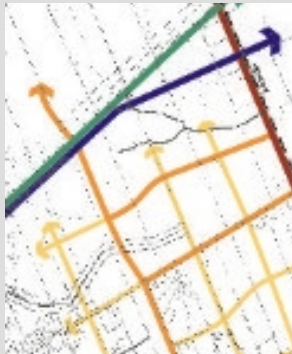


East Urban Community Community Design Plan (Phase 1 Area)



July 2005

OTTAWA CITY COUNCIL MINUTES 37
13 AND 15 JULY 2005

12. EAST URBAN COMMUNITY - COMMUNITY DESIGN PLAN (PHASE 1 AREA)

COMMITTEE RECOMMENDATIONS AS AMENDED

That Council approve the East Urban Community - Community Design Plan (Phase 1 Area) as detailed in Document # 7 (distributed under separate cover), subject to the following amendments:

1. The CDP for the East Urban Community be amended as follows:

a) Amend the second last bullet on page 3 to add:

“Identifies the Waste Disposal Site and its influence area.”

b) Amend Legend for Figure 6 be amended to include reference to the Waste Disposal Site.

c) Amend Section 3.1, third paragraph to add “organic material for composting.”

d) Amend Section 4.1 to add reference to: “Section 3.8 Solid Waste Disposal Sites.”

e) Amend Section 4.4 to include the following reference:

“The WSI lands are regulated by a Certificate of Approval issued by the Ministry of the Environment. This Certificate does not have an expiry date and WSI is expected to continue operations well into the future. It is in the best interests of WSI, the City and the future residents of the community to recognize that this facility is a key component of the waste management infrastructure of the region and it plays an important role in the provision of waste management services such as recycling, composting and disposal for the community. Development should not hamper the ability of this site to perform its prescribed function to serve the community.”

f) Amend Section 4.4, paragraph 4 to add reference to:

“D-1 and “ D-4 and

“industrial solid waste and/or sewage sludges” and

“The studies will be required to be completed by the proponent and the City will not approve development within the influence area as

shown on the figures contained in the CDP until such time as the required studies are provided to the City’s satisfaction.”

g) Amend Section 4.6 by adding:

“The existing Waste Disposal site has existed since the 1960’s. Operations are anticipated to continue through the planning period which may result in limitations on the use of certain lands close to the site.”

h) Amend Section 6.1 by adding the following sentence 3:

“All development applications must be accompanied by the technical studies identified in the list of Required Studies and Assessments. Additionally, all applications within the 500m influence area from WSI must be accompanied by studies related to the Solid Waste Disposal Site Influence Area.”

2. That staff be directed, during the preparation of the MUC CDP, to re-evaluate the alignment of the BHBPE in the vicinity of Mer Bleue.
3. That the social housing component of the East Urban Community – Community Design Plan (Phase 1) be at least 7% of residential units (i.e. affordable to the 20% of households in Ottawa that are lower income), subject to Federal/Provincial funding.

CARRIED as amended by the following:

MOTION NO. 37/39

Moved by Councillor R. Bloess
Seconded by Councillor H. Kreling

WHEREAS the CDP for the East Urban Community Design Plan prescribes a minimum of 50% single loaded roads for development adjacent to creek corridors, green spaces and environmental areas;

AND WHEREAS there are various methods of calculating the percentage of single loading such as the difference between the linear distance of single loaded road divided by the linear distance of rear lot line or calculating the area around the feature (woodlot, creek, etc);

THEREFORE BE IT RESOLVED THAT a target of 50% single loaded roads be included in the CDP for development adjacent to creek corridors, green spaces and environmental areas.

CARRIED

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1. INTRODUCTION

1.1 Background

The study area that is the subject of this Community Design Plan (CDP) is located in the southeast portion of the Orléans Community. It is bounded by Mer Bleue Road to the east, a former Canadian Pacific Railway line bordering Mer Bleue Bog to the south, the National Capital Commission Greenbelt to the west, and a hydro corridor to the north (see Figures 1 & 2). This total area is approximately 570 hectares in size.

Based on an approved General Concept Plan of May 1993, the former City of Gloucester prepared a drawing entitled the *East Urban Orléans Expansion*. The drawing outlined a road network, defined land uses and identified areas of low and medium density housing. It was updated in November 2000 and approved in principal by Gloucester City Council in December 2000.

Since December 2000 there have been a number of changes to the land use designations in the study area. Additionally, the area is now subject to the policy direction set out in the new City of Ottawa's Official Plan (OP) as approved by the Province in November 2003 (appeals pending). Land use changes and key OP policies include:

- Designation of the majority of the subject area as a Developing Community and the requirement for the completion of a Community Design Plan prior to development (see Figure 3);
- The addition of a Mixed Use¹ designation and the statutory requirement for a Community Design Plan for the Mixed Use Centre prior to development. *Section*

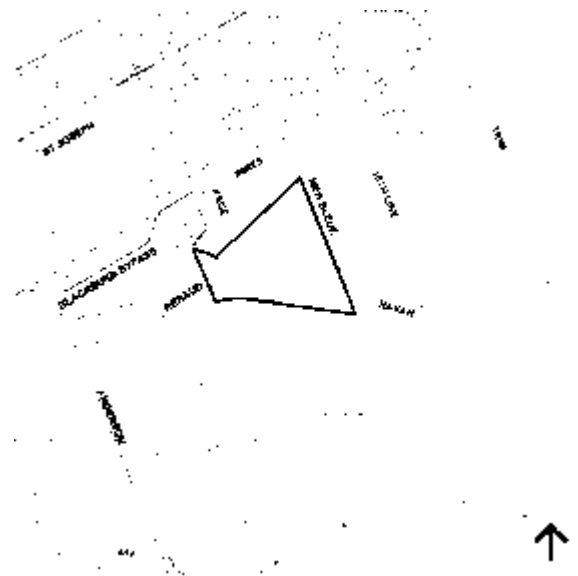


Figure 1: The study area within the Orléans context.

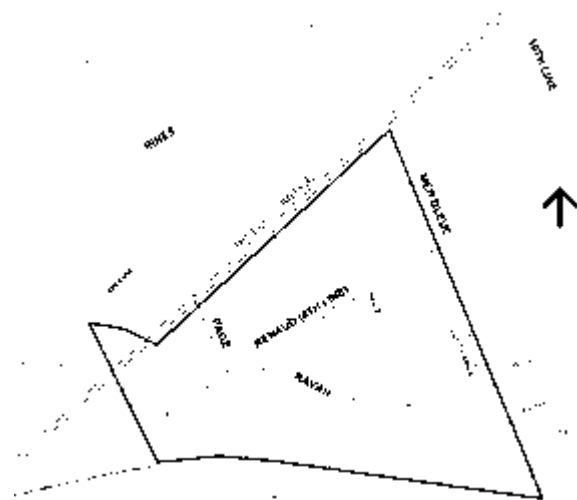


Figure 2: The study area boundaries.

¹ This Mixed Use designation was added to the Official Plan through the Eden Park Concept Plan Study prepared on behalf of Richcraft Homes.

3.6.2 of the OP states that “in the case of the Mixed-Use Centre south of Innes Road and west of Mer Bleue Road, development will only be permitted after the adoption of a secondary plan by the City”;

- The change of land use designation from Business Park / Industrial to General Urban² in the north-east section of the study area;
- An alignment of the future Blackburn Hamlet By-pass Extension which is different than the alignment shown on the *East Urban Community Orléans Expansion*;
- The Official Plan policies for a modified grid system of roads, higher density near transit stops, open space within 400m of all residential development, as well as specific density targets and unit mixes for Developing Communities; and
- New policy direction for the protection of fisheries habitat and natural features.

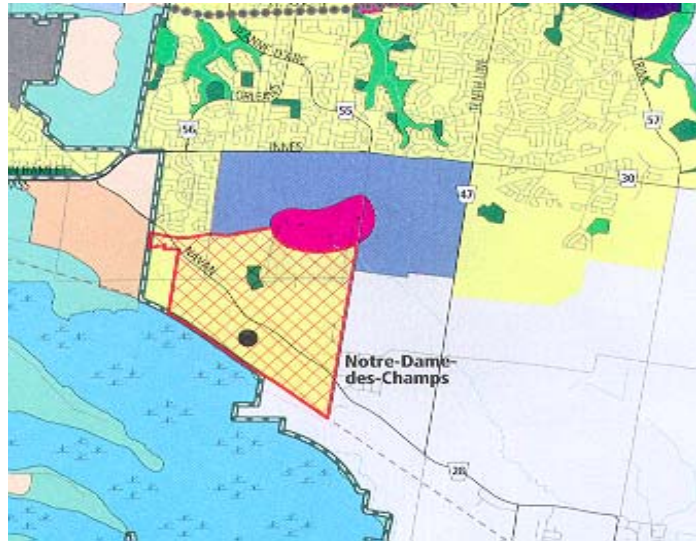


Figure 3: Shows the extent of the General Urban Area, Developing Community, and Mixed Use Centre designations.

The aim of this document and accompanying figures is to revise and update any previous plans for the study area so that they address new conditions and current Official Plan objectives for areas requiring a Community Design Plan.

1.2 Study Purpose and Objectives

The study area is broken into three geographic sections as shown in Figure 4. Given that the issues and end product needed to guide development decisions in each of the three areas is not identical, each area will be subject to its own CDP. Each CDP will develop a comprehensive and co-ordinated vision for future development. It is this CDP, however, that will establish the broader planning framework for all these areas.

This CDP document covers the area shown as Phase 1. The document:

- Indicates how the unit mix, residential density, parks and green space objectives found in the new Official Plan can be met;
- Illustrates the arrangement of all types of land uses, parks, green spaces and transportation corridors;
- Provides a land use summary table that sets out land areas, number of units, jobs and densities; and

² Similarly, the Eden Park Concept Plan Study resulted in this change in designation.

- Serves as a community development guideline document, which incorporates the policy direction for design in the new Official Plan.

In addition, the CDP for Phase 1:

- Considers the context of adjacent General Urban Area³, Phase 2 and Mixed Use Centre lands and has regard to the fact that the lands will also be examined under their own CDP processes;
- Rationalizes the size and geographic limits of the Mixed Use Centre;
- Identifies key land use, density and infrastructure assumptions for the Phase 2 and Mixed Use Centre lands;
- Identifies the Waste Disposal Site and its influence area; and
- Establishes the collector road network for the broader area.

Concurrent and in coordination with this CDP, the City has completed a detailed Master Infrastructure Report entitled *Gloucester EUC Infrastructure Study Update* (Stantec 2004) and Report on *Geotechnical Considerations: East Urban Community* (Golder 2004). Both of these studies were completed in support of this CDP and are intended to guide development with respect to infrastructure planning and geotechnical matters.

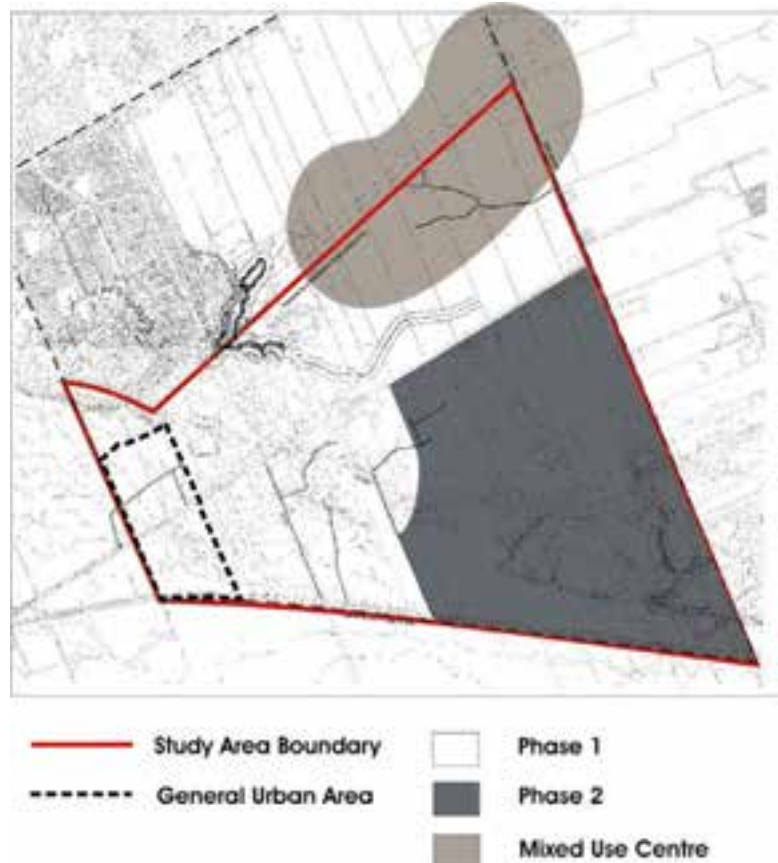


Figure 4: Shows the extent of the Phase 1, 2, and Mixed Use Centre, as well as the General Urban Area within Phase 1.

1.3 Study Process and Stakeholder Involvement

The CDP for the Phase 1 lands began in late October 2003 with the compilation of background materials, the creation of the Technical Advisory Committee (TAC), notification of stakeholders and the identification of required studies. General information about the CDP objectives, project events, and key dates were posted in the Community Consultation section of the City’s web site.

Initial Landowner and TAC meetings were held in November 2003, as was the first public Open House. To inform people living within the study area about the CDP and open house,

³ The General Urban Area is approximately 32 hectares in size. It is considered for context but is not subject to the policies of the CDP.

advertisements were placed in the community newspapers and all property owners within the study boundaries (Phase 1, 2, and the Mixed Use Centre) were mailed directly. The open house sign-in sheets record approximately 60 attendees. Although few of these attendees returned comment sheets, the two primary concerns of those who did were the timing for the provision of services (storm and sanitary) and increasing traffic.

A second set of TAC and Landowner meetings was held in April 2004. The meetings were followed in May by the second public Open House. The first draft of the Concept Plan for Phase 1 was presented at these meetings.

A third set of TAC, Landowner and Open House meetings was held in December 2004 and January 2005. The revised draft *Land Use Structure Plan, Demonstration Plan* and the draft CDP document were presented at the meetings. Copies of the plan and document were also deposited at the Orléans Client Service Centre for public review. People who participated in the previous open houses were notified of this fact.

In addition to the meetings noted above, various meetings were held over the course of the study process with the school boards, conservation authorities, landowners and other stakeholders as required and requested.

It is the intent that stakeholder involvement in planning for the area will continue. Opportunities for further involvement will include the statutory meetings and notices required at the time of Official Plan Amendments (when / if required), Zoning By-law Amendments, Plans of Subdivision and through notice of future development applications.

