

PLANNING JUSTIFICATION REPORT

3285 Borrisokane Road
Concession 3, Lot 14
Geographic Township of Nepean

Prepared by:



and



J.F. Sabourin and
Associates Inc.
Water Resources and
Environmental Consultants

Prepared for:
Barrhaven Conservancy Inc.

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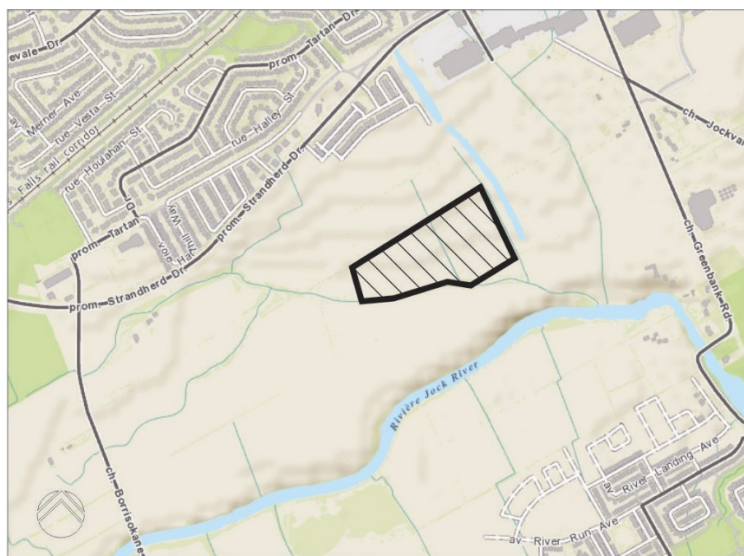
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1 Introduction

This Planning Rational has been prepared in support of the Draft Plan of Subdivision and Zoning By-law Amendment applications for Barrhaven Conservancy East; Phase I and provides the documentation and analysis of relevant policies which support the approval of the development proposal. The purpose of these applications is to ultimately develop the lands south of the future Chapman Mills Drive and Bus Rapid Transit (BRT) extension for residential purposes in accordance with the city of Ottawa Official Plan.

1.1 Location

The subject site is situated on a 36.4 hectare parcel at 3285 Borrisokane Road, Concession 3, Lot 14 of the former Geographic Township of Nepean. The parcel extends from Borrisokane Road to the Kennedy-Burnett Stormwater Management Facility (K-B SWMF), north of the Jock River. The proposed Phase 1 subdivision site is triangle shaped, covering approximately 11.16 hectares and is bounded by the future Chapman Mills Drive Extension and Bus Rapid Transit Corridor to the north, the K-B SWMF to the east, and the Fraser-Clarke watercourse and associated Jock River flood plain to the south and west. Refer to Figure 1.



 SUBJECT SITE
Barrhaven Conservancy Inc. East Phase 1

Figure 1: Location Map

1.2 Consultation

A pre-consultation meeting to discuss the overall development of this area was held with City of Ottawa staff on May 30, 2017 and a list of required studies/plans for subdivision application was provided on June 27, 2017. Initial discussions and technical review have been initiated with the Rideau Valley Conservation Authority regarding management of the flood plain boundary.

The Ward Councillor is aware of this application.

2 Context

2.1 Surrounding Area

The subject site is located on the undeveloped General Urban designated land between developing residential and / or mixed-use communities to the north, east and west. The southern boundary is adjacent the Fraser-Clarke watercourse which separates the subject site from the remaining west area of the parcel. Refer to Figure 2.

