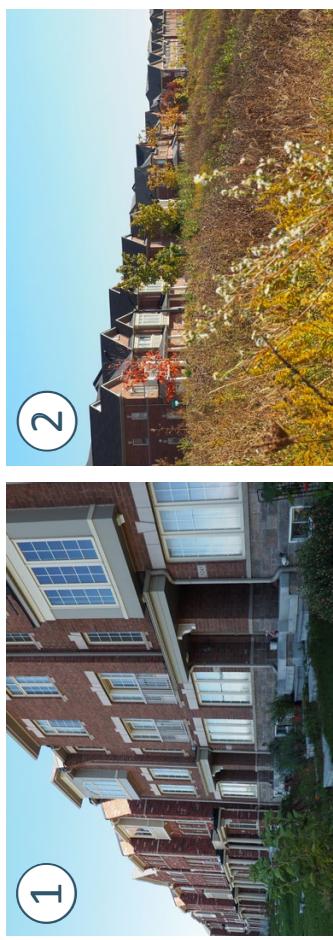
1.0 INTRODUCTION

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INTRODUCTION 1.0

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Townhouse buildings fronting on Major Mackenzie Drive.



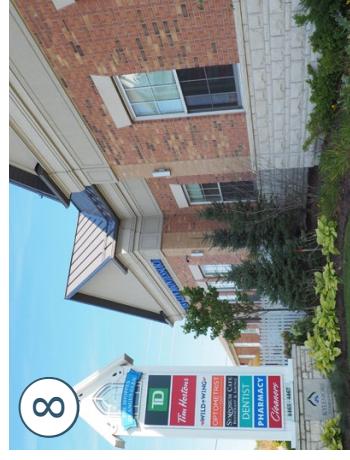
View of townhouses fronting on open space.



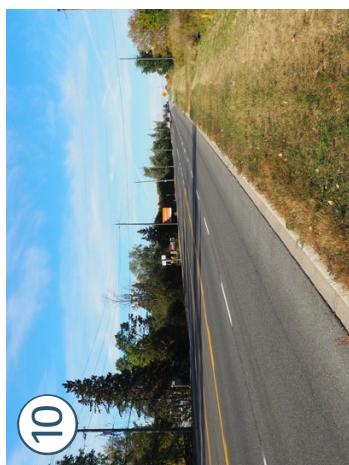
View of a window street of the Berczy Village community, from Major Mackenzie Drive.



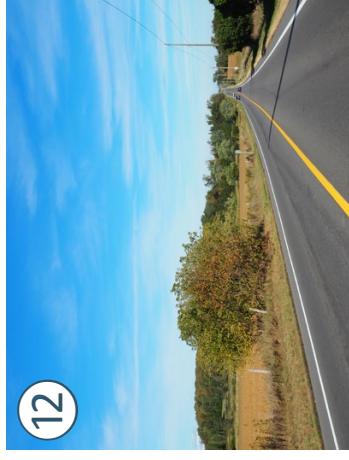
A Berczy Village single detached unit with solar panels.



The commercial plaza at the southwest corner of Major Mackenzie Drive and Kennedy Road.



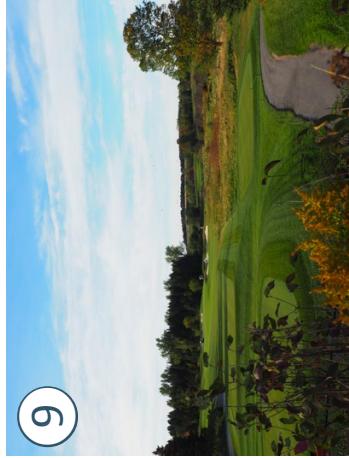
View of Kennedy Road, looking north.



View of Elgin Mills Road, looking east.



An existing home at the northeast corner of Elgin Mills Road and Kennedy Road.



View of the Angus Glen Golf Course, which is located within the Angus Glen Block.

1.0 INTRODUCTION

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1.2.3 Cultural Heritage Resources

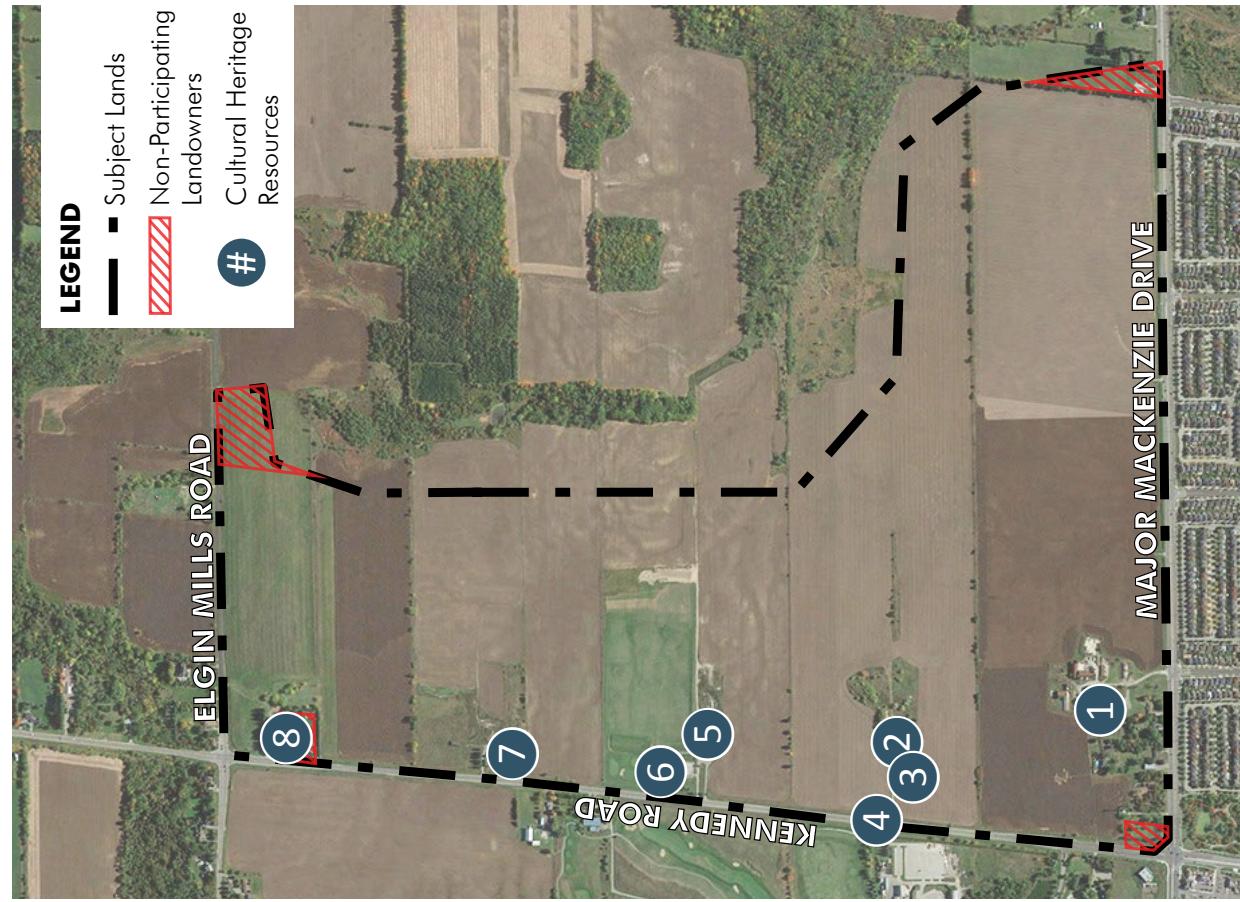


Figure 2: Location of Identified Cultural Heritage Resources.

- Markham's Register of Property of Cultural Heritage Value or Interest and Appendix A and B of the CMP identify eight resources of cultural heritage interest on the subject lands. Seven of the resources are detached residential buildings and were built between 1840 and 1922. One resource is the Pingle Farm Cemetery. The resources have either "designated" or "listed" heritage status, however all resources are anticipated to be retained and will be considered as such prior to the finalization of ongoing heritage studies. Opportunities for simple wayfinding gestures and public art integration should be explored to connect these cultural heritage features to one another and to the Greenway System, including painted lines on the pavement and a unified signage palette. Section 5.3.4 (page 86) of this CDP provides more information on the integration of cultural heritage resources. Figure 2 illustrates the location of the identified cultural heritage resources, including:
- 1 4638 Major Mackenzie Drive - Pingle Brown House c. 1855**
- The Jacob Pingle Sr. House has a "listed" heritage status, and was built on lands purchased from Joachim and Anna Maria Pingle, part of the original Berczy settler group of families. The house is considered an evolved building, containing three periods of major renovation since the original one-storey brick structure inhabited by Jacob and Henrietta Pingle. Today the house reflects Tudor Revival and Craftsman influences.
- 2 10225 Kennedy Road - Homer Wilson House, c.1900**
- The Homer Wilson House has a "designated" heritage status. The heritage property is a Classic Ontario Farmhouse with decorative woodwork. The Homer Wilson House was built on lands purchased from Joachim and Anna Maria Pingle, part of the original Berczy settler group of families. Although none of the original buildings built by the Pingle family remain on the property, the Pingle Farm Cemetery (no. 4) and the J.P. Carr Cottage (no. 3) are located on the same property as the Homer Wilson House.

3 10225 Kennedy Road - J.P. Carr Cottage, c.1950

The J.P. Carr Cottage has a "designated" heritage status. J.P. Carr owned the Homer Wilson House (no. 2) and farmland following the Wilson family and moved into the J.P. Carr Cottage after retiring from farming. Although built in 1950, the heritage building exhibits the Arts and Crafts Bungalow style, a built form popular in the early 20th century.

4 10225 Kennedy Road - Pingle Farm Cemetery

The Pingle Farm Cemetery, also referred to as the Pingle Burying Ground, has a "designated" heritage status. The cemetery is located near to Kennedy Road, just north of the lane which connects to the Homer Wilson House (no. 2) and the J.P. Carr Cottage (no. 3). The Pingle Farm Cemetery hosts a white marble obelisk-style monument and contains the remains of Joachim and Anna Maria Pingle, and their daughter Elizabeth.

6 10411 Kennedy Road - George Sommerfeldt House, c.1856

The George Sommerfeldt Homestead has a "designated" heritage status and was constructed by George Henry Sommerfeldt on the same property as the Sommerfeldt Homestead (no. 5). The house is an example of a two storey regency style house, built of red brick and still appearing true to its original form.

7 10537 Kennedy Road - Arthur Wegg House, c.1922

The Arthur Wegg House has a "designated" heritage status. The property is known as the former house of Arthur and Hannah Wegg, who later passed on the home and farm to their son, Telfer. It is believed to have been built by the prominent local builder John Miller and is an example of Edwardian Classical architecture, of which the house is an example.

5 10379 Kennedy Road - Sommerfeldt Homestead, c.1840

The Sommerfeldt Homestead has a "designated" heritage status and was built on the same property as the George Sommerfeldt House (no. 6). The heritage house was built by George Henry Sommerfeldt, after purchasing the property from his father, John Henry Sommerfeldt. The Sommerfeldt family represents some of the early settlers of the Berczy area, those who cleared the land in order to produce productive farmland in the Markham area. An example of an early Georgian home, this two storey building exhibits architectural features such as a medium pitch gable, a wood boxed cornice, and returned eaves.

8 10725 Kennedy Road - Francis Walker House, c.1850

The Francis Walker House, also referred to as the Samuel Eakin House, has a "listed" heritage status and is located on lands owned by a non-participating landowner. This building is an example of the Ontario Cottage style of architecture.

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1.2.4 Studies in Support of the CMP

A number of studies have been prepared in support of the ongoing planning process for the CMP, including a transportation study, subwatershed study, and water and wastewater servicing studies. Each supporting study consisted of three phases:

- Phase 1: Background, characterization and model development;
- Phase 2: Impact assessment, testing of land use concepts, establishment of evaluation criteria and a preferred Community Structure Plan; and
- Phase 3: Implementation strategies finalized.

These studies informed the development of the CMP and serve as an important foundation for subsequent planning stages, including the development of the Master Environmental Servicing Plans (MESPs) and Secondary Plan approval stage.

Subwatershed Study

The subwatershed study has been prepared to identify the natural heritage features and functions within the FUA and sets out the goals and objectives for the identified terrestrial natural heritage and water resources. The study also analyzes the potential impacts associated with the development of the FUA and recommends management strategies for mitigation.

Transportation Study

A transportation study was prepared to establish the transportation infrastructure, policies, and programs necessary to support the new residential and employment uses of the FUA. Recommendations are provided in the study, based on traffic modeling and analysis, to ensure a comprehensive and multi-modal transportation network throughout the FUA.

Water Servicing Study

The water servicing study provides a review of the existing systems servicing Markham, and identifies and evaluates a water servicing strategy for the FUA. The study described the FUA as located within regional pressure districts PD6 (servicing south of Elgin Mills Road) and PD7 (servicing north of Elgin Mills Road).

Wastewater Servicing Study

The wastewater servicing study began with a review of existing municipal and regional waste water systems, including the capacity of the existing wastewater services south of Major Mackenzie Drive to the 16th Avenue York-Durham Sewage System (YDSS). This initial analysis recommended increased capacity and new infrastructure to accommodate development in the FUA. Two strategies were suggested and research is ongoing on the preferred strategy.

1.2.5 Overview of Policy Framework, Strategic Directions, & Guidelines

Provincial Framework

Coordinated Land Use Planning Review (2017)

The Province of Ontario initiated a coordinated Land Use Planning Review in 2015, focusing on the four guiding documents for growth, development and conservation in the Greater Golden Horseshoe:

- The Growth Plan for the Greater Golden Horseshoe (GGH);
- The Greenbelt Plan;
- The Oak Ridges Moraine Conservation Plan; and
- The Niagara Escarpment Plan.

Together, these documents work to manage growth, build complete communities, limit sprawl and protect the natural environment. These provincial-level plans support agriculture and economic development in Ontario's Greater Golden Horseshoe in focusing new development within designated urban boundaries. Changes to the Growth Plan are particularly relevant to the community design elements of the Robinson Glen Community in Markham's FUA and matters relating to urban design are described in more detail herein.

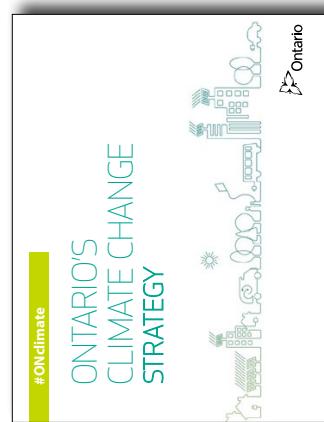
Places to Grow - Growth Plan for the Greater Golden Horseshoe (2017)

The Growth Plan for the Greater Golden Horseshoe provides overall direction for residential and employment related development within one of the fastest and most dynamic regions in North America. The Growth Plan guides the development of vibrant, compact and complete communities to support a strong economy, and has a large focus on the integration of transit and land use planning. Updated policies speak to more compact development patterns, a greater variety of housing options, and more mixed use development in transit-supportive urban growth centres.

Climate Change Strategy (2015)

Ontario's Climate Change Strategy outlines the province's vision, as well as short and long-term goals, to fight climate change. The Strategy highlights five specific areas of transformation for the province:

1. "A prosperous low-carbon economy with world-leading innovation, science and technology";
2. "Government collaboration and leadership";
3. "A resource-efficient, high-productivity society";
4. "Reducing greenhouse gas emissions across sectors"; and
5. "Adapting and thriving in a changing climate".



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Regional Framework

Ministry of Transportation of Ontario: Transit Supportive Guidelines (2012)

The Transit Supportive Guidelines (2012) build on the basic principles of the Transit Supportive Land Use Planning Guide (1992), outlining implementation strategies for transit friendly communities at all planning scales, from regions to specific sites. Key land use strategies for designated growth areas, such as the Robinson Glen Community in the North Markham FUA, include:

1. Planning designated growth areas with a mix of uses that meet most daily needs without requiring residents to leave their community.
2. Aligning the planning, design and development of designated growth areas with planned transit investments to ensure that they are mutually supportive of each other.
3. Ensuring new streets are connected to existing streets in adjacent developments.
4. Situating community amenities, such as community centres and shopping centers, on or close to transit routes.
5. Establishing new communities that are of sufficient density to make transit service feasible and efficient.

York Region Official Plan (2010, consolidated in 2016)

York Region is one of the fastest growing regions in Canada and is expected to continue to grow in the years to come. The York Region Official Plan (2010, consolidated in 2016) provides a framework that is intended to guide the development of sustainable and healthy communities. The Region's Vision 2026 centers on:

"Creating Strong, Caring, Safe Communities"

To achieve this vision, the York Region Official Plan presents the following relevant urban design goals:

- "Quality Communities for a Diverse Population"
- "Enhanced Environment, Heritage and Culture"
- "Housing Choices for Our Residents"

The Regional Official Plan builds on York Region's award-winning Sustainability Strategy to promote diversity in housing; active living; high quality urban design, community facilities, and green building; protected environmental features; and circulation networks that support multi-modal transportation. The Region's "Triple Bottom Line Objectives" are:

- "Sustainable Natural Environment"
- "Healthy Communities"
- "Economic Vitality"

The following relevant sections of the Regional Official Plan have guided the Robinson Glen CDP:

- Chapter 3.4 - Cultural Heritage
- Chapter 5 - An Urbanizing Region
- Chapter 7 - Servicing & Infrastructure



York Region New Communities Guidelines (2013)

The York Region New Communities Guidelines (2013) identifies complete and sustainable communities as a fundamental building block to accommodate the expected residential and employment growth within the Region. The directions within the York Region New Communities Guidelines have been prepared for the urban expansion areas of East Gwillimbury, Vaughan and Markham, including the FUA. The New Communities Guidelines have been created as a tool to assist local municipalities and the development industry in implementing the sustainable building and new community area policies in the York Region Official Plan (2010).

The York Region New Communities Guidelines has eight key focus areas:

1. Directing Growth
2. Community Design
3. Sustainable Transportation
4. Open Space Natural Heritage
5. Sustainable Buildings
6. Energy Efficiency
7. Water Management
8. Resource Management and Education

York Region Transit Oriented Development (TOD) Guidelines (2006)

The purpose of the York Region Transit Oriented Development (TOD) Guidelines is to provide a toolkit for municipalities to help shape development to respond to the needs of transit users and generate ridership, one of the key needs of any transit system. Together, a transit-supportive urban fabric and increased ridership will enhance the quality and frequency of the regional transit system. In order to achieve this, the Guidelines stipulate that development must:

- Encourage access, safety and comfort for pedestrians
- Provide well-designed attractive facilities that put transit first
- Attract intensity and a mix of land uses along transit corridors
- Address transit through appropriate massing, density and height
- Link buildings and spaces between buildings to transit corridors
- ...is based on the principle of assigning more priority to walking, cycling, public transit, carpooling and transportation demand management initiatives. This will provide a more balanced and sustainable transportation system that places less emphasis on single occupant motor vehicle trips and assists in reducing each individual's carbon footprint."

York Region Pedestrian and Cycling Master Plan (2008)

The York Region Pedestrian and Cycling Master Plan (PCMP), part of the Vision 2026: York Regional Strategic Plan, is intended to guide the Regional Municipality of York as it works with local municipalities to implement a comprehensive pedestrian system and on and off road region-wide cycling network. Its vision:



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Major objectives outlined in the Plan include:

1. Establishing on-road routes, off-road routes, and multi-use pathways, for both utilitarian and recreational trip purposes;
2. Promoting connectivity between trails along the Greenway System, river and canal corridors, hydro corridors, and other linear routes, and in residential neighborhoods;
3. Improving the active transportation network connectivity by adding missing links through opportunities offered by existing or abandoned rail corridors or open green-space development; and
4. Ensuring safe active transportation routes to school.

York Region Sustainability Strategy (2007)

The purpose of the York Region Sustainability Strategy is to provide a long-term framework for making well-informed decisions concerning growth management and all municipal responsibilities that better integrate the economy, environment, and community. York Region's award-winning Sustainability Strategy promotes diversity in housing; active living; high quality urban design, community facilities, and green building; protected environmental features; and circulation networks that support multi-modal transportation.

Key action items in the Strategy include:

1. "Integrate land-using planning with urban design and infrastructure planning";
2. "Implement high quality urban design, architecture and placemaking across the Region";
3. "Require that all new residential development be compact in nature and incorporate a mix and range of housing options";

City of Markham Official Plan (2014)

The 2014 Markham Official Plan reflects the latest vision, strategic direction and priorities of the City of Markham. The City of Markham vision to 2031 is identified in Section 2.1 of the 2014 Official Plan:

"In managing sustainable growth to 2031, Markham will be a strong, vibrant and productive City with its residents, businesses and workers leading the way together to liveable neighbourhoods, healthy people and continuing prosperity."



This vision for sustainable communities is consistent with the City's Community Sustainability Plan – Greenprint.

Section 2.2 of the 2014 Official Plan identifies five goals and objectives that support the City's Vision:

"2.2.1 – Protecting the Natural Environment and Agricultural Lands"

"2.2.2 – Building Complete Communities"

"2.2.3 – Increasing Mobility Options"

"2.2.4 – Maintaining a Vibrant and Competitive Economy"

"2.2.5 – Implementation"

These objectives form the building blocks of the key principles for the FUA, identified in the 2017 CMP.

The CDP is consistent with the Markham Official Plan (2014) and the policies of the Robinson Glen Secondary Plan. In particular, the various components of design listed in Section 6.2 of the Robinson Glen Secondary Plan are addressed throughout the CDP. Additionally, policy objectives relating to matters of urban design and sustainable development from Section 6 of the Markham Official Plan have been integrated in the context of the Robinson Glen Community and their potential application illustrated in the proposed demonstration plan.

Through future draft plan of subdivision and site plan applications, integration of cultural heritage resources will be in keeping with Section 4.5 of the Official Plan, in particular the cultural resource policies of Section 4.5.3.12 which provides policies for the retention of cultural heritage resources, both in their original use as well as adaptive reuse and Section 4.5.3.13 which provides the potential for relocation of cultural heritage resources where it has been demonstrated that retention is neither appropriate or viable. Similarly, appropriate compensation measures for existing significant woodlands refer to policies in Section 3.2.1.c) of the Official Plan.

Finally, context-specific policies for the Robinson Glen Community within the Future Urban Area are provided in Section 9.9 of the Official Plan, and serve as the basis for this CDP.

Markham Greenprint Sustainability Plan (2011)

The regional and municipal policy frameworks establish a context for sustainable development in the City of Markham that promotes environmental health, social wellbeing, cultural vibrancy, and economic vitality. This framework is supported by the City's Greenprint Sustainability Plan, a community-driven plan introduced in 2011 to guide municipal planning and decision making within a 50 – 100 year horizon. The Greenprint vision is:

"Markham; leading the way together to liveable neighbourhoods, healthy people and continuing prosperity."

The Greenprint Sustainability Plan identifies 12 sustainability priorities, supported by 23 objectives intended to guide planning decisions to achieve the City's vision of sustainability. These priorities are:

- 1 Social equity
- 2 Identity and culture
- 3 Individual health
- 4 Shelter
- 5 Food security
- 6 Access and mobility
- 7 Education and skills
- 8 Economic vibrancy
- 9 Materials management
- 10 Water efficiency
- 11 Ecosystem integrity
- 12 Energy and climate



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Markham Future Urban Area: Conceptual Master Plan (CMP)

The FUA CMP forms the basic framework from which neighbourhoods in the FUA, including Robinson Glen, will be built. Further, the plan reflects the vision of sustainable growth outlined in both the 2014 Markham Official Plan and the 2016 York Region Official Plan. Integral elements of the CMP include:

- A description of the purpose and process of the CMP
- Public and stakeholder consultation
- Proposed and existing land uses
- The vision for the FUA
- A description of the main findings of the subwatershed study
- Master transportation, water, and wastewater study summaries
- A community structure plan
- Key policy directions for Secondary Plans
- Next steps for the FUA

The purpose of developing a CMP was to establish a high level community structure for the FUA lands and ensure each community is being planned in a coherent manner, and consistent with regional and municipal policy. The Community Structure Plan from the CMP is shown in Figure 3 (page 17) of this CDP. At the outset of the CMP process, it was anticipated that the development of individual Secondary Plans would be accompanied by MESPs and CDPs for each of the concession blocks within the FUA, including the 'Berczy Glen Block', the 'Angus Glen Block,' and the 'Robinson Glen Block.'

The North Markham Urban Design Guidelines (UDGs) (Version 1.1, May 2018), herein referred to as the FUA UDGs, have been developed to complement the CMP and provide additional guidance for the FUA lands. The UDGs are to inform individual CDPs and the review of future development applications in the FUA, and include general objectives for:

- Character Areas: Residential, Mixed Use Neighbourhood Corridors, Mixed Use Regional Corridors, and Employment Areas;
- Public Realm Design Elements: streets, blocks, open space, public art, heritage, stormwater management; and
- Private Realm Design Elements: siting, setbacks, parking, built form typologies.

The CMP and the UDGs for the FUA provide guidance for the urban form of Markham's new community areas. Still, further guidance in the form of more specific CDPs are needed to support the formation of unique, distinguishable neighbourhoods within the FUA.

- Section 2.2.2 of the CMP speaks to cultural heritage and archaeological resources, identifying 28 building of cultural heritage interest in the FUA lands, in which 7 have designated heritage status under the Ontario Heritage Act. The CMP classifies the remaining 21 buildings within the following 3 categories:
- Group 1 - "indicates buildings of major significance and importance to the City and worthy of designation under the Ontario Heritage Act";
 - Group 2 - "indicates buildings of significance and worthy of preservation"; and
 - Group 3 - "indicating buildings considered noteworthy."

In-depth research on the 21 non-designated properties is required prior to final evaluation of their heritage designation.

The existing cultural heritage resources of the Robinson Glen Community are discussed in detail in Section 1.2.3 (Cultural Heritage Resources) and Section 5.3.4 (Integration of Cultural Heritage Resources) of this document.

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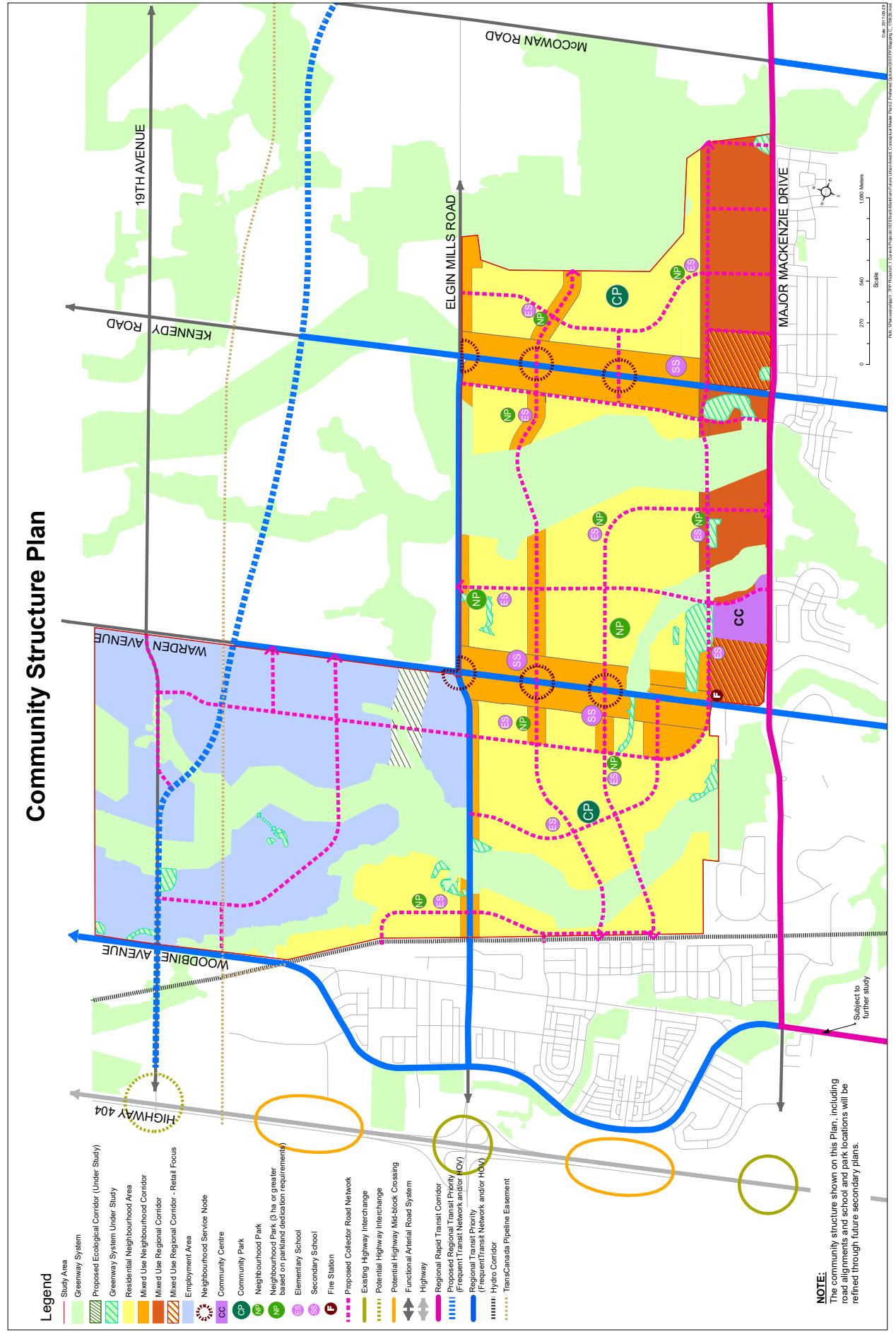


Figure 3: Community Structure Plan. Source: City of Markham Future Urban Area Conceptual Master Plan, Volume 1: Community Structure Plan and Key Policy Direction (September 2017)

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Shared Places Our Spaces – Markham’s Public Realm Strategy (2014)

The focus of Markham’s Public Realm Strategy is to recognize the importance of public space, and to provide a framework for achieving a high quality, impactful public realm. The public realm, as defined by the Strategy, includes “streets, boulevards, walkways, bikeways, trails, bridges, parks, open spaces, plazas, squares, wetlands, natural features, views, landmark structures, public art, transit facilities, front yards and building exteriors” (page 4). The document outlines the City’s Vision for the Public Realm (page 14) as:

“A place for all that is engaging, sustaining and beautiful.”

