FERNBANK

COMMUNITY DESIGN PLAN

Draft - June 2009

FERNBANK
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Planning
Urban Design

TABLE OF CONTENTS

Executive Summary

LIST OF TABLES

LIST OF FIGURES

Executive Summary

The City of Ottawa, in conjunction with the Fernbank LandOwner's Group, has initiated the development of a Community Design Plan (CDP) for the Fernbank Community located in the West Urban Community of the City of Ottawa.

The Fernbank Community study area is proposed to encompass approximately 674 hectares of land between the established communities of Stittsville, Kanata West and Kanata South, and extending south from Hazeldean Road to Fernbank Road.

The Community Design Plan was developed based on consideration of the current conditions of the study areas, servicing and transportation elements, the policies of the Official Plan, and through a comprehensive community consultation process consisting of several workshops and public meetings. The CDP consists of a land use plan and policies, community design guidelines, and recommended implantation tools. The recommended Fernbank CDP reflects an urban community containing a population of approximately 28,000 to 31,350 residents, and approximately 9,700 to 11, 000 dwelling units and approximately 2,500 to 2,600 jobs.

Six key components of the CDP include:

1. **Planning Context**: *Provides a general overview of the framework for the planning of the Fernbank community and the parameters which formed the development of the Community Design Plan.*

2. **Development of the Plan**: *Provides a synopsis of the evolution of the Fernbank Community Design Plan.*

3. **Fernbank Community Plan**: *Establishes the foundation of the Fernbank Community Design Plan.*

4. **Demonstration Plan**: *Illustrates a way in which the Land Use Plan could be implemented through development approvals.*

5. **Community Design Guidelines**: *Provides a framework of the design criteria for the overall identity and structure of the proposed Fernbank Community.*

6. **Implementation**: *Provides a strategy of land use policy that is intended to guide the development of the Fernbank Community.*

Section 1.0 Introduction

1.1 Background and Study Area

The Fernbank Community is proposed to encompass approximately 674 hectares (1,665 acres) of land between the established communities of Stittsville, Kanata West and Kanata South, extending south from Hazeldean Road to Fernbank Road, within the West Urban Area of the City of Ottawa, as shown on **Figure 1** below. The Study Area includes approximately 674 gross hectares of land; of which 455 hectares owned by Brookfield Homes (Ontario) Limited, Del Corporation and Monarch Development Corporation ("Brookfield", "Del" and "Monarch"). The Study Area extends to Hazeldean Road on the north, the Carp River and Terry Fox Drive on the east, Fernbank Road to the south and, the existing Urban Area of Stittsville on the west.

The Fernbank Community Design Plan ("CDP") has been prepared in accordance with the policies of the City of Ottawa Official Plan for 'Developing Communities' and 'Future Urban Areas', which have policies that direct that comprehensive land use and infrastructure planning be conducted prior to development proceeding.

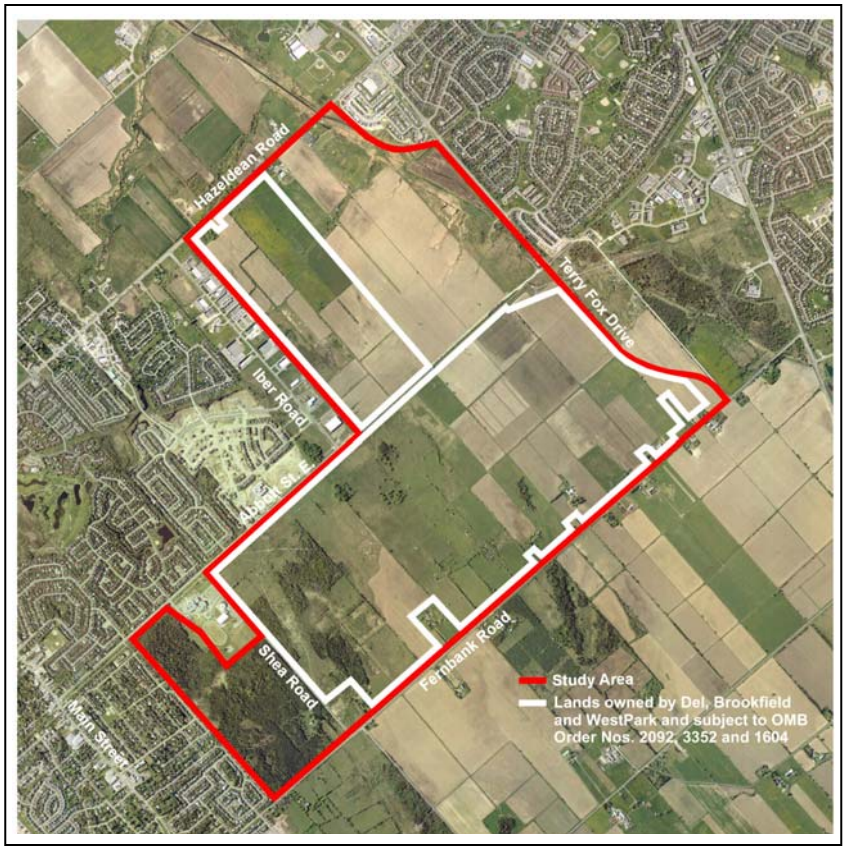


Figure 1 - Study Area

1.2 Integrated Planning Process

The Council adoption (July 11, 2006) of the Fernbank CDP Terms of Reference marked the commencement of a process which provided a number of opportunities for the residents of the City of Ottawa, including the immediate surrounding communities of Kanata South, Stittsville and Kanata West, to contribute to a collaborative community design process and to forge partnerships with the City of Ottawa and area landowners.

In addition to the land use planning, master servicing studies have been undertaken for water, wastewater, storm drainage, stormwater management and road infrastructure. These infrastructure studies have been prepared in accordance with the requirements of the Municipal Class Environmental Assessment process.

Ottawa Council will adopt the Fernbank CDP and an implementing Official Plan Amendment.

1.3 The Consultation Process

1.3.1 Public Consultation

A key component of the CDP process is the coordination and integration of the public consultation for the Community Design Plan (CDP), including the Planning Act requirements for an implementing Official Plan Amendment and the requirements of the Municipal Class Environmental Assessment for related environmental and infrastructure projects. The planning and coordination of the infrastructure and environmental management requirements for the CDP in consultation with the community will help to ensure that the objectives of the City, the community, other approval authorities and stakeholders are fulfilled. Consultation was one of the key points for integration. A Consultation Plan was developed as part of the initial Terms of Reference for the Fernbank CDP.

Five (5) public open houses were held at the Scotiabank Place in Kanata for the Fernbank Community:

- November 29, 2006
- January 31, 2007
- June 5, 2007
- September 24, 2007
- April 27, 2009

Open House No. 1 November 29, 2006

The open house was combination of Open House and Community Round Table. At the Open House and Community Design Roundtable, the public was provided the opportunity to review and comment on the study area's existing conditions, identify concerns and opportunities, and contribute to the policies and processes guiding this development. The Community Design Roundtable allowed a hands-on discussion of the issues affecting this development; encouraged input on the principles that must be considered during project planning and design; and began shaping a vision for this development's future appearance, function and interface with existing communities of Stittsville and Kanata South.

Open House No. 2 January 31, 2007

The open house involved a presentation followed by a Workshop. The Community Design Roundtable allowed a hands-on opportunity for the public to "plan" the community with consideration of the site constraints and the policy direction from the City.

Open House No. 3 June 5, 2007

The open house was held to solicit the ideas of the public on the five (5) Preliminary Land Use Concepts that were developed and the Alternative Design Concepts for the infrastructure supporting the proposed land uses. The meeting involved a presentation and was followed by a Workshop.

Open House No. 4 September 24, 2007

The open house was held to solicit the ideas of the public on the Preferred Land Use Concepts that were developed and the infrastructure supporting the proposed land uses. The meeting involved a presentation and was followed by a Workshop.

Open House No.5 April 27, 2009

The open house was held to present Community Design Plan and Infrastructure Master Plans and provide the opportunity for the public to review the final refinements to the Plan. The meeting involved a presentation of the contents of the draft Plans with a question and answer session following the presentation.

1.3.2 Core Project Team

The Core Project Team (CPT) is comprised of the Sponsoring Landowners, the consultant team, and City of Ottawa staff from the Department of Planning and Growth Management. The primary function of the CPT is to resolve issues and achieve consensus at each step of the CDP work program. Walker Nott Dragicevic

Associates Limited ("WND") lead the project consulting team and was responsible for land use planning and urban design input.

The City of Ottawa provided an internal project Manager for coordination and guidance. The CPT contains representatives from the following organizations and sits on a regular basis as required:

City of Ottawa

- Councillors and Councillors' representatives
- Planning Transit and the Environment
- Community and Protective Services
- Public Works and Services

Sponsoring Landowners

- Brookfield Homes (Ontario) Limited
- Regional Group of Companies
- 443641 Ontario Limited ("Del Corporation")
- Monarch/Cardel

Consulting Team

- Walker, Nott, Dragicevic Associates Limited – Land Use Planning (Project Manager), Urban Design, Parks Master Planning
- Novatech Engineering Consultants Ltd. – Servicing Infrastructure
- Novatech Engineering Consultants Ltd. – Subwatershed Study, Soils, Stormwater Management
- Delcan – Transportation
- Delcan – EA/Public Consultation
- Muncaster Environmental Planning Inc. – Natural Environment
- Kinickinick Heritage Consultants – Archaeology

1.3.3 Technical Advisory Committee (TAC)

The Technical Advisory Committee (TAC) met to review critical deliverables on an as-needed basis. The work program had five scheduled TAC meetings. In addition, as needed, the members of the TAC were to be available to provide input throughout the CDP process. Representatives of the following organizations were invited to participate:

City of Ottawa Departments

- City of Ottawa Departments
  - Planning Transit and the Environment
    - Community Planning and Design Division
    - Transportation and Infrastructure Planning Division
    - Economic and Environmental Sustainability Branch
    - Infrastructure Approvals Division
    - Development Approvals Division
    - Transit Service Planning and Planning Division
  - Community and Protective Services
    - Parks and Recreation Branch
    - Housing Branch
  - Public Works and Services
    - Water and Wastewater Services Branch
    - Traffic Parking and Operations Branch
    - Surface Operations Branch
    - Infrastructure Services Branch
    - Hydro Ottawa

Conservation Authorities and School Boards

- Mississippi Valley Conservation Authority
- Rideau Valley Conservation Authority
- Conseil des écoles Catholiques de langue française due centre-est
- Ottawa Carleton District School Board
- Ottawa Catholic School Board
- Conseil des écoles publiques de l'Est de l'Ontario

Provincial Government

- Ontario Ministry of the Environment
- Ontario Ministry of Transportation
- Ontario Ministry of Natural Resources
- Ontario Ministry of Culture and Tourism
- Ontario Native Affairs Secretariat
- Ontario Ministry of Municipal Affairs and Housing

Federal Government

- Department of Fisheries and Oceans
- Environment Canada

1.3.4 Public Advisory Committee

The varied interests of the surrounding community (*i.e.*, community associations, local residents, and special interest groups) were represented in the PAC. The PAC met with members of the Study Team to:

- identify any community issues early in the CDP process;
- review technical analyses;
- provide direct input to the establishment of the guiding principles of the CDP;
- work collaboratively with the Consultant Team in the development of land use alternatives; and,
- provide meaningful feedback on all study activities and work-in-progress.

Representatives to the PAC were identified based on input provided from the public and Area Councillors. Individuals were asked if they were interested in participating at the first open house. People were asked to indicate their name, organization and contact information. Eight to ten representatives from the community were invited to form the PAC. Where more than one group representative was identified, the group or collections of individuals were asked to select a single representative.

The composition of the PAC was as follows:

Community Groups such as;

- Community Associations
- Recreation Associations
- Religious Organizations

Special Interest Groups, such as:

- Ottawa River Keeper
- Sierra Club of Canada
- Friends of the Carp

Section 2.0 The Planning Context

This Section provides a general overview of the framework for the planning of the Fernbank community and the parameters which formed the development of the Community Design Plan. Substantial background work and analysis was undertaken during the preparation of the Plan, addressing such matters as the existing natural heritage conditions, transportation, hydrogeology, planning policy framework, and servicing.

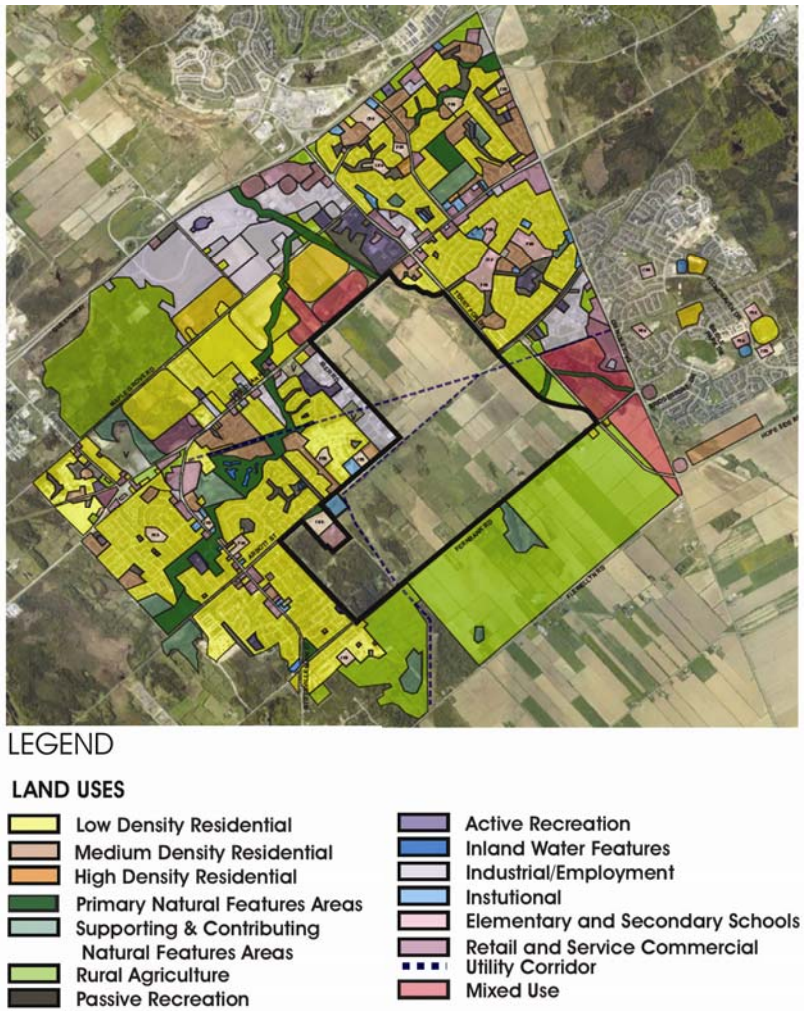
For detailed information regarding the conditions within the Study Area, reference should be made to the various background reports:

- Fernbank Community Design Plan Existing Conditions Report – Land Use;
- Fernbank Community Design Plan Existing Conditions Report – Transportation;
- Fernbank Community Design Plan Existing Conditions Report – Archaeological Assessment;
- Fernbank Community Design Plan Existing Conditions Report – Natural Environment (and Addendum);
- Fernbank Community Design Plan Existing Conditions Report – Municipal Infrastructure;
- Fernbank Community Design Plan Existing Conditions Report – Storm Drainage;
- Fernbank Community Design Plan Existing Conditions Report – Hydrogeology;
- Fernbank Community Design Plan Existing Conditions Report – Geomorphological Assessment; (and Addendum); and,
- Fernbank Community Design Plan Existing Conditions Report – Geotechnical.

2.1 Existing Land Uses

The existing and planned land uses adjacent to the Fernbank Community, as shown on **Figure 2**, provide a framework for the consideration of future land uses within the Study Area with regards to matters such as land use and built-form compatibility.

Figure 2 – Existing and Planned/Proposed Land Uses



Within the Study Area, existing development is predominantly comprised of a mix of rural and agricultural uses, including cultivated fields, fallow and scrub lands, wooded areas, Transmission corridors, farm houses, and rural residential severances with a number of home occupational uses. Two Transmission corridors (situated on easements) also dissect the area extending in a northwest/south (with a width of approximately 50m) and an east/west direction (with a width of approximately 110m).

The TransCanada Trail (situated on a former rail line) also dissects the Study Area extending in an east-west direction (linking Stittsville with Kanata).

The existing farm residence and related farm buildings located at 590 Hazeldean Road have been inventoried by the City as having high cultural heritage significance and are included on the City of Ottawa Heritage Reference List and the City has determined that these structures meet the requirements for designation under Part IV of the *Ontario Heritage Act*.

The existing community of Stittsville lies to the west of the Study Area and includes: a range of residential and related community uses with light industrial along Iber Road. The Goulbourn Recreation Centre and Sacred Heart Catholic Secondary School are located on the west side of Shea Road.

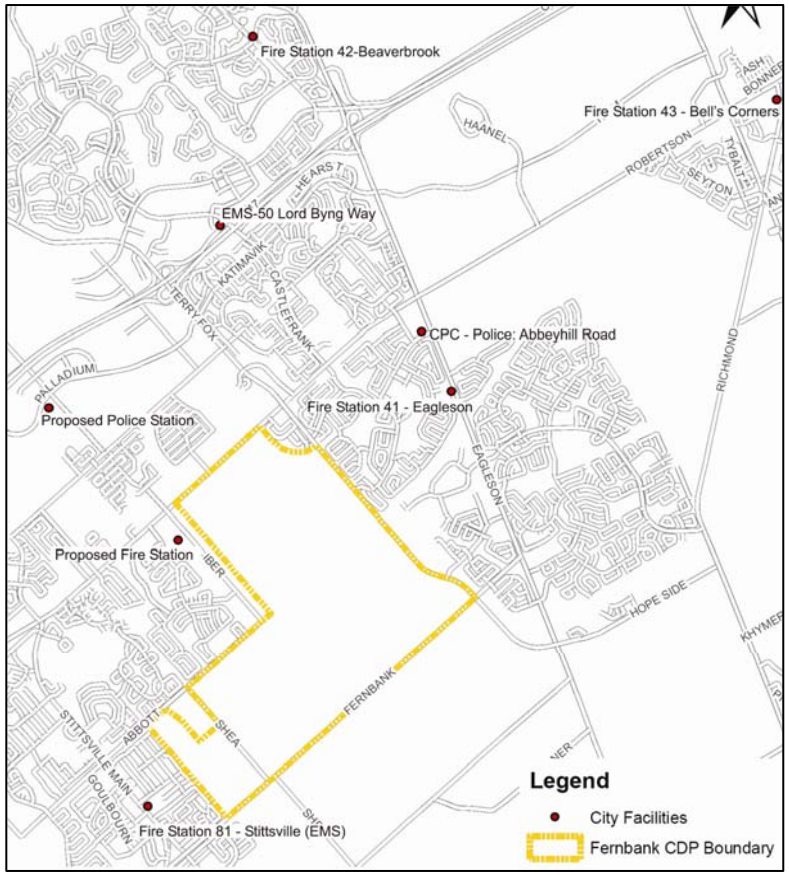
The Kanata West development area is located to the north of the Study Area and includes Scotiabank Place, major City-owned recreational facilities and newly-developed commercial and residential land uses.

The Kanata Town Centre is situated at The Queensway, generally in the vicinity of Terry Fox Drive and includes a range of community/regional commercial and higher density residential uses. Kanata South is located to the east with a range of residential and related community uses situated north of the TransCanada Trail; commercial uses focused on Hazeldean Road and Eagleson Road; and, an enterprise area containing employment and residential uses located south of the TransCanada Trail .

To the south is farm land protected for long-term agricultural use in the City of Ottawa (2003) Official Plan.

The existing network of emergency services facilities is illustrated on ***Figure 3***.

Figure 3 – Emergency Services Facilities



2.2 Policy Framework

The following provides a summary of the relevant municipal and Provincial policies that provide a framework for the preparation of the Fernbank Community Design Plan.

2.2.1 City of Ottawa (2003) Official Plan

As is illustrated in **Figure 4,** the City of Ottawa (2003) Official Plan designates the lands within the Study Area for the Fernbank CDP are designated as 'Future Urban Area', 'General Rural Area' and 'Agricultural Resource Area' on Schedules "A" and "B" to the Official Plan. Only the Brookfield, Del and Monarch[1] lands, which were subject of the 2005 Ontario Municipal Board hearing, are presently designated for urban development.

The Fernbank Community Design Plan addresses a larger area which includes lands not currently designated for urban development within the Official Plan. However, the Community Design Plan integrates the planning of these lands for urban land uses. The determination as to whether to include these lands within the City's Urban Area will be undertaken through the City's Official Plan Review process.

