



FORMER CFB ROCKCLIFFE COMMUNITY DESIGN PLAN

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TABLE OF CONTENTS

1 A NEW FUTURE FOR THE FORMER CFB ROCKCLIFFE 1

1.1	Introduction	1
1.2	Planning Area Boundaries	2
1.3	Guiding Vision	4
1.4	Principles Shaping the Future of the Community	4

2 PLANNING AND INTEGRATED EA PROCESS 11

2.1	Community Design Plan Overview	11
2.2	Planning and Design Approach	11
2.3	Class Environmental Assessment Process	12
2.4	Consultation Process	13
2.5	How This CDP will be Used	14

3 CFB ROCKCLIFFE TODAY 16

3.1	Topography, Views and Vistas	16
3.2	Water Resources, Geology, and Soils	18
3.3	Landscape and Ecology	19
3.3.1	Tree Preservation	19
3.3.2	Urban Natural Features	20
3.4	Infrastructure	22
3.4.1	Transportation	22
3.4.2	Municipal Infrastructure	23
3.4.3	Utilities	24

3.5	Built Form and Land Use	29
3.5.1	Surrounding Non-Residential Land Uses	29
3.5.2	Surrounding Neighbourhoods	33
3.6	Social and Economic Conditions	34
3.6.1	Community Facilities and Local Destinations	34
3.7	History and Cultural Heritage	34
3.8	Opportunities and Constraints	39

4 PLANNING AND POLICY CONTEXT 48

4.1	Provincial Policy Statement	48
4.2	City of Ottawa Official Plan	49
4.3	Residential Land Strategy for Ottawa	49
4.4	City of Ottawa Comprehensive Zoning By-law	52
4.5	Other Policy and Guideline Documents	52

5 STRUCTURE OF THE NEW COMMUNITY 56

5.1	Neighbourhood Structure	56
5.1.1	Hemlock	58
5.1.2	West of Codd's	58
5.1.3	Northwest	58
5.1.4	Core	58
5.1.5	East	58
5.1.6	Forest	58
5.1.7	East Employment	59
5.1.8	Burma	59

5.2	Land Uses	60
5.3	Public Spaces	62
5.3.1	Natural Areas	62
5.3.2	Public Art.....	62
5.4	Parks and Parkettes	63
5.5	Height.....	65
5.6	Building Frontages and Active Street Frontages	67
5.7	Population, Employment and Density.....	69
5.8	Affordable Housing	71
5.9	Mobility and Circulation.....	71
5.9.1	Pedestrians and Cyclists	71
5.9.2	Public Transit	73
5.9.3	Street Network	75
5.9.4	Anticipated Traffic Impacts	85
5.10	Infrastructure.....	86
5.10.1	Water Supply	86
5.10.2	Wastewater	88
5.10.3	Stormwater Management	91
6	DESIGN GUIDELINES & POLICIES	95
6.1	Overview	95
6.2	Land Uses.....	96
6.2.1	Low-Rise and Low- to Mid-Rise Residential and Low- to Mid-Rise Mixed-Use	96
6.2.2	Mid-Rise and High-Rise Mixed-Use.....	97
6.2.3	East Employment Area	97
6.2.4	School Sites	97
6.2.5	Parks and Parkettes.....	97
6.3	Height, Bulk and Massing	98
6.4	Setbacks	99
6.5	Architectural Design and Built Form	99
6.5.1	Low-Rise Residential Buildings	100
6.5.2	Low- to Mid-Rise Residential and Mixed-Use, and Mid-Rise Mixed-Use Buildings	101
6.5.3	High-Rise Mixed-Use Buildings	102
6.5.4	Employment Buildings	103
6.6	Parking.....	104
6.7	Loading and Servicing	105

6.8	Mobility and Circulation	106
6.9	Public Realm	107
6.9.1	Commemoration Opportunities	107
6.9.2	Parks, Squares and Open Spaces.....	109
6.9.3	Street Furniture	110
6.9.4	Landscaping.....	110
6.9.5	Lighting.....	112
6.10	Utilities & Infrastructure	113
6.11	Bird & Wildlife Friendly Design.....	113
6.12	Low Impact Development	114
6.13	Sustainable Design Guidelines	114
6.14	Forest Special Design Area	116

7 MAKING IT HAPPEN 119

7.1	Secondary Plan, Zoning, and Subdivision	119
7.2	Development Applications (Draft Plan of Subdivision and Site Plan).....	120
7.3	Capital Projects, Financing and Priorities	120
7.4	The Role of the Development Community.....	120
7.5	National Capital Commission – Design Review.....	121
7.6	Changes to the CDP	121

GLOSSARY

LIST OF FIGURES


Figure 1.1: Site Location	3
Figure 3.1: Significant Views	17
Figure 3.2: Bur Oak	19
Figure 3.3: Montfort Hospital Woods	21
Figure 3.4: City of Ottawa Urban Road Network	25
Figure 3.5: Rapid Transit Network	26
Figure 3.6: Primary Urban Cycling Network	27
Figure 3.7: Multi-Use Pathway Network	28
Figure 3.8: Existing Land Uses	31
Figure 3.9: Existing Land Ownership	32
Figure 3.10: Social Amenities and Surrounding Neighbourhoods	36
Figure 3.11: Existing Building Footprints	37
Figure 3.12: Building Heights	38
Figure 3.13: Constraints and Opportunities	46
Figure 4.1: Existing Zoning	54
Figure 5.1: The Neighbourhoods	57
Figure 5.2: Land Uses	61
Figure 5.3: Parks & Open Spaces	64
Figure 5.4: Height Strategy	66
Figure 5.5: Building Frontages and Active Street Frontages	68
Figure 5.6: Mobility Plan	72
Figure 5.7: Transit	74
Figure 5.8: Road Sections by Type	77
Figure 5.9: Major Collector Road	79
Figure 5.10: Collector Road	80
Figure 5.11: Hemlock Core Street	81
Figure 5.12: Local Road	83
Figure 5.13: Local Road with Swale	84
Figure 5.14: Water Supply	87
Figure 5.15: Wastewater	90
Figure 5.16: Stormwater Management Strategy	93

LIST OF TABLES


Table 1.1: Planning Principles	5
Table 3.1: Opportunities and Constraints	40
Table 4.1: Transit Service Potential Based on Urban Density	51
Table 5.1: Parks and Parkettes	63
Table 5.2: Land Use Distribution and Density	70
Table 5.3: Road Cross Sections	76

LIST OF APPENDICES

Appendix A : Parks Master Plan



1 | A NEW FUTURE FOR THE FORMER CFB ROCKCLIFFE



1 A NEW FUTURE FOR THE FORMER CFB ROCKCLIFFE

1.1 INTRODUCTION

The former Canadian Forces Base (CFB) Rockcliffe is the largest undeveloped piece of land within the Ottawa Greenbelt. This 131 hectare redevelopment site is at an exceptional location on high ground which overlooks the Ottawa River. It is bounded on multiple sides by greenspace systems along the Rockcliffe and Aviation Parkways, the Montfort Woods and a treed escarpment.

The base was decommissioned many years ago, and the

opportunity exists today to reconnect this site back into the urban fabric of the city and create a highly desirable mixed-use community for approximately 9,800 residents. The long-term development period to full build-out is estimated to be 15-20 years. There is also the opportunity to provide space for a variety of employment uses providing approximately 2,600 permanent jobs.

Due to the proximity to the downtown, the new community will allow for more intensive development than in the outer suburbs, yet at a lower scale than

one would see closer to the core. A variety of housing types will provide a range of choices for people with different housing needs. A community core will have the greatest mix of land uses to provide amenities to the new neighbourhoods, and it will also have the most active and vibrant streets in the community.

A modified grid of collector and local roadways will meet the community's mobility needs and create an outstanding public realm including spacious sidewalks, multi-use pathways, and enhanced streetscaping.

A hierarchy of public park spaces provide opportunities to appreciate the drama of the Ottawa River and meet local recreational needs.

This park system will be interconnected by a series of pathways that will be integrated with the stormwater management system.

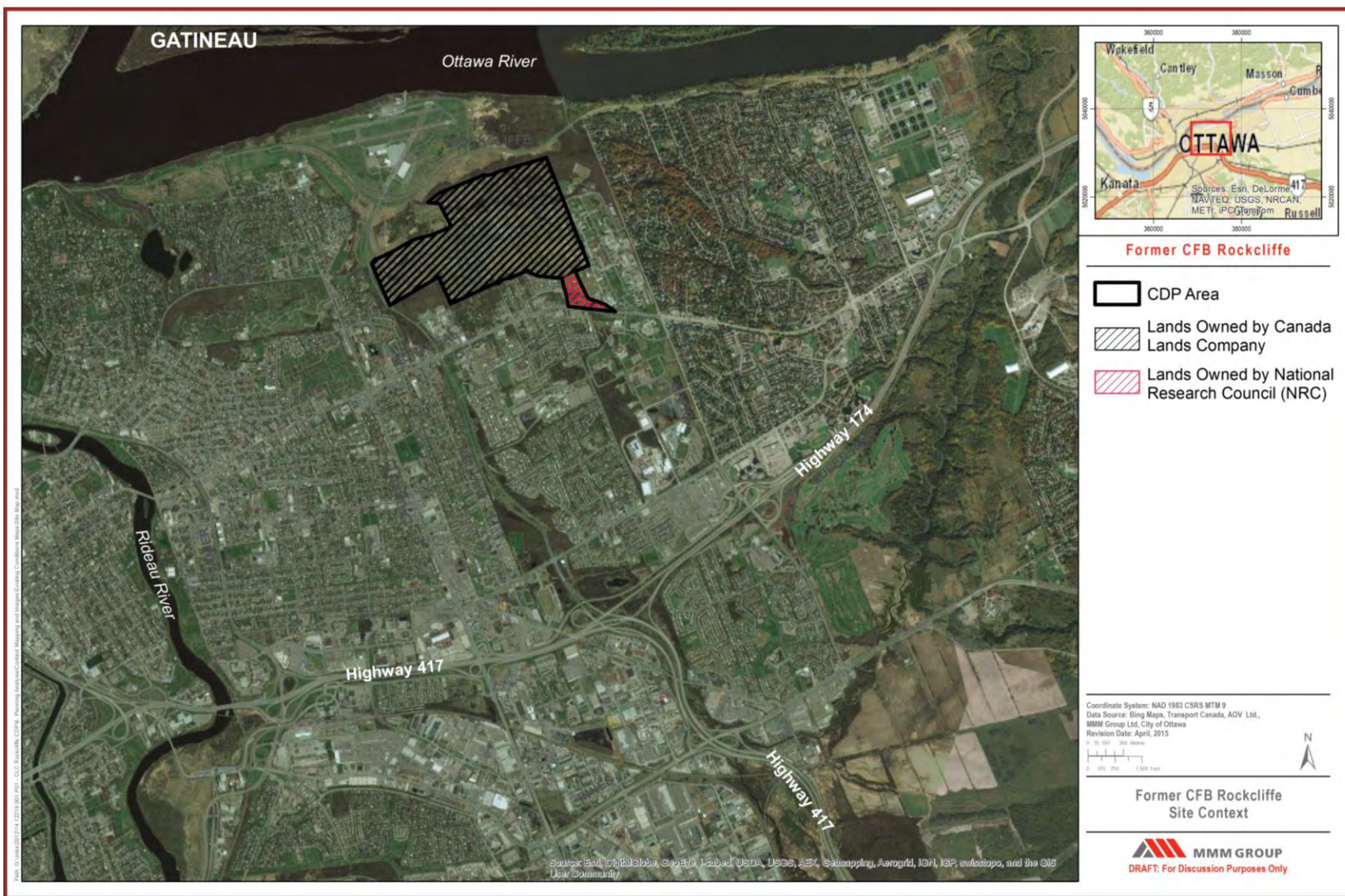
1.2 PLANNING AREA BOUNDARIES

The Planning Area is a 131 hectare site located within the Greenbelt. It is approximately bordered by the Aviation Parkway to the west, the Sir George-Étienne Cartier Parkway to the north, the National Research Council (NRC) Campus to the east and Montreal Road to the south.

The majority (125.5 ha) of the site is owned by Canada Lands Company. The remaining 5.3 hectares of the site are owned by the National Research Council.

The site location is shown in Figure 1.1.

This is the last vacant site of this size located within the Greenbelt that is available for development.



1.3 GUIDING VISION

The Guiding Vision describes the aspirations of both Canada Lands Company and the City of Ottawa for the future development of the site, with input from various stakeholders. It forms the basis for principles, planning policies and guidelines that follow later in this document.

The Guiding Vision for the site is as follows:

The redevelopment of the former Canadian Forces Base (CFB) Rockcliffe will be a contemporary mixed-use community. It will be walkable, cycling-supportive, transit-oriented and built at a human scale. These principles will be realized through improved connectivity to the surrounding neighbourhoods, and by providing access to open space for everyone. The site will connect to the history of the Algonquin people. It will celebrate its military heritage. Redevelopment of the

former CFB Rockcliffe will demonstrate urban design and landscape excellence, innovation in sustainability, cultural/social dynamism, and a high quality of life. It will be forward-looking in its development approach by integrating the site's natural ecological functions into the design.

1.4 PRINCIPLES SHAPING THE FUTURE OF THE COMMUNITY

To turn the ambitions described in the Guiding Vision into an implementable plan, a series of planning principles was developed based on the existing conditions of the site and Ottawa's planning policy context. Through the various iterative design studies of the consulting team, extensive discussions early in the process with different stakeholder groups and input from the public, Canada Lands Company adopted nine planning principles. The Public Advisory Group (PAG) and

Technical Advisory Committee (TAC) reviewed and commented on the principles. The design team then used them to prepare the plan.


Table 1.1 lists all of the principles and summarizes how they have been integrated into the plan:

Table 1.1: Planning Principles

Principle	Strategy
<p>Principle #1: Canada Lands Company will design the former CFB Rockcliffe Community to be a compact and complete mixed-use community accommodating its future population in a range of housing types.</p>	<p>The plan will provide a mix of uses to support a complete community that allows people of all ages to live, work and play at the former CFB Rockcliffe. The community will include mixed-use areas, residential areas, employment areas, a comprehensive open space system, and local schools. Employment uses will primarily be office-oriented to maintain compatibility with the planned and existing adjacent uses. The plan will include a limited amount of commercial and retail, to the extent that the community can support it. Commercial and retail in the new community will serve the general area (both within and outside the new community), but will not compete with established businesses along Montreal Road. Canada Lands Company will make targeted efforts to attract commercial and retail uses that may be lacking in the area (e.g., grocery supermarkets, restaurants, small specialty retail).</p> <p>A range of housing will be provided, including single-family dwellings, row housing, walk-ups, lane-oriented housing and apartments, and will meet the Official Plan affordability targets. Aside from the prominent community entry points in the southeastern and southwestern corners, the plan will concentrate medium densities adjacent to the town square.</p>

Principle	Strategy
<p>Principle #2: The former CFB Rockcliffe Community will re-connect the site with the surrounding city fabric, with appropriate land use transitions from adjacent land uses and open spaces.</p>	<p>Canada Lands Company will seek to create as many road and pathway connections to the surrounding primary road network as are feasible. This will include new or enhanced connections to the Aviation Parkway and connections to the surrounding city streets on Hemlock, Codd's and Burma Roads. Wherever possible, Canada Lands Company, the City and the NCC will collaborate to create additional pathways that provide connections within the site, and to neighbourhoods surrounding the site, making efforts to connect these pathways to existing pathways outside the site.</p> <p>The plan will provide appropriate transitions throughout the site. Low-rise residential development will be in the south western portion of the site as a transition from the adjacent community. This will place compatible development at the southern edge of the site where adjacent low-density residential uses exist.</p> <p>Canada Lands Company will provide two employment precincts on the site. One employment precinct will be on the eastern boundary of the site in order to provide an appropriate transition from the National Research Council site. The second cluster will be a mixed-use area, providing a transition from the Aviation Parkway to the quieter residential communities in the interior of the site. The plan will also provide a central community core, located along the major transportation route, which will provide opportunities for additional small-scale employment and commercial uses.</p>

Principle	Strategy
<p>Principle #3: The community will enhance the existing natural environment. It will include an integrated greenspace strategy that protects key natural features where the open space is part of a functioning ecological and natural framework.</p>	<p>To the extent practical, the plan is designed to place development in such a way that preserves significant tree stands.</p> <p>The plan will capitalize on the unique topographic characteristics of the site. This includes minimizing soil disruption through major cut and fill requirements and maintaining existing drainage patterns around the site in order to maintain the flow patterns that supported (and will continue to support) growth of the native vegetation.</p> <p>The plan will create an interconnected network of public open space. This will include active recreation areas, passive greenspace, protected natural areas, and a vibrant network of green corridors that contribute to the natural drainage strategy. The community design will provide visual and physical connections to the Montfort woodlot, and the placement of parks and open spaces will maintain and enhance public access to significant views from the site.</p>
<p>Principle #4: The community will prioritize mobility for pedestrians, cycling, and transit over private vehicle use.</p>	<p>The plan will weave the community into the fabric of the city with a series of collector roads that will provide sidewalks, segregated cycling facilities, and efficient transit service that will operate on a grid-based network of streets.</p> <p>The plan will have pedestrian scale neighbourhoods based on a five-minute walking distance, and a mix of accessible amenities, with particular emphasis given to short walking distances to local school sites and convenience retail. The community design will include multi-use pathway connections to the existing NCC pathway systems on the Sir George-Étienne Cartier and Aviation Parkways. It will also connect to the neighbourhoods to the east.</p>



Principle	Strategy
<p>Principle #5: The community will be a vibrant hub of activity with dynamic and attractive urban spaces, in a set of aesthetically pleasing and sustainable urban neighbourhoods.</p>	<p>In addition to natural, passive open spaces, the community will include a number of active public spaces such as squares and parkettes.</p> <p>The City and Canada Lands Company will use the Design Guidelines and Policies of the Community Design Plan to ensure the implementation of a high standard of architectural, streetscape, and open space design. Furthermore, Canada Lands Company will use its own architectural guidelines to ensure any development partners achieve excellence in built form design.</p> <p>Notable community entry points will have aesthetic distinctiveness. Higher density buildings will be focussed at these locations to give the site a prominent presence in the surrounding community. Tall buildings will be in locations that are sensitive to view corridors to the Ottawa River, and at key gateway locations.</p> <p>Canada Lands Company will set sustainable development performance requirements for the implementation of built form and infrastructure on the site. Canada Lands Company will adopt a sustainability framework with priorities, objectives, indicators, targets, monitoring, and evaluation systems that best reflect the context of the site, the city, the region, and Canada Lands Company. Canada Lands Company will work with stakeholders to promote innovative practices for the management of stormwater on the site where feasible. Canada Lands Company will promote innovative practices for the energy design and will seek partnerships with the NRC and Montfort Hospital for this initiative.</p> <p>The CDP will include provisions for connections to a future national cultural institution on the NCC site to the north.</p>

Principle	Strategy
<p>Principle #6: The community will reflect and respect the heritage and legacy of the Algonquin peoples and will serve to connect cultures.</p>	<p>The Algonquins of Ontario will be an integral partner throughout the development of the new community. Through this partnership, the community will provide a meaningful connection to the history of the Algonquin people.</p> <p>An area will be set aside for Algonquin commemoration at the ridge at the northern boundary of the site that overlooks the Ottawa River.</p> <p>Subject to consultation with the Algonquins of Ontario, Canada Lands Company will use street naming, public art, and commemorative signage to celebrate the association of the site and the region with the Algonquin peoples.</p>
<p>Principle #7: The community will commemorate the military heritage of the site and the contributions made by people who served in the military to Canada.</p>	<p>Canada Lands Company will use street and park naming, public art and commemorative signage to celebrate the past military heritage of the site.</p>
<p>Principle #8: The former CFB Rockcliffe community will be designed as an urban community, at a human scale, that encourages interaction within the site.</p>	<p>The former CFB Rockcliffe community will be designed to encourage movement and interaction at a human scale. Streets will be designed to promote active transportation. Buildings will not overwhelm the streetscape and will have densities that support this vision for the site.</p>
<p>Principle #9: The former CFB Rockcliffe community will be resilient and flexible to be able to adapt to changing conditions.</p>	<p>The plan for the former CFB Rockcliffe will be flexible to respond to changing conditions. The plan will be adaptable to respond to development opportunities as they arise. It will be resilient to ensure that changes in the economy do not halt development of the community. The plan will provide enough flexibility to ensure that a change in context does not result in a change in the ability of the community to adapt, while at the same time maintaining the commitment to the guiding principles described above.</p>





2 | PLANNING & INTEGRATED EA PROCESS

2 PLANNING AND INTEGRATED EA PROCESS

2.1 COMMUNITY DESIGN PLAN OVERVIEW

Community Design Plans (CDPs) are a tool for implementing the principles and policies of the City of Ottawa Official Plan (OP) at the community level. Section 2.5.6 of the Official Plan describes the purpose and contents of CDPs. They provide critical direction regarding density, desired land use and built form, development of the public realm, place-making, mobility and servicing in a defined CDP area.

Developing a CDP is a collaborative process among community members and the City of Ottawa, focused on building trust and partnership.

2.2 PLANNING AND DESIGN APPROACH

The overall planning and design strategy emerged out of the Guiding Vision and Principles Shaping the Future of the Community (refer to Chapter 1) for the project.

The planning process was iterative and involved a number of steps. To establish a context for the development of the plan, components of the natural

systems to be maintained on site were identified, opportunities and constraints were highlighted, and surrounding neighbourhoods were studied. This information was consolidated to create an overall land use and open space strategy. Based on this strategy, the site was structured into different land uses and scales of development which will surround major parks, smaller parkettes and natural areas to be preserved to create the new community. The structure of the new community is presented in Chapter 5.

As a Canadian Forces Base, connectivity to the site was limited in the past for security reasons. To

remedy this, a transportation network was developed which will include various road types, cycling lanes and pedestrian pathways (see Chapter 5). This transportation network will be linked to the existing City transportation network and will increase the connectivity of the site to the surrounding city.

To guide the development of the site, a series of policies and guidelines were established for: land uses; height, bulk and massing; setbacks; architectural design and built form; parking; loading and servicing; mobility and circulation; the public realm; and infrastructure. These policies and guidelines are presented in Chapter 6.

Finally, an implementation strategy was created to guide the development process and is presented in Chapter 7. This strategy outlines the process for implementing the plan and delegates the roles of those responsible for making it happen.

2.3 CLASS ENVIRONMENTAL ASSESSMENT PROCESS

Municipal servicing and transportation plans are required to support a development of this size. As described in Chapter 3, the existing infrastructure on the site is degraded has reached the end of its useful life and will not meet the needs of a new community.

New infrastructure requires approval under the Ontario Environmental Assessment Act through the Municipal Class Environmental Assessment. The planning process for the former CFB Rockcliffe addressed this requirement concurrently with the Community Design Plan process.

The four phases of the Municipal Class EA were completed, which included a stakeholder consultation event for every phase. A description of the four phases is provided below:

- Phase 1: Background research and inventory of existing

conditions, and identification of the infrastructure problems requiring resolution.

- Phase 2: Development of planning alternatives, and evaluation and selection of recommended planning alternatives (i.e., nature of road and infrastructure upgrades).
- Phase 3: Selection of preferred design alternative and refinement of the designs (road routing, cross-sections, buried and drainage infrastructure locations).
- Phase 4: Refinement of preferred design based on stakeholder feedback and plan finalization, and completion of a Class EA report that accompanies this CDP.

Canada Lands Company will prepare and submit an Environmental Study Report (ESR) in accordance with the Municipal Class EA parent document.

2.4 CONSULTATION PROCESS

The study process benefited from early and regular engagement with various stakeholders.

The process involved three Public Open Houses (POHs) to present progress on the project, seek input on alternatives, and seek input on drafts of the plan. The POHs were held on November 26, 2012, May 25, 2013 and February 18, 2014.

Canada Lands Company established a Public Advisory Group (PAG), which included representatives from surrounding Community Associations, Greenspace Alliance, the Quartier Vanier Business Improvement Association, and the Rockcliffe Yacht Club. This group met regularly during the process to provide input and advise Canada Lands Company on ways to improve the draft consultation materials for presentation to the broader public.

The Technical Advisory Committee (TAC) included members from various departments at the City of Ottawa (including representation from transportation, planning, emergency services, OC Transpo, Housing, Economic Development, etc.), representatives from the National Capital Commission, representatives from the Rideau Valley Conservation Authority, and from the National Research Council. This group provided advice on how various design iterations needed to be refined to meet City or other agencies' policies. In some instances, small working groups met to follow up and resolve specific technical issues.