2. KEY INFLUENCES

The purpose of this section is to briefly outline the relevant federal, provincial, and municipal policy contexts that influence the CDP.

2.1 Greenbelt Master Plan – National Capital Commission (1996)

The Greenbelt Master Plan divides the Greenbelt into a series of sectors; the Mer Bleue Bog Sector and Eastern Farm Sector (North) are adjacent to the study area. These sectors are generally west and south of the study area. As shown in Figure 5, Mer Bleue Bog - a Core Natural Area - is located immediately adjacent to the southern boundary of the study area. This “is the largest peat bog in the National Capital Region and the largest natural area in the Greenbelt. Mer Bleue is home to nationally rare plants and animals”(NCC 1996, 94). The Greenbelt Master Plan identifies the future development of land north of the bog as a constraint that could have negative impacts on the ecological function and integrity of the bog. Given this, the characteristics of any land use adjacent to the bog are critical to the integrity of the bog.

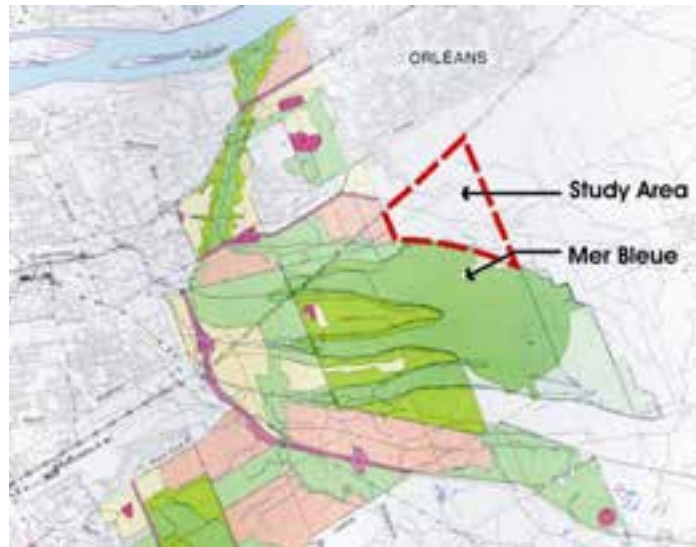


Figure 5: The location of the study area is outlined in red and the location of the Mer Bleue Bog Core Natural Area is shown in dark green (NCC 1996, 36).

2.2 Provincial Policy Statement

The Provincial Policy Statement (PPS 2005) is Ontario’s statement of policy on matters of provincial interest as set out in the Planning Act, RSO, 1990. Key policies that have influenced the creation of the CDP relate to *Building Strong Communities, Housing, Natural Heritage and Natural Hazards*. In approving the new City of Ottawa Official Plan, the province has determined that the Plan has had sufficient regard to the Provincial Policy Statement.

2.3 City of Ottawa Official Plan (May 14, 2003)

The new Council Approved Official Plan for the City of Ottawa was adopted on May 14, 2003. The Minister of Municipal Affairs gave its notice of approval on November 10, 2003. The plan is now subject to various appeals to the Ontario Municipal Board. Notwithstanding these appeals, the key policies that have influenced the creation of this CDP include the policies on *Developing Community and Collaborative Community Building and Community Design Plans*. They also include policies within the sections on *Managing Growth, Transportation, Natural Features and Functions, Greenspaces, Strategy for Parks and Leisure, Provision for Retail, and Major Recreational Pathways, Urban Natural Features, Adjacent to Land-Use Designations, Environmental Protection, Protection of Health and Safety and Solid Waste Disposal Sites*.

The Phase 1 study area is designated *General Urban Area* and *Major Open Space* on Schedule 'B' of the Official Plan. A *Developing Community* overlay designation also applies to a large part of the study area. The policies associated with each of these land uses will be applicable to development within the study area.

2.4 Former City of Gloucester Zoning By-Law No.333 of 1999

The Zoning By-laws of each former municipality of the City of Ottawa are in effect until a new comprehensive Zoning By-law is adopted. Under the former City of Gloucester Zoning By-law No. 333 of 1999, the majority of the vacant land in the study area is zoned Future Growth (Fg). Other zones in the study area correspond to existing uses. These include *Institutional Community Zone* (Ic), *Industrial Landfill Zone* (Mf), *Commercial Neighbourhood Zone* (Cn) and *Residential, single dwelling 5* (Rs5). There are two holding zones adjacent to the southern property limit. These are *Holding Future Growth* (HFg) and *Holding Industrial Landfill Zone* (HMf). Once the CDP is complete, approved and adopted by Council, implementing Zoning By-laws can be adopted that correspond to the planned urban uses in this area.

2.5 Gloucester Growth Area Recreation Master Plans

In 1992 the City of Gloucester prepared a Recreation Master Plan for its growth areas. The accompanying conceptual development plan illustrated the proposed park and open space system through the study area. Although the *East Urban Community Orléans Expansion* drawing was influenced by the 1992 Recreation Master Plan, it incorporated few of the woodlot and natural features suggested by the Recreation Master Plan. This CDP re-examines the potential contribution of these features to a parks and open space system.

3. EXISTING CONDITIONS

3.1 Existing and Surrounding Land Uses

The total study area, as shown in Figure 6, is 570 hectares⁴. The Phase 1 area encompasses 206 hectares. Both development interests and resident landowners hold the land.

Although there are existing structures in the study area, the land is largely undeveloped. For the most part, the existing buildings are detached dwellings and garages situated along Navan, Renaud, and Pagé Roads. Much of the land behind these dwellings is covered by open pasture or wooded areas. The original ownership pattern of long narrow parcels running north-south from the existing roads is still evident.

In addition to residential dwellings, there are some commercial establishments along Navan and Mer Bleue Roads. Although most of these are small in scale, Waste Services Inc. (WSI) occupies a site of approximately 57.5 hectares on the south side of Navan Road. The landfill operation has existed on the property since the 1960s. It currently accepts solid non-hazardous waste material such as construction and demolition waste, inorganic materials and organic material for composting. The Official Plan states that “development proposals within 500m of an active waste disposal site... must demonstrate that the landfill will not have an impact on the proposed use and that there will be no impacts from the proposed use on continuing landfill operations (e.g. a use that would have the potential of impacting the water table)”. The OP adds that “uses for which a study may be required include those accommodating people or agricultural uses... The study will address the following: landfill-generated gases, ground and surface water contamination by leachate, odour, litter, contaminant



Figure 6: Illustrates the general context immediately surrounding the study area.

⁴ This includes the corridors of land for the future rapid transit corridor and bypass extension.

discharges from associated vehicular traffic, visual impact, dust, noise, other emissions, fires, surface runoff and vectors and vermin. Particular attention will be given to the production and migration of methane gases”. As visible in Figure 7, the Waste Services Inc. landfill sits within the Phase 2 area, however, the 500m influence zone affects a significant portion of the total CDP area, including a portion of Phase 1.

There are no existing institutional, municipal or recreational sites within the Phase 1 study area. However, within the Phase 2 area, there is an existing park, community building and wooded area that belong to the City of Ottawa as well as a former school building now in private ownership.

The CDP study area is surrounded on the south and west by NCC Greenbelt land. The community of Chapel Hill South is located adjacent to the north-east corner of the study area. The land north of the hydro corridor, which is primarily undeveloped, is designated *Employment Area* and *Mixed Use Centre* in the Official Plan; however, within this area there is increasing commercial development particularly along Innes Road. There are also plans to locate a snow disposal facility on the west side of Mer Bleue Road, north of the Hydro Corridor.

A portion of the lands to the east of the study area fall within the urban area boundary and are designated *Employment Area*; however, the majority of the land to the east falls outside the urban area boundary. This includes the east half of the community of Notre-Dame-des-Champs, which is located south-east of the study area and designated as a *Village* in the Official Plan. Figure 6 illustrates these surrounding land uses.

3.2 Population and Dwelling Statistics

The CDP study area falls within the Orléans Sub-Area of the City of Ottawa. The City’s Data Handbook (March 2004) provides an overview of population and dwelling statistics for this Sub-Area, which includes lands beyond the CDP study area. The average household size was 3.1 persons (City of Ottawa 2004, Tables 1,7 & 21). The 2001 population of Orléans was 86,205 persons, living in 27,700 dwellings. However, as noted below, the estimated 2003 year end occupied dwelling units in Orléans were higher. The information in the following tables is taken from the City of Ottawa’s Data Handbook (March 2004).

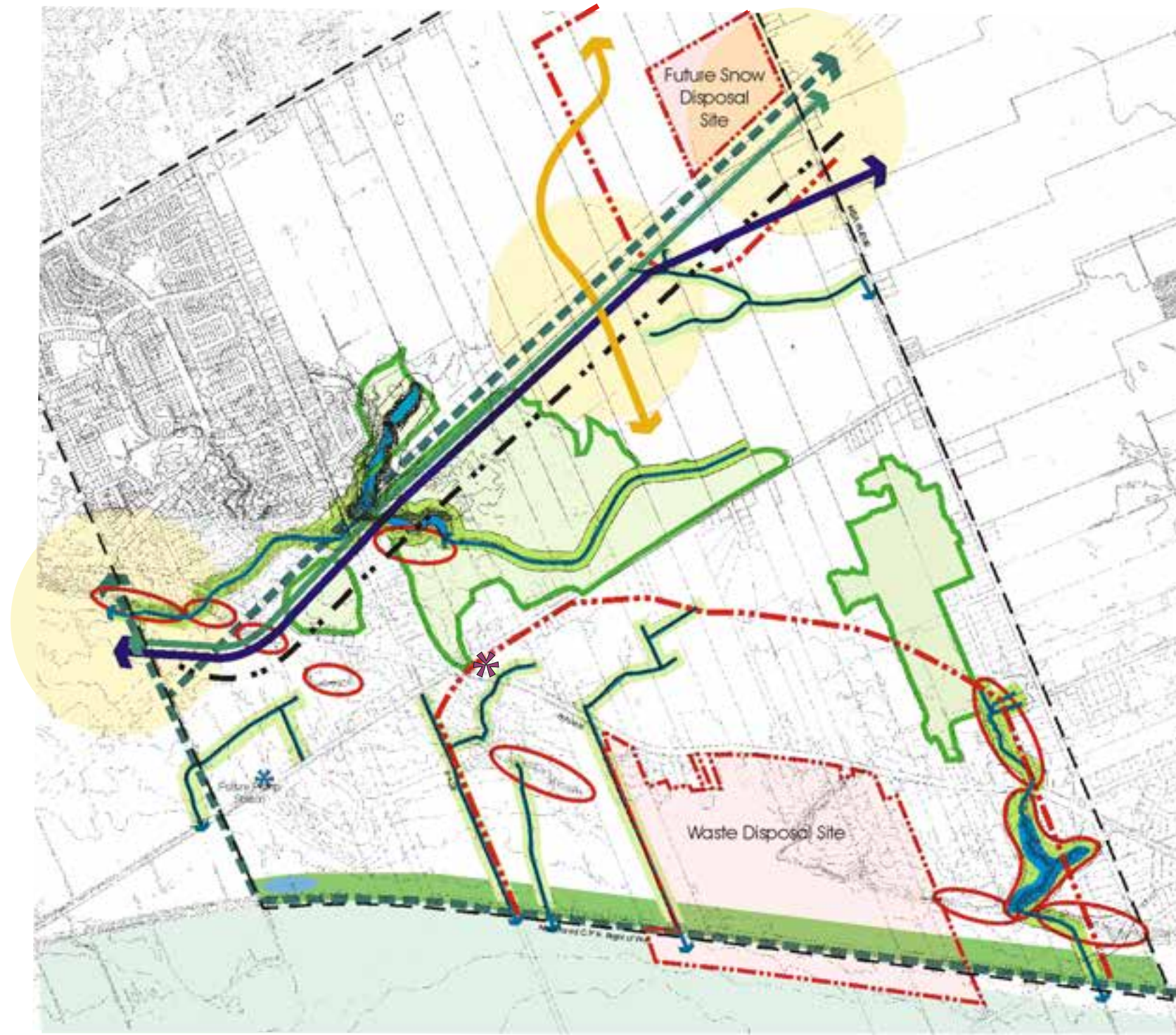
Dwelling Unit and Population Estimates by Sub-Area, City of Ottawa 2003

















Singles	Semis	Row Units	Apartments	Total	Estimated Population
19,678	1,666	7,569	1,519	30,432	94,815

The Orléans projected population is expected to increase steadily over the next 15 years to an anticipated population of 130,500 people in 2021.

Projected Population by Sub-Area, City of Ottawa 2001- 2021

	2001	2006	2011	2021
Population	88,200	99,700	111,100	130,500



-  Wetland Buffer (from NCC Greenbelt boundary or boundary of Provincially Significant Wetland (Schedule A) - whichever is greater)
-  Greenbelt / Wetland
-  Creeks and drainage channels
-  Creek Buffer Area
-  Urban Natural Areas Environmental Evaluation Study Candidate Site (see Section 4.3 for a discussion of this feature)
-  Snow Disposal or Waste Disposal Site (dashed line shows property ownership)
-  500m buffer around waste disposal site, 300m buffer around snow disposal site
-  Proposed Storm Pond
-  Proposed Rapid Transit Corridor
-  Proposed By-pass Extension
-  Future Belcourt Extension
-  Major Recreational Paths
-  400m Radius from potential location of future Transit Station
-  100m Buffer from Transit (noise study required)
-  Significant and (or) unstable slopes
-  3143 Navan Road (see Section 3.5 for a discussion of this site)

The corresponding increase in Orléans projected households between 2001-2021 is given below.

Projected Households by Sub-Area, City of Ottawa 2001-2021

	2001	2006	2011	2021
Households	28,600	33,700	39,200	50,000

The majority of new dwellings units recently constructed in the Orléans Sub-Area are single and row units. Few semis and apartments have been built in the last several years.

Net New Dwelling Units by Sub-Area, City of Ottawa 2001-2003

	Singles	Semis	Row Units	Apartments	Total
2001	558	0	127	49	734
2002	633	90	252	3	978
2003	427	6	565	2	1,000

Within the study area there are an estimated 250 dwellings, based on a review of the air photography and ownership mapping. If an average household size of 3.1 was assumed, these dwellings would accommodate a population of 775 persons.

3.3 Topography and Physiology

The entire study area is relatively flat with the exception of some ravine lands, an approximately 10m high crest of the gently sloping escarpment that parallels the south side of Navan Road and the land form modifications resulting from the WSI operation. The lowlands south of the escarpment are poorly drained and at a similar elevation to the Mer Bleue Bog.