Prior to development proceeding, the City of Ottawa (2003) Official Plan requires the preparation of a Community Design Plan to establish a detailed framework of land use and infrastructure planning. Preparation of the Fernbank Community Design Plan has

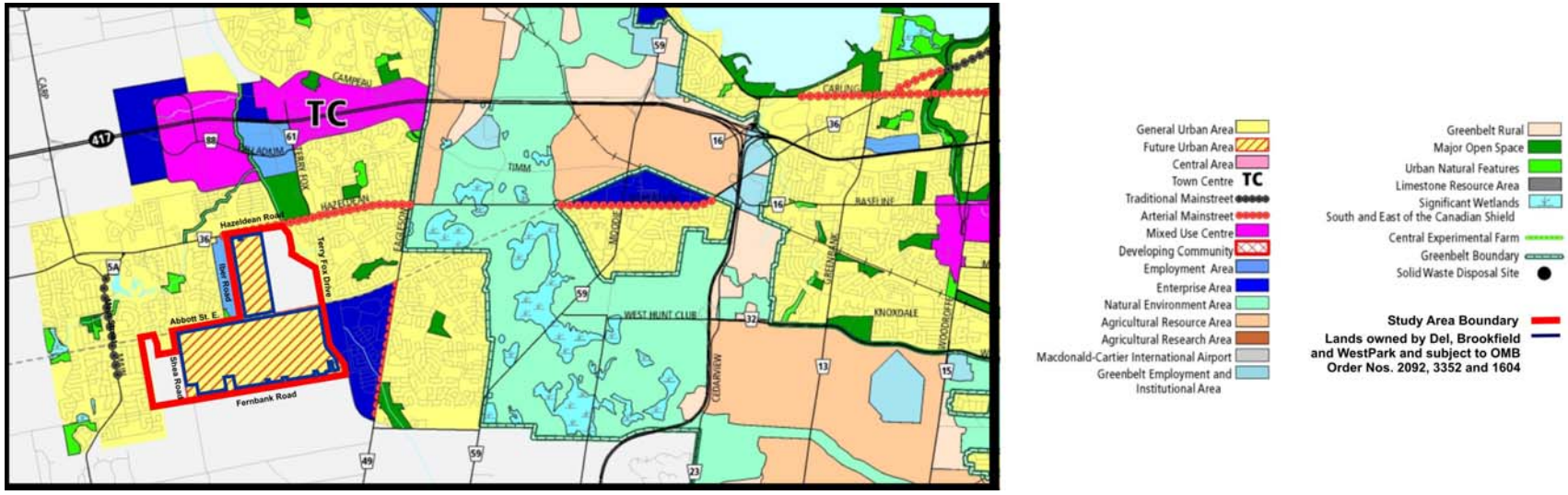


Figure 4– City of Ottawa Official Plan – Schedule B Urban Policy Plan

[1] The lands currently owned by Monarch were acquired from WestPark.

therefore been guided by the following Official Plan policies for 'Developing Communities':

- Realize a residential housing mix of:
  - 60% singles and semis (maximum)
  - 10% apartments (minimum)
  - Balance for multiple dwellings
- Achieve an average residential density of 29 units per net hectare for singles, semis and townhouses
- Establish a green space/open space network
- Establish a compact land use mix that supports "live – work – play"
- Establish a transportation network of:
  - Pedestrian and cycling facilities
  - Transit routes
  - Collector and arterial roads
- In a modified grid road system
- Create a distinctive community identity, including focal points and activity centres
- Secure a variety of building forms and high quality design
- Preserve existing desirable landform or landscape features
- Encourage a distinctive identity and a variety of building form and façade treatments
- Provide for the extension of the north-south arterial road from its planned location with Kanata West (on the north side of Hazeldean Road)
- Establish policies for Hazeldean Road that provide for a mix of uses that have the potential to evolve, over time, into more compact, pedestrian-oriented and transit friendly places, considering Arterial Main Street Design Guidelines.

The Official Plan also encourages the provision of affordable housing in new residential development to meet an annual affordable housing target of 25% of new rental housing to be affordable up to the 30th percentile and 25% of new ownership housing to be affordable up the 40th percentile.

2.2.2 Provincial Policy Statement

The Provincial Policy Statement provides direction on matters of provincial interest related to community design such as:

- Efficient development and land use patterns;
- A mix of residential, employment, recreational and open space uses:
- Healthy, livable and safe communities with an appropriate range of housing types and densities;
- Significant natural heritage feature protection;
- Healthy and active communities which provide for walking and cycling; and,
- Optimization of existing and planned infrastructure.

2.2.3 City of Ottawa Council

At Council's meeting of November 9, 2005, further direction for the preparation of the Fernbank CDP was established, including:

- Preparation in accordance with the 'Developing Community Policies' of the 2003 Ottawa Official Plan;
- Examination of the timely advancement of public amenities such as sports fields, parks, pathways and other amenities, including community centres, to ensure local recreational and community infrastructure is not overburdened by the development of these lands and consider front-end financing to advance the undertaking of such public amenities;
- Examination of the need for the timely advancement other infrastructure requirements as currently defined in the Transportation Master Plan (e.g., east-west transportation linkages) and the Infrastructure Master Plan (e.g., servicing) to ensure local infrastructure is not overburden by the development of these lands and consider front-end financing to advance the undertaking of such works;

- Reflection of the alignment/design/phasing of the north-south minor arterial road in the Kanata West Concept Plan;
- Ensuring that local road infrastructure serving a function which would also be served by the new north-south arterial should not be over-burdened by the development of these lands;
- Acknowledgement that the construction of the north-south arterial is an integral part of the overall development of the Fernbank lands;
- Inclusion of a final phasing plan that acknowledges the relationship between development timing, amount and front-end financing;
- Be subject to such Environmental Assessment or Class Environmental Assessment, as may be necessary; and,
- Be subject also to any other required implementation instruments such as a new or revised Development Charges By-law,

The Terms of Reference for the Fernbank Community Design Plan were approved by Council on July 11, 2006.

2.3 The Natural Environment

The Study Area is dominated by agricultural lands with the Carp River located in the northeast and flowing northerly while surface water south of the TransCanada Trail is part of the Jock River watershed and includes the Monahan Drain. These watercourses support cool and warmwater forage fish communities and these habitats can be improved using natural channel techniques and riparian vegetation enhancement.

There is high quality forest habitat present west of Shea Road adjacent to the Goulbourn Recreation Centre is designated as Natural Environemt Area in the Official Plan

One woodlot, east of Shea Road, rated moderate under the Urban Natural Area evaluation, therefore meeting the City's criteria, for protection as an Urban Natural Feature. Regionally rare flora were identified west of Shea Road and were recommended for retention or transplantation.

In addition, portions of the cultural meadow habitat east of Shea Road, such as the transmission corridors, could continue to provide cultural meadow habitat for grassland breeding birds. Notwithstanding the broad widths of these transmission corridors, the accommodation of potential public recreational activities within the Transmission corridors, such as multi-use pathways, should be sensitively located relative to these corridors' natural heritage features and habitat conditions.

2.4 Transportation

The area is currently served by a network of arterials and collector roads with a general east-west orientation including Highway 417, Palladium Drive, Maple Grove Road, Hazeldean Road and Fernbank Road. North-south travel is served by Eagleson Road, Terry Fox Drive, Huntmar Road, Iber Road and Stittsville Main Street.

Except for the section of Hazeldean Road between Iber Road and Terry Fox Drive, there is spare capacity in the network, available to service additional urban development. The widening of Highway 417 by MTO, to be completed by 2013, will result in an eight –lane freeway as far west as the Palladium interchange and a six-lane freeway between the Palladium interchange and Highway 7 with the resultant increase in arterial network capacity available to service the anticipated urban growth in the West Urban Area.

Currently transit service in the vicinity of the proposed community is provided by regular and express routes operating between Stittsville and Kanata with 10% of peak hour travel at the Terry Fox screenline occurring by transit.

Due to the general rural nature of the existing road network in the vicinity of the proposed community, there are relatively few facilities for pedestrians or cyclists with the notable exception of the Trans-Canada Trail which has been established along the abandoned CN Railway corridor between Kanata and Stittsville and which bisects the proposed Fernbank Community.

The City of Ottawa Transportation Master Plan 2008 has identified a number of arterial upgrades and rapid transit corridor extensions to service anticipated urban growth in the Kanata West Urban Community and the area subject to the Fernbank Community Design Plan. These include widenings of Hazeldean Road, Terry Fox Drive, and the Kanata West road network, along with the extension of the Western Transitway with its extension through Kanata West to Hazeldean Road and southward to Fernbank Road. **Figure 5** illustrates the major road network.

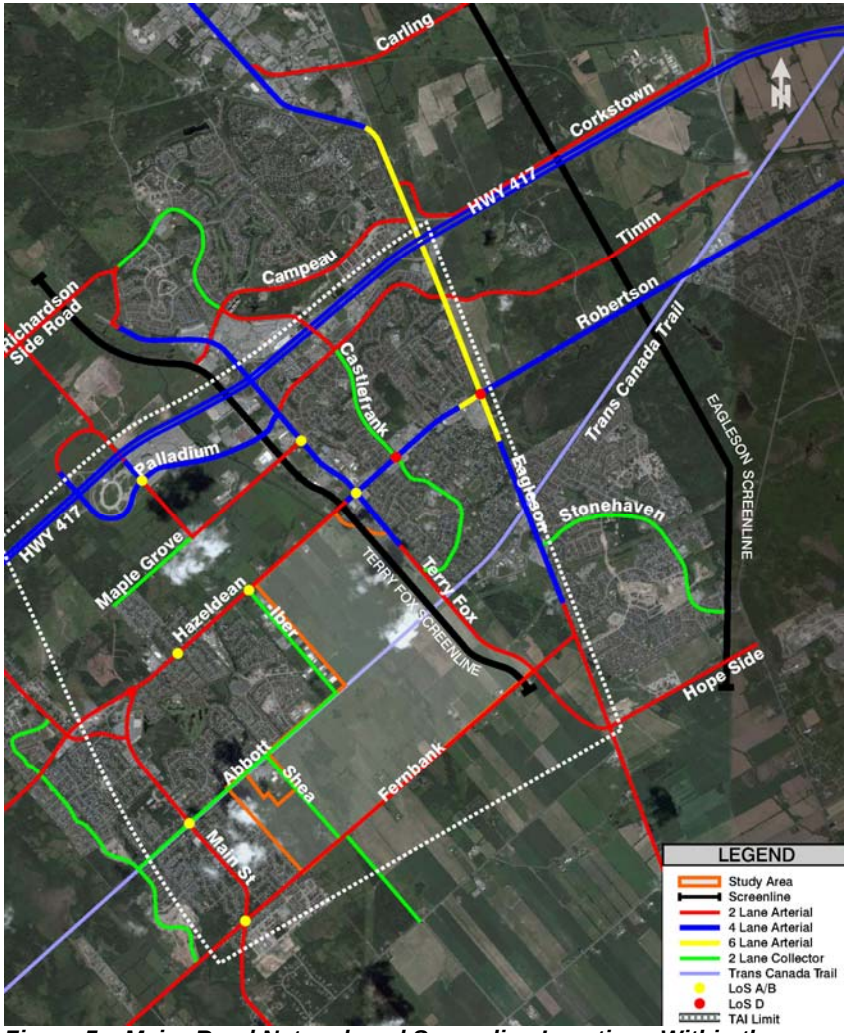


Figure 5 – Major Road Network and Screenline Locations Within the Transportation Area of Interest (TAI)

2.5 Parks and Recreation

Existing major recreation facilities in proximity to the Study Area include:

- Goulbourn Recreation Centre at Shea Road and Abbott Street;
- Walter Baker District Park at Terry Fox Drive and Hazeldean Road;
- TransCanada Trail; and,
- Kanata Recreation Complex and Arena on Terry Fox Drive.

Additional parks and recreational facilities will be developed within the Fernbank Community as development proceeds through dedication of parkland pursuant to the *Planning Act*.

The hierarchy of public parks will include:

- A District Park;
- Community Parks; and,
- Neigthbourhood Parks

The determination of the functions and facilities to be contained within these parks will be undertaken by the City in collaboration with the future residents of the community.

2.6 Servicing

Existing water infrastructure to the Study Area includes the 3W Pressure Zone which encompasses the majority of Kanata and Stittsville and includes a number of improvements set out in the 2003 Water Master Plan Review and Infrastructure Master Plan.

The City of Ottawa West Urban Community sanitary collection network is a relatively modern system of separated gravity sewers and local pumping stations which discharge into a regional trunk system that carries sewage flow to the Robert O. Pickard Environmental Centre in eastern Ottawa for treatment of wastewater. Several trunk sanitary infrastructure components within the West Urban Community would be directly affected as a result of development within the Study Area, including: the Stittsville Trunk, South Glen Cairn Trunk, Hazeldean Pump Station, Glen Cairn Trunk, Tri-Township Collector, North Kanata Trunk, and Watt's Creek Relief Sewer. The city has identified several growth projects within the West Urban Community that will affect the wastewater collection system including the conversion of the March Pump Station into a low-lift station, the abandonment of the March Forcemain, and the accompanying redirection of flows from the Kanata Lakes, Marchwood, and East March trunk sewers into the future North Kanata Trunk. This measure is being adopted by the City of Ottawa to address capacity and operational issues identified within the Tri-Township Collector and will permit the continuation of planned growth within the Kanata district.

The primary stormwater drainage features within the Study Area include:

- The Carp River and its tributaries and associated regulatory floodplain;
- Hazeldean Creek, which receives storm runoff from an existing SWM facility within Stittsville;
- The Glen Cairn SWM Facility located in the northeast quadrant, adjacent to Terry Fox Drive, which provides water quality and quantity control for the existing residential lands east of Terry Fox Drive;
- The (municipal) Monahan Drain which serves as the drainage outlet for the eastern portion of the Study Area and runs in an easterly direction towards Terry Fox Drive;
- The Monahan Drain SWM Facility located between Terry Fox Drive and Hope Side Road which is designed to provide water quality and quantity control for a tributary drainage area of approximately 900 hectares;

- The (municipal) Faulkner Drain which starts on the south side of Fernbank Road, just west of Shea Road, and flows in a southerly direction to the Jock River at the village of Richmond; and,
- The Flewellyn Drain located north of Fernbank Road which flows south toward Fallowfield Road and then east to outlet to the Monahan Drain.

These drainage features create four distinct drainage areas with the Fernbank Community, as shown on **Figure 6**.

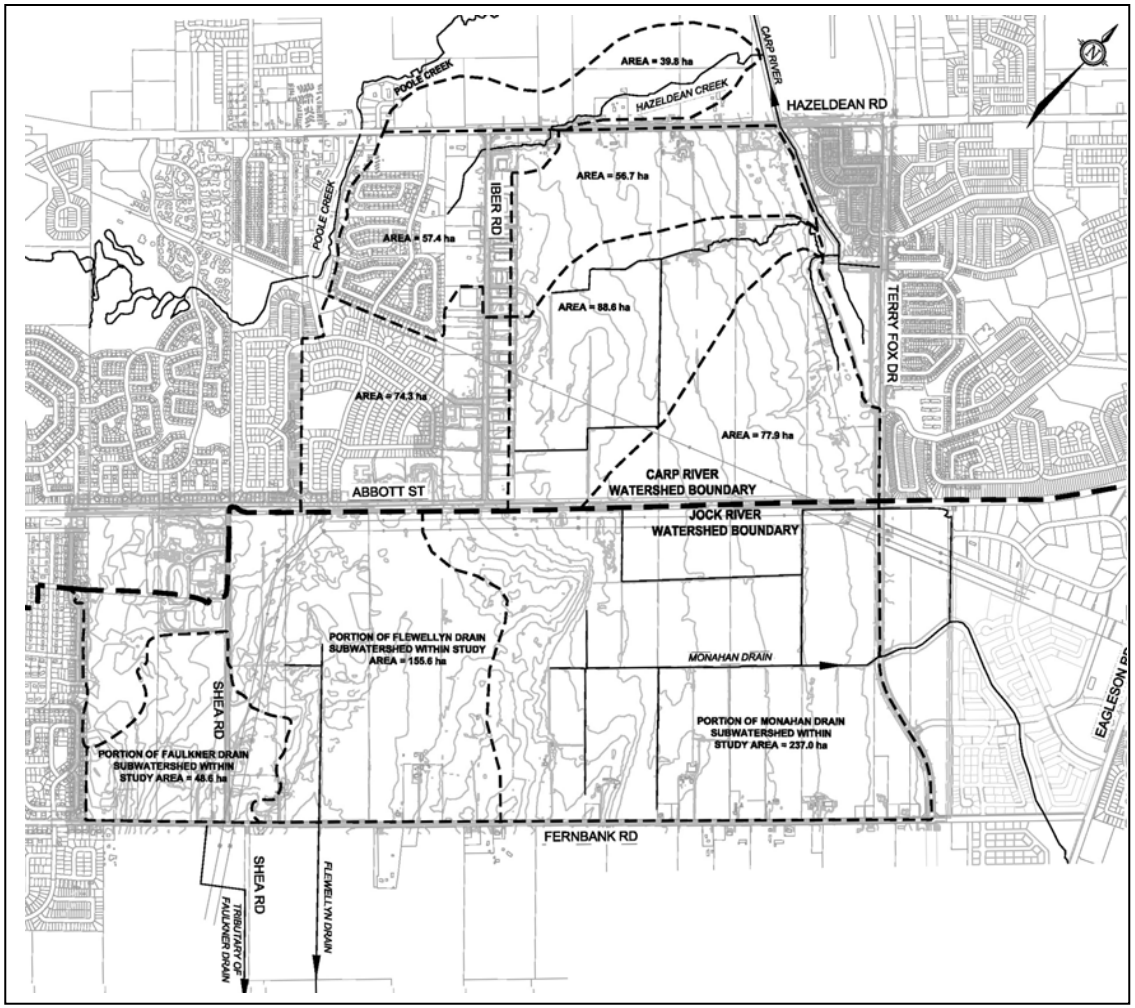


Figure 6 –Storm Drainage Areas

Criteria developed within the *Carp River Subwatershed Study* has been evaluated as part of the Environmental Management Plan for the Fernbank Community including: peak flow criteria to ensure no adverse downstream impacts; erosion control; potential for low flow augmentation; watercourse setbacks and riparian buffer zones; and, all applicable policies and guidelines of the Mississippi Valley Conservation. Development within the Carp River Subwatershed must ensure that any resultant changes to flood elevations or velocities within the Carp River and its tributaries will not have any adverse impact on existing development.

2.7 Environmental Management Plan

The intent of the Environmental Management Plan is to:

- Create an inventory of existing natural features (terrestrial and aquatic), and provide an evaluation of those features;
- Consider the impacts of any land-use activities on natural features; and
- Develop a recommended strategy to mitigate adverse effects and protect, enhance or restore the natural system for the pleasure of all.

In this regard, a number of background studies were conducted which informed the analysis, evaluation of alternatives and conclusions of the Environmental Management Plan, including:

- Hydrogeology
- Bedrock geology
- Surficial geology
- Hydrology
- Environmental constraints and opportunities
- Groundwater discharge/recharge assessment
- Aquatic features and fish habitat assessments
- Aquifer Vulnerability
- Fluvial Geomorphology
- Erosion
- Riparian corridor evaluation
- Existing storm drainage conditions review
- Climate
- Storm Drainage Areas
- Terrestrial features and habitat species of special concern
- Urban Natural Areas evaluations
- Slope stability assessment
- Grade-raise restrictions and foundation design requirements
- Tree planting strategy in areas of sensitive marine clay
- Water Supply Wells
- Tile Drains

Section 3.0 Development of the Plan

The following provides a synopsis of the evolution of the Fernbank Community Design Plan.

3.1 Guiding Principles

The Guiding Principles were prepared through a consultative process involving the Core Project Team (CPT), Technical Advisory Committee (TAC), Public Advisory Committee, (PAC) and the public at-large. The Guiding Principles establish the qualitative principles for both the development of alternative concept plans and the evaluation of these alternatives to determine a preferred concept plan.

- *Maintain and respect the integrity and unique character of existing communities*
  New development should be sensitive and responsive to the existing communities of Stittsville and Kanata, in terms of the relationship of planned land uses, roads, open spaces, schools and recreational facilities. It is important that the character and qualities of these existing communities are not diminished by development within the Fernbank area.

- *Create distinctive liveable neighbourhoods*
  The Fernbank community will be designed to create unique residential neighbourhoods that serve the needs of residents of different lifestyles and incomes. Therefore, residential neighbourhoods should provide a range of housing options (both opportunities for different housing types (single, semis, townhouse and apartments) as well as affordable and market rental and ownership tenures). Neighbourhoods should contain focal points, such as recreation facilities, schools, parks and green spaces, accessible to neighbourhood residents, which will serve as distinctive local landmarks and gathering places.

- *Create integrated, clean and active green spaces*
  The Carp River and other significant natural heritage features will be protected within the Fernbank community and provide important contributions to the greenspace network. Not only do these green spaces have environmental value, they can also provide open space and active/passive recreational amenities and will contribute to a healthy community. Where appropriate, these green spaces should be linked by multi-use pathways, stormwater management facilities, and parks.

- *Create a 'heart' for the community*
  The community should be designed around an identifiable focal point which include uses that attract and be accessible to, all residents and provide a 'sense of place'. In addition, each neighbourhood should have a local focal point (such as a park, school or other open space) so that these amenities are well-distributed through the community and are easily accessible to residents.