The public realm strategy emphasizes the importance of gateways and destinations, and the critical role of the public realm in placemaking, civic identity and pride. Markham’s place-based planning strategy for fostering a unique public realm has guided the CDP through four themes:

- "Creating lasting impressions";
- "Showcasing public art";
- "Developing green assets as destinationsⁱⁱ; and
- "Identifying cultural assets as destinationsⁱⁱ".

Bird Friendly Guidelines (2014)

The Bird Friendly Guidelines recommends measures to protect the regional bird population. The recommendations support the “ecosystem integrity” priority within the Markham Greenprint Sustainability Plan, which is aimed at developing and supporting wildlife habitat, and increasing biodiversity. Primarily, the Bird Friendly Guidelines takes aim at preventing Birds-Window Collisions (BWCs), the second largest cause of avian mortality, surpassed only by loss of habitat. The document provides building, fenestration and lighting guidance to mitigate the risk of bird-window collisions and protect migrating birds.

Markham hosts a high density of migrant birds, which can fall prey to reflective glass and skyward facing lighting. The Bird Friendly Guidelines document is an essential element to consider when planning development of the Robinson Glen Community. Proximity of development and its relationship to the surrounding landscape (along with the area of glass) has been noted as one of the most important factors associated with BWCs.



Trees for Tomorrow – Streetscape Manual (2009)

The Trees for Tomorrow Streetscape Manual is intended to ensure the continued longevity of Markham’s vegetated landscape. The Manual provides design guidelines, selected species, and technical guidelines for new plantings, including landscape plans for new communities. Setbacks, protection zones, soil quality and depth requirements, and species selection required for a thriving canopy are detailed. Key requirements include:

- Adequate soil quality, quantity and open space for optimal tree siting;
- Preservation and protection of existing trees and soil;
- Compatible groupings of unified, balanced, and proportional tree species;
- Diversity of species suited to the climate and conditions of Markham; and
- Proper installation, maintenance and watering provisions, such as adequate drainage, mulching pruning and tree planting times.

SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

2.0



2.0 SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

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2.1 Sustainability Initiatives

The City of Markham and the Region of York emphasize sustainability as a guiding principle within their land use planning and policy frameworks. This direction is supported by York Region's New Communities Guidelines and The Blueprint, the City of Markham's Sustainability Plan, discussed in more detail in Section 1.2.5 of this CDP (pages 13 and 15, respectively).

The Robinson Glen CDP has been developed in a manner that is consistent with the Robinson Glen Secondary Plan and reflects the sustainability objectives of the Regional and Municipal framework. Sustainability initiatives also support the goals and objectives of the "Community Energy Plan in support of Secondary Plans in the Future Urban Area (FUA)" (CEP), dated July 2018.



The following design initiatives (noted by codes, example: BE1) are referenced throughout the CDP to demonstrate the application of the various regional and municipal sustainability objectives (where the initiatives below apply throughout the document, the corresponding code is referenced).

2.1.1 Built Form

The Robinson Glen Community will be a compact and complete community that supports sustainability priorities of social equity, land use efficiency, identity and culture, individual health, and access and mobility.

BE1 - Meet minimum height & density

- Meet the minimum density targets of the Robinson Glen Secondary Plan.
- Distribute heights in a manner that ensures sensitive transitions to adjacent existing neighbourhoods.
- Provide the highest densities along Major Mackenzie Drive, a Mixed Use Regional Corridor, accommodating a range of commercial and residential uses of 3 to 15 storeys, as outlined in the 2017 CMP. The Mixed Use Regional Corridor should be designed to provide a density and built form that is supportive of the planned regional dedicated rapidway corridor along Major Mackenzie Drive.
- Provide higher density housing forms, such as townhouses (at-grade, back to back and stacked), to frame Mixed Use Neighbourhood Corridors and to support frequent transit.
- Orient residential mid-rise buildings of 2 to 6 storeys and mixed use buildings of 2 to 8 storeys to front corridors.
- Provide enhanced architectural and landscape treatments at focal points.

BE2 - Develop in close proximity to services & amenities

- Provide for a higher concentration of retail at the intersection of Major Mackenzie Drive and Kennedy Road.

SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA 2.0

- Provide Mixed Use Neighbourhood Corridors and Nodes as identified in the Community Structure Plan of the CMP (refer to Figure 3, page 17 of this document) and further refined in this CDP to ensure residents can reach key daily destinations with access from proposed active transportation routes, reducing the reliance on the car.
- Distribute residential densities in a manner that provides residents with the greatest access to transit, the active transportation network and community amenities.
- Focus retail at significant intersections, such as the Major Mackenzie Drive and Kennedy Road intersection.

- Locate parks and open space in strategic locations as to promote use and integration within the community fabric.
- Provide community facilities, such as schools, in coordinated locations to promote shared facilities and access via alternative modes of transportation.
- Ensure development phasing provides community services and amenities concurrently with residential development.

BE3 – Reduce surface parking

- Provide an efficient built form that optimizes access to the active transportation network and reduces the need for surface parking; accommodate parking below grade, where possible.
- Provide a pedestrian-oriented environment along arterial and major roads, by reducing the impact of driveways, garages and surface parking areas.



- Strategically locate a mix of uses including residential, institutional, public parks, retail and office space throughout the community and within mixed use nodes.
- Provide mixed use buildings with the potential for at-grade retail or service spaces and residential or office uses on upper storeys.

BE5 – Include diverse housing options

- Provide a range of housing types and sizes, to ensure affordability and accommodate residents at various stages of life.

BE6 – Support long-term use and adaptability

- Provide a pedestrian-scale environment that generates activity in all seasons.
- Provide adaptable built form that can accommodate a change in use if required in future due to change in demand, especially along the Neighbourhood Mixed Use Corridors and Nodes.
- Design streetscapes and public spaces that promote social interaction and gathering, instill community pride and promote long-term use.

BE7 – Construct accessible buildings

- Provide barrier-free buildings that ensure accessibility to all residents, occupants or visitors.
- Provide accessible connections to active and passive recreational opportunities.
- Provide a built form that follows Crime Prevention Through Environmental Design (CPTED) principles.

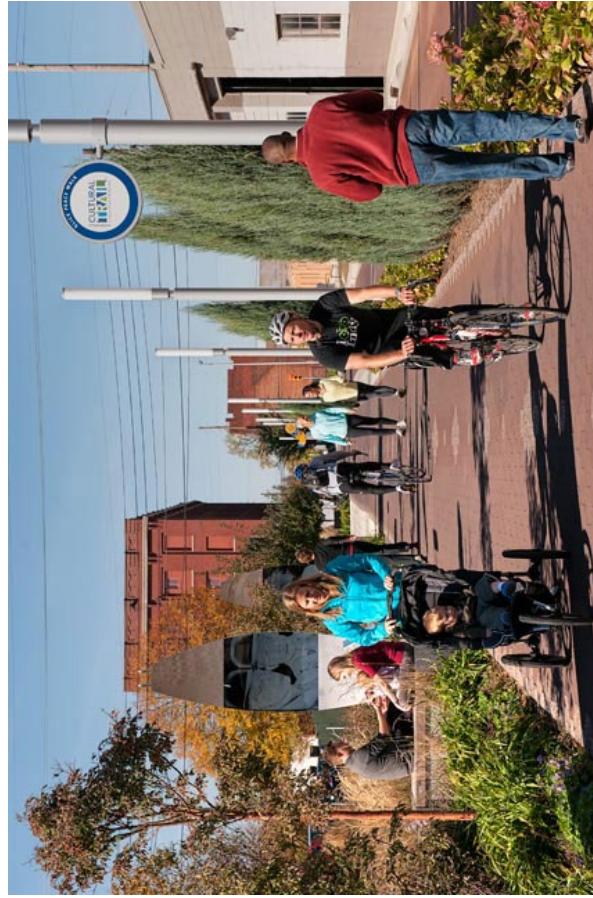
BE8 – Include amenity spaces for residents, occupants or visitors

- Ensure that residents, occupants or visitors have access to functional private amenity spaces that provide opportunities for daily active or passive use.

BE9 – Protect, adapt and build on cultural heritage

- Incorporate elements of the natural environment, cultural heritage resources and community diversity in the design of the public realm.
- Where applicable, integrate cultural heritage resources into the neighbourhood service nodes or community focal points.
- Promote opportunities for placemaking, having regard for cultural heritage.

2.1.2 Mobility Networks & Active Transportation



The Robinson Glen Community will be designed to support all forms of mobility through the creation of safe and connected circulation networks. Sustainable travel modes, including walking, cycling and transit, will be emphasized through an interconnected system of active transportation and transit that links to major transportation networks, such as the planned regional dedicated rapidway along Major Mackenzie Drive, and frequent transit networks along Kennedy Road and Elgin Mills Road.

ST1 – Create walkable blocks

- Provide a thoughtfully designed plan that makes walking more direct, efficient, safe and enjoyable, by balancing short, walkable block lengths with reduced paving and efficient land use distribution.
- Where pedestrian crossings are planned, that they should be clearly marked and defined.
- Provide frequent, well-marked, and safe street crossings.
- Incorporate traffic calming measures within the right-of-way, where appropriate.
- Coordinate the location of sidewalks to connect with existing developments in surrounding communities and trails.

ST2 – Add to the connectivity of active transportation networks

- Support safe cycling and pedestrian movement.
- Provide accessible and connected transportation networks that link with existing streets, trails, public transportation routes, residences, daily destinations, and public spaces.
- Provide supportive facilities and street furniture, such as seating and bicycle parking, to encourage active transportation.
- Encourage inter-modal connections, such as bike racks adjacent to transit stops, promoting active and public transportation.
- Develop a connected cycling network, to be located throughout the community (within the right-of-way, at transit stop locations, and within trails) that includes supportive elements such as signage, bicycle parking, water fountains, washrooms and air pumps, where feasible.

SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA 2.0

ST3 – Support use of transit and car sharing

- Provide frequent transit stops at key nodes and intersections to promote transit use.
- Provide a fine-grid street network that facilitates efficient public transportation routes.
- Coordinate transit stops with community amenities and institutions, such as schools, parks, and open spaces.
- Support higher densities along planned transit corridors and along the northernmost east-west collector street connecting all three residential blocks, to promote transit use and to stimulate activity around transit stops, including at existing transit stops along Major Mackenzie Drive.

ST4 – Provide enhanced pedestrian facilities & amenities

- Provide an extensive system of pedestrian infrastructure, including trails and sidewalks, accessible to people of all ages and abilities, that connects to community focal points, amenities, and daily destinations, such as parks and open spaces, mixed use areas, schools, and retail nodes.
- Locate street furniture, such as seating, in strategic areas.
- Create comfortable and attractive streetscapes with a healthy tree canopy and pedestrian-scale lighting that are thoughtfully considered and coordinated within the streetscape to ensure that sustainability objectives of solar gain and enhanced energy performance are attained without compromising pedestrian safety.

ST5 – Build interactive façades

- Promote pedestrian safety and comfort through building siting and design, for example, by situating buildings close to the streetline to create a consistent street wall and human-scale environment. Buildings located close to street trees may benefit from cooling effects in the summer, thereby reducing energy consumption.
- Provide pedestrian-oriented streetscapes with mid-block connections to enhance permeability and access.



2.0 SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

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2.1.3 Natural Environment



The Greenway System forms the eastern edge of the Robinson Glen Community and includes the Robinson Creek and related features. The Robinson Glen Community will be designed to minimize impacts to the Greenway System through thoughtful community design and an extensive stormwater management system.

NE1 – Enhance protection of natural heritage & hydrological features

- Provide an appropriate vegetation protection zone to protect natural heritage and hydrological features and functions and improve biodiversity and ecological function of the nearby Robinson Creek.
- Incorporate a stormwater management system that reduces the quantity and velocity of runoff while supporting the development of the Robinson Glen Community, including stormwater management facilities and low impact development techniques (such as green roofs and permeable paving), where feasible.
- Integrate an extensive system of green infrastructure, such as rain barrels, and other facilities that collect, treat, store and convey stormwater effectively and efficiently, where possible and in coordination with future homeowners.

NE2 – Integrate nature into urban areas

- Provide landscaping in common areas that follows the City of Markham plant list, and is drought tolerant, native / non-invasive, climate adaptive, attractive to song birds, insect, butterflies and other species.
- Ensure the sustained growth of a healthy tree canopy, by providing street trees at regular intervals and accent trees (such as flowering trees) at key locations.

NE3 – Link open spaces

- Provide a variety of open spaces and parks, including neighbourhood parkettes/squares and urban parkettes/squares for residents and visitors to reflect their context and animate the public realm.
- Situate public spaces in strategic locations to encourage frequent use, social gathering and casual surveillance.

SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA 2.0

- Provide safe and accessible linkages through an extensive pedestrian and active transportation network to diverse open spaces within the community.
 - Integrate the Greenway System with the broader parks and open space system.
- NE4 – Protect and enrich soil**
- Provide adequate soil quantity and quality to sustain planting in the public realm.

NE5 – Add to urban forest

- Support community landscapes with a healthy tree canopy: one street tree per dwelling for each at-grade lot, where space permits, and a minimum of two street trees per residence on flanking lots, where feasible and which do not impact visibility, inhibit rooftop solar or conflict with other utilities.

NE6 – Building Bird-Friendly

- Encourage bird-friendly architectural treatments, including overhangs and glazing, especially on the sides of homes that face the ravine and natural areas.

NE7 – Design for Dark Skies

- Minimize light pollution, with a ‘dark sky’ target and zero light spillage outside of the property line. Thoughtfully locate street lighting to reduce artificial light levels without compromising pedestrian safety.

2.1.4 Green Buildings & Green Infrastructure

Green building and green infrastructure initiatives are explored in the CEP, prepared in support of the Robinson Glen Secondary Plan application. The CEP has been prepared to identify opportunities for the integration of energy considerations and solutions, advancing the City of Markham’s vision for a low carbon community.

GB1 – Implement community scale energy systems

- Design high density mixed use corridors with potential to connect to future local district energy systems, where feasible.
- Discussed in further detail in Section 3.0 of the CEP.

- GB2 – Design for enhanced energy performance**
- Where possible, orient built form with windows towards the south to optimize passive solar heating and strategically plant deciduous trees to shade windows, allowing for free cooling and shade protection in the summer months.
 - Discussed in further detail in Section 2.0 and Appendix A of the CEP.

GB3 – Build Solar Ready

- Orient the street and block structure in a manner that optimizes opportunities for solar access and solar energy generation.
- Discussed in further detail in Section 2.0 and Appendix A of the CEP.

GB4 – Reduce GHG emissions from buildings

- Promote energy efficiency (refer to GB2 and GB3) to reduce energy use from buildings, and consequently lessen greenhouse gas emissions associated with building use.

GB5 – Implement performance monitoring and data sharing plans

- Discussed in Section 7.0 of the CEP.
- GB6 – Generate renewable energy**
- Discussed throughout the CEP.

GB7 – Conserve water

- Design structures to allow for water conservation and reuse, where feasible, reducing the demand for potable water from the municipality.
- Promote rainwater harvesting for outdoor irrigation.
- Discussed in Section 2.0 of the CEP.

GB8 – Provide downstream flood improvements

- Integrate a system of stormwater management techniques, including source control measures, to lessen the impact on hydrological systems downstream.

GB9 – Enhance stormwater quality

 - Increase stormwater infiltration in appropriate areas to reduce storm volumes and provide enhanced stormwater quality through filtration.

2.0 SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

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2.1.5 Resilience

- Where increased surface permeability isn't feasible, direct stormwater runoff to areas of permeable and vegetated surfaces to filter and absorb excess stormwater volume prior to sewer collection.

GB10 – Build green infrastructure

- Where possible, incorporate low impact development measures, including permeable pavers, vegetated swales, and rain gardens, as guided by MESP goals (refer to Section 2.2 of the CDP).
- Discussed in Section 5.0 of the CEP.

GB11 – Reduce urban heat island

- Plant trees and other vegetation to provide shading and cooling, lowering air and surface temperatures through evapotranspiration, and to increase carbon sequestration.
- Encourage the installation of green or reflective roofs in locations where it does not conflict with rooftop solar.

GB12 – Support use of EVs

- Encourage the installation of EV charging units, especially in commercial developments, and mid- and high-rise residential developments (discussed in further detail in Section 4.0 of the CEP).

GB13 – Reduce waste

- Increase land use efficiency.
- Encourage recycling and the reuse of materials, where relevant.
- Reduce construction waste.
- Reduce nighttime and/or excess lighting.

GB14 – Re-use materials

- Encourage recycled, cradle-to-cradle, refurbished, or locally-sourced materials to reduce waste and life-cycle costs.

GB15 – Certify development by third party

- Encourage alignment with third party sustainability certification programs, such as but not limited to Leadership in Energy and Environmental Design (LEED), Energy Star or Green Globes.
- Discussed in Section 2.0 of the CEP.

In the context of a changing climate, the Robinson Glen Community will be designed with the capacity to recover quickly from extreme weather events.

R1 – Reduce impact of extreme rainfall

- Integrate innovative stormwater management strategies to reduce the impact of extreme rainfall s, including dual land uses that optimize land use efficiency whilst accommodating regional stormwater flows.

R2 – Reduce impacts of extreme heat

- Plant shade trees and install shade structures in strategic locations to enhance pedestrian comfort and reduce the impacts of extreme heat.

R3 – Design for passive survivability

- Consider the installation of critical life-support measures to ensure the continued operation of buildings in case of loss of power, heating fuel, or water.

R4 – Provide enhanced backup power

- Where possible, provide enhanced backup power to ensure passive survivability.

2.1.6 Education & Innovation

The development of the Robinson Glen Community will seek opportunities for sustainability innovation, education and engagements.

E11 – Inform & engage

- Increase public awareness of sustainability initiatives implemented through the design of the Robinson Glen Community through marketing, informational signage and opportunities for public engagement.
- Discussed in Section 6.0 of the CEP.

E12 – Innovate

- Consider the implementation of innovative sustainability measures and current best practices.

2.2 Low Impact Development

Recent best practices promote land planning and engineering techniques that mimic or preserve natural drainage processes to manage stormwater. Low impact development (LID) measures support this approach and facilitate the preservation and restoration of water balance in natural environments. LIDs emphasize conservation and the integration of on-site natural features to protect water quality and reduce the quantity of water conveyed to municipal infrastructure; these measures:

- Promote of groundwater infiltration;
- Increase evapotranspiration;
- Lessen surface runoff volumes; and
- Mitigate flow rates during storm events.

A context-sensitive LID program is recommended for the Robinson Glen Community and supports the sustainability objectives of the CDP and CMP as well as sustainability priorities of the City of Markham's Greenprint Sustainability Plan. The stormwater management strategy intends for LIDs to achieve the Subwatershed Study Targets, which direct infiltration based solutions. LID measures include stormwater management, water conservation, softscaping and hardscaping, and have the potential to be applied in a variety of contexts, both public and private, and at a range of scales.

LID options, including opportunities for green infrastructure such as bioswales, may take place within open spaces, including school play yards, parks and road verges, as described in Appendix B of the FUA UDGs (May 2018). The City of Markham's draft Low Impact Development Guidelines and the Robinson Glen MESP provide a more detailed review of appropriate and/or feasible LID techniques in various settings throughout the community. The following options are presented in this CDP for consideration in the detailing of the various site plans and draft plans of subdivision.



Example of LID planting within a public boulevard, promoting a sustainable, pedestrian-friendly streetscape.

2.0

SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

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2.2.1 Stormwater Management

Stormwater management techniques are used to capture and infiltrate storm flows to increase resilience and mimic the natural infiltration process. Opportunities to manage stormwater can be successfully integrated into the Robinson Glen Community and efficiently combined with recreational opportunities, amenities and private dwellings in a variety of contexts, using the techniques such as:

- Providing bioretention swales and rain gardens consisting of flood-tolerant plantings and subsurface infrastructure surrounded by raised edges, located within streetscapes, private yards and adjacent to parking areas;
- Locating infiltration trenches comprising underground granular trenches that capture and release runoff from surrounding uses (parking lots, roofs) and allow for infiltration, within private yards, public boulevards and parking areas;
- Optimizing land use through dual-use open spaces and stormwater management areas, including underground stormwater infiltration tanks below recreational spaces that are built on slab; and
- Implementing dry pond cells adjacent to trails, natural heritage areas and within sports fields and parks, to accommodate rare storm events by capturing infrequent regional storm flows and allowing for enhanced infiltration.



2.2.2 Water Conservation

Water conservation techniques are used to capture and reuse non-potable rainwater, typically for irrigation purposes. Opportunities for water conservation can be successfully integrated into the Robinson Glen Community and efficiently combined with amenities and private dwellings at a range of scales, using the techniques such as:

- Harvesting rainwater in rain barrels on private lots, or in larger cisterns to capture vast amounts of roof water on school campuses and commercial buildings;
- Installing green roofs, which comprise a layer of modular plantings above an irrigation and drainage system; green roofs may be installed above underground parking structures, or atop large, flat roofs, such as within a condominium development; and
- Exploring opportunities to integrate greywater reuse technologies, for example, to purify bath shower water and reuse for toilet flushing.

SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA 2.0

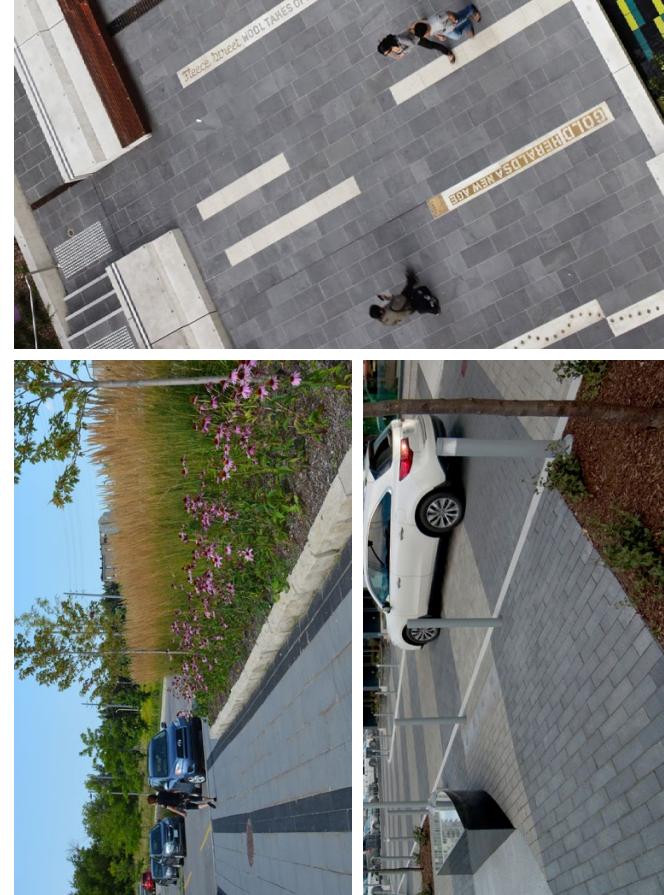
2.2.3 Softscaping

Softscaping techniques are used to mimic the way in which a natural plant community absorbs rainfall and overland flows and mitigates microclimatic conditions, and are often integrated with other LID strategies. Potential considerations for the Robinson Glen Community include:

- Utilize naturalized, low maintenance and drought-tolerant native planting;
- Incorporate landscape techniques such as planted berms, tree and shrub groupings, and ‘green’ walls to screen undesirable views and mitigate sound from adjacent or nearby uses (traffic, railway tracks) and servicing areas;
- Plant evergreens to mitigate wind shear in public spaces and pedestrian-oriented environments, where applicable;
- Locate deciduous trees within the streetscape and in parks in a manner that ensures sunlight and warmth are directed into buildings and public open spaces and sidewalks during winter months, while providing shade in the summer; and
- Where possible, incorporate landscape wall features, such as climbing plant trellises on or near building façades to reduce ambient heat and minimize energy consumption from air conditioning.



Example of bioswale infrastructure and planting integrated into a variety of contexts.



Example of permeable paving used within parking areas, at pedestrian crossings and within public spaces.

2.2.4 Hardscaping

Low-impact design materials, such as permeable pavers atop a granular base, allow for stormwater to pass through the paved surface and infiltrate into the underlying soil, while providing for an upgraded community image that remains accessible and maintainable. Options for consideration in the Robinson Glen Community, include:

- Utilize permeable or porous paving materials, such as interlocking unit pavers, turfstone, or porous concrete or asphalt to encourage stormwater and snow melt infiltration, particularly in areas sustaining light traffic or maintenance loads and/or use within parks, parkettes, amenity areas, cultural heritage sites, mixed-use areas and trail areas; and
- Provide light coloured high albedo paving materials for large paved areas to mitigate urban heat island effect.

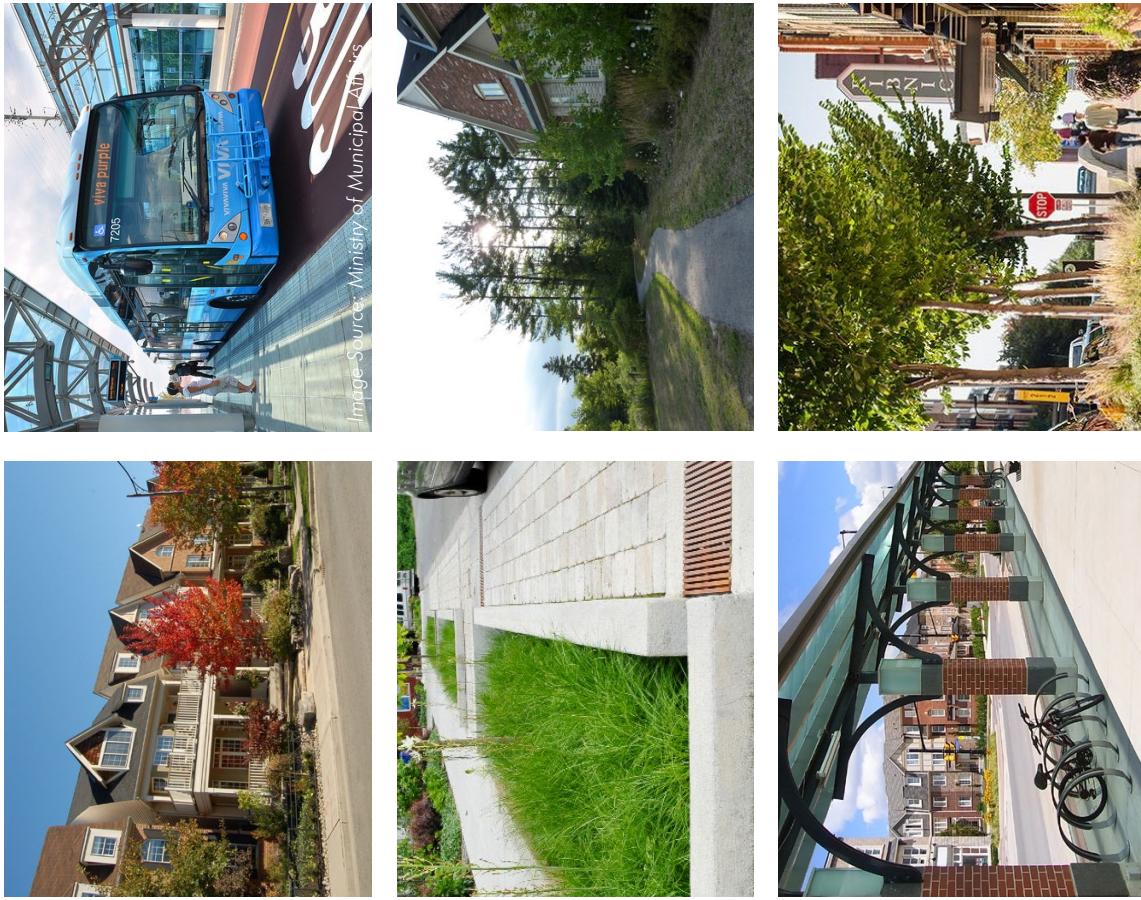
2.0 SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

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2.3 A Response to Climate Change

In line with the overarching goals outlined in the Ontario Climate Action Plan (2016-2020), a fundamental objective of the CDP and the initiatives described throughout is to identify and reinforce practices and strategies that will have a positive impact on mitigating climate change impacts. This is an integrative process in which multiple initiatives, studies and resources are linked as part of a comprehensive approach. Several design elements and practices, discussed throughout the CDP play a role in responding to and mitigating the impacts of climate change, including:

- Protection of Robinson Creek and associated Greenway System;
- Development of an integrated active transportation network, linking parks, open spaces, schools and key destinations to help meet residents' daily needs without the use a vehicle;
- Efficient use of land, including dual-use urban open spaces and park-school co-location;
- Tree canopy coverage objectives;
- Convenient access to regional transportation network stops;
- Walkable, safe, and engaging neighbourhoods and streets designed at the human scale;
- LID initiatives located strategically in a variety of contexts;
- Transit-oriented development, which supports planned transit investments and encourages transit use; and
- Comprehensive support studies such as the Master Environmental Servicing Plan (MESP), Community Energy Plan (CEP), FUA Urban Design Guidelines, City of Markham's Greenprint Sustainability Plan and Official Plan, etc.