As a background study for the CDP in consideration of the OP targeted residential densities, the City completed a macro review of the area's soil bearing capacities. The analysis indicates that the soils are predominantly sensitive marine clay (25-50m deep) with some overlain sand (Golder 2004, 3). These soil conditions will likely affect grade raise potential and limit the feasibility of supporting various building types on conventional foundations.

Additionally, there are certain areas along drainage features and the escarpment that pose slope stability concerns. Figure 7 shows areas where there are slope stability concerns. Details on soil conditions and slope stability are provided in the *Report on Geotechnical Considerations: East Urban Community* (Golder Associates 2004).

Although these landforms may pose some constraints for development they also provide opportunities to create interesting views and vistas in the new community, as well as innovative building forms.

3.4 Valued Environmental Components: Natural

The most comprehensive environmental information available for the study area comes from the 1992 Gore and Storrie Limited *East Urban Community Master Drainage Plan*. The document's Biological Resources Evaluation details the aquatic and terrestrial environments in the CDP area. This report provides an environmental basis for understanding the area's natural environmental

components. However, the information is dated and methodology for assessing the environmental value and significance of natural features has changed since the completion of the MDP report. At the time of the MDP, there were no standard evaluation criteria for assessing natural values. A more subjective assessment of the natural feature was completed based on age, structure, habitat, size, flora and fauna representation and species rarity. Since 1992, the completion of the former Region's Natural Environment System Strategy study, the former City of Ottawa's Natural and Open Spaces Study, and the City's on-going Urban Natural Areas Environmental Evaluation Study (UNAEES) provide consistent criteria to determine the regional and local significance of natural areas. Further study of the natural features within the Community Design Plan is required by applying the Urban Natural Areas Environmental Evaluation Study evaluation criteria to determine the significant natural attributes of the study area.

Many of the ecological features described below were not reflected in the *East Urban Community Orléans Expansion* plan for the study area. As part of this CDP process, these features were re-examined for potential integration into the land use plan as directed in the City's Official Plan.

Aquatic Environment

There are three separate watersheds in the study area; these are Mud Creek, McKinnons Creek and the Mer Bleue tributaries. "Mud Creek drains the majority of the study area to the southwest, where it empties into Green's Creek...McKinnon's Creek flows southeastward into Bear Brook and eventually into the South Nation River. The southeastern portion of the study area drains along the northern edge of Mer Bleue...and thence southeastward through a series of municipal drains to Bear Brook" (Gore and Storrie 1992, D3-1). In addition to these named creeks, the study identifies other unnamed drainage channels (see Figure 7).

Of significance to the Conservation Authorities with jurisdiction over the study area is the potential for these creeks and drainage channels to support fish habitat. The Biological Resources Evaluation notes that Mud and McKinnon's Creeks are fairly low quality with regard to fish habitat (Gore and Storrie 1992, 3-12). However, it also notes that "McKinnon's Creek contains several wet pools instream...which provide refugia for fish during dry periods" and that "surface runoff to McKinnon's Creek from Gloucester, although currently very low, should not be reduced significantly, as the refugia [fish habitat] may be negatively affected" (Gore and Storrie 1992, 5-8 and 3-12). The evaluation suggests that the Mer Bleue tributaries do not support fish habitat (Gore and Storrie 1992, 3-12). The evaluation includes a list of fish species found in the study area.

Since the creation of the *East Urban Community Orléans Expansion* plan, there have been a number of changes to the regulatory approach to fisheries. The Department of Fisheries and Oceans (DFO) administers the federal Fisheries Act. Several provisions of the federal Fisheries Act provide for the conservation and protection of fish habitat. In particular, Section 35 prohibits the harmful alteration, disruption or destruction of fish habitat (HADD), unless authorized by the Minister of Fisheries and Oceans. The Conservation Authorities have a Level II Agreement with DFO to review projects in and around water, which may alter fish habitat in accordance with Section 35 of the Act. The South Nation and Rideau Valley Conservation Authorities have identified the need to re-examine the study area to determine the fisheries

potential and the associated protection and / or mitigation requirements for the identified creeks and drainage channels on site. Fieldwork investigations and recommendations will require involvement and approval by the Conservation Authorities. If deemed necessary, additional study or information may be requested. These studies will be conducted during the appropriate field season and confirmed during the development review process. Flood plain mapping is available from the South Nation Conservation Authority.

In the absence of updated field investigation and assessment, the Conservation Authorities have indicated that a 30m buffer from normal high water mark or 15 metres from top of bank, whichever is greater, will be required for all watercourses as per Official Plan policy 4.7.3.1. The South Nation Conservation Authority has also indicated that any regulated watercourse is subject to their *Fill, Construction, and Alterations to Waterways Regulation* and that the Conservation Authority should be contacted before any works immediately adjacent to a watercourse begin. The Conservation Authorities have indicated that the watercourses can be crossed (e.g. with roads) however, mitigation or compensation would be required which could be subject to DFO approval. In addition, Environmental Impact Statements meeting OP requirements will be required as supporting technical documents to development applications that are subject to review by the Conservation Authority and the City¹.

Terrestrial Environment - Vegetation

The vegetative communities in the study area are a mixture of old fields in various stages of succession, immature forests, and wooded areas. The Biological Resources Evaluation identifies the various vegetative communities and provides a complete list of species found in the study area, rare and otherwise.

Within the study area, eleven (11) woodlands are delineated and described. Stand 12² is described as a contiguous tree stand of value. The “50 year old stand...[is] 9.0 ha in size...Grey birch is found throughout the stand in small, isolate, almost pure pockets. Most trees...range from 10 to 25cm dbh. Average stand height is 20 metres” (Gore and Storrie 1992, D4-7). This woodland supports forest interior habitat. The Evaluation notes that this stand is considered significant because of its unusual composition and support of regionally rare species (Gore and Storrie 1992, D4-11). The value of this stand is also recognised in the Gloucester Growth Area Master Recreation Plan, which states, “all possible approaches should be explored to preserve as much of...Stand 12 as possible” (Delcan Canada Ltd. and The Rethink Group 1992, 2-23).

Terrestrial Environment - Wildlife

The Biological Resources Evaluation lists 97 species of wildlife – amphibians, reptiles, mammals and birds - within the study area. Birds account for 77 of these species. The Evaluation notes that of the 77 species, 60 appeared to have nested in the area (Gore and Storrie 1992, D4-10). The Evaluation also states “eight of the nesting species are forest interior species that require large tracts of forest for nesting” (Gore and Storrie 1992, D4-10). As such, the protection of contiguous wooded areas would be necessary for their continued presence in the

¹ Note that the Conservation Authority, under its Level 2 agreement with the Department of Fisheries and Oceans, approved both the design for Pond 1 and 3 as they stand today.

² Stand 12 is located east of Pagé Road between the Hydro Corridor and Mud Creek.

study area. Evaluation of the tree stands and ravine systems must consider the impacts of future development on the existing wildlife species.

Urban Natural Areas Environmental Evaluation Study

The City is currently undertaking the Urban Natural Areas Environmental Evaluation Study (UNAEES) as part of the Greenspace Master Plan. The purpose of the UNAEES is to identify woodlands, wetlands and ravines throughout the urban area that are worthy of protection. The study will establish the relative environmental values of natural features, develop evaluation criteria, establish priorities for protection, and propose recommendations for management of urban natural features, in consultation with the public.

Two candidate urban natural areas have been identified in the study area: 1) Navan Road at Mer Bleue (#96); and, 2) Navan Road at Page Road (#97). The boundaries for these sites were defined over the winter and spring of 2004. Candidate area #97 is situated in Phase 1 of the CDP and captures Stand 12 identified by Gore & Storrie. The total area of the candidate site is 71.9 ha. This candidate urban natural area was not evaluated as part of the UNAEES as fieldwork was not completed for the area. Therefore, its environmental value as an urban feature is unknown at this time and detailed evaluation is required.



Figure 8: UNAEES Candidate Site #97 outlined in green.

The former Region's Natural Environment System Strategy (NESS, 1997) identified both candidate areas #96 & 97 as the Navan Road/Page Road Woods (Site No. 111) natural area. The NESS analysis relied on the Gore & Storrie 1992 report as no fieldwork was undertaken for this natural area as part of NESS work. Based on existing information, the NESS assigned an overall area assessment of Moderate for the area.

Mer Bleue Bog

Although the Mer Bleue Bog conservation area is not within the study area, its significance as a natural feature bordering the site cannot be understated. Mer Bleue is the largest peat bog in the National Capital Region and the largest natural area in the Greenbelt. It is also home to nationally rare plants and animals. As any future development will impact the bog, careful consideration must be given to protecting its ecological functions and integrity. The boundary of this provincially significant wetland varies but is more or less parallel to the south side of the rail corridor right-of-way along the south portion of the study area.

There have been a number of studies undertaken to assess the type and size of buffer required to protect the bog. Jacques Whitford Environmental notes that “based on current understanding of adjacent land requirements, for the protection of most wetland ecological functions and some supporting upland functions, maintaining a width of 50m of adjacent lands should be considered a minimum requirement along the entire wetland boundary. However, for the protection of higher level functions of adjacent lands...and giving consideration to a management goal of maintaining long term ecological integrity of the Mer Bleue Wetland / Conservation Area, a functional buffer of 100m of adjacent lands should be considered a reasonable minimum distance, *however, for site specific development proposals, specific site assessments should be undertaken to determine whether additional buffer requirements and / or protection of existing natural features / functions within the Mer Bleue Conservation Area are required*” (emphasis added) (Jacques Whitford Environmental Limited 2003, 11). The study adds that “given the potential of cumulative impacts as a result of the development of all EUC lands and other lands in and around Mer Bleue Wetland, it is recommended that a consistent use of a general 100m adjacent lands buffer is required in support of the long term management goals of the Mer Bleue Wetland” (Jacques Whitford Environmental Limited 2003, 11).



Figure 9: Water leaving the study area and flowing south to Mer Bleue bog.

The impact of Pond 3, as designed and approved, on Mer Bleue Bog was assessed during the environmental assessment and was found to have no adverse impact on the bog. Details on storm drainage are provided in the *Gloucester EUC Infrastructure Study Update* (Stantec 2004).

3.5 Valued Environmental Components: Socio-Cultural

Cultural Heritage resources in the study area fall within two categories in the Official Plan: Heritage Buildings and Areas, and Major Recreational Pathways. Three structures within the study area were identified by the former City of Gloucester as having some heritage significance. One of these, a two-storey brick structure at 3143 Navan Road³, is in the Phase 1 area. The Official Plan states that if heritage resources exist or may exist, a cultural heritage planning statement is required (Section 2.5.7).

Appendix D of the Blackburn Hamlet Bypass Extension Environmental Study Report provides a Stage 1 and 2 Archaeological Assessment of some portions of the study area including the area

³ The information and images of Site 17 (3143 Navan Road) are taken from the Gloucester Historic Building Study 1988. This study is a visual inventory and does not detail the age and physical condition of the structures. The location of this structure is identified on Figure 7.

around Mud Creek and the headwaters of McKinnon Creek. No cultural resources were found at these locations and the Assessment suggests that no additional archaeological investigation or monitoring of these areas is required (Delcan Corporation Ltd. 1999b, 52, 56, and 58).

There are two planned major recreational pathways running adjacent to the study area. These are to form part of an off-road recreational network for pedestrians and cyclists.



Figure 10: 3143 Navan Road (Gloucester Historic Building Study 1988)

3.6 Transportation Network

A network of existing arterial and collector roads that provide external access to the *East Urban Community* bound the study area. These roads include Innes, Mer Bleue, Navan and Renaud Roads. These roads will require upgrades as development occurs. Upgrades to Innes Road occurred in 2004 and will continue in 2005. In addition to the major routes noted above, there is also a planned north-south major collector road linking Innes Road to the southerly limits of the study area⁴. A future rapid transit corridor is planned to be located immediately south of the hydro corridor. The future Blackburn Hamlet Bypass Extension will run south of, and generally parallel to, the transit corridor⁵. The rapid transit corridor is now being studied by the City as part of an east/west Light Rail Transit (LRT) line linking Orléans to Kanata.

3.7 Water Infrastructure

The study area is part of the City's urban service area. As development occurs, watermains will be extended and looped in the standard fashion. There are no currently identified restrictions to servicing the EUC from a watermain capacity point of view. A high level analysis has been completed by the City which stipulates timing of a large feedermain which is to be constructed in the Hydro Corridor and extended through to 10th Line Road. Hydraulic watermain analyses will be required for each subdivision as they proceed in order to identify site-specific requirements and complement the overall hydraulic model for the EUC. Details are provided in the *Gloucester EUC Infrastructure Study Update* (Stantec 2004).

3.8 Sanitary Sewer Infrastructure

A detailed analysis of the sanitary sewer capacity was completed in early 2004 to ensure that sufficient residual capacity existed in the outlet sewers to accommodate potential OP densities. The information from this analysis was carried forward in the *Gloucester EUC Infrastructure Study Update* (Stantec 2004), which establishes the infrastructure plan for the CDP area.

⁴ This road is known as the Belcourt Boulevard Extension.

⁵ The alignment of these corridors has been confirmed in approved Environmental Assessment (EA) documents. See the Environmental Assessment of the Cumberland Transitway and Blackburn Hamlet Bypass-Extension (Delcan Corporation Inc. 1999). These documents are still valid and do not at this time require any updates.

Sanitary sewage within the study area will be directed to an existing trunk sanitary sewer on Pagé Road either by gravity for the most northerly lands or by way of a pump station and forcemain, known as the Forest Valley Pump Station and Forcemain Facility (FVPSFM). The FVPSFM will be situated in the south western section of the EUC north of Renaud Rd (formerly 4th Line Road) and will pump sewage via a forcemain to the gravity trunk sanitary sewer on Pagé Road at the HEPC corridor. The FVPSFM is under design and will be expanded to take on additional flows generated by the new Official Plan target densities. It is estimated that the FVPSFM will be commissioned in late 2005 or early 2006. There will also be a series of typical local and trunk sanitary sewers throughout the EUC area.

3.9 Stormwater Management

Ultimately, three storm water management ponds will service the study area; these are SW Ponds 1, 2 and 3 respectively (see Figure 11). The ponds were originally identified in the EUC Master Drainage Plan 1992 and have been carried forward in the various iterations of the Gloucester Council Approved EUC Concept Plans, as well as the EUC Master Infrastructure Plan 1995 and the *Gloucester EUC Infrastructure Study Update* (Stantec 2004). Subsequent to the MDP and Concept Plans, Ponds 1 and 3 underwent Class Environmental Assessments and both ponds were subsequently designed and approved by the Ministry of Environment 2000.