- *Provide effective, efficient, timely transportation that is integrated with land uses*
  The Fernbank community should be designed to accommodate all modes of transportation within a development pattern that emphasizes walking, cycling and transit over automobile travel. A modified grid road system, with a high degree of permeability and accessibility throughout the community, will support a diverse range of land uses and modes of transportation. Roads should link to important roads around the community and importantly, a

road which allows through traffic to by pass Stittsville Main Street. Public transit (including rapid transit) will be extended to support and serve the community. Transportation infrastructure should proceed in concert with development and opportunities for alternative means of financing such infrastructure will be considered.

- *Ensure efficient and timely phasing of future infrastructure*
  The effective use of existing, and the provision of new servicing infrastructure, will be employed in order that development in the Fernbank community achieves the efficient and optimal use of such facilities. Alternative development standards will be considered where such standards can achieve a quality community while maintaining appropriate operating and maintenance standards. Servicing infrastructure should proceed in concert with development and opportunities for alternative means of financing such infrastructure will be considered.

- *Create an environmentally sustainable community*
  Development within the Fernbank community will promote pedestrian, cycling and transit usage in order to reduce energy consumption patterns associated with automobile travel. Appropriate alternative development and green building standards which support energy efficiency and environmental sustainability will be encouraged.

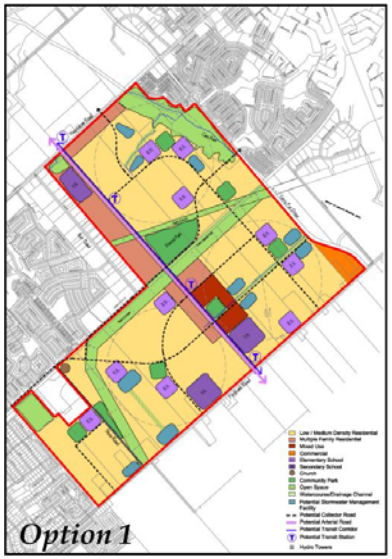
3.2 Preliminary Land Use Concepts

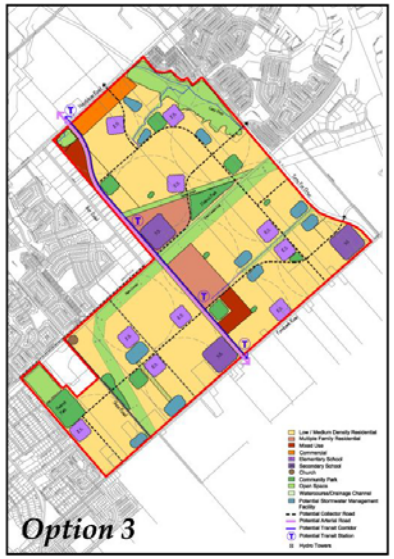
A total of five preliminary land use concepts were developed for evaluation by the CPT, TAC, PAC and the public at-large, as shown on **Figure 7**.

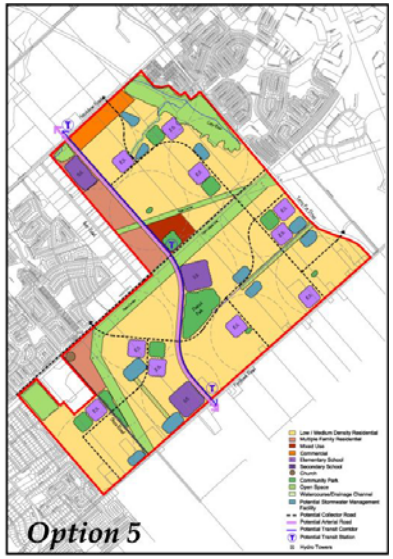
A public open house to review the five alternative concept plans was conducted on June 5, 2007 where, following a presentation, a facilitated workshop was conducted where members of the public worked in small groups to review the concepts and report back on what elements of the concepts plans they supported and which elements were identified for potential modification. The participants were advised that they could consider selecting elements from each of the five alternative plans and were not restricting to 'selecting' one specific alternative.

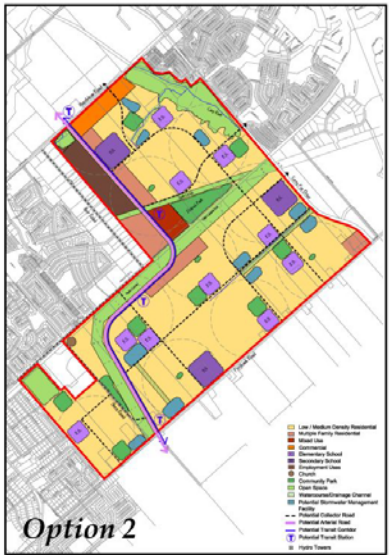
The stakeholders were requested to review the alternatives on the basis of:

- Transportation and transit (including N-S arterial road, Abbott Street, Iber Road, connections to surrounding roads, transitway route, etc.)
- Natural Heritage
- Interface Land Uses
- Community facilities (parks, schools and greenspaces, etc.)
- Other land uses (commercial, mixed use, etc.)
- Community Core location









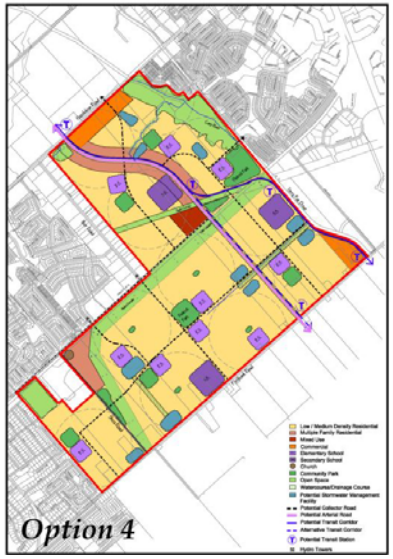


Figure 7 –Preliminary Land Use Concept Options

While PAC and public at-large expressed a variety of opinions, some common themes emerged from the public workshop, including:

- A buffer, containing a pedestrian trail, should be provided along the westerly limit of the Fernbank Study Area to transition to existing residential uses to the west;
- Preference for a full extension of Abbott Street from Stittsville to Kanata to decrease traffic on Stittsville Main Street;
- Higher density residential uses should be located along the Transitway;
- Keep one central park for multiuse/multi-age uses with access to TransCanada Trail;
- Examine the potential of transmission corridors containing sports fields;
- Preference not to have elementary schools located directly abutting existing residential neighbourhoods; and,
- Provision of multi-use pathways for pedestrians and cyclists that access/reach throughout development.

3.3 Preferred Land Use Concept

Following the review of the five alternative land use concepts, a preferred land use concept was advanced which reflected the comments received to-date and further technical analysis, as shown on **Figure 8**.

Figure 8 – Preferred Land Use Concept (September 2007)

Further meetings with CPT, TAC and PAC were conducted in September 2007, together with a further open house with the general public (with facilitated small group discussions) which presented a preferred demonstration plan and an alternative demonstration plan the differences being: the location for the District Park and the potential for Abbott Street not to extend fully between Kanata and Stittsville. Again, a variety of opinions were expressed and common themes emerged from the public workshop, including:

- A continuous Abbott Street alignment was preferred by the people attending the Workshop on the basis of:
    - community connectivity;
    - link both existing and future communities; and,
    - cut through traffic is unlikely alternative east-west route compared to Hazeldean for cyclists.

- The Triangular layout for the District Park was preferred by the people attending the Workshop:
    - better for buffering, traffic and noise associated with the park activities;
    - centrally located;
    - significant exposure along the TransCanada Trail;
    - good access and trail connections;
    - good use of transmission corridors;
    - better buffering by transmission corridors; and,
    - environmental and aesthetic benefits to adjacent TransCanada Trail and transmission corridors.

At the request of the City of Ottawa, additional input was sought into the Alternative Demonstration Plans. The plans and an explanation of the advantages and disadvantages of each were posted on the Fernbank CDP web-site and sent to the Project Electronic Mailing List. The general consensus was from this consultation was:

- Abbott St. should be continuous based on:
    - cycling connections
    - reduction of cut-through traffic on Stittsville Main
    - street
    - community integration

- The district park should be central and regular in shape based on:
    - ease of access
    - appropriate buffers
    - good use of transmission corridors
    - integrated into the neighbourhood
    - increase potential wildlife habitat

Accordingly, based on this additional input and the requirements of the City of Ottawa Parks and Recreation Department evaluation, a District Park with a more regular shape, has been shifted to the north of the northerly hydro transmission corridor. This location maintains a central location within the overall Fernbank Community with direct frontage on two collectors roads, which provides good visibility and vehicular access. This location also provides opportunities for the District Park to be integrated with the hydro transmission corridors and pedestrian connections therein.

Section 4.0 The Fernbank Community Design Plan

The following establishes the Fernbank Community Design Plan that has resulted from: the broad policies of the Ottawa Official Plan; the area-specific policies for the Fernbank area as established through the Ontario Municipal Board decision; the November 2005 resolution of the City of Ottawa Council; the Council-approved Terms of Reference for the Community Design Plan; the area's opportunities and constraints; and, the extensive input secured from the CPT, TAC, PAC and the public at-large.

4.1 The Land Use Plan

The land use plan for Fernbank is illustrated on **Figure 9** and includes six general land use categories in the Land Use Plan, as follows:

- Low density residential
- Medium density residential
- High density residential
- Mixed use
- Neighbourhood Commercial
- Open Space (including parkland, elementary/secondary schools, stormwater management facilities, Village Green, transmission corridors).

A Road/Transit Network has also been established (as more illustrated on the Demonstration Plan **Figure 10**) which includes an Arterial Road/Transit Corridor (41.5m right-of-way), Transit Station, Major Collector Roads (26m right-of-way), Minor Collector Roads (24m right-of-way), Local Roads (18m right-of-way), Single-Loaded Roads (14m right-of-way), and Laneways (8.5m right-of-way).

LAND USE	NET AREA (HA)	PERCENTAGE
Low Density Residential	216	32%
Medium Density Residential	60	9%
High Density Residential	5	1%
Mixed Use	21.5	3%
Neighbourhood Commercial	8	1%
Schools	42	6%
Open Space ***(including transmission corridors)***	62	9%
Parkland	33	5%
Stormwater Management Facilities and Drainage Corridors	68	10%
Roads ***(including Hazeldean and Fernbank Road Widenings)***	152	22%
Others ***(Including Church, Transit Station and Paramedic Post)***	6.5	1%
Total	**674**	**100%**

Table 1- Land Use Distribution (by category)

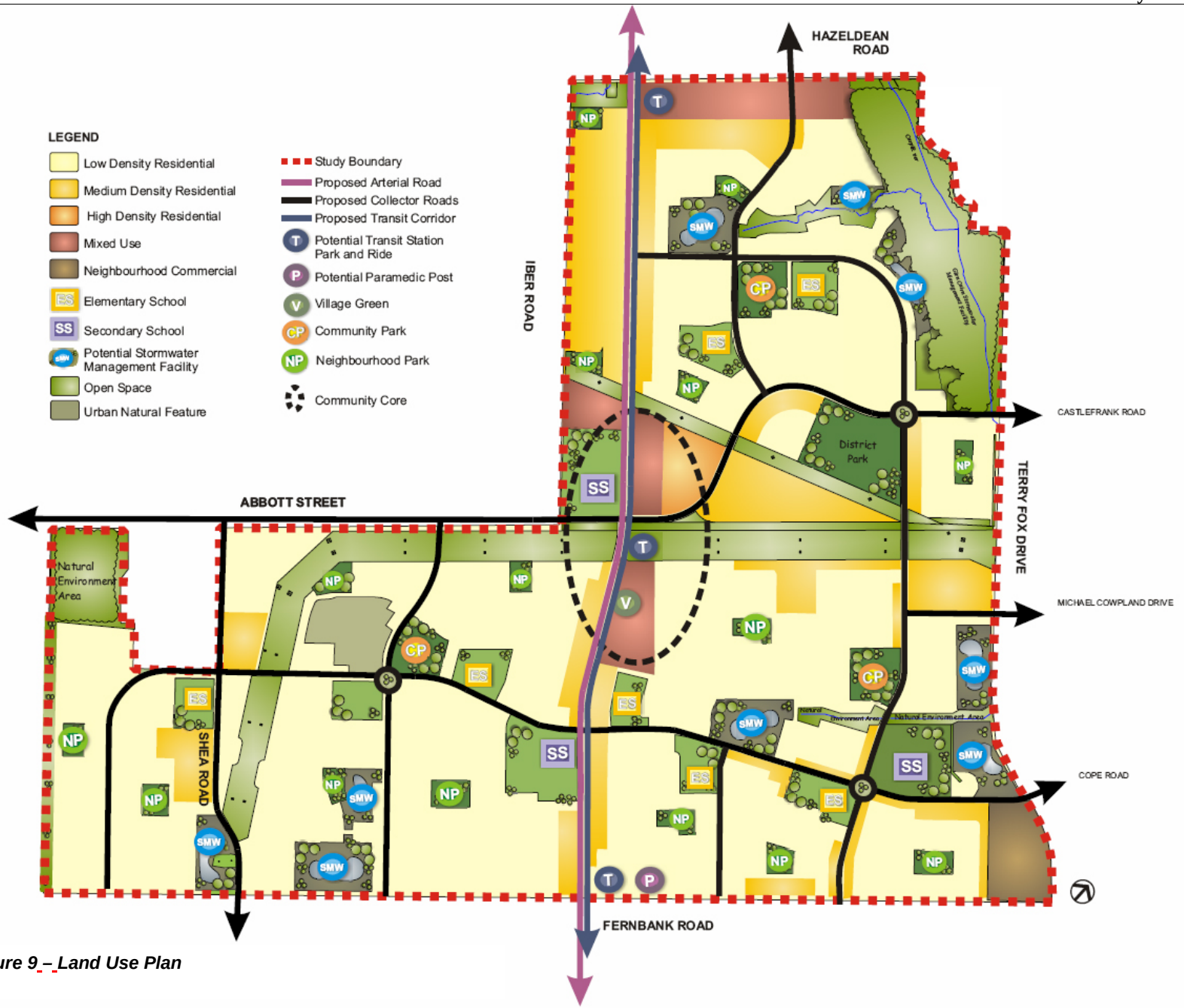


Figure 9 – Land Use Plan

4.2 Land Use Designations

The intent of the Fernbank Community Land Use Plan is to create a complete residential community with a full range of housing choices (including affordable housing) that is complemented and supported by appropriate community facilities such as parks and schools, while providing opportunities to work and shop in close proximity to the residential neighbourhoods.

The Fernbank Community is, to some extent, partitioned into three segments by the existing transmission corridors and proposed north-south arterial road (herein referred to as the Northeast, Southeast and Southwest sectors). Therefore, the distribution of land uses, particularly community amenities such as parks and schools, is intended to provide an equitable distribution of uses so that all areas of the community have access to such uses and facilities. An integrated road, pedestrian walkway and multi-purpose pathway network serves to connect the various sectors and land uses.

Further, through the consultation process, a 'center' or 'heart' was considered an important community-defining element of the plan and accordingly, the intersection of the proposed north-south arterial road and Abbott Street/TransCanada Trail was identified as a central area. In this location, a variety of land uses (such as mixed use areas, secondary school, and higher density residential uses) in close proximity to the transit station, have been provided to create an active, interesting and diverse '*Community Core*'.

The intent and permitted uses of the land use designations contained within the Fernbank Community Land Use Plan is outlined below. All land uses shall be subject to the design guidelines in Section 7.

4.2.1 Low Density Residential

Low density residential land uses will comprise the majority of the housing within the Fernbank Community. Low Density Residential land uses shall include residential dwellings of similar mass and scale as follows:

- Detached dwellings
- Semi-detached dwellings
- Linked detached dwellings

Multiple attached dwellings may also be permitted in locations:

- Along arterial roads;
- Along major or minor collector roads;
- In proximity to community facilities and amenities;
- Along hydro transmission corridors; or,
- As a transition between non-residential and low density residential uses (such as, a progression between industrial or mixed use areas)

In accordance with the Official Plan, not more than 60% of the total units within the Fernbank Community Plan shall be single-detached and semi-detached housing.

West of Shea Road, a linear open space (approximately 6 metres in width) shall be provided between the existing Stittsville area and the proposed low density residential development to the east. Such open space shall include a public walkway connecting to the trail system north of Abbott Street.

4.2.2 Medium Density Residential

Medium density residential land uses will be dispersed throughout the Fernbank Community to provide a variety of housing types and create diverse and attractive neighbourhoods. Such land uses shall generally be located:

- Along arterial roads

- Along major or minor collector roads;
- In proximity to Community or District Parks;
- In proximity to community amenities and facilities;
- Along hydro transmission corridors; or,
- As a transition between non-residential and low density residential uses (such as, a progression between industrial or mixed use areas)

Medium Density Residential land uses shall include:

- Multiple-attached dwellings
- Triplexes
- Stacked dwellings
- Live-work units
- Low-rise apartments
- Rooming houses
- Shelter accommodations

Where medium density residential land uses abut an existing hydro transmission corridor easement, parking required for such uses may be accommodated within the hydro transmission corridor provided that the relevant portion of the hydro transmnission corridor is consolidated with the residential lands.

4.2.3 High Density Residential

High density residential land uses will contribute to a full range of housing types within the Fernbank Community (including the opportunity to provide affordable housing). Such land uses shall generally be located:

- In proximity to transit stations;
- In proximity to arterial roads;
- Accessible to major open space areas or the District Park; or
- Along major collector roads.

High Density Residential land uses shall include:

- Live-work units
- Low-rise apartments
- Mid-rise apartments
- Duplex dwellings
- Rooming houses
- Shelter accommodations

In accordance with the Official Plan, a minimum of 10% of all dwelling units within the Fernbank Community Design Plan shall be rental or condominium apartment units.

Where high density residential land uses abut an existing hydro transmission corridor easement, parking required for such uses may be accommodated within the hydro transmission corridor provided that the relevant portion of the hydro transmission corridor is consolidated with the residential lands.

4.2.4 Mixed Use

The Mixed Use designation is intended to accommodate a mix of residential and non-residential land uses to serve the personal and commercial needs of the Fernbank Community's residents. The design and built-form of this area will advance a human-scale pedestrian friendly environment.

Uses permitted with the Mixed Use designation along Hazeldean Road may be oriented to commercial uses in recognition of the planned land uses on the north side of Hazeldean road. However, residential uses shall also be encouraged in this area. Permitted uses shall include:

- Retail and convenience stores
- Banks or other financial services
- Service and repair uses
- Personal service uses
- Business, medical and professional offices

- Restaurants
- Institutional uses such as hospitals, retirement homes, residential care facilities or medical facilities.
- Low-rise Apartments
- Mid-rise Apartments
- Multiple-attached dwellings
- Stacked dwellings
- Live-work units

Uses permitted with the Mixed Use designation along the North-South Arterial may focus primarily on residential uses either in freestanding buildings or in mixed-use buildings. Permitted uses shall include:

- Retail and convenience stores
- Banks or other financial services
- Service and repair uses
- Personal service uses
- Business, medical and professional offices
- Private parks and open spaces
- Restaurants
- Institutional uses such as hospitals, retirement homes, residential care facilities or medical facilities.
- Low-rise Apartments
- Mid-rise Apartments
- Multiple-attached dwellings
- Stacked dwellings
- Live-work units

Non-residential uses will be encouraged within areas abutting the 'Village Green' either as free-standing buildings or located at-grade within mixed use buildings.

Drive through establishments will not be permitted in the Mixed Use designation along the North-South Arterial.

Automotive dealerships will not be permitted in the Mixed Use Areas.

Where mixed use land uses abut an existing hydro transmission corridor easement, parking required for such uses may be accommodated within the hydro transmission corridor provided that the relevant portion of the hydro transmission corridor is consolidated with the mixed use lands.

4.2.5 Neighbourhood Commercial

One Neighbourhood Commercial designation, approximately 8.0 hectares in size and located at the northwest corner of Terry Fox Drive and Fernbank Road, is provided within the Fernbank Community. Due to this area's distance from the Mixed Use areas provided within the *'Community Core'* and along Hazeldean Road, this designation will provide neighbourhood commercial uses to the Southeast sector of the community.

Uses permitted within the Neighbourhood Commercial designation include:

- Convenience stores;
- Personal service businesses;
- Banks or other financial services ;
- Business, medical and professional offices;
- Restaurants; and,
- Retail stores.

Retail food stores and automotive uses (such as gas bars, service stations and car washes) shall only be permitted in the Neighbourhood Commercial designation located at Fernbank Road and Terry Fox Drive, subject to the Design Guidelines of this Plan.

4.2.6 Schools

The Fernbank Community will accommodate up to three (3) secondary schools and eight (8) elementary schools, as requested by the four area School Boards. The location and size of these school sites have been conceptually illustrated on the Land Use Plan and reflects:

- The general locational criteria of the respective School Boards;
- The minimum school site area required by each School Board; and,
- The minimum school site lot frontage and site configurations standards of each School Boardl.

The City of Ottawa Parks and Recreation Division have directed that co-location of schools and Community or Neighbourhood Parks shall not be contemplated within the Fernbank Community. Accordingly, certain School Boards have requested larger school sites in order to provide additional outdoor activity space. Should co-location of schools and parks be contemplated in the future, the location and size of schools may be adjusted from that illustrated in this Plan.