2.4 Community Energy Plan & Solar Strategy

This Community Design Plan is one of several integrated sustainability-driven plans intended to support the Robinson Glen OPA/Secondary Plan process. A Community Energy Plan (CEP) (submitted July 2018) and a Solar Strategy are also integral elements in planning for sustainable new communities. These studies are currently being advanced through a collaborative process between the developers and builders in other FUA blocks, the City of Markham and the Region of York.

The Robinson Glen CDP implements aspects of the CEP, providing an implementable vision to further the objectives of efficient land use, sustainable building and site design standards. Of the seven areas of strategic impact listed in the Draft CEP Terms of Reference, the CDP particularly addresses the following.

Community Design for an Energy Efficient, Compact and Complete Community:

Consistent with the provincial, regional and municipal plans and policies for new communities, the CDP supports compact, transit-oriented development, locating the highest densities and a mix of uses and amenities close to arterial roads and planned transit corridors. The Robinson Glen CDP supports the creation of a complete community including a range of housing typologies, schools, parks, places of worship and commercial and employment in mixed use nodes.

Community Energy Systems and Local Energy Sources:

The Robinson Glen CDP and Demonstration Plan illustrates an efficient street and block layout which creates opportunities for the efficient installation of photovoltaic solar panels on homes, schools and other buildings. Blocks have been oriented east-west, where feasible, recognizing emergent technologies which facilitate solar energy systems at a range of angles and site conditions.

Transportation Networks for Active Mobility:

A guiding principle of the Robinson Glen CDP is providing safe and efficient alternative transportation choices to facilitate viable and convenient alternatives to automobile usage for many local and regional connections. These choices include walking, cycling, transit and other modes of active transportation. Through the configuration of appropriate neighbourhood block lengths, trail connections, and pedestrian and cycling facilities on all collector roads, as well as supportive measures such as proposed bicycle parking at key transit stops, the plan is designed to maximize the use of alternative sustainable transportation modes.

Opportunity for Carbon Sinks:

Following the strategies set out in the CDP, there will be an intensive approach to establishing significant tree canopy coverage through the design of community streetscapes, parks and open spaces.

2.0 SUSTAINABLE DEVELOPMENT PRINCIPLES FOR THE FUTURE URBAN AREA

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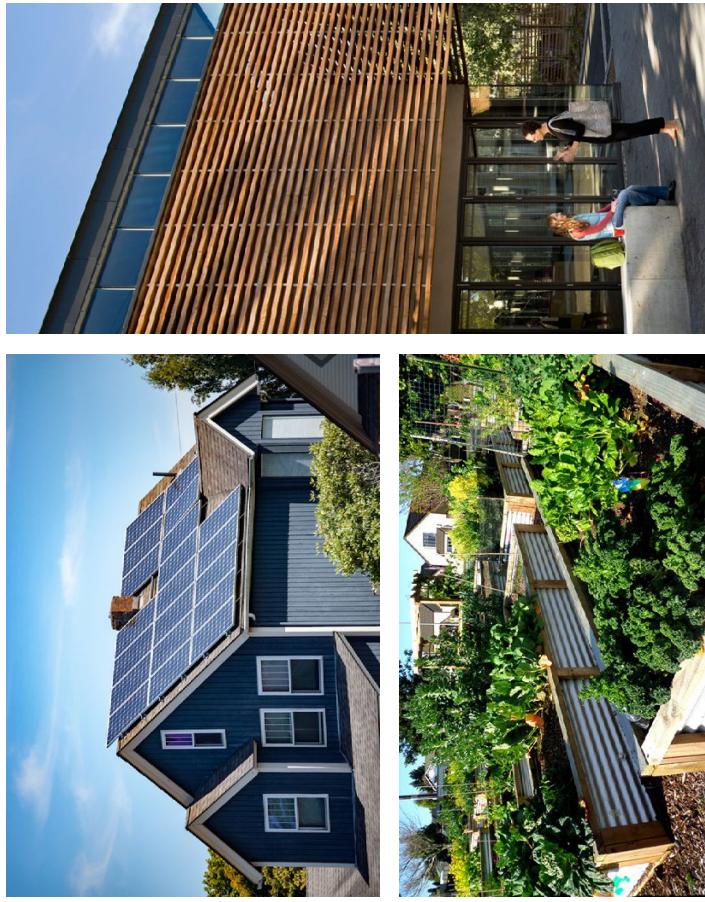
Communications, Community Engagement and Behaviour Change:

The CDP describes numerous design strategies and opportunities for reducing energy consumption and reinforcing healthy lifestyles through the implementation of environmental initiatives that will engage residents and visitors. These design initiatives include reinforcing efficient land use by siting vibrant urban open spaces atop stormwater management tanks, providing safe active transportation and transit connections, siting low impact development opportunities in a variety of contexts, and involving residents in eating locally through the provision of community gardens. Easy access to the thriving natural processes and wildlife in the Robinson Creek and Greenway and stormwater management ponds will be provided through an interconnected interface of trails and open spaces.

The CEP describes further solar strategies for reducing carbon emissions and peak energy demand by encouraging the transition to renewable energy sources based on four elements:

- Site and orientation, considering best practices and emerging solar technologies which allow for a wider range of building orientations;
- Facilitate adoption of solar PV;
- Minimize shadow impacts; and
- Offer solar options to homeowners.

As other plans evolve and as the community and the community facilities in it are designed and implemented, these initiatives will be further advanced to ensure the objectives described in the CEP are realized.



COMMUNITY DESIGN PLAN

3.0



3.0 COMMUNITY DESIGN PLAN

3.1 The Robinson Glen Community

The Robinson Glen Community embodies the healthy, compact and sustainability-focused community vision and objectives stated in Section 1.1 of this CDP (pages 2 and 3). The demonstration plan shown in Figure 4 illustrates one way through which this vision and the associated objectives may be realized. Alternatives for the local street layout may be explored through subsequent draft plan of subdivision and/or site plan applications.



NOTE: The Robinson Glen Demonstration Plan shown in Figure 4 illustrates one way in which the community may be designed to address local street layout and built form. In keeping with the approved Secondary Plan, alternative options for local streets, the development blocks and built form, may be pursued by landowners in their implementing draft plans of subdivision and/or site plans.

H Denotes the current locations of cultural heritage resources. Refer to Section 5.3.4 of the CDP for more information on the integration of these resources.

(#) Refer to the numbered list of key elements on page 35.

Key Elements of the Demonstration Plan	Corresponding CDP Section
1. A defining Greenway interface with a connected network of trails and strategic opportunities for physical and visual access, and educational signage. The Rouge Watershed Protection Area boundary protects the natural heritage system and incorporated all associated vegetative protection zones.	3.3 & 6.1.1
2. A clear hierarchy of streets and blocks reflecting a modified grid network provides clear and direct multi-modal access to the Greenway, community amenities and surrounding communities.	3.4 & 6.3
3. A connected active transportation network that includes meandering pathways through the western edge of the Greenway system, multi-purpose pathways on collector streets and sidewalks on local streets, providing access to various community amenities and connection to the community and City trail networks.	3.3.2 & 3.4
4. Greater massing along the Kennedy Road edge, at neighbourhoods service nodes and gateways to architecturally distinguish these locations and promote intuitive wayfinding measures.	3.7, 4.3, 4.4 & 5.3.2
5. A high density and distinct urban form along Major Mackenzie Drive, a key transit corridor in the Robinson Glen community, with a mixed use node anchoring the Major Mackenzie Drive and Kennedy Road intersection.	3.7, 4.3 & 4.4
6. Diverse housing forms are strategically distributed to reflect their context, promoting a range of dwelling types and tenures, and allow for aging in place.	4.0
7. Diverse and connected neighbourhoods that are focused around community hubs, which integrate local public parks and schools.	3.6, 3.7, 5.3.3 & 6.2
8. A centralized co-located secondary school and community park campus promotes easy access to amenities and incorporates land use efficiencies. The centralized hub supplements the existing and proposal recreational opportunities in the area.	4.7, 5.3.3 & 6.2
9. A place of worship site that helps to create a complete community by providing a space for gathering.	4.8
10. Dual-use parks and open spaces provide a recreational function whilst managing rain water from infrequent regional storm events.	6.1

3.0 COMMUNITY DESIGN PLAN

3.2 Community Structure

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RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)



BE1 **BE2** **BE3** **BE4** **BE5** Meets secondary plan density targets, with transit supportive built form and sensitive height transitions. A complete community composed of diverse housing types in close proximity to services, amenities and mixed use areas.



ST1 **ST2** **ST3** **ST4** Supports a walkable community, facilitating connections to active transportation and transit networks.



NE1 **NE3** Protects and enhances the Greenway, providing access to open space and integrated stormwater management.



R1 Innovative stormwater management techniques for resiliency and land use efficiency.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6.1 - Greenway System, Table 1
 - **FUA UDG** Section 1 - Introduction
 - **York Region NCG** Chapter 1 - Directing Growth, Chapter 2 - Community Design
- The Greenway System, in particular the Robinson Creek lands along the subject lands' eastern flank;
 - An accessible, walkable and connected circulation network, linking with existing and planned developments;
 - A mix of uses and housing types, with highest densities along neighbourhood and regional corridors, specifically at key transit intersections;
 - An efficient and accessible regional transit system supported by high density and mixed uses along the corridors;
 - Centralized and grouped neighbourhood amenities, including schools, parks and open spaces;
 - Integrated and enhanced cultural heritage resources; and
 - A comprehensive stormwater management system.



COMMUNITY DESIGN PLAN 3.0

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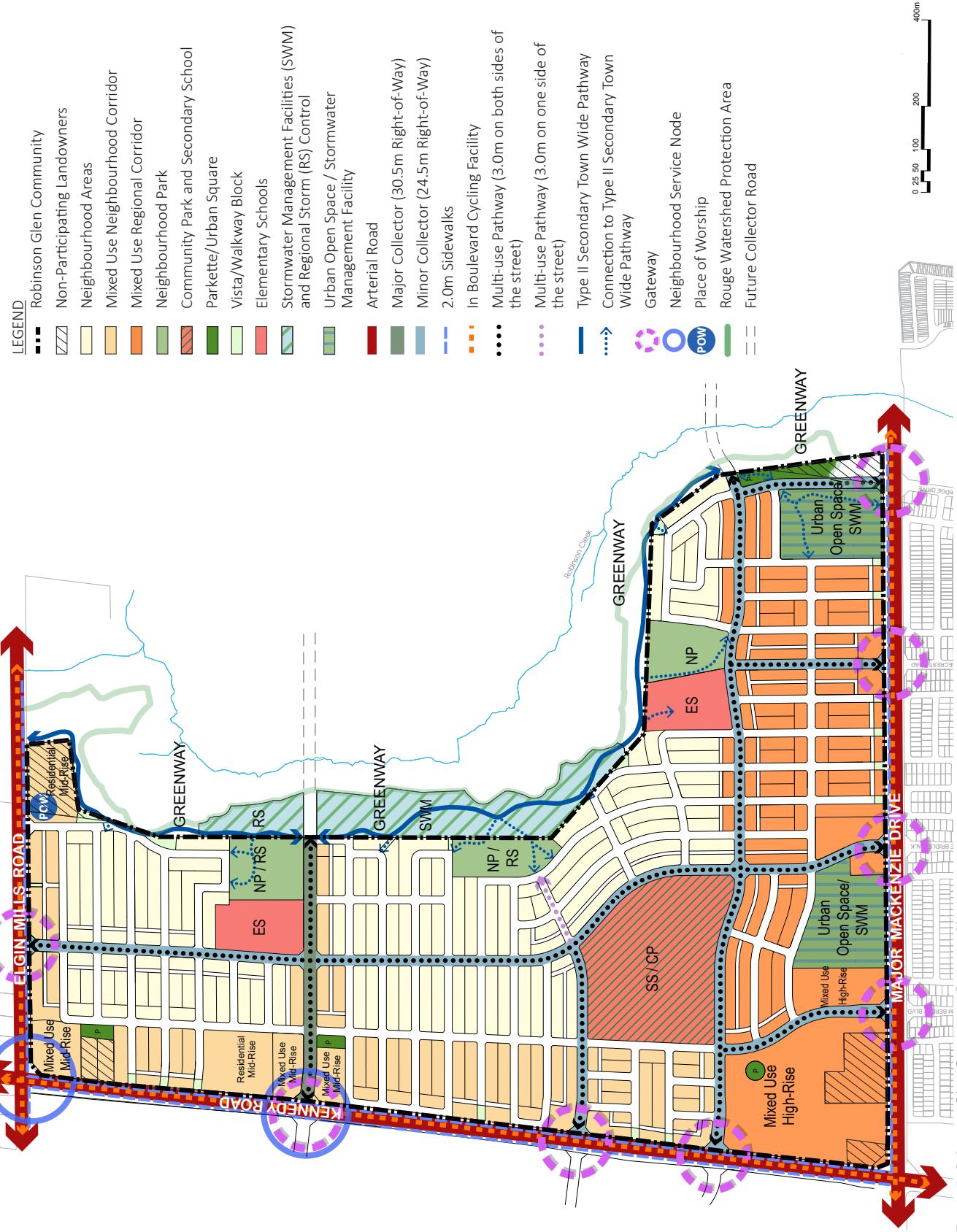


Figure 5: Robinson Glen Community Structure Plan

3.0 COMMUNITY DESIGN PLAN

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3.3 The Greenway System

The Greenway System is a central element of the Robinson Glen Block, forming the eastern edge of the FUA lands and requiring special consideration with regard to the uses, development, and design of this edge. The Greenway System within the Robinson Glen Block is composed of:

- Natural heritage network and
- Natural heritage features;
- The Robinson Creek;
- The Greenbelt Plan area;
- Certain naturalized stormwater management facilities; and
- The Rouge Watershed Protection Area.

The community's interface with the Greenway System is discussed in Section 4.5.7 Buildings Abutting Open Space & Parks, Section 6.1.1 The Greenway System and Section 6.4 Views & Vista.

A restoration analysis will be conducted for the Greenway west of Robinson Creek through the Robinson Glen Greenway System Management Plan to complement measures outlined in the MESP. The Management Plan will consider elements to promote a healthy, resilient and sustainable Greenway System, responding to the introduction of trails, as well as grading constraints, species selection and hydrological conditions.

Where feasible and appropriate, existing significant healthy trees beyond those contained within the designated Greenway System should be preserved. As a part of the development approval process, a Tree Inventory and Tree Preservation Plan will be prepared. These plans will identify existing tree sizes, species, and condition, and recommend potential methods for retention. Where existing trees cannot feasibly be retained, compensation will be provided, in accordance with Section 3.2.1(c) of the Markham Official Plan.

3.3.1 Greenway Crossings

No Greenway crossings are proposed as part of this CDP. Two potential crossings will be considered in future stages of the planning process.

3.4 Active Transportation

Active transportation will be supported through a comprehensive network of pathways and trails, providing access to all parks and opens spaces (refer to Figure 6, on page 39 of this document):

- A Type II Secondary Town Wide Pathway along the western edge of the Greenway System (outside of the vegetation protection zone limit), extending from Major Mackenzie Drive to Elgin Mills Road;
- 3.0 metre multi-use pathways along the minor and major collector streets (within the public right-of-way);
- An existing 3.0 metre multi-use pathway along the south side of Major Mackenzie Drive;
- Key pedestrian crossing locations adjacent to community amenities and schools, where appropriate;
- In boulevard pedestrian and cycling facilities on Major Mackenzie Drive, Kennedy Road and Elgin Mills Road; and
- Sidewalks throughout the community, including 2.0 metre sidewalks along Major Mackenzie Drive, Kennedy Road, and Elgin Mills Road.

RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

- ST2** **ST4** Safe and extensive pedestrian and cycling network connects with existing routes and open spaces, including trails within the Greenway System.

- NE1** **NE3** Vegetated transition zones and integrated stormwater management to enhance the Robinson Creek and associated Greenway.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6.1 - Greenway System, Table 1 : PP1, PP2, PP3
- **FUA UDG** Section 3 - Public Realm Design
- **York Region NCC** Chapter 4 - Open Space Natural Heritage
- **City of Markham's Pathways & Trails Master Plan**

COMMUNITY DESIGN PLAN 3.0

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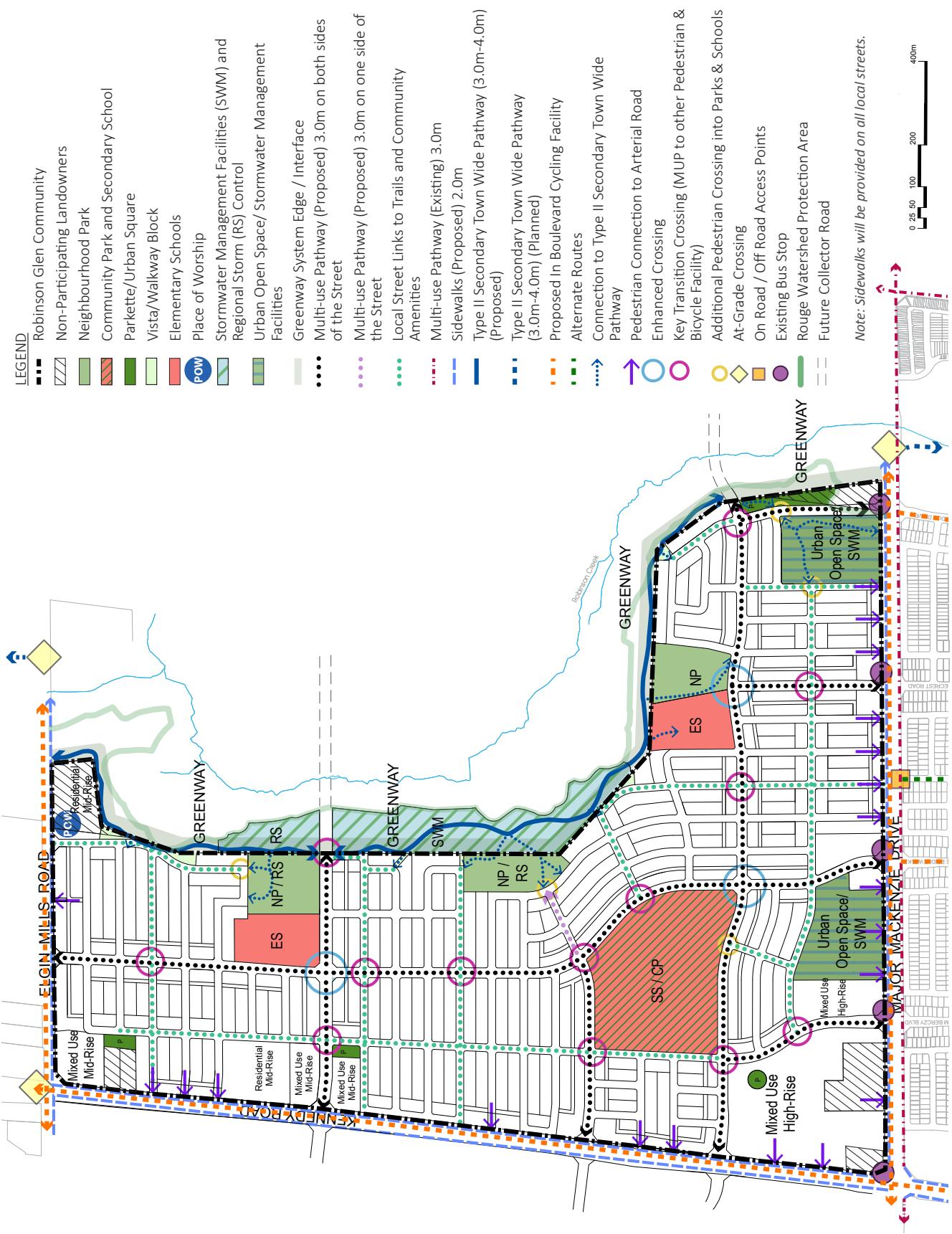


Figure 6: Proposed Open Space & Active Transportation Plan

3.0 COMMUNITY DESIGN PLAN

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3.5 Transportation Network

The proposed street network comprises a hierarchy of regional arterial roads, collector streets, local streets and laneways that define the community fabric and connect the proposed mix of uses. Primary access to the community will be provided where the arterial roads, Kennedy Road, Major Mackenzie Drive and Elgin Mills Road, meet the neighbourhood collector streets. The proposed street network has been slightly refined from its layout in the CMP as a result of floodplain, engineering, ownership issues and a more detailed transportation assessment. The proposed street network in the CDP reflects these refinements from the MESP, which are consistent with the City's objectives for circulation and transportation capacity.

The following sections describe the function and right-of-way composition of the various street types. The location of street trees and lighting should be thoughtfully coordinated with other elements in the public and private realm to ensure that sustainability objectives of solar gain and enhanced energy performance are attained without compromising pedestrian safety and the overall quality of the streetscape.

The following sections describe the function and right-of-way composition for various street types. Conceptual street right-of-way cross-sections are referenced within the City of Markham's FUA UDGs. While the principles set out will be applied, the cross-sections will continue to evolve to meet the needs of all users. It is recommended that as the development of these cross sections advanced, the opportunity for minor adjustments be fully explored to reduce right-of-way widths as identified in the following sections in this CDP.

3.5.1 Future Transit Corridors

The following planned regional rapid transit corridors provide access to and from the community at a municipal and regional level:

- Major Mackenzie Drive is planned as a dedicated rapidway; and
- Kennedy Road and Elgin Mills Road are planned for frequent transit service.

Transit supportive densities and land uses adjacent to planned transit stops will promote frequent and efficient transit routes. The planned transit system will integrate into the greater transportation network, enabling multi-modal trips and accessible transit stops.

RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

BE1 **BE2** A legible transportation network with direct connections to transit corridors and mixed use areas.

ST1 **ST2** **ST3** **ST4** Supports walkability, safe connections to active transportation routes and transit use.

GB2 **GB10** **GB11** Green infrastructure and vegetation for stormwater management and reduction of the urban heat island effect. Optimal street layout and building orientation for passive solar heating and enhanced energy performance.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6.2 - Transportation Network, Table 1: PP13, PP14, PP15
- **FUA UDG** Section 2 - Character Areas, Section 3 - Public Realm Design, Appendix A - Complete Streets, Appendix B - LID & Green Infrastructure
- **York Region NCG** Chapter 2 - Community Design, Chapter 3 - Sustainable Transportation
- **Markham Built Form Height & Massing Study** Tall Buildings, Transitions

COMMUNITY DESIGN PLAN 3.0

3.5.2 Community Edges & Entrances

The design of community edges will reinforce higher densities, providing a strong building edge and high quality urban environment:

- The southern community edge of Major Mackenzie Drive will exhibit a mixed use mid- and high-rise character with opportunities for at-grade retail and residential or office upper storeys. A strong street wall will provide a definable community edge that is composed of mixed use and residential buildings, integrated with sensitive transitions to the existing low density residential community to the south (refer to Section 5.2.1, page 82 for more information).
- The western edge of Kennedy Road exhibits the highest densities at its intersection with Major Mackenzie Drive to the south (described in more detail in Section 3.7.2, page 53), and has a predominantly mid-rise built form, including mixed use high-rise, mixed use mid-rise and residential mid-rise buildings. Where feasible, at-grade retail will animate this edge and create visual interest for passersby, especially at the neighbourhood service nodes (described in more detail in Section 5.3.2, page 85). The Kennedy Road edge will be designed to ensure cohesiveness and compatibility with the Angus Glen Community to the west.
- The Elgin Mills Road frontage (north edge) reflects a mid-rise built form, with mixed use mid-rise and residential mid-rise buildings.
- The eastern edge of the Robinson Glen Community is characterized by the Greenway, and is described in more detail in Section 3.3, page 38.

In general, building heights along arterial roads at collector road intersections are encouraged to reflect greater massing to enhance pedestrian comfort and provide adequate street enclosure. At the neighbourhood service node locations, buildings fronting arterial roads may achieve a maximum building height of six storeys.

Gateways to the community will be located at intersections along Major Mackenzie Drive, Kennedy Road and Elgin Mills Road. The collector street entrances to the Robinson Glen Community will be emphasized through increased architectural detailing and landscaping (refer to Section 4.5.1, page 68 for more detailed information on the proposed built form at these locations).

3.5.3 Links to Adjacent Neighbourhoods

Connections to adjacent existing and planned neighbourhoods, specifically to the south and west, will be designed to promote continuous streetscapes and trails between existing and proposed development, facilitate safe and accessible movement using multiple modes of transportation, and sensitively transition between various uses and built form types. Provisions for links to potential future neighbourhoods to the east are also contemplated.

South Neighbourhood Connections

- Street network connections will be provided to the existing Berczy neighbourhood south of Major Mackenzie Drive. The collector street network of the Robinson Glen Community builds upon the existing network of the Berczy neighbourhood.
- Sidewalk connections to the Berczy neighbourhood will promote the connectivity and walkability potential of Major Mackenzie Drive as a Mixed Use Regional Corridor.

West Neighbourhood Connections

- The collector street network of the Robinson Glen Community will be coordinated with the planned Angus Glen Community to ensure the efficient movement of traffic throughout the FUA. The location of these connections will support greater massing and a mix of uses, where feasible.
- The intersections of the Angus Glen and Robinson Glen collector streets will provide fundamental opportunities for trail and active transportation route linkages between the FUA communities.
- The collector street intersections along Kennedy Road will also offer significant pedestrian crossings which will be designed with safety as a top priority.

3.0 COMMUNITY DESIGN PLAN

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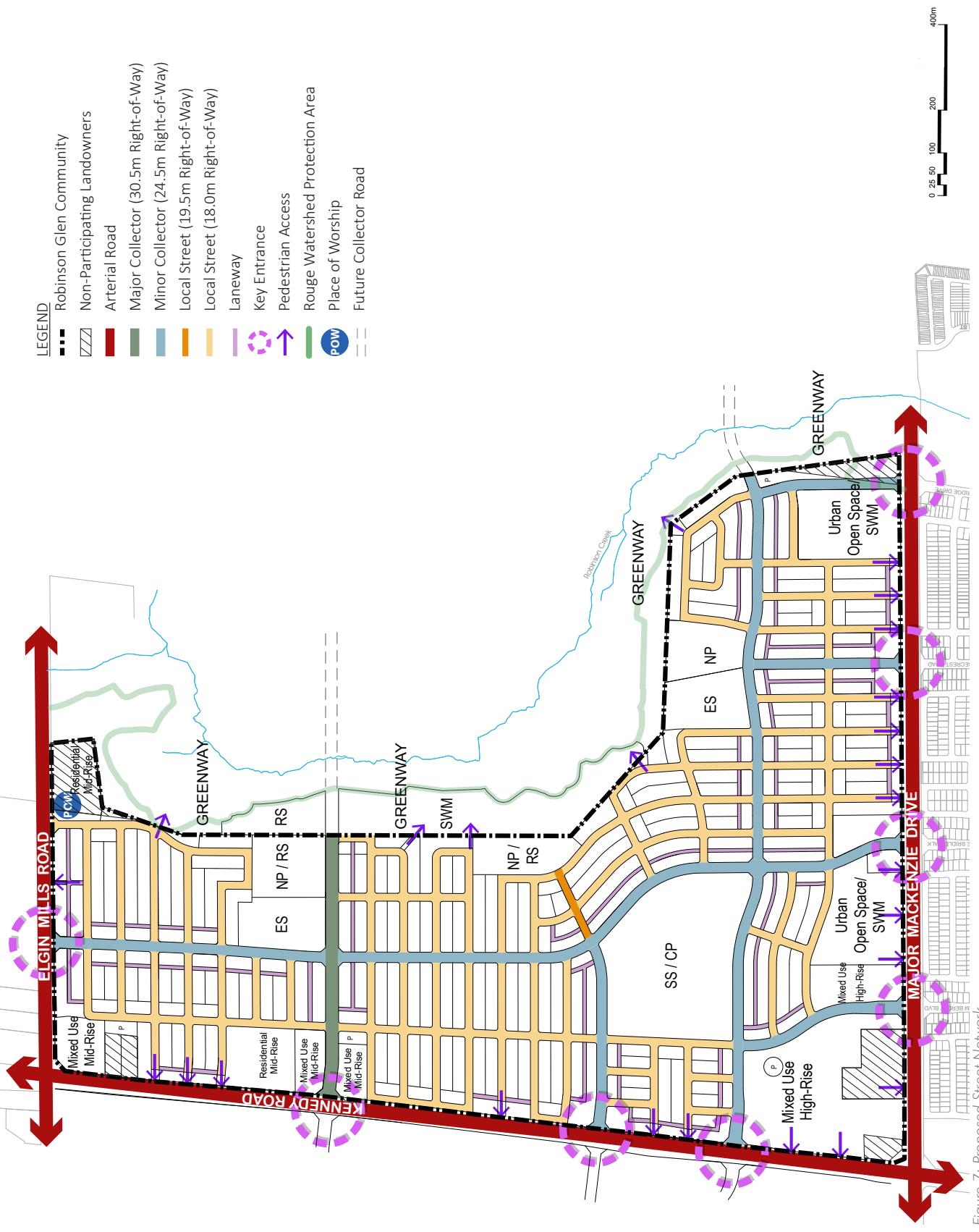


Figure 7: Proposed Street Network

3.5.4 Arterial Roads

Arterial roads will exhibit an enhanced built environment with connected in boulevard pedestrian and cycling facilities on both sides of the street, strong and consistent streetwalls, public transit, and animated mixed use buildings, particularly at key intersections with collector streets. Key features may include:

- Laneways that provide residential and service vehicle access to buildings with arterial road frontage;
- Window streets with a coordinated residential streetscape that is consistent with the arterial road edge;
- Wider sidewalks and landscaped boulevards; and
- Regard to in-boulevard cycling facilities.