Figure 11: Recommended SWM pond locations (Stantec 2000, 2)

Pond 1 is an inline facility that is situated on the east side of Pagé Road at the Hydro Easement.

Pond 1 will have two cells, a northern cell and a southern cell. The tributary area for each cell is 177ha (mostly commercial industrial) and 148ha respectively. Pond 1 was designed and approved in 2000 for construction. Pond 1 will accommodate storm drainage south of Innes Road, east of Pagé Road, west of Mer Bleue Road and north of Renaud Road.

Pond 2 was shown in the 1992 EUC Master Drainage Plan as being situated in the far south east quadrant of the EUC in the eastern tributary to Mer Bleue Bog, and was envisaged to also be an inline facility; though a detailed design has not been completed for this facility to date. The outlet for the pond will ultimately be Bear Brook. Pond 2 will accommodate storm drainage south of the Hydro Easement and east of the future Belcourt Extension. Pond 2 is situated in what will be Stage 2 of the EUC CDP. The pond will be designed when development pressures warrant it.

Pond 3 was also designed and approved for construction in 2000; however, recently, the developers in the area have requested that the pond be redesigned. This redesign is underway. Pond 3 will be situated on tableland in the southwest quadrant of the EUC, just north of the Mer Bleue Bog wetland and will serve a tributary area of 187ha.

There will also be a series of typical local and trunk storm sewers throughout the EUC, which will direct storm runoff towards the various ponds for treatment. Details are provided in the *Gloucester EUC Infrastructure Study Update* (Stantec 2004).

There are also networks of existing man made and natural drainage channels, which will require assessment in order to determine fisheries potential, environmental value and function, slope stability and set back requirements. It is expected that certain channels may have minimal environmental value, while others may have varying environmental significance. Further detailed review will be required at the Plan of Subdivision development stage in order to ensure that applicable regulatory concerns are addressed and integrated into the subdivision design.

3.10 Existing Development Applications

As of January 1, 2004 there were several applications for Zoning or Plan of Subdivision filed with the City for land within the study area. Generally, these applications did not reflect the road patterns, location of parks and schools, or the suggested units mixes shown in the original Gloucester Concept Plan. They also did not address the policies of the new Council approved OP, such as those related to residential density, road pattern and lot layout, housing, and built form. The applications were put on hold until such time as the CDP was complete. However, the applicants were kept informed about and involved in the CDP process through attendance at public open houses, stakeholder meetings and ad hoc meetings with staff.

There are two applications filed for plan of subdivision within the General Urban Area designation in the southwest portion of the Phase 1 Area, that are being processed to expedite draft plan approval. These have conditions restricting development until such time as technical details are resolved with respect to municipal services and environmental impacts. These applications are expected to be the first to be approved to coincide with the phasing of municipal works.

The existing conditions and influences noted above are summarised in the following table;

Geotechnical Considerations

- Escarpment with sensitive soils, areas with compressible clay soils, and depth to bedrock of 25 –50m
- Limited grade raise potential
- Setback requirements from escarpment ridge may affect development pattern
- The escarpment provides opportunities to create a linear path network with views to Mer Bleue Bog
- Limited grade raises creates opportunities to retain existing trees (e.g. limited site regrading)

Transportation / Circulation Network

- Development will increase traffic pressure in the short term
- The road pattern shown on the Gloucester Concept Plan does not meet current OP objectives and creates cut through traffic on Renaud Road as it enters the Greenbelt
- The north/south link (Belcourt Blvd. Extension as shown in Gloucester OPA 35) must be preserved
- There will be limited opportunities to cross the 80m right-of-way for the future rapid transit corridor and Bypass Extension making it difficult to link the areas north and south of the hydro corridor
- The future Bypass Extension will relieve traffic pressure
- Existing arterial roads will need to be upgraded incrementally as warranted by development pressure
- The future rapid transit corridor / facilities will relieve traffic pressure and provide an alternative means of transportation
- Pedestrian and cycling connections to other urban areas are possible
- The CDP provides the opportunity to correct intersections that are currently problematic and to re-evaluate the road network shown on the Gloucester Concept Plan















Natural Environment, Parks and Open Spaces

- The existing environmental information should be updated in order to determine terrestrial and creek corridor protection requirements for this study area.
- All creeks / drainage channels need to be identified and assessed to determine protection level and setback requirements.
- Mer Bleue Bog is an adjacent natural feature which can contribute to the community
- A buffer is required adjacent to Mer Bleue Bog (70m along the north side of the rail corridor)
- Candidate natural areas #96 & 97 need evaluation to determine their overall environmental value.
- Significance of Stand 12 needs to be confirmed through further study
- Acquisition strategies for urban natural features have not yet been identified
- The opportunity exists to re-evaluate natural features prior to development decisions being made either through City initiated study or Environmental Impact Statements.
- Retaining woodland, creek and escarpment features will help create unique neighbourhoods
- The buffer requirements from creeks and drainage areas can be incorporated into a pathway system
- A parks and open space system can connect natural features
- The OP identifies a Major Open Space within the CDP area and the location needs confirmation

Land Uses / Ownership

- Waste Services Inc. occupies a large portion of Phase2 and has an unknown operational lifespan
- The 500m buffer zone around waste disposal facility may limit development potential while the facility is operational
- Development in some areas may be difficult without consolidation of small and fragmented parcels
- The hydro corridor and rail corridor create strong boundaries to the study area
- Much of the land in the study area is relatively flat and has been previously cleared
- The possibility of views to the Greenbelt may enhance the desirability of the community
- The City owns parkland in Phase 2 & will acquire other parkland through the development processes
- The City will acquire road widenings and rights-of-way through the land development processes
- The Hydro and rail corridors are identified as Major Recreational Pathways in the OP. The rail corridor is currently being leased for a fibre optic corridor.

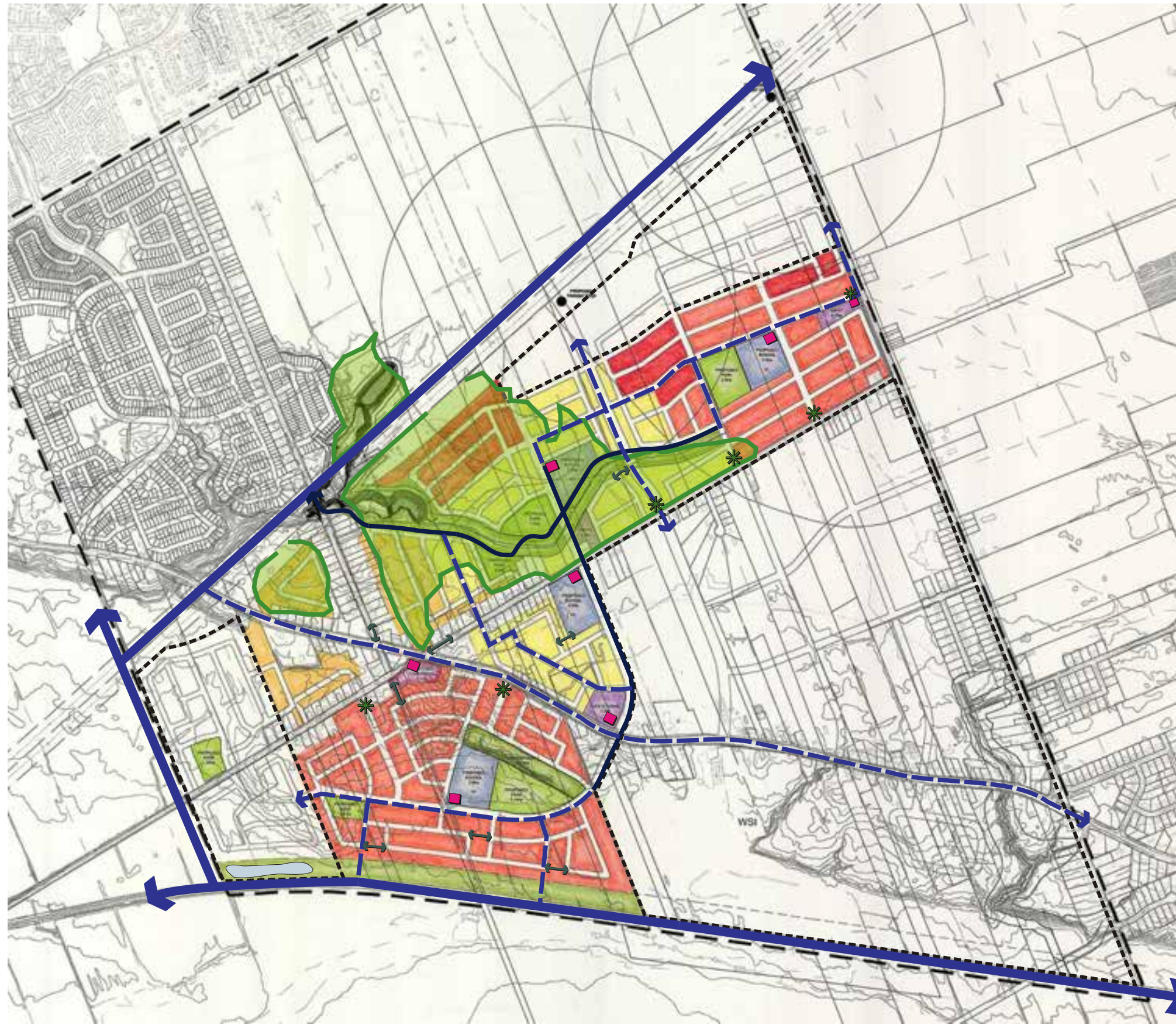








-  Future Rapid Transit Corridor
-  Collector Roads
-  Arterial Roads
-  Future Blackburn Hamlet Bypass Extension
-  Environmental and Hazard Land
-  Urban Natural Areas Environmental Evaluation Study Candidate Site (see Section 4.3 for a discussion of this feature)
-  Parks
-  Schools
-  Institutions
-  Commercial
-  Residential
-  WSI Site Ownership Area
- 500m buffer around WSI Site
-  Storm Ponds in Phase 1 and General Urban Area
- General Urban Area, Phase 2 and Mixed Use Centre Lands
-  Possible Location of Future Park & Ride Facility



-  Low density development
25 units / net ha
-  Medium-low density development
29 units / net ha
-  Medium density development
35 units / net ha
-  High density development
60 units / net ha
-  General Urban Area, Phase 2, and
Mixed Use Centre Lands
-  Existing Residential
-  Urban Natural Areas Environmental
Evaluation Study Candidate Site
(see Section 4.3 for a discussion of this feature)





-  Major Recreational Pathway
-  On Road Cycling Route
-  Off Road Pathway
-  General Urban Area, Phase 2 and Mixed Use Centre Lands
-  Urban Natural Areas Environmental Evaluation Candidate Site (see Section 4.3 for a discussion of this feature)
-  Walkway Block
-  Built Form as Gateway
-  Landscaped Gateway Feature

designated in Phase 1 north of Renaud Road in locations that are within a 600m walking radius of the two proposed transit stops, close to school and park sites, close to the future amenities of the Mixed Use Centre and where feasible based on soils conditions. The Demonstration Plan (Figure 14) illustrates the target densities by area.

The Land Use Structure and Demonstration Plans also illustrate a development pattern that could occur through land assembly of smaller parcels and through the redevelopment of existing lots. The Demonstration Plan similarly illustrates the possibilities for severing larger existing residential lots to encourage intensification through infilling; this would also take advantage of urban services that will be installed as development proceeds.

Estimate of Residential Development Potential in Phase 1

Land area	Density	Units	Estimated Persons / Unit	Population
31.42 hectares	25 units / net hectare	786	3.2	2,515
12.00 hectares	29 units / net hectare	348	3.2	1,114
50.39 hectares	35 units / net hectare	1,764	2.4	4,234
10.00 hectares	60 units / net hectare	600	1.9	1,140
Total Units:		3,498		Total Population: 9,003

The detailed planning for Phase 2 has not been completed thus the projected unit counts are based on an estimate of the land available for residential development. Removing institutional and commercial uses, future roads, parks sites, the waste disposal site, ravines and hazard lands, and the buffer area adjacent to Mer Bleue Bog the estimated net area available to residential development is 66.16 hectares.

Estimate of Residential Development Potential in Phase 2

Land area	Density	Units	Estimated Persons / Unit	Population
58.96 hectares	25 units / net hectare	1,474	3.2	4,717
7.2 hectares	35 units / net hectare	252	2.4	605
Total Units:		1,726		Total Population: 5,322

Estimate of Total Units and Population CDP area

Area	Units	Population
Phase 1	3,498	9,003
Phase 2	1,726	5,322
Mixed Use Centre	700 - 850	1,330 – 1,615
General Urban Area	525	1,680
Estimate of existing Dwellings	250	775
Total	6,699 – 6,849	18,110 – 18,395

No major changes are anticipated to the existing residential dwellings along Renaud, Navan and Pagé roads although, over time, existing individual uses may amalgamate and redevelop.

Affordability

Affordable housing will be required in accordance with applicable City policy in all new residential development and redevelopment in the EUC. Section 2.5.2 of the Official Plan defines affordable housing as rental or ownership housing, for which a low or moderate income household pays no more than 30% of its gross annual income.

The Official Plan directs that 25% of all new housing development and redevelopment is to be affordable to households at the 30th income percentile for rental and at the 40th income percentile for ownership. Within the Community Design Plan (CDP) area, approximately 1675 homes (6,699 units x 25%) should be within the affordability range as determined at the time of subdivision development approval. Current market prices for multiple-units structures (apartments, stacked town houses and townhouses) suggest that the majority of these homes can meet the Official Plan affordability targets.

The development of “social housing” by social housing providers, with or without City funding or incentives, will be included within the total 25% of affordable housing in the community. Approximately 7% of all homes in the City are social housing, meaning they have been funded under public programs to ensure affordability for lower-income households. At least 7% of all residential units in the EUC - approximately 470 homes - should be provided for social housing (subject to Federal/Provincial funding). These homes should be affordable to households at or below the 20th income percentile for Ottawa.

The required housing type and appropriate location for social housing in the community will be decided at the time of development approval, subject to Council allocation of funds. The preferred location for social housing will have convenient access to public transit, shopping and community services.

To support the development of affordable housing, the City will negotiate the following municipal incentives and direct supports, including but not limited to:

- Capital grants, land;
- Deferral or exemption from payment of fees and charges;
- Density incentives or transfer, flexible zoning, alternative development standards;
- Other incentives to be negotiated depending on the depth of affordability achieved.