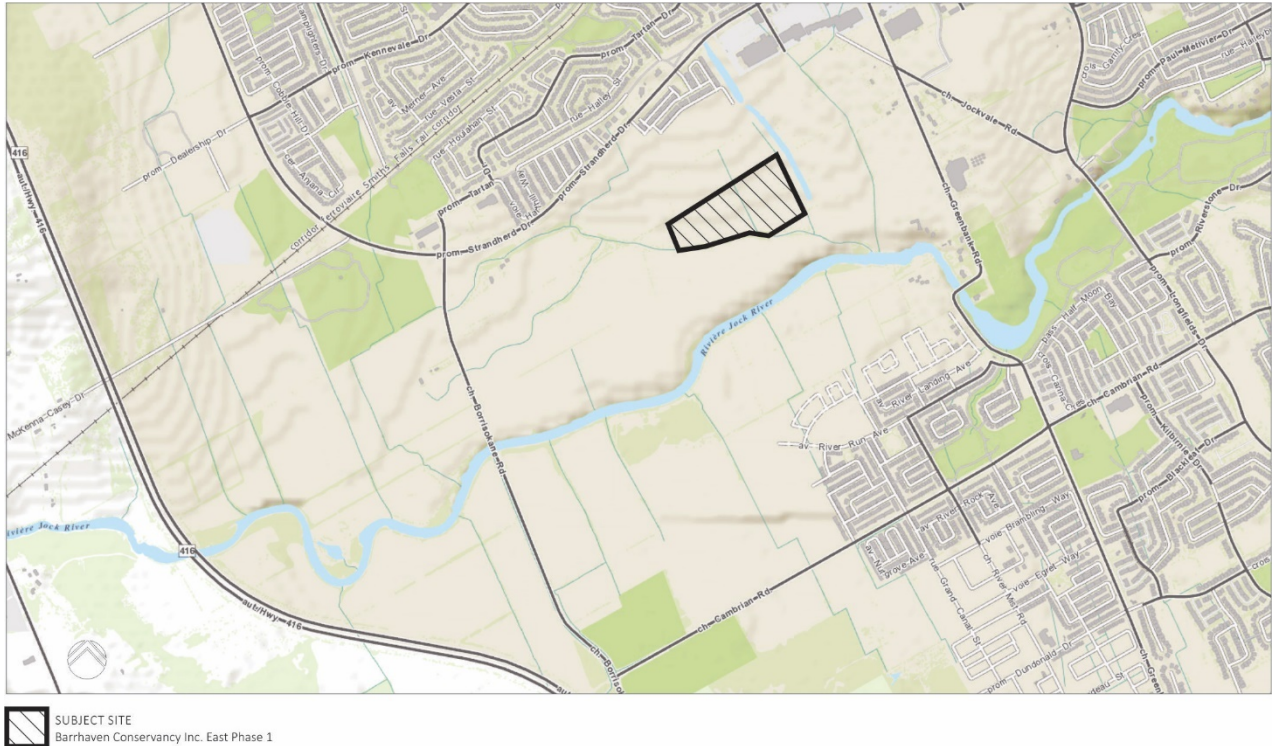


Figure 2: Context Map

The lands immediately north of the Chapman Mills Drive extension and BRT corridor are expected to be developed in accordance with the draft approved subdivision plan for the Clarke / Harmony Lands [Stage 1] which includes residential, parkland and commercial areas. A school site is to be located to the north-west. An additional subdivision application is expected to be submitted imminently for the remaining (Mion) parcel on the north side of the Chapman Mills Drive extension. Refer to Figure 3.

