

5.0 Community Design Plan

The Community Design Plan for the Mer Bleue area is a composite of three plans:

- Land Use Plan
- Transportation Plan
- Municipal Servicing Plan

Read together, these Plans and associated policies represent the guiding document and key reference for the future development of the Mer Bleue Area. The Community Design Guidelines and Demonstration Plan contained in Section 6 further detail and support the policies presented below.

5.1 Land Use Plan

There are six land use designations that apply to the lands within the Mer Bleue Area and are identified in the Land Use Plan (Figure 11):

- Mixed Density Residential;
- Mixed Use Area;
- Commercial;
- Schools;
- Institutional Uses;
- Parks;
- Special Study Area.

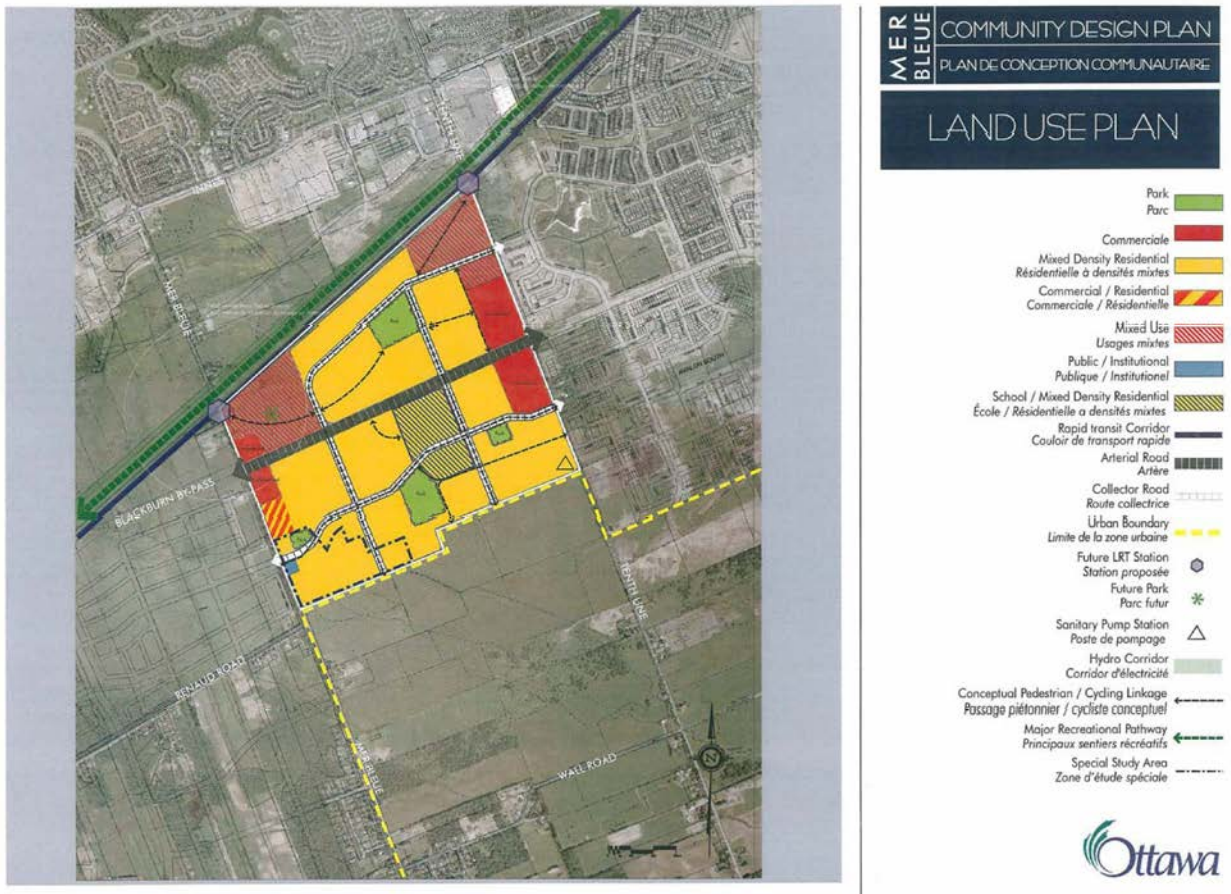


Figure 11 - Land Use Plan

The intent and permitted uses of each designation is described as follows. A Land Use Summary Table is provided in section 5.1.8.