Where municipal incentives are provided to support the development of affordable housing, the City will enter into agreements with developers to preserve the level of public interest in affordable housing. Agreements will reflect the level of public investment required, with more investment resulting in greater levels of affordability. Agreements will include mechanisms to maintain affordability, will specify the mix of units to be provided, and will typically be registered on title or become a municipal housing facilities by-law.

Institutional Land

The Ottawa School Boards have requested a total of four school sites in the Phase 1 area¹. As requested by the school boards, the Concept Plan shows two 2.42 hectare sites and two 2.85 hectare sites. Although the criteria for elementary school locations vary for each of the boards, in general the school sites should be:

- Centrally located to the overall catchment area of the proposed residential development with excellent pedestrian access from the surrounding residential area;
- Rectangular in shape and with flat topography;
- Located on corner lots along minor collectors;
- Ideally located adjacent to park land or open space;
- Located away from potential hazards such as hydro easements, radio towers, major transit ways etc.; and
- Ideally located on lands held by no more than one land owner.

Within the EUC, the buildings and grounds should be designed to become landmarks and community focal points. All of the schools sites will be dual-zoned for school and residential purposes²; in the case where a school board releases their option on a site, the medium density designation will apply. In addition to school sites, there are three sites in Phase 1 designated for other institutions uses such as emergency services and places of worship³. These sites range in size from 0.6 – 1.3 hectares.

Commercial Land

Although the majority of the commercial development will be located in the MUC and Phase 2 lands, there is one local / community commercial site identified in Phase 1. This is meant to serve the immediate residential area by providing convenience shopping and services. The implementing zoning by-laws will additionally permit neighbourhood convenience commercial uses (corner stores) at the intersections of collector roads.

Heritage Sites

As noted in Section 3 of this document, 3143 Navan Road has been identified as having some heritage significance. The Official Plan states that if heritage resources exist or may exist, a cultural heritage planning statement is required (Section 2.5.7). The potential integration of this building into the proposed development should be examined at the site plan / subdivision stage. Adjacent development should be compatible with any retained heritage buildings.

Jobs

The majority of new jobs within the CDP study boundaries will be located in the Mixed Use Centre; as directed in the OP, Mixed Use Centres are required to accommodate at least 5,000 jobs. The table below shows potential new jobs per household within the Phase 1 area.

¹ Note that additional school sites will be required in the Phase 2 area. Note also that any schools, parks or institutional sites shown on Phase 2 land in engineering documents supporting the Phase 1 CDP are conceptual and for planning purposes only. The location of parks, schools and institutions in Phase 2 will be refined through the Phase 2 CDP.

² All sites should be dual-zoned for medium density residential purposes. If it is proven that it is not possible to build at medium density, lower density designations will be considered.

³ It is anticipated that additional institutional sites will be identified in Phase 2 and the MUC.

Estimate of New Jobs in the Phase 1 Area

Source of Employment	Jobs
Commercial Sites (1.1 ha x 50 jobs/ ha)	55
Schools (4 elementary @ 40 jobs each)	160
Other Institutional Sites (3 x 3.3 jobs each)	9.9
Home Occupations (10 jobs / 100 residential units)	350
Total New Jobs:	574.9

4.2 Stormwater Management

As noted and described in Section 3.9, three storm water management ponds will service the study area. There will also be a series of typical local and trunk storm sewers throughout the EUC, which will direct storm runoff towards the various ponds for treatment.

There are also networks of existing man made and natural drainage channels, which will require assessment in order to determine fisheries potential, environmental value and function, slope stability and set back requirements. It is expected that certain channels may have minimal environmental value, while others may have varying environmental significance. Further detailed review will be required at the Plan of Subdivision stage in order to ensure that applicable regulatory concerns are addressed and integrated into the subdivision design.

4.3 Greenspace Network

Parks and Open Space System

Five percent parkland dedication was calculated for the residential development in Phase 1 and 2 lands⁴ and results in approximately 25 hectares of parkland. The 25 hectares will be spread throughout the Phase 1 and 2 area as a variety of parks whose size and configuration address facility requirements. As visible in the *Land Use Structure and Demonstration Plans*, within Phase 1 there are six parks ranging in size from 0.8 – 3.1 hectares; this includes the park in the General Urban Area. These six parks represent 10.15 hectares of parkland. Where possible the parks are built adjacent to the Mud Creek corridor or the escarpment hazard lands⁵. The total parkland dedication includes one contiguous District Park of approximately 13 hectares to be located within the Phase 2 area⁶. This represents the Major Open Space designated on Schedule B of the Official Plan⁷. The specific location of this park will be determined through the Phase 2 CDP. In order to accurately reflect the location of the park on Schedule B, an Official Plan Amendment will be undertaken at the completion of the Phase 2 CDP. Until this amendment has been made, development applications on lands currently designated Major Open Space cannot be approved.

⁴ Commercial and industrial land within Phase 1 is calculated at 2% parkland dedication. The parkland dedication for the MUC will be determined when the MUC CDP is undertaken.

⁵ Note that escarpment lands are incorporated into the Open Space system but will not be acquired as parkland. The road shown north of the escarpment should form the edge of the hazard land. The parkland should begin at the toe of the slope that marks the beginning of the developable area. The exact location of the developable area, crest and toe of slope will be determined through the site plan / subdivision process.

⁶ The District Park should be situated on transit routes and should ideally be central to the entire study area.

⁷ The 13ha District Park was also identified on General Concept Plan prepared by the former City of Gloucester.

Detailed design for all parks will be completed as the neighbourhoods are developed. It is expected that that parks will provide a range of outdoor recreational facilities such as soccer fields, ball diamonds, football and ultimate fields in addition to play structures / areas for children. The potential also exists for the development of a water play area / splash park and skateboard park in the community.

Pedestrian and cycling system

Figure 15 illustrates a proposed on and off-road recreational path system. A portion of this system follows the Mud Creek linear corridor. Where the path cannot be created in the creek buffer area or a right-of-way, a walkway block will be acquired at the time of subdivision / site plan to ensure the connectivity and continuity of the path system. Should it be determined by the Conservation Authorities that other watercourses are to be retained, the recreational pathway system should be extended to link and incorporate these features.

The path system is also shown with links to the Major Recreational Pathways identified in the OP and to the path system in Chapel Hill South. Connections to the recreational pathway along the rail corridor should be through defined access points that serve as trailheads and interpretive areas. The proposed locations for these access points are shown on Figure 15. From the Phase 1 area, access to the recreational pathway under the hydro corridor is proposed as an at grade link across Pagé Road⁸. The pathway system will be linked and extended into both the Phase 2 area and the MUC. To enhance pedestrian connections to schools and parks, bus routes, commercial areas, and other community destinations, blocks longer than 200m should be divided by walkway blocks.

Natural Features

An ecological evaluation of the woodland feature (including Stand 12) identified on Figure 7 and Figures 13 -15 has not occurred since the 1992 *Gore and Storrie Biological Resources Evaluation*. Environmental assessment of urban natural features has evolved since that time. The City's Urban Natural Areas Environmental Evaluation Study (UNAEES) identified this woodland feature as the Navan Road at Pagé Road candidate natural area #97. This candidate site was not evaluated as part of this study due to field season and property access limitations. A full environmental evaluation based on field investigations conducted by a qualified biologist needs to still be undertaken. The UNAEES evaluation criteria include: connectivity, regeneration, ecological integrity, size and shape, habitat maturity, natural communities, representative flora, significant flora and fauna, and wildlife habitat. Planning & Growth Management have 2005 funding to complete the environmental evaluation for the remaining unevaluated candidate sites identified in the UNAEES. It is the intent of the City to evaluate candidate natural features #96 and #97 in 2005 spring/summer field season, pending landowner permission.

The environmental value of the candidate natural area needs to be determined prior to planning decisions being made for the affected lands. If the City is unable to evaluate the natural feature due to timing or access restrictions, the applicant must undertake the evaluation of the woodland

⁸ The nature of the pedestrian and bicycle connections to the Hydro Corridor from the Belcourt Blvd. extension and from Mer Bleue Road will be determine as part of the MUC CDP.

applying the UNAEES evaluation criteria. This comprehensive evaluation will be required as part of the development review process prior to planning applications being approved. The evaluation of the woodland must be deemed acceptable by City staff. If necessary, additional information may be requested as part of this evaluation. If the natural feature, in part (e.g. Stand 12) or in whole, is deemed to be significant City staff will explore options for protection. This could include: acquisition, exchanging lands of similar value, negotiating conservation easements, applying a special levy, tax incentive programs or other methods that may be proposed from time to time. If the natural feature cannot be protected in part or in whole by the City through the various securement options, development of the land will proceed in accordance with the underlying direction set out in the Community Design Plan. Any development applications for land within or adjacent to the candidate site must include a Tree Conservation Plan. The entire woodlot is shown on the Land Use Structure and Demonstration Plans.

The Land Use Structure and Demonstration Plans show a 70m Mer Bleue Bog wetland buffer. This is measured from the north edge of the former rail line⁹. The 70m buffer is constraint land that will be deeded to the City at no cost. The buffer will serve as a visual link to the bog and should be crossed, in Phase 1, at two points to permit access to the recreational pathway. The Plans show rear lotting against the buffer. The adjoining lot lines should be fenced in an effort to define the buffer edge, to ensure that there is no encroachment into the buffer area and to control access to the recreational pathway. The Plans also show Pond 3 within the buffer area; this location was approved under the previous EA.

Development applications adjacent to the buffer area will be required to show that 70m is sufficient to protect the existing ecological integrity and function of the bog and that more land is not required. Additionally, the South Nation Conservation Authority has noted that an Environmental Impact Study should be undertaken for development or site alterations proposed within 120m of the wetland edge. All affected parties, landowners and adjacent landowners, will be required to develop a coordinated management plan for the buffer. Management plans will be required as a condition of subdivision approval and must include specified timelines for completion and implementation.

The Phase 1 Land Use Structure Plan illustrates a 30m setback along Mud Creek on either side of the normal high water mark. Although the drawing does not show the other creeks and watercourses, based on the requirements stipulated by the Conservation Authorities, it may be necessary to retain these watercourses and provide appropriate buffers. Development applications and subdivision design will be required to reflect the direction set out by the Conservation Authorities in this regard. As given by the Conservation Authorities, field work is necessary for each watercourse and this will determine the level of protection required. The studies will be conducted when any associated development review process begins, and during the appropriate field season. The South Nation Conservation Authority has noted that any regulated watercourse is subject to their *Fill, Construction, and Alteration to Waterways Regulation*, which is being converted into the *Generic Regulations*. The Conservation Authority notes that proponents should contact them before proceeding with any works immediately

⁹ 70m is measured from the north side of the existing rail corridor. Given that the rail corridor right-of-way is 30m and the wetland boundary is near its south side in the Phase 1 area, the 70m buffer will ensure a minimum buffer of 100m from the wetland.

adjacent to a watercourse. Any buffers required by the Conservation Authorities must also be coordinated with the setbacks required for slope protection. As noted in Section 3, there are areas along drainage features and the escarpment that pose slope stability concerns. The areas will require detailed geotechnical and slope stability reviews at the site development stage in order to ensure the protection of public and private property. All constraint and hazard lands will be deeded to the City at no cost.

The Land Use Structure and Demonstration Plans in the CDP illustrate a possible development pattern. If studies indicate that certain features in the study area require additional protection, the plans will have to be revised. Required revisions will occur through the development review process as outlined in Section 6.

4.4 Waste Disposal Facility

The WSI lands are regulated by a Certificate of Approval issued by the Ministry of the Environment. This Certificate does not have an expiry date and WSI is expected to continue operations well into the future. It is in the best interest of WSI, the City and the future residents of the community to recognize that this facility is a key component of the waste management infrastructure of the region and it plays an important role in the provision of waste management services such as recycling, composting, and disposal for the community. Development should not hamper the ability of this site to perform its prescribed function to serve the community.

As described previously, there is a 500m buffer study area around the waste disposal facility. Given the uncertainty regarding lifespan of the facility, it is assumed that all or a portion of the site will continue in use for solid waste disposal in the foreseeable future. The WSI is a well managed and run operation however, odours have and may continue to be an issue at the WSI site as with all landfills. Although the concept shows development up to the edge of the waste disposal facility this is only to illustrate the potential for future development and a functional road pattern.

The Ministry of the Environment Guidelines D-1 and D-4 Land Use On or Near Landfills and Dumps provides direction on development adjacent to existing landfill sites. “The guideline applies to all proposals for land use on or near any landfill or dump which contains municipal solid waste, industrial solid waste and/or sewage sludges” (Section 3.1). The Guideline notes that, “the Ministry will normally recommend against proposals for sensitive land use adjacent to operating landfills” (Section 5.1). Sensitive land uses include permanent structures “where a person sleeps or [where] a person is present on a full time basis” (Section 5.1.1).

The Guideline lists the following factors as those that must be considered when land use is proposed near an operating site: “landfill-generated gases, ground and surface water contamination by leachate, odour, litter, contaminant discharges from associated vehicular traffic, visual impact, dust, noise, other air emissions, fires, surface runoff, and vectors and vermin” with particular attention given to the production of methane gas (Section 4.1).

The Guideline states that, “the Ministry considers the most significant contaminant discharges and visual problems to be normally within 500 meters of the perimeter of a fill area¹⁰. Accordingly, the Ministry recommends this distance be used as a study area for land use proposals” (Section 5.3). The guidelines add that, “in consideration of long-range planning, the Ministry may recommend the proponents delay or phase certain types of land use to coincide with the closure of sections of a landfill, or the operation itself” (Section 5.6). Therefore, as per Ministry regulations as per Sections 4.8.4 and 4.8.5¹¹ of the Official Plan, studies of the landfill’s influence will be required for all development applications within a 500m area around the WSI site. The studies will be required to be completed by the proponent and the City will not approve development within the influence area as shown on the figures contained in the CDP until such time as the required studies are provided to the City’s satisfaction.

To ensure that any future residents fully understand the nature of the landfill operation and the need for continued existence of the facility, all homes built within 500m of the WSI property line must have a condition in the subdivision agreement which notifies purchasers of the location, physical size, continued existence and nature of the WSI operation. Additionally, all sales centres and promotional housing / development materials must also clearly show the property limits of the WSI site and indicate the nature of its operations. These requirements will be obligatory even where study of the buffer suggests that development can occur within the 500m buffer area.

4.5 Transportation Network

Figure 16 illustrates the proposed collector road network for the Phase 1 and 2 lands. This corresponds to the network shown on the Land Use Structure Plan and ties into the local road network illustrated on the Demonstration Plan. The network is based on the OP direction of creating a grid system in order to ensure porosity and connectivity through the community. The network also aims to reduce the amount of cut-through traffic to the Greenbelt from Renaud Road and to limit the number of crossings of Mud Creek. The network shown in Figure 16 and on the Demonstration Plan illustrates the end state; as explained below, certain road connections will ultimately be closed but only after sufficient alternative routes are in place. New roads will be designed and constructed through the Harmonized Planning Act and Class EA processes.