3.5.5 Collector Streets

Collector streets facilitate movement through the neighbourhood blocks and provide connections to the public transit network and major pedestrian and cyclist routes. The location of arterial road and collector street intersections will be coordinated with the adjacent Angus Glen Community to ensure connectivity and accessibility for all modal types within the FUA and beyond. Collector streets exhibit various land use conditions, including low- and mid-rise residential, mixed use, parks and institutional uses. Collector Streets will be free of driveways, ensuring an uninterrupted pedestrian realm along these key streetscapes. Standard cross sections for collector streets are provided in Appendix A.3 of the FUA UDGs (refer to pages A-9 and A-11).

Collector Street Intersections

There are five collector street intersections in the Robinson Glen Community, which will need to provide for safe crossings for all modes of transportation. Where a collector road meets another collector road, corner refuge islands, stop bars for bicyclists, designated and set back bicycle and pedestrian crossings, and bicycle friendly signal phasing are all potential considerations. A variety of traffic control alternatives may be considered at these locations, including stop-controls and signals.

Major Collector Streets

One major collector street with a right-of-way of 30.5 metres is proposed to run east-west in the northern portion of the Robinson Glen Community. This street provides access to the Angus Glen Community to the west and will ultimately provide a connection to McCowan Road in the future. This major collector street forms a key gateway entrance to the community at the neighbourhood service node along Kennedy Road. The northern elementary school campus with neighbourhood park 'B' are strategically located along this key community street. A 3.0 metre wide multi-use path will be located on both sides of the street, to facilitate safe active transportation options to key destinations along this route. Refer to Page A-9 in the FUA UDG for a typical cross section of the proposed major collector streets in a residential setting.

Minor Collector Streets

Six minor collector streets with right-of-ways of 24.5 metres are proposed within the Robinson Glen Community: four north-south minor collector streets and two east-west minor collector streets. The longest and most significant of these north-south minor collector streets comprises a central north-south street that provides continuous connection from Major Mackenzie Drive to Elgin Mills Road. A second continuous east-west minor collector also spans the entirety of Robinson Glen in the southern portion of the community and will ultimately provide a connection to McCowan Road in the future. 3.0 metre wide multi-use pathways will be located on both sides of the street to establish a comprehensive network of safe active transportation options throughout the community. Refer to Page A-11 in the FUA UDG for a typical cross section of the proposed minor collector streets in a residential (townhouse) and mixed use setting.

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3.5.6 Local Streets & Block Pattern

The Robinson Glen Community is proposed to have a modified grid layout with short block lengths that facilitate the development of a compact community with walkable and visually interesting streetscapes. The well-defined pattern of streets will maximize the number of street connections, allowing for multiple route options for all modal types. In the case where long residential blocks are proposed, cap end block units should be considered to make blocks appear shorter (discussed in further detail in Section 3.7.3, page 59). The layout of the street network generally supports good sustainability practices, with most blocks being oriented east-west as per solar patterns to promote a comfortable pedestrian realm. The local street network will respond to the site's existing topographical and environmental features where possible.

Figure 8 depicts the typical local street cross section in the Robinson Glen Community with a right-of-way of 18.0 metres. Sharrows on these streets will indicate on-road cycling routes in mixed-use areas, including along the mixed use areas on Major Mackenzie Drive. Lay-by parking will be sited where possible. Where there is an opportunity for single-loaded streets along the Greenway System, a reduced right-of-way is proposed, as per the typical cross section found in Appendix A.3 of the FUA UDGs (refer to page A-16).

Figure 9 depicts an alternative local street cross section with a right-of-way of 19.5 metres. This street will serve as the local street extension of the east-west minor collector street and terminates at the centrally located neighbourhood park D. This 19.5 metre wide local street will provide a multi-use pathway on the south side of the street and a sidewalk on the north side of the street, providing enhanced and safe active transportation connections between this key community asset and neighbourhood park D.

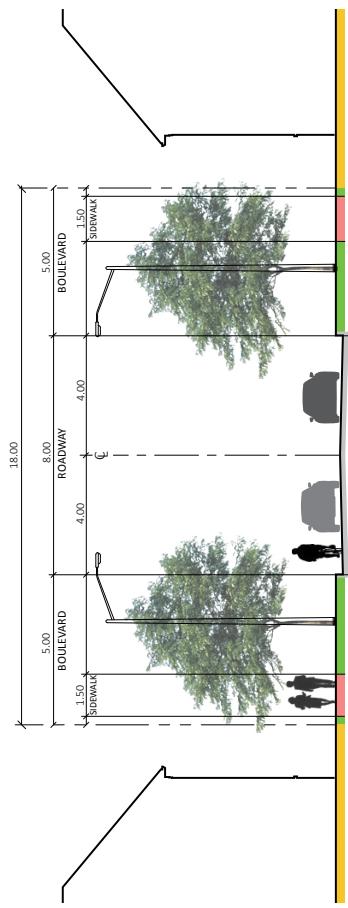


Figure 8: Local Street in a Residential Setting

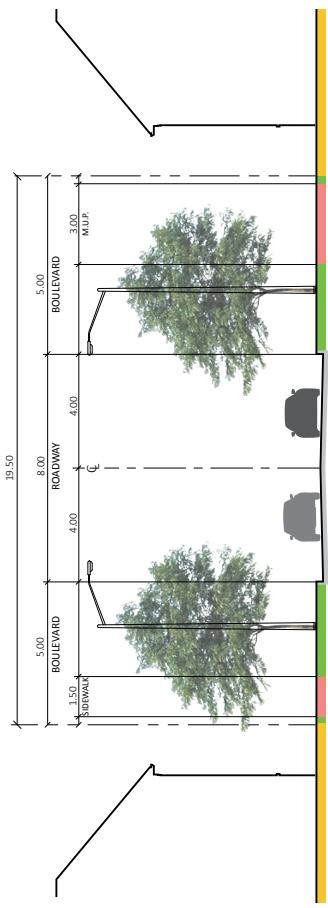


Figure 9: Local Street between the Co-located Secondary School/Community Park and Neighbourhood Park D

3.5.7 Laneways

Residential and mixed use buildings on arterial roads and collector streets may have vehicle access from the rear laneways. The objective of this approach is to eliminate the presence of garages and driveways on primary streetscapes and support the desired urban and compact form outlined in the community vision.

Laneways in Robinson Glen are proposed to have a typical right-of-way of 8.5 metres, featuring one lane in each direction, with a mountable curb and a concrete apron on each side (refer to figure 10). In special circumstances where laneway lengths exceed the typical maximums or where laneway intersections are unavoidable, the impacted lane must have a widened right-of-way of 10.0 metres (at least one of the two laneways at a lane intersection) (refer to figure 11).

For design criteria related to lane-accessed built form, refer to Section 4.2 and 4.3. For all standard road cross sections refer to the City of Markham's website for engineering details.

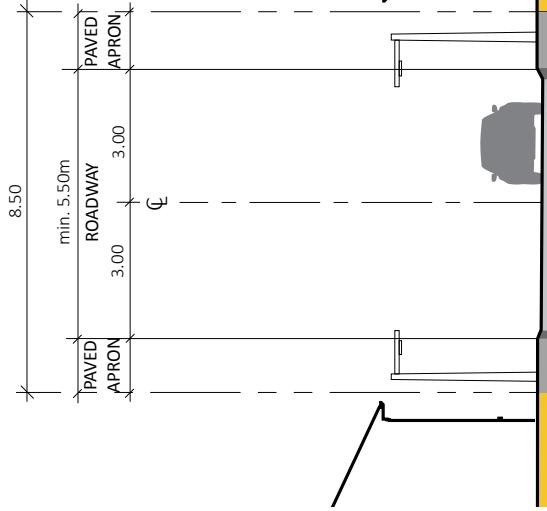


Figure 10: 8.5 metre Typical Laneway

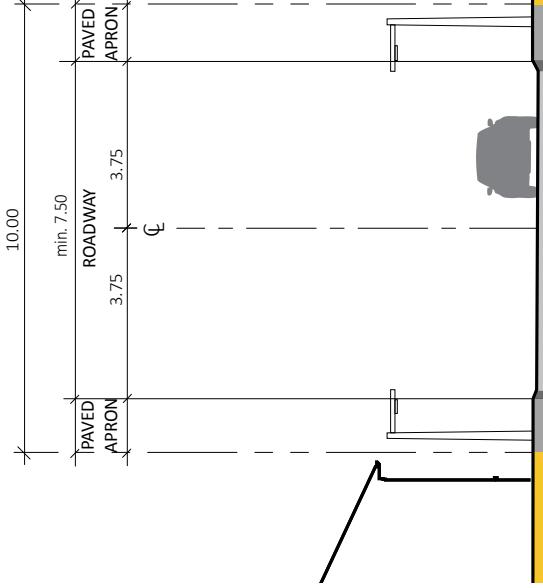


Figure 11: 10.0 metre Expanded Right-of-Way for Long Laneways

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3.5.8 On-Street Parking

- On-street parking acts as an indirect form of traffic calming and will be provided to support neighbourhood amenities including parks, schools, and mixed use developments. On-street parking also reduces the need for and presence of parking lots. General guidelines are provided in Section 3.2.1 of the FUA UDGs (May 2018). Additional guidance includes:
- Avoid locating on-street parking at the terminus of significant views; and
 - Where an open space or park fronts a street, on-street parking is encouraged on the open space side of the street (unless units fronting the open space are rear-accessed).

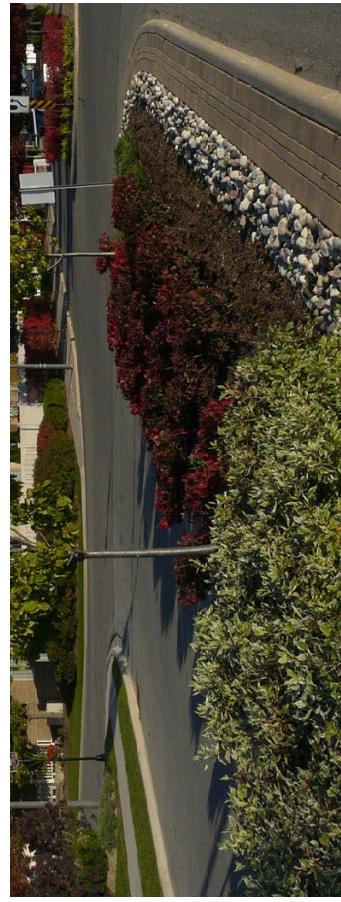


Sensitive integration of utilities to contribute to positive streetscapes.

3.5.9 Utility Coordination

Careful coordination of utilities is required to avoid negative impact on tree health and growth, limitations to the location of street furniture, and visual clutter. The following guidelines are in addition to those provided in Section 3.2.1 of the FUA UDGs:

- Where possible, locate utilities underground or on flankages, otherwise utility boxes must be screened to the extent possible, keeping with operational access requirements; and
- Incorporate utility meters discreetly into interior side elevations of adjacent built form, at least 1.2 metres away from the front of the house, within compliant and recessed gas distribution meter boxes (subject to utility company regulations).



Low impact development strategies within a streetscape.

3.6 Neighbourhoods

Neighbourhoods in the Robinson Glen Community begin to form as a result of the structural nature of the Greenway and collector street network. Individual neighbourhoods are serviced by diverse amenities, including schools, public parks, retail opportunities, and trails to the Greenway, that are typically accessed within a 5-minute walk (a 400 metre distance).

The Robinson Glen Community includes five neighbourhoods (identified in Figure 12 below), each with its unique attributes as described in the following pages.



Neighbourhood A

- A high density mixed use node with retail opportunities.
- Key connections to transit routes along Kennedy Road and Major Mackenzie Drive, including multi-purpose trails on collector streets.
- A co-located secondary school and community park providing access to sports fields, a skate park and educational facilities.
- A diverse mix of housing typologies, including high-rise buildings, mid-rise buildings, and various forms of townhouses (back-to-back, decked, rear lane and traditional).
- An urban open space providing a dual function by providing recreational amenities (such as tennis courts, playgrounds and open play areas) while accommodating infrequent regional storm events.



Figure 12: Neighbourhoods of the Robinson Glen Community

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Neighbourhood B

- Key connections to transit routes along Kennedy Road, including multi-purpose trails on collector streets.
- A campus public school and neighbourhood park providing access to sports fields, playgrounds and to a network of trails in the Greenway.
- A diverse mix of housing typologies, including mid-rise buildings, various forms of townhouses (decked, rear lane and traditional), and single-detached housing.
- An urban open space providing a dual function by providing recreational amenities (such as tennis courts, playgrounds and open play areas) while accommodating infrequent regional storm events.



Neighbourhood C

- Key connections to transit routes along Major Mackenzie Drive and Kennedy Road including multi-purpose trails on collector streets.
- A co-located secondary school and community park providing access to sports fields, a skate park and educational facilities.
- A neighbourhood park containing sports fields and serving a dual function by providing recreational amenities (such as tennis courts, playgrounds and open play areas) while accommodating infrequent regional storm events.
- Access to a network of meandering trails along the Greenway.
- A diverse mix of housing typologies, including mid-rise buildings, various forms of townhouses (decked, rear lane and traditional), and single-detached housing.

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Neighbourhood E

- A neighbourhood service node at the intersection of Kennedy Road and Elgin Mills Road, providing opportunities for greater massing and retail.
- A public parkette integrating cultural heritage features.
- Key connections to transit routes on Kennedy Road and future routes on Elgin Mills Road, including multi-purpose trails on the collector street.
- A place of worship site as an identifiable landmark that includes space for social gathering.
- Access to meandering trails within the Greenway.
- A diverse mix of housing typologies, including mid-rise buildings, and various forms of townhouses (back-to-back, decked, rear lane and traditional).



Neighbourhood D

- A neighbourhood service node at the intersection of Kennedy Road and the east-west collector street, providing opportunities for greater massing and retail. The neighbourhood service node is an identifiable entry point into the Community and includes a public parkette.
- Key connections to transit routes on Kennedy Road, including multi-purpose trails on the collector street.
- A campus public school and neighbourhood park providing access to sports fields, playgrounds and to a network of trails in the Greenway.
- A diverse mix of housing typologies, including mid-rise buildings, and various forms of townhouses (stacked, decked, rear lane and traditional).

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3.7 Land Use Mix & Distribution

The proposed land uses of the Robinson Glen Community include parks and open space, elementary and secondary schools, mixed use development, and low, medium and high density residential (refer to Figure 13, page 51). A retail focus node will be located at the corner of Major Mackenzie Drive and Kennedy Road, emphasizing this high order intersection of the two arterial roads (described in more detail in Section 3.7.2, page 53).

3.7.1 Distribution of Density & Land Use

The design and layout of the Robinson Glen Community has been guided by the FUA CMP process and the surrounding context, including the major transportation routes bounding the site. To ensure connectivity and compatibility, appropriate transitions in land use and density will be provided to the existing residential neighbourhood to the south, the planned Angus Glen Community to the west, and the Greenway System to the east. Appropriate transitions between built form and uses were central determining factors of the community's distribution of land use, density, and housing typologies throughout the site.

To achieve the sustainable, healthy and complete community objectives of the CDP, the layout of the Robinson Glen Community has been designed to support modal choice, through a connected active transportation network and with the majority of residents located within a 5 minute walk (400 metres) of a public transit stop. Similarly, community focal points have been distributed throughout the site to ensure local residents can reach a range of key destinations, including parks, schools and mixed use nodes, within a 5 and 10 minute walking distance (refer to Figure 14, page 52). The distribution of uses, including the concentration of mixed uses in key locations, ensures the creation of a complete, walkable community.

RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

- **BE1**
- **BE2**
- **BE4**
- **BE5** Efficient and context-sensitive land use mix and distribution to support a transit-supportive, diverse and complete community.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6 - Community Structure Plan, Table 1: PP2, PP3, PP4, PP5, PP6
- **FUA UDG** Section 1 - Introduction, Section 2 - Character Areas
- **York Region NCG** Chapter 1 - Directing Growth, Chapter 2 - Community Design

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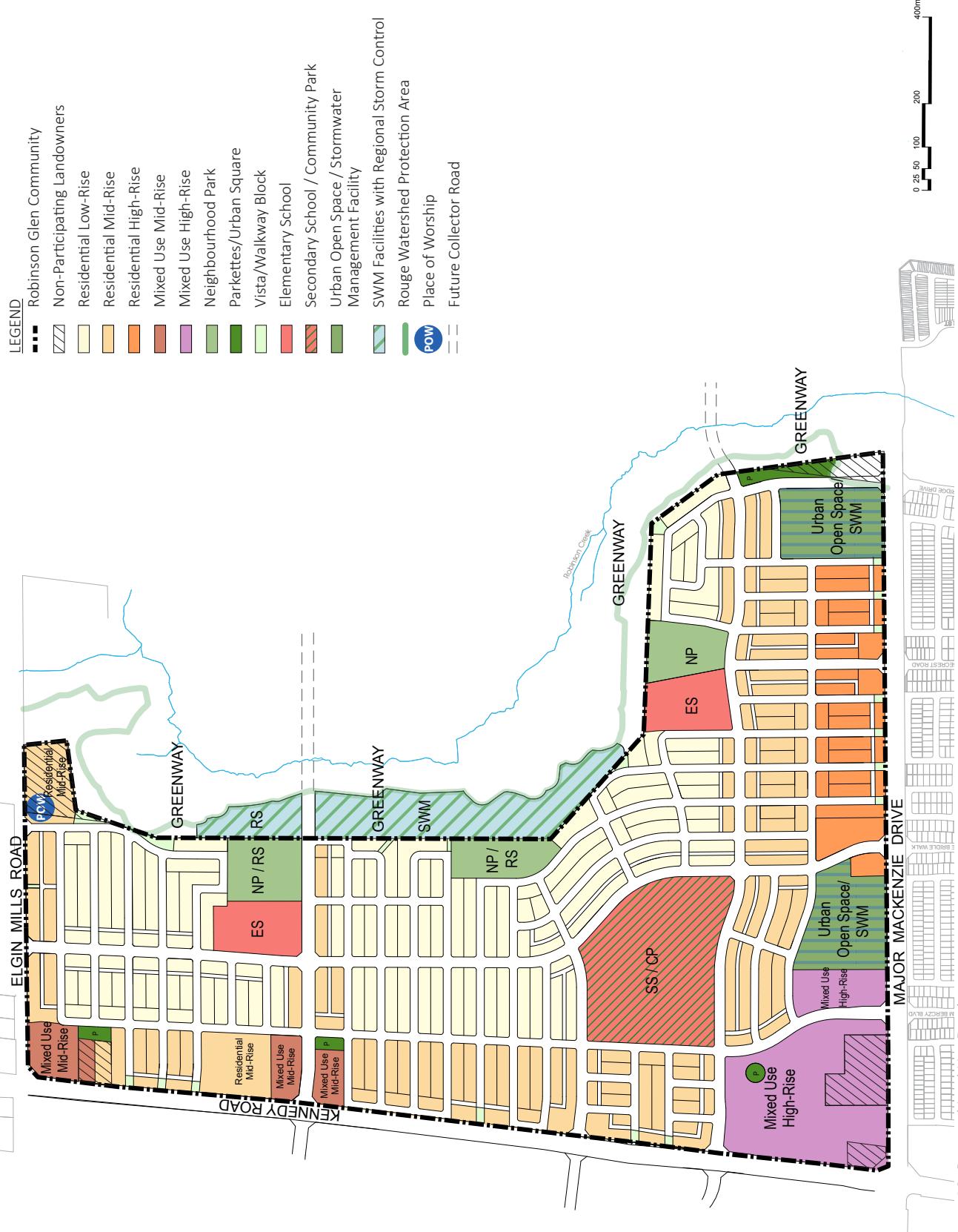


Figure 13: Proposed Land Use Distribution

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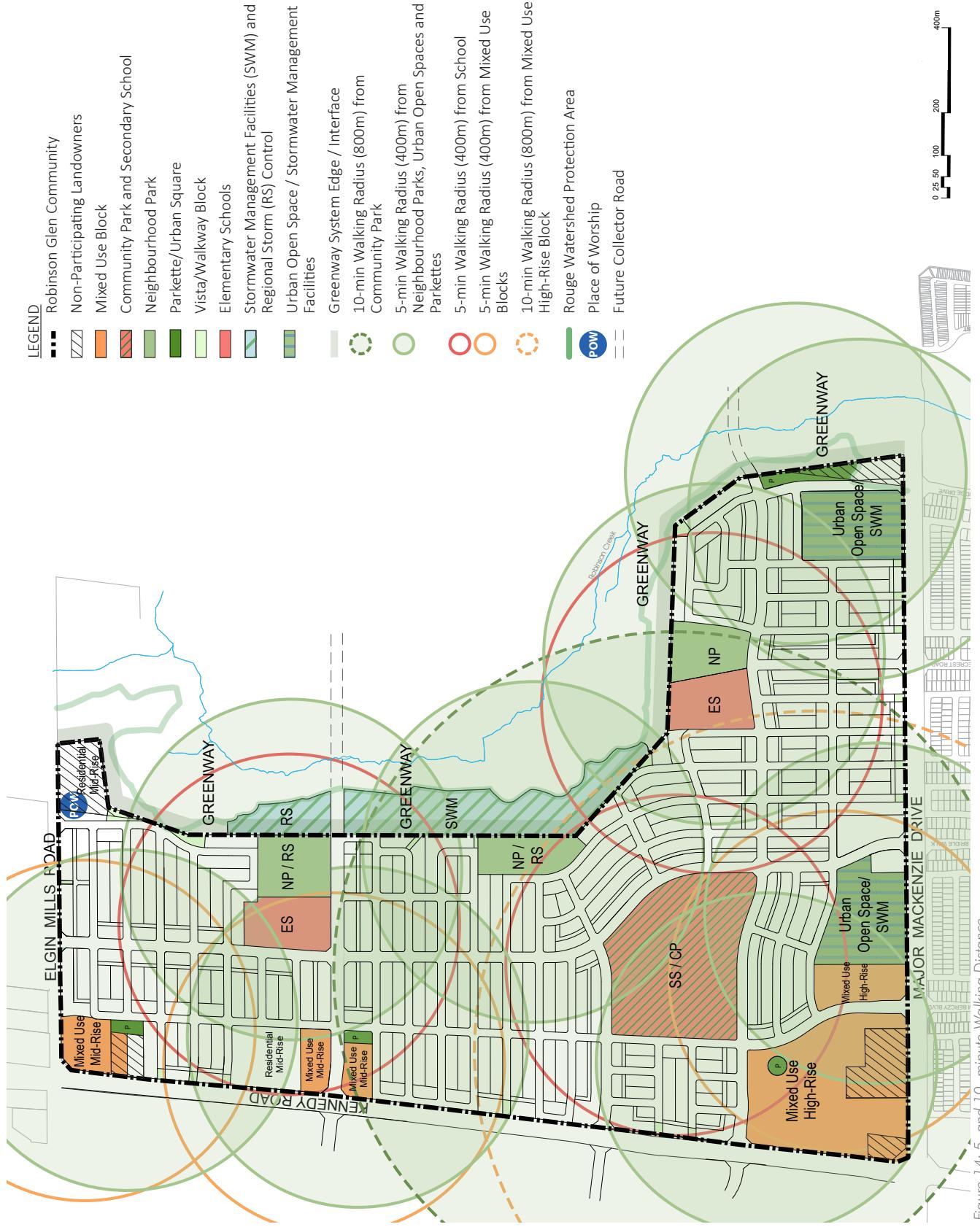


Figure 14: 5- and 10-minute Walking Distance

3.7.2 Mixed Use High Density Block

A Mixed Use High Rise Block is proposed at the high order intersection of Major Mackenzie Drive and Kennedy Road, which will concentrate a mix of residential and commercial/retail uses to support the Robinson Glen Community and the surrounding existing and planned neighbourhoods. Situated along two arterial roads, these commercial/retail uses will be easily accessible by regional transit routes and active transportation networks. This pedestrian-friendly area will locate the highest densities along Kennedy Road and away from the existing low density residential neighbourhoods south of Major Mackenzie Drive. The demonstration plan presented in this CDP provides an example of how the City's objectives may be implemented. Appropriate heights and density will be established through a comprehensive block plan process without an amendment to the Secondary Plan.

- 1** Building heights are distributed in a manner that is sensitive to adjacent existing and planned neighbourhoods.
- 2** Buildings are oriented to address key entrances and intersections throughout the block, assisting in intuitive wayfinding.
- 3** Active frontages are provided on major streets and public spaces, with grade related retail opportunities in mixed use buildings along the public realm of key collector street edges.
- 4** Urban plazas and/or public spaces are introduced to celebrate the identity and history of the Robinson Glen Community.
- 5** Coordinated opportunities for public art integration, bicycle facilities, enhanced paving treatments, architectural or natural shading techniques in key areas within the block, inclusive of major building entrances, transit stops and accessible public spaces.
- 6** Improved pedestrian and multi-modal connections internal to the block, through proposed parking areas, and beyond to the surrounding block edges.
- 7** Parking located away from view, internal to the block, and utilizing architectural and/or landscape screening measures where applicable.
- 8** Future opportunities for the conversion of single storey commercial uses into higher intensity uses, in accordance with the policies in Section 9.9.3 of the Markham Official Plan.



Figure 15: Vignette of the Mixed Use High Block

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RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)



BE1 **BE2** **BE4** **BE5** **BE7** Efficient and context-sensitive land use mix and distribution to support a transit-supportive, diverse and complete community.



BE3 **ST5** **NE5** Reduce surface parking and support a high quality and animated public realm.



BE8 **NE2** **NE3** Provide private amenities for residents and integrate public open spaces within the block.



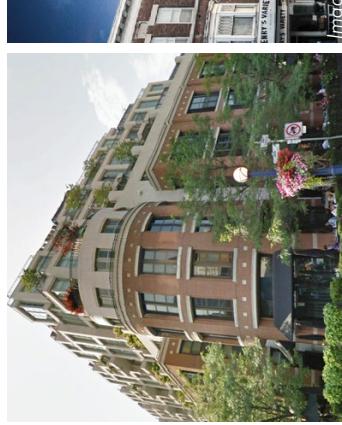
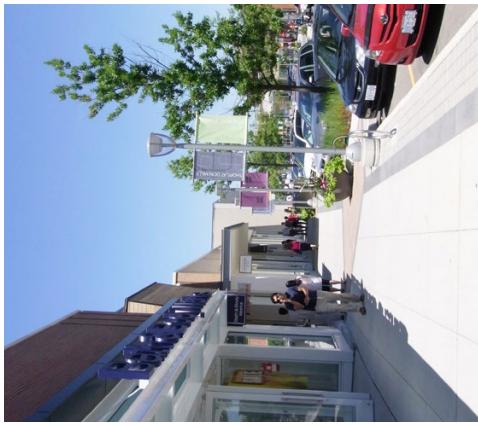
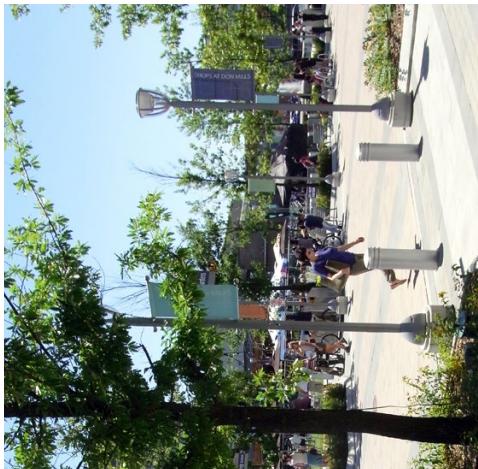
BE6 **NE7** **GB1** **GB4** **GB7** **GB9** **GB10** **GB11** **GB12** **GB13** Explore opportunities to support long-term use and adaptability, including integration of green building technologies, stormwater management techniques and design that is flexible to accommodate change in future.



ST1 **ST2** **ST3** **ST4** Break down large blocks into a finer grain that provides walking distances with clearly marked pedestrian and bicycle routes and connections to transit facilities to encourage active transportation.