In addition to the formally-established PAG and TAC, the project team held numerous meetings to coordinate with the surrounding communities, land-owners, approval authorities, and interest groups, including, but not limited to Transport Canada, the Montfort Hospital, National

Research Council, the four Ottawa-area school boards, and the Canada Aviation and Space Museum.

The 2010 Algonquins of Ontario – Canada Lands Company Participation Agreement provides a framework for an ongoing relationship and the realization of mutual benefits as the former CFB Rockcliffe site is developed. This agreement laid out a framework for consultations with the Algonquins of Ontario during the development of the site, including during the CDP process.

All information about the stakeholder engagement component of this project is detailed in the Former CFB Rockcliffe CDP Public Consultation Report.

2.5 HOW THIS CDP WILL BE USED

This CDP will be adopted by City Council as the roadmap for future development of the site. Some elements of the CDP will be entrenched in a Secondary Plan and a Zoning By-law amendment. This is identified in more detail in Chapter 7 which deals with implementation.

Unless specifically noted otherwise, the plans in this document are demonstration plans. They illustrate one way the former CFB Rockcliffe could develop in accordance with the policies and guidelines of the CDP within the CDP boundary. The Secondary Plan and the Zoning By-law will contain the rules that all future development applications must follow. In the event of proposed deviations from the concepts/direction of the CDP, Chapter 7 discusses how this will be handled during the approval process.

Canada Lands Company will use the CDP to commission more detailed development plans for portions of the site such as plans of subdivision. Canada Lands Company will ensure that the development meets the design intent for the site by creating agreements with development partners based on the guidelines and policies of this CDP.

City councillors and staff will use the CDP to evaluate capital projects and development applications and to ensure that new developments reflect the recommendations, vision, and principles of the CDP.

Residents, businesses and community associations will refer to the CDP to ensure that the principles and priorities identified during the CDP process are respected as the community evolves.

The CDP complements overarching City policies, including the City of Ottawa Official Plan

and the City's Urban Design Guidelines, and should be read alongside these policies when evaluating development applications. The CDP's design policies will take precedence over these guidelines in the case of any inconsistencies. The City's general design guidelines apply to any design matter not addressed otherwise in the CDP.

3 | CFB ROCKCLIFFE TODAY

3 CFB ROCKCLIFFE TODAY

A full review of the existing conditions of the former CFB Rockcliffe CDP planning area and surrounding areas is provided in the Existing Conditions Report. A brief summary of the key aspects of this report that are relevant to the CDP is provided here.

3.1 TOPOGRAPHY, VIEWS AND VISTAS

The site benefits significantly from its location near the Ottawa River.

The site elevation ranges from approximately 70-100 metres above sea level, and generally

slopes down to the north, providing beautiful views of the Ottawa River from some unobstructed vantage points. The slopes are gradual as the site is terraced.

Views to the River are interrupted with existing significant tree stands, which are a visual attribute themselves. Significant views are illustrated in Figure 3.1

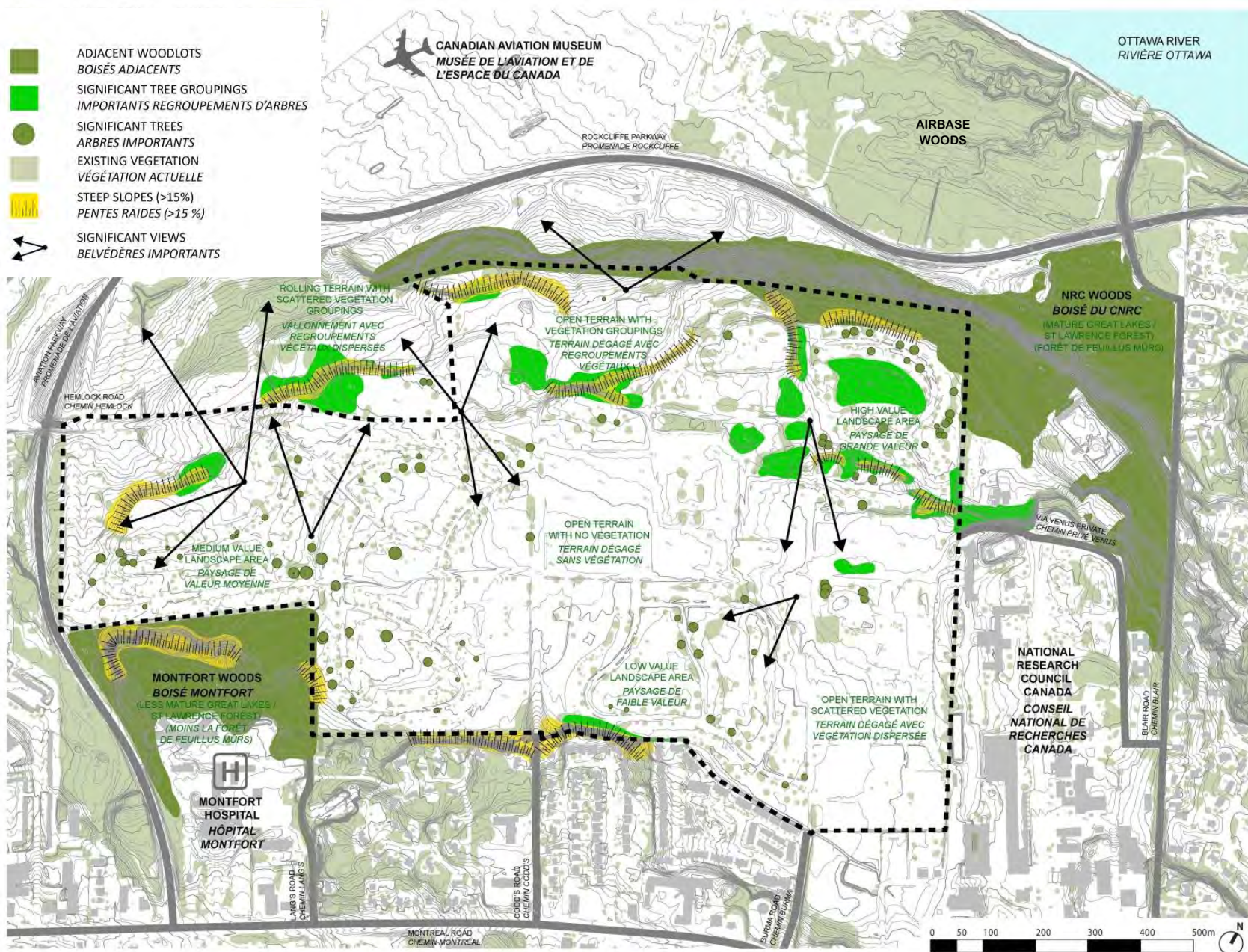


Figure 3.1: Significant Views

Both the Aviation and the Sir George-Étienne Cartier Parkways border the site. These Parkways are owned by the National Capital Commission (NCC) and are landscaped with greenspace and trees.

3.2 WATER RESOURCES, GEOLOGY, AND SOILS

The topography of the site forms two catchment areas, one where water flows approximately northwest into the Ottawa River and the other where water flows northeast into the Ottawa River. This is shown in Figure 3.13.

There are two creeks that have headwaters near or within the former CFB Rockcliffe site, and both outlet to the Ottawa River. The eastern creek starts just north of the site and slightly east of Burma Road. The western creek starts at the northern site boundary, just east of the north-bound on-ramp to the Aviation Parkway. The western creek is generally straight, with the final

section of the creek running through 550 metres of underground storm piping. It is geomorphically stable, with most reaches lacking obvious signs of ongoing erosion. However, specific sites show signs of instability, particularly the area immediately downstream of the culvert north of the Aviation Parkway, where flow from the culvert has eroded the downstream channel. This will need to be addressed through the improvements to stormwater drainage.

The eastern creek has straight sub-reaches at the upstream and downstream ends, but generally it meanders, including a very tight meander bend near the downstream end. The hydraulics of the channel are slightly unusual because flow appears to infiltrate into the ground at several locations, including the channel terminus. Several sub-reaches in the eastern creek show signs of channel instability, including exposed roots on channel banks

and over-sized channel dimensions. The most upstream reach appears to be the most destabilized, which is likely attributable to the culvert under the Sir George-Étienne Cartier Parkway. Water is held back by the recreational path at the outlet point to the Ottawa River and ponds, causing it to slowly permeate through the ground at this location. There is no direct connection to the Ottawa River.

Groundwater on site flows from north to northwest, approximately following the local topography, and descends towards the Ottawa River. Infiltration rates for overburden across the property are generally low, especially in the silty clay overburden material. This is particularly useful where it occurs immediately north of the site, as the low hydraulic conductivity combined with the low permeability barrier makes this a suitable location for stormwater management features such as ponds.

Overall, the soil and geological conditions on site will not constrain development, however, they may impact decisions on the construction methodology used in certain portions of the site. Conditions which could impact construction decisions include:

- The presence of shallow bedrock over at least 18% of the site could add to the cost of new infrastructure and underground parking;
- Deep clay soils are found in the southern and western portions of the site. These may not present a problem for low-rise commercial or institutional development, but will have an impact on the type of foundation required for high-rise buildings. Flattening of the clay slope is required on the western portion of the site in order to provide adequate engineering conditions for construction. This will need to be verified through an assessment of the slope

stability including seismic loading conditions; and

- Site remediation will be required to remove former building foundations (where necessary) as well as potentially contaminated soils.

3.3 LANDSCAPE AND ECOLOGY

Canada Lands Company has commissioned a report by arborist Dan Baker to accompany this CDP. The document is titled CFB Rockcliffe Vegetation Survey.

When the former CFB Rockcliffe site was previously developed, the construction philosophy of the day prevailed, and the majority of the site was graded to level the land for its function as a military base. Since that time, vegetation and tree regeneration has produced a mixture of deciduous and coniferous trees, including a large Bur Oak, shown below, estimated to be over 200 years old.



Figure 3.2: Bur Oak

3.3.1 Tree Preservation

To the extent possible, this plan was developed with the overall intention of protecting significant trees and tree groupings. The criteria used to identify significance included:

- Tree groupings with a low Ash species component due to the presence of the Emerald Ash Borer.

- Tree groupings in Good to Fair condition with some natural regeneration of native species in the understory.
- Tree groupings that function to stabilize and provide aesthetic benefit to steep slopes.
- Trees with a high landscape value that are in good condition and possess a diameter at breast height (DBH) of 40cm or greater with a predominant focus on hardwood trees for their immense overall retention value.
- Trees located along edges of property lines that function in continuation with forest patches in adjacent communities and protected forests around the site, most notably the NRC and Montfort Hospital Woods.
- Larger groupings of specimen trees located in areas adjacent to forest groupings where grades will already be maintained and buffer areas will incorporate the trees into

the site's open natural green spaces.

- Trees in good condition located in areas to be designated as non-recreationally focused parkland.
- Tree groupings that are adjacent to surface water features.
- Rare species and plant communities, including all Butternut trees (*Juglans cinerea*) to be retained as required by the Ministry of Natural Resources, due to their status as an endangered native tree species in Ontario.

The final selections resulting from this criteria review are shown in Figure 3.13. The Tree Inventory and Arborist Report, CFB Rockcliffe Vegetation Survey prepared by Dan Baker, describes the methodology, evaluation, and selection process in detail. Wherever possible, outstanding tree specimens and groupings are located within lands designated as parks and open spaces.

Significant trees that fall within development blocks will be managed in accordance with the City of Ottawa's Tree Preservation By-law.

3.3.2 Urban Natural Features

In addition to vegetation on site, a number of moderate-to-high-value Urban Natural Features (UNF), identified by the City of Ottawa in the Urban Natural Areas Environmental Evaluation Study (2005) and Greenspace Master Plan for their natural features, surround the site as shown in Figures 3.1 and 3.13. These include:

- The *Airbase Woods*, which received a high evaluation rating for the level of biodiversity and native plant species present on site. The City has identified the Airbase Woods as an Environmentally Significant Area (ESA);
- The *NRC Woods North*, which also received a high evaluation rating for the level of

- biodiversity and native plant species present on site;
- The *Montfort Hospital Woods*, shown in Figure 3.3, which received a moderate evaluation for the level of biodiversity present on site; and
- The *Assaly Woods*, which received a low evaluation rating.

The most valuable vegetated areas from an ecological standpoint are the *Montfort Hospital Woods*, *NRC Woods North*, and the *Airbase Woods*. Canada Lands Company will prepare an Environmental Impact Statement prior to development, which will include all of these natural areas, to identify/confirm environmental impacts and develop an appropriate mitigation strategy. Canada Lands Company will also complete Species at Risk surveys prior to development to determine the presence of any Species at Risk (SAR) and/or their critical habitat. Should SAR be observed or suitable habitat be

identified, appropriate mitigation measures to avoid impacts to these species will be developed.

In 2004, the City of Ottawa Zoning By-law was amended to rezone the Montfort Hospital Woods from Community and Leisure Zone and Major Institutional Zone to Environmental Protection Zone (EP). In addition, the NCC is planning to update the Plan for Canada's Capital (PFCC) and the amendment will designate the Montfort Hospital Woods as a "Natural Heritage Area". This is the most protective designation in the PFCC.

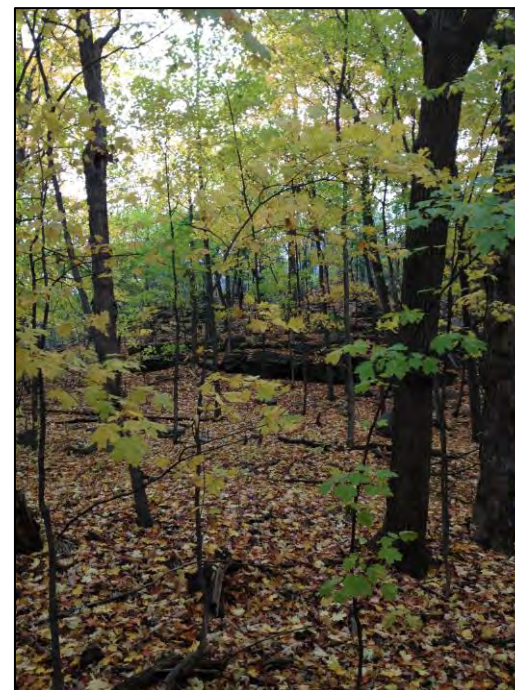


Figure 3.3: Montfort Hospital Woods

3.4 INFRASTRUCTURE

The following is a brief synopsis of the site's existing infrastructure conditions.

3.4.1 Transportation

3.4.1.1 Roads

When the site was operating as a military base, there were three access points via Codd's Road to the south, Hemlock Road to the west, and Douglas Street to the east. The road configuration within the site was an irregular grid, with many loops and meandering segments. When the base was closed, the existing road network and access points to the site were closed to general traffic since the road conditions on the site had fallen to a state of disrepair, and were not safe.

The higher-order road network surrounding the site is shown on Figure 3.4 and includes:

- St. Laurent Boulevard, which is an arterial road south of

Hemlock Road and a collector north of Hemlock Road;

- Montreal Road, which is an arterial road;
- Hemlock Road, which is an arterial road west of St. Laurent Boulevard and a collector road east of St. Laurent Boulevard;
- Blair Road, which is a major collector road north of Montreal Road, and an arterial road south of Montreal Road;
- Aviation Parkway, which is a Federally-owned parkway;
- Sir George-Étienne Cartier Parkway, which is a Federally-owned parkway; and,
- Codd's Road / Carson's Road, which is a collector road from Hemlock Road to Den Haag Drive.

Levels of service (LoS) for intersections surrounding the site are currently operating well, with the exception of the Montreal Road/St. Laurent Boulevard intersection which is operating at a LoS 'E' during the afternoon peak

hour, the Ogilvie Road/Aviation Parkway intersection which is operating at a LoS 'E' and 'F' during the weekday morning and afternoon peak hours, respectively, and the Beechwood Avenue/Vanier Parkway intersection which is operating at a LoS 'F' and LoS 'E' during the weekday morning and afternoon peak hours, respectively.

3.4.1.2 Transit

Although transit does not currently run through the site, a number of bus routes have stops within an approximate 10 minute walk from the site. Bus routes that currently run along Montreal Road, St. Laurent Boulevard, Blair Road, Hemlock Road, and the Aviation Parkway include the 5, 7, 12, and 129. In addition, the Transportation Master Plan identifies Montreal Road as a future location for Transit Priority. The planned rapid transit network in the vicinity of the site is shown in Figure 3.5.

3.4.1.3 Cycling

There are currently no cycling or pedestrian trails on the site. The Ottawa Cycling Plan identifies that a future cycling route will enter the site on the east side, and run through the site to connect to the Beechwood / Hemlock corridor. Existing cycling routes around the site are shown in Figure 3.6.

Multi-use pathways surround the site, with pathways located along the Aviation Parkway and the Sir George-Étienne Cartier Parkway. In addition, gravel pathways are located at the Ottawa River edge. These pathways are displayed in Figure 3.7.

3.4.1.4 Existing Modal Split

Since the site is vacant, it is necessary to look at surrounding neighbourhoods to get a sense of the modal share between automobile use, transit, cycling and pedestrian activity.

The modal share for the communities of Ottawa East and

Beacon Hill are similar, with auto modal shares of 60%. Of the people who are not driving an automobile, 10% of the total trips (all modes) are auto passengers, 25% use transit, and 50% use non-auto modes (e.g., pedestrians and cyclists).

3.4.2 Municipal Infrastructure

The existing water supply infrastructure on the site is in poor condition and it does not have sufficient capacity to support redevelopment. It will be replaced entirely at the time of development, in coordination with the construction of the new road network.

There are two combined sewer systems on the site, installed to handle both the wastewater and most of the stormwater runoff generated on the site. Both systems discharge wastewater and surface runoff to a trunk sewer east of the property, which feeds to the R.O. Pickard central treatment plant. The combined

sewer system has reached the end of its useful life, and redevelopment of the site will include the construction of a new separated sewer system. The new sanitary sewers will be designed with sufficient capacity to collect wastewater from the site, as well as from several external areas, including the Montfort Hospital and Thorncliffe Park.

In addition to the existing combined sewer systems on the site, there are two dedicated storm sewer systems: one collects surface runoff from the central portion of the property (near Via Venus and Codd's Road) and the second carries runoff from the Thorncliffe Park residential development (immediately south of the site). Both systems eventually discharge into the Ottawa River through a series of culverts, roadside ditches, and/or natural watercourses. Wastewater flows are also delivered to the R.O. Pickard central treatment plant by the Interceptor Outfall Sewer (IOS), which is a large

trunk sewer that flows through the middle of the Rockcliffe site in a west to east direction. This major collector sewer is 2.4 metres in diameter and was constructed approximately 45 metres below the existing ground surface. The location of the IOS is shown in Figure 5.15.

3.4.3 Utilities

Utilities extending to the site, including gas, hydro, and communication lines, have been downsized over the years as people have moved off the site and the need for services has decreased. Existing utilities will not be practical for re-use in the development plan, and the redevelopment of the site will require installation of new utility services which will be located mostly underground.