The road network serves the dual purpose of providing for efficient traffic circulation throughout the community and providing the corridors for underground infrastructure and utilities. The majority of roadway linkages shown on Figure 16 are fixed in order to protect for underground servicing corridors that have tight tolerances in the CDP area due to grade raise restrictions.

Changes to Existing Roads

- Navan Road and Mer Bleue Road are designated arterials with right-of-way protections of 37.5m. Currently both Navan and Mer Bleue Road are two lane roads. They will be widened to

¹⁰ *Fill Area* is defined as “The area of a waste disposal site set aside for landfilling or dumping” (MOE Guideline D-4, Section 2.0). The *Fill Area* sits within the *Peripheral Area* defined as “the area controlled by the site owner/operator between the boundary of the waste disposal site and the fill area; together, the peripheral area and the fill area make up the waste disposal site; the peripheral area will contain the buffer areas required to be on-site” (MOE Guideline D-4, Section 2.0)

¹¹ See the MMAH modifications

four lane divided arterials as traffic warrants and will undergo appropriate Class Environmental Assessments.

- Traffic signals will be installed at the existing intersection of Navan and Renaud Roads to address immediate and interim traffic needs. This intersection will not be modified to the configuration shown on the Land Use and Demonstration Plans until such time as adequate alternative connections are in place to serve the new community. When the alternative connections exist, the Renaud / Pagé / Navan intersection will be realigned to create the final intersection configuration. Through this realignment, Renaud Road will become a dead end on the east side of Navan and will meet Navan at a T intersection on the west side.
- Pagé Road will also be closed at Navan Road when the safety and / or capacity of Navan Road at its intersection with Pagé Road or adjacent intersections is jeopardized and when an alternative access for residents along the southern section of Pagé Road is provided. Pagé Road will be closed at the Blackburn Hamlet Bypass Extension when the bypass is constructed.
- Renaud Road will become a major collector with a right-of-way of 26m.

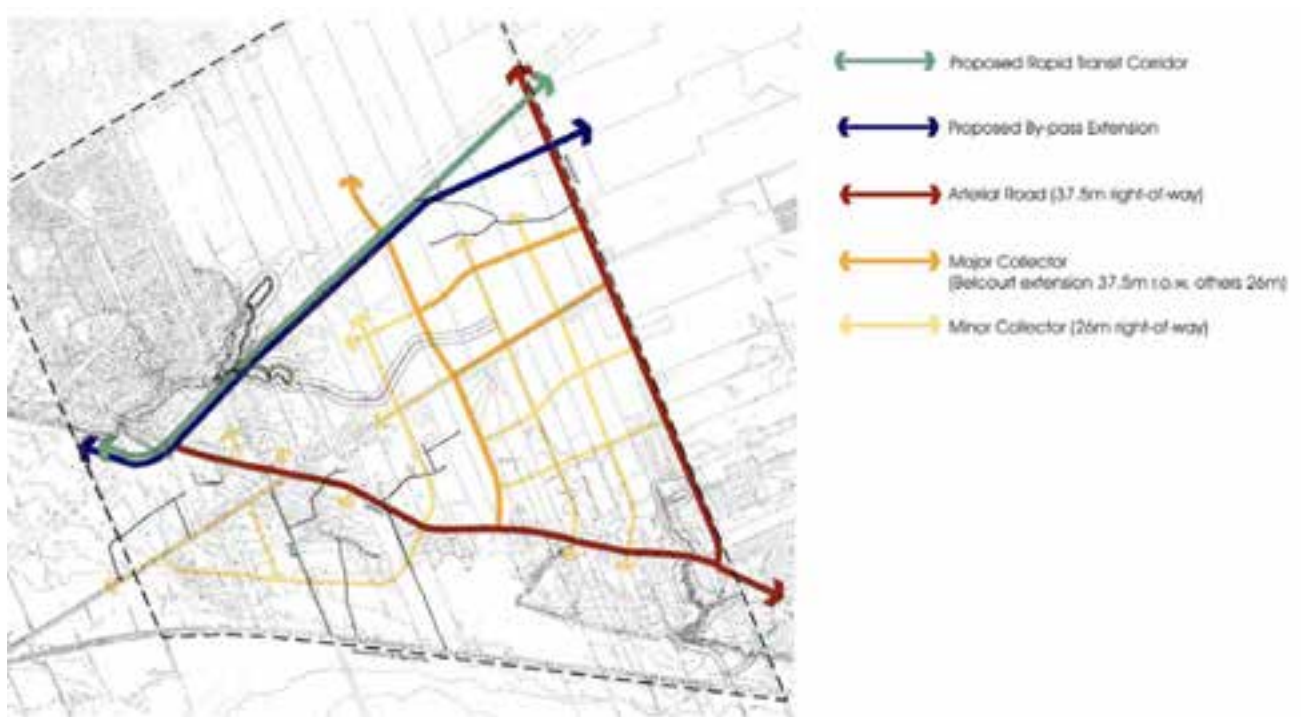


Figure 16: Transportation network through the study area



Figure 17: This figure illustrates the interim and ultimate collector and arterial road network. Short dotted lines show connections, from Renaud and Pagé Roads, to Navan Road that will remain open until such time as alternative connections exist. Dashed lines represent the future local collector network. Solid lines show the major north-south and east-west routes (such as Mer Bleue Road, Navan Road, the future Belcourt Extension, the future Blackburn Hamlet By-pass and Orléans Blvd.)

Future Roads

- The Blackburn Hamlet Bypass Extension will run along the northern edge of the study area. The alignment for this road was determined in a 1999 Environmental Assessment. The right-of-way protection for this corridor is 40m.
- The Belcourt Boulevard Extension will run from Innes Road south to connect with Navan Road (Gloucester OPA 35 – Schedule B). The extension will be a major collector with a right-of-way protection of 37.5 m. Figure 18 shows typical cross sections for road with a 37.5m right-of-way. From the Bypass Extension to Renaud Road, the Boulevard will run through the future MUC and residential neighbourhoods. The area with poor soils capacity straddles this collector. As a result, in the Phase 1 area only low-density development can be built adjacent to and immediately around the collector. Units will face the street however individual driveways are not permitted onto the collector. Consequently, the Demonstration Plan

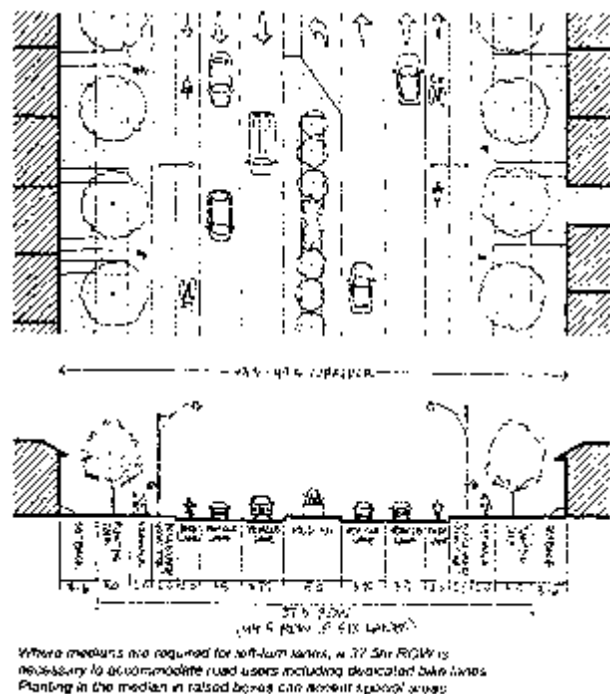


Figure 18: Shows a sample cross sections for a 37.5m right-of-way (RMO 2000, 45 & 49).

illustrates a road pattern where units facing onto the collector have rear access garages. If site specific soils analysis indicate that higher density development is possible, medium or high density development should be pursued due to the adjacency to the collector and the proximity to future transit and the Mixed Use Centre. In all cases, individual driveways cannot be permitted onto the collector. The sidewalk along the Phase 1 portion of the collector should be 2.0m or greater and lined with a double row of trees.

- Figure 19 highlights in yellow portions of streets in the high-density area which will be prominent due to their proximity to transit, adjacency to schools and parks, and proximity to the MUC. In these areas sidewalks will be 2.0m or greater and be lined with a double row of trees. Front garages are not permitted onto the street; any private garages should not be visible from the street and should be accessed from the side or rear. Alternatively, communal rear parking areas accessed from the street are permitted. (see Figure 20)
- Navan Road forms a spine running through the community. Over time this will become a busy arterial with key entry points into the developing community to the north and south. Future development along Navan Road must mark the gateways to and reflect the quality of the neighbourhoods on either side (see Figure 15). It is expected that existing individual uses will amalgamate and redevelop along the street as urban commercial, institutional, and residential uses and that adjacent development should make provisions for this eventuality. New built form should be turned to face and address the street with significant street presence. “Vehicular access to individual lots...should be controlled to minimize turning movements and to reduce conflicts between all travel modes. Opportunities for direct pedestrian and cyclist access should be maximized” (RMOC 2000, 9). Any drive-thru uses must be oriented with queuing lanes at the side or rear of properties.

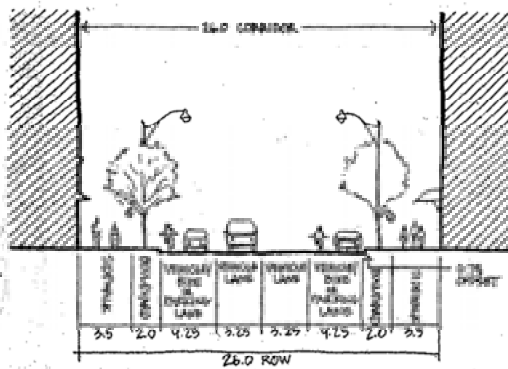


Figure 19: The two prominent street sections area highlighted in yellow.

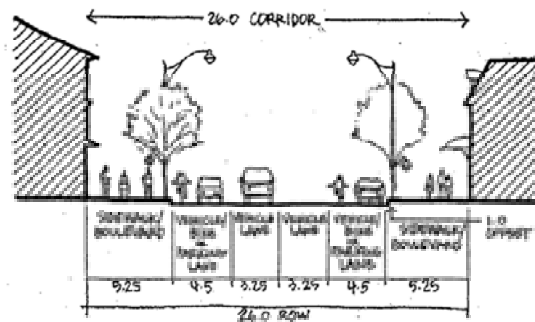


Figure 20: Communal access to a parking area. There are no garages facing the street.

- Major and minor collectors as noted on Figure 16 are protected for 26 m (or the approved City standard at the time of subdivision). Figures 21 & 22 show sample cross sections for 26m collectors. All collectors will have street trees on both sides of the road.



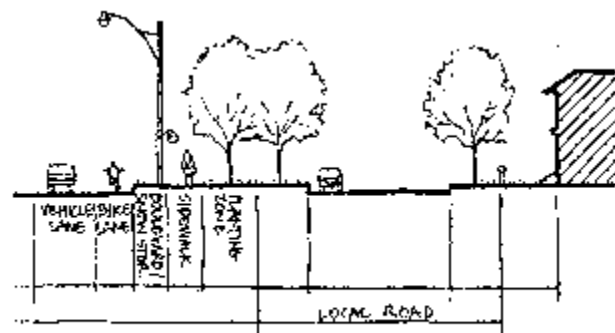
A 26m ROW provides space for wider sidewalks and cycling facilities, as well as a planting zone along the curb.



A 26m ROW will provide space for trees, generous sidewalks and space for short term snow storage.

Figures 21 & 22: Illustrate sample cross sections for a 26m right-of-way (RMO 2000, 43).

- Local Roads will have an 18m right-of-way (or the approved City standard at the time of subdivision).
- Alternative road standards for single loaded local roads next to arterial roads, collector roads and adjacent to natural features can be considered on a case-by-case basis through internal review by City staff. In all cases, the right-of-way should accommodate street trees, the possibility for sidewalks, street furniture requirements, and underground utilities and infrastructure (see Figure 23).
- Transportation Impact Studies will be required at the site development stage in order to determine site-specific requirements such as signals, turning lanes and tapers etc.



A parallel local road can be designed with alternative development standards.

Figure 23: Illustrates a parallel local road adjacent to a collector or arterial (RMO 2000, 50).

Transit

Two proposed transit stations are shown along the future LRT extension. These are located at the LRT intersections with Mer Bleue Road and the future Belcourt Boulevard extension. These stations are approximately 800m apart. Future transportation studies, including the ongoing East/West LRT study, will determine design details of the rapid transit corridor including alignment, grade separation, pedestrian and cycle connections etc. Local transit service will connect to the two LRT stations. Local transit will run on arterial and collector roads and service schools, parks, and other community destinations. Walking distance to bus stops should not exceed 400m walking. Local stops along the collectors will be generally spaced 200 to 250m apart.

4.6 Potential Community Effects and Mitigation

People currently living in the study area and adjacent communities will see an increase in activity and traffic in the area with the additional of new housing and neighbourhood uses. In the short term the traffic may be concentrated on a few roads. However, as the community develops and the grid network is completed, traffic should be dispersed throughout the community with no one area particularly burdened by additional traffic. Similarly, once the Blackburn Hamlet Bypass Extension and the rapid transit service (bus or LRT) are constructed and other system modifications are completed, the entire area should be well served by an integrated circulation system.

Development will result in a loss of natural habitat area and tree cover in the study area. The concept plan attempts to mitigate the negative effects of this loss by protecting natural environment areas where possible and encouraging extensive tree planting.

Surface water runoff will be managed through comprehensive stormwater management plans in a fashion similar to other developing communities across Ottawa that meet regulatory agency requirements.

The existing Waste Disposal site has existed since the 1960s. Operations are anticipated to continue through the planning period which may result in limitations on the use of certain lands close to the site.

5. COMMUNITY DESIGN GUIDELINES

The following section examines how open space, the natural environment, public infrastructure and built form can work together to structure neighbourhoods and contribute to community development. Successful implementation of the guidelines requires the cooperation of all stakeholders including the City, landowners, present and future residents.