The precise location and configuration of each school site parcel shall be determined through the approval of Plans of Subdivision. The assignment of schools sites between the Schools Boards will also be finalized through Plans of Subdivision based on the School Boards' requirements at that time. Where one School Board does not exercise its option for a specific school site, the remaining School Boards may consider acquiring the site.

School sites shall be zoned for both institutional and residential use in order that, in the event that no School Board acquires a school site established in a Plan of Subdivision, the lands shall be developed for residential land uses. The type and range of such residential uses shall be in accordance with the Low Density Residential and Medium Density Residential land use designation as described in Sections 4.2.1 and 4.2.2.

4.2.7 Greenspace Network

The greenspace network is comprised of open space, parks, stormwater management facilities, pathways and other linkages. West of Shea Road, a linear open space shall be provided between the existing Stittsville area and the proposed low density residential development to the east. Such open space shall include a public walkway connecting to the trail system north of Abbott Street.

The Official Plan identifies a target of total public greenspace of 4.0 hectares per 1000 population, or approximately 16-20% of gross land area (including stormwater management facilities, pathways, schools, flood plains, hazard lands, parks, natural heritage areas, the majority of the transmission corridors, etc.). The Official Plan also directs that all residential areas are to be located within 400 metres of such greenspaces.

Natural Environment Area

The cedar forest in the north-west corner of the community south of Abbott Street is designated as a Natural Environment Area in the Official Plan. The policies in the Official Plan will apply. Development and site alteration within 120 metres of the Natural Environment Area requires an Environmental Impact Statement to demonstrate that there will be no negative impact on the natural features within the area or their ecological function.

Urban Natural Feature

The cedar forest east of Shea Road has rated moderate under the Urban Natural Area evaluation, meeting the criteria to be designated as an Urban Natural Feature in the Official Plan. The intent is of this designation is to retain the woodlot in its natural state. Only passive recreation activities such as trails and orientation areas will be

permitted. An Environmental Impact Statement shall be prepared and submitted, in accordance with Section 3.2.2 of the Official Plan, for development within 30 metres of the Urban Natural Feature.

As per Section 7.5 of this Plan, it is anticipated the City will acquire the woodlot. However, if acquisition is not possible, an Official Plan amendment will be required to permit development. If development is permitted, then the underlying Low Density Residential designation will apply.

Open Space

The Carp River and other significant natural heritage features will be protected within the Fernbank community and provide important contributions to the greenspace network. Not only do these green spaces have environmental value, they can also provide open space and safe active/passive recreational amenities and will contribute to a healthy community. The existing watercourses, woodlot(s) and hydro transmission corridors provide initial structuring elements to an open space network within the Fernbank Community. These elements will be augmented by and integrated with, additional open spaces in the form of parks and stormwater management facilities in order that a full range of active and passive recreational opportunities such as sports fields, play areas, passive leisure areas, pathways, recreation facilities can be accommodated.

Opportunities for shared or complementary active and passive recreational uses within open spaces areas (such as the hydro transmission corridors, woodlots and stormwater management facilities) will also be considered.

The open space and parks will be connected by a system of multi-use pathways and pedestrian walkways as discussed further in Section 6.0.

The Open Space designation provides for natural heritage features and transmission corridors including:

- Existing watercourses and drainage corridors;
- Floodplain associated with existing watercourses;
- Existing transmission corridors;
- Woodlots; and,
- Existing TransCanada Trail

Where moderate-value woodlands have been identified as open space east of Shea Road/hydro transmission corridor, such lands may be developed for low density residential uses if the City of Ottawa does not acquire the woodlands for public purposes.

The existing hydro facilities are accommodated by easements and are not owned by directly by Hydro One Networks Inc. or other electricity provider. Accordingly, these lands can accommodate certain active or passive recreational uses (such as multi-use pathways, pedestrian walkways, sports fields) provided there are no buildings or significant structures associated therewith. In addition, parking associated with abutting land uses may be accommodated within these transmission corridors provided that that portion of the hydro transmission corridor is consolidated with the land use which utilizes the parking.

West of Shea Road, a linear open spaceshall be provided between the existing Stittsville area and the proposed low density residential development to the east. Such open space shall include a public multi-use pathway connecting to the trail system north of Abbott Street.

Parks

The Official Plan directs that “good parks and leisure areas are well-distributed within communities, easily accessible from homes and linked to the greenspace network”. The Fernbank CDP responds to

this policy directive through a distribution of Neighbourhood, Community and District Parks which serve the needs of the Fernbank community and the broader area.

With respect to parks, the Official Plan identifies a target of 2.0 hectares per 1000 population, or approximately 8-10% of developable land area. Parkland dedication in the Fernbank CDP will be provided in accordance with the *Planning Area* requirements of 1 hectare per 300 residential dwelling units, plus 2% of the land area for non-residential uses.

An extensive system of public parks has been planned for within the Fernbank Community, ranging from passive parts to activie parks and amenities such as recreation facilities and sportsfields to passive recreational activities such as multi-use pathways and cycling facilities. The Fernbank Community will also be served by the existing Walter Baker District Park and Kanata Recreation Complex/Arena located at the northwest corner of Terry Fox Drive and Hazeldean Road and the Goulbourn Recreation Centre on Shea Road.

The Fernbank Community is, to some extent, partitioned into three segments by the existing Transmission corridors and proposed north-south arterial road. Accordingly, the distribution of parks is intended to ensure that all residential areas within these three sectors are served by Community and Neighbourhood Parks.

A hierarchy of Parks land use designations has been established as follows:

- A District Park which will have a minimum of site area of 8.0 hectares and be located within proximity to the, TransCanada Trail, arterial road, and be centrally located within the Fernbank Community. The District Park shall will have: 2 frontage on a two collector roadsroads; access to the TransCanada Trail; and be centrally located within the Fernbank Community. In order to address the potential operational characteristics (such as lighting, noise, hours of operation) of a District Park on adjacent residential land uses, appropriate buffering may be required to be accommodated within the District Park to mitigate these conditions. The abutting hydro transmission corridor easements can accommodate certain active or passive recreational uses (such as pathways, pedestrian walkways, sports fields) provided there are no buildings or significant structures associated therewith. In addition, parking associated with abutting District Park may be accommodated within these Transmission corridors provided that that portion of the hydro transmission corridor is consolidated with the District Park lands.
- Community Parks, which will have a minimum site area of 3.2 hectares and be located on major collector roads which have been distributed within each of the three sectors prescribed by the TransCanada Trail/hydro transmission corridor and the North-South Arterial Road/Transitway. All Community Parks have frontage on collector roads in recognition that the users may come from a geographic area larger than the immediate neighbourhoods. Notwithstanding, the Community Parks have been located within a 10-minute walking distance of most residential areas; and,
- Neighbourhood Parks which will have a minimum site area of 0.8 hectares and be distributed through the community so that the majority of residences will be within a 5-minute walk of a park.

The determination of the functions and facilities to be contained within these parks will be undertaken by the City in collaboration with the future residents of the community.

Village Green

The Village Green is strategically located at the centre of the Community Core within the Fernbank Community, with proximity to a major transit way stop, the Trans Canada Trail, a secondary school, and a large community population within walking distance. The Village Green would be a civic gathering place and passive public open space for residents.

Stormwater Management

The Stormwater Management designation provides lands to accommodate the stormwater management infrastructure requirements and to address fish habit objectives. This designation includes several stormwater management ponds.

Public pedestrian pathways will also be permitted within this designation.

Pathway System

An integrated network of multi-use pathways, cycling facilities and sidewalks will facilitate pedestrian movement throughout the Fernbank community, and provide connections to adjacent communities.

The existing TransCanada Trail provides a major east-west trail corridor connecting Kanata to Stittsville and westerly. Additional off-road pathways, connecting to the TransCanada Trail and District Park will be provided within the hydro transmission corridor easements. A further multi-use pathway will be provided along the western-most edge of the Fernbank Community, from Fernbank Road connecting to Abbott Street and the existing pedestrian system to the north.

Internal to the Fernbank Community there will be a system of multi-use pathways and on-road sidewalks intended to link all schools, parks and other community facilities, together with open spaces such as the Carp River.

Finally, on-road cycling facilities may be provided along all the arterial roads including Hazeldean Road, Terry Fox Drive, Fernbank Road and the new North-South Arterial.

Given the scale of the existing Transmission corridors (being 50 to 110 metres in width), these corridors can accommodate multi-use pathways as extension to the existing Trans-Canada Trail. Such pathways shall be located and developed to avoid areas of significant natural features.

4.2.8 Transit Stations and Park and Ride

The potential Transit Stations/Park and Ride facilities are shown on the Land Use Plan. The Environmental Assessment for the Western Transitway segment from Kanata Centrum (Terry Fox) to Fernbank Road will determine the precise major transit station locations (i.e. at Hazeldean Road, Abbott Street and Fernbank Road) and Park and Ride facilities.

4.2.9 Uses Permitted in All Residential Land Use Designations

The Official Plan establishes a range of uses that are permitted in all residential areas, including:

- Small-scale retail convenience stores to provide convenience shopping within walking distance of those living and/or working within the Community, provided such uses are located at the collector/arterial road intersections or a collector road intersection and the site size does generally not exceed 1.0 hectare;
- Bed and Breakfast establishments
- Secondary dwelling units (including garden suites);

- Group homes;
- Retirement homes;
- Care facilities;
- Home-based businesses;
- Home-based day care; and,
- Public parks.

Such uses shall be permitted within all residential land use designations contained in the Fernbank Community Design Plan.

4.2.10 Uses Permitted in All Land Use Designations

The following uses shall be permitted in all land use designations contained within the Fernbank Community Design Plan:

- Places of worship may be permitted in all Residential and Mixed Use land use designations provided such uses are located along arterial or major collector roads and shall be subject to the design guidelines;
- Day care facilities may be permitted in all land use designations provided such uses are located along arterial or collector roads; provide adequate and appropriate outdoor play space; and, shall be subject to the design guidelines;
- Public parks;
- Libraries;
- Diplomatic missions; and,
- Public utilities and wireless telecommunications infrastructure

4.3 Development Potential

Tables 2 and **3** set out the potential dwelling units and population projections arising from the Fernbank Demonstration Plan.

As set out in Section 2.2.1 of this CDP, the City of Ottawa (2003) Official Plan requires:

- A residential housing mix of:
  - 60% singles and semis (maximum)
  - 10% apartments (minimum)
  - Balance for multiple dwellings

Achieve an average residential density of 29 units per net hectare for singles, semis and townhouses.

Table 2 demonstrates the conformity of the Fernbank CDP with these policies.

LAND USE	DENSITY (UPH)	AREA (HA)	UNITS (ROUNDED)	UNIT TYPE BY PERCENTAGE
Low Density ***(singles and semis)***	26 - 28	216	5,600 – 6,000	57% - 55%
Medium Density	50 - 60	60	3,000 – 3,600	30% - 33%
High Density	60 - 75	5	–300 - 380	3% - 4%
Mixed Use ***(assumes 55% for residentialuses)***	75 - 90	12	860 – 1,000	9%
Total Units			9,800 – 11,000	100%

Table 2- Dwelling Unit Projections

Table 2 reflects representative average development densities and should not be considered to be the maximum density permitted by these land use designations. Individual development proposals may exceed the density parameters shown on this chart.

The overall average development density of 33 – 37 units per net hectare does not constitute a maximum average density, but a density target and therefore, compact development that achieves additional densities while having regard to all other policies of this Plan, shall be permitted. The CDP surpasses the densities required in the 2003 Official Plan.

The Comprehensive Five Year Official Plan Amendment that was adopted by Council on June 10, 2009 increases the density targets for development in greenfield areas. Table 2 also demonstrates how the new density requirements of Section 2.2.2 of the Official Plan could be achieved

LAND USE	HOUSEHOLD SIZE (PPU)	UNITS	POPULATION (ROUNDED)
Low Density	3.3	5,600 – 6,000	18,500 – 19,800
Medium Density	2.5	3,000 – 3,600	7,500 – 9,000
High Density	1.8	300 - 380	550 - 700
Mixed Use	1.8	860 – 1,000	1,550 – 1,800
Total Population (Approximate)			28,000 - 31,000

Table 3 - Population Projections

Table 3 represents the potential population to be achieved within the Fernbank Community based on the estimated development potential assumptions illustrated in **Table 2**.

In addition, employment opportunities will be created within the Fernbank community (as set out on **Table 4**) to augment the significant employment provided within the Kanata West area to the north.

LAND USE	EMPLOYMENT DENSITY	AREA	EMPLOYMENT (ROUNDED)
Neighbourhood Commercial	50 jobs/ha	7.8	390 jobs
Mixed Use ***(assumes 50% for commercial uses)***	50 jobs/ha	11.5	575 jobs
Schools	40 jobs - elementary school 80 jobs – Secondary school	8 elementary schools 3 secondary schools	560 jobs
Home Occupations and Live-Work	10 jobs/100 units	9,800 – 11,000 total housing units	990-1,100 jobs
Total Employment (Approximate)			2,500-2,625 jobs

Table 4 - Employment Projections

Tables 2, 3, and 4 represent population, housing and employment targets that could be achieved based on certain assumptions regarding development densities, residential unit mix and so on. The information on these Tables should therefore only be used as a guide in conjunction with the Implementation policies set our in Section 7.

Section 5.0 The Demonstration Plan

The Demonstration Plan, as shown on **Figure 10**, illustrates one way in which the Land Use Plan (Section 5) could be implemented through development approvals. The purpose of the Demonstration Plan is to:

- Provide an illustration as to how the Fernbank community could develop over time;
- Indicate how the community design guidelines could be achieved;
- Illustrate how the specific Fernbank CDP objectives could be achieved; and,
- Provide an estimate of the total housing supply, population and employment that could be accommodated within the community.

The Demonstration Plan does not require landowners do develop their lands precisely as shown, as the purpose of that Plan is to:

- Provide guidance as to how the lands could be developed over time;
- Demonstrate options for addressing specific development forms and character;
- Illustrate ways of achieving the Fernbank Community Design Guidelines; and,
- Provide a means for establishing and monitoring development targets.

5.1 Greenspace Plan

Figure 11 illustrates the resultant integrated greenspace network that could be achieved through the implementation of the Fernbank Community Design Plan. As previously noted, the greenspace network is comprised of open space, parks, stormwater management facilities, pathways and other linkages.

The Official Plan identifies a target of total public greenspace of 4.0 hectares per 1000 population, or approximately 16-20% of gross land area (including stormwater management facilities, pathways, schools, parks, natural heritage areas, the majority of the Transmission corridors, etc.). Therefore, the Demonstration Plan illustrates the means by which this Official Plan target for greenspace could be achieved.

GREENSPACE BY TYPE	AREA (HA)	PERCENTAGE
Natural heritage area/open space	18	11%
Watercourses and drains	37	22%
District, Community and Neighbourhood Parks	33	20%
Hydro transmission corridors	43	26%
Stormwater Management Areas	31	18%
TransCanada and Other Pathways	5	3%
Total Greenspace	168	100%
Percentage Greenspace to Total Gross Land Area (674 ha)		25%
Note: Excludes moderate-value woodlands east of the Shea Road/Hydro transmission corridor.		

Table 5 – Greenspace

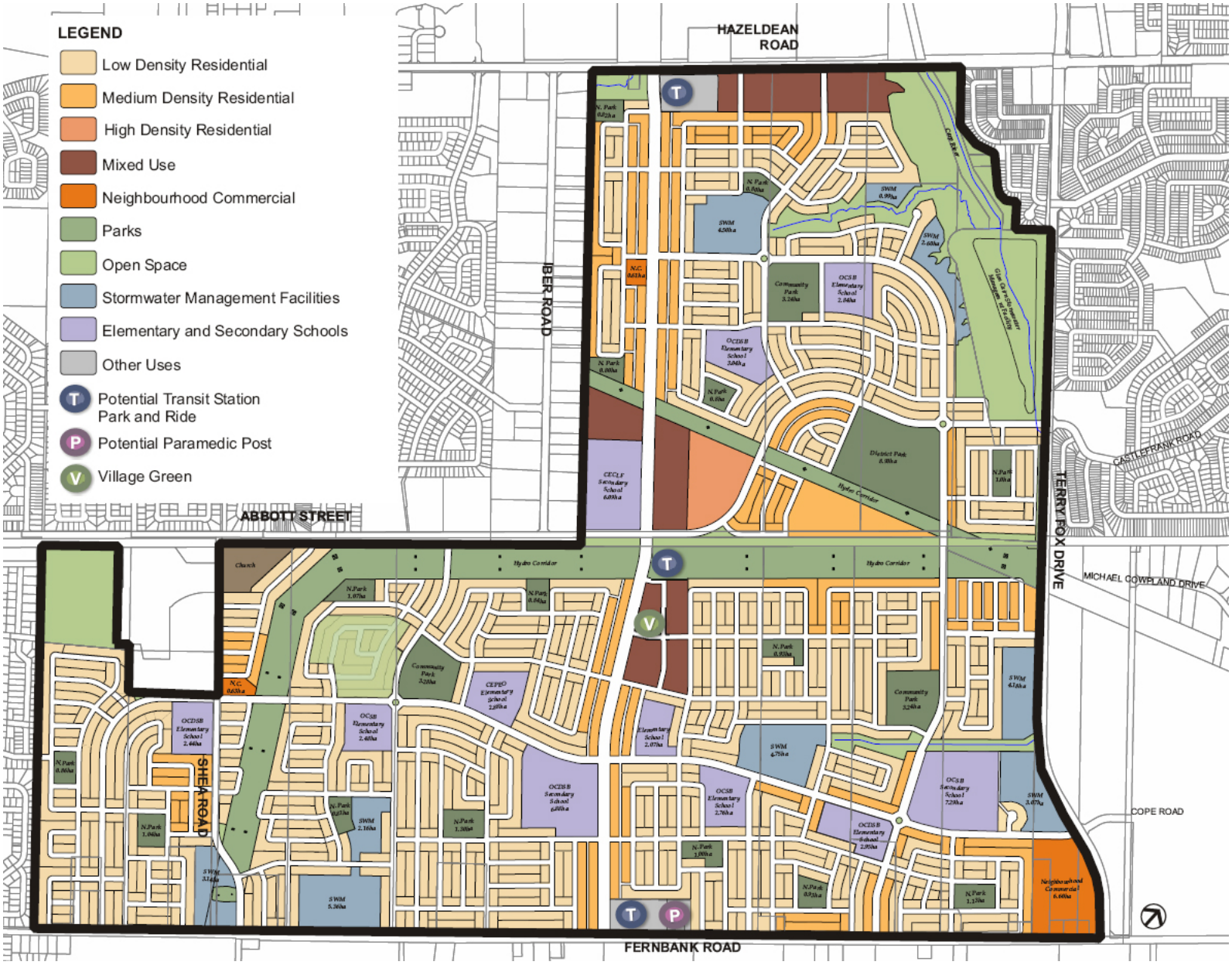


Figure 10 – Demonstration Plan

Figure 11 – Greenspace Plan

5.2 Parkland

Figure 11 also demonstrates how the parkland dedication requirements of the Official Plan (i.e. 2.0 hectares per thousand population, or approximately 8 – 10% of the developable land area) could be achieved through the full development of the Fernbank Community.

Parkland dedication will be provided in accordance with the provisions of the *Planning Act*.

LAND USE	ESTIMATED UNITS/AREA	PARKLAND REQUIREMENT (HA)
Total Number of Dwelling Units ***(1 ha/300 units)***	9,800	32.6
Non-residential Land Uses ***(2% of non-residential land area)***	17.5 ha	0.4 ha
Total Required Parkland		33 ha
Total Parkland Provided on Demonstration Plan		33 ha
Percentage Parkland to Total Net Developable Land Area		6.0%
Note: The parkland dedication calculation above has been based on the minimum number of estimated dwelling units. Final determination of the parkland dedication requirements will be established at the time of development application,		

Table 6 - Parkland Requirements

The final determination of parkland contribution(s), in accordance with the *Planning Act* and the City's Parkland Dedication By-law , will occur through the development approvals process. Accordingly, the land areas shown on **Table 6** may vary based on the specific number of residential units and/or residential land areas advanced through specific development approval.

5.3 Neighbourhood Parks

As illustrated in the Demonstration Plan, Neighbourhood Parks are a minimum of 0.8 hectares in size and are broadly located within the residential neighbourhoods of the Fernbank Community so that such parks can be accessed by the residents with a 5-minute walk, as shown on **Figure 12**.

Figure 12 – 5-Minute Walking Distance

Where traditionally, neighbourhood parks and elementary schools would co-locate in order to share facilities (in particular, sports fields, parking areas, etc.), the City's Parks and Recreation Division has specifically directed that such co-location not be pursued in the Fernbank CDP as a result of operational and administrative conflicts between the user groups.

5.4 Community Parks

The Demonstration Plan identifies three Community Parks, each a minimum of 3.25 hectares in size, which have been distributed within each of the three sectors prescribed by the TransCanada Trail/Hydro Transmission corridor and the North-South Arterial Road/Transitway. All Community Parks have frontage on collector roads in recognition that the users may come from a geographic area larger than the immediate neighbourhoods. Notwithstanding, the Community Parks have been located within a 10-minute walking distance of most residential areas, as shown on **Figure 13**.