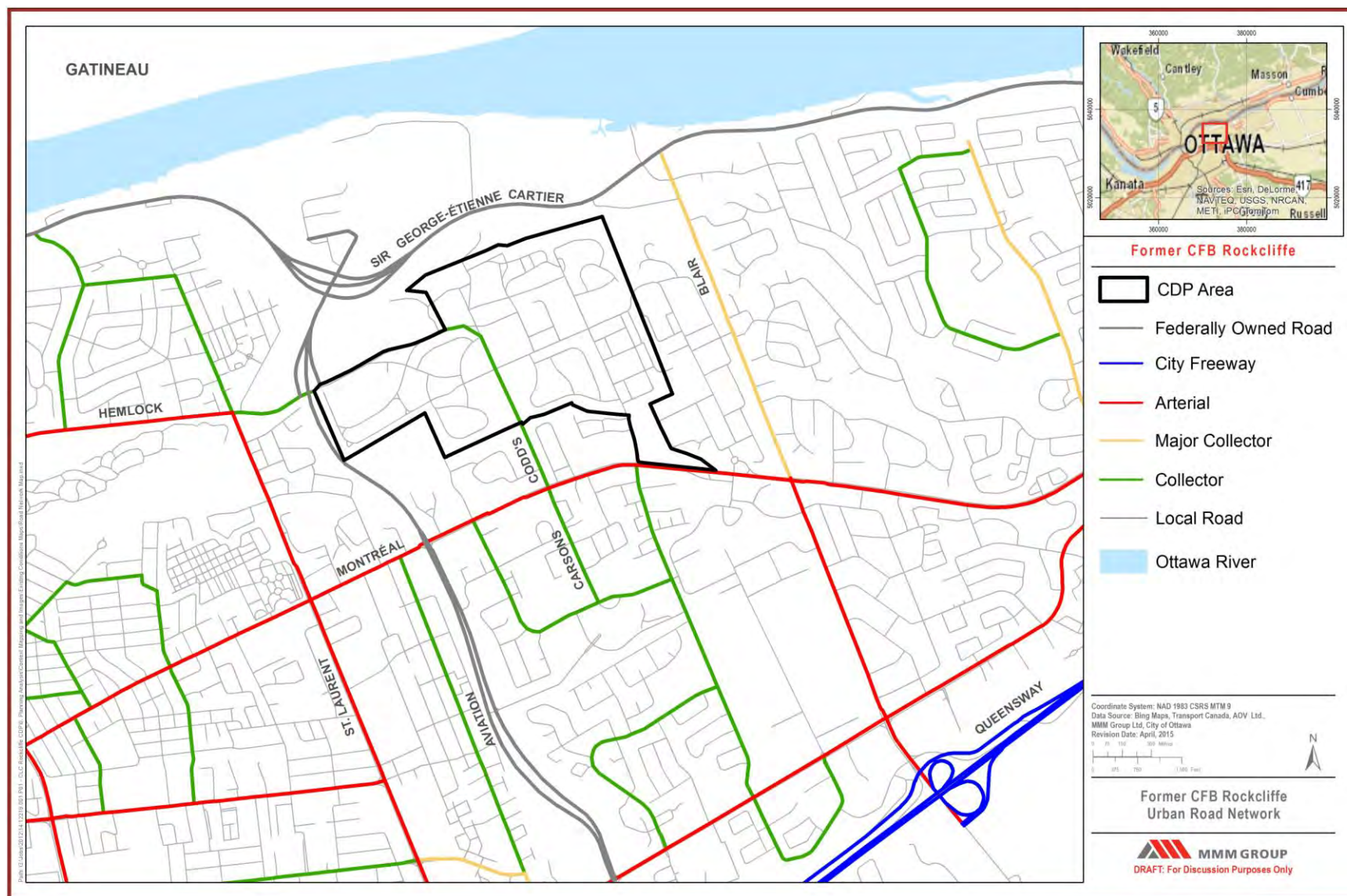


Figure 3.4: City of Ottawa Urban Road Network

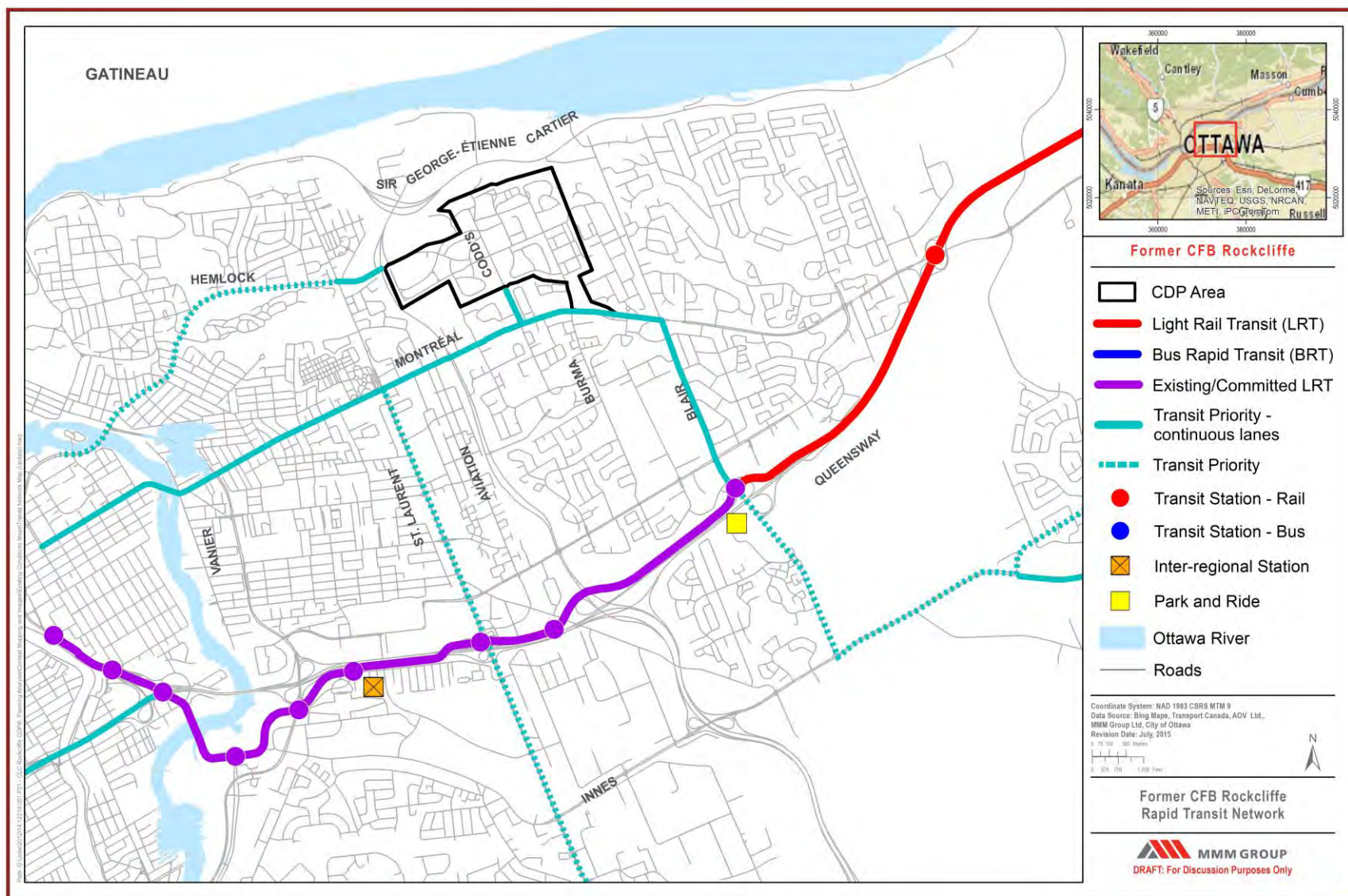


Figure 3.5: Planned Rapid Transit Network

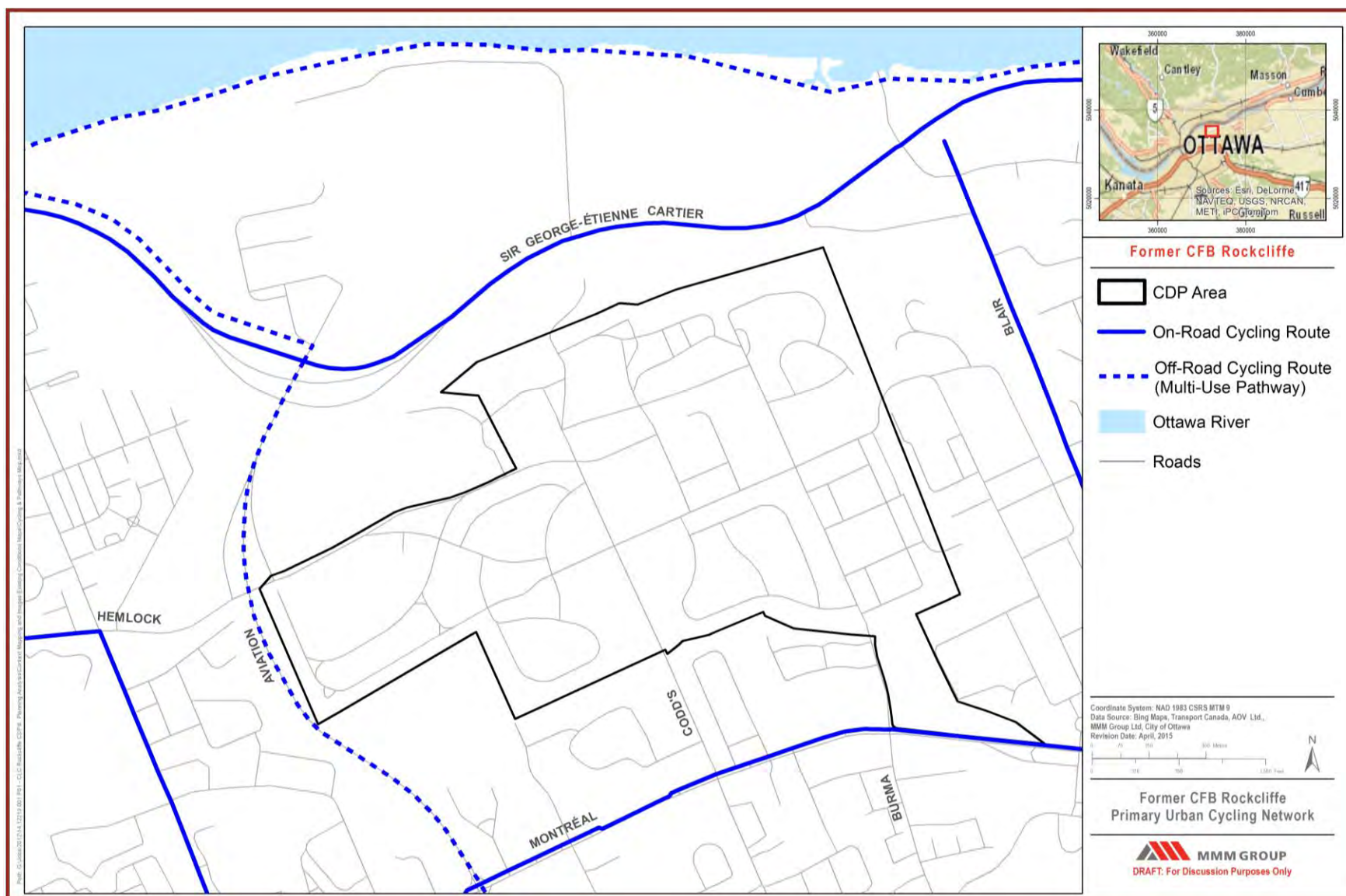


Figure 3.6: Primary Urban Cycling Network

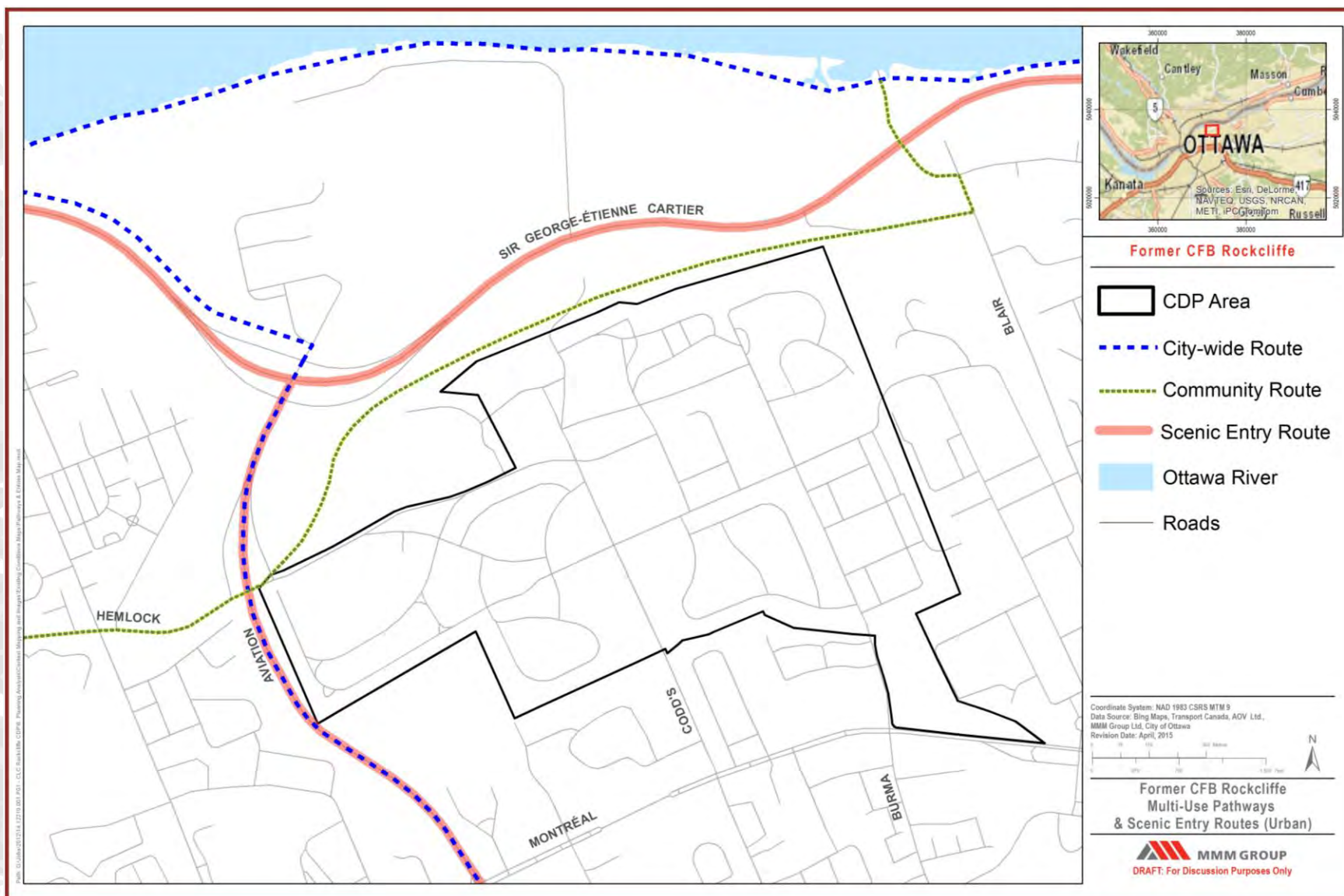


Figure 3.7: Multi-Use Pathway Network

3.5 BUILT FORM AND LAND USE

3.5.1 Surrounding Non-Residential Land Uses and Ownership

Land uses and ownership immediately surrounding the site are shown in Figures 3.8 and 3.9 and are described below.

3.5.1.1 National Research Council Campus

Adjacent to the east side of the site, the National Research Council (NRC) occupies two parcels of land with frontage on Montreal Road. These parcels total approximately 380 acres (154 ha) and extend south from the Sir George-Étienne Cartier Parkway, across Montreal Road, to Ogilvie Road. The low-rise campus buildings include primarily office and laboratory space, with large floor plates of 600 – 3,000 sq. m.

The NCC Capital Urban Lands Plan (2015) designates these lands as a Major Federal

Employment Area. The intent of this designation is to ensure that federal lands are used efficiently and are better integrated with surrounding areas over time.

The NRC has asked that Canada Lands Company and the City of Ottawa consider the compatibility of any future land uses immediately adjacent to the NRC campus. Sensitive land uses such as residential may not be compatible in this location due to occasional noise from heavy equipment that is associated with the operations of some of the laboratories on the NRC campus.

Current traffic patterns do not permit access to the Rockcliffe site through the NRC campus from Blair Road; however the possibility to allow future access for transit, cyclists and pedestrians to the Rockcliffe site through the NRC campus exists.

3.5.1.2 Montfort Hospital

The Montfort Hospital site is approximately 8 acres and is

located southwest of the Rockcliffe property, at the northeast intersection of the Aviation Parkway and Montreal Road. It was established in 1953 and is an academic hospital, conducting research and providing training to health care professionals through its partnership with the University of Ottawa. Buildings at the Montfort Hospital site range up to approximately twelve storeys and typically have large floor plates.

3.5.1.3 NCC Future Cultural Institution Lands

A triangular parcel of land is located on the northwest border of the Canada Lands Company property. This land is owned by the NCC and currently functions as passive greenspace, but is being reserved for a future National Cultural Institution. The NCC Capital Urban Lands Plan designates this parcel as a Cultural Institution & Facility, the intent of which is to promote Canadian values, art, history and achievements through the setting

and the architecture of National Cultural Institutions. Locations along Capital parkways and pathways have been prioritized for National Cultural Institutions. This designation also encourages excellence in urban design, a range of major and national events at these sites, enhanced wayfinding and visitor orientation, and sustainable and active transportation as a means of access to these sites.

3.5.1.4 Rockcliffe Airport and Canada Aviation and Space Museum

The Ottawa Rockcliffe Airport and the Canada Aviation and Space Museum are located north of the Aviation Parkway and the Sir George-Étienne Cartier Parkway junction. The collection on the Museum site includes over 130 aircrafts, housed within two main buildings. The owner and operator of the Rockcliffe Airport is the Canada Science and Technology Museum Corporation.

Federal Airport Zoning Regulations have been promulgated under the Aeronautics Act, which governs aviation matters in Canada. Transport Canada Advisory Circular AC 300-009, which was revised prior to adoption of this CDP in November 2014, relates to both the activities of aerodromes and jurisdictional matters that may apply to surrounding lands. There are no regulations currently governing the Rockcliffe Airport that restrict or affect activities or development (including noise or building height, orientation, or materials) beyond the property lines of the Canada Aviation and Space Museum.

Specifically, no existing Transport Canada regulations prevent or restrict the building height regime or development plan proposed in this CDP. Any new regulations for the Rockcliffe Airport would have to respect both built and approved development as surrounding existing conditions, as is the case for the existing high-rise buildings,

the Montfort Hospital, and approved zoning to the south of this CDP. Once approved, this CDP, its related zoning, and all other City of Ottawa approvals intended to implement the CDP will take precedence with respect to any new airport regulations and operations. Neither the Canada Science and Technology Museum Corporation, the Canada Aviation and Space Museum, the Rockcliffe Flying Club, nor Transport Canada would be able to impose height restrictions contrary to the approved CDP for the former CFB Rockcliffe.

Canada Lands Company and the City of Ottawa will collaborate with the Canada Science and Technology Museum Corporation, the Canada Aviation and Space Museum, and the National Capital Commission (NCC) to design the northern stormwater pond on NCC lands so that conflicts with airport operations involving large waterfowl (e.g. geese and cranes) can be minimized.

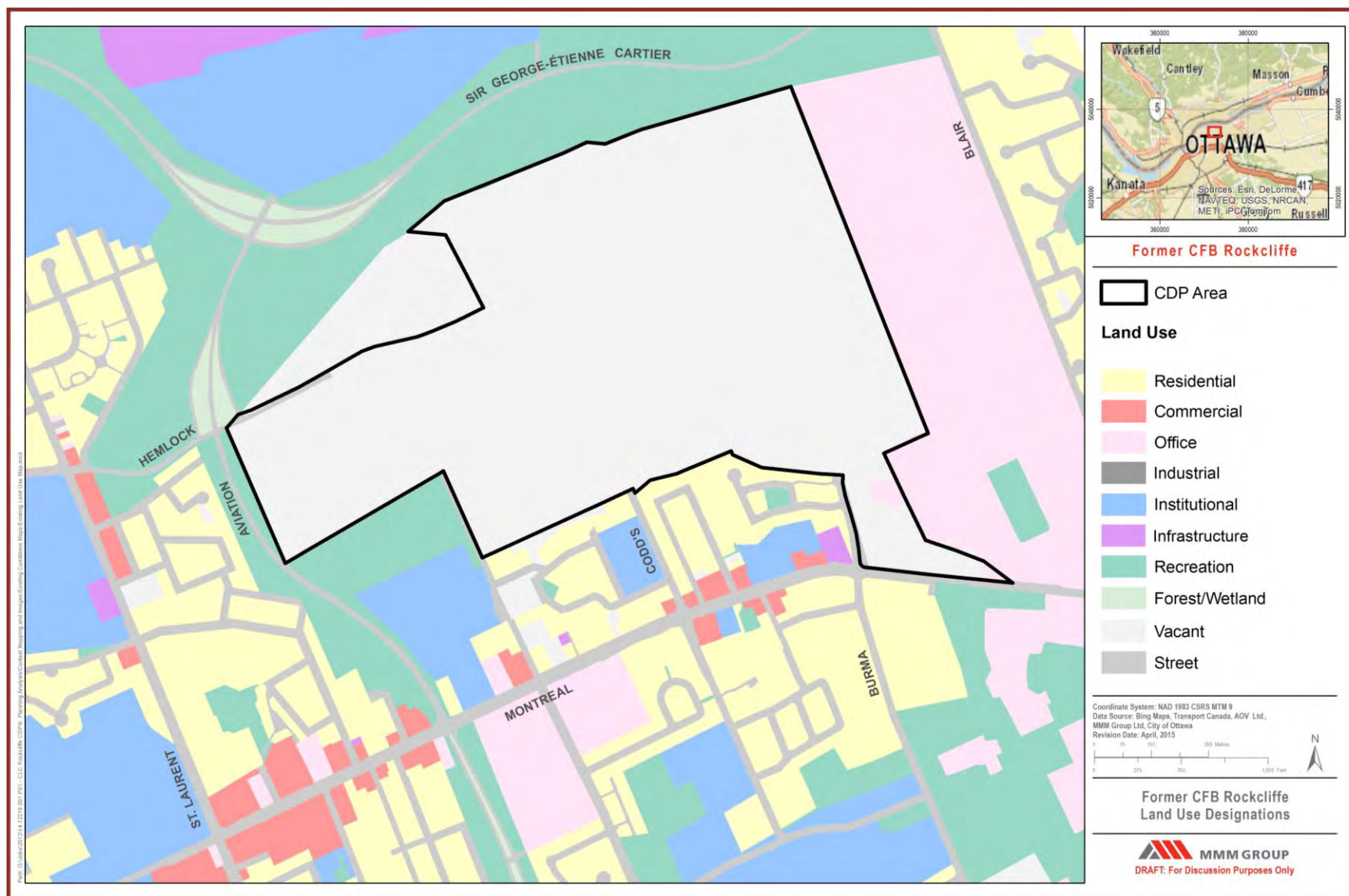


Figure 3.8: Existing Land Uses

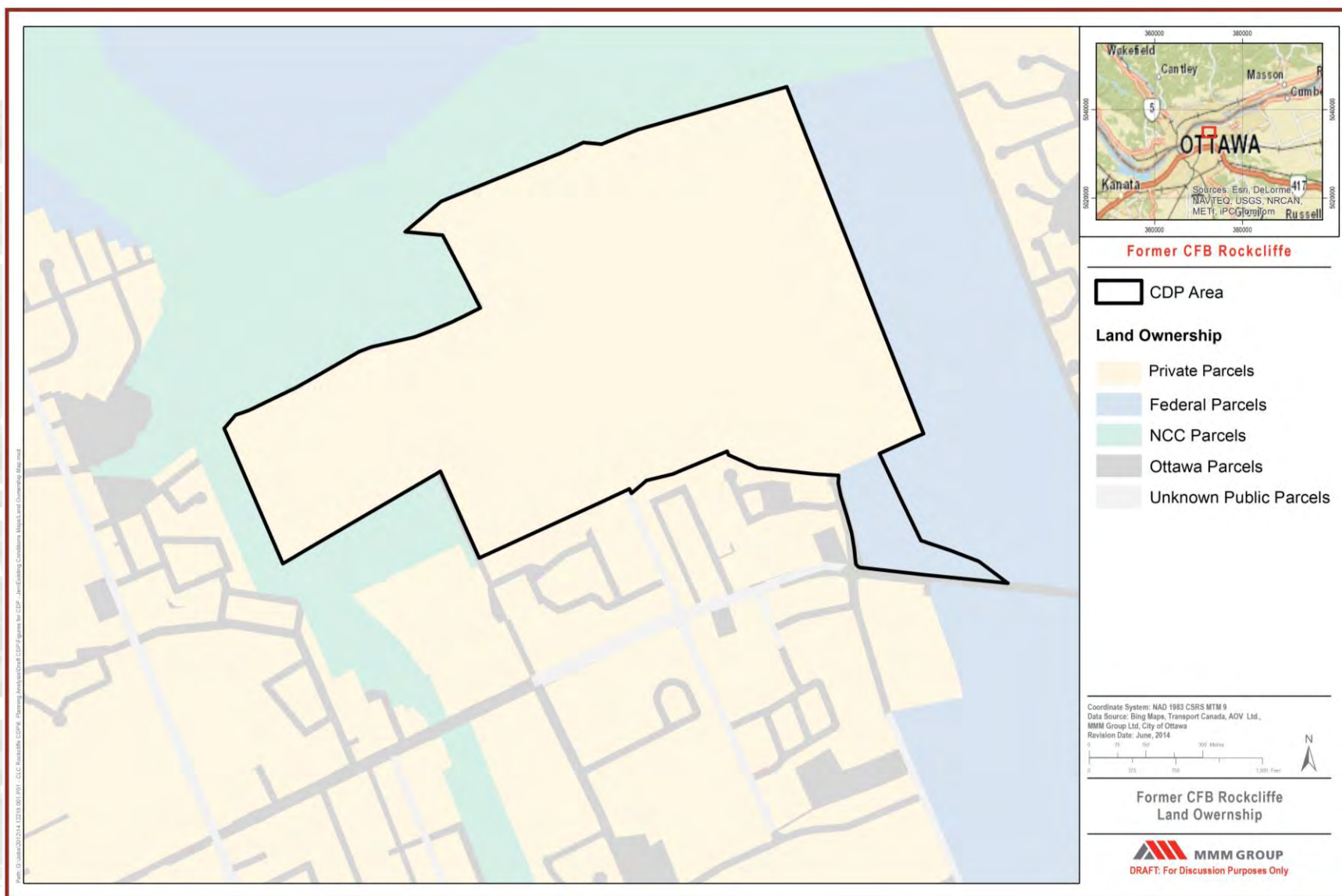


Figure 3.9: Existing Land Ownership

3.5.2 Surrounding Neighbourhoods

The Ottawa Neighbourhood Study defines the broader CFB Rockcliffe community approximately bounded by the Ottawa River to the north, Montreal Road to the south, Blair Road to the east, and St. Laurent Boulevard to the west. According to the study, a total of 5,391 residents lived in this area at the time of the 2006 census. The surrounding neighbourhoods and community facilities are shown in Figure 3.10. The footprints and heights of the buildings in the surrounding neighbourhoods are shown in Figures 3.11 and 3.12.

The Fairhaven, Foxview and Thorncliffe Village neighbourhoods abut the former base on the southern boundary of the site. Manor Park is located to the west and Rothwell Heights is located to the east.

The Fairhaven Community is located south of the former CFB

Rockcliffe site, between Codd's Road and Lang's Road. One main road loop (Fairhaven Way) provides access to the majority of the lots in this community. To the west of Codd's Road, single-detached family units on lots ranging from approximately a third of an acre to just over half an acre are prevalent. This area is characterized by heavily wooded and treed lots – to a much higher degree than typically found in residential development in urban settings. These lots are privately serviced, which is also unusual for residential development in such an urban setting.

The housing fronting on Codd's Road includes single units, semi-detached units, townhouses and low- and mid-rise apartment buildings (eight storeys).

East of Codd's Road in the Foxview community the lot sizes are smaller, ranging from approximately 10,000 sq. ft. to 30,000 sq. ft. Thorncliffe Village is further east, and it contains

townhouses, semi-detached housing, duplexes, and walk-up apartments.

South of Montreal Road on either side of Bathgate Drive, there are taller buildings which contain a 16 storey apartment and a 24 storey apartment.

Manor Park is a community located northwest of the Rockcliffe site. It is bounded by the Aviation Parkway, the Sir George-Étienne Cartier Parkway, Hemlock Road, and McKay Lake. Housing in Manor Park is quite dense, particularly at the east end of the neighbourhood along London Terrace, where there are mid-rise apartment buildings and three- and four-storey condominium buildings. Moving west, housing density transitions into lower density forms, moving almost exclusively to single-detached units at the west end of Manor Park.

Rothwell Heights is a community located within Beacon Hill, a

neighbourhood situated to the east of the site and east of Blair Road. The street network in this neighbourhood is a “loops and lollipops” pattern typical of suburban areas, with meandering streets and dead ends. Lot sizes are generally in the range of a third of an acre to half an acre, but some larger properties, up to two acres, do exist. Housing in this neighbourhood consists almost exclusively of single-detached units, typically one to two storeys, with the exception of five apartment units.

3.6 SOCIAL AND ECONOMIC CONDITIONS

The Montfort Hospital, the National Research Council (NRC), and the Communications Security Establishment (CSE) are major employers in the vicinity of the site and represent opportunities for integrating employment and attracting jobs to the site.

3.6.1 Community Facilities and Local Destinations

There are a number of community facilities and amenities near the Rockcliffe site, as shown in Figure 3.10. There are multiple elementary, secondary, and high schools, as well as La Cité Collégiale – Ontario’s largest French-language college. Recreational facilities in neighbourhoods surrounding the Rockcliffe site include community gardens, outdoor pools, wading pools, outdoor rinks, basketball courts, and ball diamonds.

The Ottawa Neighbourhood Study (2013) documented the following characteristics in the general area:

- 26 percent of residents 15 and older were first generation immigrants.
- There is poor access to grocery stores, specialty stores and other food outlets (fast food, convenience stores). The closest grocery store is a 30 minute walk away (just under

two kilometres) from the population weighted centre of the site.