5.1 Landscape Principles and Guidelines

Section 4.7.2 of the OP states that, “preserving vegetation on sites subject to development not only contributes to the urban and rural forest and the overall environmental health of the area, but also helps improve the visual appeal of newly developed areas”. However, the development of greenfield sites naturally results in a loss of open space and often also results in the loss of natural features and habitat area. Where natural habitat areas can be retained, the effects of development may still have a significant impact. Recognizing that development will occur, a landscape strategy for the CDP area should aim for “a greater integration of landscape and cityscape, with a greater variety and area of green spaces and aquatic environments than is normal in a dense residential neighbourhood” (Sheltair Group Inc. 1998, 29). This supports the principle in the OP which states “development proposals will be required to preserve vegetative cover to the greatest extent possible or replace it where removal cannot be avoided” (Section 4.7).

To help achieve this goal, four landscape principles and supporting guidelines are presented below. These are specifically tailored to the study area. Achieving these will contribute to both local ecology and the creation of a unique community.

Maintain and Enhance the existing natural infrastructure / landscape patterns

Maintaining and enhancing the significant natural landscape patterns - created by woodlots, creeks, and ravine features in the study area - not only contributes to local community character but also contributes to the ecological health of the larger environment. These features are identified in Figure 7. Significant watercourses must be reinforced with appropriate setbacks, stream course enhancements and planting. Ravine systems and unstable slopes must also be treated with appropriate setbacks and planting if required. Significant woodlots should be protected in such a way that ensures the ecological integrity of the woodlot and associated habitat areas are maintained in an urban setting.

The following policies in Section 4.7.2 of the OP support the principle of reinforcing existing natural components:

- “In order to support the Official Plan objective of 30% tree cover, applications for subdivision or site plan approval will be supported by a tree preservation and protection plan and a landscape planting plan¹². The plans will:

¹² Note that the restricted potential for grade raises, as determined by the geotechnical studies allows for an increased opportunity to protect and preserve existing vegetation by maintaining existing grades around the existing vegetation.

- a) Retain as much natural vegetation as possible, especially along watercourses, on steep slopes, in valued woodlots and in areas linking green spaces, with a particular emphasis on high quality or rare vegetative communities;
 - b) Determine which stands of trees or individual trees warrant retention based on a preliminary assessment;
 - c) For those trees or stand of trees being retained, outline measures for their protection during construction and over the long term;
 - d) Describe the area and nature of tree loss and compensation measures proposed;
 - e) Indicate tree planting or vegetation cover required to provide protection for stream courses or steep slopes;
 - f) Where there is substantial alteration of the natural vegetation cover on site, the impact on fauna or rare species during and after construction will be considered and mitigation measures proposed”.
- Development applications must prepare an Environmental Impact Statement for all or part of the woodland feature to determine its environmental value based on UNAEES evaluation criteria.
 - Development applications must include a survey of existing vegetation (location, species, size, condition etc.), provide a plan which identifies the location of individual trees with trunks greater than 7cm in calliper and indicates trees to be removed and trees to be retained.
 - Setback requirements around creeks and drainage channels will be in accordance with Conservation Authority requirements.
 - Existing landform and natural features should be integrated into the development pattern.

Foster biodiversity and establish planting guidelines that promote ecological integrity.

In order to achieve this principle:

- Explore ecological opportunities and develop planting plans that encourage biodiversity and focus on native landscapes as well as drought tolerant species. OP policies note that “the City will promote the use of native species in public projects and private tree planting and land conservation whenever appropriate” (135). Policies in Section 4.7.2 of the OP also highlight that landscape plans accompanying applications for subdivision or site plan approval will “investigate the appropriateness of the use of native species in tree planting strategies” (135).
- Promote or restrict the use of certain species in key parts of the study area (e.g. adjacent to natural areas plant native species that compliment/contribute to the species richness and improve and enhance the natural habitat of the area).
- Create an information package for new home owners identifying recommended plant choices to promote biodiversity, native landscaping, non-invasive and drought tolerant species selection. The information package should provide advice on good stewardship practices that assist in maintaining the integrity of natural features.

In addition to the recommendation on species selection, the following guidelines establish minimum planting requirements in order to enhance community greening and to mitigate for tree cover lost as a result of development.

- Plant two trees for each single detached or semi-detached unit, one tree for each townhouse unit, and one tree for every two stacked townhouse or apartment units. As noted in the OP, plans supporting applications for subdivision or site plan approval will be supported by “a reference document for future residents on the importance and care of trees on their property” (Section 4.7.2) (see Figures 24 & 25). The City forester should review this document.
- Where there is insufficient room on a site plan application or plan of subdivision to plant the required number of trees, the ‘owed’ trees will contribute to a “tree bank” and will be planted within the community (e.g. on school sites, in parks, in the 70m buffer, used to rehabilitate natural areas etc.).



Figures 24 & 25: Show tightly spaced street trees planted between the street and sidewalk.

- Where arterials, major collectors and other roads do not have direct residential frontage (e.g. residential frontage is on a single loaded service road facing the arterial), plant street trees 7-10m on centre such that the selected species grows to form an enclosed canopy.
- Plant street trees to line institutional, commercial and park sites. Plant trees 7-10m on centre such that the selected species grows to form an enclosed canopy¹³.

Ensure that parks contribute to the green space network and neighbourhood fabric

Parks and open spaces give character and identity to local neighbourhoods. They also provide public recreation and amenity areas. As residential density increases and the sizes of private outdoor spaces decrease, the role of parks and open spaces within a community becomes increasingly important.

The design and distribution of parks within the study area must address active and passive recreational needs and should be built adjacent to and contiguous with existing natural features whenever possible. As stated in the OP “on-site and adjacent natural features/ functions will be protected and enhanced by incorporating them into public open spaces and recreation pathways” (Section 4.7.2). Achieving the following guidelines will contribute to the green space network:

- Distribute parks and open spaces evenly within the community and ensure that all homes are within 400m of a park or open space.

¹³ The location of street trees must be co-ordinated with the location of utilities and infrastructure that share the ROW.

- Build parks adjacent to and contiguous with existing natural features such as woodlots and ravines so that these features are incorporated into the fabric of the community.
- Define an open space system that links parks and natural areas to each other and to the community. Where parks cannot be connected by open space corridors, link parks through community pathway networks (e.g. pedestrian and bicycle paths) that extend to each neighbourhood and to recreational systems outside of the study area. (see Figures 26 & 27)



Figure 26: The existing recreational path on the former rail bed that forms the boundary between the study area and Mer Bleue.



Figure 27: Illustrates the potential for an open space link through the wooded areas.

- Create pathways within all creek setback areas.

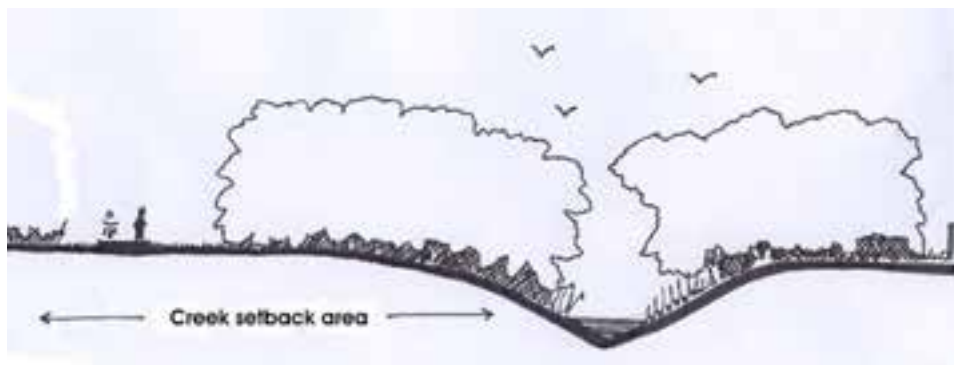


Figure 28: Pathways should be located on the outside edge of the setback area from creeks and natural areas.

- Frame parks and school sites with single loaded roads on at least two sides and encourage a third side to be a publicly accessible frontage (e.g. road, school, public institutional site).
- Where residential development is adjacent to creek corridors, hazard lands or other environmental areas, frame the environmental area with a target of 50% single loaded roads.

- Design parks to ensure significant street frontage and clearly defined pedestrian entry points. Highlight the entry points through features such as special paving, feature planting, signage, and built form.
- Line parks with street trees (as noted above).
- Vary the sizes, character and uses of these parks and open spaces so that each is unique and identifiable. Ensure that parks provide for a multitude of activities that address the needs of different age groups and levels of ability.
- Ensure that large parks, such as district parks, are well served by public transit.
- Avoid rear lotting along or adjacent to parks. Where it is unavoidable, consistent rear fencing is required.

Establish features areas that contribute to the green space network created by parks and natural areas.

Creating additional green areas in the community can enhance the network established by parks and open spaces. To do so:

- Treat school grounds and other institutional sites as green nodes where planting is used to enhance site aesthetics, provide teaching opportunities, and contribute to community ecology.
- Treat the buffer adjacent to Mer Bleue Bog as either a *Natural Area Buffer* or *Natural Area Link*. The buffer lands offer significant opportunity to green the community with new planting. This could be combined with the creation of a trailhead and interpretive area relating to the bog and leading visitors to the recreational path¹⁴.
- Enhance the parks and open space network through the designation and creation of tree-lined ‘green streets’ with excellent pedestrian and bicycle facilities.
- Integrate stormwater management ponds into the community as a feature.

5.2 Architectural Guidelines

By framing the public realm, buildings define the quality of public space and can contribute to a pedestrian, human scale environment that is comfortable, inviting, safe, and accessible. In order to create inviting public spaces and city streets, a high quality built environment is critical.

Although the Land Use Structure and Demonstration Plans lay out a basic road and block structure, they do not illustrate what should fill the blocks. The following section provides guidelines for built form in Phase 1¹⁵. The guidelines focus on residential typology - which will be the predominant building type in Phase 1 – but are also applicable to institutional and commercial buildings.

¹⁴ As noted previously, the rail corridor is currently being leased for a fibre optic corridor.

¹⁵ Guidelines for the uses in Phase 2 lands and the Mixed Use Centre will be developed when their CDPs are undertaken.

Orientation and Setbacks

- Orient buildings to front onto public streets and ensure that principal entries are clearly identifiable, visible from the street and universally accessible¹⁶. (see Figure 29)
- Reduce front yard setbacks in order to create a more intimate street environment. Front yard setbacks should range from 3.0 – 6.0m. Where blocks are long and straight, variation within the range will add interest to the streetscape. (see Figures 30 - 32) Front yard setbacks should also be varied where this can be used to preserve and integrate existing natural features (e.g. mature trees) into the development.



Figure 29: The front doors of these units are clearly visible from the street (www.prospectnewtown.com).



Figures 30 - 32: Three building styles with reduced front yard setbacks. In all cases the area between building and street is planted.

- Ensure that reduced setbacks achieve satisfactory privacy for residential units and permit adequate front yard landscaping¹⁷. Some of the ways to achieve adequate privacy include raising the first floor slightly above street level, using landscape features to delineate public from the semi-public areas, and adding porches or other entry features to act as an interface between the public and private realm (see Figures 33 - 35).
- Orient buildings to face features such as parks, schools, and natural areas.

¹⁶ Soil conditions in the study area may make it difficult to keep doors close to grade. In such cases, various means of maintaining accessibility should be explored.

¹⁷ Zoning / parking requirements, site lines, snow storage, utilities and the location of street furniture must also be considered when reducing setbacks.



Figure 33 - 35: The examples illustrate how architectural features or landscaping can be used to increase the sense of privacy.

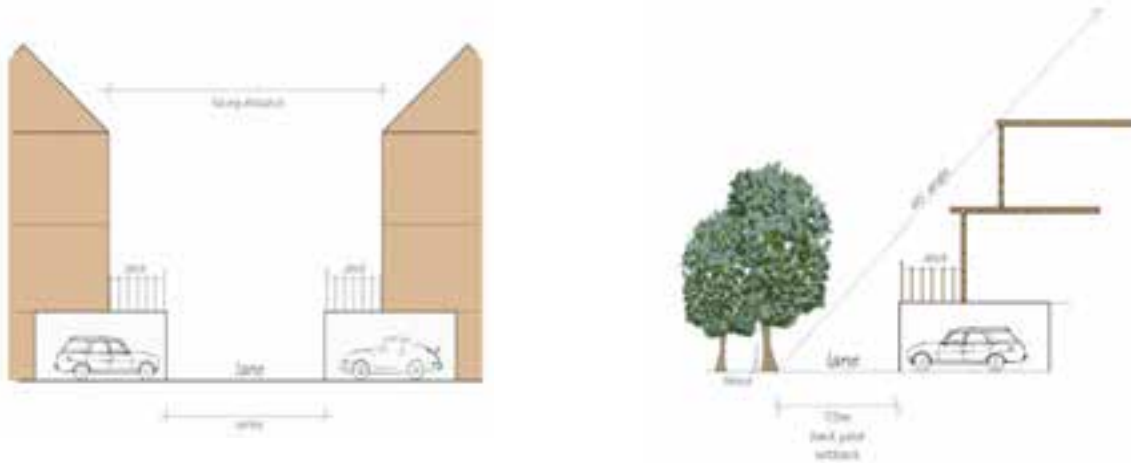
- Site built form to reflect the natural topography, highlight significant views and preserve significant trees (both individual specimens and groupings or wooded areas) within development areas. (see Figure 36)



Figure 36: Illustrates how an existing rock outcropping and trees can be retained in the community layout.

- Orient residential dwellings located along arterials or collectors to face the street. Parallel local streets, side-lotting, and front lotting with rear access can all be used to avoid rear lotting¹⁸.
- Rear lot dwellings against the Mer Bleue Bog buffer and separate rear yards from the buffer area with a chain-link fence. Individual access points through rear gates, to the pathway system adjacent to the buffer area, are not permitted. Common access to the pathway will be provided at defined points.
- Ensure that the facing distance between buildings provides appropriate access light, views, and privacy (see Figure 37). If the facing distance impinges on access to light, views, and privacy then buildings should be set back so that they fall within a 45 degree angular plane measured from the property line. (see Figure 38)

¹⁸ Refer to Section 5.3 for guidelines regarding noise barriers.



Figures 37 & 38: (Image Source: City of Ottawa Infill Housing Design Guidelines, 2004).

Facades

- Ensure that facades, which face and flank streets, parks, and open spaces add interest through their architectural detail. Use the architecture details (e.g. windows, balconies, corner treatments etc.) and materials to articulate and break up the building mass. (see Figures 39 & 40)



Figures 39 & 40: Illustrate how architectural details and fenestration can add interest to both the front and side facades.