RELEVANT POLICIES & GUIDELINES

- **FUA UDG** Section 4.1 - Building Placement & Orientation; Section 4.4 - Building Height, Massing & Transition; Section 4.9 - Private Outdoor Amenity Space; Section 4.11.2 - Apartment Buildings & Mixed-Use Buildings
- **Markham Built Form Height & Massing Study** Tall Buildings, Transitions



Breaking Down the Block

The proposed layout and configuration are to be guided by principles of pedestrian-friendly, walkable communities. This includes the thoughtful breakdown of the larger block into a finer grain of sub-blocks that represent more walkable distances and build on the surrounding proposed network of public streets. Future opportunities for intensification may allow for additional streets and a further breakdown of the sub-blocks. The sub-blocks integrate a mix of uses and buildings, including residential units, commercial/retail uses, mixed use buildings, and retail pads.

Sub-Block A: This area would contain the highest densities nearest to the higher order transit intersection of Major Mackenzie Drive and Kennedy Road. Mixed use buildings animate the regional road edges by locating commercial/retail uses at grade. East-west pedestrian mid-block connections further refine the block length along Kennedy Road and allow for improved permeability. Private amenity spaces support residential units in the block and assist in achieving sustainability objectives such as reducing the urban heat island effect, improving stormwater infiltration, and contributing to the urban forest.

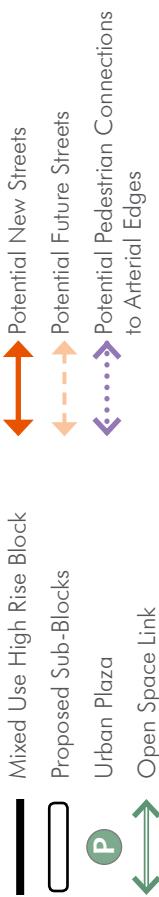
Sub-Block B: Mixed use buildings could address key intersections, with associated required parking located away from the public realm with adequate screening and clear pedestrian and bicycle circulation routes. Opportunities are present to explore the integration of LID measures in accordance with the guidelines in Section 2.2.

Sub-Block C: The main purpose of this area would be to provide effective transitions in building heights from the taller buildings in Sub-Block A to the lower density neighbourhoods to the north. An east-west mid-block pedestrian connection could enhance permeability into the block from the Kennedy frontage. There could be opportunities to provide a diversity of housing types by integrating townhouse dwellings into the block.

Sub-Block D: This is an area of transition that should consider the interface with residential neighbourhoods to the north and east. The northern portion of this area could integrate an urban plaza, kitty-corner from the co-located school and park to create a strong connection.



Figure 16: Breakdown of Mixed Use High Rise Block



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Distribution of Heights & Appropriate Transitions

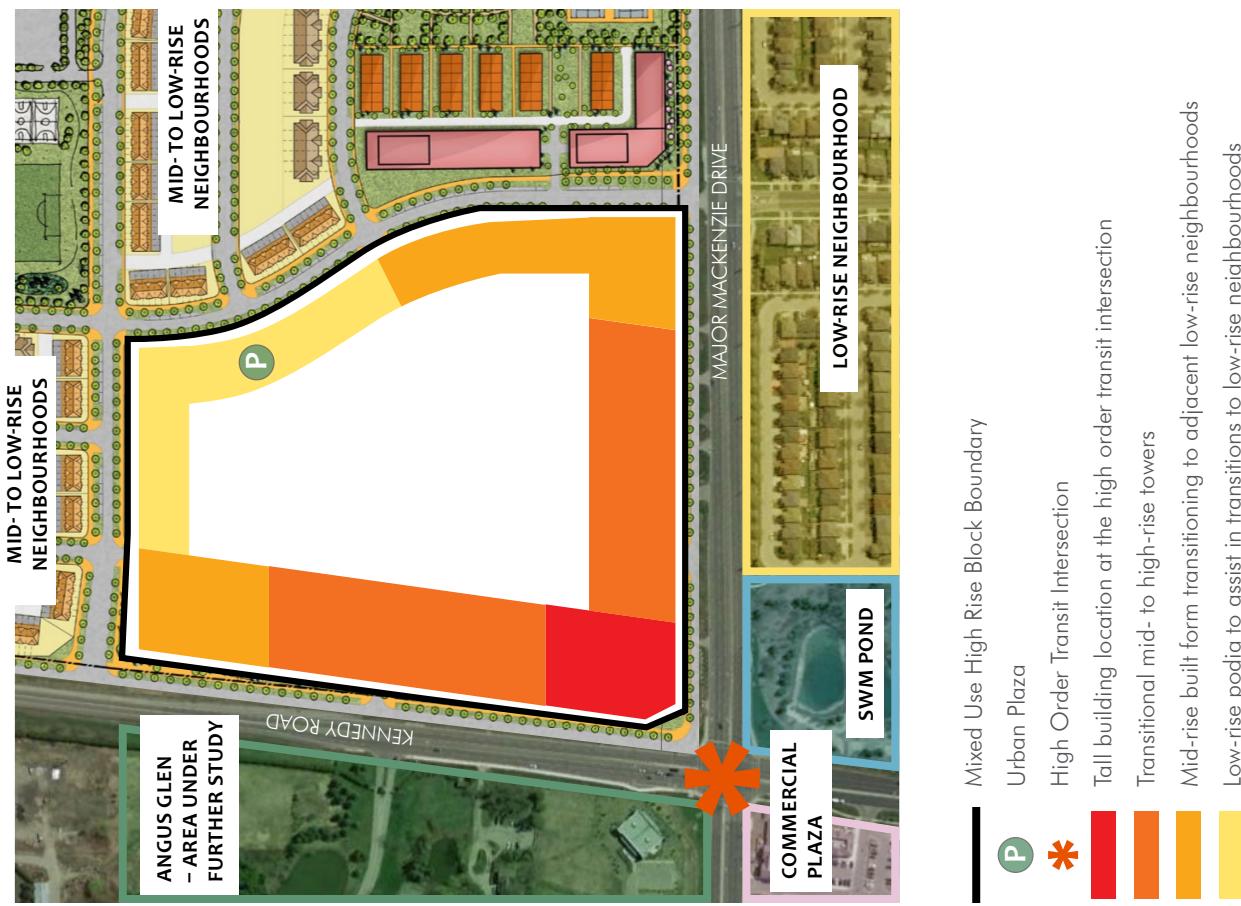
The proposed concept locates the tallest buildings along Kennedy Road, especially at the north-east corner of the Major Mackenzie Drive intersection, where access is available to high order transit lines and the adjacent natural and commercial uses will be least impacted by tall buildings. Transitions in height are proposed to the north and to the east, towards more mid- and low-rise forms of housing. Guidelines are provided below to ensure sensitive integration of the proposed buildings:

Built Form, Height, Massing & Transitions

- Ensure buildings are massed sensitively and sited on adequate block depths to preserve a balanced street proportion and promote an appropriate relationship with adjacent low-rise built form;
- Site transitional mid-rise buildings with low-rise podia to gradually integrate high- and medium-density mixed use buildings with adjacent existing and proposed low-rise built form;
- Set back tall buildings from the street edge, using podia and setbacks to achieve a 45° angular plane in accordance with the guidelines in the Markham Built Form Height and Massing Study, and to ensure views and sunlight penetration to surrounding residential uses, public and private open spaces and community amenities;
- Mitigate shadowing impacts of all mid-rise and tall buildings through the design of appropriately sized floorplates and by providing ample space between towers; and
- Encourage cap end unitfrontages on adjacent collector streets surrounding the block, to reinforce a positive street relationship and preserve the adjacencies of neighbouring backyards (refer to Section 3.7.3 of the CDP).

Building Frontages

- Provide dynamic built form edges with a cohesive landscape design and architectural language along Major Mackenzie Drive, Kennedy Road and the internal collector street; and
- Ensure parking, servicing and utilities are located internal to the site, where feasible; where utilities are located on surrounding streetscapes, provide appropriate landscape screening.



Parking Areas

The following general guidelines apply to parking areas, serving both commercial and residential uses. While parking is preferred underground, certain site conditions or building requirements may not make this feasible. Considerations for structured parking are provided as part of the guidelines below, should they be deemed desirable at the site plan stage of development.

- Direct all forms of parking internal to the site to minimize the visual impact of parked cars on the public realm;
- Provide designated parking areas for each use (including residential and retail spaces);
- Ensure a green and attractive pedestrian-scale public realm through the use of high-quality landscaping elements, such as landscaped islands within parking areas, edge plantings and buffers;
- Promote underground parking, where feasible; and
- In the event of a high water table, ensure above-ground parking structures incorporate decorative or landscaped screening to reduce their visual impact, as proposed through technical study in the MESP.

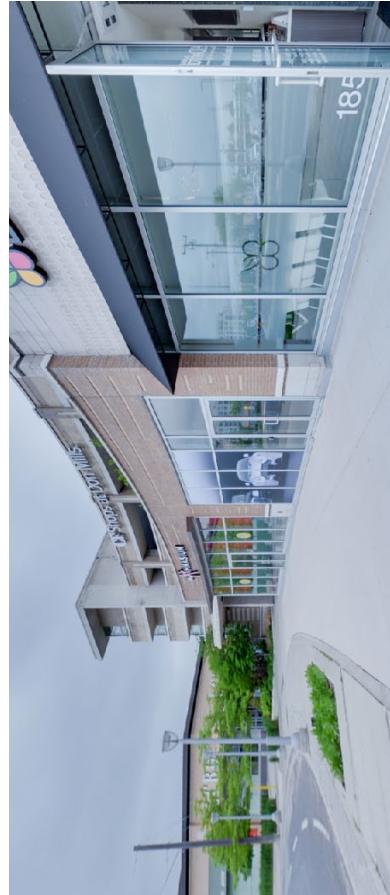


Image Source: Wikimedia Commons

Image Source: Green Screen

Sustainability Initiatives

A number of sustainability initiatives are available for integration into the design of the Mixed Use High Rise Block, including LID measures as outlined in Section 2.2 (permeable paving, softscaping, the use of cisterns and more), green building technologies, and contribution to the tree cover to reduce the urban heat island effect and enhance microclimate conditions.

3.0 COMMUNITY DESIGN PLAN

Phasing & Interim Use

Opportunities for future intensification are available through the proposed design of the mixed use high rise block, however sequencing and the specific evolution of various areas are not yet determined. Figure 17 provides an example of the potential phasing of the block, and identifies opportunities for future intensification. Policies for interim development are provided in Section 9.9.3 of the Markham Official Plan. A comprehensive block plan will be required at the site plan stage to ensure the orderly and phased development or redevelopment of the lands over time, in accordance with Section 10.1.4 of the Markham Official Plan.



Figure 17: The Retail Focus Node will be Designed to Accommodate Redevelopment and Intensification Over Time.

3.7.3 Cap End Block Configuration

Cap end units are encouraged throughout the Robinson Glen Community to increase active frontages on flanking streets and to reduce the prominence of garages along the length of local streetscapes (refer to Figure 18). Conventional cap end block configurations ensure casual surveillance and an enhanced architectural presence and streetscape condition and are distributed throughout the local street network of the community. Notable locations for cap end units include areas where these units front onto the collector street network (introduced with rear lane access) and along window streets.

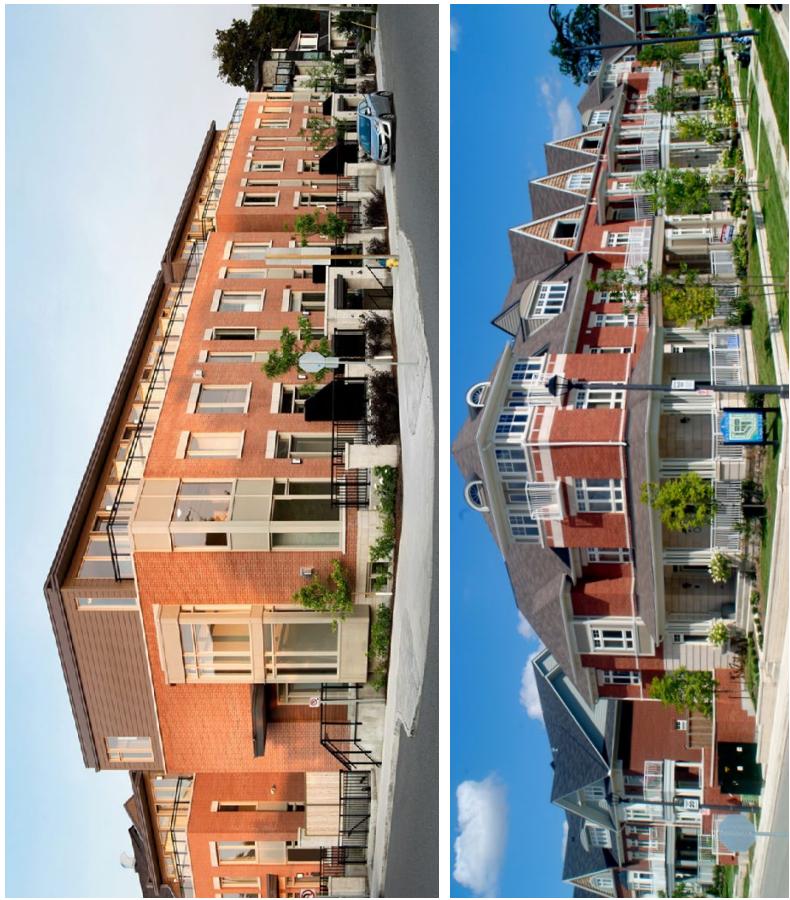


Figure 18: Examples of Cap End Units in the Robinson Glen Demonstration Plan.

- 1** Cap End Units
- 2** Parkette
- 3** School

4.0

ARCHITECTURE &
SITE PLANNING



4.0 ARCHITECTURE & SITE PLANNING

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4.1 Building Typology

The proposed architecture of the Robinson Glen Community will be sympathetic to its natural and cultural heritage setting, and will be complementary to surrounding existing developments having regard for massing and orientation, materiality, and colours. The proposed architectural style includes adaptations of traditional styles, influenced by surrounding communities and the designated heritage homes to be preserved throughout the site. Architectural diversity is promoted by providing opportunities to incorporate more contemporary styles of housing, especially for higher density development. Architectural Design Guidelines will be required as a condition of draft plan approval, and will provide a more detailed vision and guidelines related to the proposed architecture of the Robinson Glen Community. Section 4.0 of this CDP should be read in conjunction with the Architectural Design Guidelines.

The following general guidelines are intended to apply to the architecture and site planning of all new buildings in the community:

- Design for a sustainable community;
- Support community safety by design;
- Provide high quality architecture that contributes to the public realm;
- Coordinate architecture and landscape to create a distinctive image throughout the community;
- Enhance architectural treatment at community gateways and other prominent locations; and
- Orient buildings to frame views and vistas.

The proposed built form will provide housing choice, and will incorporate green building technologies that demonstrate a commitment to sustainable development practices, as required by the Ontario Building Code (OBC). Opportunities for energy efficiency and conservation will be considered at each stage of the development process, including planning, design, and construction. All proposed residential typologies will be required to submit an 'Energy Efficiency Design Summary' sheet demonstrating the house's compliance with the OBC, in accordance with the City of Markham's standards and regulations. Currently, new homes are required to achieve an 'Energuide' rating of 80 or above to be classified as an 'energy efficient new house'.

RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

BE1 **BE2** **BE3** **BE4** **BE5** **BE6** **BE7** **BE8** High quality built form that is supportive of pedestrian environments, user accessibility and vibrancy.

ST2 **ST3** **ST4** **ST5** Transit supportive built form that connects with active transportation routes, animates the public realm and contributes to a sense of place.

NE6 Bird-friendly architectural treatments, protecting local wildlife.
GB2 **GB3** **GB4** **GB7** **GB11** **GB12** **GB13** **GB14** **GB15** Integration of green building techniques to reduce energy and resource use, emissions and waste.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 3 - Vision for New Communities, Table 1: PP4, PP10, PP15, PP16
- **FUA UDG** Section 2 - Character Areas, Section 3 - Public Realm Design, Section 4 - Private Realm Design, Appendix B - LID & Green Infrastructure
- **York Region NCG** Chapter 1 - Directing Growth, Chapter 2 - Community Design, Chapter 5 - Sustainable Buildings, Chapter 6 - Energy Efficiency, Chapter 7 - Water Management, Chapter 8 - Resource Management and Education

4.2 Low Density Residential

The low density residential area comprises grade related housing, such as single detached, semi-detached, and townhouse dwellings.

4.2.1 Block Shape & Building Type

Buildings will be designed and located to frame the public realm, providing a sense of enclosure with a clear definition between public and private space. Special considerations in the proposed neighbourhood include:

- Laneway typologies will generally be located along collector streets, and will improve the streetscape conditions along these primary corridors, enhancing the pedestrian environment and ensuring efficient access to the higher order streets in the community; and
- Built form is encouraged to front onto public parks and open spaces, where feasible.



Examples of Low Density, Grade-Related Dwellings

Special considerations that apply to architectural detail include:

- Where possible and not in conflict with sustainability objectives, provide varying roof forms, orientations, and details for visual interest within a streetscape;
- Provide a mix of window types, where appropriate to the architectural style of building; and
- Provide window accents, where appropriate to complement the architectural style of the building.

4.0 ARCHITECTURE & SITE PLANNING

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Special considerations for grade-related dwellings:

- Provide a mix of architectural styles and influences within a streetscape that are compatible through massing, materiality, and colours;
- Consider a variety of elevation treatments between unit types and alternate elevations, including symmetrical and asymmetrical elevations; differences may be achieved in the treatment of main entries, fenestration, architectural treatments and cladding;
- Consider exposed side elevations where transitions between building types may include changes in front yard setbacks and adjust front yard landscaping to mitigate these transitions;
- Consider dominant porch designs sized to allow for seating, promote interactive outdoor spaces and foster casual surveillance; porches should typically be a minimum of 1.5 metres in depth;
- Provide a variety of front-facing garage locations to minimize the visual prominence of the garage in the streetscape; and
- Consider grading conditions of the site when designing buildings.



Special considerations for townhouse dwellings:

- Consider breaking up the overall building massing of individual townhouse blocks relative to adjacent single and semi-detached houses; townhouse blocks may alternatively be designed to appear as a series of individual parts; Variations in the design of townhouse blocks should be used to help articulate long and continuous rooflines and/or wall planes and create a distinctive character for individual blocks;
- Where possible and not in conflict with sustainability objectives, provide varied roofscapes within individual townhouse blocks to contribute to an interesting public realm and maintain compatibility with adjacent detached dwellings;
- Where stepping occurs along the street, the overall townhouse block should maintain a relatively consistent relationship to grade for individual units; and
- Where firewalls are necessary, they are to be integrated into the overall design of the townhouse block taking care in their location and design relative to individual units and minimizing its visual impact on the building elevation.

Examples of Low Density, Grade-Related Dwellings

4.2.3 Coach Houses & Purpose Built Secondary Suites

Secondary suites are self-contained residential units that are accessory to a principal residential dwelling. They are an effective means of providing affordable, rental housing, and increase options for aging in place. They also support the objective of a compact community, increasing the number of people living within a specific area, thereby supporting transit and community facilities, which are essential elements of creating a complete community.

Secondary suites within the Robinson Glen Community may include a variety of forms, such as coach houses, located at the end of a laneway within the residential areas, or "Brownstone" type townhouses with a side entrance to basement units (ideally situated in the higher density neighbourhood service nodes or gateways). Coach houses are secondary units located above a garage, and can benefit the community by creating 'eyes on the street' on adjacent laneways, and improving the massing and streetscape conditions on the laneways and on flanking streets.

The design and siting of secondary suites and home occupations (ex. live-work townhouses) will be included in Architectural Design Guidelines for the Robinson Glen Block. These types of uses are encouraged to be near transit facilities in support of increased density at these locations.

Design guidelines for coach houses include:

- Restrict secondary suites to a maximum of 1 accessory unit for a principal residential dwelling;
- Provide a separate entrance for the secondary unit, with a separate kitchen, bathroom and living area;
- Incorporate similar building materials, textures and colours as those used on the principal dwelling, complementing but not replicating the design of the main building, with a complementary rhythm, scale and height to that of the surrounding streetscape;
- Consider stepbacks to transition massing from interior side yards to a greater height onto flanking streets; and
- Incorporate green building technologies, where possible, including energy and water efficiency measures.



Coach houses diversify built form and housing options, while improving the massing and streetscape of laneways.

4.0 ARCHITECTURE & SITE PLANNING

4.3 Medium & High Density Residential

Medium density residential uses are located along the arterial edges, and the northernmost east-west collector. Building typologies in medium density residential areas account for over half of all units, and will include a mix of townhouse dwellings, multiplex dwellings, apartment buildings, and multi-storey non-residential and mixed use buildings. A high density block is proposed at the north-east corner of Major Mackenzie and Kennedy Road.

Special considerations for medium and high density townhouses include:

- Consider locating townhouse blocks close to the street to maintain a significant street frontage;
- Provide strong massing and a formal street presence along arterial and collector streets;
- Provide a variety of architectural detailing to improve the streetscape;
- Encourage pairing main entrances to increase landscaped areas; and
- Ensure private streets, where required, provide for a high quality, safe and comfortable pedestrian environment.

Special considerations for mid-rise development include:

- Provide appropriate setbacks and step-backs in the upper levels of the building massing to maintain pedestrian scale at street level; and
- Where not in conflict with sustainability objectives, divide and vary long roofscapes for visual interest.

Special considerations for high-rise development include:

- Design tall buildings to have a distinct top, middle (tower) and base;
- Set back tall buildings from the street edge, using podia and stepbacks to achieve a 45° angular plane in accordance with the guidelines in the Markham Built Form Height and Massing Study, and to ensure views and sunlight penetration to surrounding residential uses, public and private open spaces and community amenities
- Locate and orient tall buildings to minimize negative impacts on sky view, winds, shadows and privacy; and
- Provide adequate separation distances between towers and site buildings to mitigate adverse impacts on streets, parks, and public and private spaces.



Decked townhouses eliminate the garage from primary landscapes.



Special considerations for mid- and high- rise development include:

- Provide weather protection at all entrances;
- Provide opportunities for social gathering areas close to the main entrance, that allow for seating, displays, waste/recycling receptacles, public art, and landscaping, to encourage interactions;
- Provide safe, clear pedestrian circulation patterns within the site to sidewalks;
- Provide bicycle parking areas to encourage cycling opportunities, especially near the main entrance;
- Provide shared amenity spaces of appropriate size; and
- Incorporate vents and exhaust elements into the design of façades, and avoid locating them on principal elevations.

Mid- and high-rise buildings can provide additional density, while retaining a human scale and relationship with the street.

4.4 Mixed Use Buildings

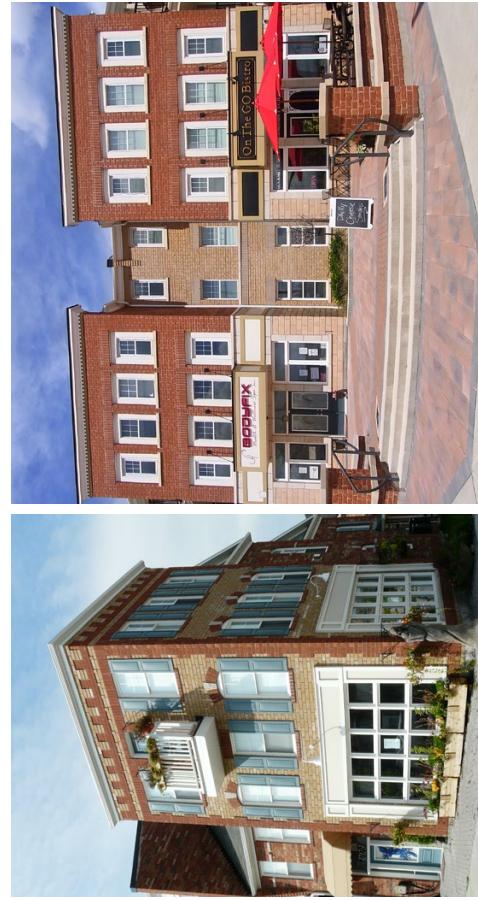
Mixed use buildings are encouraged along the mixed use regional and neighbourhood corridors, as well as at key intersections throughout the community.

Special considerations to mixed use buildings include:

- Use colours and materials to clearly define and differentiate the building base (i.e. the commercial component) from the balance of the building and its residential uses, and to convey a sense of scale;
- Clearly define commercial entrances of the building and differentiate them from residential entrances;
- Provide taller first floors than upper floors, and combine first floor heights with canopies, storefront windows, and details for an animated pedestrian-scaled frontage;
- Provide expansive storefront windows for views to activities inside, creating interest for passersby and to serve as a visual connection to the outdoors;
- Encourage projecting storefront windows to enhance visibility of the retail or service space; and
- Provide commercial signage that is clearly illuminated with accent lighting complementary to the design of the building; avoid backlit signage.



Image Source: www.capitolhillscame.com
Large storefront windows provide views to activities inside, animating the streetscape.



Variety in colour and material successfully distinguishes between uses in these mixed use buildings.

4.0 ARCHITECTURE & SITE PLANNING

4.5 Priority Lots & Dwelling Types

Priority lots are located in particularly prominent or visible locations in a community and have a built form that contributes to the visual characteristics of a streetscape.

The priority lots of the Robinson Glen Community include gateway lots, community edge and window lots, lots within collector streetscapes, corner lots, T-intersection lots, elbow street and cul-de-sac lots, and lots abutting open spaces and parks.

Dependent on the priority lot type, certain architectural and landscaping upgrades are required to celebrate their location and exposure within the community. Special attention and solutions should be considered, relating to building shape or massing, main entry design, garage treatment and location, architectural treatments, exterior building materials and/or colours, fenestration, and landscaping elements.

Priority lot locations will be identified in Architectural Design Guidelines, to be prepared at the Draft Plan of Subdivision stage of development. The following sections provide details on priority lot treatments to ensure the development of a high quality public realm, and should be read in conjunction with the Architectural Design Guidelines.

4.5.1 Gateway Lots

Gateway lots signify the entrance to the community and provide a special opportunity to communicate a “sense of arrival.” Special consideration to architectural detailing and landscaping can address the high level of exposure of these lots, while reflecting the architectural and urban design character of the community.

Special considerations for gateway lots and buildings include:

- Orient gateway features to address the higher order street at intersections;
- Where possible, incorporate greater height or massing than is typical in the adjacent streetscapes;
- Feature strong and distinctive architectural elements, such as prominent gables, dominant porches, and/or projecting bays;
- Incorporate consistent main cladding, architectural detail and treatment on the front, flankage and rear elevations;
- Coordinate the design of the gateway building with adjacent landscape features that are part of the development’s gateway design and treatment; this coordination should be mindful of main entry location, porch design, placement of windows, vernacular, exterior materials and colours;
- Encourage private lot landscaping, detailed by the consulting landscape architect; and
- Incorporate landscaping that requires minimal maintenance.



Example of gateway lots with strong architectural elements.

4.5.2 Community Edge & Window Lots

Community edge and window lots provide an opportunity to convey the overall character of the community to passersby. Community window locations occur where a public or private street runs directly parallel to an adjacent arterial road. Window streets may be required to reconcile grading conditions from the arterial road edges of the community.

Special considerations for community edge and window locations include:

- Provide a strong arterial road edge and urban built form;
- For window lots, coordinate the design of individual buildings with the residential streetscape and the landscape treatment of the arterial road edge;
- Orient buildings to front onto window streets;
- Orient main entrances to face window streets, where possible;
- Lots flanking onto an arterial road should be designed in a similar manner to corner lots, presenting a front face to the arterial road and enhanced side and rear elevation upgrades;
- Deeper side yard setbacks should be provided on lots flanking onto arterial roads to accommodate enhanced landscaping to screen acoustic fences;
- Integrate garages into the envelope of the building; and
- Pay special attention to the colour schemes of houses located on community window streets and along the arterial road edge.



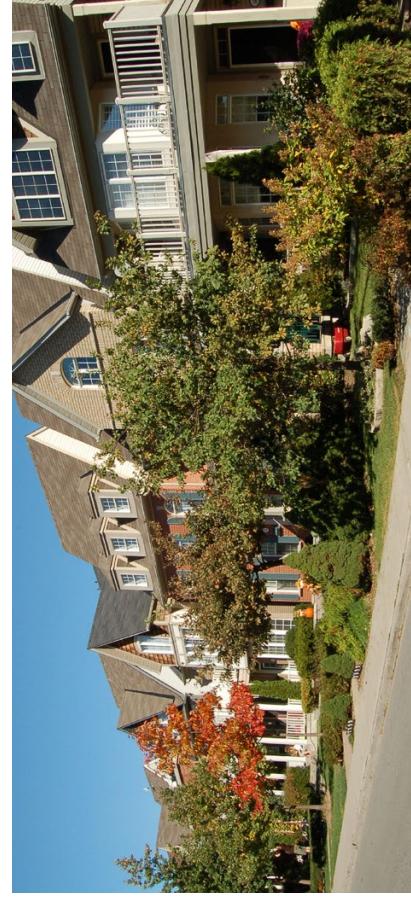
Window streets dwellings give a first impression of a community.

4.5.3 Collector Streetscapes

The collector street network comprises those streets most traveled by pedestrians, cyclists, transit users and motorists. Built form located along these streets should be designed to be compatible with built form at gateway locations.

Special considerations for collector streetscapes include:

- Orient the main elements of proposed built form to address the collector street, including main entry location, porch design, and placement of windows;
- Ensure that the main elements of corner lot buildings at intersections with local streets address the collector street; and
- Coordinate built form with landscape features along the streetscape to support a comfortable pedestrian environment, with casual surveillance, enhanced accessibility and intuitive wayfinding.