5.1.1 Mixed Density Residential



This land use designation envisions the creation of a community that provides a variety of housing forms and types in order to attract a diverse and vibrant population. This designation aims to create an urban fabric that is heterogeneous, avoiding large pockets of a similar housing type.

The overall residential density will be at least 29-units/net hectare for single-detached, semi-detached and townhomes, with higher density residential uses located in close proximity to the Mixed Use areas and in areas of constrained soils as appropriate. Mixed Density Residential can include:

- Single-detached dwellings;
- Semi-detached dwellings;
- Townhomes;
- Stacked Townhomes;
- Low-Rise Apartments (up to 4 storeys)



The Official Plan requires a certain mix of housing types for developing communities such as the Mer Bleue area. This mix is as follows and is further illustrated in the Demonstration Plan provided in Section six:

- Maximum 60% single-family and semi-detached dwellings;
- Minimum 10% apartments dwellings;
- The remainder as multiples, other than apartments.

Community and Neighbourhood Parks are permitted in this designation as well.

5.1.2 Mixed Use Area



The intent of the Mixed Use designation is to accommodate a wide range of office, institutional, and convenience retail uses, with the objective of becoming a high-density employment-generating node for the area. Development within the Mixed Use area should focus on integrating and directing built form to the proposed transit stations at Mer Bleue and Tenth Line to increase walkability and access to transit. High-density residential uses are permitted and encouraged to be integrated with non-residential uses in the same building. Together, the areas of the plan designated Mixed Use are intended to generate at least 300 high density residential units and over 3,000 jobs.

Only low and mid-rise apartments are permitted in the Mixed Use designation, lower density-housing forms are more appropriately located in the 'Mixed Density Residential' designation.

An 'apartment' is defined as a non-ground-oriented residential building having a density of 80 units per net hectare or more.



Permitted non-residential uses include a range of transit –supportive institutional, commercial and service uses such as, professional and medical offices, retail stores, restaurants, service commercial, financial institutions, entertainment and recreational uses.

In order to achieve the plan’s employment target, proposed uses should generally support job creation at a rate of one employee for every 30 square metres of floor area. Therefore, uses, which are land intensive and auto-oriented, such as gas stations and warehouses, are not permitted. In addition, buildings in this area will have at least two storeys.

Uses that perform a community function, such as retirement homes or care facilities are also appropriate for the Mixed Use designation.

5.1.2.1 Mer Bleue Mixed Use Area



Figure 12 – Area subject to future OPA

The lands designated Mixed Use at Mer Bleue Road and the future transit line are located within an area designated Mixed Use Centre in the Official Plan and are intended to generate the majority of jobs in the Mer Bleue Area. A detailed Demonstration Plan and guidelines for this portion of lands designated Mixed Use are presented in Section 6.

This Mixed Use Area will be subject to an Official Plan Amendment (OPA). Elements of this Plan, and further detail will form part of this future OPA.

5.1.3 Commercial

The intent of the Commercial land use designation is to provide supporting commercial uses such as food service, retail serving the Orleans community, financial services, hotel, gymnasiums and child care, which have the potential to reduce vehicle trips generated by the residents of the area.

Qualifying commercial uses will be developed in accordance with the applicable Design Guidelines in Section 6.

5.1.4 Institutional Uses



This land use designation is used to designate public land uses, such as schools, libraries, fire stations or municipal servicing facilities. In addition, institutions such as churches and private schools are also appropriate for this designation. Joint development projects, which include public and private participation are allowed and encouraged.

5.1.5 Parks

This designation applies to lands, which are or will become publicly owned and reserved for passive or active recreational uses for local residents. It is intended that this designation be applied only to publicly accessible and publicly owned lands, normally acquired through the development approvals process. The Land Use Plan allocates a total of 8.6 ha of parkland for the Mer Bleue community (Table 1). Overall, parkland should generally be provided at a rate of 1 ha for 300 residential units.

Permitted uses will primarily be public parks and trails. However, small-scale facilities and activities developed and operated wholly or partially by concessionaires and other private entities could also be considered appropriate under this designation.