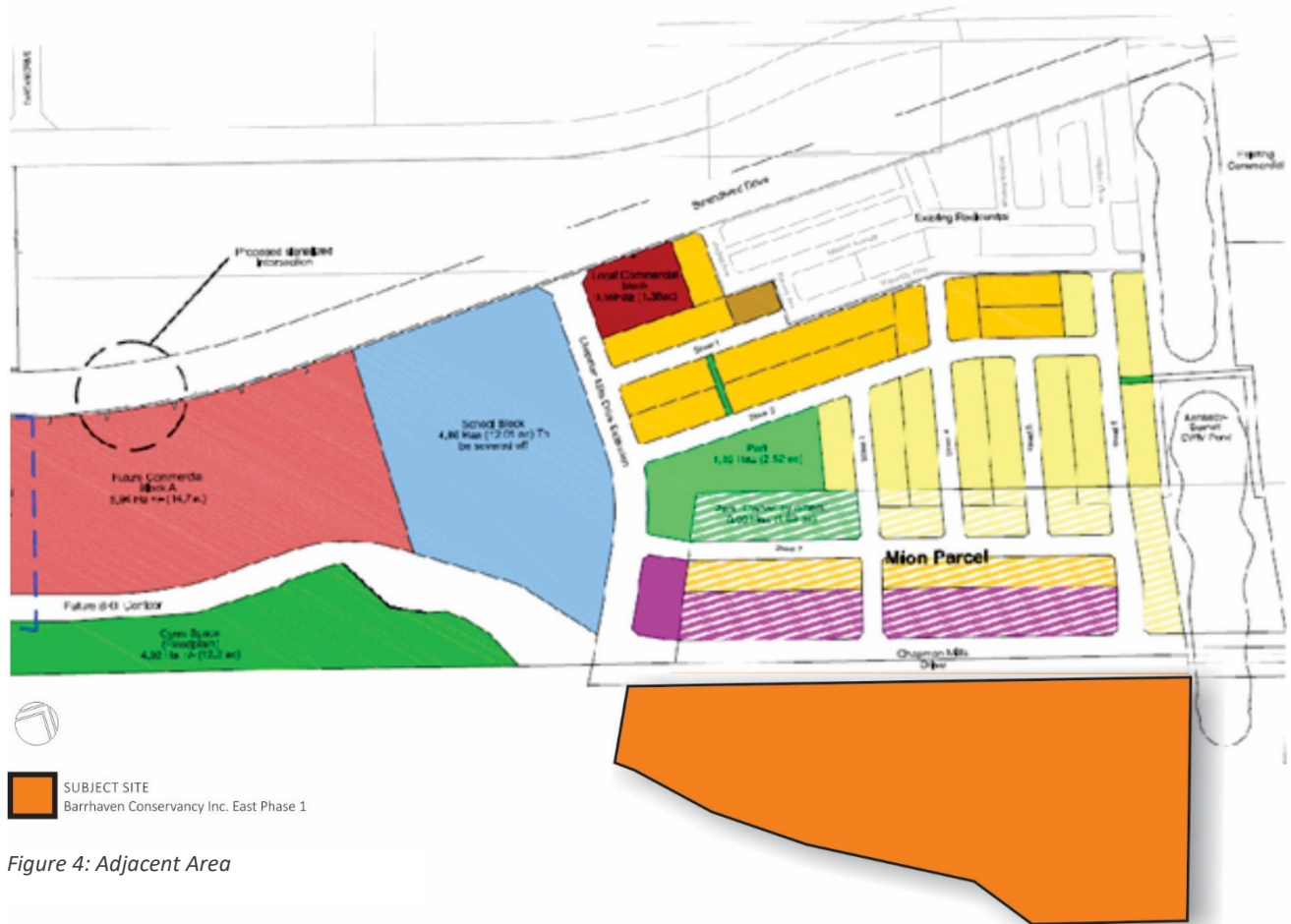


Figure 4: Adjacent Area

High density, mixed use development in the Town Centre, on the east side of the Kennedy Burnett Stormwater Management Facility (K-B SWMF,) is established by the South Nepean Town Centre Community Design Plan, along with a continuation of the Jock River Open Space corridor and neighbourhood parkland. It is our understanding that amendments to this plan may be forthcoming through a future review. Refer to Figure 4. Lands to the south of the subject site are currently within the boundaries of the existing mapped Jock River flood plain.