- There is little City parkland in this neighbourhood which totals approximately two km², or 0.15 km² per thousand residents (which is below the City average).
- While there is below average greenspace in Beacon Hill, there is above average greenspace in Rockcliffe-Manor Park.

3.7 HISTORY AND CULTURAL HERITAGE

Prior to European settlement, the former CFB Rockcliffe site was a territory of the Algonquin peoples within a much larger area of the watersheds of the Ottawa and Mattawa Rivers. Although the site does not appear to have had any permanent settlements, its prominent location along a ridge overlooking the Ottawa River undoubtedly made it important for cultural, strategic, and transportation reasons. The

Algonquins never ceded land to the Crown under any treaty. Negotiations for a treaty are ongoing.

Findings of a Stage 1 Archaeological Assessment conducted for the site in 1999 indicated that there was a possibility that the site could be of pre-European archaeological significance. Given the site's proximity to the Ottawa River and the historic use of the River as a major transportation corridor, the chances that the site would be of archaeological significance are good. A Stage 2 Archaeological Assessment was conducted for the site in 2007. This assessment found that the Barreille-Snow site represented a potentially significant archaeological resource. A Stage 3 archaeological assessment was recommended and, if warranted, a Stage 4 salvage excavation. If required, this will be completed after submission of a subdivision application for the final phase of the build out.

Original European settlement on the site was slow until the construction and establishment of more permanent transportation routes; namely the Rideau Canal in 1832, and Montreal Road.

In 1898, CFB Rockcliffe was established by the Department of National Defense (DND) for use as a rifle range. In 1920, redevelopment of the rifle range to an aerodrome and experimental photography station was approved. Over time, the size of the base grew until it totaled over 326 ha (800 acres) at its peak.

During World War II, the base was improved so that it could be a training facility as part of the British Commonwealth Air Training Plan. The site also provided aircraft testing and the transport of mail to Europe. Immediately after the war, the first jet aircraft demonstration in Canada happened on the base.

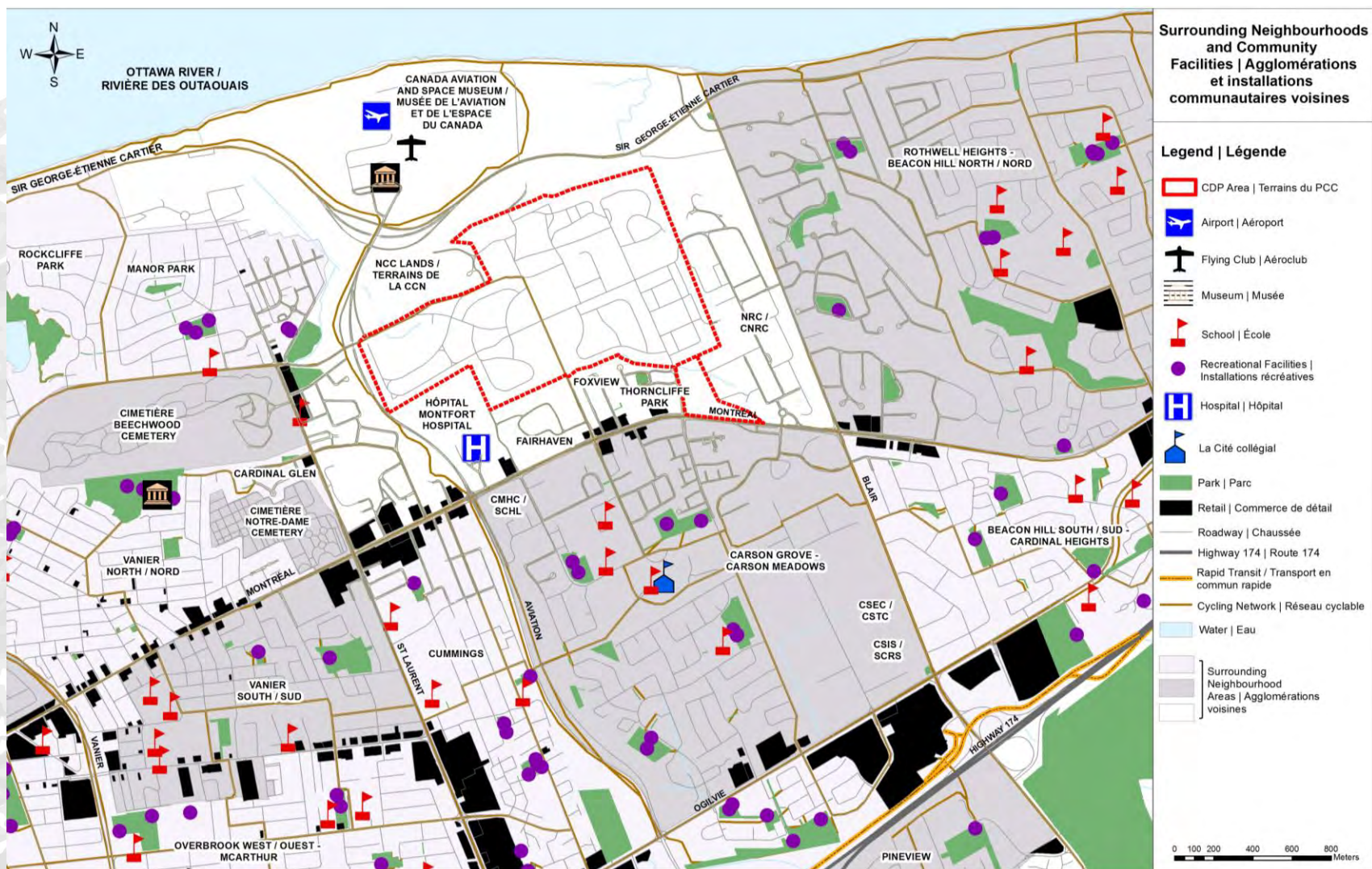


Figure 3.10: Social Amenities and Surrounding Neighbourhoods



Figure 3.11: Existing Building Footprints

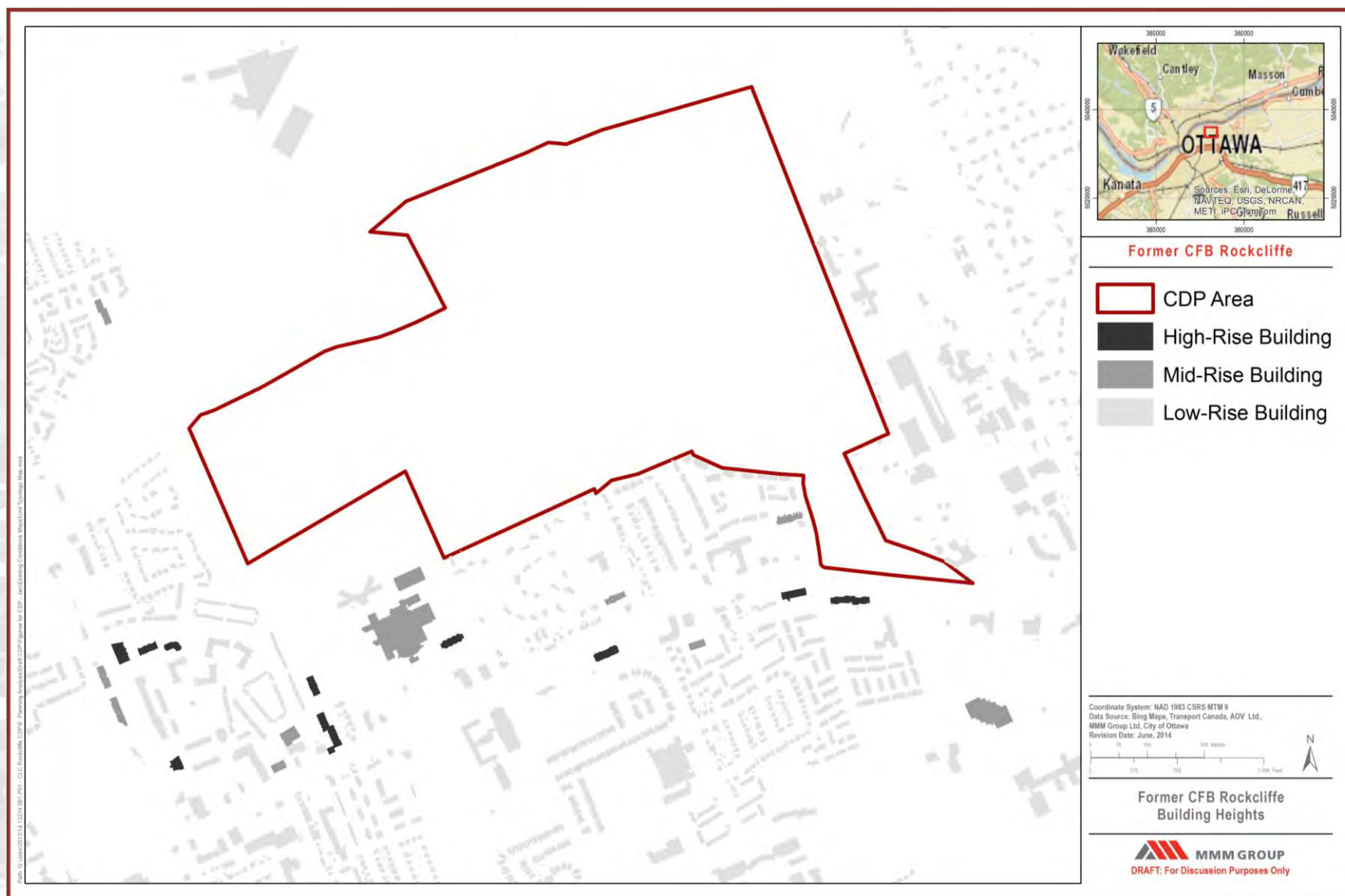


Figure 3.12: Building Heights

Following World War II, approximately 600 housing units were built to accommodate the short-term needs of returning military personnel. The shrinking presence of CFB Rockcliffe began in the 1960s, when the air operational facilities were vacated. In 1989, the Base was further reduced in size as large portions of the site were transferred from DND to other federal departments and agencies, including the Royal Canadian Mounted Police (RCMP), the National Research Council, the National Capital Commission, the Canada Aviation and Space Museum, and others. DND's Maritime Helicopter Program and DND's military housing and related support functions on the base continued until 2004.

In early 2004, the Government of Canada agreed to initiate the process to approve the transfer of 10.12 hectares of the former CFB Rockcliffe from the DND to the NCC and 125.41 hectares to Canada Lands Company.

All buildings were demolished by 2013 and the site was being prepared for future development.


3.8 OPPORTUNITIES AND CONSTRAINTS

Table 3.1 describes all of the existing site features and the opportunities and constraints associated with each.

Table 3.1: Opportunities and Constraints

Type of Site Feature	Site Feature	Constraint	Opportunity
Topography, Views, and Vistas	Terraced topography, sloping towards the Ottawa River.	A steep ridge is located at the northern boundary of the site, which is not well suited for development.	Maintaining the existing topography will help to preserve the existing hydrological cycle on the site, and continue to feed trees and vegetation on and near the site.
	Views and vistas including the Ottawa River and Gatineau, Quebec.	Building height will need to be planned carefully in order to maintain views and vistas to the extent possible.	Retaining the views and vistas will enhance the natural beauty of the site.
Water Resources, Geology and Soils	Two watersheds divide the site approximately in half.	The watershed divide will impact municipal infrastructure design.	The design for new municipal infrastructure may take advantage of the natural drainage divide. The Conservation Authority strongly encourages the post-development drainage area boundaries to match the pre-development drainage area boundaries so as to maintain the site's natural water balance and flow regimes within the watercourses.

Type of Site Feature	Site Feature	Constraint	Opportunity
	Two creeks have headwaters near or within the site.	Engineering works (e.g. culverts) have the potential to destabilize the channel.	Retaining the natural creeks will continue to provide habitat for the fauna and flora that occupy them.
	Infiltration rates for soils on and to the north of the site are low.		These are suitable locations for stormwater management features.
	Shallow bedrock covers at least 18% of the site.	The cost of developing underground parking in these areas will be high.	The bedrock presents good opportunity for developing taller buildings.
	Clay soils are located in the southern and western portion of the site.	The type of foundation that is required will be impacted by the clay soils.	
Landscape and Ecology	There are many significant trees and tree stands on the site, including a Bur Oak that is estimated to be more than 200 years old.	The CDP and subsequent development plans will need to account for the location of these features.	Preserving the significant trees and tree stands will continue to provide habitat for the fauna and flora that occupy them. Preserving significant tree stands will also contribute to the overall stormwater management scheme for the site because they slow and detain runoff and promote infiltration.



Type of Site Feature	Site Feature	Constraint	Opportunity
	A number of Urban Natural Features have been identified near the site.	Significant changes to the topography of the site would affect the condition of these UNFs.	Preserving these UNFs will increase the natural beauty of the site, and will continue to provide habitat for the fauna and flora that occupy them.
Infrastructure	There are currently three potential access points to the site for auto traffic.	Additional access points will be required to increase the connectivity of the site to surrounding areas.	Additional access points can be strategically chosen to optimize connectivity with surrounding areas.
	Four bus routes are currently within a 10 minute walk of the site.	To support transit on site there must be sufficient population.	Development on the site will be sufficient to introduce a transit route to serve residents living on the site.
	There are currently no paths for pedestrians or cyclists on the site. There are many paths surrounding the site.		Adding pathways for pedestrians and cyclists that connect to the pathway systems throughout the City will improve connectivity and encourage active transportation.

Type of Site Feature	Site Feature	Constraint	Opportunity
	The existing water supply infrastructure is in poor condition and does not have sufficient capacity to support redevelopment.	The existing water supply infrastructure cannot be used in the new development.	<p>Developing new water supply infrastructure can service the site.</p> <p>The location and capacity of new water supply infrastructure can be strategically located to suit the desired development plan. Development will not be constrained by the limitations of pre-existing infrastructure.</p>
	There are two combined sewer systems on the site which have reached the end of their useful lives.	The existing sewer and stormwater infrastructure cannot be used in the new development.	<p>Developing new sewer and stormwater infrastructure can service the site.</p> <p>The location and capacity of new sewer and stormwater infrastructure can be strategically located to suit the desired development plan. Development will not be constrained by the limitations of pre-existing infrastructure.</p>
	The Interceptor Outfall Sewer (IOS) tunnel crosses the site at approximately 45 metres below the surface.	Access to the IOS needs to be preserved through two access shafts located on the site.	

Type of Site Feature	Site Feature	Constraint	Opportunity
	Existing utilities on the site are not practical for re-use in the development.	Existing utilities cannot be used in the new development.	Installing new utilities can service the site.
Built Form and Land Use	The National Research Council (NRC) is located to the east of the site.	The research operations of the facility can generate light, noise, and vibration that may be considered a nuisance to neighbours.	There may be opportunities to plan the site such that a compatible use (office or employment) is adjacent to the NRC campus.
	The Montfort Hospital is located to the south of the site.		There may be opportunities to promote the establishment of development on the site.
	The Rockcliffe Airport and Canada Aviation and Space Museum are located to the north of the site.	Any open water on or near the site (e.g., stormwater ponds) will need to be designed to discourage bird habitat in order to minimize conflicts with the airport operations.	The heritage of the site as a Canadian Forces Base ties in well with these neighbours, and there may be opportunities for synergy. The Canada Aviation and Space Museum is a cultural institution that may be an attractive destination point for residents of the new community.

Type of Site Feature	Site Feature	Constraint	Opportunity
	The site is surrounded by a number of neighbourhoods: Fairhaven, Foxview, Thorncliffe Village, Drayton Private, Rockcliffe, Manor Park, Rothwell Heights, and Beacon Hill.	Connections to these neighbourhoods from the site are currently limited.	Constructing a more permeable transportation network on the site will increase connectivity to these nearby neighbourhoods.
Social and Economic Conditions	There is poor access to grocery stores, specialty stores, and other food outlets (fast food, convenience stores).	To support these businesses there must be sufficient population.	The CDP can improve this by facilitating development for food retailers through mechanisms such as zoning.
History and Cultural Heritage	The site was likely an important cultural, strategic, and transportation location for the Algonquin peoples.		The development could incorporate the Algonquin history of the site into its programming.
	The site operated previously as a Canadian Forces Base.	Previous development on the site contaminated the soils in some areas. The contaminated soils will need to be removed or managed on site in accordance with best management practices.	The development could incorporate the military history of the site into its programming.

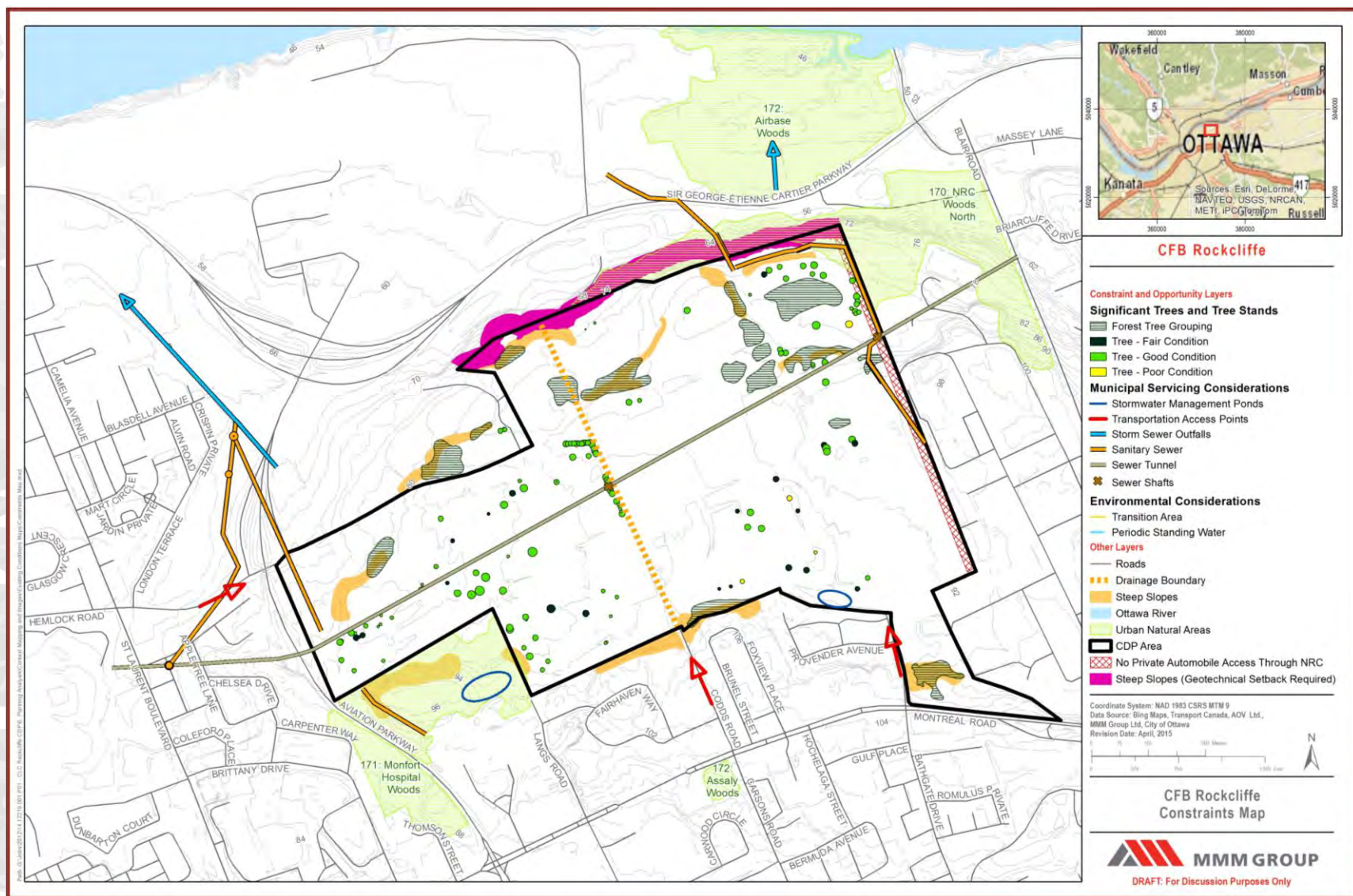


Figure 3.13: Constraints and Opportunities

4 | PLANNING AND POLICY CONTEXT

4 PLANNING AND POLICY CONTEXT

This Community Design Plan is based on policy direction from the Province of Ontario and from the City of Ottawa. The Provincial Policy Statement (2014) and the City of Ottawa Official Plan (2013) are given authority through the Ontario *Planning Act*, which gives these documents legal status.

4.1 PROVINCIAL POLICY STATEMENT

The foundation of the Provincial Policy Statement (PPS) is building strong communities. To achieve this goal, the PPS provides policy

direction on land use planning and development in Ontario for a time horizon of up to 20 years. A main objective of the PPS is to promote the efficient use of land, existing infrastructure and existing public facilities. This will help guide development in the Rockcliffe community by encouraging the inclusion of an appropriate range and mix of housing, land uses and employment opportunities (Section 1.1.2).

As identified in the Existing Conditions Report, there are a number of policies that directly influence planning for the former CFB Rockcliffe site. These deal specifically with:

- Accommodating a range and mix of land uses;
- Promoting cost-effective development;
- Establishing phasing policies for the orderly progression of development;
- Improving connectivity for all transportation modes;
- Maintaining the ecological function and biodiversity of natural heritage systems;
- Protecting, improving and restoring the quality and quantity of water and water resource systems;
- Recognizing Aboriginal interests in land use planning

- and encouraging coordination with Aboriginal communities;
- Promoting the conservation of cultural heritage and archaeological resources;
- Promoting healthy communities and active modes of transportation; and
- Ensuring the provision of affordable housing.

These policies were carried through the planning process and were used to develop the specific planning principles for the former CFB Rockcliffe found in this CDP.

4.2 CITY OF OTTAWA OFFICIAL PLAN

The Official Plan (2013) designates the former CFB Rockcliffe lands a “Developing Community.” Under the Official Plan, the intent of these areas is to designate lands that “...are vacant, or substantially vacant, that offer substantial opportunity for new residential development at increased intensities and opportunities to create complete,

sustainable communities, within a development pattern that prioritizes walking, cycling and transit over the automobile.”

The Official Plan requires that Community Design Plans be developed for areas designated “Developing Community” in order to implement the principles and policies of the Official Plan at the community scale, to manage change in these areas, and to further involve the community in planning through public consultation.

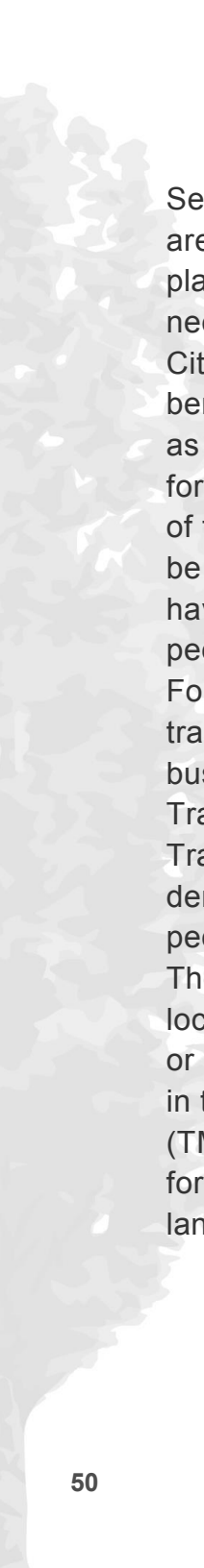
Section 3.6.4 of the Official Plan provides the policies that pertain to the development of Community Design Plans. Policies that have particular influence on the development of the former CFB Rockcliffe CDP include:

- Ensuring that the land use mix contributes to achieving a balance of jobs and households;

- Maximizing the number of access and egress points in the transportation system; and
- Establishing a mix of residential dwelling types that is characterized by:
 - less than or equal to 55% single-detached units;
 - greater than or equal to 10% apartment units; and
 - the remainder multiple attached dwellings (other than apartments).

4.3 RESIDENTIAL LAND STRATEGY FOR OTTAWA

The Residential Land Strategy for Ottawa (2009) identifies the former CFB Rockcliffe site as an opportune area for intensification outside of the City’s target areas. The Strategy notes that the previous planning concepts for the former CFB Rockcliffe lands called for approximately 6,000 housing units.



Setting density targets for various areas of the City helps to better plan for infrastructure and services needed to support growth. The City of Ottawa uses the density benchmarks identified in Table 4.1 as a means to help justify and plan for the provision of various levels of transit. For 'good bus service' to be provided in an area, it should have a density between 40 and 80 people and jobs per gross hectare. For an area to provide 'very good transit', and potentially excellent bus service or possibly Bus Rapid Transit (BRT) and/or Light Rail Transit (LRT) it should have a density between 80 and 120 people and jobs per gross hectare. The Rockcliffe lands are not located near a major transit station or along the Transitway, however, in the Transportation Master Plan (TMP), Montreal Road is planned for Transit Priority (continuous bus lanes) in the pre-2031 timeframe.