Example of laneway dwellings fronting onto the primary collector streets.

4.0 ARCHITECTURE & SITE PLANNING

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4.5.4 Corner Lots

Corner lots are characterized by their exposure to two street frontages, which may present opportunities for a variety of main entry and garage access configurations.

Special considerations for corner lot buildings include:

- Locate the main entry on the flankage side to allow for the allocation of habitable space fronting onto the street; where this is not feasible, the main entry may be oriented to the front lot line, provided the flankage wall composition incorporates an appropriate amount of design attention and architectural features such as bay windows, secondary entrances, etc.;
- Provide increased fenestration along elevations facing the public realm for 'eyes on the street' (CPTED);
- Break up the roofline by incorporating wall plane changes or projecting bays along with gable features;
- Locate the driveway and garage on the front elevation at the interior property line, as far from the intersection as possible; and
- Recess the garage from the front of the building, away from the main entry and intersection.

4.5.5 T-Intersection Lots

T-intersection lots are located at the end of a view corridor, and are framed by two corner lots flanking the terminated street. These dwellings are viewed more frequently and for prolonged periods while traveling through community streets.

Special considerations for lots at the terminal views include:

- Select models that present visual interest with architectural treatment and de-emphasize the presence of the garage and driveway locations, favouring a larger area for landscaped treatment in the front yard;
- Present a sense of character that reflects the overall vision and characteristics of the Robinson Glen Community;
- Plant coniferous landscaping to screen headlights, where possible; and
- Locate garages and driveways to the periphery of the axial view for a larger landscaped area.



Locate garages and driveways away from the view terminus.



Architectural features are used to address both street frontages at corner lot locations.

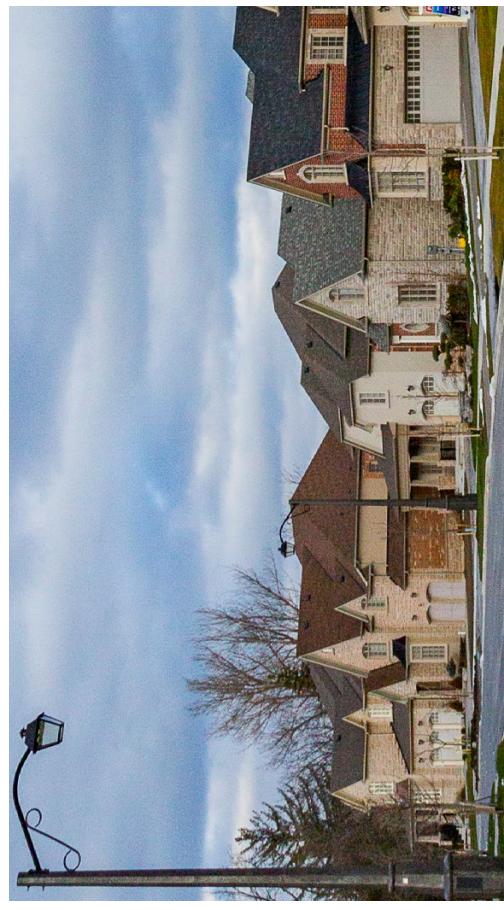


4.5.6 Elbow Streets & Cul-de-sacs

On curved, elbowed and cul-de-sac streets, special attention should be given to those dwellings where the bend of the street can partially expose the interior side elevation, as they are viewed from along the length of the street. Cul-de-sacs should be avoided, where possible.

Special considerations for elbow and cul-de-sac buildings include:

- Extend detailing treatments to the publicly exposed interior side elevation, such as frieze board, material transitions, and possibly, additional fenestration, in accordance with building siting;
- Coordinate the location of driveways and garages to minimize their impact on the streetscape, by locating them away from the axis with a view terminus;
- Minimize the presence of driveways by encouraging low planting material that complements the building design and siting, and is within the centre of most viewpoints; and
- Where possible, incorporate front porches that are integrated with the garage.



Elbow street dwellings should have consistent detailing on all exposed elevations.

4.5.7 Buildings Abutting Open Space & Parks

Any buildings abutting open spaces and parks should make full use of the opportunities presented by these special locations and reinforce their significance.

Special considerations for buildings abutting open space and parks include:

- Achieve a balance between diversity of the streetscape and continuity of architectural massing; and
- Provide a built form that responds to the urban nature of urban plazas and other community focal points where such features are provided, within the Mixed Use Regional Corridor.



Houses overlooking the parks provide casual surveillance and enclosure.

4.0 ARCHITECTURE & SITE PLANNING

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4.5.8 Buildings Abutting Cultural Heritage Resources

Buildings abutting cultural heritage resources will be designed to complement and enhance the retained resources through special design considerations.

Special considerations for abutting heritage resources:

- Provide a built form that is complementary in scale to adjacent cultural heritage resources;
- Consider materials that are sympathetic to adjacent cultural heritage resources;
- Ensure setbacks are complementary to adjacent cultural heritage resources;
- Provide building massing that is appropriate within its context and does not negatively impact adjacent cultural heritage resources;
- Where appropriate, incorporate design features that complement the architectural style and character of adjacent cultural heritage features; and
- Ensure new buildings have a consistent approach to design detail in all building elements.



Josephus Reesor Tenant house (7 Bevwell Drive) shown integrated into the planned lotting fabric.

4.6 Commercial & Retail Buildings

The Mixed Use Regional and Mixed Use Neighbourhood Corridors will concentrate commercial, retail and office uses in key locations (where feasible), with the northeast corner of the Major Mackenzie Drive and Kennedy Road intersection designated as an area of retail focus.

Site planning for sites with significant commercial and mixed use is encouraged to promote opportunities for walkability and social gathering, and to identify the potential for integration of cultural heritage resources and low impact development techniques. Guidelines for commercial and retail buildings, relating to building massing, rooflines, elevations, entrances, circulation, access, parking and lighting are provided in Section 4.0 of the FUA UDGs.



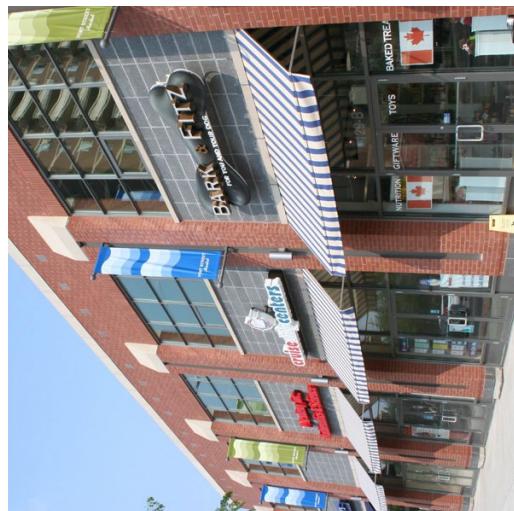
Enhanced landscaping and urban design can contribute to a pedestrian-oriented environment.

Additional guidelines include:

- Provide pedestrian friendly elevations with appropriate setbacks and human scaled articulation, detailing, and fenestration;
- Incorporate architectural elements, such as visual markers or muted reflections, into the design of the façades for bird-friendly elevations;
- Provide fully accessible public entrances that do not take their access from steps or other condition which would create a barrier to accessibility;
- Pave all parking areas in a hard surface material that is able to accommodate snow removal and storage;
- Design and site lighting for buildings and parking to minimize light spill and distribution onto adjacent residential properties and natural areas (incorporate dark sky compliant lighting);
- Provide commercial signage that is internally illuminated using accent lighting complementary to the building façade, or floodlit; backlit signage is not permitted;
- Provide signage that is aesthetically pleasing and unobtrusive to residential neighbours;
- Ensure signage is compatible in scale and design with the design, colour and material of the building and is designed as an integral element of the building's façade;
- Locate and design both ground-related and wall-mounted signage at a pedestrian scale, in terms of location, legibility and orientation;
- Integrate ground-related signage into the site plan, landscaping and contribute to the overall wayfinding strategy of the site; and
- Provide ground-related commercial signage at key vehicular access points to direct vehicular traffic into the site.



Canopies provide shelter for pedestrians.



The design of the commercial lighting and signage can complement the character of the streetscape.

4.0 ARCHITECTURE & SITE PLANNING

4.7 Elementary & Secondary Schools

Two elementary schools and one secondary school are proposed as part of the Robinson Glen Community:

- The secondary school is proposed to be located along the northern edge of the southernmost east-west collector, the southern edge of the central east-west collector and the western edge of the north-south collector street. Located within the interior of the community, the school will be adjacent to the Mixed Use Neighbourhood Corridor along Kennedy Road and directly north of the Mixed Use Regional Corridor along Major Mackenzie Drive;
- One elementary school is proposed in the northern portion of the Community at the intersection of the major collector street and the north-south minor collector street; and
- One elementary school is proposed to be developed in the south-eastern portion of the community, north of the southernmost east-west collector street and the Mixed Use Regional Corridor.

Guided by principles of efficient land use planning, the elementary schools will be campusied with neighbourhood parks and the secondary school will be co-located with the community park, acting as community focal points along collector streets. The design and site planning of the schools should reflect the principles and guidelines outlined in the FUA parent documents. More information on these focal points is provided in Section 5.3.3 of this CDP (page 86).

Special considerations for schools include:

- Maximize views to open spaces and parks, where applicable;
- Provide adequate room for snow storage;
- Screen all rooftop mechanical units from public view through strategic design of roofscapes;
- Provide weather protection for all public entries;
- Ensure that major entrances comply with accessibility standards;
- Allow for ease of movement through all major entrances and include an overflow and waiting space for pedestrians at all major entrances;
- Locate bus pick-up and drop-off areas on-lot and separate them from other traffic;
- Design queuing areas as to not impede the normal flow of traffic;
- Clearly identify major vehicular access points and routes using both ground oriented and upright hard and soft elements;
- Locate waste services a sufficient distance from residential lots to avoid creating a nuisance to neighbourhood residents; and
- Consider and implement sustainability measures in facility design.



Provide opportunity for meeting and gathering at institutional sites, as well as defined entrances and circulation infrastructure for all modal types.

4.8 Places of Worship

One location will be reserved for places of worship in the Robinson Glen Community with permissions for this use provided in other mixed use areas, in response to projected population numbers and various existing places of worship nearby to the subject lands (refer to Figure 1, page 6). The minimum two hectare place of worship site is located with exposure from Elgin Mills Road and access from a direct entrance into the proposed community. The site is also located near the Greenway System and could facilitate a connection to the wider trail network. The place of worship will provide a location of gathering and acts as a landmark, locating the Robinson Glen Community within the larger City context.

Considerations for places of worship include:

- Where possible, locate the place of worship within the Mixed Use Neighbourhood Corridor or within proximity to key cultural heritage resources, allowing for a high degree of visibility and to visually anchor these community assets;
- Provide the opportunity for shared parking with adjacent uses, such as mixed use areas or schools, as to optimize land use and reduce the presence of parking within the community;
- Ensure an appropriate interface between places of worship and adjacent land uses, through built form and landscape design; and
- Consider and implement sustainability measures in facility design.



Figure 18: Conceptual Illustration of a Proposed Place of Worship Site



Images of nearby places of worship including the Al Hussain Foundation Centre and the Melville Mission Church.



5.0

PUBLIC REALM & STREETSCAPE DESIGN



5.0 PUBLIC REALM & STREETSCAPE DESIGN

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5.1 General Guidelines

The public realm and streetscapes of the Robinson Glen Community will communicate a pedestrian-oriented environment, with coordinated built form, landscape features, infrastructure, street furniture and utilities.

The following section provides public realm guidelines for common features throughout the community. Guidelines will be provided later in this section (Section 5.2) for specific streetscapes including:

- Mixed Use Regional Corridor;
- Mixed Use Neighbourhood Corridors;
- Collector Streetscapes; and
- Local Streets.

Additional guidance will be provided for community features and landmarks in Section 5.3.

The overall design of streets within the Robinson Glen Community will reinforce its primary objective of promoting a high quality public realm, and will also support a sustainable, healthy, and walkable community. A well-defined hierarchy is established in Section 3.5 of the CDP. Each street type is encouraged to have its own character to intuitively reflect its role within the larger street network.

RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

ST4 Coordinated street furniture and landscaping for a pedestrian-oriented environment and high quality public realm.



RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 3 - Vision for New Communities, Table 1: PP2, PP3, PP10, PP13, PP14, PP15
- **FUA UDG** Section 3 - Public Realm Design, Section 4 - Private Realm Design, Appendix B - LID & Green Infrastructure
- **York Region NCG** Chapter 1 - Chapter 2 - Community Design, Chapter 3 - Sustainable Transportation, Chapter 7 - Water Management
- **City of Markham's Shared Places Our Spaces - Public Realm Strategy**
- **City of Markham's Streetscape Manual: Trees for Tomorrow**

5.1.1 Street Trees

Street trees enhance the aesthetic and pedestrian comfort of public environments, creating year-round interest, providing protection from the elements, and improving micro-climatic conditions. Street trees must be coordinated with utilities to ensure their long-term and sustainable growth. The location and frequency of street trees is dependent on street hierarchy, and will contribute to reinforcing the role of each street type within the circulation network. Sustainability objectives should be considered when determining the placement of trees to ensure that an appropriate balance between solar gain, and building heating and cooling is achieved.

Special considerations for the selection and allocation of street trees:

- Plant trees that are hardy, salt-tolerant, high branching, and of deciduous varieties that can tolerate street environments;
- Preference should be given to native species;
- Invasive species must not be planted; and
- Plant a variety of species and avoid monocultures.

Common deciduous varieties recommended for include:

- Acer (Maple)
- Celtis occidentalis (Common Hackberry)
- Ginkgo biloba (Maidenhair Tree)
- Gleditsia triacanthos (Honey Locust)
- Quercus (Oak)
- Tilia (Linden)
- Ornamental deciduous

Ornamental deciduous trees and trees with seasonal interest will be used to highlight street intersections and may include the following:

- Pyrus calleryana (Ornamental Pear)
- Acer rubrum (Red Maple)
- Quercus macrocarpa (Bur Oak)
- Quercus rubra (Red Oak)



Acer platanoides (Norway Maple)



Ginkgo Biloba (Maidenhair Tree)



Ginkgo Biloba (Maidenhair Tree)



Celtis occidentalis (Common Hackberry)



Acer rubrum (Red Maple)



Prunus virginiana 'Schubert' (Chokeberry)



Acer rubrum (Red Maple)



Gymnocladus dioicus (Kentucky Coffee Tree)



Quercus Rubra (Red Oak)

5.0 PUBLIC REALM & STREETSCAPE DESIGN

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5.1.2 Street Lighting

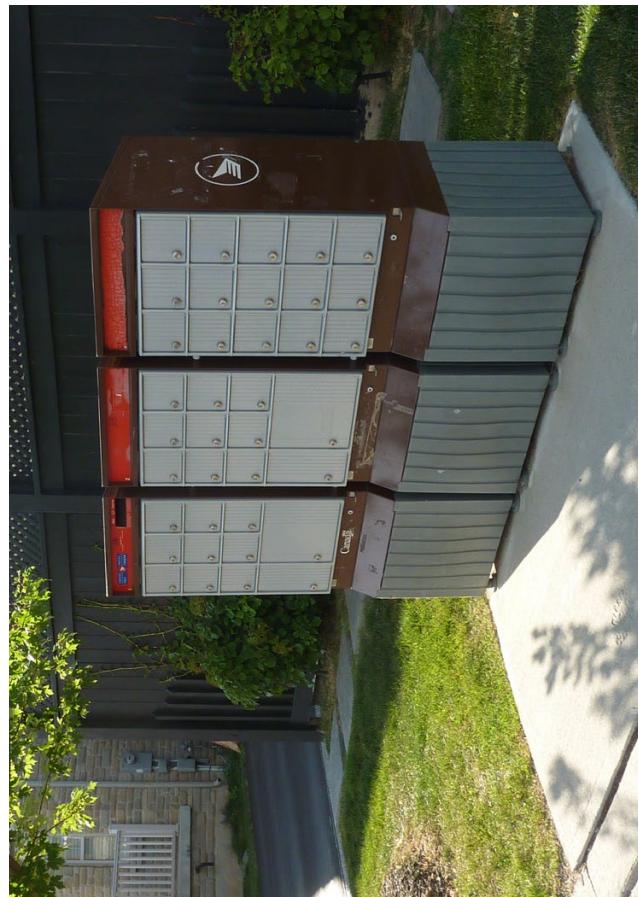
Considerations for street lighting relate to pedestrian safety, maintenance, energy efficiency and visual appearance. Street lighting should be consistent with City of Markham and Power Stream Standards, although these should be reviewed to determine whether opportunities exist to reduce nighttime light levels and energy consumption. Additional design criteria includes:

- Ensure that all lighting is "Dark Sky" compliant and is necessary;
- Enhance night visibility and safety by ensuring that placement of street lighting is consistent with the CPTED principles of surveillance and access control, without providing excess lighting;
- Ensure that street lights are pedestrian-scaled, and are coordinated with and placed in line with street trees; and
- Where relevant, install laneway lighting that is consistent with street lighting.

5.1.4 Transit Stops

The FUA is proposed to be serviced by regional transit and rapid transit networks, primarily along the bordering arterial roads. Additional transit routes along collector streets are dependent on future transportation studies. The location of bus stops along these routes should be determined through coordination with VIVA, York Region and the City of Markham. The following guidelines apply to transit stops:

- Ensure safe crossings at transit stops; and
- Provide night lighting to enhance safety and visibility at transit stops, using pedestrian-scale street lighting.



5.1.3 Community Mailboxes

The location of community mailboxes will be determined through coordination between Canada Post and the City of Markham, and should consider the following design criteria:

- Locate community mailboxes in convenient locations, along the sidewalk edge of streets;
- Incorporate curb side or lay-by parking, where possible;
- Ensure appropriate levels of lighting to maximize accessibility, safety, and usage; and
- Coordinate mailbox design both visually and physically with streetscape and open space design.

Mailboxes are located in a central and safe location.

5.1.5 Street Furniture & Utilities

Street furniture should be visually attractive and coordinated within the streetscape, placed within strategic locations that support pedestrian activity, bicycle use, and transit. Where possible, seating should be integrated at 200-250 metre intervals to allow for resting stops for senior populations and people of all abilities. Street furniture should be provided in strategic locations, and coordinated in amenity areas with shading, protection from the elements, and significant view corridors.

Street furniture include the following:

- Benches
- Bicycle Racks
- Community Mailboxes
- Signage
- Lighting poles and fixtures
- Waste and Recycling Receptacles
- Newspaper boxes
- Utility boxes

Utilities should be located away from visible locations within the streetscape, as discussed in Section 3.5.9 of this CDP (page 46). The placement of utility boxes should be coordinated in the early stages of development to avoid complications or conflicts. The City of Markham, the utility companies, and land owners should be involved in this process.



Street furniture can enhance the public realm, facilitate wayfinding, and contribute to a community's identity and character.

5.0 PUBLIC REALM & STREETSCAPE DESIGN

NOVEMBER 2018

5.2 Key Streetscapes

The following streets require special streetscape considerations:

- Mixed Use Regional Corridor
- Mixed Use Neighbourhood Corridors
- Collector Streetscapes
- Locals Streets

5.2.1 Mixed Use Regional Corridor

- The Mixed Use Regional Corridor of Major Mackenzie Drive is intended to have the highest densities and a concentration of commercial/retail uses. This corridor will be designed to support vehicular, pedestrian and cyclist activity, while providing spaces that foster social gathering.

To achieve an active public realm that creates a sense of place and helps to define the community's character, the Mixed Use Regional Corridor will have regard for the following:

- Provide an enhanced built form and streetscape, with consideration given to the planned transit infrastructure on Major Mackenzie Drive;
- Consider larger building setbacks to support the development of outdoor amenity spaces and an enhanced pedestrian realm;
- Provide street furniture that supports the regional transit corridor and active transportation, such as benches and bicycle parking; and
- Encourage frequent street trees and landscaping to promote a greener face to the community.



RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

- BE1** **BE2** **BE3** Streetscapes that respond to their immediate context, support all modal types and foster pedestrian activity.
- ST1** **ST2** **ST3** **ST4** Streetscapes that promote walkability and connectivity.
- NE2** **NE3** **NE5** Green streetscapes that contribute to the urban tree canopy and provide direct access to open space.
- GB10** **GB11** **R2** Streetscape design contributes to stormwater management, as well as reduction of the urban heat island effect and extreme heat.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6 - Community Structure Plan, Table 1: PP2, PP3, PP13, PP14, PP15, Appendix A - Complete Streets
- **FUA UDG** Section 2 - Character Areas, Section 3 - Public Realm Design, Section 4 - Private Realm Design, Appendix B - LID & Green Infrastructure
- **York Region NCG** Chapter 2 - Community Design, Chapter 3 - Sustainable Transportation

The southern flank of the Major Mackenzie Drive Mixed Use Regional Corridor is characterized by an existing low-rise residential community. Transitions to the community are essential to ensure that the proposed built form does not overwhelm the existing conditions to the south, and protects privacy and views, where relevant. Therefore, the maximum 15 storey height permissions in place to support the proposed transit facilities along the corridor should be thoughtfully integrated at strategic locations to ensure sensitive integration:

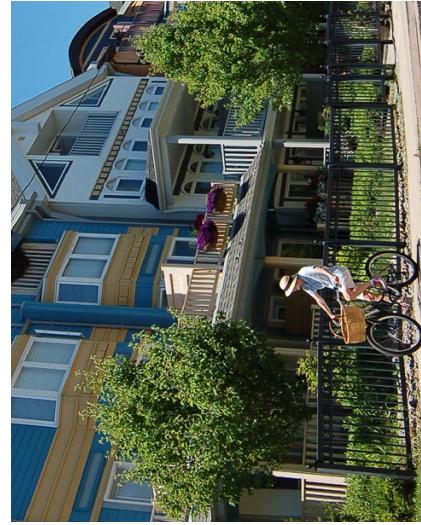
- Ensure buildings are sited on adequate block depths to preserve a balanced street proportion and promote an appropriate relationship with adjacent low-rise built form;
- Site transitional mid-rise buildings with low-rise podiums to gradually integrate high- and medium-density buildings with adjacent existing and proposed low-rise built form;
- Set back tall buildings from the street edge, using podiums and setbacks to achieve a 45° angular plane in accordance with the guidelines in the Markham Built Form Height and Massing Study, and to ensure views and sunlight penetration to surrounding residential uses, public and private open spaces and community amenities; and
- Mitigate shadowing impacts of all mid-rise and tall buildings through the design of appropriately sized floorplates and by providing ample space between towers.

- Guidelines that apply to Mixed Use Neighbourhood Corridors include:
- Provide a high quality public realm through the provision of street trees, seating, shading, and other street furniture, as necessary to support pedestrian activity;
 - Provide lay-by parking to avoid a larger surface parking areas and to calm traffic along this edge; and
 - Integrate landmark structures at prominent intersections.

5.2.3 Collector Streetscapes

Collector streets connect the bordering arterial roads to the finer grain network of local streets. A range of neighbourhood amenities will be located along collector streets, including parks, commerce and schools. Collector streets will support safety and comfort for all modal users through special streetscape design considerations, including:

- Provide multi-use pathways in accordance with the guidance provided in Section 3.4 of this CDP;
- Plant street trees to be uniform on both sides of the street;



Mixed Use Neighbourhood Corridors will promote walkability and accessibility for all modal types.

5.2.2 Mixed Use Neighbourhood Corridors

The Mixed Use Neighbourhood Corridors are proposed along Kennedy Road, Elgin Mills Road, and the northernmost east-west collector street. In contrast to the Mixed Use Regional Corridor, these streets are intended to host medium densities and will function as mixed use 'main streets' or 'urban villages' for the residential areas. The highest densities of buildings will be located at neighbourhood service nodes, providing a concentration of uses at key intersections (at the intersection of Kennedy Road and Elgin Mills Road, and at the intersection of the northernmost east-west collector street with Kennedy Road).

5.0 PUBLIC REALM & STREETSCAPE DESIGN

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5.3 Community Features & Landmarks

- Coordinate the location of future transit stops along the collector streetscape, and provide adequate seating, waste and recycling receptacles, and shelter, as necessary;
- Consider the application of special paving treatments (colour, texture, etc.) at key locations, such as roundabout locations, transit stops, and adjacent to the school, parks, or mixed use block;
- Incorporate fencing and private lot landscaping adjacent to collector streets that is consistent in design and coordinated with the overall theme of these areas; and
- Provide mid-block pathways connecting residential areas to collector streets, where necessary.

5.2.4 Local Streets

Local streets have a predominantly residential character. The following design criteria should be considered:

- Provide accessible and connected sidewalks;
- Plant street trees on both sides of the street to create a continuous canopy; and
- Provide one street tree per dwelling for each at-grade lot, where space permits, and a minimum of two street trees per residence on flankage lots where feasible and where they do not impact on visibility.



Collector and Local Streets will be designed to ensure pedestrian safety and comfort.

RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

- BE2
- BE4
- BE9
- ST5

Distinct community features with a high quality built form and public realm, contributing to a sense of place. Public realm defined by the community's unique topography, natural features and cultural heritage resources.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6 - Community Structure Plan, Table 1: PP5, PP10, Appendix A - Complete Streets, Figure 12
- **FUA UDG** Section 2 - Character Areas, Section 3 - Public Realm Design
- **York Region NCG** Chapter 2 - Community Design, Chapter 4 - Open Space Natural Heritage
- **City of Markham's Shared Places Our Spaces - Public Realm Strategy**
- **City of Markham's Public Art Policy**
- **Markham Built Form Height & Massing Study** Transitions

5.3.2 Neighbourhood Service Nodes

The Robinson Glen Community proposes two neighbourhood service nodes along Kennedy Road, one at the intersection with Elgin Mills Road and a second at the intersection with the major collector street (refer to Figure 20, below). The locations of these nodes are also identified in Figure 12 - Community Structure Plan of the CMP (2017) (shown in Figure 3 of this CDP). The neighbourhood service nodes are located along the Mixed Use Neighbourhood Corridor and will provide higher density housing and neighbourhood-scale retail uses and services, where feasible.

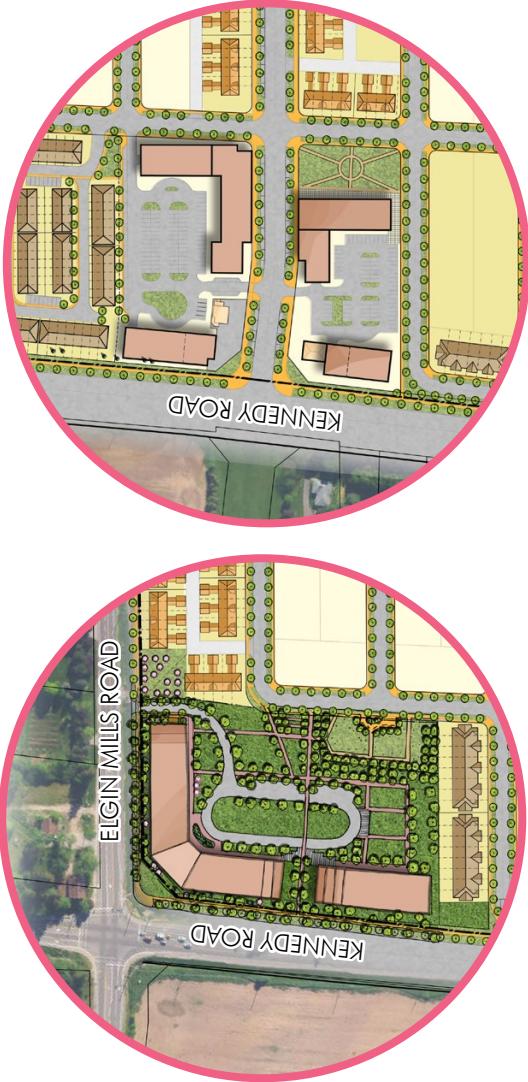
Further detail regarding the neighbourhood service nodes will be provided as a part of site plan applications.

General guidelines at these locations include:

- Distribute building heights in a manner that accentuates the key intersection and provide appropriate transitions to the surrounding low-rise residential neighbourhoods;
- Orient buildings to address key intersections and provide direct connections from building entrances to the surrounding active transportation network;
- Provide active frontages at grade with neighbourhood-scale retail, where feasible, to animate the public realm and integrate weather protection elements at retail store entrances;
- Coordinate bicycle facilities, enhanced paving treatments, and architectural or natural shading techniques in key areas, inclusive of major building entrances and transit stops; and
- Locate parking away from view, internal to the block, and utilize architectural and/or landscape screening measures where applicable.



Figure 20: Conceptual illustrations of the Neighbourhood Service Nodes



A Mid-rise buildings with greater massing at a Neighbourhood Service Node

B Example of a Neighbourhood Service Node with diverse built form and a public parkette

5.0 PUBLIC REALM & STREETSCAPE DESIGN

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5.3.3 Community Focal Points

Community focal points will be strategically located in neighbourhoods, to provide access to spaces for social gathering and interaction, and to assist with wayfinding. Community focal points will be linked through a network of streets and pathways and may include schools, parks, parkettes, and cultural heritage features. By concentrating community destinations, for example with the co-location of schools and parks, these focal points contribute to the character and identity of the community and provide opportunities for placemaking and the integration of public art. More detail on these areas is provided in Section 5.3.5 of the CDP.