Determination of the specific recreational and sports facilities to be located within Community Parks is an initiative undertaken by the City at a later date but typically include such uses as sports fields, children's play areas, off-street parking and, hard-surface sports areas.

Again, co-location of Community Parks with schools was not pursued at the direction of the City's Parks and Recreation Department.

Figure 13 – 10-Minute Walking Distance

5.5 District Park

The location of the one large District Park has been determined and is to the satisfaction of Parks and Recreation, Park Planning and Development.

The District Park will have frontage on two collector road(s); access to the TransCanada Trail; be situated within or in proximity to the '*Community Core*'; and be centrally located within the Fernbank Community. In order to address the potential operational

characteristics (such as lighting, noise, hours of operation) of a District Park on adjacent residential land uses, appropriate buffering may be required to be accommodated within the District Park to mitigate these conditions.

The abutting hydro transmission corridor easement can accommodate certain active or passive recreational uses (such as pathways, pedestrian walkways) provided there are no buildings or significant structures associated therewith. In addition, parking associated with abutting District Park may be accommodated within the hydro transmission corridor provided that that portion of the hydro transmission corridor is consolidated with the District Park lands.

Determination of the specific recreational and sports facilities to be located within the District Community Park is an initiative undertaken by the City at a later date but typically include such uses as community centres, arenas, indoor pools, sports fields, children's play areas, off-street parking and, hard-surface sports areas.

5.5.1 Pathway System

An integrated network of multi-use pathways and sidewalks will be built by the developers to facilitate pedestrian movement throughout the Fernbank community, and provide connections to adjacent communities.

The existing TransCanada Trail provides a major east-west trail corridor connecting Kanata to Stittsville and westerly. Additional off-road pathways, connecting to the TransCanada Trail and District Park will be provided within the hydro transmission corridor easements. A further off-road pathway will be provided along the western-most edge of the Fernbank Community, from Fernbank Road connecting to Abbott Street and the existing pedestrian system to the north.

Internal to the Fernbank Community there will be a system of multi-sue pathways and sidewalks intended to link all schools, parks and other community facilities, together with open spaces such as the Carp River.

Finally, on-road cycling facilities may be provided along all the arterial roads including Hazeldean Road, Terry Fox Drive, Fernbank Road and the new North-South Arterial.

Given the scale of the existing hydro transmission corridors, these corridors can accommodate multi-use pathways as extensions of the existing Trans-Canada Trail. Such pathways shall be 3.0m wide (with a 1.5m shoulder on either side) and be located and developed so as to avoid areas of significant natural features.

5.6 Community Facilities

Based on discussions with the various City departments, it has been determined that only the City's Paramedic Services require a site within the Fernbank Community Design Plan to provide service to western urban area.

No facilities for police, fire or libraries services were required as the Fernbank community can be serviced by existing/planned facilities in proximity to the community.

5.7 The Transportation Master Plan

A key supporting document to the Community Design Plan is a Transportation Master Plan (TMP) that analyzes the future long-term transportation infrastructure needs of the proposed community in conjunction with the needs already established in the City's 2003 TMP/COP for the West Urban Community. This is to ensure that the vision, strategic objectives and supporting principals of the City's

2008 Transportation Master Plan will also apply to the Fernbank Community Design Plan.

The major transportation conclusion of the Fernbank TMP is, that in addition to the arterial road and rapid transit networks already identified in the 2003 TMP/COP, the Fernbank CDP will require the extension of both the rapid transit corridor and the North-South Arterial.

A well-balanced network of major and minor collector roads, well spaced along the North-South Arterial Corridor, has also been identified on which local transit services will operate. This will facilitate efficient traffic progression along the important arterial corridor, thus protecting its function as a future bypass to Stittsville Main Street and its arterial service to the Fernbank Community Design Plan. Collector roads within Fernbank will also link to existing collector roads within Kanata South and their future intersections are also well spaced along Hazeldean Road, Fernbank Road, Abbott Street and Shea Road.

The phasing of development within the Fernbank Community will be dictated largely by the timing and availability of services including transportation. Consequently, the availability of arterial capacity, either existing or new, along with contiguous developments that will ensure efficient and effective public transit service at all stages of development are considered to be the primary factors that will drive the pattern of development. Section 7.5 of this CDP identifies the phasing requirements for transporatation infrastructure. The indicated phases of road infrastructure projects are for this CDP, which is separate from the broader City's Transportation Master Plan road phasing listing.

It is assumed that a key primary condition of development will be early implementation of the first two lanes of the North-South Arterial between Hazeldean Road and Fernbank Road, as the construction of this link is critical to the development of a bypass to the east of Stittsville, thus relieving Stittsville Main Street from excessive "through" traffic within the community. The upgrading of that section of Hazeldean Road between Iber Road/Huntmar Road the North-South Arterialas as early as possible, will also be important to achieving appropriate connectivity.

It has been concluded that the preferred location of the Rapid Transit Corridor is in the median of the North-South Arterial within the Fernbank CDP with major stations to be located at Hazeldean Road, Abbott Street and Fernbank Road. It is also likely that minor transit stops will occur at some of the collector road intersection locations along the North-South corridor.

The existing TransCanada Trail which bisects the Fernbank Community Design Plan in an east-west direction along the south side of Abbott Street, will continue to function as a major multi-use pathway serving the West Urban Community as a whole. In view of its significance, it is recommended that sufficient right-of-way be protected for the long-term grade-separation of the TransCanada Trail at the North-South Arterial/Rapid Transit Corridor, if/when required. Additional multi-use pathways along the Carp River and within the hydro transmission corridor are also identified.

Cycling facilities are recommended to be provided along all the arterial corridors as they are widened and upgraded to urban standards. These include Hazeldean Road, Terry Fox Drive, Fernbank Road and the new North-South Arterial. Although classified as a collector road, Shea Road is also recommended for on-road cycling facilities as already identified in the City's TMP.

Figure 14 illustrates the recommended Fernbank Transit Servicing Plan which will be comprised of transit operating on the collector/arterial road network together with the extension of rapid transit from Kanata West within the combined north-south arterial

road and transit corridor. The final determination of this rapid transit facility will be subject to Phases 3 and 4 of the Rapid Transit Corridor Environmental Assessment and includes the determination of precise major station locations (i.e. at Hazeldean Road, Abbott Street and Fernbank Road).

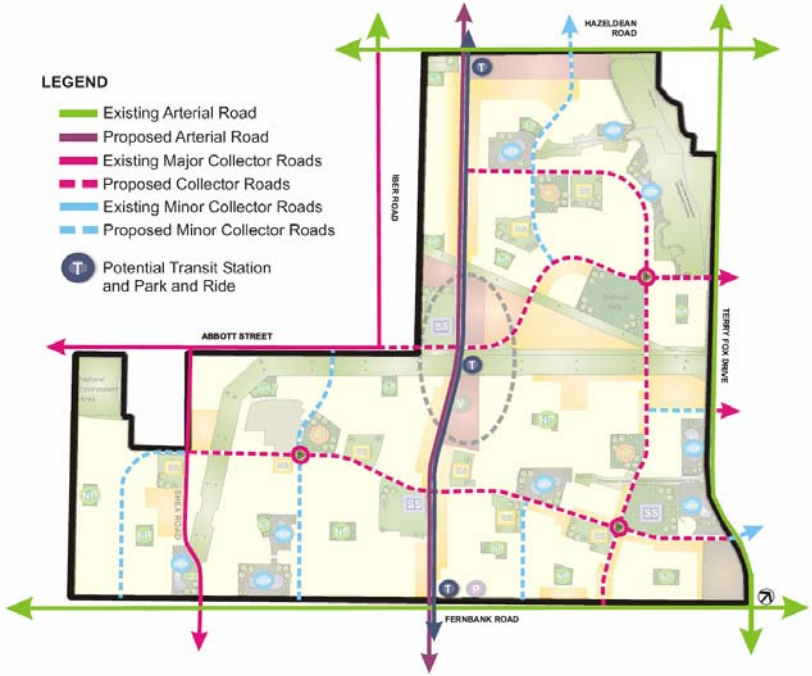


Figure 14 – Proposed Rapid Transit Network

5.8 The Master Servicing Plan

The Master Servicing Study provided a planning-level functional design to service the Fernbank Community and has been completed in accordance with the Municipal Class Environmental Assessment process. The Study included an internal servicing design to facilitate future detail design work; however, the servicing design is intentionally conservative to permit flexibility in the land use plan and development densities. Refer to **Figure 15**.

With respect to storm drainage, groundwater infiltration will be promoted using best management practices and baseflow temperatures in the outlet channels will be mitigated. The Environmental Management Plan dictates that eight (8) stormwater management ponds are required to service the Fernbank Community and the storm sewer system is designed using the dual drainage concept. The minor system typically conveys the 5-year peak flow where inlet control devices will regulate the flow so that there is no overland flow during a 5-year rainfall event. The major system is conveyed overland to a SWM Facility, dry pond, or watercourse and major system flows will not cross the arterial road. All SWMF will provide quality and quantity treatment of the rainfall runoff. The major and minor system design will conform to the City of Ottawa Sewer Design Guidelines.

With respect to wastewater collection, the City's Infrastructure Master Plan currently calls for the extension of the North Kanata Trunk, conversion of the March Pump Station, abandonment of the March Forcemain, and upgrading of the Signature Ridge Pump Station. These municipal works will modify some of the sewershed boundaries and affect the peak sewer flows by 2013, coincident with the construction of the Kanata West Pumping Station (at which time wastewater from both Kanata West and a portion of the Stittsville area near Hazeldean Road will be routed to the Kanata West

Pumping Station). The Tri-Township Collector is currently undersized for both existing and future design flows and this sewer needs to be replaced given development pressure throughout the West Urban Community based on flow monitoring and operational considerations. The Hazeldean Pump Station sewershed services the communities of Stittsville, Glen Cairn, Bridlewood, and the Kanata South Business Park. Background growth and development in the Fernbank CDP Lands, suggest the planned third submersible pump will be required by 2012 using monitored flow from existing land and design flow from future development areas. A subsequent capacity upgrade will be required in 2016 and this will provide the necessary capacity to build-out. Other wastewater infrastructure has adequate capacity to build-out such as the North Kanata Trunk, the Glen Cairn Trunk and the South Glen Cairn Trunk. The Fernbank CDP Lands will be entirely serviced using gravity sewers with a new trunk sewer within the Hydro One Corridor providing a wastewater outlet that discharges to the Hazeldean Pump Station.

Water supply to the Fernbank Community will be provided by a 305mm diameter trunk watermain network with sufficient capacity to maintain appropriate pressures and fire flows throughout the development. A small portion of the Fernbank community is located in lands that may be considered to be part of the future Stittsville Pressure Zone (SPZ) based on ground elevation and a review of the boundaries of the future SPZ should be undertaken in consideration of the Fernbank development. Additional firm pumping capacity at the Glen Cairn Pumping Station and one of the Zone 2W pumping stations is required to meet the additional demands associated with the Fernbank Community.

Each utility company (Hydro One, Hydro Ottawa, Enbridge Gas, Bell Canada, Rogers Ottawa) has confirmed their plant and/or infrastructure is in reasonable proximity to the study area, and that there is adequate supply to service the Fernbank Community. Ongoing coordination with the utility companies during the development approvals process will be required to ensure that utilities are in place when development proceeds.

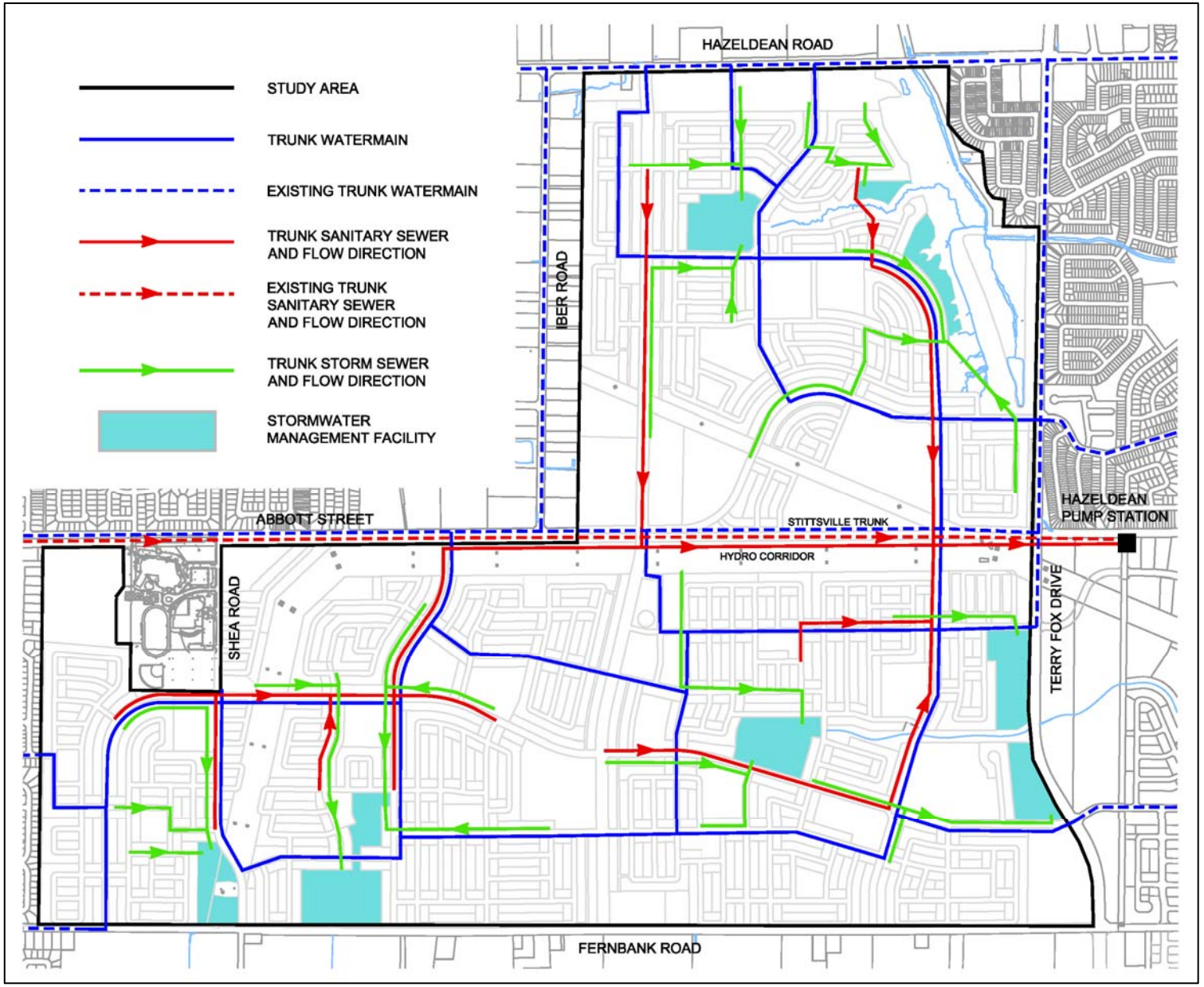


Figure 15 – Servicing

5.9 Environmental Management Plan

The results of the existing conditions analysis and the evaluation of the post-development impacts formed the basis of the recommended environmental management strategy for the Fernbank CDP lands.

5.9.1 Natural Environment Area

The fresh-moist cedar forest in the northwest corner of the study area south of Abbott Street is identified as a Natural Environment Area on Schedule A of the City of Ottawa 2003 Official Plan and is the most significant natural environment feature in the study area.

The impact of the proposed development on the NEA will be assessed as part of an EIS to be submitted with a development application. There is to be no development within 120 m of the Natural Environment Feature until the EIS is completed.

5.9.2 Urban Natural Features

The dry-fresh cedar coniferous forest located east of Shea Road (identified on the Demonstration Plan) has been identified as an Urban Natural Feature as it rated 'moderate' using the UNAEES criteria. The Urban Natural Feature designation in the Official Plan necessitates its acquisition by the City.

No development is permitted within 30 m of an Urban Natural Feature until an EIS is completed for this area. Should acquisition not be possible, then an Official Plan and zoning amendment (as per Section 5.2.1 of the Official Plan) will be required to permit development. Such development will consistent with a Low Density Residential designation. No EIS is required if an Official Plan Amendment removes the Urban Natural Features Area

5.9.3 Species of Special Concern

A regionally rare plant, narrow-leaved vervain, was observed in the cultural meadows adjacent to the south cedar forest. This species transplants very well, provided the transplant site has similar physical and biological properties (full sun, dry fields, limited soils). Transplant and seed planting locations could include residential or municipal gardens, parks, or open space corridors. The most suitable open space transplant locations are within the Hydro Corridor west of Shea Road, between Fernbank Road and the proposed North/South Arterial Road.

5.9.4 Tree Planting Restrictions

The City of Ottawa applies restrictions for tree planting in areas where sensitive marine clay is known to exist. Tree planting strategies in these areas should be developed in accordance with the *Tree and Foundations Strategy in Areas of Sensitive Marine Clay in the City of Ottawa*.

Only low water demand trees with a lateral separation distance of 1 full mature tree height are to be planted in proximity to buildings or structures. In areas where adjoining properties result in one combined greenspace, only 1 tree per front yard area will be planted.

When planting replacement trees in locations where insufficient space allows an appropriate separation distance to place the tree on city property, when requested the city will action a tree planting on the adjacent private property on the condition that the resident signs a waiver assuming ownership of the tree and absolving the city of all future liability.

Alternatives that can be considered to meet tree planting requirements include:

- Planting shrubs instead of trees;

- Additional tree planting in parks, open spaces and SWM facilities.

All landscaping plans shall be reviewed to ensure compliances with the above-noted Trees and Foundations Strategy.

5.9.5 Adaptive Management Strategy for Watercourses

In order to ensure the outlet watercourses will not be affected due to future changes in channel morphology, long-term monitoring devices should be installed in various locations of the outlet watercourse. Long-term performance monitoring would be initiated, consisting of monumental cross-sections and a bench-marked profile, erosion pins and repeated photographs.

5.9.6 Riparian Corridors & Floodplains

Recommended riparian corridors have been developed based on fluvial geomorphology, hydrologic and hydraulic analysis for each watercourse within the limits of the study area. The proposed corridors have been designed to ensure that the functions of the watercourses will be preserved and the floodplain will be contained within the limits of the corridor.

A 40 m stream corridor has been recommended for all watercourses to be retained within the limits of the Fernbank Community. Details of the corridor assessments are provided in the Environmental Management Plan.

5.9.7 Carp River Restoration

The proposed development has been evaluated with respect to the recommendations of the *Third Party Review - Carp River Restoration Plan* (Greenland, March 2009) and the recommendations from the City of Ottawa Planning and Environment Committee.

The targets for assessing impacts in the Carp River resulting from development of the Fernbank Community are as follows:

- Ensure that the proposed SWM strategy for the Carp River does not present an increase in flood risk downstream. Any increase in 1:100 year water levels in the Carp River **above the existing condition elevations** will be reviewed to determine if the increase represents any increase in flood risk.
- Ensure that the post-development runoff volume from the Fernbank Lands tributary to the Carp River does not exceed an additional 40,000 m^3 above existing conditions for the 100-year event.

The hydrologic and hydraulic analyses completed for the Fernbank lands indicate that the proposed SWM strategy will meet the recommended targets.

5.9.8 Hydro Transmission Corridors

The existing hydro corridors for high-voltage transmission lines must be maintained through the development lands. Hydro corridor lands are privately owned with an easement agreement in favour of Hydro One. The easement agreement does not permit specific development uses, but rather a request can be submitted to Hydro One for consideration on a case-by-case basis.

There is an opportunity to integrate stormwater management facilities (dry ponds and wet ponds) into the hydro corridors. Hydro One has confirmed that the construction of SWM facilities within the hydro corridors on the Fernbank CDP lands is permissible, provided that the designs are reviewed and approved by Hydro One.

5.9.9 Protection of Underlying Aquifers

Aquifer vulnerability varies across the Fernbank Community Study area depending on the surficial soil conditions. The aquifers underlying the Fernbank Community area have low to high vulnerability to contamination from land use and materials on the surface. The parts of the site which do not have thick cover of fine-grained materials (silts and clays) are more vulnerable to contamination from activities on the surface.

The Fernbank Community is comprised mainly of residential development, which represents a low risk of contamination of the underlying aquifers. Mixed use and commercial developments have been sited along arterial roadways. High-risk commercial uses would typically be associated with gas stations. Mitigation measures to prevent aquifer contamination from high-risk commercial land uses would need to be addressed as part of the site plan development.

5.9.10 Tile Drains

GIS data has been used to identify the known locations of tile drains within the vicinity of the Fernbank Community. There may be additional tile drains within the study area which are not in the GIS database.

Tile drains encountered within the house excavations could be a source of significant volumes of water, which could impact on the basements of the houses:

- Any drainage tiles that are within about 2 metres horizontal distance to the dwellings should be removed and the excavation for the tiles backfilled with compacted silty clay to prevent any water flow through the tiles or trench;
- Any drainage tiles that are below proposed footings should be removed. The ends of the drains should be severed at least 2 metres outside of the proposed basement foundations to reduce the potential for post construction groundwater inflow into the basements. The excavation for the tiles should be backfilled with compacted silty clay as described above.