Table 4.1: Transit Service Potential Based on Urban Density

Density range*	Transit potential	Type of service
Under 20	Low	No public transit. Requires dial-up cabs, jitneys, etc.
20-40	Modest	Marginal public transit. Buses every half-hour. Rush hour express buses.
40-80	Good	Good bus service.
80-120	Very good	Excellent bus service. Possible BRT/LRT.
120-200	BRT / LRT	High order transit.
Over 200	Subway	High order transit.

*Density is expressed as People and Jobs per Gross Hectare.
 Source: *Residential Land Strategy*, p. A5-1.

4.4 CITY OF OTTAWA COMPREHENSIVE ZONING BY-LAW

The City of Ottawa Comprehensive Zoning By-law (2008) for the Canada Lands Company Rockcliffe lands currently zones the lands DR2 (Development Reserve 2), I1A (Minor Institutional), and R3B (Residential Third Density). The DR zone is typically reserved for undeveloped lands. I1A zone is typically used for libraries, museums, places of worship or assembly, schools, and training centres. The R3 zone is typically used for residential development ranging from detached to townhouse dwellings.

The NRC lands that are included in the CDP area are currently zoned IL (Light Industrial). This zone is typically used to permit uses such as broadcasting studios, emergency services, municipal service centres, offices, production studios, research and

development centres, technology, and industries, etc.

Existing zoning for the lands within and around the site is shown in Figure 4.1.

4.5 OTHER POLICY AND GUIDELINE DOCUMENTS

In addition to these documents, a number of other policy and guideline documents were referenced during the research and development of this Plan, including (but not limited to):

- City of Ottawa Official Plan (2013)
- City of Ottawa Transportation Master Plan (2013)
- City of Ottawa Infrastructure Master Plan (2013)
- City of Ottawa Pedestrian Plan (2013)
- City of Ottawa Cycling Plan (2013)
- City of Ottawa Park and Pathway Development Manual (2012)
- City of Ottawa Urban Design Guidelines for Low-rise Infill Housing (2012)
- City of Ottawa 2011-2014 Strategic Master Plan (2011)
- City of Ottawa Residential Land Strategy for Ottawa 2006-2031 (2009)
- City of Ottawa Urban Design Guidelines for High-Rise Housing (2009)
- City of Ottawa Right-of-Way Lighting Policy (2009)
- City of Ottawa Comprehensive Zoning By-law (2008)
- City of Ottawa Road Corridor Planning & Design Guidelines (2008)
- City of Ottawa Consolidated Design Guidelines for New Development Application Gateway Features (2008)
- City of Ottawa Urban Design Guidelines for Greenfield Neighbourhoods (2007)
- City of Ottawa Transit-Oriented Development Guidelines (2007)

- City of Ottawa Greenspace Master Plan (2006)
- City of Ottawa Urban Design Guidelines for Development along Traditional Mainstreets (2006)
- City of Ottawa Urban Design Guidelines for Development along Arterial Mainstreets (2006)
- City of Ottawa Urban Natural Areas Environmental Evaluation Study (2005)
- City of Ottawa Understanding Residential Density (2005)
- National Capital Commission Plan for Canada's Capital

In addition, the City has a number of relevant Urban Design Guidelines that will help shape the development of the site in tandem with the site specific guidelines and policies presented in Chapter 6.

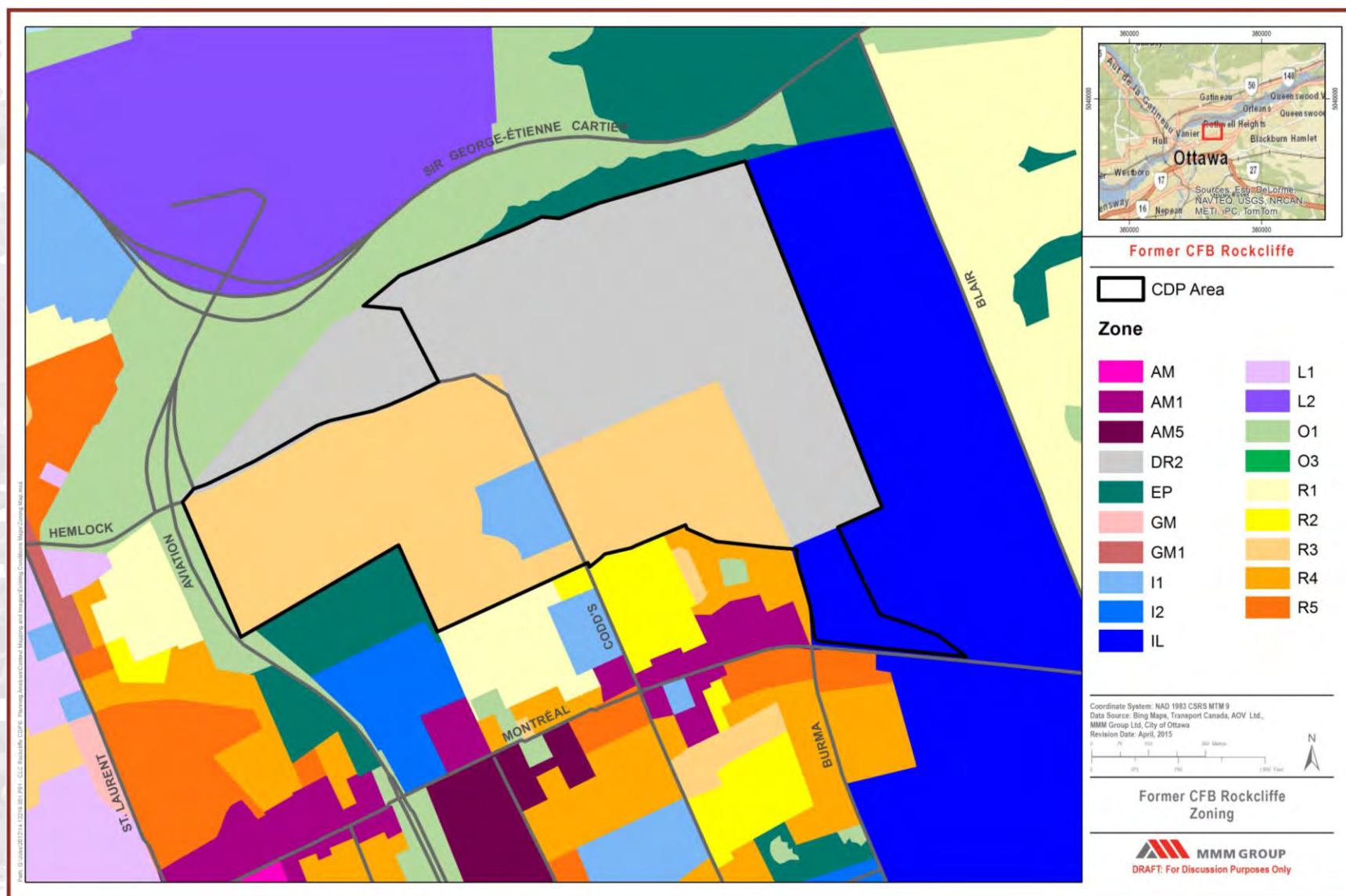


Figure 4.1: Existing Zoning

5 | STRUCTURE OF THE NEW COMMUNITY

5 STRUCTURE OF THE NEW COMMUNITY

The purpose of this chapter is to describe the general layout and character of the new community including neighbourhood structure, land uses, the mobility and circulation network, and utilities and infrastructure. The distribution of density and height across the site is also presented.

5.1 NEIGHBOURHOOD STRUCTURE

The total CDP site area is 131 hectares. Within this area there is a significant variation in land form, natural features, and site

elements. These variations have informed the creation of eight smaller, individual neighbourhoods.

Each neighbourhood is located within 600 metres of a potential transit route and is intended to be compact, walkable, and transit-oriented. Each neighborhood also features easy access to exceptional public open spaces, employment, shops and services.

While they generally share these characteristics, each neighborhood is also intended to have a distinct character based on its location, intended use and existing site features. The eight

neighbourhoods are shown in Figure 5.1 and described in more detail below.

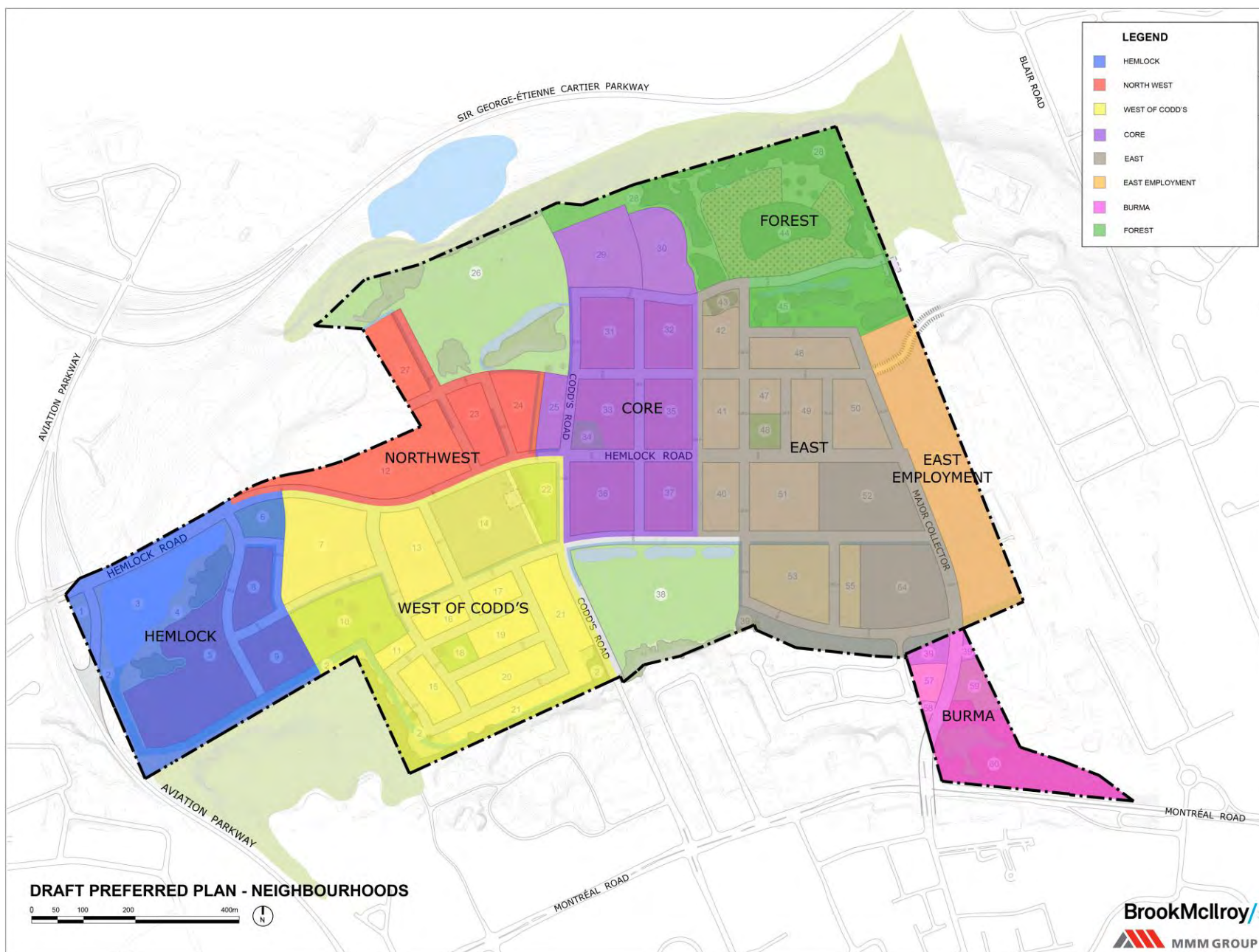


Figure 5.1: The Neighbourhoods

5.1.1 Hemlock

The Hemlock neighbourhood is located at the western boundary of the site and will act as a mixed-use, high-density area that takes advantage of, and is characterized by, its relationship with the Montfort Hospital and Montfort Hospital Woods to the south.

5.1.2 West of Codd's

Immediately adjacent to the Hemlock neighborhood, West of Codd's is bounded by Hemlock Road to the north, Codd's Road to the east, and the site's southern boundary. This neighbourhood will generally accommodate lower and medium density residential uses including single-detached, semi-detached, and townhouse units, as well as low- and mid-rise apartments. The neighborhood will contain a school site and will be characterized by excellent access to a number of parks and parkettes.

5.1.3 Northwest

This neighbourhood lies north of Hemlock Road and west of Codd's Road and is intended to be primarily residential in nature with a variety of townhouse units, stacked townhouse units, and low- to mid-rise apartments. Immediately adjacent to Codd's Road, there will be a low- to mid-rise mixed-use area, taking advantage of the proximity to the Core, which will provide opportunities for retail uses at the street edge. The Northwest neighborhood is situated immediately adjacent to a large public park affording access to recreational opportunities and spectacular views of the Ottawa River to the north.

5.1.4 Core

The Core is a nine block mid-rise mixed-use neighborhood at the heart of the community. It is strategically located in close proximity to all major parks and is intended to be a place where neighbourhood residents, those

who work in the area, and outside visitors can gather and socialize. It will be a compact, pedestrian-oriented area with a variety of residential and employment uses.

5.1.5 East

This neighbourhood extends from the Core to Burma Road and is characterized by residential uses comprising single-detached, semi-detached, townhouse and stacked townhouse units, as well as low-rise and mid-rise apartments. The East neighbourhood will provide excellent access to employment, shops and services, and will accommodate two school sites along the eastern boundary.

5.1.6 Forest

The Forest neighbourhood is located in the northeast corner of the site, directly adjacent to the NRC Woods and Airbase Woods. Within this neighbourhood, there are a number of important tree groupings that will be retained and protected as new development occurs. Residential uses will be

provided in a multi-unit format nestled in the trees, resulting in an “urban forest” development concept.

- Prior to any site alteration, a master concept plan will be prepared to confirm that this development concept is viable.

5.1.7 East Employment

The East Employment neighbourhood is located east of the north-south major collector, at the very eastern edge of the site and will contain a mix of low- to high-rise office buildings. The East Employment Area will create employment opportunities that will be compatible with the adjacent research campus of the National Research Council. There will be a focus on recruiting high-technology, communications, information-technology, and research and development industries to this area.

5.1.8 Burma

The Burma neighbourhood will be an important entry point to the community and is located at the intersection of Burma Road and Montreal Road. This small area will give the community a presence on Montreal Road and will predominantly consist of high-rise mixed-use buildings. Publicly accessible shops and services will be located on the ground floor of high-rise buildings, providing a vibrant and active street frontage on Montreal and Burma Road. These will be supported by attractive streetscapes with spill-out uses that will encourage people to gather and socialize.

5.2 LAND USES

The concept plan is shown in Figure 5.2 and illustrates the overall land use, road, and block pattern for the community. This plan was designed to provide a range of places for people to live, work and play which will foster and encourage a vibrant community. The community will be walkable, compact, and transit-oriented and will contain prominent interconnected green spaces with aesthetic, environmental, and recreational qualities.

The plan includes three elementary school sites which will accommodate future schools to serve the community and surrounding areas. The School Boards that have requested schools include the Ottawa-Carleton District School Board, the Conseil des écoles publiques de l'Est de l'Ontario, and Conseil scolaire de district catholique de l'Est Ontarien.

The concept plan designates the following land uses:

- Low-rise residential;
- Low- to mid-rise residential;
- Low- to mid-rise mixed-use;
- Mid-rise mixed-use;
- High-rise mixed-use;
- High-rise employment;
- Forest Special Design Area;
- Schools;
- Parks and parkettes;
- Natural areas and important tree groupings; and
- Infrastructure (e.g., roads, off-road cycling connections, stormwater facilities).

Specific policies and guidelines for each land use are presented in Chapter 6.

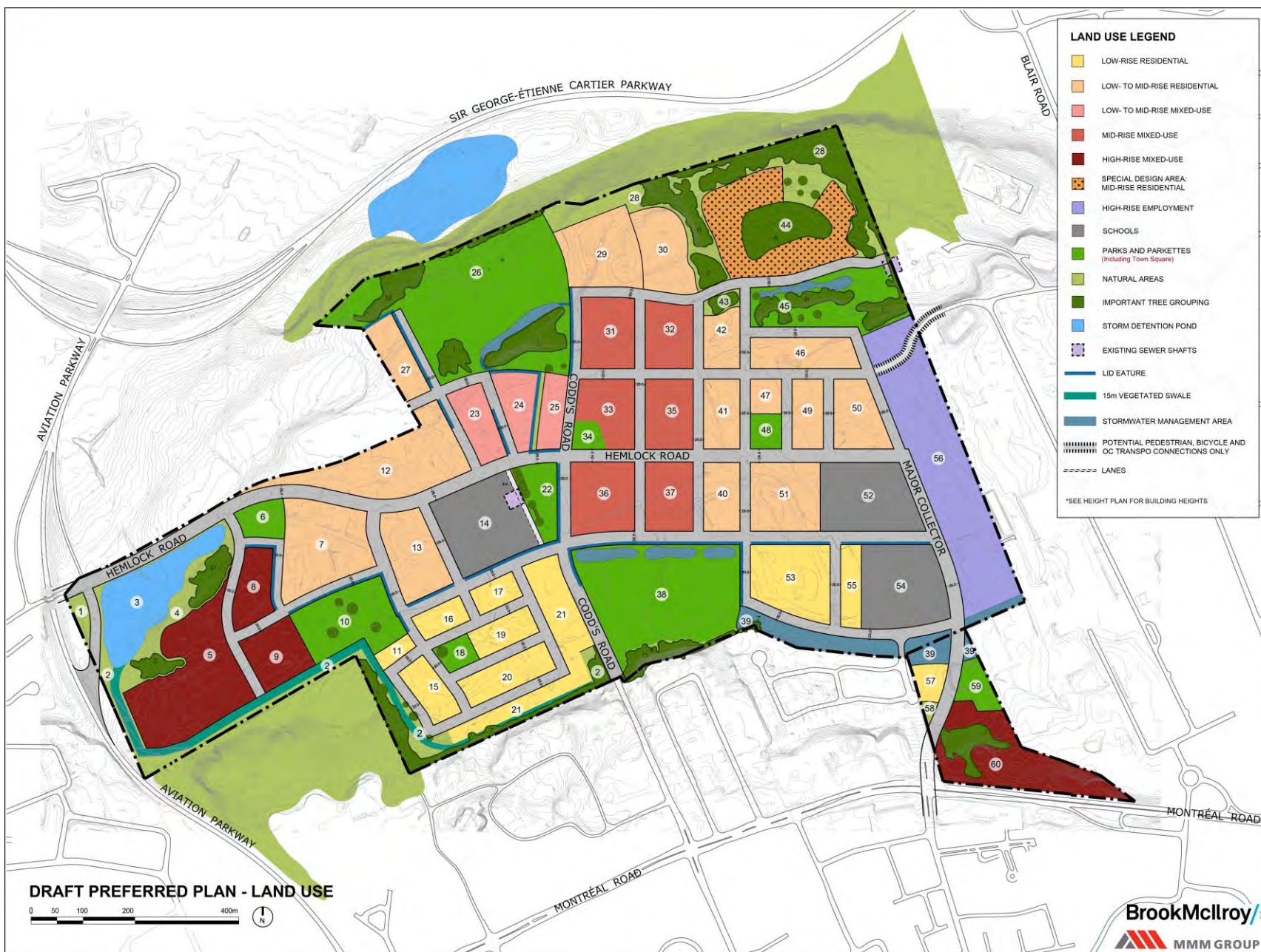


Figure 5.2: Land Uses

5.3 PUBLIC SPACES

5.3.1 Natural Areas

One of the site's significant natural areas is located along the northern and eastern boundaries in the northeast corner. It contains an extension of the NRC Woods, as well as a large and intact forest tree grouping and several outstanding specimen trees. The vegetation in this corner is of outstanding natural value which is further enhanced by the ecological connection to protected woodlots on NCC and NRC lands beyond the boundaries of the site. As a result, flora and fauna that would not be found in subdivisions, city centres, or more fragmented natural areas continue to find habitat in this location. This resource cannot be underestimated as an anchor that can help to establish a continuity of character and sense of place for the site's redevelopment. Canada Lands Company visited this portion of the site with the Algonquins of Ontario (AOO) and

they indicated that this area is a natural resource of high value that is unique to the site and worthy of protection as a special feature for the community. It is important to note that Canada Lands Company has an agreement with the AOO to provide a space on the ridge overlooking the river for the commemoration of the historical Algonquin presence in this area and to celebrate and teach Algonquin culture and its lessons for present day society. These early discussions with the AOO suggest that this portion of the ridge is an ideal and appropriate area for this commemorative feature.

Another important natural area is found along the southwest boundary of the site, immediately east of Aviation Parkway within the Hemlock neighborhood. Here, the neighbourhood is bisected by a significant ridge which has been maintained to minimize disruptions to the natural characteristics of the landscape. This slope, combined with a vegetated swale and

stormwater detention pond, facilitates natural drainage within the neighbourhood and forms a significant component of the overall stormwater management strategy. In addition to accommodating two important tree groupings, this area also provides a linkage to the Montfort Woods, which contain protected woodlots and vegetation of outstanding natural value.

5.3.2 Public Art

Canada Lands Company and the City of Ottawa will collaborate to identify sites for public art installations. These public art installations will be strategically located at community gateways and gathering places, may support overall community commemoration themes, and will help create a sense of identity and place within the community.

5.4 PARKS AND PARKETTES

One of the signature features of the plan is the interconnected network of open spaces, parks and pathways. These will provide residents with dramatic views, areas of mature trees, and opportunities for both passive and active recreation. These are shown in Figure 5.3.

The community will have two large Community Parks which will function as active spaces, one bordering the south end of the site (South Community Park) and the other at the north end overlooking the Ottawa River (North Community Park).

Two smaller Neighborhood Parks (East and West Neighbourhood Parks) will serve the needs of local residents; and five Parkettes, as well as the Town Square, will supplement the larger parks by ensuring park access to all residents within easy walking distance. The Town Square will provide a focus for the Core and

create a dynamic gathering space for residents, employees and visitors.

The total parkland dedication area is 23.03 hectares and includes important tree groupings but excludes infiltration and storm ponds. 3.3 of the total 10.1 hectares of important tree groupings on the site are found within parks. Table 5.1 provides the size for each park, including important tree groupings, and Figure 5.3 identifies the location of each park. Note that the breakdown of land use distribution for the site shown in Table 5.2 provides separate calculations for parks and important tree groupings. Therefore, the area dedicated to parkland is reflected in Table 5.2 as 19.73 hectares.

A detailed description of each park is provided in the Parks Master Plan Appendix A which includes a list of the amenities that will be provided in each park, and a description of the layout of each park. The proposed park concept

diagrams in Appendix A are intended for demonstration purposes only and are not meant to be used to direct the ultimate parks design.