5.3.4 Integration of Cultural Heritage Resources

As discussed in Section 1.2.3 and illustrated in Figure 2 (page 8) of this document, there are eight identified cultural heritage resources on the subject lands. The retention and sensitive integration of cultural heritage resources contribute to a sense of place and identity, while providing unique opportunities for placemaking that pay homage to the cultural heritage of Markham. Policy 4.5.3.12 of the City of Markham Official Plan prioritizes the retention of cultural heritage resources in situ, with the original use.

In order to sensitively integrate the existing cultural heritage resources and to mitigate any negative impacts associated with new development, the guidelines on the following pages should be considered. Cultural heritage resources often experience challenges relating to insulation, building heating and cooling, and energy consumption related to proposed preservation measures. Potential preservation and design solutions should consider the sustainability objectives of the FUA (identified in Section 2.0).



Integration of heritage properties within the lot fabric of Victoria Square, Markham.

Lot Fabric & Siting

- Lot layout, grading, road networks, and required infrastructure should have regard for existing cultural heritage resources, as to ensure a compatible context and interface for cultural heritage resources;
- Incorporate cultural heritage resources on lots that are of a sufficient size and shape to accommodate the anticipated use of the property, existing structures of significance, potential future additions, a garage or parking lot (if commercial), tree preservation, landscaping, and/or the provision of rear yard amenity space;
- Site heritage structures on prominent lots with a high degree of public visibility such as corner lots, focal lots, or lots adjacent to parks or open spaces to display and celebrate the resource; and
- Integrate cultural heritage resources into the street and block pattern to respect and retain the historic relationship between the front entrance and the street.

Tree Preservation and Landscape works

- Preserve and integrate significant vegetation, mature trees, and hedges in landscaping works for heritage properties, where feasible;
- Design hard surface treatments for driveways, front walkways, and patios with authentic materials such as flagstone, pea gravel, or random tumbled paving;
- Design fencing styles to be appropriate to the period of the house. High decorative fencing and noise attenuation fencing should be avoided in both front and side yards; and
- Incorporate plant species for reclaimed heritage landscapes that are appropriate to the period of the house. Refer to the heritage species list in the City's Trees for Tomorrow Streetscape Manual (2009).

Adjacent Development

All new development adjacent to or incorporating a cultural heritage resource should, from an urban design perspective, be respectful of the resource having regard for scale, massing, shadows, setbacks, complementary building materials, and design features. Refer to Section 4.5.8 (page 72) of this document for more detailed guidelines for lots abutting cultural heritage resources.



The John Reesor House is an example of sensitive integration of a cultural heritage resource with adjacent development.



Integration of the William Forester House in Cornell, Markham, which represents an example of honouring the early landowner's legacy through the naming of the municipal street.

5.0 PUBLIC REALM & STREETSCAPE DESIGN

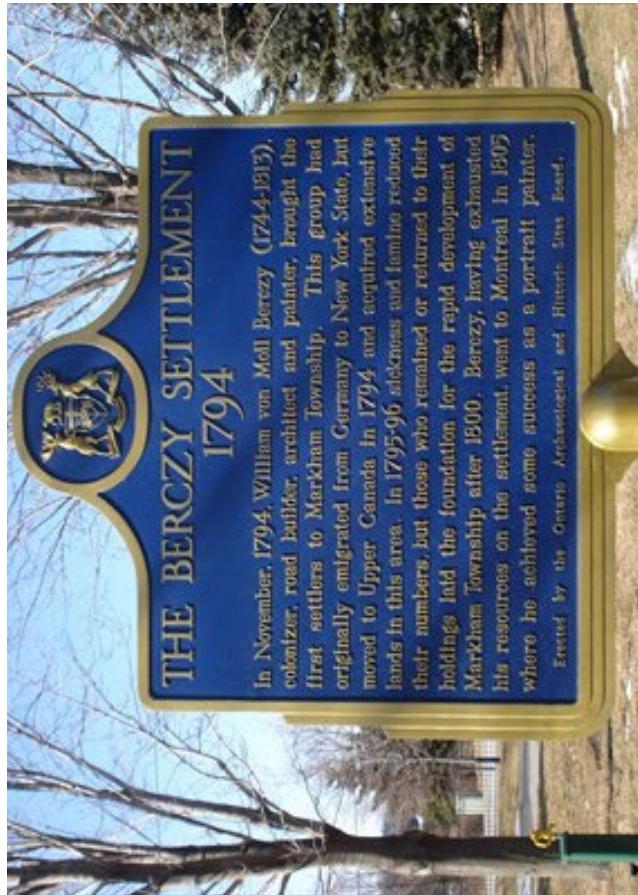
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Interpretive Opportunities

- Where possible, celebrate existing cultural heritage resources through the installation of an interpretive plaque in a publicly visible location on the property (i.e. the Markham Remembered Program);
- Where applicable, commemorate any cultural heritage resource which may be lost as part of redevelopment activity through the introduction of one or more special development features such as retention of a specific feature from the former resource, a decorative wall or monument, or installation of an interpretive plaque;
- Where applicable, integrate remnant materials (i.e. salvaged fieldstone, barn materials, and other features as appropriate) into various park components such as signage, seatwalls, and shade structures, to commemorate the area's former agricultural heritage; and
- Where possible, honour the legacy of original or early landowners by utilizing their names for municipal street, trails, and park names.

Showcase Adaptive Re-use and Innovation

- Where the original use is no longer practical, adapt the cultural heritage resources to new uses to maximize use of the embodied energy and showcase innovation; and
- While cultural heritage resources can be challenging structures to retrofit, due to their prominence within the community, these properties can be excellent platforms to showcase innovative, low carbon design solutions to the public such as, but not limited to, rainwater harvesting, permeable surfaces, landscaping for shade, and urban agriculture. Other low carbon features such as green roofs or solar panels are appropriate for new additions and accessory structures on sites.



Example of an interpretive plaque in Markham.



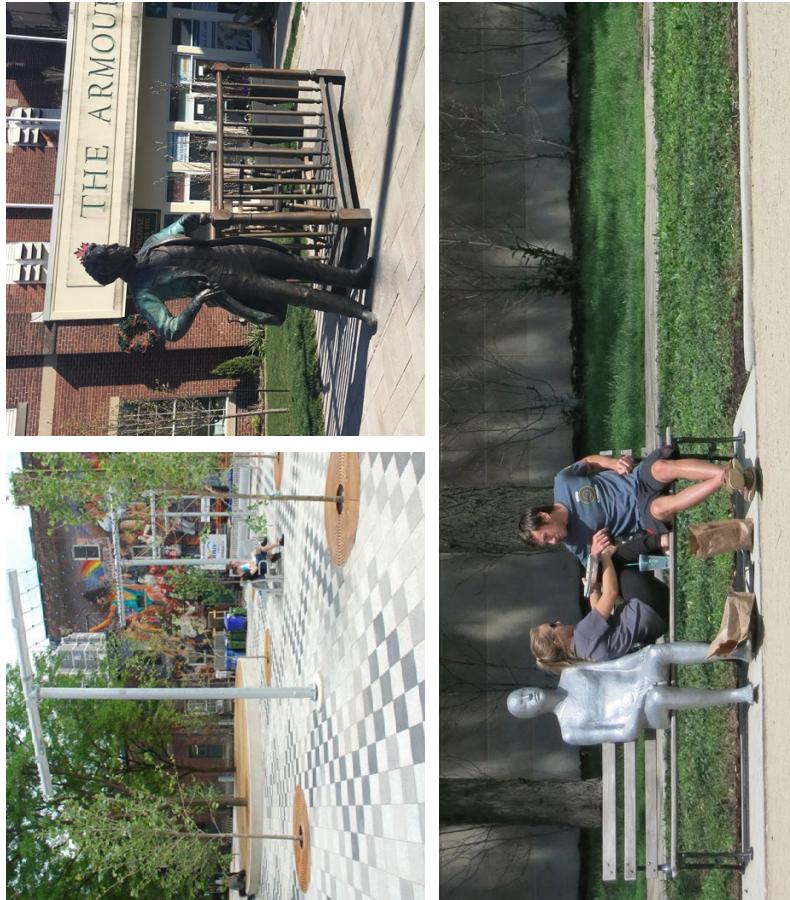
Image source: markhammilliken.blogspot.com

The Major Milliken Pub: an example of adaptive re-use of a heritage property in Markham.

5.3.5 Public Art

Public art is a key component to public expression and establishing a community's unique identity. Public art pieces act as landmarks throughout the community and help to beautify the public realm, increasing civic pride and promoting inclusiveness. They reinforce a sense of place, and are recognized in the City of Markham as key indicators of vibrant cities competing to attract new businesses, families and tourism.

In line with the policies provided in the Markham Official Plan, Section 6.1.7 *Public Art*, public art will be introduced in the Robinson Glen Community in highly visible, publicly accessible areas to promote a sense of place and contribute to cultural vibrancy. Potential priority locations for public art include gateways, trail heads, the urban plaza, and other such locations which experience high foot traffic. Opportunities to integrate public art in association with landmarks within the Robinson Glen Community may be considered. The final location and design of public art throughout the community should be established through collaboration between the public and private sector, artists and members of the community.



Examples of public art.

6.0

PARKS & OPEN SPACE SYSTEM



6.0 PARKS & OPEN SPACE SYSTEM

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The Robinson Glen Community will provide a network of open spaces in the form of a community park, three neighbourhood parks, three parkettes, an urban plaza, vista blocks, and stormwater management facilities. These features will be integrated into the community, and will provide opportunities for environmental protection, visual and physical access, and passive and active recreation. The community's active transportation network, including multi-use pathways and open space trails, will provide strong linkages between these open spaces and the surrounding area.

6.1 Open Space System

The open space and parks system will provide residents with a range of recreational opportunities, promoting a healthy, active lifestyle. The treatment of open spaces, stormwater management facilities, and parks throughout the community should be guided by the following:

- Provide safe and comfortable environments, accommodating both larger groups and individual use;
- Sensitively integrate parks and open spaces with their adjacent uses;
- Consider opportunities for public art in parks and along trails to enhance a sense of place and civic pride; and
- Preserve existing mature trees, where possible and where deemed to have environmental significance through more detailed study.



RELEVANT SUSTAINABILITY INITIATIVES (PER SECTION 2.0 OF THE CDP)

BE2 Strategically located parks, promoting use and integration within the community fabric.

ST2 **ST3** **ST4** Trails, pathways and access to open space coordinated with the broader transportation network.

NE1 **NE3** **NE4** Enhanced and protected Greenway, complemented by a high quality network of parks.

GB8 **GB9** **GB10** **R1** **E12** Green infrastructure and an innovative, integrated stormwater management system, promoting infiltration and enhanced stormwater quality.

GB11 **R2** Strategically planted trees and vegetation, promoting resilience and reducing the impacts of extreme heat.

RELEVANT POLICIES & GUIDELINES

- **FUA CMP** Section 6 - Community Structure Plan, Table 1: PP1, PP2, PP3, PP6, PP10, PP11, PP15
- **FUA UDG** Section 3 - Public Realm Design, Section 4.2 - Private Realm Design

York Region NCG Chapter 4 - Open Space Natural Heritage, Chapter 7 - Water Management

- **City of Markham's Pathways & Trails Master Plan**
- **City of Markham's Stormwater Management Guidelines**
- **City of Markham's Stormwater Management Pond & Planting Design Guidance**
- **City of Markham Official Plan** Section 4.3.2 - Parks and Open Space Classification

6.1.1 The Greenway System

The protection of the Greenway System requires sensitive integration and an effective management strategy. This is supported by the York Region Greening Strategy, which aims to create and maintain healthy and integral open space systems that support an active and healthy lifestyle for current and future generations.

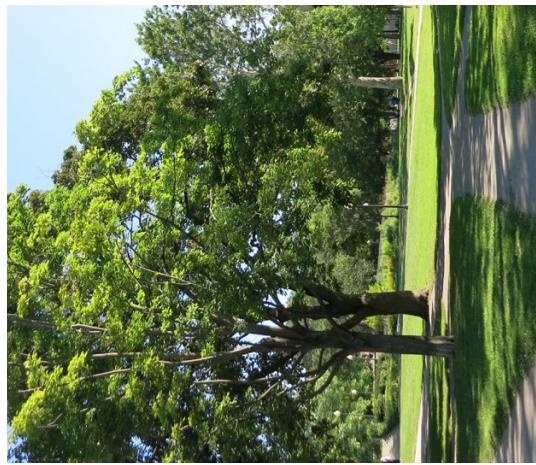
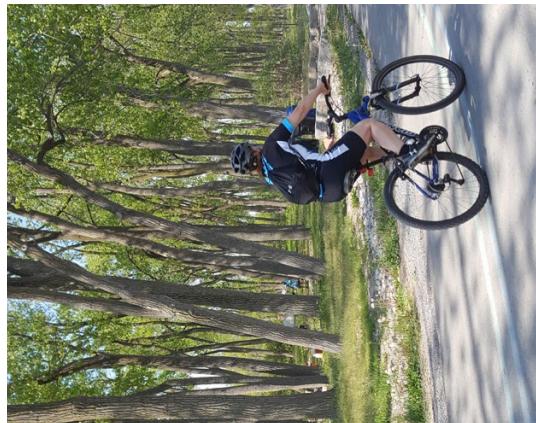
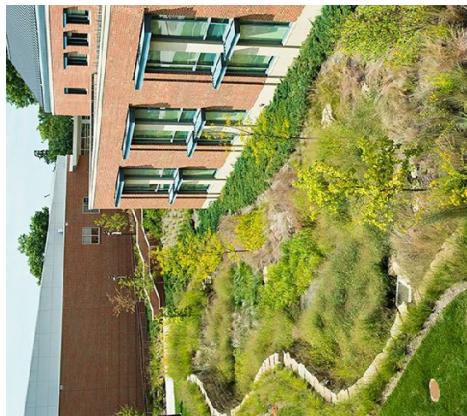
Special considerations for development adjacent to the Greenway System include:

- Consider incorporating interpretive signage in visually prominent areas along the Greenway System, especially at trail head locations;
- Reduce lighting within natural buffers along single-loaded streets and walkway blocks, while ensuring safety and visibility where trail access is provided, and
- Through draft plans, developers will work with the City to achieve a reasonable balance between public and private land uses abutting the Robinson Creek Greenway, recognizing the City's desire to achieve a significant degree of public ownership adjacent to the Greenway.

6.1.2 Stormwater Management

Integrated stormwater management facilities serve to protect the ecological and hydrological integrity of the neighbouring Robinson Creek. The stormwater management system for the Robinson Glen Community is composed of stormwater management ponds, underground stormwater management tanks and dual use parks that accommodate regional event storage, and is guided by the goals of the MESP. Special considerations that apply to the stormwater management facilities are outlined below:

- Provide buffer plantings to screen views of engineering structures (headwalls, spillways, etc.);
- Coordinate landscaping to protect the function and integrity of stormwater management facilities;
- Arrange tree and shrub plantings in significant groups to frame views of the pond from amenity areas; and
- Design and implement stormwater management facilities to support and enhance the larger open space network.



6.0 PARKS & OPEN SPACE SYSTEM

Stormwater Management Facilities within the Greenway

A linear system of stormwater management facilities is proposed within rural lands at the edge of the Greenway outside the Rouge Watershed Protection Area, Natural Heritage Network and associated vegetation protection zones. These facilities include naturalized dry ponds with undulating landforms above underground 100 year storage tanks, and a meandering Type II Secondary Town Wide Pathway to provide direct access to the Greenway. The area between the facilities and the natural features will be planted with trees, shrubs and grasses to foster new habitat opportunities. More detail regarding the configuration and function of these facilities is provided in the MESP.

Stormwater Management Facilities within Parks

Dual-Use Parks

Dual-use parks integrate innovative stormwater management techniques and represent an efficient use of land. Two neighbourhood parks are proposed as dual-use parks, allowing for regional storm event storage. These parks will be discussed in further detail in Section 6.2 (page 94).

Underground Tanks

The two proposed urban open spaces, located along Major Mackenzie Drive, will be designed with underground tanks to store stormwater infiltration. These urban open spaces will be discussed in further detail on page 95.

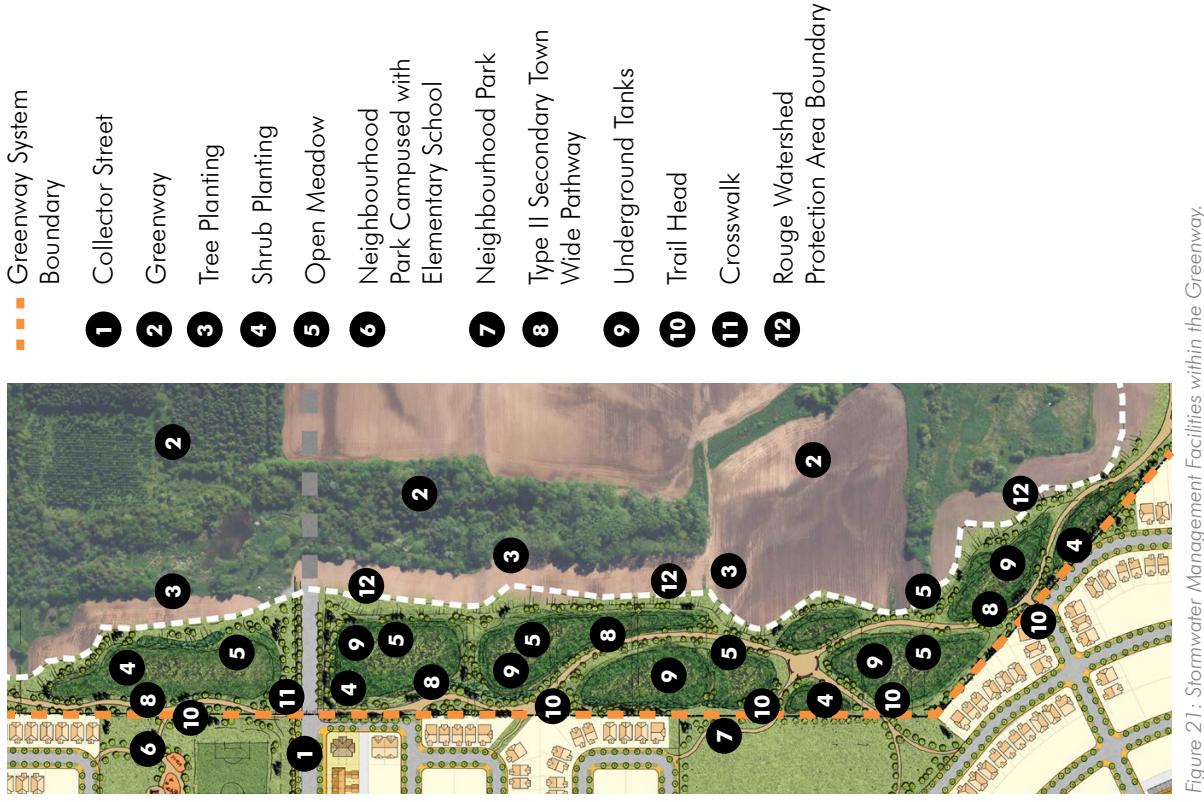


Figure 21: Stormwater Management Facilities within the Greenway.

Dual-Use Urban Open Spaces with Stormwater Management Facilities

Two urban open spaces are proposed along Major Mackenzie Drive and will be designed with underground storage tanks for stormwater collection and infiltration. The design of the above-ground elements of these urban open spaces, including the layout of recreational facilities and planting, will be coordinated with the location of the underground tanks as to not impede the functionality of the stormwater management system and to increase the longevity of recreational facilities and vegetation. These two areas will communicate an urban character to passersby along Major Mackenzie Drive, compatible with their Mixed Use Regional Corridor setting and complementing the mid- and high-rise form of the adjacent proposed buildings. Detailed information relating to their stormwater function is provided in the MESP.

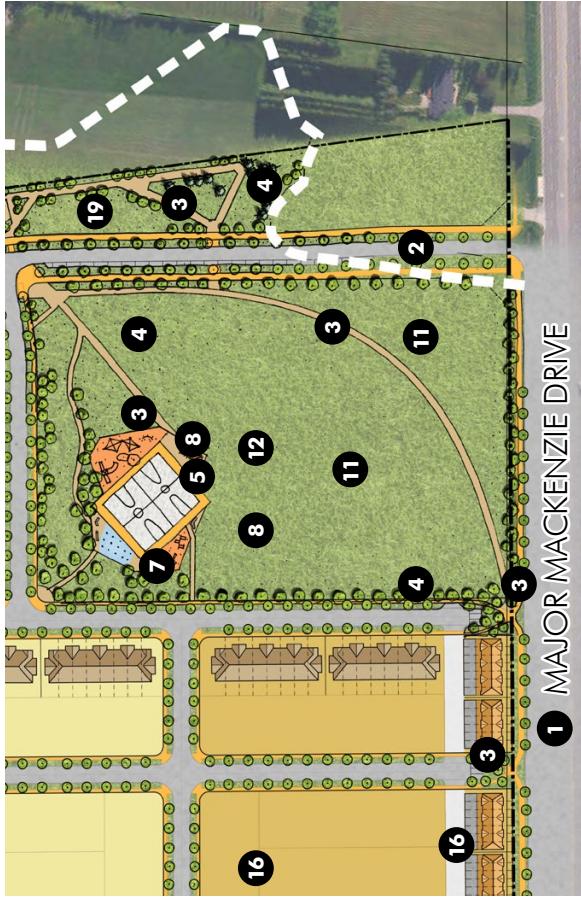


Figure 22: The Eastern Urban Open Space along Major Mackenzie Drive.

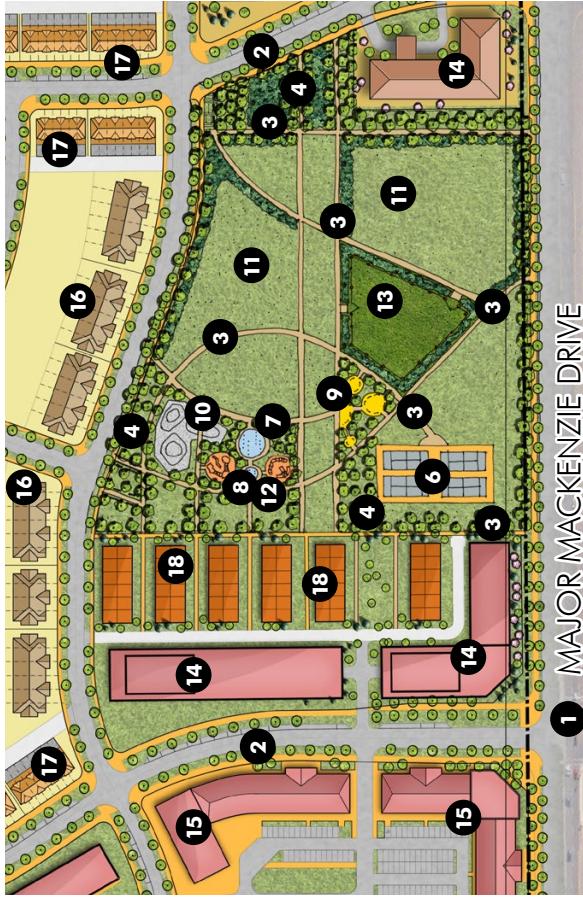


Figure 23: The Western Urban Open Space along Major Mackenzie Drive.

- 1** Arterial Road
- 2** Collector Street
- 3** Trails / Pathways
- 4** Vegetation / Treed Area
- 5** Basketball Courts
- 6** Tennis Courts
- 7** Splash Pad
- 8** Junior and Senior Playground
- 9** Fitness Pods
- 10** Skateboard Park
- 11** Open Lawn
- 12** Seating
- 13** Off-Leash Dog Park
- 14** Apartment Building
- 15** Mixed Use Building
- 16** Street Townhouse
- 17** Laneway Townhouse
- 18** Back to Back Townhouse
- 19** Parkette H

6.0 PARKS & OPEN SPACE SYSTEM

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6.2 Parks & Recreation

The Robinson Glen Community incorporates one community park and a number of neighbourhood parks, and presents opportunities for additional parkettes, urban plazas, and other open spaces. The final design of parks will be determined in coordination with City staff.

Special Considerations for Parks

Parks should have consideration for the following additional design criteria:

- Distribute parks to serve as functional and visual focal points for individual neighbourhoods;
- Design active parks to be consistent with the City of Markham's Integrated Leisure Plan;
- Provide play equipment for children (2-12 years of age) in parks that are over 0.50 hectares in size;
- In general, design parks to accommodate both the active and passive recreational needs of the neighbourhood, which may include: playgrounds, seating areas, covered shelters, unstructured landscape space, community fruit and vegetable gardens, active sport surfaces and walking paths;
- Parks may include commemorative initiatives that reinforce the cultural heritage legacy of Robinson Glen, such as naming community gardens after original land owners, interpretive signage and other such initiatives that provide a sense of ownership and participation within parks;

- Provide lay-by or curb side parking alongside parks, on the side of the street where the park is located; and
- Provide appropriate space dedicated to establishing an urban forest canopy and natural buffers to adjoining land uses.

The following pages provide a brief description and conceptual illustrations of the proposed parks within the Robinson Glen Community.



Figure 24: Public Parks in the Robinson Glen Community



PARKS & OPEN SPACE SYSTEM 6.0

Community Park A and Secondary School Co-Location

In order to ensure the residents of both the Robinson Glen Community and the surrounding Future Urban Area have sufficient access to community and recreational services and facilities, the Robinson Glen Community demonstration plan includes a co-located community park and secondary school. These lands not only perform the function of a neighbourhood focus area but are integral to the provision of community facilities and services. Co-location of the community park and the secondary school represents an efficient approach to land use planning and facility sharing, providing residents and students with access to diverse park programming.

The co-location concept is not new to the City of Markham and the School Boards, as many arrangements with the City already exist for shared use of fields, parks, gymnasiums, parking and meeting space. The grouping of these facilities strengthens the community presence in the delivery of a centralized community hub with programs and services that benefit residents. The City of Markham is committed to continued collaboration with the School Boards in accordance with the Markham Official Plan (Section 4.2.3).

The Robinson Glen co-location site is a focal point for the Robinson Glen Community, strategically located near the Mixed Use Regional Corridor (Major Mackenzie Drive) and the High Density Mixed Use node at the intersection of Major Mackenzie Drive and Kennedy Road. These adjacencies are characterized by the greatest densities and mix of amenities and services in the Robinson Glen Block, supporting proposed transit corridors. The proposed location of the co-located secondary school and community park would further enrich this area by centralizing community services and gathering spaces within walking distance of the greatest number of residents.

Active transportation infrastructure, including multi-purpose pathways on the three adjacent collector streets, also encourage students, teachers, school staff and users of the public community park, to choose a healthier form of travel

as an alternative to driving. Combined, enhanced access to transit and active transportation routes may contribute to a reduction in surface parking required to service the school and park (to be studied in greater detail in the draft plan of subdivision stage).

Considerations for a coordinated approach to developing the co-located community park and secondary school include:

- Exposure on collector streets and safe and accessible connections to the school site and building;
- Outdoor sports facilities and play areas that are located internal to the site or on a quieter adjacent street;
- Pathway and sidewalk linkages providing safe and direct access between the school bus and parent drop-off and pick-up areas to the outdoor sports facilities and play areas;
- Wider or additional pathways connecting the site to the surrounding local street network to accommodate larger foot traffic and provide multiple route options to the school or recreational facilities;
- Coordinate the location and configuration of pedestrian and bicycle crossing areas to ensure safety and minimize conflict with traffic; and
- Provide larger concrete pads at bus stops near secondary schools, enough to accommodate a bus shelter and significant numbers of students waiting for the bus after school, in order to minimize impact on the surrounding vegetation and infrastructure.

Detailed site planning will confirm the type of facilities and services included in the school and community park co-location site. The community park will offer opportunities for both passive and active recreation, with special consideration for park, landscaping and design elements which support this block as a secondary school site and a focal point and key gathering space in the Robinson Glen Community. Refer to Figure 25 on page 98 for a conceptual representation of the co-located community park and secondary school.