The impact of partial removal of tile drainage systems during phased construction will be dependant on the location, and site-specific measures will need to be considered during detailed design and construction:

- If the upstream drainage area is small, and there is no appreciable baseflow in the tile drainage system, then the excavation for the drainage tiles can be backfilled with compacted silty clay.
- If there is a large tile drained area upstream of the proposed development, or if the tile drains provide a baseflow contribution, an outlet should be provided. The upstream tile drainage system can be tied into the proposed storm sewer system for the development, or a temporary outlet can be provided through the construction of a perimeter ditch or interceptor drain at the upstream limit of the proposed development. This will allow for the continued operation of the tile drainage system, and will ensure that drainage of the upstream area will not be adversely impacted by the proposed development.

5.9.11 Water Supply Wells & Septic Systems

Preconstruction surveys and well inspections should be carried out on any existing nearby wells prior to construction by an independent qualified company. All unmaintained and unused water wells and abandoned septic systems within the study area require proper decommissioning.

Construction of the Fernbank Community will likely require drilling and blasting of bedrock; activities that can potentially cause

groundwater level lowering and/or adverse water quality problems in nearby wells. A proactive approach to well protection should be taken with respect to mitigating the effects of blasting on local wells. The impact of blasting can be mitigated by using techniques to reduce the seismic wave velocities resulting from blasting in the vicinity of existing wells.

Monitoring and mitigation of any adverse impacts on existing wells will be the responsibility of the developer. If any adverse problems are reported by the residents during and/or after construction, it is recommended that the quality/quantity issue be investigated by an independent qualified engineering company.

5.9.12 Stormwater Best Management Practices (BMPs)

Preservation of the area's groundwater recharge potential will involve the maintenance of the infiltration potential inherent within the study area. By implementing infiltration and other lot level and conveyance BMPs as part of the storm drainage design for the Fernbank Community, the impacts of development on the hydrologic cycle can be considerably reduced.

Infiltration of surface runoff is best accomplished through lot level and conveyance controls. The majority of the Fernbank Community will be low and medium density residential development. The most suitable practices for groundwater infiltration include:

- Infiltration of runoff captured by rear yard catchbasins.
- Direct roof leaders to rear yard areas.
- Infiltration trenches underlying drainage swales in park and open space areas.
- The use of fine sandy loam topsoil in parks and on residential lawns.

5.9.13 Recommended SWM Strategy

Eight (8) wet ponds are recommended to provide stormwater management for the Fernbank Community. Conceptual pond designs are provided in the EMP. Recommended SWM Facility designs incorporate:

- Baseflow enhancement;
- Water quality control;
- Erosion control based on erosion thresholds; and
- Peak flow control based on the design criteria and/or the downstream capacity of the outlet watercourse.
- Measures to mitigate thermal impacts of SWM facilities, including:
    - Bottom draw outlets;
    - Discharge through subsurface trenches;
    - Minimize footprint of permanent pool and maximize length-to-width ratio; and,
    - Shading of ponds using riparian vegetation.

Recommendations for watercourses include:

- Retention of a riparian Corridor for Hazeldean Creek;
- Naturalization of the Main Branch of the Monahan Drain;
- Preservation & enhancement of the lower reach of the Carp River Tributary; and,
- Lowering of the Flewellyn Drain downstream of Fernbank Road. Lowering is not required, but would reduce grade raise requirements on-site.

Recommendations for Lot Level and Conveyance Controls include:

- Promotion of infiltration of storm runoff using

- Perforated RYCB leads with infiltration trenches under rearyard swales;
- Roof drains for commercial / industrial sites directed to infiltration trenches; and,
- Infiltration in parks and boulevards.

5.9.14 Watercourses

Recommendations for watercourses include:

- Retention of a riparian Corridor for Hazeldean Creek;
- Naturalization of the Main Branch of the Monahan Drain;
- Preservation & enhancement of the lower reach of the Carp River Tributary;
- Lowering of the Flewellyn Drain downstream of Fernbank Road.

Recommended riparian corridors for watercourses have been developed based on fluvial geomorphology, hydrologic and hydraulic analysis for each watercourse within the limits of the study area. The proposed corridors have been designed to ensure that the functions of the watercourses identified for retention will be preserved and the floodplain will be contained within the limits of the corridor.

5.9.15 Fish Habitat Assessment

The Carp River West Tributary is classified as a tolerant warm water fish community that provides permanent fish habitat. All other watercourses within the limits of the Fernbank Community have been identified as intermittent/indirect fish habitat.

Section 6.0 Community Design Guidelines

6.1 Purpose

The following design guidelines provide a framework of the design criteria for the overall identity and structure of the proposed Fernbank Community, as well as for the appearance of new buildings, streetscape, parks and open spaces within the community. The purpose of this set of design guidelines is to guide developers, builders, designers and City staff in achieving a consistently high quality design standards throughout the community building process.

These design guidelines, in conjunction with the design policies of the Official Plan and other relevant city-wide design guidelines (such as Urban Design Guidelines for Greenfield Neighbourhoods), would ensure the final built out of the Fernbank Community to be an attractive, livable and healthy community with distinct identity.

6.2 Design Vision

The proposed Fernbank Community is envisaged to be a contemporary master-planned community which would embrace the asset of the existing natural heritage features (Carp River and woodlots etc.) and capture the expanded usage of the existing physical attributes (such as the Trans Canada Trail and Transmission corridors, etc.)

Design of this community is predicated on a transit supportive street network, an integrated open space linkage system, and a well defined community core and mixed use areas at strategic locations to serve the community and beyond. Each distinctive and liveable neighbourhood will have a park, school or other amenities within walking distance. Well designed streetscape and built form will be promoted in response to the location and intensity of the land uses.

The following guiding principles, prepared through a consultative process, will form the foundations of creating a vibrant, attractive, livable, healthy and sustainable community:

- *Maintain and respect the integrity and unique character of existing communities (Stittsville, Glencairn, Kanata South, Kanata West);*
- *Create distinctive liveable neighbourhoods;*
- *Create integrated, safe, passive and active green spaces;*
- *Create a 'heart' for the community;*
- *Provide effective, efficient, timely transportation that is integrated with land uses and with adjacent communities;*
- *Ensure efficient and timely phasing of future infrastructure;*
- *Create liveable neighbourhoods*
- *Create an environmentally sustainable community.*

6.3 Community Structure

Structuring elements of the Fernbank Community include the following sections.

6.3.1 Precincts and Neighbourhoods

The Fernbank Community is composed of a series of precincts and neighbourhoods at different scale. From an urban design perspective, three distinct precincts are naturally defined by the existing primary hydro transmission corridor and the extension of Kanata West Rapid Transit Corridor (a north-south community transportation spine).

The community will be carefully designed with unique liveable, urban type neighbourhoods each with its own character, sense of

place and distinct identity. The diverse needs of people of different incomes and lifestyles, at various stages in the life cycle, will be met. An emphasis will be placed on human scale design, such that residents will positively perceive and comfortably relate to the built and natural environment.

Each neighbourhood will provide for a range of housing options and opportunity for choice of housing tenure. Each neighbourhood will also ensure a rich variety of architectural styles, with attention to detail – building massing, promotion, façade articulation and materials.

Each precinct contains several neighbourhoods with a centralized community park. Each neighbourhood is generally defined by arterial or major collector roads with a centralized neighbourhood park approximately within a 5 minutes walking distance, as illustrated in **Figure 12**.

6.3.2 Streets and Blocks

The street network is developed based on a modified grid road pattern which provides maximum permeability in support of the transit service, walking and cycling, and which places emphasis on the movement of automobile and pedestrian/cyclists. The length of street blocks are encouraged to be designed approximately 150-250 meters to enhance the appearance of the streetscape and to facilitate both vehicular and pedestrian movements.

6.3.3 Natural and Physical Features

Design of the community plan is intended to be sensitive and have regard to the existing natural features such as Carp River and Monahan Drain and woodlots etc., and the existing physical attributes such as the Trans Canada Trail and hydro transmission corridors.

6.3.4 Parks, Open Space and Linkages

The community plan is envisaged to have a well integrated green space system (parks, open spaces, Carp River and hydro transmission corridors, walkways and pathways) which could be woven into the existing trail network as well as the proposed on road bicycle facilities. This well connected greenspace linkage system is to be designed for people and cyclists to promote healthy living. Some parts of this linkage system could be potentially developed as year round recreational trail system. **Figure 11** illustrates the resultant integrated greenspace network.

Carp River

Trans Canada Trail

Hydro Corridor

Community Pathway

6.3.5 Gateways

To provide a sense of identity and arrival, gateway features should be located at major roadway accesses into the community and neighbourhoods from the surrounding roadways and the central spine road (north-south arterial/transitway). Refer to **Figure 16**.

Two types of the gateways can be identified in this community. A community gateway is where an arterial road meets another arterial road, while a neighbourhood gateway is defined as where an arterial road intersects with a major collector road or a selected minor collector road.

The gateway features should include the combination of street oriented and well articulated architectural design and built form, high quality landscape design along the roadway entrance or around green space or a stormwater pond abutting a gateway with possible incorporation of public arts. Gateway features shall have regard to the City's Gateway and Design Features Guidelines.

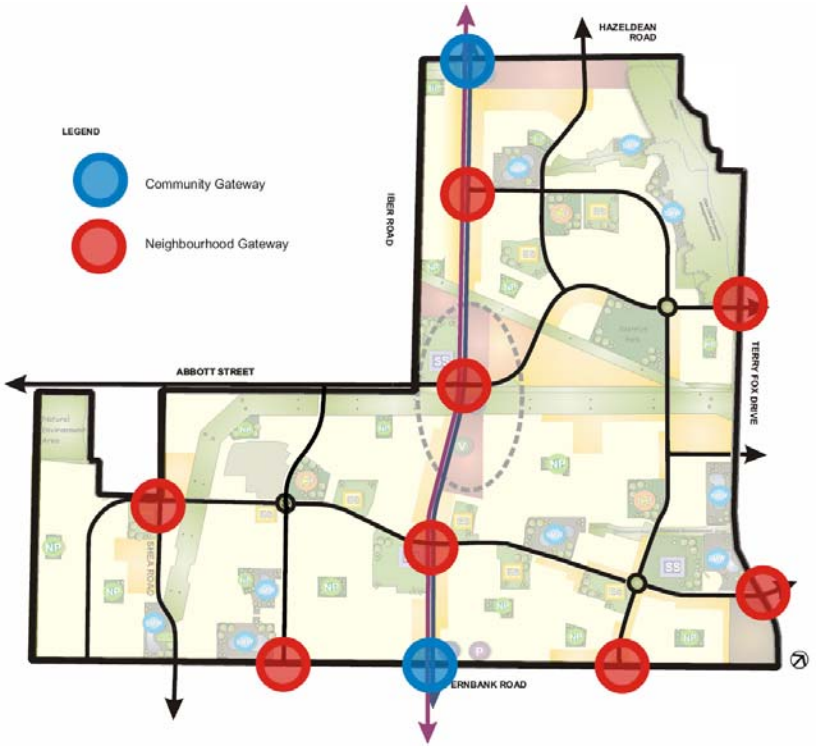


Figure 16 - Gateways

6.4 Community Streetscape Guidelines

6.4.1 Community Central Spine

Development Adjacent to Arterial Road/Rapid Transit Corridor

Guidelines:

- Development located along the arterial road/transit corridor should be developed to reduce potential conflicts with vehicles and pedestrians by minimizing the crossing of pedestrian walkway and vehicular routes.
- Higher density development shall be encouraged to locate adjacent to transit stations.
- Development within 600 metres of a rapid transit station shall be in accordance with the City of Ottawa's Transit-Oriented Development Guidelines.
- The main entry of the residential dwelling units or non-residential buildings adjacent to the arterial road/transit corridor should be located towards the corridor.
- Driveways and garages should be located at the side or rear of the residential dwelling units, accessible from a rear lane.

6.4.2 Community Edges

Development Adjacent to Arterial and Collector Roads

Community edges along the arterial and collector roads provide a first impression of the Fernbank Community. The community edges should be designed and treated to reinforce the overall character and identity of the community. The Fernbank Community has a variety of community edges including window streets (service roads), open space, and limited reverse lot frontages.

Guidelines:

- Along arterial roads, residential dwellings should face the street, and window streets (service roads) or laneways should be used.
- Window streets should be designed with a landscape edge with rail fencing and soft landscaping along the arterial roads.
- Where appropriate, landscaped pedestrian access points should be provided to the neighbourhood from the arterial roads.
- Reverse lot frontages should be avoided on arterial roads and collector roads, so as to minimize the need for noise attenuation, where possible.
- Buildings backing onto the community edges should be designed to provide a strong edge condition and reinforce the image of the community. A landscape edge with acoustic/privacy fencing should also be provided.
- Where residential dwellings are located adjacent to the Iber road industrial area, buffering to the industrial uses will be achieved through inclusion of a road running parallel to the industrial lots, landscaping, fencing and/or berming along the residential lot lines.
- For reverse lot frontage lots, the design of a through lot concept with frontage facing the street should be considered.

6.4.3 Road Network

The design of arterial and collector roads will be consistent with the City of Ottawa Road Corridor Planning and Design Guidelines.

Arterial Road/Transit Corridor

Guidelines:

- Arterial Road/Transit Corridor should be designed within a 41.5m right-of-way and include a paved road surface with two driving lanes in each direction, and a boulevard and sidewalk on both sides of the road.
- Transit lanes should be provided in the median between the driving lanes and separated by a boulevard on both sides.
- Transit-priority measures may be provided within the Arterial Road/Transit Corridor in order to improve the speed and reliability of transit service.
- Bus stops and waiting amenities (such as concrete waiting areas, shelters and/or benches), should be provided at designated intersection, or as needed.
- Key intersections with full movement should be signalized. Other connections to the arterial road should be restricted to only right-in / right-out circulation.
- Continuous sidewalks with connections to open space and pedestrian pathways should be provided.
- A row of trees should be planted on each side of the street, and within the boulevard between the driving and transit lanes with regular spacing between trees (in accordance with City of Ottawa standards).
- Coordinate the location of trees, street fixtures, telecommunications equipment, utility and light poles, and signs.
- Buildings should be oriented toward and close to the corridor, while allowing a sufficient setback for proper landscaping and potential pedestrian connections or pathways, as well to mitigate noise and vibration impact.
- Large expanse of surface parking should be screened by the buildings or enhanced landscape buffer.
- Residential driveways are not permitted along the corridor.
- All pedestrian street crossings should be clearly marked. Community mailboxes, newspaper boxes and bus shelters, seating, waste receptacles, and mailboxes should be located together.

Collector Roads

Guidelines:

- Major Collector Roads accommodating transit routes should be designed within a 26m right-of-way.
- Minor Collector Roads should be designed within a 24m right-of-way.
- Collector road rights-of-way should include a paved road surface with one driving lane in each direction, and a boulevard and sidewalk on both sides of the road.
- On-street parking can occur on both sides of the street on major collector roads, but is generally confined to one side of the street on minor collector roads.
- Continuous sidewalks with connections to open space and pedestrian pathways should be provided.
- On-street cycling is strongly encouraged, and should be defined within the street right-of-way.
- A row of trees should be planted in the boulevard on both sides of the street with regular spacing between trees (in accordance with City of Ottawa standards).
- Coordinate the location of trees, street fixtures, utility and light poles, and signs.
- As a traffic calming measure, traffic circles are encouraged at key intersections of collector roads.
- Landscape features and planting, in accordance with City of Ottawa standards, should be integrated into the traffic circle, and require minimal maintenance by the City.

- Bus stops and waiting amenities (such as concrete waiting areas, shelters and/or benches), should be provided at designated intersection, or as needed.
- Traffic circles located near recreation facilities, elementary and secondary schools should be reviewed for safety issues, in consultation with the relevant School Board(s).
- Community mailboxes, newspaper boxes and bus shelters, seating, waste receptacles, and mailboxes should be located together.

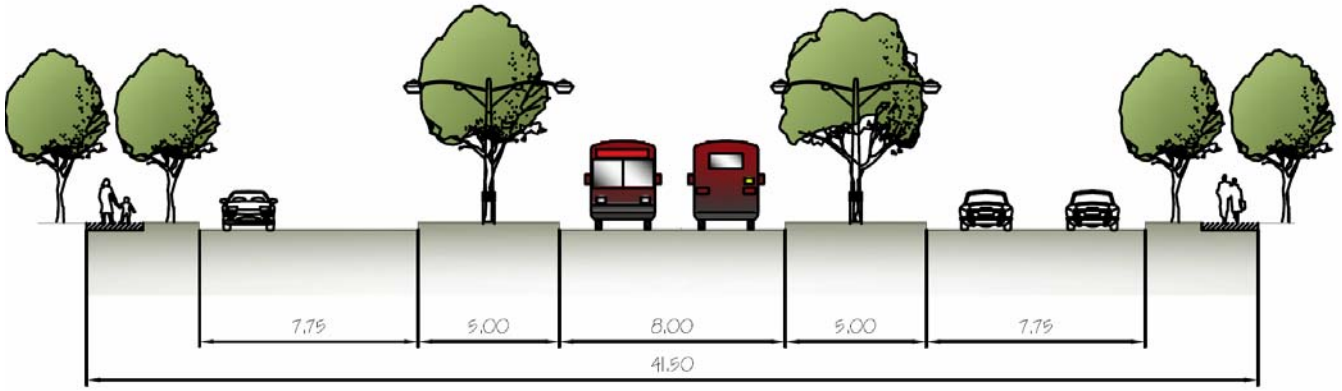


Figure 17 –Cross-Section for 41.5m Arterial Road/Transit Corridor

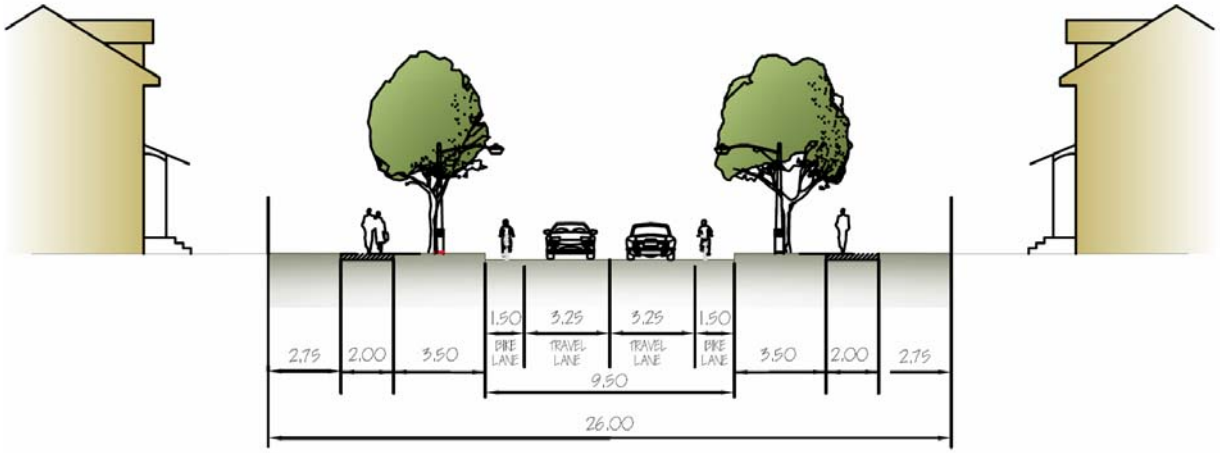


Figure 18–Cross-Section for 26m Major Collector Road

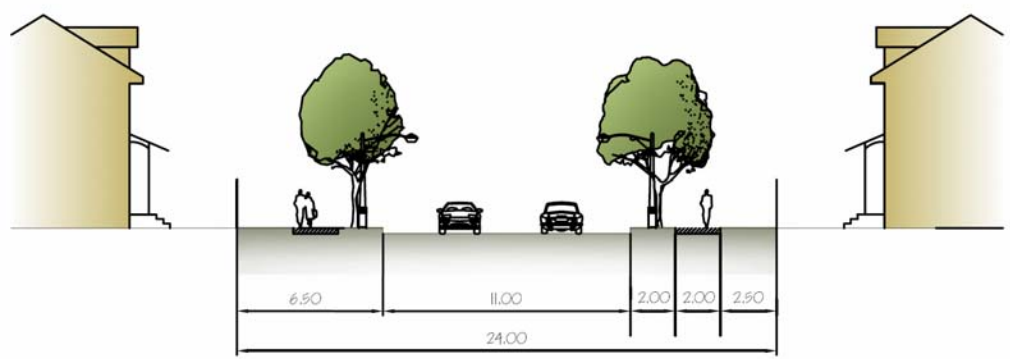


Figure 19–Cross-Section for 24m Minor Collector Road

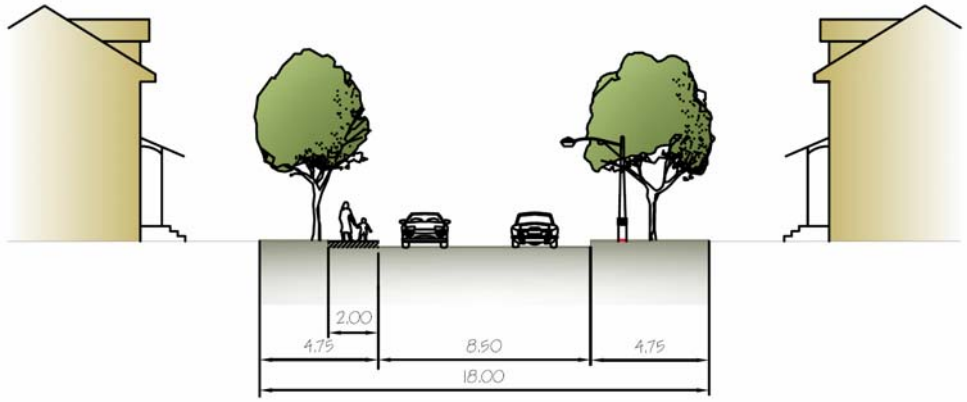


Figure 20–Cross-Section for 18m Local Road

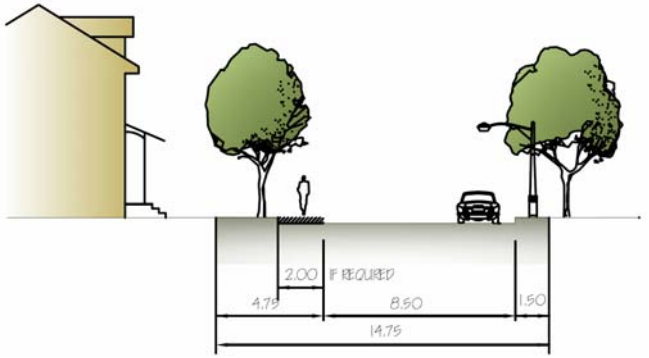


Figure 21–Cross-Section for 14m Single-Loaded Road

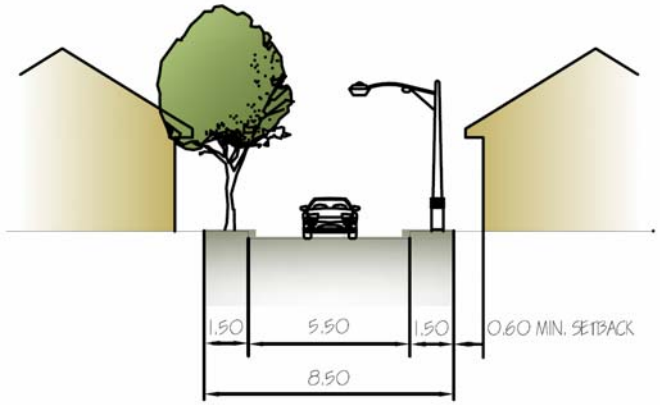


Figure 22–Cross-Section for 8.5m Laneway

Local Roads

Guidelines:

- Local roads should be designed within a 18m right-of-way, and include a paved road surface with one driving lane in each direction, and a boulevard on both sides of the street, and a sidewalk on one side of the road.
- Single-loaded roads (service roads) should be designed within a minimum 14m right-of-way.
- On-street parking is permitted on both sides of the road.
- Continuous sidewalks with connections to open space and pedestrian pathways, and on-street cycling should be provided.
- Coordinate the location of trees, street fixtures, utility and light poles, and signs.
- A row of trees should be planted on each side of the street with regular spacing between trees (in accordance with City of Ottawa standards).
- The use of window streets and traffic circles on local roads shall consider the location of potential bus stops.

Laneways

Guidelines:

- Laneways should be designed within an 8.5m right-of-way.
- Street lighting should be provided at laneway entrances to promote vehicular and pedestrian safety.
- Where possible, landscaping should be provided between the garages within the apron of the laneway, and at the corner dwelling units.
- Utilities should be located at laneway entrances, where practical.

6.4.4 Rapid Transit Station and Transit/Bus Stops

Guidelines:

- Increase the density of development adjacent to transit stations.
- Locate transit stops as close as possible to major intersections to facilitate safe and convenient foot traffic between transit stops and buildings.
- For pedestrian comfort, use of weather protected shelters, seating and waste receptacles are encouraged.
- Transit loading areas should be connected to pedestrian walkways and sidewalks.
- Ample parking spaces and bicycle storage areas should be located close to the transit station.
- Pedestrian and bus access and at the transit station should provide safe and well-defined routes.
- Provide convenient access to public parking facilities near the transit station.
- Where possible, public parking facilities for the transit stations should be placed within the Transmission corridors.
- Large expanses of surface parking exposed to the arterial road should be discouraged.
- Where parking is located adjacent to the street, the parking area should be designed with a landscape treatment to provide visual screening of the parking area from the street.
- Lighting for transit stations and parking areas should be directed away from adjacent properties.
- Coordinate the location of trees, street fixtures, telecommunications equipment, utility and light poles, and signs.
- Crime Prevention Through Environmental Design (CEPTD) design principles should be considered in the design of transit stations and the location of bus stops.

Street Trees

Guidelines:

- In areas of sensitive marine clays, the number, type and location of street trees shall be planted with any road right-of-way shall be consistent with the City's *'Trees and Foundations Strategy in Areas of Sensitive Marine Clay in the City of Ottawa'*.
- The planting of trees and the installation of distribution poles along public roadways will require planning and coordination with the utilities.
- Hydro Ottawa will be consulted regarding clearances and tree species in proximity to Hydro Ottawa equipment

6.5 Parks and Open Space

The parks and open space system of the Fernbank Community is comprised of a number of elements, including the Carp River, watercourse, woodlots, three types of public parks, Village Green, stormwater management ponds, hydro transmission corridors, and linkages and pathways.

6.5.1 Parks

The following guideline will direct the development of parks within the Fernbank Community.

District Park

The district park is located within the Fernbank Community adjacent to a hydro transmission corridors, in close proximity to the TransCanada Trail, and two major collector roads,. The district park serves the Fernbank Community and adjacent communities. The park could potentially incorporate a variety of active recreational opportunities such as an arena, indoor pools and rinks, numerous sports fields, tennis courts, splash pads, children's play areas, pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa. Visual amenities such as gardens and pergolas/gazebos should also be provided, in accordance with City of Ottawa standards.

Guidelines:

- The size of the district park is to be no less than 8.0ha (20.0 Acres).
- Medium and high density residential uses should be located near the district park.
- Low density residential uses that back directly onto the district park should not be permitted.
- Pedestrian connections should be provided to the nearby sidewalks and other pedestrian walkways.

- The district park should be clearly visible and easily accessible from the collector roads.
- Pedestrian pathways and bicycle facilities should be provided to nearby residential neighbourhoods and other uses such as a transit station and Community Core. Connections to the City-wide trail network (including the Trans Canada Trail) should also be provided.
- The District Park should not be located directly abutting school properties, but may be associated with other facilities such as community buildings, open space areas and stormwater management ponds.
- The District Park but will not be used as part of, or associated with the function of the stormwater management system.
- Crime Prevention Through Environmental Design (CPTED) should be considered in the design of the park.
- Surface parking areas within the community park should be enhanced through landscaping around the edge of the parking areas.
- Lighting should be directed away from residential areas.

Community Parks

Each community park is geographically located at the centre of a precinct and within approximately a 10 minute walking distance from the surrounding neighbourhoods. Each park will incorporate a variety of active recreational opportunities such as sports fields, tennis courts, splash pads, children's play areas, pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa. Visual amenities such as gardens and pergolas/gazebos should also be provided at pedestrian nodes or gathering areas. Community mailboxes may also be integrated within the pergolas/gazebos, in accordance with City of Ottawa and Canada Post standards.

Guidelines:

- The size of a community park is to be no less than 3.25ha (8.0 Acres).
- Pedestrian connections should be provided to the nearby sidewalks and other pedestrian walkways.
- Community parks should be exposed to collector and local streets to provide good visibility and accessibility.
- Crime Prevention Through Environmental Design (CPTED) should be considered in the design of the park.
- Community parks should not be located adjacent to school properties, but may be associated with other facilities such as community buildings, open space areas and stormwater management ponds.
- Community Parks will not be used as part of, or associated with the function of the stormwater management system..
- Surface parking areas within the community park should be enhanced through landscaping around the edge of the parking areas.
- Lighting should be directed away from residential areas.

Neighbourhood Parks

As a focal point of each neigbourhood, neighbourhood parks will provide a local gathering and recreational space for nearby residents. They are generally located in the centre of each neighbourhood within approximately a 5 minute walking distance for most residents. Each neighbourhood is generally bounded by arterial roads or

collector roads, which provides park users with additional safety by not having to cross major roadways to access the park. Each neighbourhood park will incorporate a variety of active recreational opportunities such as children's play areas, outdoor rinks, splash pads, pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa.

Guidelines:

- The size of a neighbourhood park is to be no less than 0.8ha (2.0 Acres).
- Pedestrian connections should be provided to sidewalks and other pedestrian walkways.
- Neighbourhoods parks should be exposed to local streets to provide good visibility and accessibility.
- Crime Prevention Through Environmental Design (CPTED) should be considered in the design of the park.
- Neighbourhood parks should not be located adjacent to school properties, but may be associated with other facilities such as community buildings, open space areas and stormwater management ponds.
- Neighbourhoods parks will not be used as part of, or associated with the function of the stormwater management system..
- Parking areas are not required within a neighbourhood park.
- Pathways within neighbourhood parks may provide pedestrian linkages to bus stops.

Village Green

The Village Green is strategically located at the centre of the Community Core within the Fernbank Community, with proximity to a major transit way stop, the District Park, the Trans Canada Trail, a secondary school, and a large community population within walking distance. The Village Green would be a civic gathering place and passive public open space for people to meet and socialize, for residents and citizens at large to participate in various outdoor activities and to enjoy a public realm in a more urban context. Non-residential uses surrounding the Village Green will be encouraged. The Village Green is to be provided as a public open space but is not included within the dedicated parkland requirements.

Guidelines:

- A strong defined edge around the perimeter of the Village Green should be provided through landscape elements and built form.
- The Village Green should be exposed to the main thoroughfares to provide good visibility and accessibility.
- Where possible, the Village Green may be connected to public uses such as a transit station, neighbourhood commercial (retail, café, banks, etc.), and institutional uses (library, community services, medical offices).
- A focal area within the Village Green should be designed to provide seating, landscaping, and an open space area that may be used to host a variety of public functions (such as a farmers' market, arts and crafts show, music festivities etc.)
- Visual amenities such as gardens, pergolas/gazebos, water features/skating rink, and public art should also be provided.
- Pedestrian connections should be provided to sidewalks.

6.5.2 Natural Features and Open Space

Guidelines:

- The existing natural character of the Carp River and natural features should be maintained by preserving the existing vegetation and topographical features.
- Enhance the natural character of the Carp River and natural features by planting compatible native plant material.
- Views to the Carp River and natural features should be provided.
- Where possible, preserve and enhance natural features such as the watercourses, and woodlots throughout the development.
- A representation of the remaining cedar trees west of Shea Road, to be identified by a Tree Protection Plan, will coordinate feasible protection of the vegetation as part of any proposed development plan for these lands.
- Regionally rare flora located west of Shea Road may be recommended for retention or transplantation.
- Streetscapes should have open, accessible frontages along greenspaces, such as woodlots and stormwater management ponds, wherever possible.
- Fencing should be provided along greenspaces only to prevent direct access to sensitive environmental areas or unsafe conditions
- Pedestrian walkways from sidewalks/roads through the open spaces should be provided, where possible.

6.5.3 Stormwater Management Ponds and Drainage Corridors

Guidelines:

- The design of the ponds and corridors should be naturalized (slopes, contours).
- Where a pond fronts onto a street, the facility should be designed with a landscaped treatment along the street edge that is compatible with the street landscaping.
- Where a pond is placed adjacent to a gateway location, extra attention should be paid to the design of the facility and landscaping features to accentuate the stormwater management pond as a strong visual element of the gateway design.
- Ponds should be designed with native plant materials, where possible.
- Pedestrian walkways and recreational pathways should be provided around the stormwater management ponds and along the drainage corridors, and where possible, be integrated into the community trail network. Pedestrian walkways around ponds and corridors should double as access roads, where necessary.

6.5.4 Linkages and Pathways

The multi-use and/or pedestrian pathways and bicycle facilities are the fundamental thrusts of the Fernbank Community. The pathways and facilities are the connectors to link the Trans Canada Trail, residential neighbourhoods, schools, parks, open space and natural features, and provide a linkage to the pathways established by the City of Ottawa Official Plan.

Guidelines:

- Pedestrian and multi-use pathways and bicycle facilities should be provided within the Fernbank Community and linked to the City-wide trail network.
- Pathways should be included mid-block along long residential streets to provide convenient pedestrian access.
- Pedestrian pathways should be provided from residential neighbourhoods to adjacent uses such as a transit station, District Park, neighbourhood commercial, and institutional uses.
- Pedestrian pathways and bicycle facilities should be accessible to a range of users.
- Amenities, such as seating, lighting, signage, and garbage and recycling containers should be provided along the trails.
- Design pathways to reduce the negative impacts on open space and natural features and habitats.
- Bicycle routes should be permitted within the street right-of-way.
- All pathways and cycling facilities should be clearly signed/identified, and any street crossings should be marked.
- Where possible, connections should be provided between residential neighbourhoods.
- Where practical, some selected trails could be developed to accommodate year-round uses.
- It is recommended that lands to accommodate a grade separation of the TransCanada Trail at the North-South Arterial Road be protected for.

6.5.5 Hydro Transmission Corridors

Guidelines:

- Pedestrian walkways and recreational pathways should be provided within the hydro transmission corridors, where necessary, and integrated into the community trail network.
- Pedestrian and multi-use pathways shall be carefully located to avoid the potential for adverse impacts on existing natural features and habitats within the Transmission corridors.
- Parking and roads may be provided within the hydro transmission corridors for residential, commercial, and transportation uses located adjacent to the Corridor.
- Parking located within the hydro transmission corridor should be visually screened from the public streets and pedestrian pathays through the use of landscape treatments.

6.6 Site Design and Built Form Guidelines

6.6.1 Community Core

Guidelines:

- Buildings should be located at close to the street edge, to provide a continuous street frontage.
- Built form, height, materials and colours for buildings should be coordinated to complement adjacent buildings.
- A continuous and consistent streetscape should be maintained along the streets around the Village Green.
- Pedestrian and vehicle access and circulation within, an individual site should provide safe and well-defined routes.
- Landscaped open space and amenity areas such as entrance plazas, forecourts and outdoor cafes are encouraged in front of the buildings adjacent to the Village Green.
- Maintain a minimum visual building height of two storeys.

- Surface parking areas should be located at the rear or side of the buildings. Parking areas should not be permitted in the front of the buildings along the arterial road.
- On-street parking around the Village Green should be permitted.
- Surface parking area should be well lit to ensure public safety.
- Where possible, the integration of small, interconnected parking areas should be encouraged.
- Surface parking areas should be visually softened by introducing trees, planters and clearly defined pedestrian routes.
- Entrances should be clearly defined and visible from the street.
- Pedestrian pathways and bicycle facilities should be provided within the Community Core and connected to the community trail network.
- Blank building walls that are visually prominent are discouraged.
- Canopies should be encouraged to provide colour and interest to streetscapes, as well as weather protection for pedestrians and for merchants' goods. Awnings also reinforce the identity of individual retail and service outlets located within the Community Core.
- Where possible, transit-waiting amenities should be integrated into the overall building design.
- Utilities, such as transformers and switching mechanisms, should be enclosed within the building, wherever possible. Where the placement of utilities within the building is not feasible, utility placement will be screened from public view through landscaping and/or other screening mechanisms..
- Loading, garbage facilities and other service functions should be screened from the street and from public view. Location of these facilities within or at the rear of buildings is encouraged.

6.6.2 Residential Neighbourhoods

General Guidelines for Residential Dwellings

Guidelines:

- A variety of housing types and designs within each neighbourhood should be provided to enhance the streetscape.
- Residential dwellings should be located close to the street to reinforce a strong street edge.
- Provide a variation in the siting of residential dwellings within the streetscape to avoid the impacts of long, straight streets.
- The architectural character of all dwellings should have a consistent architectural style.
- Create gateway buildings (residential dwellings) and special entry landscape features at the entrance into each neighbourhood, where appropriate. Strong visual interest (dormers, entries, wrap-around porches and windows) should be provided on the elevations of these buildings. Landscape treatments, walls/fencing, and entry features may be incorporated and coordinated with the architectural design of the gateway building.
- Rear and flankage elevations of corner lots should be consistent in the quality and detail of the front elevation.
- Reverse lot frontages on arterial roads shall be discouraged.
- Residential dwellings located on window streets should face the street, where possible, and incorporate a high quality of architectural design and detail. Projecting garages should be minimized.
- Residential dwellings located on elbowed, ‘T’-intersections, and cul-de-sac streets should be sited to minimize the visual impact of the garage and increase the opportunity for special landscaping treatments. Architectural elements (such as porches, turret/bay windows) are encouraged to provide visual interest.
- Avoid the dominance of the garage throughout the Community by controlling the projection of a garage in front of the main residential building wall or providing vehicular access from a

laneway. Projecting garages on narrow lots may be considered, subject to the approval of the City.

- Residential dwellings that face or flank a park or school should incorporate a high quality of architectural interest.
- Driveways should be paired, where possible, to minimize the presence of garages on the streetscape, and provide for ample space for trees within the boulevard.
- Front entrances should face and be visible from the street.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms...
- The architectural style of the townhouse dwellings should be consistent with the character of adjacent single and semi-detached residential dwellings.
- Where residential dwellings are located adjacent to the Iber road industrial area, buffering to the industrial uses will be achieved through inclusion of a single-loaded road or lane running parallel to the industrial lots, landscaping, fencing and/or berming along the residential lot lines.

Guidelines for Apartment Buildings

Guidelines:

- All residential apartments should be located close to a public street with a principal façade and entry facing a street or public open space. For buildings interior to the site, the main entrance should be oriented toward the interior driveway and where applicable, the amenity area.
- Parking should not be permitted between the street and the principal façade of the building.
- Architectural design on all elevations should be consistent.
- Parking areas should be screened from the public street through landscaping.
- Service areas should be located at the rear of the building and screened from public view.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms.

6.6.3 Mixed Use

Guidelines:

- Buildings which are located at the street edge and provide a continuous street frontage are strongly encouraged.
- Pedestrian and vehicle access and circulation within, an individual site should provide safe and well-defined routes.
- Entrances should be clearly defined and visible from the street.
- Ground floor spaces facing the street should have windows and door which face directly onto the street.
- The scale of mixed use buildings should relate and be compatible to adjacent development.
- Corner buildings should be sited to address both streets with similar architectural treatments.
- Where practical, the use of parking structures or underground parking is encouraged.
- Surface parking areas should be located at the side or rear of the buildings, where possible.
- Surface parking area should be well lit to ensure public safety.
- Lighting for commercial buildings and parking areas should be directed away from adjacent properties.
- Where a section of the parking area is located adjacent to the street, the street edge of the commercial site should be designed with a landscape treatment to provide visual screening of the parking area from the street.
- Loading, garbage facilities and other service functions should be screened from the street and from public view. Location of these facilities within or at the rear of buildings is encouraged.
- The existing heritage structure should be incorporated into the development or relocated within the community.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms...

6.6.4 Neighbourhood Commercial

Guidelines:

- Commercial buildings should be sited and designed to support and reflect the overall residential image and character of the Fernbank Community.
- Buildings should generally be located adjacent to the adjacent arterial roads with street related uses at the ground floor.
- Building height should be compatible in scale to the adjacent residential areas.
- Corner buildings should be sited to address both streets with similar architectural treatments.
- Front entrances of the buildings should generally be oriented towards the adjacent arterial roads.
- Signage should be integrated with the commercial site with appropriate landscaping and coordinated with the adjacent buildings (architectural details, colours, materials, etc.)
- Access to the front entrances should be provided from the sidewalks.
- Pedestrian walkways within the parking areas should be clearly designated and lit for pedestrian safety.

- Large parking lots should be designed to minimize the dominance of asphalt areas through the placement of landscape aisles or medians.
- Where a section of the parking area is located adjacent to the street, the street edge of the commercial site should be designed with a landscape treatment to provide visual screening of the parking area from the street.
- Lighting for commercial buildings and parking areas should be directed away from adjacent properties.
- Loading, garbage facilities and other service functions should be screened from the street and from public view. Location of these facilities should be within, or at the rear of buildings, wherever possible.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms.

6.6.5 Schools

Guidelines:

- School buildings should be located close to the public street with main entrances visible from the street.
- Where practical, gathering or plaza areas should be included in front of the main entrance of the school.
- Parking areas are discouraged from being located in front of the school building.
- School elevations should be designed with a high level of architectural character and materials.
- Bus drop-off areas should be located away from the main entrance of the school, preferably at the side of the building to avoid conflict with other vehicles.
- Bus drop-off areas for elementary school may also be located on local streets, where appropriate.
- Pedestrian connections should be provided from sidewalks, parking areas, and bus loading areas to school buildings.
- Lighting for school buildings and parking areas should be directed away from adjacent properties.
- Service areas should be screened from public view.
- Signage should be integrated into the landscape treatments or building architecture.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms.