Type of Parkland	Area
Community Park (north)	3.25 ha
Community Park (south)	3.25 ha
Neighbourhood Park (southeast)	0.8 ha
Neighbourhood Park (southwest)	0.8 ha
Mer Bleue MUC Square	0.5 ha (app.)
TOTAL	8.6 ha

Table 1 – Parkland Areas

The Land Use Plan anticipates, two large Community Parks, of 3.25 ha each, centrally located along collector roads and planned as the focal point for each sector of the Plan. Community Parks are intended to be the public and recreational focus for the community. The community park will accommodate sports

fields such as soccer and football. These parks can contain a variety of other recreational activities, active and passive. Vehicular access and parking will be provided to avoid impact onto surrounding streets.

The two Neighbourhood Parks, at approximately 0.8ha each, both located in the south sector, provide opportunities for small-scale recreational uses and passive recreation.

Neighbourhood Parks are intended to provide opportunities for active and passive recreation for residents within close proximity.



In addition to the Community and Neighbourhood Parks, it is intended that the Mixed Use Centre at Mer Bleue Road contain an urban park/courtyard, indicated by a symbol on the Land Use Plan. This urban park would be connected to the area's pedestrian network and future transit station.

Other open spaces, such as the hydro corridor, contribute to the area's greenspace network. The corridor is designated as a Major Recreational Pathway and Cycling Route in the Official Plan and will connect the area to the City's wider network of pathways and cycling routes. Safe and easy access to the hydro corridor should be provided as the Mixed Use areas at Mer Bleue and Tenth Line develop.

5.1.6 Pedestrian Network



An interconnected pedestrian network will support the system of parks and schools within the Mer Bleue area. The majority of the pedestrian network consists of sidewalks. Therefore, all local roads should

have a sidewalk on at least one side, whereas collectors and arterials will provide a sidewalk on both sides.

Several pathway connections are proposed as well, to easily connect community facilities, such as schools and parks, and commercial uses to the road network. These pathways will be provided at the time of site plan or subdivision approval. Design Guidelines for these pathways are presented in Section 6.

5.1.7 Schools

Opportunities for two school sites are provided in the Mer Bleue CDP Area. Both sites are centrally located in the South Sector. The sites are as follows:

- Elementary School: a site having an area of approximately 2.8 ha was requested by the Ottawa-Carleton District School Board.
- Secondary School: a site having an area of approximately 8 ha was requested by the Ottawa-Carleton Catholic School Board.



Where appropriate, elementary school sites should be adjacent to Neighbourhood Parks.

School sites may be dual-zoned for school and residential uses to allow flexibility as the area develops and school needs change.

In the event that a School Board does not acquire a school site, the site may develop in accordance with the underlying land use designation without amendment to the CDP or to the Zoning By-law. The servicing studies prepared in support of the Plan have examined both options.

5.1.8 Land Use Mix and Targets

The projected number of units, densities, and population counts and employment projections for the Mer Bleue CDP are summarized in the Table 2. This table shows how the Land Use Plan achieves the Official Plan's unit mix and density requirements for developing communities and in accordance with OPA No. 35. In addition, a Sector Plan is included in Section 7 (Implementation) to assist City staff in tracking the achievement of targets during the development review process.

	Area (NET)	Density (NET)	Residential Units	Employment
Mixed Density Residential	70.97	34	2,448	n/a
Mixed Use Area – Residential (apts.)*	4.11	80	329	n/a
Mixed Use Area – Employment**	12.32	250	n/a	3,081
Commercial***	14.58	70	n/a	1,021
Park (incl. Central square at Mixed Use Area)	8.59	n/a	n/a	n/a
Institutional	0.28	n/a	n/a	n/a

School – Elementary	2.88	n/a	n/a	50
School – Secondary****	(8.1)	n/a	n/a	(100)
Home-based Business*****	n/a	n/a	n/a	278
TOTAL	113.73		2,777	4,429

Table 2 – Land Use and Density Summary

*25% of land area dedicated to residential

**75 % of land area dedicated to employment

***The 'dual' designated lands (commercial/mixed density residential) along Mer Bleue are included as Commercial lands in this summary