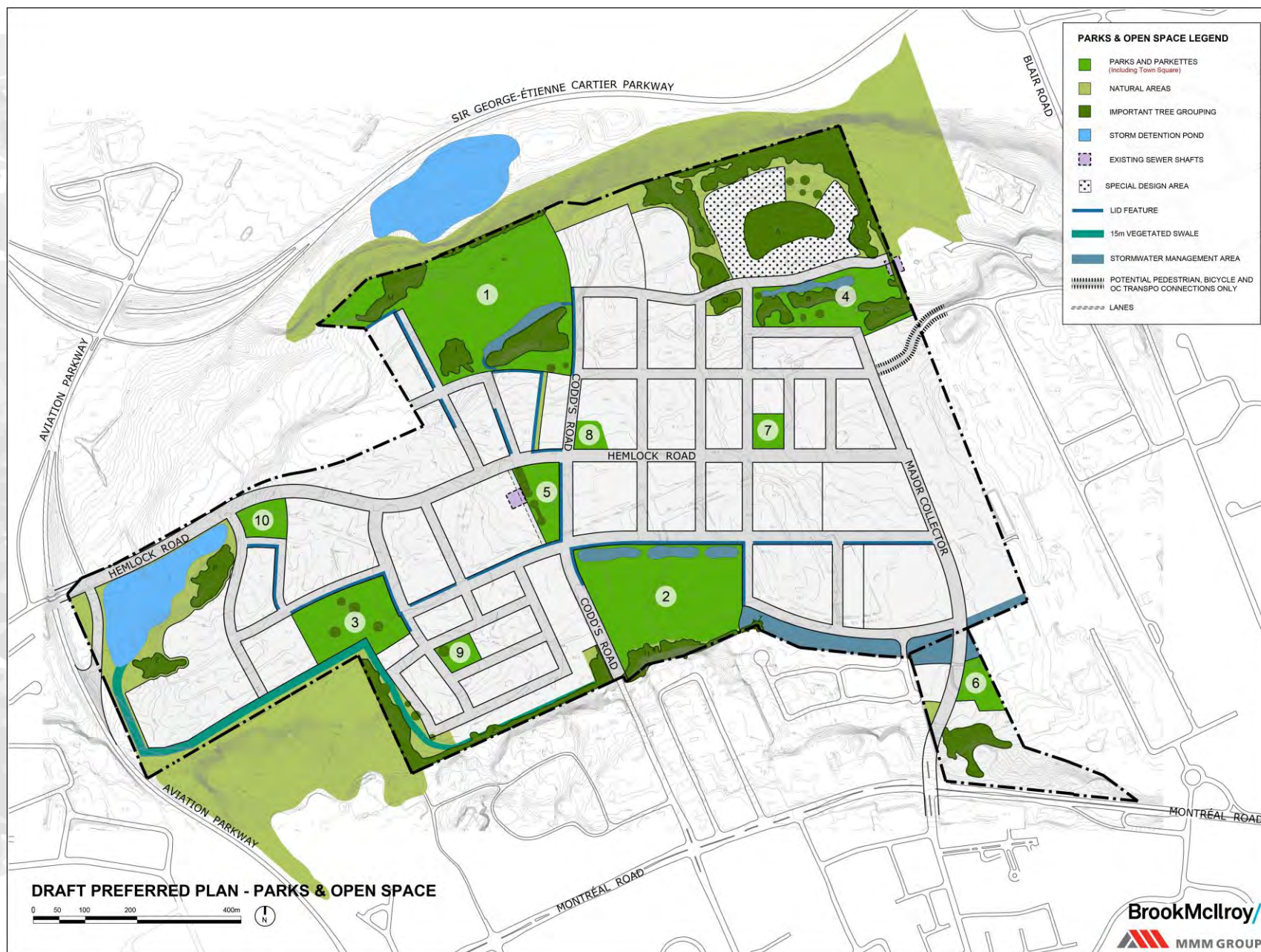


Figure 5.3: Parks & Open Spaces

Table 5.1: Parks and Parkettes

Park #	Size (Ha)
1 – North Community Park	10.34
2 – South Community Park	4.95
3 – West Neighbourhood Park	2.01
4 – East Neighbourhood Park	2.58
5 – Centre Parkette	0.90
6 – Southeast Parkette	0.55
7 – East Parkette	0.40
8 – Town Square (Parkette)	0.32
9 – Southwest Parkette	0.39
10 – West Parkette	0.59

5.5 HEIGHT

The overall building height strategy is shown in Figure 5.4. Maximum block heights were selected in a manner that will integrate the community into the surrounding city fabric and topography by ensuring that changes in building heights will be smoothly transitioned. Height will be deployed strategically to minimize visual impacts and shadows while marking the

community as a prominent place in the landscape. Specific design policies and design guidelines associated with the height strategy are provided in Chapter 6.

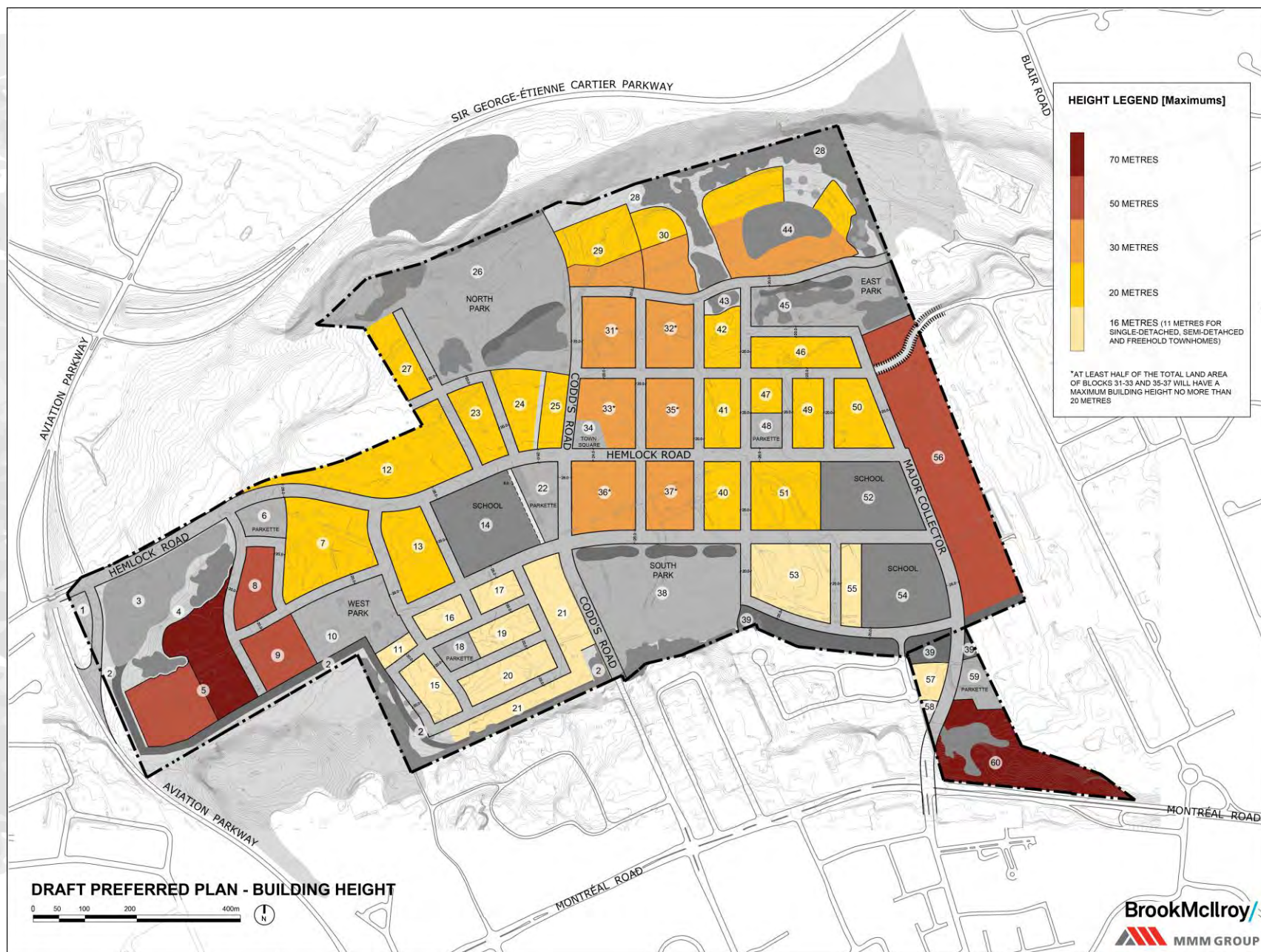


Figure 5.4: Height Strategy

5.6 BUILDING FRONTAGES AND ACTIVE STREET FRONTAGES

Active Street Frontages will be strategically applied throughout the site, primarily in the Core and along collector roads. Active Street Frontages will require a minimum of 50 percent of the ground floor facade facing the street to be composed of windows, active entrances facing the street for each tenancy, and a minimum height of 4.5 metres for the ground floor storey for non-residential buildings. These areas will typically include publicly accessible shops and services. Parking will not be permitted between the building and the street. Areas where Active Street Frontages will be required are shown in Figure 5.5.

In certain areas of the new community, predominately in areas of high pedestrian circulation, it will be important for buildings to face and front onto the public realm in order to animate

the street. Along these frontages, there will be no parking between buildings and the street. Areas where building frontages will be required are shown in Figure 5.5.

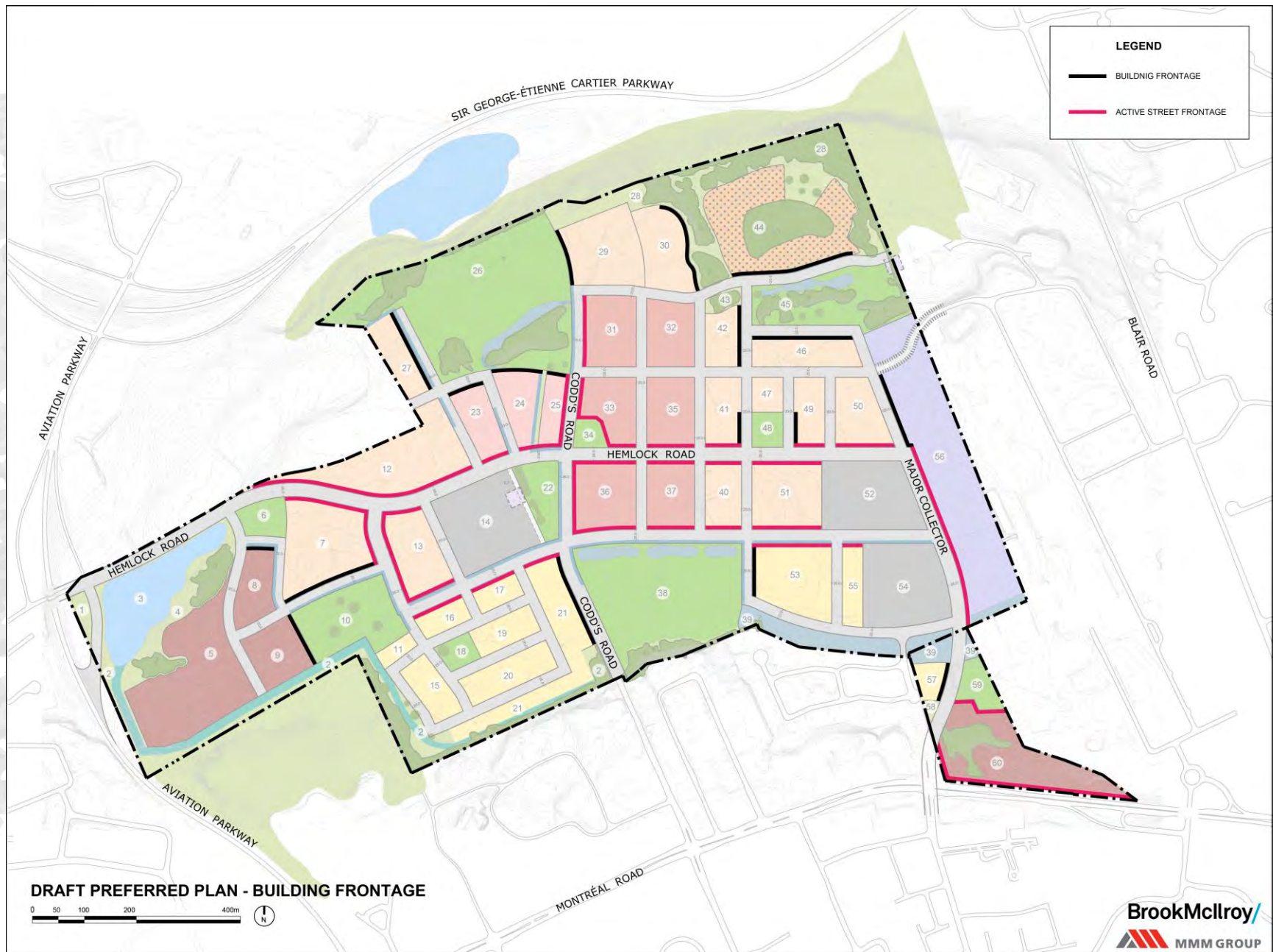


Figure 5.5: Building Frontages and Active Street Frontages

5.7 POPULATION, EMPLOYMENT AND DENSITY

This CDP achieves a density of 95 people plus jobs per gross hectare. This density will help create a vibrant public realm, support transit, and encourage efficient planning and use of municipal infrastructure.

This density translates to minimum of approximately 5,350 residential units and 2,610 jobs at full build-out.

To arrive at an overall density for the community, anticipated densities for individual land uses/blocks were applied to the proposed concept plan. These densities are summarized in Table 5.2.

Each residential and mixed-use land use has a minimum density requirement. Master concept plans submitted with development applications will illustrate how the required minimum density will be

achieved. Within the area described by the master concept plan, certain individual buildings may have densities lower than the minimum required; however, the overall average density for the area covered by the master concept plan must meet the minimums identified in this CDP.

Table 5.2: Land Use Distribution and Density

Land Use	Land Area (ha)	Minimum Density (units/ha)	Minimum Units	Target Employment (jobs)	Estimated Population
Low-Rise Residential	8.94		427		1,167
<i>Blocks 11, 15-17, 19-21, 55</i>	6.53	32	209	n/a	619
<i>Blocks 53, 57</i>	2.41	91	219	n/a	548
Low- To Mid-Rise Residential	19.88	105	2,087	n/a	3,964
Forest Special Design Area	3.13	91	285	n/a	461
Low- To Mid-Rise Mixed-Use	2.27	91	206	n/a	393
Mid-Rise Mixed-Use	7.68	143	1,100	n/a	1,430
High-Rise Mixed-Use	7.3	170	1,241	n/a	2,355
Employment	15.54	n/a	n/a	2,610	n/a
<i>Westerly Node (Blocks 5, 8, 9)</i>	1.56	n/a	n/a	580	n/a
<i>High-Rise Employment (Block 56)</i>	6.08	n/a	n/a	1,600	n/a
<i>Schools (Blocks 14, 52, 54)</i>	7.31	n/a	n/a	75	n/a
<i>Mixed-Use Retail (Blocks 23-25, 31-33, 35-37, 60)</i>	0.59	n/a	n/a	355	n/a
Parks and Parkettes (not including Important Tree Groupings)	19.73	n/a	n/a	n/a	n/a
Natural Areas	5.95	n/a	n/a	n/a	n/a
Important Tree Groupings	10.10	n/a	n/a	n/a	n/a
SWM Features	7.95	n/a	n/a	n/a	n/a
Road Network and Lanes	22.35	n/a	n/a	n/a	n/a
TOTAL	130.82		5,346	2,610	9,764

5.8 AFFORDABLE HOUSING

To help create a fully inclusive and equitable community, a range of housing types and tenures are encouraged for residential uses. An appropriate stock of both rental and ownership housing will be made affordable to meet the community's needs and adhere to the City of Ottawa's Official Plan policies.

Affordable housing will be dispersed throughout the community mixed with other housing types and may include purpose-built rental housing, supportive housing, and not-for-profit subsidized housing.

The City of Ottawa and Canada Lands Company will explore partnerships within private, public, and non-governmental sectors to accommodate affordable housing projects in the new community.

In addition to participation in multi-party partnerships to secure the resources necessary to sustain a

range of affordable housing types, the City of Ottawa and Canada Lands Company will facilitate affordable housing by allowing alternative development standards on a case-by-case basis, such as reduced parking requirements.

Affordable housing will incorporate innovative and flexible design to accommodate a wide range of residents and needs. Such design will provide for adaptive use and re-use over the long term.

5.9 MOBILITY AND CIRCULATION

The City's 2013 Transportation Master Plan (TMP) outlines the vision, supporting policies, and targets for mobility in the City to 2031. The TMP emphasizes sustainable transportation by prioritizing mobility for pedestrians, cyclists, and transit over private automobile drivers. The proposed transportation network for the site supports the vision and policies set out in the TMP and applies them in a

context-specific manner. The result is a network of great public streets that will accommodate all users.

5.9.1 Pedestrians and Cyclists

The proposed active mobility plan illustrated in Figure 5.6 includes a linked network of sidewalks, on-road cycle tracks and multi-use pathways. This network will provide connections to adjacent neighbourhoods inside and outside of the community, and will be fully integrated with the City of Ottawa's existing pedestrian and cycling network.

As each detailed subdivision phase comes forward for approval, Canada Lands Company and the City will continue to work with the NCC and NRC to further develop the cycling and trail networks to connect the site to the surrounding areas.

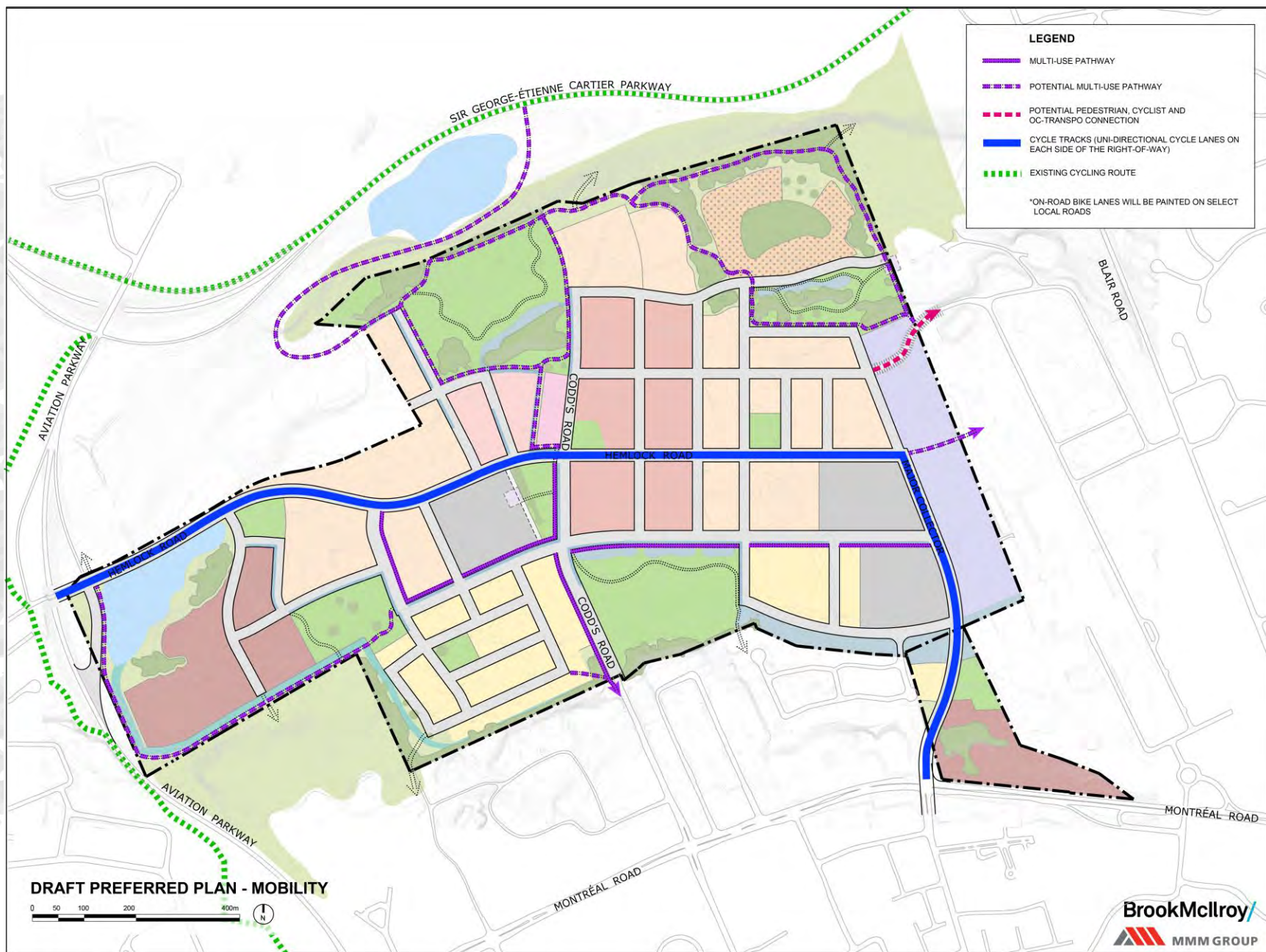


Figure 5.6: Mobility Plan

5.9.2 Public Transit

The community will be well served by local transit services. Streets potentially used for transit service are shown in Figure 5.7. A final route(s) will be determined by OC Transpo.

Canada Lands Company will partner with OC Transpo to identify creative ways to provide weather protected enclosures at key transit stops across the site. Where practical, transit shelters will be integrated within publicly accessible buildings (lobbies, commercial and retail establishments etc.).

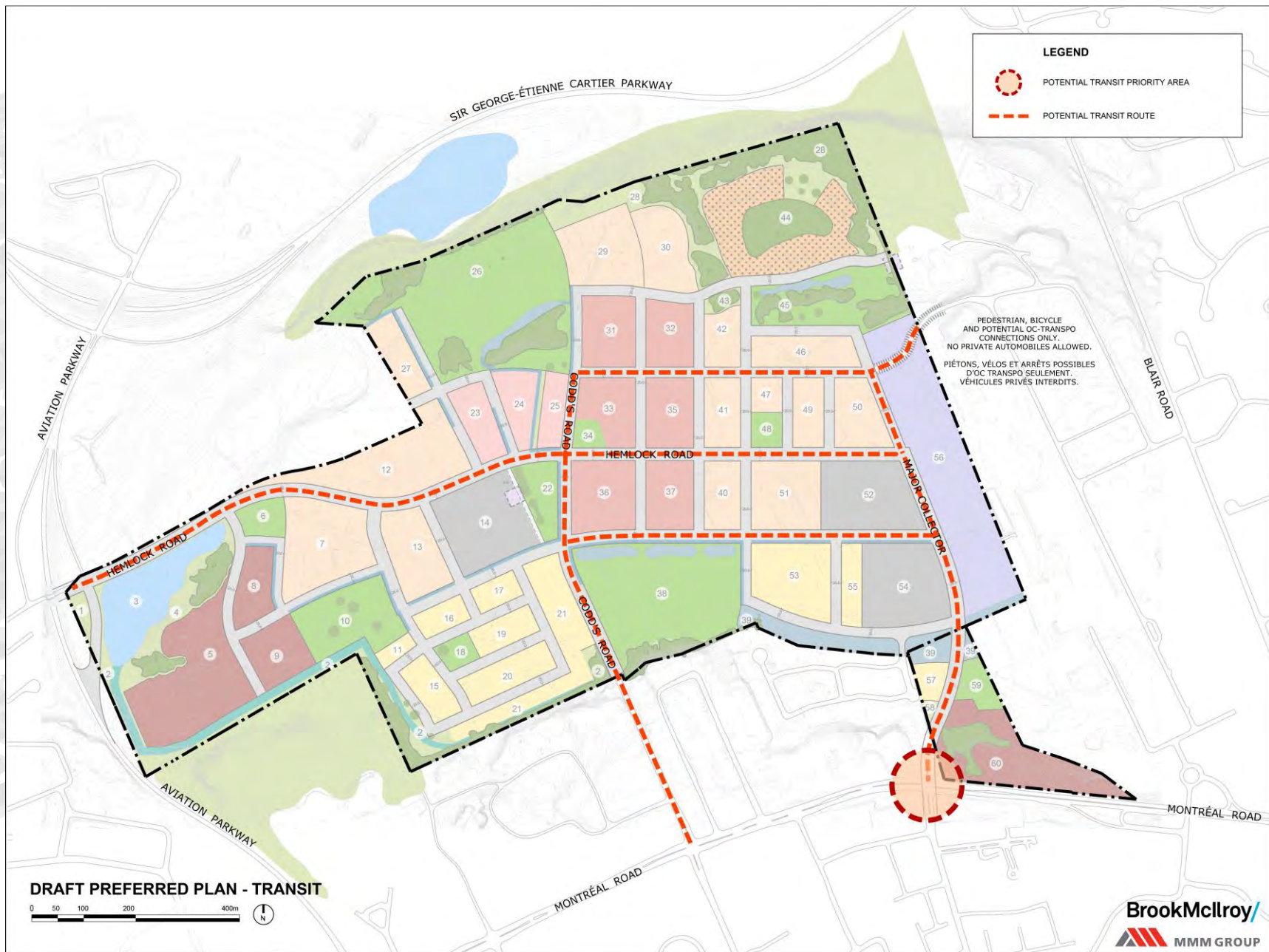


Figure 5.7: Transit

5.9.3 Street Network

When the Department of National Defence decommissioned the site, road maintenance was discontinued and roads have since fallen into disrepair. In addition, the existing road network was not built to support the use that is anticipated for the future community; therefore, Canada Lands Company will build a new street network.

The proposed street layout has been developed to:

- Increase the connectivity of the site with the surrounding neighbourhoods;
- Facilitate mobility within the site; and
- Minimize traffic cutting through the site.

The result is a modified grid that will preserve and enhance existing natural heritage features including ridges, significant tree stands, individual trees, and forested areas. Entering the community

from the South, Codd's Road will maintain its historic alignment, providing a continuous view to the North Park. Where it intersects with the collector road, Codd's Road will shift to a true-north orientation to acknowledge the sacred importance Aboriginal cultures associate with the cardinal directions, and to shift the view from the ridge to the river and away from the airport.