6.6.6 Street Tree Planting

Street tree planting should strongly be encouraged in all residential and commercial areas for visual appeal and environmental benefits, including reduction of radiant and reflective heat; provision of shade; benefits to wildlife, as well as providing an enhanced physical environment for residents.

Section 7.0 Implementation

The Fernbank Community Design Plans is a statement of land use policy that is intended to guide the development of the Fernbank Community. The following describes the mechanisms which will guide the administration and implementation of the Fernbank Community Design Plan. Development must also conform to the relevant policies of City of Ottawa (2003) Official Plan.

The Community Design Plan, consisting of the Land Use Plan and related text and the Demonstration Plan, will:

- Guide the character and form of development within the Fernbank Community;
- Form the basis for which to consider applications for plans of subdivision, zoning and site plan approval; and,
- Provide the basis for planning of, and budgeting for infrastructure.

The existing 'Future Urban Area' designation in the City of Ottawa (2003) Official Plan for that portion of the Fernbank Community approved for urban development by the Ontario Municipal Board will be replaced by the corresponding land use designations reflective of the City of Ottawa (2003) Official Plan by amendment to that Plan. The Fernbank Community lands situated outside of the above-noted area were brought into the 'Urban Area" by the City through its 2008 Official Plan Review amendment to the existing Official Plan.

Fernbank Community Design Plan will also be implemented by the City in accordance with the Official Plan (2003) of the City of Ottawa and, under the powers of the *Planning Act*, the *Municipal Act*, and other applicable statutes.

Implementation of the Fernbank Community Design Plan will also respond to matters set out in the City of Ottawa Council resolution of November 9, 2005, including:

- Examination of the timely advancement of public amenities such as sports fields, parks, pathways and other amenities, including community centres, to ensure local recreational and community infrastructure is not overburdened by the development of these lands and consider front-end financing to advance the undertaking of such public amenities;
- Examination of the need for the timely advancement other infrastructure requirements as currently defined in the Transportation Master Plan (e.g., east-west transportation linkages) and the Infrastructure Master Plan (e.g., servicing) to ensure local infrastructure is not overburden by the development of these lands and consider frontend financing to advance the undertaking of such works; and,
- Be subject also to any other required implementation instruments such as a new or revised Development Charges By-law,

Therefore, as development proceeds within the Fernbank Community Design Plan, innovative implementation strategies will be explored in order to ensure the timely advancement of municipal infrastructure and community amenities and facilities. Such implementation strategies may include the use of front-ending agreements (in which the City would participate) which would allow the developer to advance the construction of certain facilities in accordance with agreed-upon financial principles.

There shall be a front-ending agreement established within the Fernbank Community to require, through development approvals, financial contributions for key infrastructure requirements.

There shall also be a master parkland agreement established within the Fernbank Community to create a mechanism which allows for

compensation of parkland dedication that may be inequitably distributed across the Fernbank CDP.

7.1 Interpretation

It is intended that development will proceed in a manner generally consistent with the Fernbank Community Design Plan. In this regard, minor changes to the Land Use Plan may be accommodated through the development approvals process at the discretion of the General Manager of Planning and Growth Management Branch.

The Community Design Plan will guide the form and character of Fernbank. The Plan will guide the zoning, subdivision and site plan control processes, as well as capital expenditures in this area. While the end product may differ in detail from the various plans contained within this Community Design Plan document, it is intended that development will have a framework consistent with the policies and guidelines that are described in this Community Design Plan. In this regard, the following considerations are important when interpreting the CDP:

Minor changes to the Land Use Plan component of the Community Design Plan proposed prior to subdivision or site plan approval – such as adjustments to the location of low and medium density residential areas, minor changes to the location and configuration of neighbourhood parks, minor changes to the configuration of the community core to high density residential areas, minor changes to the residential mix, minor adjustments to stormwater management pond block size and location, and minor adjustments to tributary corridor locations and widths – 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 constitute approval of the changes to the Community Design Plan.

Substantive changes to the Land Use Plan proposed prior to subdivision or site plan approval, such as to the pattern of the major road network, to the number and location of high density residential, community core or, or the relocation of school and District or Community park sites, major change to the Carp River corridor width, major change to tributary location or corridor width, major change in number of stormwater management ponds and open tributaries or major change to stormwater management pond size – will be subject to approval by Planning and Environment Committee and external agencies as required. As in the case of minor changes to the Land Use Plan, subdivision and/or site plan approval by the City reflecting these changes constitute approval of the change to the Community Design Plan. .

To initiate the review and approval of substantive changes, the proponent shall prepare and submit to the City a composite plan comprised of the proposed change(s) and including subdivision and site plan (s) within the neighbourhood (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 Land Use Plan of the surrounding neighbourhood, or broader community as may be required.

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

Updates to the studies supporting the CDP, such as the Master Servicing Study, Transportation Master Plan, etc., may also be required in support of a substantive change and would include

reconfirming necessary external agency approvals, Class EA addenda, etc., as required.

Each successive change to the Land Use 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 Land Use Plan and to the text of the CDP may be made at the discretion and approval of the General Manager of Planning and Growth Management Branch 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 Planning & Environment Committee may be sought.

The principles and objectives of the Official Plan and of the Community Design Plan must be reflected in any proposed change to the Land Use Plan and to the text of the Community Design Plan. Variations that require an amendment to the City of Ottawa Official Plan will also require a corresponding formal amendment to the Community Design Plan.

Landowners are not required to develop their lands precisely as shown on the Demonstration Plan. The purpose and role of the Demonstration Plan is to:

- Provide guidance on how these lands *could* develop over time;
- Demonstrate possibilities and methods for addressing specific development challenges;
- Illustrate ways to achieve the design guidelines for various land uses;
- Illustrate some specific objectives the CDP is seeking to achieve; and
- Provide a means for establishing and monitoring density targets over time.

Where lists of examples of permitted uses are provided in Chapter 4 of this Community Design Plan, they are intended to illustrate the possible range and type of uses that are to be considered. Specific uses that are not listed, but considered by the City to be similar to the listed uses and to conform to the general intent of the applicable land use designation may be recognized as a permitted use in the implementing zoning by-law.

7.2 Development Approvals

Development approvals for lands within the Fernbank Community Design Plan will initially proceed by Plan of Subdivision in order to secure the necessary road network, servicing infrastructure and parkland dedication.

All development applications shall include a brief description and/or illustration as to how the development proposal meets the intent of the Fernbank Community Design Plan and related design guidelines. All residential development applications shall also address how the proposed residential uses and density contribute to the projected housing mix and residential development densities established in the Fernbank Community Design Plan and the Official Plan (2003) of the City of Ottawa.

Council will enact a zoning by-law(s) to permit the development established by the Land Use Plan in conjunction with approval of a plan of subdivisoni and/or site plan The City may also use holding zones to specify the future uses of lands that, at the present time, are considered premature for development due to inadequate road, servicing or community facilities infrastructure being available within a reasonable period.

Site plan approvals will also be required (except for low density residential land uses).

Proposed land uses and development plans within the hydro transmission corridors will be submitted to Hydro One for review/approval.

School sites shall be zoned for both institutional and residential use in order that, in the event that no School Board acquires a school site established in a Plan of Subdivision, the lands shall be developed for residential land uses. The type and range of such residential uses shall be in accordance with the Low Density Residential and Medium Density Residential land use designation as described in Sections 5.2.1 and 5.2.2.

Finally, the City may require development agreements as a condition of the approval of development applications, in order to ensure that the necessary approvals for, and contributions of lands, funds and/or commitments for services will be in place. Such development agreements may address:

- Parks, open space and natural heritage features;
- Water, wastewater collection and stormwater management facilities;
- Transit;
- Road infrastructure (including widening of existing roads); and,
- Telecommunications and other utilities.

7.3 EA Project Amendment/Change Process

It is prudent to develop a process to recognize that due to unforeseen circumstances, it may not be feasible to implement the projects as described in the environmental assessment reports. The following sets out the process to deal with changes which occurs after filing and obtaining approval of the environmental assessments and prior to construction.

The change process distinguishes between minor and major changes. A major design change would require completion of an amendment to this EA, while a minor change would not. For either kind of change, it is the responsibility of the proponent, to ensure that all possible concerns of the public and affected agencies are addressed.

Minor Changes

Minor design changes may be defined as those which do not appreciably change the expected net impacts associated with the project. For example, a design change in lighting treatment, landscaping, noise attenuation, median width, pathway connections, and underground infrastructure sizes, would be considered minor. Slight changes in alignment or facility footprints, which to not affect more than 2 participating landowners, would also be considered as minor. All affected landowners and appropriate stakeholders will be provided details of the modification. The majority of such changes could likely be dealt with during the detailed design phase and would remain the responsibility of the proponent to ensure that all relevant issues are taken into account.

Major Changes

Major changes may be defined as those which change the intent of the EAs or appreciably change the expected net impacts associated with the project. An example of a major change would result from a proposed shift in a preferred design alignment or configuration which would warrant changes in mitigation as described in the EA and affect 3 or more landowners. If the proposed modification is major the recommendations and conclusions in this report would

require updating. An addendum to the EA would be required to document the change, identify the associated impacts and mitigation measures and allow related concerns to be addressed and reviewed by the appropriate stakeholders.

7.4 Greenspace

The Greenspace system is comprised of a variety of elements, such as parkland, natural heritage features, stormwater management facilities and hydro transmission corridors. The majority of the Greenspace will ultimately be in public ownership and the City will pursue acquisition of such lands through:

- Parkland and/or open space dedication through the development approvals process;
- Land purchases; and,
- Conveyance of completed stormwater management facilities; and,
- Conveyances of other open spaces (such as the hydro transmission corridors) through the development approvals process.

There shall be a master parkland agreement established between the landowners within the Fernbank Community to create a mechanism which allows for compensation of parkland dedication that may be inequitably distributed across the Fernbank CDP. The City shall participate in such an agreement through distribution of cash-in-lieu of parkland dedications received to landowners with an over-dedication of parklands Alternatively, the City of Ottawa shall assist in the overall management of parkland dedications between the landowners.

Dependant upon confirmation of satisfactory front-ending agreements, Neighbourhood and Community Parks are to be built concurrently with Draft Plans of Subdivision for the lands that the parks are intended to be served.

7.5 Development Phasing

The overall phasing plan for development will be determined by a number of factors including:

- Transportation capacity;
- Sanitary sewer capacity;
- Installation of stormwater management facilities required within the relevant sub-watershed; and,
- Contributions to the front-ending of the construction of the N-S Arterial Road.

Details of proposed works and improvements are set out in the accompanying table and will be influenced by the future development rate, municipal budgeting priorities, and front-ending agreements.

It is anticipated that within each individual phase, development will occur incrementally through Plans of Subdivision with associated infrastructure and services being installed.

Dependant upon confirmation of satisfactory front-ending agreements, Neighbourhood and Community Parks are to be built concurrently with Draft Plans of Subdivision for the lands that the parks are intended to be served. Options for front-ending by developers will be explored by proponents in order to secure appropriate timing for both construction and repayment. The City will provide Development Charge credits, in accordance with the relevant legistation, where infrastructure is front-ended.

Where smaller, individual properties are located within a development phase, such properties shall not be required to be developed with the balance of the lands in that phase. However, through the implementation of plans of subdivision within each phase, provision shall be made to accommodate the potential integration of these individual properties at a future date through

overall subdivision design, lot patterns, road layouts and infrastructure plans.

Hydro Ottawa and other public utilities should be contacted early in the planning process regarding the area servicing of development.

INFRASTRUCTURE REQUIREMENT	DEVELOPMENT CAPACITY
Sanitary Servicing	
Hazeldean Pump Station (Glen Cairn forcemain returned to service)	3,900 residential units
Hazeldean Pump Station (Third submersible pump)	Additional 3,300 residential units
Hazeldean Pump Station (Replace four dry pumps and impellers; assumes Kanata West Pump Station in on-line)	Additional 6,300 residential units
Water Servicing	
Trunk water mains and distribution	No constraints to development phasing
Stormwater Management	
Stormwater management facilities	On a sub-watershed basis
Transportation	
N-S Arterial Road: Two lanes between Fernbank Road and Abbott Street (including collector road connection to Iber Road)	3,000 residential units
N-S Arterial Road: Two lanes between Abbott Street and Hazeldean Road Hazeldean Road: Four lanes	Additional 5,000 residential units
Terry Fox Drive: Four/six lanes as per 2008 Transportation Master Plan	Balance of the planned development of the Fernbank CDP
N-S Arterial Road: Four lanes	As travel demands warrant

Table 7 – Development Phasing

7.6 Interim Transit Service

In order for transit to reach the citywide 30% modal split targeted within the Official Plan, transit needs to be accommodated as an integral part of the community structure from the outset of development.

During the initial development of Phase 1, when development is limited to along the North/South Arterial and in the southeast section of the community, transit service will be provided along the arterial and collector roadways as they are phased into the development. Until a more continuous collector roadway is developed, an interim route may provide linkages within Kanata that may not be maintained in the ultimate route network.

To capture transit ridership in the initial phases of development, the developer(s) will be required to enter into an early transit service agreement. Service will be provided in new residential areas in advance of when ridership would be high enough to meet the City of Ottawa's financial performance standards. The cost to provide a basic peak period service is to be paid by the developer until such time that the number of units occupied is at a level when ridership would be high enough to meet the minimum financial performance standard. The developer will also enter into a agreement to provide all-day service that would bridge the time period between when the City would be responsible for peak period service and the time that the number of units would be high enough to meet the minimum financial performance standards for all-day service. Staff will enter into agreements with developers for funding as part of the development approval process.

As development continues and when there are at least 250 new housing units beyond a five-minute walk (400 metres) to either a Rapid Transit route to service in Stittsville or Kanata, a separate peak service route will be implemented. At least 500 new housing units, that are located more than a ten-minute walk (800 metres) will be required for the provision of all day transit service. The exact routing within the community will be dependent on the phasing of residential development but limited to operate on arterial and collector roadways. Routing, bus stop locations and appropriate turning locations will be determined when subdivision plans are submitted.

The long-term ultimate route network anticipates having two local routes providing service in the community. These routes will connect the Fernbank community with the Stittsville, Kanata West and Kanata communities. One route will provide service in a general north/south alignment in the eastern half of the community. The second route will provide service in an east/west direction through the mid-point of the community. In addition, a Transitway route will be provided along the north/south arterial. Service levels on all routes and the location, size and phasing of park-n-ride lots will be dictated by the extent of development and in accordance with the "Transit Service and Fare Policy Manual" and other City policies.

7.7 Affordable Housing

Affordable housing will be required in accordance with Section 2.5.2 of the Official Plan which 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 or below the 30th income percentile for rental and at or below the 40th income percentile for ownership (as adjusted annually in accordance with inflation and the consumer price index.) Therefore, within the Fernbank CDP area approximately 25% of all housing within the

CDP area should be within the above-noted affordability range, assessed at the time of subdivision approval.

Development of 'social housing' for low/moderate income households by social housing providers, with or without City funding or incentives, is included within the total 25% of affordable housing in the community. Approximately 7% of all homes in the City are social housing. It is a municipal expectation that a similar percentage of units will be provided in Fernbank. These homes should be affordable to households at or below the 20th income percentile for Ottawa. Therefore, assuming a mix of townhouse and apartments will be built, and that federal/provincial funding is available:

- City Council or a social housing provider may acquire land to build social housing units equivalent to approximately 5% of the total units anticipated.
- The housing type and appropriate location for social housing in the community will be decided as part of the technical circulation process 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.

In recognition of providing social housing opportunities within the Fernbank CDP, up to 6 hectares of lands designated Medium Density or High Density residential purposes may be made available to a social housing provider at the time of approval(s) of draft plan of subdivision(s) with the specific lands to be made available will be identified through the development application. Such lands will be made available provided that that social housing provider enters into an option agreement requiring it to exercise is purchase option within three years of the registration of the subdivision plan(s). Such lands shall be acquired by the social housing provider at market value.

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

- Deferral or waiver of fees and charges;
- Density incentives or transfer, flexible zoning, alternate development standards;
- Other incentives to be negotiated depending on the depth of affordability achieved.

When incentives are provided to support 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 and / or become a municipal housing facilities by-law.

7.8 Heritage

The property at 590 Hazeldean Road, specifically the farmhouse and large barn, has been identified as a property of cultural heritage significance under Part IV of the *Ontario Heritage Act.*

The City will prepare a report recommending designation to the Local Architectural Conservation Advisory Committee, the Planning and Environment Committee, the Agriculture and Rural Affairs Committee and City Council. This designation will ensure the protection of the historic farmhouse and large barn in advance of future development of the property. Future development of the property would have to respect and retain these two buildings in their current locations. The heritage designation of these buildings will not preclude development of the balance of the property.

7.9 Urban Natural Feature Acquisition

The moderate-value woodlot is designated as Urban Natural Feature in the Official Plan, which necessitates its acquisition by the City. This acquisition will be the subject of a future report.

Should acquisition not be possible, then an Official Plan and zoning amendment (as per Section 5.2.1 of the Official Plan) will be required to permit development. Such development will consistent with the Low Density Residential designation in the Fernbank CDP.

7.10 Development Monitoring

As the full development of the Fernbank Community will only be achieved over the long-term, monitoring of the Community Design Plan is appropriate in order to determine whether the principles and policies of the plan are being achieved. The purpose of monitoring is to confirm that the underlying parameters supporting the Plan remain applicable and relevant and to determine whether the policies and guidelines are being implemented. Should significant variances to the policies be identified, amendments to the Fernbank Community Design Plan may be considered by Council.

The Official Plan (2003) requires the CDP to establish the mix and location of residential dwelling types for Fernbank which, as a minimum:

- Constitutes, on a community-wide basis, no more than 60% single detached and semi-detached, and at least 30% multiple dwellings and 10% apartments; and
- Establishes an overall average for single-detached, semi-detached and townhouses of not less than 29 units per net hectare. Net residential density is based on the area of land in exclusively residential use, including lanes and parking areas internal to developments but excluding public streets, rights-of-way and all non-residential uses.

This 29 units per net hectare does not constitute a maximum average density, but a density target and therefore, compact development that achieve additional densities while having regard to all other policies of this Plan, shall be permitted.

For the purpose of achieving the 2003 Official Plan target of at least 29 units per net hectare, ground-oriented units including single-detached, semidetached, townhouse and ground-oriented stacked townhouse dwellings will be counted.

The Land Use Plan sets out the location and extent of various forms of housing to be permitted within the Fernbank community. **Table 2** identifies overall targets by percentage of single-detached and semi-detached dwellings; multiple, and apartments. It shows that, on the basis of the current Demonstration Plan, the required mix of units and density targets in the Official Plan are met over the entire Plan area.

To monitor how these 2003 Official Plan policies are achieved at build out, the CDP has been divided into three (3) Sub-Planning Areas, consistent with the Phasing Plan. While the overall CDP will achieve the desired mix of uses, each Sub-Planning Area and each subdivision may not. The Land Use Plan sets out the location of the various types of uses. For example, not all areas are appropriate for apartments, given their location relative to transit or community services and amenities.

The total number and mix of residential units will be tracked on a neighbourhood and community-wide level at the time of development approval. Minor variations in the expected average density for each housing form are permitted, provided it can be demonstrated that both the total number of residential units and the mix of residential unit types can be reasonably achieved by adjusting density and/or mix on remaining vacant lands within each neighbourhood.

It must be demonstrated within each Sub-Planning Area that:

- The density for single-detached, semi-detached and townhouses will achieve the requirement of not less than 29 units per net hectare, on a community wide basis, and
- The mix of single-detached and semi-detached, multiple dwellings and apartments, is to be generally consistent with the percentage breakdown as set out in **Table 2**.

The CDP surpasses the densities required in the 2003 Official Plan. The Comprehensive Five Year Official Plan Amendment that was adopted by Council on June 10, 2009, increases the density targets for development in Greenfield areas. **Table 2** demonstrates how the new density requirements of Section 2.2.2 of the Official Plan could be achieved.

7.11 Official Plan Amendment

The Fernbank Community Design Plan shall be approved by Council and will be adopted by Amendment to the City of Ottawa (2003) Official Plan as it related only to the following matters:

- Schedule A, to change the designation from "Future Urban Area", "General Rural Area" and "Agricultural Resource Area" to "Urban Area"
- Schedule B to delete the 'Future Urban Area' designation and add the appropriate 'General Urban Area', 'Major Open Space' and "Arterial Mainstreet' designations; and,
- Schedules C, and E to include the major cycling and road corridors identified in this CDP.
- Section 3.11 'Future Urban Area' is being deleted as the designation for the lands now subject to this designation is being changed from 'Future Urban Area' to 'General Urban Area', 'Urban Natural Feature', 'Arterial Mainstreet', and 'Major Open Space'.
- Section 5.3 'Other Implementation Policies' is amended by adding a policy requiring the landowners within the Fernbank community to enter into private agreements to:
    - Share the costs of the major infrastructure projects and required associated studies and plans and to distribute the costs fairly among the benefiting landowners; and,
    - Provide compensation between landowners respecting the dedication of municipal parkland.
- Annex 1, Table 1 is being revised to add the Kanata North-South Arterial as a 41.5 m ROW to be protected.