****If the High School is constructed, the total number of residential units will decrease by 181, to 2,596 and the employment target will increase to 4,529 jobs

*****10% of residential units

5.1.9 Special Study Area

This overlay applies to an area of the Community Design Plan that is located within the Regulated Area of McKinnons Creek for fill and flood, controlled under Ontario Regulation 724/94 implemented from Section 28 of The Conservation Authorities Act, administered by South Nation Conservation. The Regulated Area, as shown on the Flood Plain Maps show the lands which are prone to flooding during the 100 year Regional Storm Event. A 100-year flood does not mean that flood conditions will occur only once every 100 years but that flood conditions will occur on average every 100 years, and that during any one-year, there is a 1% probability of occurrence.

According to the Provincial Policy Statement, development and site alteration may be permitted in a hazardous zone, except in floodways, provided that the hazard can be safely addressed, and the work is carried out in accordance to standards. Also, no new hazards can be created and no adverse environmental impacts can be created. The construction of buildings, the placing or removal of fill in the floodplains, or any alteration to a waterway, may reduce the natural storage area of a stream and increase its potential flood levels. A process to amend this mapping to allow development in the Regulated Area has been undertaken, though not completed, through detailed engineered studies.

This process must be completed for lands within the Special Study Area to the satisfaction of the South Nation Conservation and the City of Ottawa, prior to the approval of applications for servicing, stormwater management, site plan, subdivision or zoning by-law amendment.

In the interim, the lands should be zoned with a 'holding' provision, prohibiting development. If necessary, in order to provide access for emergency and operational purposes, as well as to provide servicing connections, the collector road and services planned for this area may need to be extended in advance of the amendment, subject to the approval of SNC and the City of Ottawa.

By completing the detailed engineering studies and servicing studies, along with fisheries compensation plans, the former Regulated Area and Floodplain designation will be removed, as the landscape and geodetic elevations will be amended to compensate for water drainage, even during the 100 year Regional Storm Event. Then, development could proceed in accordance with the underlying land use designations without an amendment to this Plan. In the event that the mapping cannot be amended, normal restrictions associated with the Conservation Authority's Fill, Construction, and Alteration to Watercourse Regulations and the policies of the Official Plan's 'Floodplain' overlay will apply. In addition, the lot fabric, servicing and street pattern for lands directly adjacent to the Special Study Area will need to be reviewed and revised if necessary.

5.2 Transportation Plan

A Transportation Impact Study was prepared in support of the Community Design Plan and should be referred to for more detail if required. The following section summarizes the important components and recommendations of this Study.

The transportation network for the Mer Bleue community illustrated in Figure 13, is composed of a system of interconnected collectors and local roads organized in a modified grid system to permit accessibility and flexibility of movement. The network provides connectivity to the future transit stations at Mer Bleue and Tenth Line Roads, while concentrating larger volumes of traffic to key intersections, avoiding traffic through the local residential portions of the community. The majority of roadway linkages illustrated in the Transportation Plan are fixed in order to protect for underground servicing corridors.