The proposed street layout will incorporate short block lengths (i.e. less than 250 metres) for a majority of the blocks and well-connected streets to create a permeable neighbourhood and promote active transportation. To minimize cut-through traffic, a number of intersections along the collector roads will require full stops.

Table 5.3 describes the different types of roads to be included in the network as well as their intended function and key features. The specific locations of

each road type are shown in Figure 5.8.

Table 5.3: Road Cross Sections

Type of Road	Function	Cross Section Widths	Key Features
Major Collector	Serve travel between collector and arterial roads	26 m	2 lanes of traffic, segregated cycling facilities, on-street parking on one side, sidewalks on both sides
Collector	Serve neighbourhood travel between local and major collector or arterial roads	26 m	2 lanes of traffic, multi-use pathway on one side, on-street parking and sidewalks on one side, may incorporate drainage features
Hemlock Core Street	Serve neighbourhood travel in the Core	24m	2 lanes of traffic, segregated cycling facilities, curbless on-street parking on both sides, sidewalks on both sides
Local	Provide direct access to adjacent lands, with a secondary function to serve neighbourhood travel to and from collector or arterial roads	20 m	2 lanes of mixed traffic, sidewalks on both sides for most streets, but only on one side for streets that also incorporate drainage swales

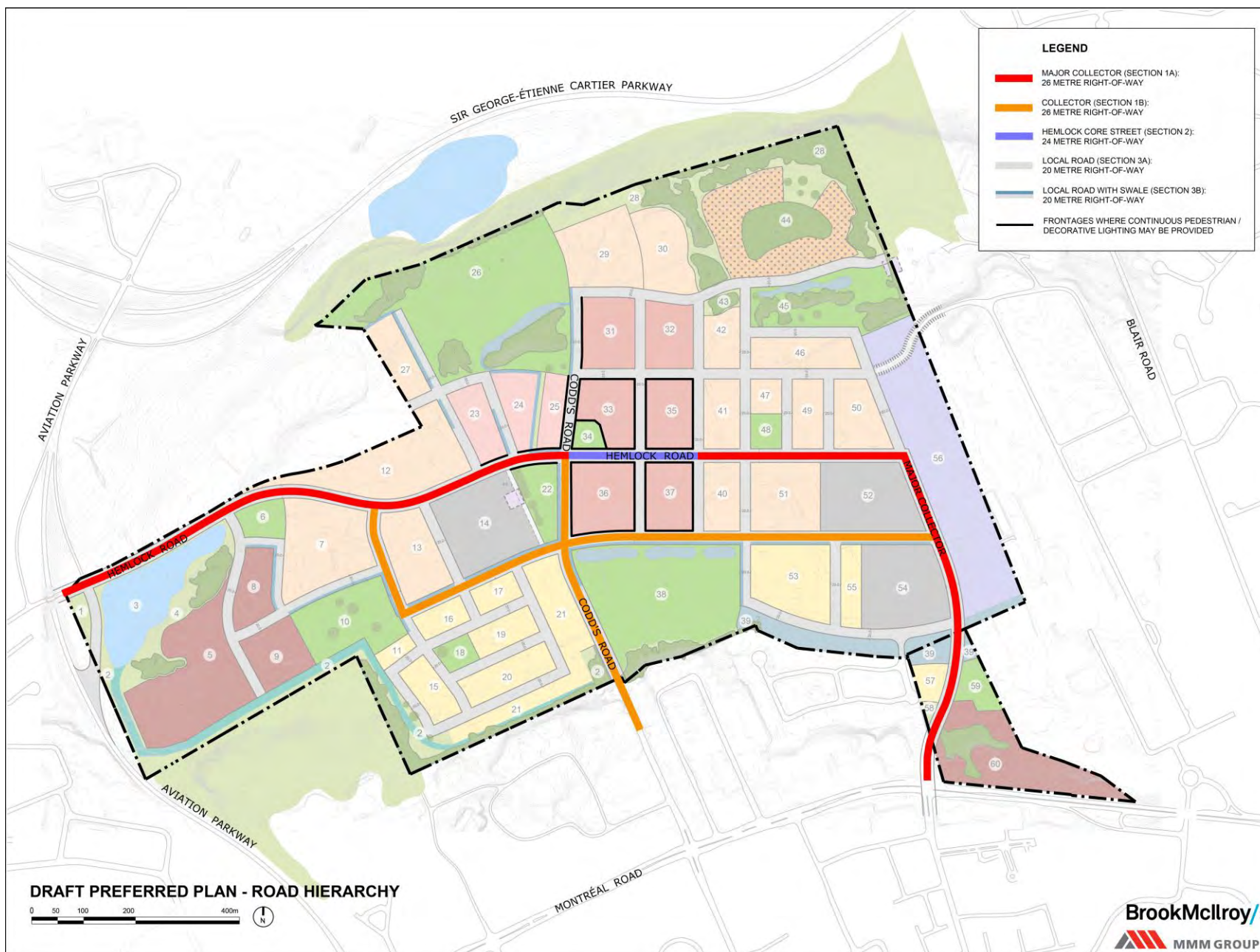


Figure 5.8: Road Sections by Type

Road Cross Sections

The plan incorporates three different widths of cross sections: 26 metres for collectors, 24 metres for Hemlock Core Street and 20 metres for local roads. A number of variations are provided within each cross section to create a strong relationship to adjacent land uses.

Primary cycling connections will be provided on the 26 metre collectors, and on the 24 metre Hemlock Core Street which will have segregated cycling lanes or multi-use pathways within the right-of-way. On the 20 metre local roads, cycling will be accommodated through shared cycling/vehicle lanes. Certain streets will be part of the stormwater management strategy and will incorporate stormwater management features such as bioswales. Every road type will incorporate generous sidewalks and boulevard planting. The sections that follow describe the vision for each street type in

greater detail and include supporting street section diagrams, shown in Figures 5.9 to 5.13.

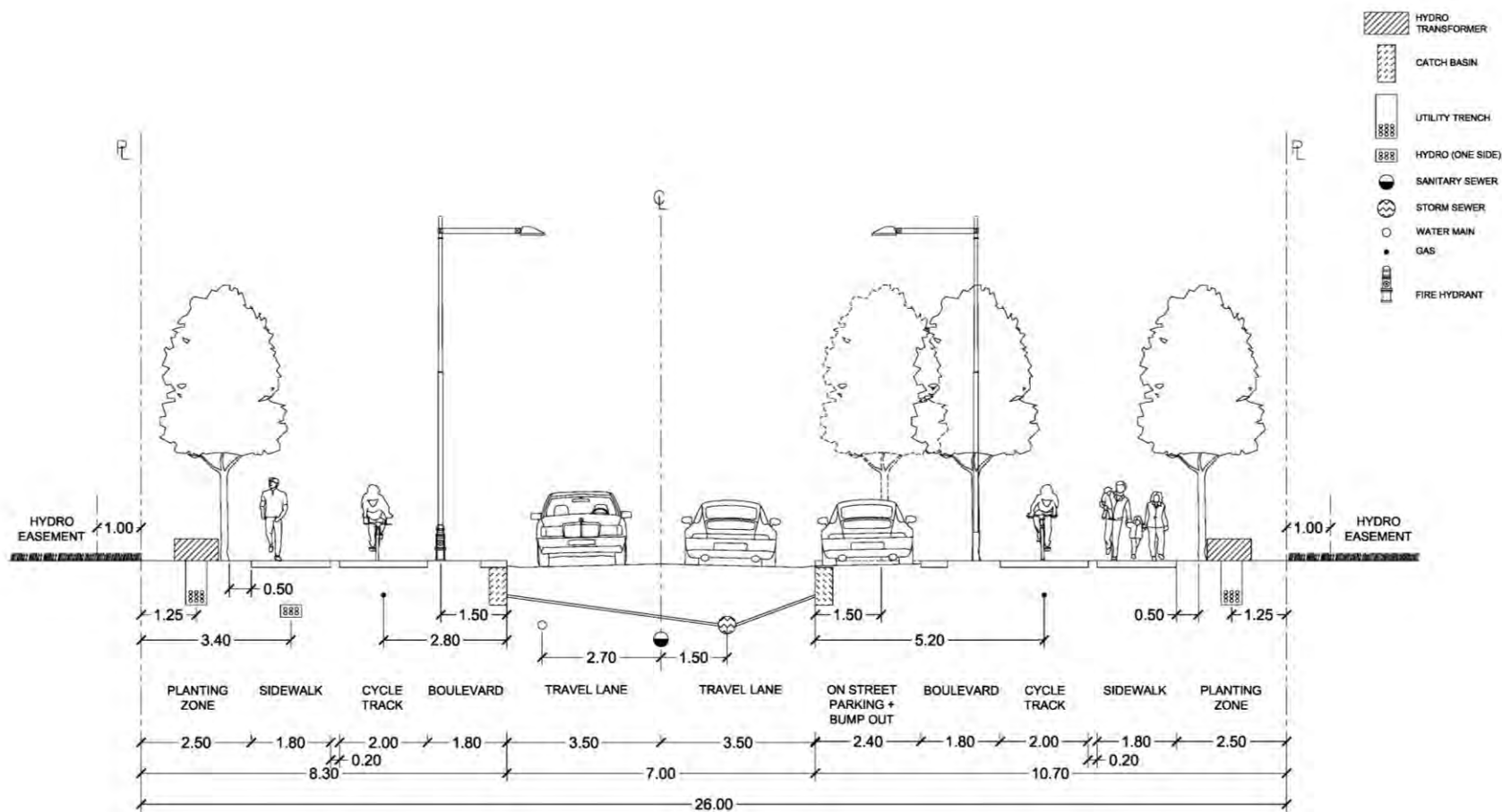
5.9.3.1 Collector Roads

The plan includes three types of collector roads: major collector roads, collector roads and the Hemlock Core Street. Major collector roads will be contained within a 26 metre public right-of-way and will include segregated uni-directional cycle tracks on each side of the street. They will serve as welcoming points into the community and will provide the primary east-west and north-south connections through the site.

Major collectors will be augmented by secondary collector roads. These will provide continuous east-west connections through the neighbourhoods south of the Core and will incorporate a multi-use pathway within the right-of-way. Collector roads will also be contained within a 26 metre public right-of-way.

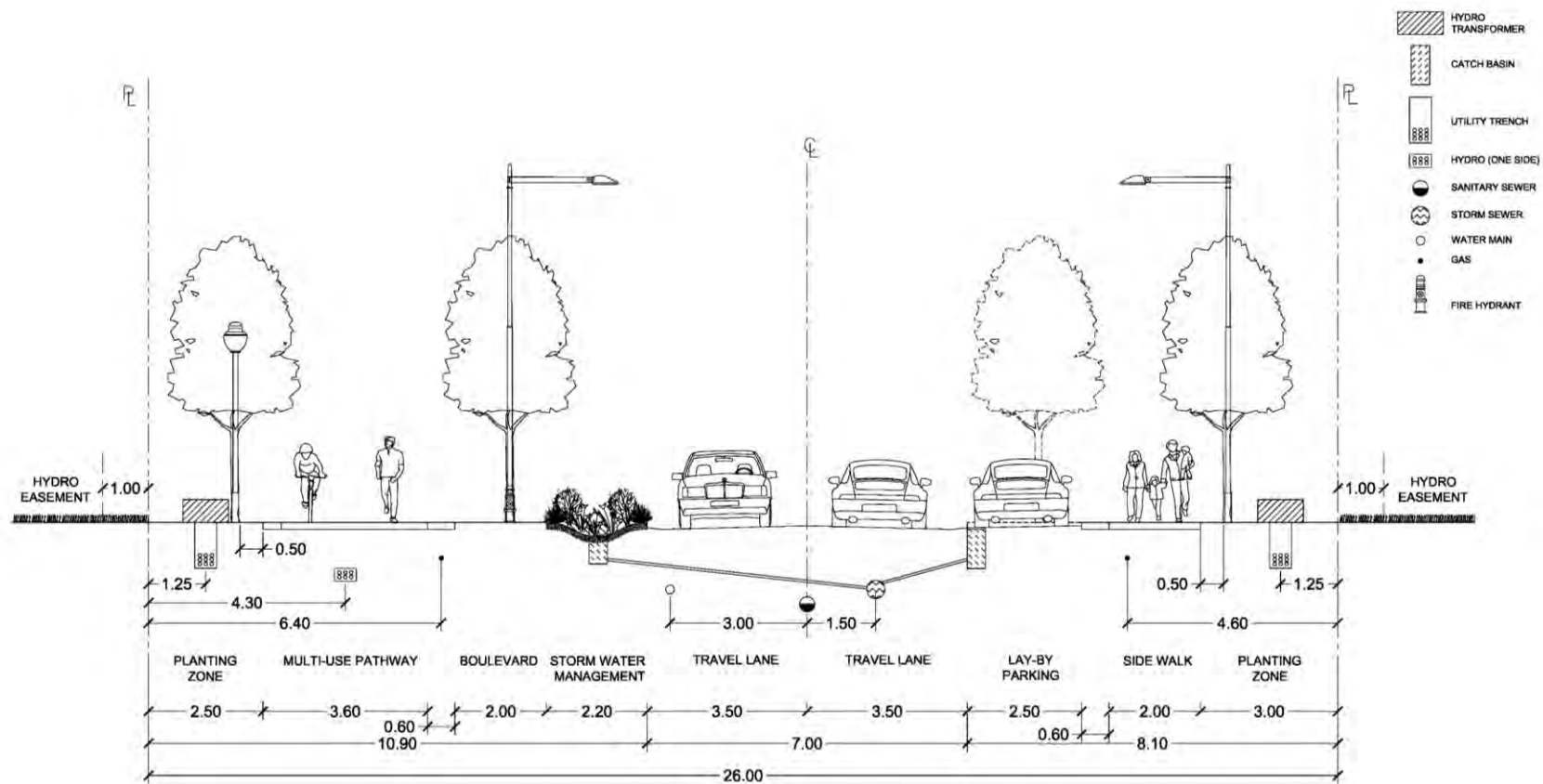
Hemlock Core Street is the two block section of Hemlock Road that transects the Core and will serve as the main street for the community. These blocks will reflect a human-scale and will be framed by compact, mid-rise and mixed-use buildings. Hemlock Core Street will feature a 24 metre right-of-way and will incorporate segregated cycling facilities, curbside on-street parking to support retail uses, and staggered tree plantings in the boulevards and bump-outs.

All collector roads will facilitate direct pedestrian, vehicle, and cyclist links between the major parks and natural features in the community. They will be 'green streets' that accommodate the transportation function of the road while also incorporating high-quality landscaping and innovative stormwater management facilities.



SECTION 1A - 26m ROW

Figure 5.9: Major Collector Road

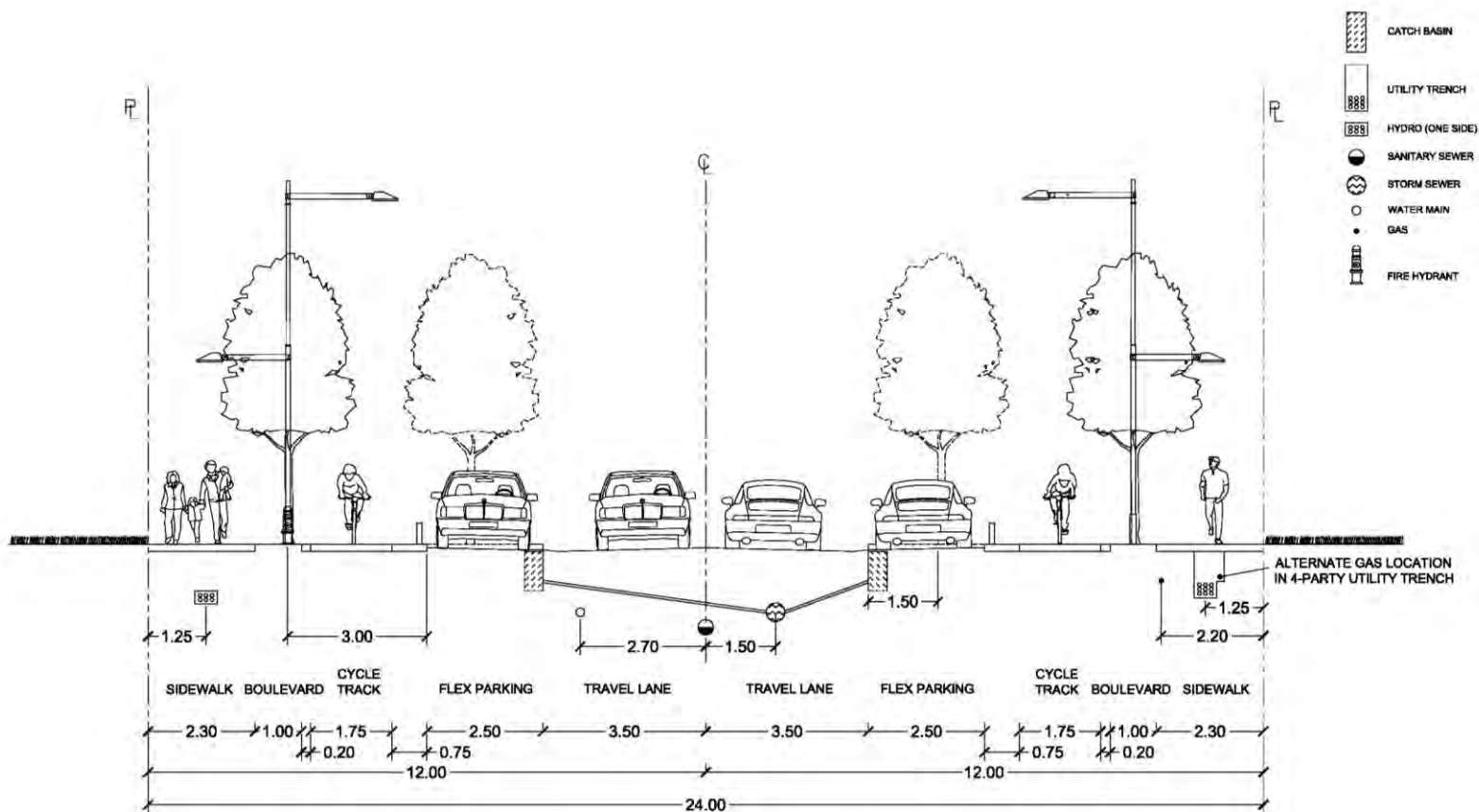


NOTES:

1. THE INSTALLATION OF PEDESTRIAN LIGHTING SHALL CONFORM TO THE DESIGNATED AREA IN FIGURE 5.7 AND THE RELEVANT CDP POLICY
2. WITH THE EXCEPTION OF BURIED UTILITIES AND FIRE HYDRANTS, THE MIRROR IMAGE OF THIS SECTION WILL APPLY WHEN SWALES AND MULTI-USE PATHWAYS ARE ON THE OTHER SIDE OF THE STREET. REFER TO LAND USE PLAN FOR SPECIFIC LOCATIONS.



Figure 5.10: Collector Road



SECTION 2 - 24m ROW

NOTES:

1. HYDRO OTTAWA WILL REQUIRE A SHARED VAULT SPACE
2. COMMUNICATIONS WILL REQUIRE EASEMENTS
3. THE INSTALLATION OF PEDESTRIAN LIGHTING SHALL CONFORM TO THE DESIGNATED AREA IN FIGURE 5.7 AND THE RELEVANT CDP POLICY

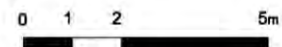


Figure 5.11: Hemlock Core Street



5.9.3.2 Local Roads

The remainder of the street network will be comprised of local roads. These roads will provide the fine-grain connections that will maximize permeability throughout the community and encourage walking and cycling.

Local roads will have a 20 metre right-of-way and accommodate a wider 4.25 m shared lane in each direction. Local roads will either have sidewalks on both sides of the street or a sidewalk on one side of the street and a vegetated swale on the opposite side. Continuous trees along the boulevard will reinforce a strong urban tree canopy and augment front-yard trees on private property.

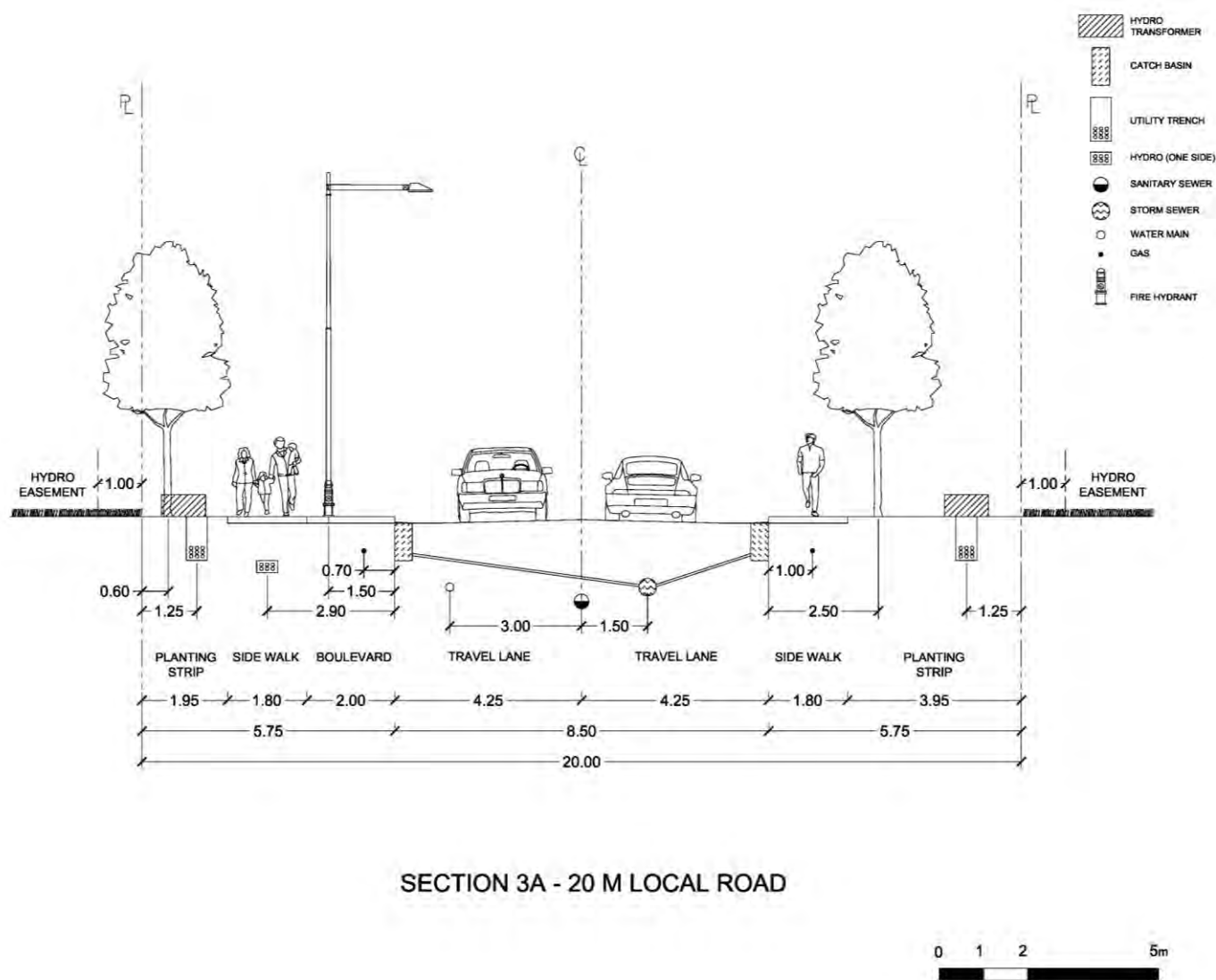
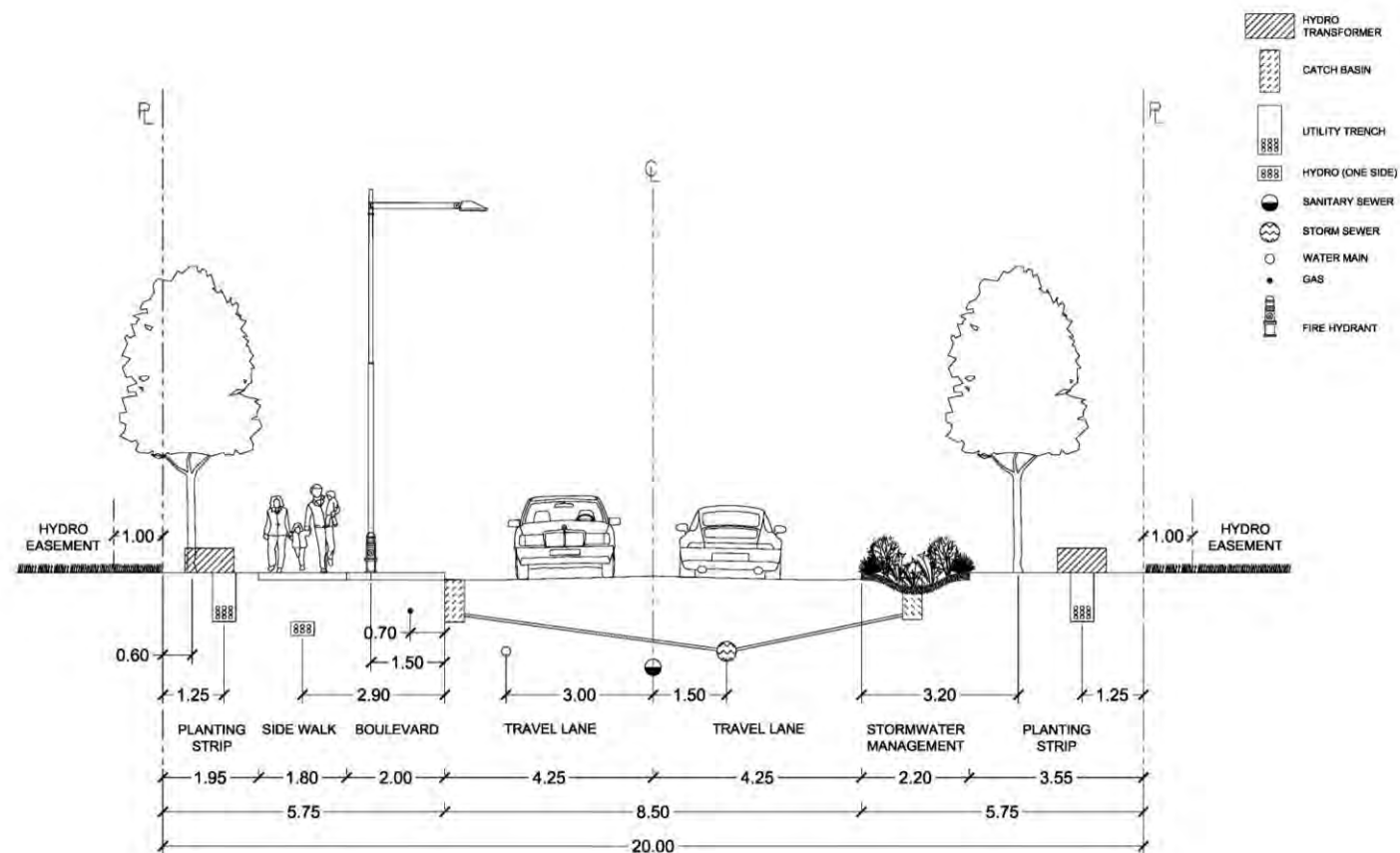


Figure 5.12: Local Road



3B - 20 M LOCAL ROAD WITH SWALE

NOTES:
1. WITH THE EXCEPTION OF BURIED UTILITIES AND FIRE HYDRANTS, THE MIRROR IMAGE OF THIS SECTION WILL APPLY WHEN SWALES AND MULTI-USE PATHWAYS ARE ON THE OTHER SIDE OF THE STREET. REFER TO LAND USE PLAN FOR SPECIFIC LOCATIONS.