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- 1 Secondary School
- 2 Community Park
- 3 Shared Parking
- 4 Collector Street
- 5 Multi-Use Pathway

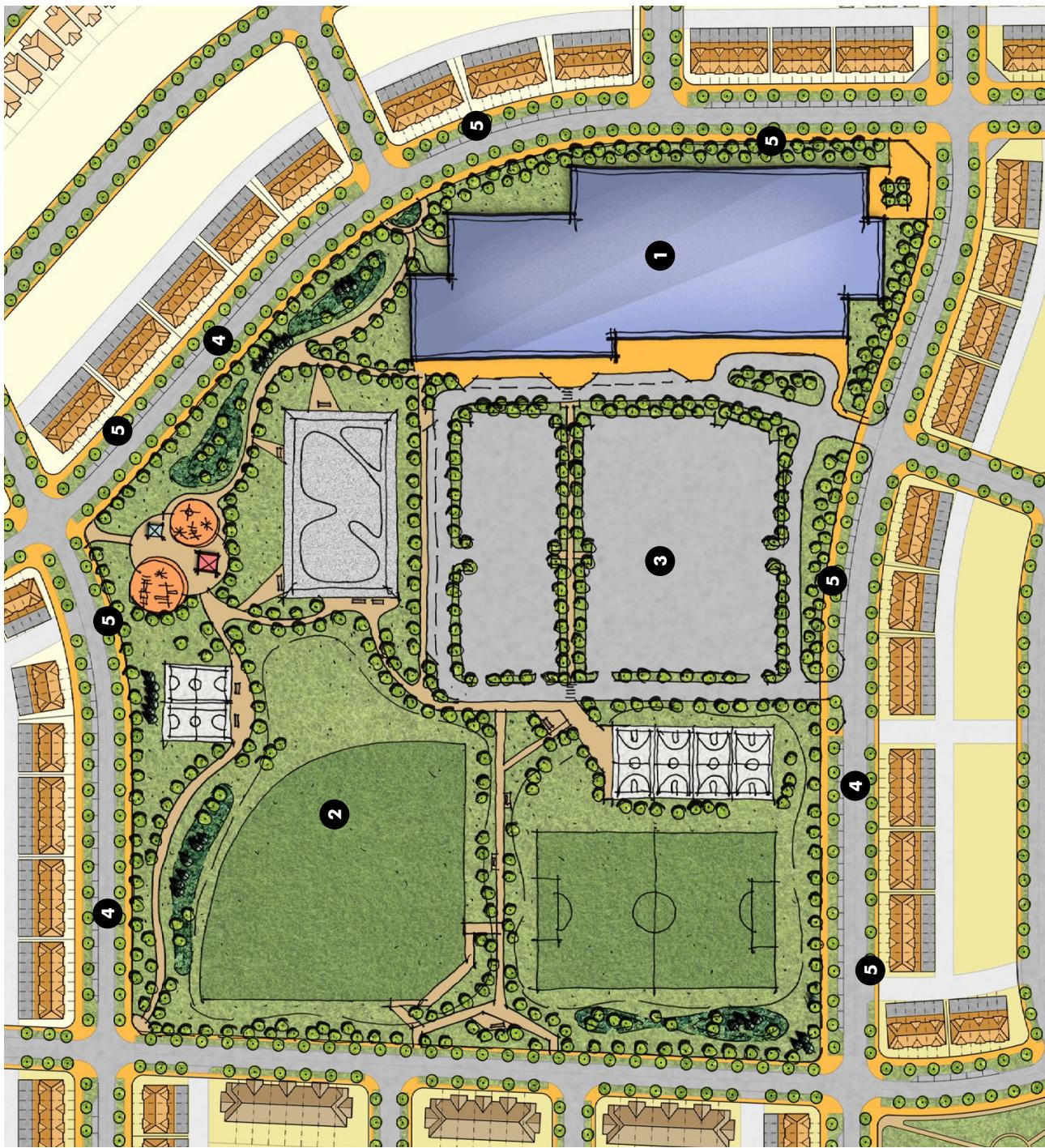


Figure 25: Proposed Community Park A Co-located with the Secondary School

Neighbourhood Parks B & C Campused with Elementary Schools

The Robinson Glen Community proposes two neighbourhood parks that are campused with the community's proposed elementary schools (refer to Figures 26 and 27). Situated to become focal points, these two neighbourhood parks will be developed along collector streets with visual and physical links to the Greenway System, and active and passive recreational opportunities. Neighbourhood park B will be designed as a dual-use park, with the capacity to accommodate dry pond storage for regional storm events.

- ① Collector Street
- ② Greenway
- ③ Stormwater Management Facilities
- ④ Pathways
- ⑤ Type II Secondary Town Wide Pathway
- ⑥ Multi-Use Pathway
- ⑦ Elementary School
- ⑧ Portable Classrooms
- ⑨ School Parking
- ⑩ Multi-Purpose Courts
- ⑪ Tennis Courts
- ⑫ Soccer Field
- ⑬ Junior and Senior Playground
- ⑭ Shade Structure
- ⑮ Trail Head
- ⑯ Rouge Watershed Protection Area Boundary
- ⑰ Lay-by Parking

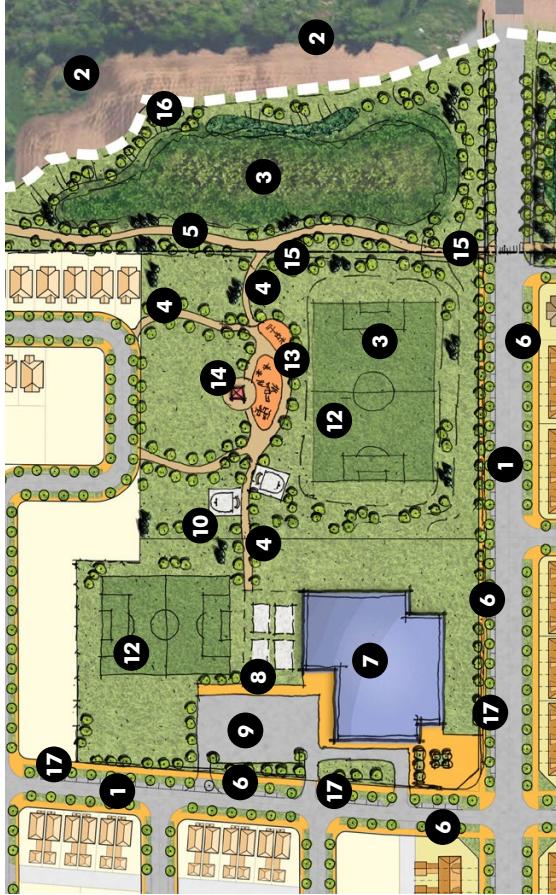


Figure 26: Neighbourhood Park B Campused with an Elementary School



Figure 27: Neighbourhood Park C Campused with an Elementary School

6.0 PARKS & OPEN SPACE SYSTEM

Regional Storm Facility Accommodating Neighbourhood Park D

The central neighbourhood park, located along the Greenway System edge, will be designed to serve a dual purpose with the capacity to accommodate regional storm event storage above ground. The park will have frontage on local roads, providing an intimate open space setting for residents with prominent vistas to natural features of the Greenway System and direct linkages to the trail network. This park is located at a terminus view of multiple local streets, which also establish strong multi-modal connections to the Greenway.

- 1 Neighbourhood Park
- 2 Stormwater Management Facilities
- 3 Open Field
- 4 Trail Head
- 5 Pathways
- 6 Trails
- 7 Seating / Lookout Area
- 8 Single Detached Dwelling
- 9 Local Street



Figure 28: Neighbourhood Park D Accommodating Regional Storm Event Storage (Above Ground)

Parkettes & Urban Plazas

Parkettes and urban plazas are proposed as part of the parks and open space system, providing opportunities for passive recreation and social interaction for nearby residents and for shoppers. The Robinson Glen Community provides various opportunities for the integration of public parkettes and urban plazas. Four such facilities have been considered through the demonstration plan presented in this CDP (page 34). All public parkettes are designed to deliver services to the adjacent low-rise neighbourhoods.

Public Parkette E

A parkette is proposed near to the neighbourhood service node at Elgin Mills Road and Kennedy Road. There is an opportunity to integrate cultural heritage components within this parkette, that will be determined at a later stage of development.

Public Parkette F

A second public parkette is contemplated near the intersection of Kennedy Road and the northernmost east-west collector street in the Robinson Glen Community. This parkette benefits from direct frontages to the west and proximity to low-rise neighbourhoods to the north, south and east.

Urban Plaza G

An urban plaza is contemplated within the High Density Mixed Use Block, with residential, retail and mixed uses within its direct vicinity. The urban plaza provides informal spaces for gathering and supports the mixed uses in its vicinity. It also provides a quieter alternative to the co-located community park and secondary school site, or the nearby urban open space. Coordination between the urban plaza and parks programming, such as a regular farmers market, offer an opportunity to emphasize the presence of community gardens.

Public Parkette H

An additional public parkette is contemplated near the intersection of eastern most north-south minor collector (Stonebridge Drive extension) with Major Mackenzie Drive at the eastern extents of the Robinson Glen Community. This parkette will facilitate access to City-wide pathways proposed within the Greenway system.



Figure 29: Public Parkette E

1 Public Parkette

2 Arterial Road

3 Mid-Rise Building

4 Townhouses

5 Pathways

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Figure 30: Public Parkette F

- ❶ Public Parkette
- ❷ Urban Plaza
- ❸ Arterial Road
- ❹ Collector Street with Multi-Use Pathway
- ❺ Mid-Rise Building
- ❻ Mixed Use Building
- ❼ Townhouses
- ❽ Co-located Community Park & Secondary School



Figure 31: The Urban Plaza G within the Mixed Use Block

- ❶ Public Parkette
- ❷ Urban Plaza
- ❸ Arterial Road
- ❹ Collector Street with Multi-Use Pathway
- ❺ Mid-Rise Building
- ❻ Mixed Use Building
- ❼ Townhouses
- ❽ Co-located Community Park & Secondary School
- ❾ Pathways
- ❿ Lay-by Parking
- ❾ Urban Open Space/SWM



Figure 32: Public Parkette H

6.3 Pedestrian & Cycling Connections

Pedestrian and cycling connections throughout the Robinson Glen Community will reinforce the community vision of creating complete, compact, and accessible neighbourhoods that promote healthy living and active transportation. Building upon sidewalk connections, these links include:

- Community trails;
- Walkway blocks;
- Vista blocks;
- Valleyland crossings; and
- Cycling Infrastructure.

6.3.1 Community Trails

A comprehensive network of open space and street-based pedestrian trails is proposed to weave throughout the neighbourhood fabric to enhance accessibility and promote linkages within the entire Robinson Glen Community and Greenway System. Design considerations for community trails include:

- Access to trails for people of all ages and abilities, in accordance with the City of Markham accessibility standards and AODA standards;
- Trails will be integrated sensibly along the Greenway System interface to ensure minimal impacts to natural features, topography and the urban forest;
- Trails should generally be located outside natural features and buffers, within the outer edges of the Greenway System;
- Trails designed to be used by both pedestrians and cyclists and constructed of materials appropriate to location and use;
- Connections to the trail network extending beyond the Robinson Glen Community, especially to the city-wide pathway running along the site's eastern edge, the existing multi-use path along Major Mackenzie Drive, and to trails connecting to the other proposed neighbourhoods of the FUA (refer to the active transportation plan on page 39);
- Trail heads as primary entrance corridors to the larger trail network, and incorporate decorative hard surface areas with seating and viewing opportunities, where possible;

- Trails coordinated with the maintenance road at stormwater management facility locations; and
- Linkages to schools within the local street fabric to encourage pedestrian and bicycle travel and minimize school busing wherever possible.

General Guidelines for Signage:

- Provide a coordinated palette of signage related infrastructure throughout the Robinson Glen Community to facilitate easy navigation for residents and visitors;
- Intuitively distinguish signage for different purposes to effectively communicate various community themes (for example, heritage, educational, etc);
- Utilize simple techniques, such as icons and pavement markings, where applicable, to effectively, visibly and intuitively direct users to key destinations and amenities, aiding in navigation along significant community routes; and
- Where applicable, include information on unique landmarks, names and destinations on signage that is incorporated throughout the Robinson Glen Community.

General Guidelines for Trail Heads:

- Locate trail heads at entry points to pedestrian paths and coordinate these locations with active transportation routes, parks and open spaces;
- Distinguish trail head entrances from the larger network of pedestrian trails and pathways with distinct design features, such as signage, fencing or architectural features that are compatible with adjacent buildings;
- Coordinate programming of open spaces adjacent to trail heads to provide opportunities for hard surface areas accommodating benches or lookout areas;
- Design trail heads using a consistent and coordinated toolkit of design features, to ensure legibility and intuitiveness for users of the trail system; and
- Provide amenities for cyclists and pedestrians, such as bike racks and seating areas, adjacent to key trail head locations.

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- 1** Arterial Road with In-Boulevard Cycling Facility
- 2** Collector Street with Multi-use Pathway
- 3** Greenway
- 4** Rouge Watershed Protection Area Boundary
- 5** SWM Facilities
- 6** Community Park Co-located with Secondary School
- 7** Neighbourhood Park Campused with Elementary School
- 8** Neighbourhood Park/Parkette
- 9** Urban Open Space/SWM
- 10** Mixed Use High Density Node
- 11** Type II Secondary Town Wide Pathway
- 12** Trail Head
- 13** At-Grade Crossing
- 14** Existing Bus Stops

Figure 33: Community Design Plan | Robinson Glen

6.3.2 Vista Blocks



Open space blocks, referred to as "vista blocks" have been introduced along the arterial road edges of Major Mackenzie Drive and Kennedy Road to support the rear lane housing proposed to front on the arterial streets. These openings provide for enhanced pedestrian and bicycle connections to the higher order transit network that is planned along the peripheries of the site. Vista blocks also provide opportunities for additional on-street parking to support medium and high density residential and mixed uses. They also provide the added benefit of surplus snow storage if needed in the winter months.

6.3.3 Walkway Blocks

Walkway blocks will serve as linkages to the trail network and may be delineated through the Draft Plan of Subdivision process. In general, walkway blocks should incorporate a 3.0 metre wide sidewalk with landscaping and fencing that is consistent with the overall design language of the community. Lateral decorative fencing is recommended to ensure privacy and security of adjacent residences.

6.3.4 Valleyland Crossings

Future valleyland crossings are contemplated along the site's eastern edge, where the east-west collector streets provide opportunities for future connections to the east. The following design considerations guide the overall treatment of potential crossings:

- Where opportunity exists, coordinate the crossing design language with materials and language of surrounding community (columns, fencing and colour); and
- Ensure that planting adjacent to the crossing seamlessly complements the natural plantings along the watercourse.



Figure 34: Walkway Block Connecting to the Trail System

- 1** Walkway Block
- 2** Trailhead
- 3** Trail
- 4** Single Detached Dwelling
- 5** Local Street

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6.3.5 Cycling Infrastructure

The Robinson Glen Community proposes a connected network of cycling infrastructure throughout the community, in the form of community trails, multi-use pathways and shared streets. Cycling routes should be supported by legible and adequate bicycle infrastructure, including markings, signage, and bicycle parking. Bicycle parking should be provided at key locations, including schools, mixed use areas, neighbourhood service nodes, parks, and transit stops. These facilities should be compatible in character with the rest of the community, and consistent with the street furniture palette. They should be constructed with strong and durable material to prevent theft or damage, and should either be heavy enough or anchored in place so that they cannot be moved.



Provide lookout areas to take advantage of views to natural heritage features.

6.4 Views & Vistas

Visual connections to the Greenway System will be provided along various interfaces, including arterial roads, collector streets, local streets, parks and stormwater management amenity areas. This visual relationship is critical for establishing a sense of place and reflects the unique identity of the neighbourhood, derived from existing and enhanced natural resources. View corridors to focal points will also assist with wayfinding and orientation. The location of potential viewpoints is illustrated in Figure 35 on page 108. The locations are conceptual and should be regarded only as an expression of principle, not a specific location.

6.4.1 Views from Arterial Roads & Collector Streets

Views of the Greenway System are provided from Major Mackenzie Drive and Elgin Mills Road. The Greenway System also has visual connections from the main residential collector network at the interior of the site. Due to the strategic location of community and neighbourhood parks along collector streets, significant view corridors leading to these green spaces will be provided for motorists, pedestrians and cyclists traveling throughout the community.

Special design considerations apply to these view corridors, including:

- Plant native tree species within the road right-of-way adjacent to environmental features consistent with the species found in the adjacent natural areas;
- Provide a layout and organization of boulevard planting that is informal to reflect the natural character of the adjacent Greenway System;
- Manipulate boulevard grading to blend as gently as possible with the adjacent natural landscape; in particular, steep slopes with a distinctly "engineered" appearance should be discouraged wherever practical;
- Minimize guard rails, barriers, and fencing where possible, and screen them with dense shrub planting; and
- Treat sidewalks that are directly adjacent to the Greenway System and parks as extensions of the adjacent open space trail system, where practical; where appropriate, these sidewalks may be allowed to "meander" within the boulevard to visually harmonize the overall visual character of the edge with the natural environment.

6.4.2 Views from Local Streets

The following design considerations enhance views of parks, open spaces, and cultural heritage features from local streets:

- Design the local street network to allow for periodic views and vistas to natural and cultural heritage features;
- Provide pedestrian and cycling access to desirable viewpoints, where possible;
- Highlight desirable viewpoints with street tree planting, lighting and signage; and
- Consider introducing pedestrian seating and lookout areas in particularly attractive settings.

The local street network will be detailed through the Draft Plan of Subdivision process.

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Figure 35: Views & Vista

IMPLEMENTATION

7.0



7.0 IMPLEMENTATION

The CDP is a design study that provides a high-level design vision and framework at the Secondary Plan stage. The CDP establishes guidelines for all components of the public realm within the community, including built form, streetscapes, open spaces, parks, schools, and more. It is prepared in a collaborative manner, alongside a range of technical studies, and it influences and informs the requisite parallel technical studies. It is used to guide the design of communities at the Draft Plan of Subdivision stage, and beyond.

The Robinson Glen CDP describes the urban design principles and community vision for the proposed community. Once approved by the City of Markham, the CDP acts as a working document that aids the City and guides the consulting development team in the detailed design and implementation stage of community building. To this end the CDP is intended to be an implementation tool, applied in a flexible, rather than prescriptive manner, throughout the detailed design stages, which will culminate in the realization of the community vision for the Robinson Glen Community.

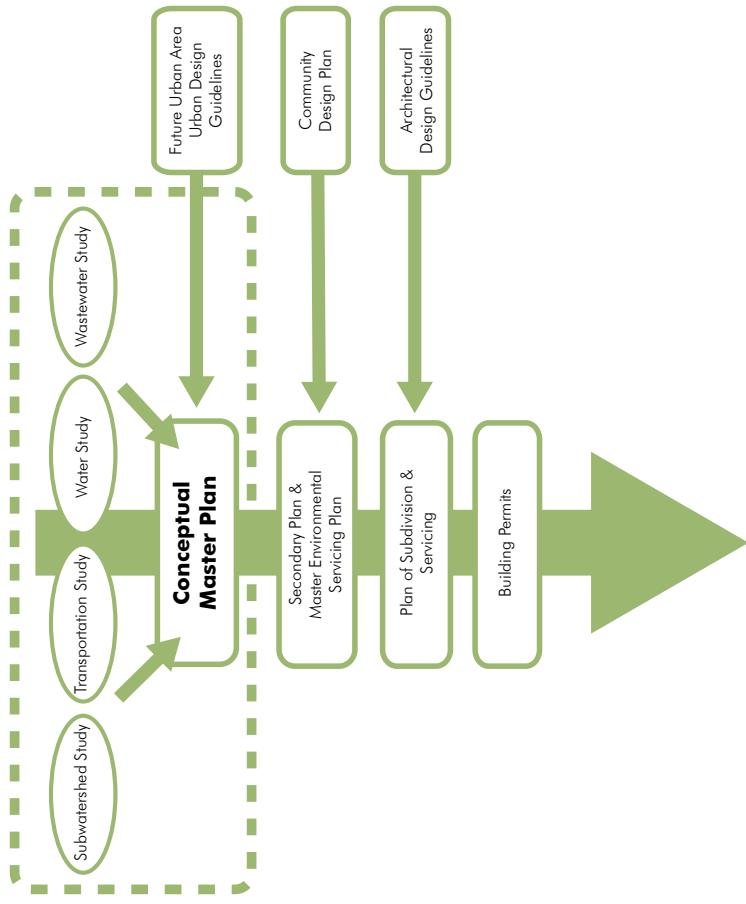


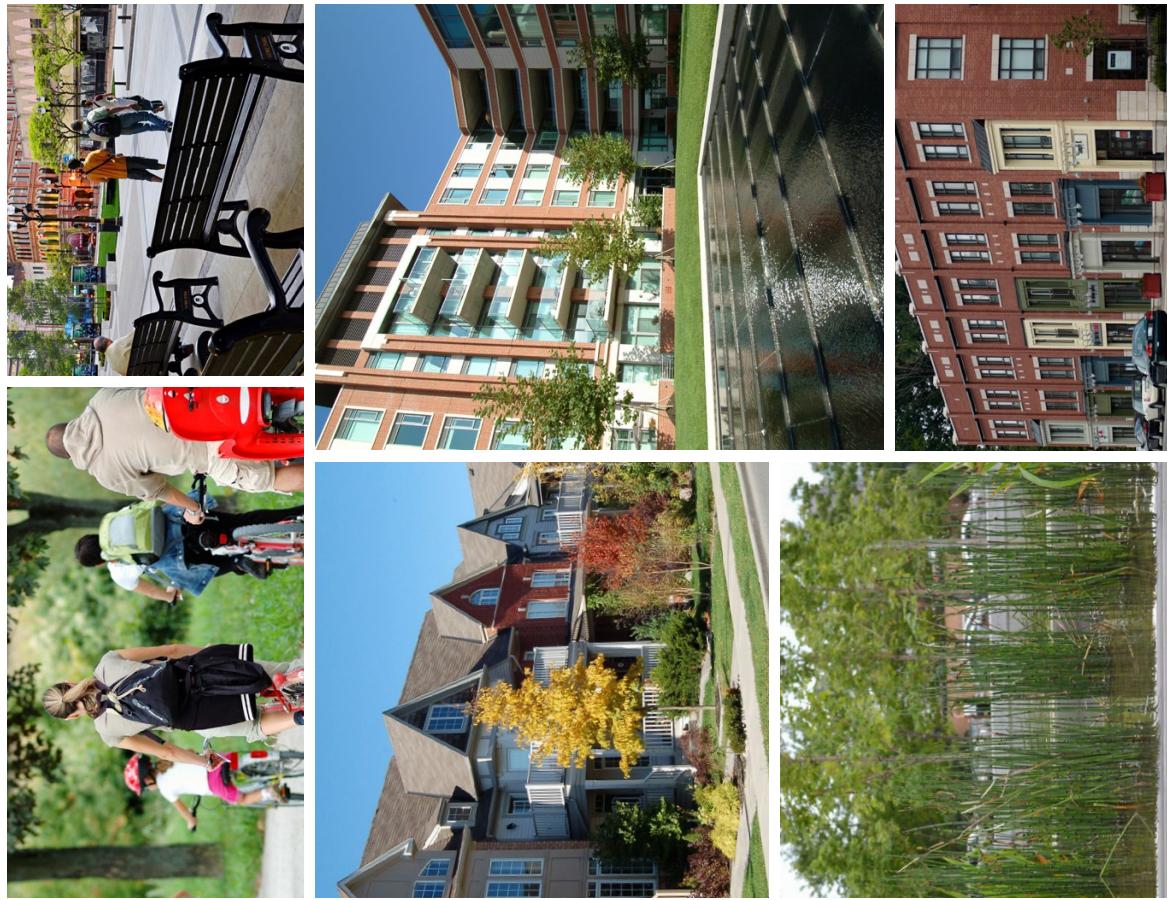
Figure 36: Planning Process for the Future Urban Area

7.1 Long Term Vision

Guided by municipal, regional, and provincial policy frameworks, the Robinson Glen CDP proposes a compact, complete, healthy, and accessible community that will form the eastern neighbourhood of the Markham FUA. In accordance with the City of Markham's Official Plan (2014) vision of sustainable growth, the Robinson Glen Community will provide residents with diverse housing options, a mix of uses within walking distance, an interconnected and multi-modal street network, human-scale and attractive streetscapes, and accessible public spaces.

By following principles of transit supportive development and creating strong path and trail linkages, the Robinson Glen Community is structured around promoting physical, social, and mental well-being. Once constructed, the community will provide a built environment that fosters both physical and social activity. A high quality public realm, which reflects the character and identity of the neighbourhood, will enable the Robinson Glen Community to become distinct and memorable. Sensitive development, with a focus on seamless integration within the existing context and the incorporation of green infrastructure, will ensure sustainable growth and a resilient FUA.

In summary, the development of the Robinson Glen Community will respond to provincial growth targets and will be representative of the innovative urban design already exhibited by the City of Markham.



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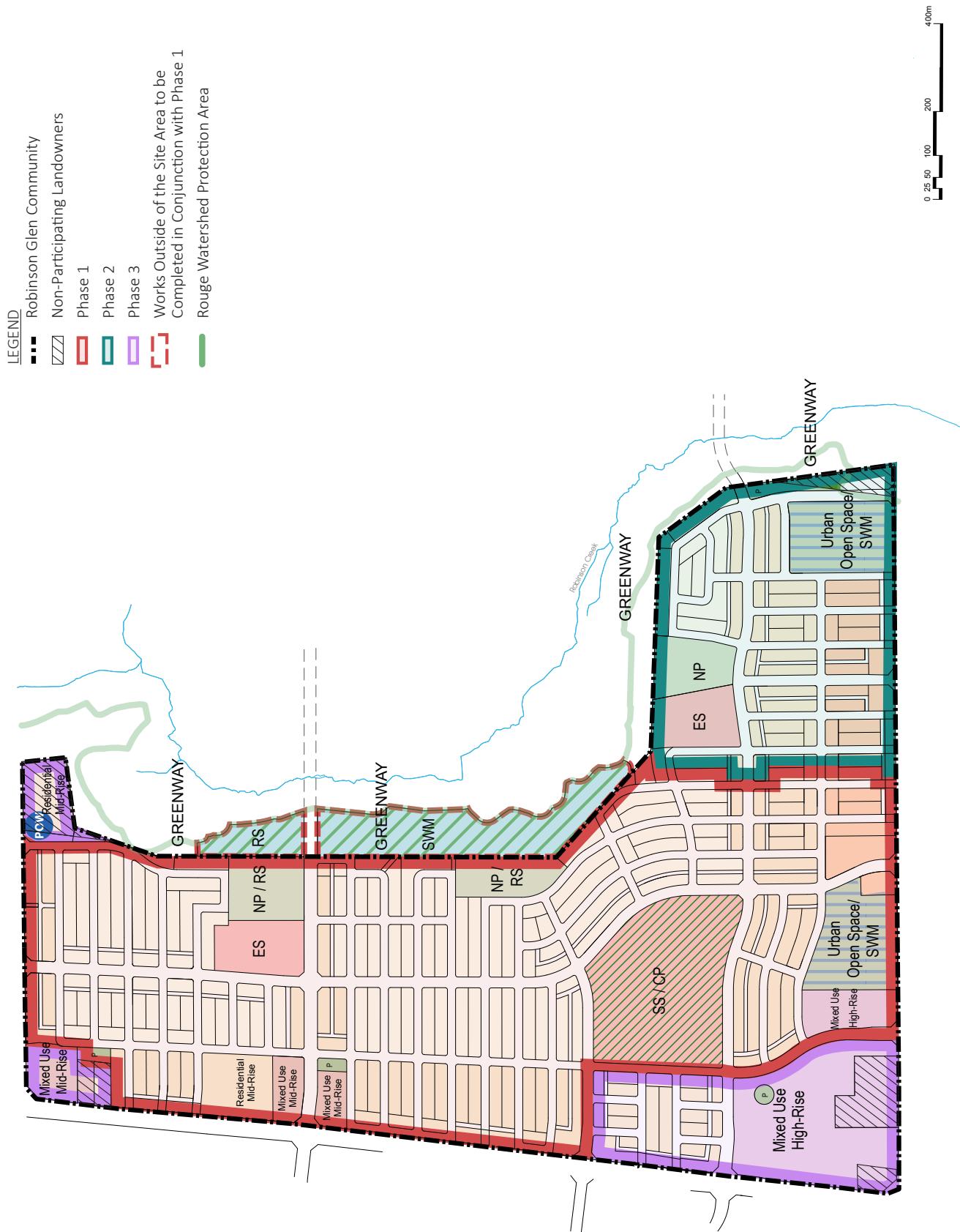


Figure 37: Phasing

7.2 Phasing

The Robinson Glen Community is proposed to be developed in three phases (refer to Figure 37, page 112). The Phasing Plan has been developed to ensure that key infrastructure is in place and that elements of a complete community are provided for in each phase.

Phase 1

The first phase of development of the Robinson Glen Block will comprise the majority of the community stretching from the southernmost edge along Major Mackenzie Drive to the northernmost edge along Elgin Mills Road. The first phase will include:

- The major collector street, the central north-south minor collector street, the central east-west minor collector street and a portion of the southernmost east-west collector street;
- Local streets and laneways;
- The co-located secondary school and community park;
- One public urban open space with stormwater management facilities along Major Mackenzie Drive;
- Two neighbourhood parks along the Greenway System edge (parks B and D);
- Two public parkettes (E and F) near the neighbourhood service nodes of the community;
- The northernmost elementary school;
- Two mixed use mid-rise blocks along the major collector street;
- Connections to the Greenway System trail network through parks, open space and walkway blocks; and
- Residential mid-rise and low-rise units throughout.

Works related to the underground stormwater management facilities and above ground regional storage proposed within the Greenway System will also be completed as a part of Phase 1.

Phase 2
The second phase of development of the Robinson Glen Block will be the southeastern corner of the community and will include:

- A portion of the southernmost east-west minor collector street (Stonebridge Drive Extension);
- The eastern most north-south minor collector (Stonebridge Drive Extension);
- The southernmost elementary school;
- Neighbourhood park C along the Greenway System edge (campused with the elementary school);
- The easternmost public parkette (H);
- The eastern urban open space block with stormwater management facilities and connections to the Greenway System trail network; and
- Residential mid-rise and low-rise units.

Phase 3

The third and final phase of development of the Robinson Glen Community will complete the arterial road frontages and comprises the northwestern, northeastern and southwestern corners of the community. This phase includes:

- Two mixed use mid-rise blocks (the northern corners of the community);
- The mixed use high-rise block at the intersection of Major Mackenzie Drive and Kennedy Road, including the proposed urban plaza (H); and
- Mid-rise residential buildings north of the mixed use high-rise block.



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