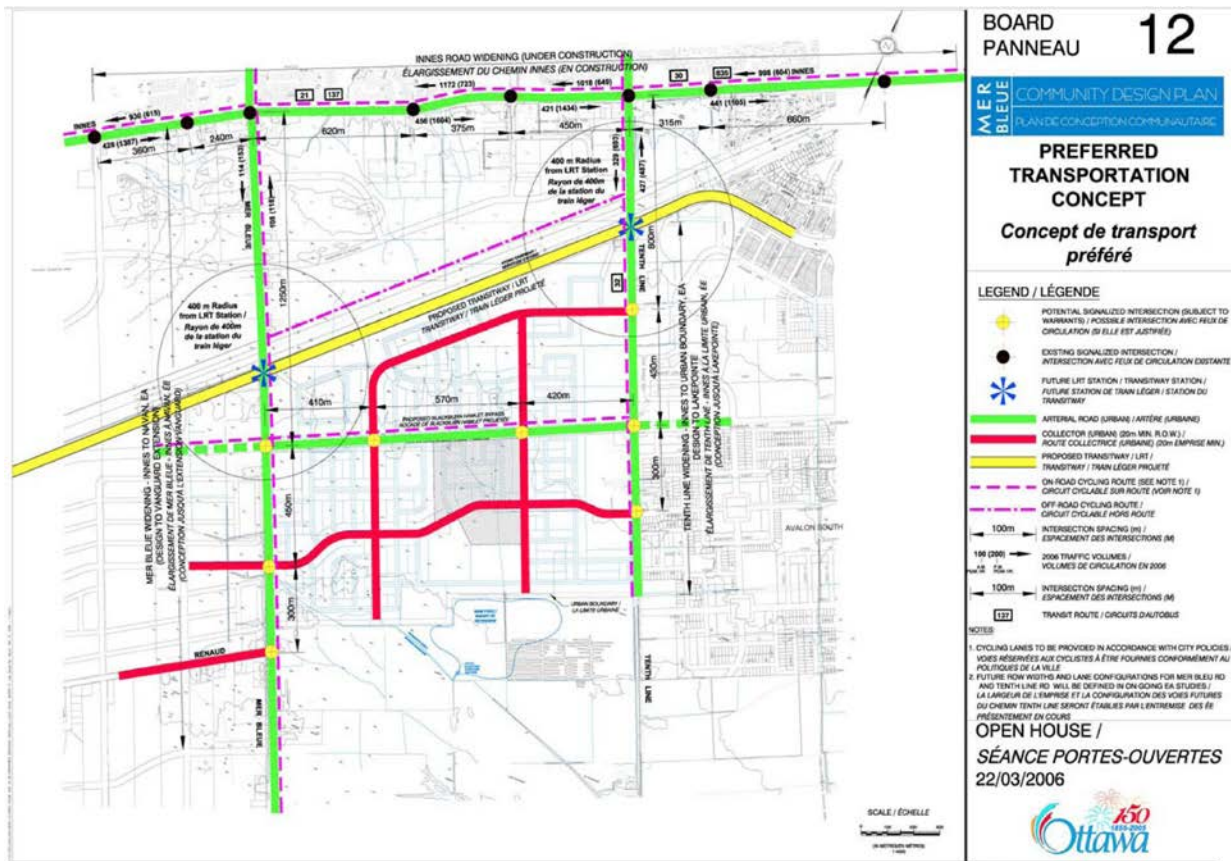


Figure 13 – Transportation Plan

The Transportation Impact Study is based on the Land Use Plan and the densities proposed in the Demonstration Plan, which anticipate that the development of the area will ultimately generate approximately 4,500 jobs, over 75,000 m² of retail space and 2,700 residential units of varying densities. The Study examined elements such as background traffic growth, traffic generated by the community, traffic distribution and ultimately traffic impact.

Based on the findings of the Traffic Impact Study, there is sufficient capacity provided on the proposed road network to accommodate projected internal and external traffic volumes. The following subsections address the public transit network and recommended modifications to the future road network.

5.2.1 Public Transit



The City of Ottawa Official Plan has a citywide target for modal split of 30% for transit. The Mer Bleue CDP is designed to accommodate transit as an integral part of community development.

Bus Service

City of Ottawa Transit Services has indicated that they will provide new bus routes into the Mer Bleue community in accordance with City of Ottawa policy.

This will be coordinated with the phasing of development as appropriate. All major east-west and north-south collector roads will be designed to accommodate buses. The connectivity of these collector roads to Mer Bleue Road, Tenth Line Road and the Blackburn Hamlet Bypass will provide OC Transpo with maximum flexibility with regard to both routing within the community and connections to the future transit stations.

Walking distance to bus stops should not exceed 400 metres, while separation distance between local stops along the collectors should be no more than 200 to 250 metres.



Rapid Transit

The City of Ottawa Rapid Transit Extension Study (RTES) has endorsed the extension of the existing east Transitway in the Highway 174 corridor, to Trim Road as a bus way. In addition, the RTES has recommended the implementation of the Cumberland Transitway at the northern boundary of the CDP area as a future corridor for light rail rapid transit or bus rapid transit. Both extensions to the transit system are scheduled to be implemented by 2021. Two transit stations are planned along the future LRT expansion at the northern boundary of the site. The stations are located at Mer Bleue and Tenth Line Roads.

An Environmental Assessment is currently being completed for the expansion of the east-west rapid transit network, which will determine design details for the rapid transit system, including the alignment, grade separation and pedestrian and cycle connections.