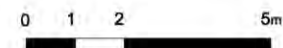


Figure 5.13: Local Road with Swale

5.9.4 Anticipated Traffic Impacts

Future travel patterns will be heavily influenced by adjacent large-scale commercial, institutional and employment hubs including (but not limited to):

- The Montfort Hospital, located directly north of the site;
- The NRC Campus, located immediately east of the site;
- The Canadian Aviation and Space Museum, located directly south of the site;
- La Cité Collégiale, located South of the site off of Bathgate Drive;
- The new CSEC building, located off of Ogilvie Road;
- The Gloucester Centre, located off of Ogilvie Road; and
- Downtown Ottawa/ The Market – located west of the site.

A Community Transportation Study (CTS) was prepared in support of this CDP and determined that the community is expected to generate up to 2,000

vehicles per hour during weekday commuter peak hours. At full build-out, the development is also projected to generate 1,600 to 1,800 transit patrons in peak hours and 750 to 850 cyclist and pedestrian movements.

The proposed pedestrian and cycling infrastructure is expected to achieve a multi-modal level of service of 'A', indicating a high level of comfort. The multi-modal level of service for transit is estimated to be 'C'. Understanding this level of service will assist in the evaluation of trade-offs in design decisions that affect multiple modes.

The CTS also found that at intersections which surround the site there are a significant number of movements that are currently operating close to, at, or above capacity during the morning and afternoon peak hours. Some of these intersections will continue to experience delays and queues after full build-out and there is limited opportunity to mitigate

failing conditions with increased physical road capacity.

To alleviate some of this capacity, the NCC has agreed, subject to certain conditions, to permit a northbound off-ramp from the Aviation Parkway to Hemlock Road during the latter half of site development in order to relieve some of the congestion along Montreal Road. Additional intersection controls will be implemented around and throughout the site, such as the addition of turning lanes and all-way stop controls at key locations.

The pressures of added road capacity have also been addressed in the overall design of the community, which is intended to encourage sustainable modes such as public transit by including a mix of land uses at higher densities, and a high quality pedestrian and cycling network.

5.10 INFRASTRUCTURE

Canada Lands Company will work with the City of Ottawa and local utility providers to implement servicing throughout the site in accordance with an overall phasing strategy. This will include the provision of roads, pedestrian and cycling facilities, and transit connections; water and wastewater infrastructure; and public utilities such as electrical, gas, and telecommunications lines. A majority of the infrastructure provided will be new, as most of the existing systems do not have the capacity to support new development.

The Master Servicing Study, prepared to support the CDP, is a high-level study prepared based on the Water Master Plan (WMP) and the Infrastructure Master Plan (IMP). The Master Servicing Study to support the Plan of Subdivision approval must be prepared as per City guidelines such as the Water and Sewer Design Guidelines, the

Fire Underwriters Survey (FUS), Related Technical Bulletins, etc.

5.10.1 Water Supply

Proposed development lands are currently serviced with potable water from the City of Ottawa's Montreal Road Pressure Zone, with pressure coming from the Montreal Road Pump Station and the Brittany Drive Pump Station. Two main watermains feed the development area from Montreal Road, one on Burma Road and the other on Codd's Road. These will be replaced with two new 400 mm diameter watermains.

The watermains located on the site will be replaced with new ones since the street network will be altered and upgraded, and the existing supply system will not be capable of supporting the proposed redevelopment to current City of Ottawa standards.

The growth projections for the former CFB Rockcliffe show that there is a need to implement pumping upgrades to properly

service the site. Upgrades to the Brittany Drive Pump Station are planned and outlined in the City's Water/Wastewater Master Plan. Future upgrades, as outlined in the Water/Wastewater Master Plan will meet the demand of the CDP build out.

Portions of the site could experience water pressures that exceed maximum standards. In these areas, pressure reduction is recommended with the use of individual pressure reducing valves (PRVs).

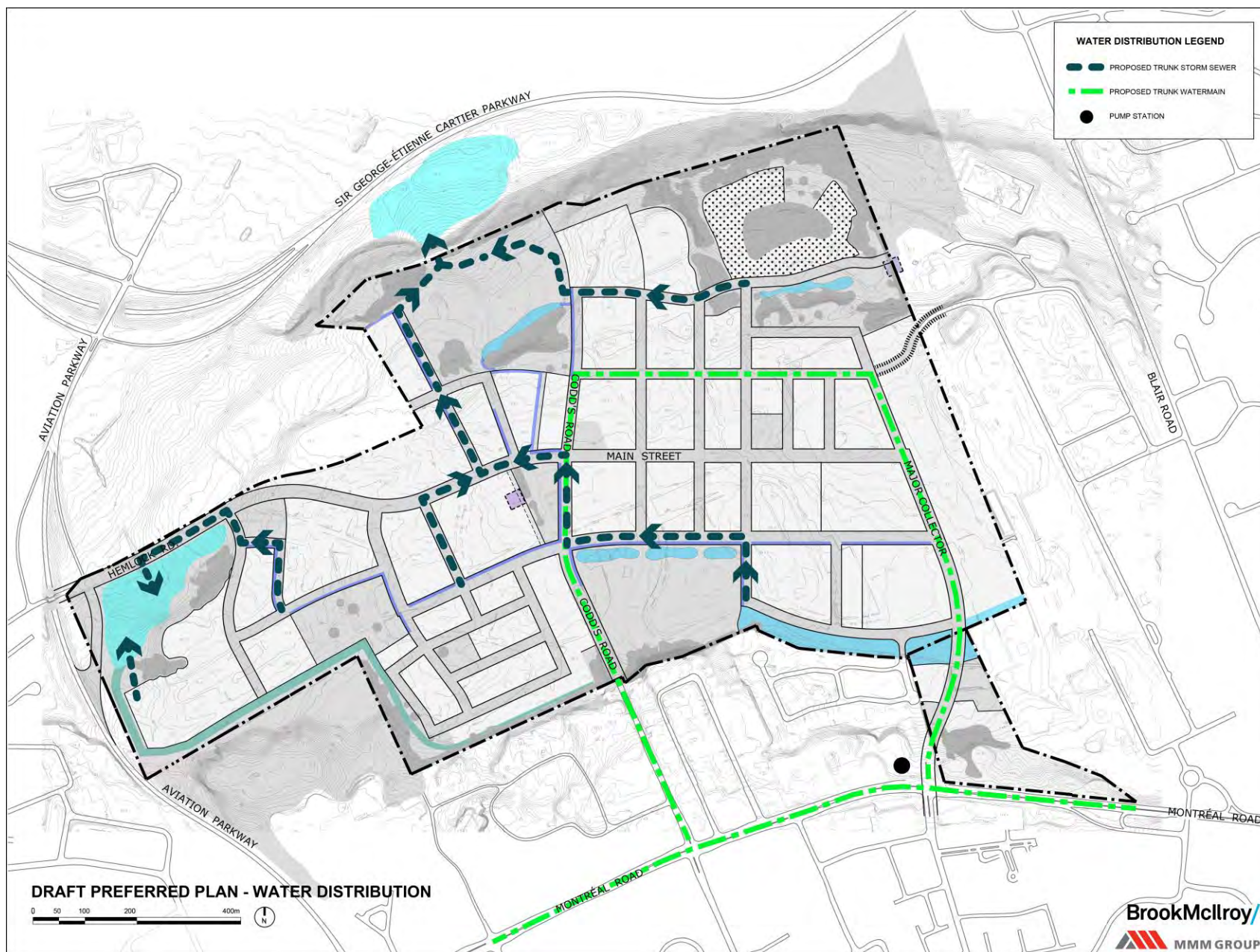


Figure 5.5.14 Water Supply

5.10.2 Wastewater

The current wastewater system is a combined stormwater and sanitary system which has reached the end of its useful life. Most of the existing wastewater infrastructure will be replaced with a system that separates stormwater and sanitary waste within the new road rights-of-way (ROW). The new sanitary sewer system is shown in Figure 5.15.

The new wastewater system will be sized to accept future flows from the Fairhaven Community in the event that the existing private septic systems currently in use are replaced with a central piped wastewater system. The system will also intercept flows from the existing Thorncliffe Village sanitary sewer.

The Master Servicing Study prepared for this Community Design Plan sets forth the functional design framework for further detailed engineering design of the sanitary sewer system.

All wastewater collected by the City of Ottawa flows to the treatment plant at the R.O. Pickard Environmental Centre, located less than 5 kilometers to the east of the former CFB Rockcliffe. Wastewater flows are delivered to this treatment plant by several large trunk sewers, including the Ottawa Interceptor Outfall Sewer (IOS). Wastewater has flowed from this CDP area directly into the IOS since the early 1960s, when it was tunneled through bedrock approximately 45 metres underneath CFB Rockcliffe.

The IOS will continue to serve as the wastewater outlet for the entire sanitary sewer system within this new community. The sanitary system will connect to the IOS through two existing shafts on the former CFB Rockcliffe. Those connection shaft locations and associated maintenance staging areas are identified in the CDP Land Use Plan.

Through the development review process, a strata easement will be

secured to protect the City's ability to access and maintain the existing IOS tunnel. As the CDP accommodates the existing shafts to the IOS within future City parks, full and final easements will be protected. A new permanent IOS shaft is also needed and is anticipated to be built within one of the proposed parks. This has been taken into account through the strategic location of parks where the additional shaft and associated maintenance staging areas would be required.

From an infrastructure perspective, the preferred location for the new IOS shaft has been identified as Parkette #5 — Centre Parkette (Block 22), adjacent to the existing drop shaft. Other possible locations include the eastern edge of Park #4 — East Neighbourhood Park (Block 45), west of the existing shaft, and the north-west corner of Park #3 — West Neighbourhood Park (Block 10). Construction of the new shaft would last a few months and would require 2,000 – 3,000m² of

staging area. The staging area would revert to park use upon completion of the shaft construction. Criteria for locating the new shaft will be based on consultation with affected stakeholders. If the new shaft is not located on City owned land, a full and final easement will be required for access to the new shaft.

The existing IOS tunnel will also be twinned with a second sewer tunnel in the future. Subject to the ultimate routing selected for the second tunnel and its associated shaft, a second subsurface strata easement may be required to protect for the possible routing of this second tunnel and for its associated access shaft. It is also anticipated that construction of the second sewer tunnel would take place after development and occupancy of surrounding land. Accordingly, the City will engage with affected stakeholders.

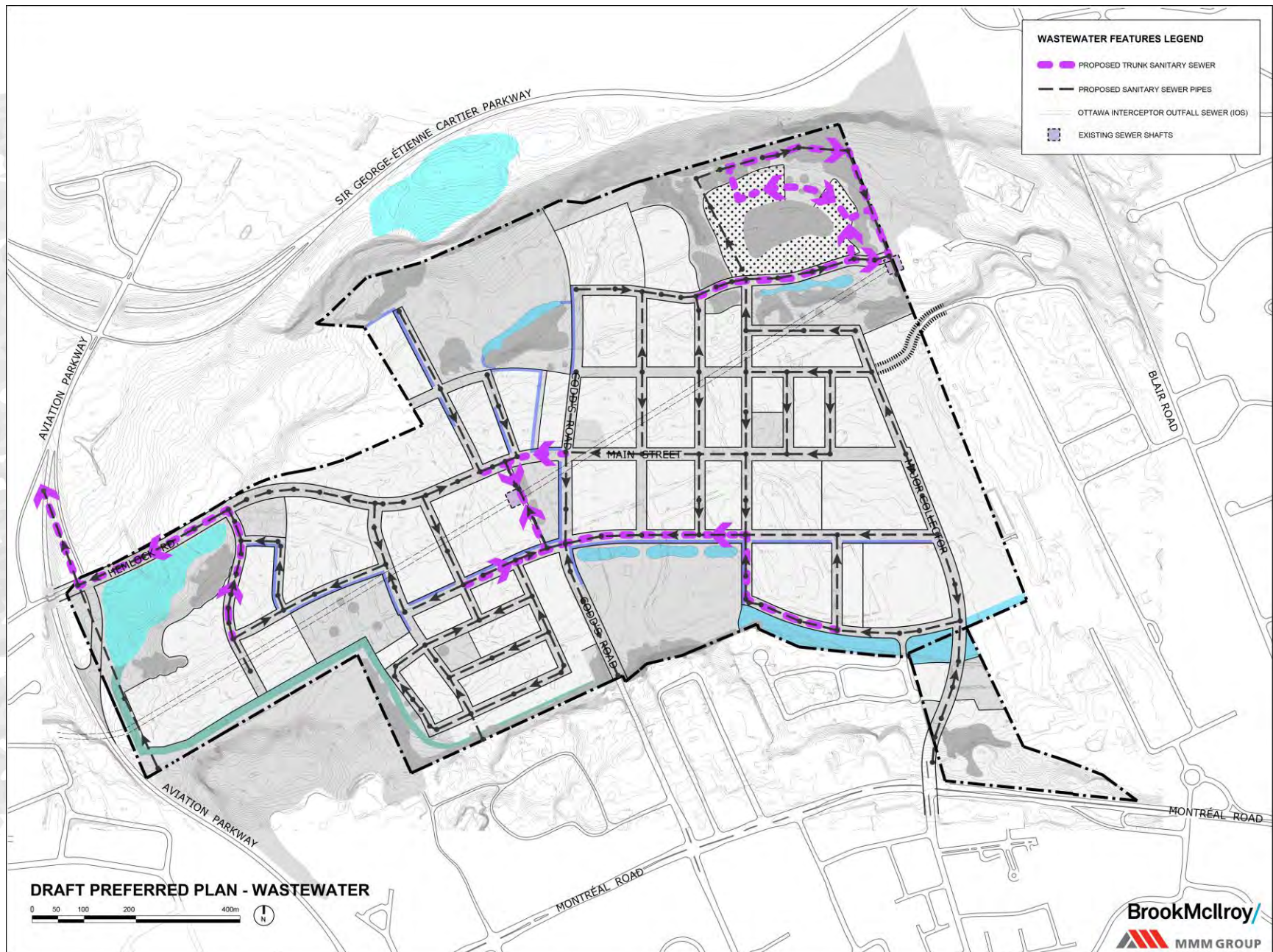


Figure 5.15 Wastewater

5.10.3 Stormwater Management

The current wastewater system, which is a combined stormwater and sanitary system, has reached the end of its useful life and a new separated stormwater system will be constructed as part of the new development. The new system is designed to convey runoff from the study area as well as several external areas, including the NRC Campus, Thorncliffe, Foxview, and Fairhaven communities, the Montfort Hospital, and the potential future national cultural institution at the intersection of Aviation and Sir George-Étienne Cartier Parkways. It will feature a dual drainage network and end-of-pipe stormwater management (SWM) facilities. In addition, the Burma Road SWM Facility will be retrofitted to increase its available storage capacity and three major system dry ponds are proposed for the site.

The dual drainage design accommodates both minor (pipe) and major (surface) stormwater

runoff by featuring a combination of on-site detention (surface ponding) and direct conveyance with no ponding. The recommended minor storm sewer plan is presented in Figure 5.16.

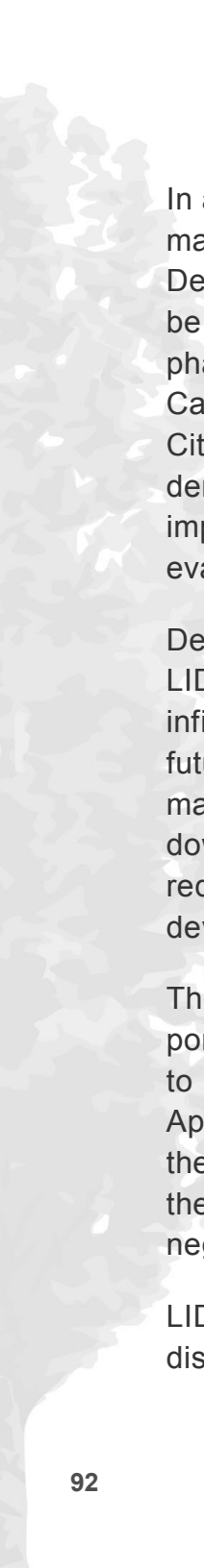
Minor and major flow from the study area will be conveyed to the two end-of-pipe facilities for treatment prior to being released to the Ottawa River.

The Eastern SWM Facility, located on NCC land adjacent to Sir George-Étienne Cartier Parkway, is designed as a wet pond and will provide water quality treatment of urban runoff. Because the facility outlets directly to the Ottawa River, water quantity control is not required. The Western SWM Facility, located in block 3, is also designed as a wet pond and provides water quality and quantity treatment of urban runoff. It will outlet to the Ottawa River via the Western Creek. Both facilities are shown in Figure 5.16.

Runoff in excess of the minor system capture will be routed via street segments and rear yards and outlet to one of the following features: the retrofitted Burma Road SWM Facility; one of three dry ponds; the southwest channel; or directly to one of the end-of-pipe SWM facilities.

The design of and improvements to any stormwater detention ponds on site will minimize perturbation of downstream channels and ensure that the input discharge or sediment load to the existing eastern and western creeks is not changed.

The stormwater management strategy will also include a 15 metre vegetated swale that will be located on block 2 along the southern and western boundary of the site. Its main function will be to convey major overland flow from off-site areas such as the Montfort Hospital Woods into the Western SWM Facility.



In addition to these stormwater management features, Low Impact Development (LID) techniques will be incorporated as part of a phased pilot project between Canada Lands Company and the City of Ottawa, where demonstration projects are implemented, monitored and evaluated.

Depending on how successful the LID pilot project is at increasing infiltration and reducing runoff, future phases of the stormwater management system may be downsized to address actual flow requirements at the time of development.

The design of the storm detention pond on NCC lands will be subject to Federal Land Use & Design Approval. Future amendments to the CDP may be required to reflect the conclusions of these negotiations.

LID design approaches are discussed in Chapter 6.

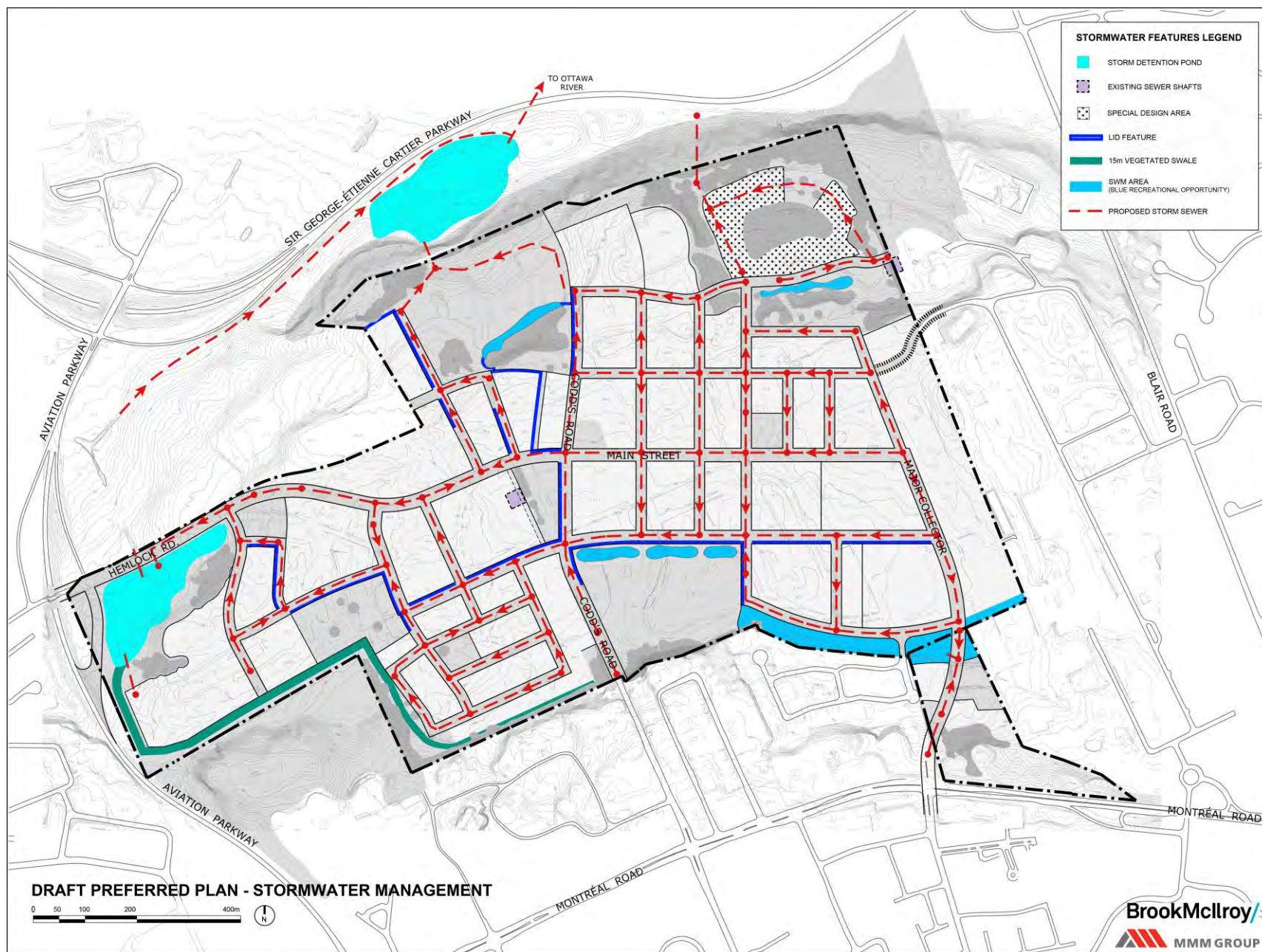


Figure 5.16: Stormwater Management Strategy