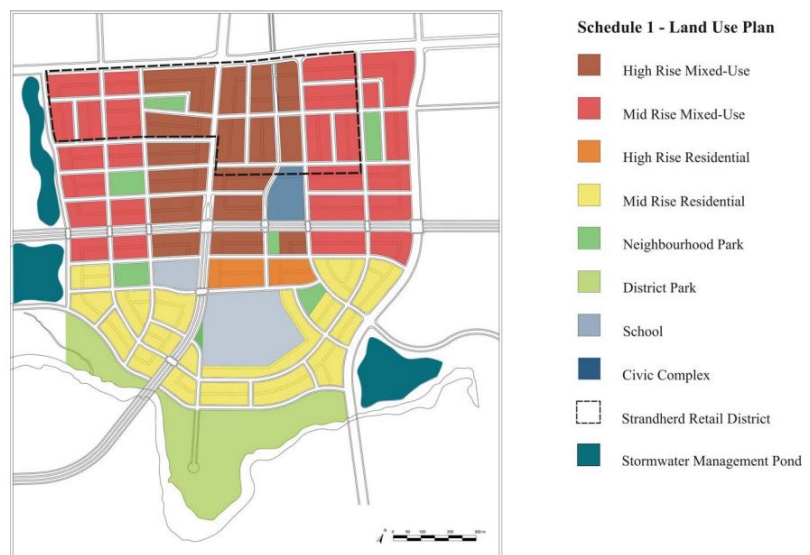


Figure 3: South Nepean Town Centre Community Design Plan, Schedule 1, Land Use Plan

2.2 Existing Site Conditions

The subject site (refer to Figure 5) has historically been used for agricultural purposes and remains in an undeveloped state. No contamination was identified through the Environmental Site Assessment (August 2017, Golder). Currently the subject land is under cash crop production.

The land is generally flat with two watercourse features. The Fraser-Clarke watercourse runs from west to south-east inside the southern boundary of the proposed subdivision limits.

2.3 Relationship to Landscape



 SUBJECT SITE
Barrhaven Conservancy Inc. East Phase 1

Figure 5: Aerial Photograph

As noted above, the subject site is generally flat, currently providing views along the southern boundary to the Fraser-Clarke watercourse corridor and the K-B SWMF to the east. South of the Fraser-Clarke watercourse, the land is vacant, currently under cash crop production, and bounded by the Jock River corridor. The existing Jock River flood plain boundary currently encroaches in part on the proposed development lands as shown on Figure 6.



Figure 6: Aerial Photograph with W/C and FP Line

2.4 Transportation Connections

The site is currently isolated from the existing local transportation network. Future road, transit and cycling/pedestrian routes delineated in the City's Transportation Master Plan ('TMP'), Pedestrian and Cycling Plans will provide robust connections in the future to adjacent communities, employment and services for future residents. Refer to Figures 7, 8 and 9.