Local transit service will connect to the two LRT stations.

The development of the Mixed Use areas will be integral to ensuring that the community has good connectivity to the rapid transit stations.

5.2.2 Future Road Network

The City of Ottawa is finalizing the construction of the widening of Innes Road to a four-lane divided arterial road between Orléans Boulevard and Tenth Line Road. This will provide increased capacity on Innes Road, at Community's key intersections. The Blackburn Hamlet Bypass is planned to be constructed to a minimum of two lanes between Tenth Line Road and Trim Road by 2008 and to four lanes by 2021.

The timing of the construction of the Bypass to four-lanes will be coordinated with the phasing of adjacent development.



Mer Bleue and Tenth Line Roads are both the subject of an on-going Environmental Assessment (EA) by the City of Ottawa to consider their widening. The study area for the Mer Bleue widening is Innes Road to Navan Road, whereas the study area for the Tenth Line EA is Innes Road and the South Urban Boundary. The EAs will determine cross-section configuration for the road, the right-of-way requirements and the location of the alignment.

Other related transportation projects, which the City of Ottawa will undertake to achieve targeted transit modal splits, are as follows:

- Innes/Walkley Road Link;

- Highway 174 Widening – 6-lanes to Place d’Orléans;
- Highway 174 Bus Lanes to Place d’Orléans;
- Highway 174 Bus Rapid Transit, Blair to Trim Road;
- Highway 174 East Transitway, Place d’Orléans to Trim Road;
- Cumberland Transitway;
- Navan Road, Park-and-Ride Lot;
- Trim Road, Park-and-Ride Lot;
- Highway 417/Innes Road, Park-and-Ride Lot.

Road Standards

- Local Roads will have an 18 metres right-of-way (or the approved standard at the time of subdivision).
- Collector Roads will have a 26 metres right-of-way (or the approved standard at the time of subdivision)
- Arterial Roads will be constructed in accordance with the recommendations of the applicable Environmental Assessment and/or the approved standard at the time of construction.

A Transportation Impact Study will be required at the site development stage in order to determine site-specific requirements such as signals and turning lanes.

5.2.3 Walking and Cycling

Pedestrian Network

Sidewalks will be constructed on both sides of Mer Bleue Road and Tenth Line Road as part of the future widening projects. New sidewalks have also been constructed as part of the Innes Road widening between Tenth Line and Mer Bleue Road. In addition sidewalks will be constructed on both sides of the Blackburn Hamlet Bypass.

Collector Roads will provide a sidewalk on both sides, whereas local roads will provide a sidewalk on one side. In addition, mid-block connections will be provided as appropriate and in accordance with City Policy throughout the community to further support the connectivity and safety of the pedestrian network.

Cycling Network

Mer Bleue Road, Tenth Line Road, the Blackburn Hamlet Bypass and Innes Road are designated as on-road cycling routes in the City of Ottawa Cycling Plan. Therefore, once widened or constructed, new cycling lanes will be provided, in accordance with City of Ottawa policy. In addition, the Cycling Plan identifies an off-road cycling route within the hydro corridor.



5.3 Municipal Servicing Plan

An Infrastructure Servicing Study was prepared in support of the Community Design Plan and must be referred to for more detail. The following section summarizes the important components and recommendations of this Study. For the purpose of this Section, the CDP area is referred to as Neighbourhood 5 (N.H.5) since it is referred as such in previous servicing studies.

The Municipal Servicing Plan has been developed respecting the location of major existing and proposed new infrastructure within and around the Mer Bleue Community. The plan protects major servicing corridors for trunk water, wastewater and stormwater infrastructure to allow for a cost effective phased development of the entire Community. While being planned in accordance with logical phasing at the time this Plan was prepared, the Municipal Servicing Plan maintains some flexibility allowing future modifications as trends in the development industry evolve.