- Ensure that the orientation and placement of windows does not disruption the privacy of residents in adjacent buildings.
- Design buildings of three storeys or greater with careful articulation of the lower levels as these have the greatest impact on the pedestrian zones
- Avoid straight continuous massing longer than 30m facing residential streets. If the continuous length goes beyond this, the building masses shall be clearly broken down to smaller parts using vertical breaks, different materials or colours, architectural elements such as bays and porches. (see Figure 41)
- Avoid large blank walls on side and rear facades, particularly if they are visible from the street, other public spaces and adjacent properties. (see Figure 42)

- Split and stagger rooflines for townhouse developments.



Figure 41: Varied brick colours and small setbacks help to reduce the impression of one long continuous wall.



Figure 42: Many windows on both street fronts help reduce the bulk of this residential building.

Corner Lots / Flankage Conditions

- Orient buildings on corner lots to both street fronts. Address both streets equally through consistent architectural character and level of design. This can be achieved, in part, by emphasizing corners with elements such as windows, turrets, or wrap around porches. (see Figures 43 - 45)



Figures 43 - 45: Three examples of buildings which address both street fronts (Images 43 & 44 www.prospectnewtown.com).

- Ensure that the architecture and landscape design of higher density dwellings on corner lots also creates a focal point and addresses both street fronts. (see Figures 46 & 47)
- Ensure that the flank side façade of buildings adjacent to open space addresses both the street front and the park side.



Figures 46 & 47: The facades of these higher-density buildings address the street.

- Incorporate generous side fenestration where a side wall flanks a road, lane or open space.
- Ensure privacy where sidewalls flank or face other dwellings.

Parking and Garages

- Ensure that garages and parking areas do not dominate street fronts or building facades by designing to reduce the visual impact of garages. Some design options include:
 - Setting garages back from the main façade / recessing the garage into the house; (see Figures 48 & 49)



Figures 48 & 49: Garages in both of these buildings are set behind the main façade.

- Extending portions of the building over the garage entry to help conceal it; and
- Use of colour to de-emphasise the garage.
- Ensure that garages do not extend beyond the front façade of the building.
- Minimize the impact of driveways on the pedestrian environment by:
 - Pairing driveways of adjacent property owners in order to reduce the number of curb cuts and maximize on-street parking.
 - Limiting driveway and garage widths to a maximum of 50% of the lot width.
 - Limiting the width of driveways for single car garages.
 - Moving garages and driveways to the rear of buildings. (see Figures 50 & 51)
 - Creating rear access lanes.



Figures 50 & 51: These units face the street and have rear access garages.

- Set back surface parking areas from the front façade of buildings. Provide a minimum 3m landscape setback from the property line of any parking area facing the street, open spaces or residential buildings. Landscape the setback with shrubs and trees to create a continuous canopy. The screening must be effective all seasons and understorey planting should not exceed 1m in height.
- Where there is joint parking (e.g. surface parking lot), limit the access driveway to one location per frontage in order to minimize pedestrian / vehicular conflicts on the sidewalk and to maximize room for landscaping and on street parking. (see Figure 52)
- Break up parking lots into smaller areas with landscaped islands no less than 2m in width. Place the islands such that there are no more than 25 parking spaces in a continuous row.
- For non-residential buildings, locate parking at the side or rear of the building and screen it from view.



Figure 52: There is one common access point to the parking area in this multi-unit building.

Mix of Building Types and Architectural Character

- Vary the character and type of dwellings within each development block in order to ensure visual diversity. To achieve this:
 - Disperse at least two building types within each block (e.g. mix singles and towns within the same block). (see Figure 53)
 - Ensure that no more than three homes of the same elevation type are located in a row.
 - Design blocks with street and stacked towns to ensure variation in the facades (e.g. through varying architectural details, colour and materials).
 - Vary lot widths on the same block.
 - Design with a variety of roof silhouettes and shapes within each block
- Provide a range of housing types and tenures in order to accommodate different types of family structures over time. Explore typologies such as “city homes” that allow ground-oriented housing for families on lower floors and smaller apartment units above, live/work, home office, flex housing, and designs that allow opportunities for aging-in-place.
- Ensure that each neighbourhood includes a mixture of building types and a variety of architectural design. Figures 54 - 59 show the diversity of housing within the community of Prospect, Colorado. The photos illustrate that a mix of types, heights, forms, masses, as well as a unique use of colour and materials can exist compatibly in the same neighbourhood. The diverse buildings work successfully as they are tied together by common design elements. These elements are:
 - A common streetscape with continuous sidewalks and street tree planting throughout.



Figure 53: Street towns and a multi-storey residential building share the same block.

- Houses that address the street - all the houses are set close to street with clearly defined entries. Some of the entries include porches, while others use alternate means to address the street.
- Garages that are not visible from the street.
- Houses on corners address the corner. Both the main façade and the sideyard façade are treated with a high degree of architectural detailing ensuring a positive impact on both streets.



Fig. 54-50. A variety of residential typologies and styles exist comfortably in Prospect, Colorado.



Service Equipment

- Locate loading, garbage, and other services (transformers, utility meters, heating, ventilation and air conditioning equipment) in non-prominent locations that do not detract from the aesthetic appeal of the street and homes and that minimize the impact on the street.
- Integrate and screen service elements into the design of the building so they are not visible from the street or adjacent to public spaces.

General Guidelines for Commercial and Institutional Sites

- Orient buildings to front onto public streets and ensure that principal entries are clearly identifiable, visible from the street and universally accessible.
- On corner sites, orient buildings to both street fronts. Address both streets equally through consistent architectural character and level of design
- Set commercial buildings back a maximum of 3 – 5 m from the front property line and from a side property line abutting a public street.

- Ensure that facades, which face and flank streets, parks, and open spaces add interest through their architectural detail. Use the architecture details (e.g. windows, balconies, corner treatments etc.) and materials to articulate and break up the building mass.
- Avoid large blank walls on all facades.
- Locate parking areas at the side or rear of buildings and screen the parking from view.
- Provide a minimum 3m landscape setback from the property line of any parking area facing the street or adjacent to a residential buildings. Landscape the setback with shrubs and trees to create a continuous canopy. The screening must be effective all seasons and understory planting should not exceed 1m in height.
- Limit the number of access driveways to parking areas in order to minimize pedestrian / vehicular conflicts.
- Break up parking lots into smaller areas with landscaped islands no less than 2m in width. Place the islands such that there are no more than 25 parking spaces in a continuous row.
- Locate loading, garbage, and other services (transformers, utility meters, heating, ventilation and air conditioning equipment) in non-prominent locations that do not detract from the aesthetic appeal of the street and homes and that minimize the impact on the street.
- Screen mechanical, service and utility areas from view using landscaping and materials that match the adjacent building. Where context sensitive, enclose these elements within buildings.

5.3 Community Structure

Gateways, Views and Focal Points

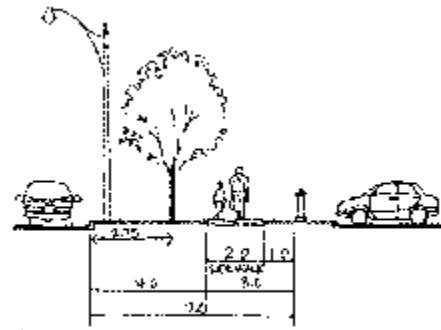
Design key gateways and intersections to serve as focal points, way-finding features, and landmarks for the community. Gateways and intersections can be defined by existing natural features, significant landscape treatment, and / or built form. Figure 15 indicates the location of key gateways that contribute to community structure and identity.

- Design institutional buildings as landmarks and site these to become community focal points.
- Site built form to address gateway intersections and ensure that setbacks permit the addition of significant landscaping and an enhanced streetscape treatment.
- Locate parking areas away from gateway intersections.
- Create treed entry boulevards / tree medians at key intersections to define neighbourhood entries.
- Create community focal points by incorporating public art into public spaces
- Ensure that buildings on lots that terminate a view corridor are of distinctive architectural character.
- Locate roads so that they reflect the natural topography, preserve significant views as well as significant trees.

The Pedestrian Environment

- Provide sidewalks on both sides of arterial and collector roads and on one side of local roads.
- Build sidewalks on arterials and major collectors to a minimum width of 2.0m. Plant the area between the curb and edge of right-of way with street trees placed 7 - 10m on centre. (see Figure 60) “Ensure that the clear tree planting area is a minimum 2m wide by 2m deep continuous trench of planting soil” (RMOC 2000, 22).

- Build sidewalks on minor collectors and local roads to a minimum width of 1.8 or 2m in accordance with the City standard. Plant the area between the curb and edge of right-of way with street trees placed 7 - 10m on centre. “Ensure that the clear tree planting area is a minimum 2m wide by 2m deep continuous trench of planting soil” (RMOC 2000, 22).
- Split blocks longer than 200m with a walkway block in order to facilitate pedestrian and bicycle movement through the community. The location of walkway blocks must be shown on all subdivision and site plans.
- Ensure that housing, businesses, and the public realm are universally accessible in order to serve a full range of individuals and family types.



On wider, higher speed roads, where trees are desired close to the road edge, plant 2.75m off curb, in a 4m wide inner boulevard.

Figure 60: Illustrates a cross section for the pedestrian realm (RMOC 2000, 20).

The Cycling Network

- Map, design and sign all pathways and cycling routes.
- Ensure that routes are universally accessible.
- Provide seating and shaded areas along pathways.
- Where a cycling route extends beyond the park and open space system, locate the route within the defined right-of-way.
- Clearly highlight street crossings through special pavement treatment.
- Provide bicycle parking, at commercial and institutional sites, in highly visible locations that are connected to the pedestrian system and near building entrances.

Noise Attenuation

It is anticipated that there will be sources of stationary and road generated noise requiring attenuation in the CDP area.

- Avoid the use of noise barriers in favour of mitigation through alternative measures such as unit and street orientation.
- Orient residential dwellings located along arterials or collectors to face the street. Parallel local streets, side-lotting, and front lotting with rear access can all be used to avoid rear lotting and reduce or eliminate the need for noise barriers.
- Orient dwelling so that amenity areas area away from the source of noise.
- Mitigate noise through built-form design (e.g. special acoustic architectural design features)
- Where noise barriers may be required due to flankage conditions, design the barriers to be visually interesting using a variety of materials, variation in setbacks, and generous landscaping to soften the edge.
- Noise barriers will likely be required for units adjacent to the rapid transit corridor and Bypass Extension; units should be rear lotted against these transportation corridors.
- Noise barriers may also be required in flankage conditions along arterial and collector roads.

6. IMPLEMENTATION

In accordance with policy 2.5.7.7 of the Official Plan, “Community Design Plans for Developing Communities will be approved by City Council as policy documents to guide the approval of subsequent subdivision, zoning and site plan applications”. The Official Plan will be modified to indicate that the CDP is complete. An Official Plan amendment will be required to reflect the new location of the Major Open Space and the new boundaries of the Mixed Use Centre (south of the hydro corridor and west of Mer Bleue Road).

6.1 Development Review Considerations

All new applications and applications in process are to conform to the direction of this CDP. In addition to the local and collector road alignment¹⁹, block /lot layout, the identification of park/opens spaces/natural features and schools, the development applications must also show the location of pedestrian and cycle routes. Development applications will be reviewed for their compliance with Section 5 of the CDP and information to support this review - such as landscape plans and architectural drawings - should be submitted with the application. All development applications must be accompanied by the technical studies identified in the list of *Required Studies and Assessments*²⁰. Additionally, all applications within the 500m influence area from WSI must be accompanied by studies related to the Solid Waste Disposal Site Influence Area. Rezoning will be incremental as development plans are submitted. Proposed zoning must reflect the principles and guidelines established in the CDP; the design guidelines will be applied through the implementing zoning and the site plan review process.

As Phase 1 and Phase 2 are considered as a whole in terms of parks needs, some areas in Phase 1 may be under the 5% parkland dedication. Cash in lieu from Phase 1 will be tracked and specifically identified for the acquisition of the 13 hectare land block for District Park in Phase 2.

6.2 Process to Amend the CDP

Changes to the Demonstration Plans proposed prior to subdivision or site plan approval, such as minor reconfiguration of local streets, adjustments to the location of medium and high density residential and minor changes to development block size/shape may be made at the discretion of the Director of Planning and Infrastructure Approvals. Subdivision and / or site plan approval by the City reflecting these changes constitutes approval of the change to the CDP.

Where substantive changes to the Demonstration Plan are proposed prior to subdivision or site plan approval such as the number and location of high density residential blocks, the location of major roads and protected infrastructure corridors, or the relocation of school and park blocks, or

¹⁹ The collector road network shown in the Land Use Structure and Demonstration Plans has been established with extensive consultation and is the basis for the routing of the water, storm and sanitary servicing network. Any changes proposed to this network may result in the need to re-examine all the servicing studies and it is therefore recommended that the collector network not change. The local road pattern shown on the Demonstration Plan is flexible provided that alternative layouts respect the principles and guidelines of the CDP.

²⁰ This list is available with development applications through the client service centres.

changes that will jeopardise the area's ability to achieve the OP's strategic directions, the proposed change(s) will be subject to approval by Planning and Environment Committee.

To initiate the review and approval of proposed changes, the proponent shall produce and submit to the City a composite plan comprised of the proposed change(s), including subdivision and site plan(s) within the neighbourhoods (or the broader community if affected) that are approved or about to be approved. Where the proposed change affects land not subject to an approved or about to be approved plan, the composite plan shall also include the design as shown on the Demonstration Plan of the surrounding neighbourhood, or broader community as may be required.

The City will circulate copies of the composite plan to owners of development and redevelopment land who are directly affected by the proposed change(s) for comment. Disagreement will result in referral of the subdivision and / or site plan(s) to Planning and Environment Committee for approval. Where a proposed change affects the broader community, a public open house to present the proposed changes to the CDP and to receive input may also be required.

Each successive change to the Demonstration Plan must reflect prior revisions as approved through the composite plan / subdivision approval process. The City will keep all approved changes on file.

Staff-initiated changes to the Demonstration Plan and to the text of the CDP may be made at the discretion and approval of the Director of Planning and Infrastructure Approvals and shall involve notice to owners of affected development and redevelopment parcels as may be required. Where changes are substantive or there is disagreement between staff and the landowners affected by such proposed changes, approval by the Planning and Environment Committee may be sought.

The principles and objectives of the Official Plan and of the CDP must be reflected in any proposed change to the Demonstration Plan. Updates to the studies supporting the CDP, such as engineering and transportation, may be required in support of the proposed change. Any proposed changes that require an amendment to the Official Plan will also require a corresponding formal amendment to the CDP.

The Demonstration Plan sets out the location and extent of various forms of housing in the community. The housing density targets set out in Section 4.1 illustrate the expected average density for each area. The total number and form of dwellings and compliance with the Official Plan will be tracked on a neighbourhood and community-wide basis at the time of development approval.

7. References

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