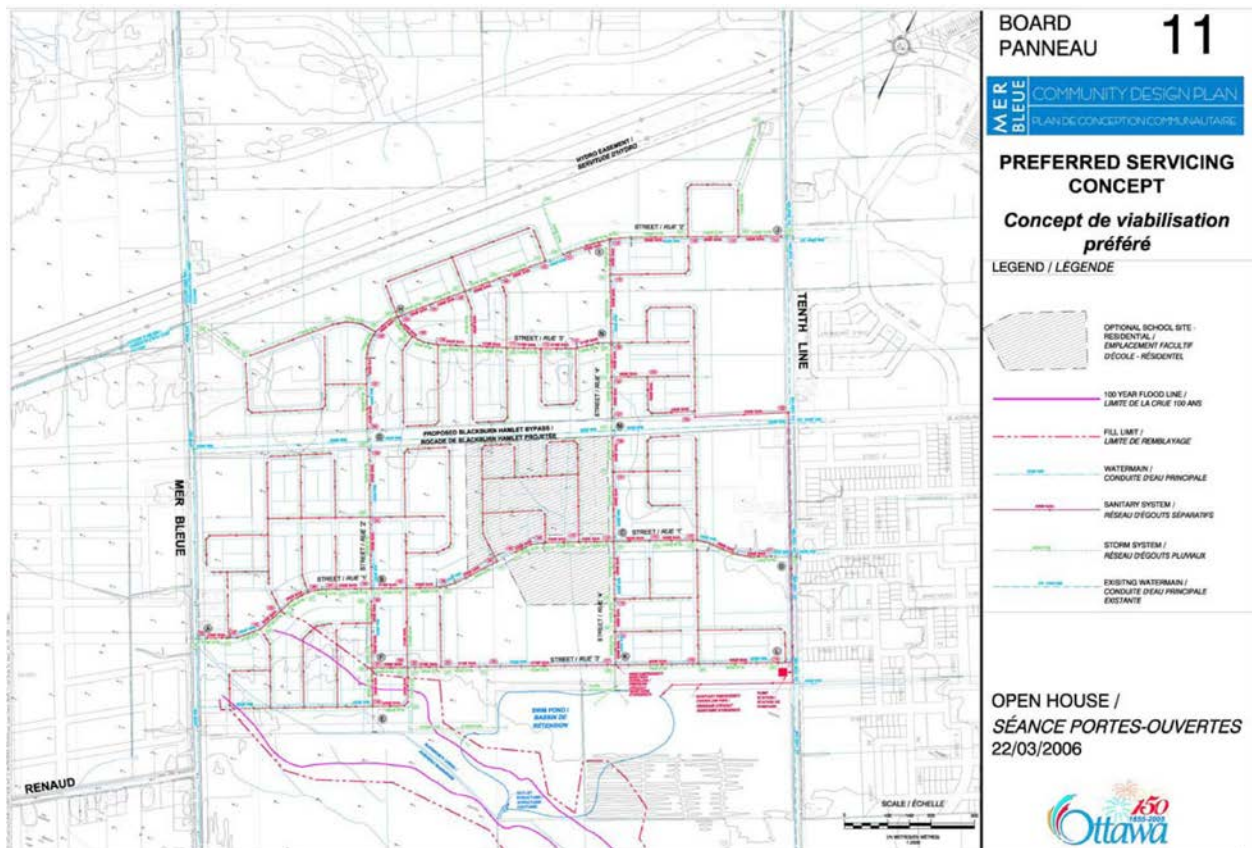


Figure 14 – Municipal Servicing Plan

5.3.1 Water Supply

The preferred water distribution system for the area includes a main crossing N.H.5 in the east west collector road from the proposed main in Mer Bleue Road to the existing main in Tenth Line Road at Lakepointe Street.

Three smaller mains are also proposed to cross N.H.5 in an east-west direction connecting to the main in Mer Bleue Road and potentially extending westerly through the Gloucester EUC and easterly through N.H.4 to provide overall system redundancy. Combined with north-south connections, there will be a network of watermains throughout for redundancy and fire protection purposes.

Detailed hydraulic modelling will be required at the time of final design of the later stages of development of N.H.5 to support the phased development of N.H.5 and to identify the exact timing for the construction of the extensions of external feeder mains.

5.3.2 Conceptual SWM Facility Design

Following an analysis of existing topography, conceptual plans, creek configuration and environmental concerns, it is recommended that the runoff from N.H.5 should be controlled in an off-line water quality/quantity stormwater management facility, in accordance with the approved Master Drainage Plan for the area.

It is also recommended that the facility should be designed as an extended detention hybrid wet pond providing an Enhanced Level of Protection. The recommended location of the stormwater management facility is indicated on the General Plan of Services in Figure 14.

5.3.3 Storm Sewers

The dual drainage storm sewer system proposed for N.H.5 was designed in conjunction with the development of the proposed sanitary sewer system and the preliminary grading plan. This was necessary to ensure that the overall sewer system was conflict free and that the grade raise restrictions specified in the geotechnical report were protected.

Figure 14 illustrates the proposed storm sewer system and how it is coordinated with the sanitary sewer system and water system to facilitate phased development.

The proposed storm sewer system consists of an east west trunk sewer which is accommodated in the preferred concept plan by a local road which runs along the southern boundary of N.H.5. This trunk sewer intercepts two north south storm trunk sewers which service the entire area of N.H.5 and conveys this flow to the stormwater management pond located immediately south of the N.H.5 development area. The storm sewer configuration provides an efficient storm sewer servicing scheme for N.H.5 by minimizing the size of the trunk sewers.

This is beneficial because it assists in reducing the potential for conflicts between the storm sewers and sanitary sewers.

The north south direction of the main storm sewer system parallels the natural topography of the area, which is helpful in meeting the grade raise restrictions imposed on N.H.5.

In the design of the stormwater management pond, the following design considerations shall be given particular attention:

- Generally, ponds shall not be fenced. However, when fencing is required, it shall be decorative in nature and in keeping with the surrounding landscape.
- Ponds should be designed to be naturally shaped and tributaries should be designed to be sinuous.
- Grading of stormwater ponds shall ensure natural and variable slopes; additional planting will be used in areas of steeper slopes.
- Where possible, local materials should be used in the construction of stormwater ponds.
- Planting should be comprised of indigenous species, and flood tolerant water's edge plants should be used to stabilize banks.
- Walking and cycling trails should be provided around ponds and along the tributaries, where needed and as determined by the City, to enhance open space linkages to the community.

5.3.4 Sanitary Servicing

The sanitary sewer system proposed to service the area was designed in conjunction with the development of the proposed storm sewer system for N.H. 5. This was done to ensure that the overall servicing system was efficient, cost effective and conflict free to allow for the orderly phased development of N.H.5 over an extended period of time. The system was also designed with sufficient flexibility to accommodate changes, which may occur over time due to market demands.

Figure 14 illustrates the sanitary sewer system proposed for N.H.5 and how it is coordinated with the storm and water systems. In general terms the sanitary system parallels the storm system in a north south direction. The preferred concept plan has been prepared so that there are two direct north south corridors available in the form of internal streets to service the overall area.

These direct servicing routes help to reduce the impact of the geotechnical constraints on the sewers and provide flexibility for phasing. The north south sanitary sewers are intercepted and directed to the proposed Tenth Line Road Sanitary Sewer and Pumping Station by two east west sewers. The two east west sewers provide the main sanitary outlets for N.H.5 and the necessary flexibility in phasing.

The emergency overflow for the Tenth Line Road pumping station is a sewer pipe, which extends from the pumping station to the NH5 storm water management pond.

This overflow is installed to provide an emergency overflow from the pumping station in case of catastrophic failure of the pumping station and all of the stations back up measures occurs coincidentally. The overflow pipe is designed to overflow to the storm pond at an elevation above the 1:100 year flood elevation of the storm pond but at an elevation low enough to overflow to the pond before any back up into basements occurs.

5.3.5 Public and Private Utilities

Public and private utilities include Ontario Power Generation Inc., Hydro One Networks Inc. and telecommunications companies. Their services are an integral part of a community's servicing infrastructure. Requirements for maintenance, repair and installation of utility infrastructure must be considered at all stages of development. The following policies apply to public and private utilities:

- Public and private utilities (other than telecommunications towers) shall be permitted in all land use designations and shall be installed within public road allowances or within appropriately established easements.
- Prior to approval of development, all interested utilities and telecommunication providers are to confirm if services can be provided to support the proposed development.
- Developers should consult with utility and telecommunication providers in the early stages of development to determine appropriate locations for large utility equipment or utility cluster sites.