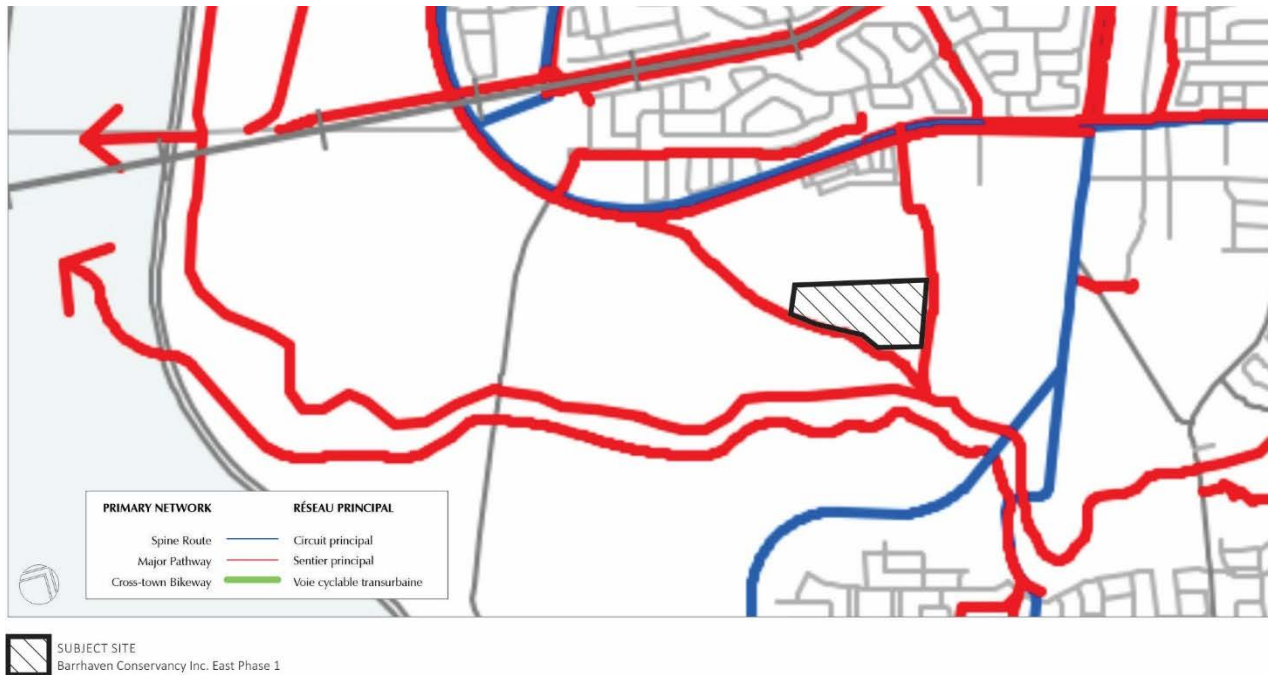


Figure 7: Transportation Master Plan, Cycling Network - Primary Urban, Map 1

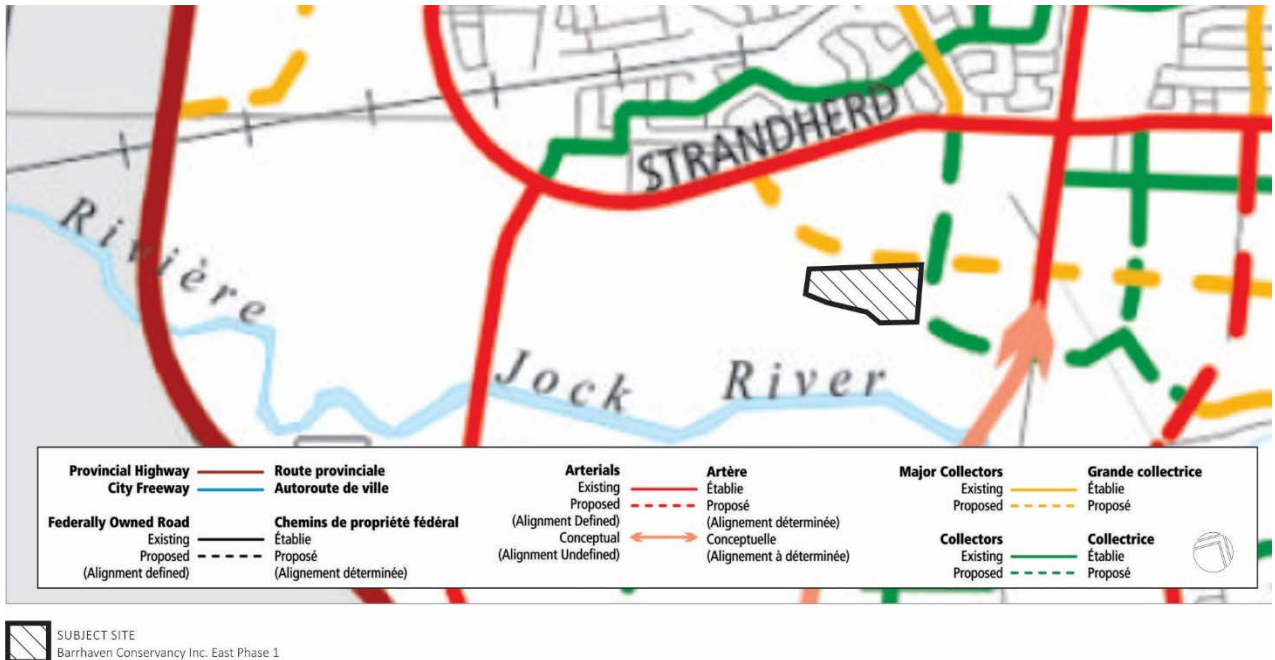


Figure 8: City of Ottawa Official Plan, Urban Road Network, Schedule E

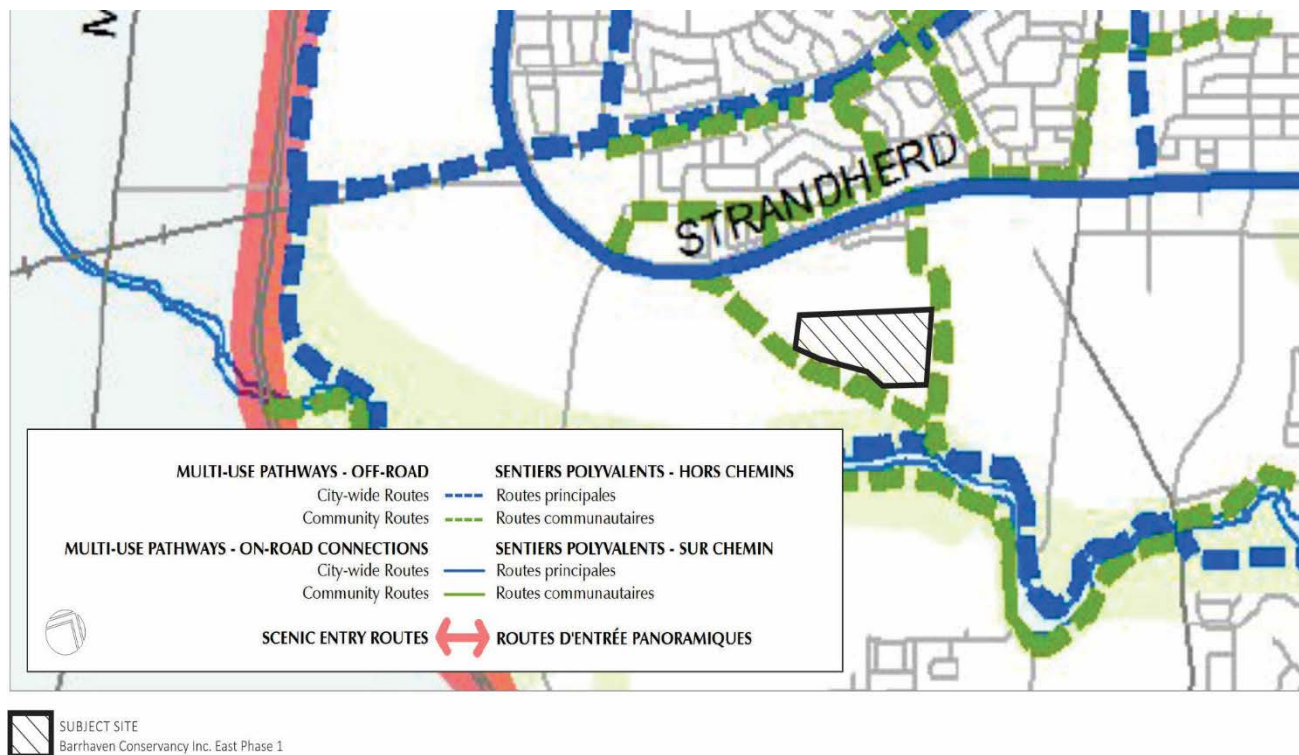


Figure 9: City of Ottawa Official Plan, Multi-Use Pathways and Scenic-Entry Routes (Urban), Schedule I

The future Chapman Mill Drive extension turns north to link to Strandherd Drive, then connecting to Highway 416. The east route connects into the Nepean Town Centre Mixed Use Area and the realigned Greenbank Road. Further, the future Bus Rapid Transit System is planned on an east/west axis adjacent the site, intersecting with Chapman Mills Drive, as shown on Figure 10.



Figure 10: Chapman Mills Drive Extension, Environment Assessment Study (IBI Group, November 18, 2016), Exhibit 6-6: Pedestrian and Cycling Plan

2.5 Natural Heritage System and Parks

The subdivision boundary to the south is 30 metres from the normal high watermark of the Fraser-Clark watercourse, supporting an approximately 63 metre wide watercourse corridor. This watercourse connects downstream to both the Kennedy-Burnett Stormwater Management Facility and the Jock River. These three features are Open Space corridors that connect as passive open space and recreational linkages to the surrounding communities, as shown on Figures 11 and 12. Lands to the south are identified as existing Jock River flood plain.

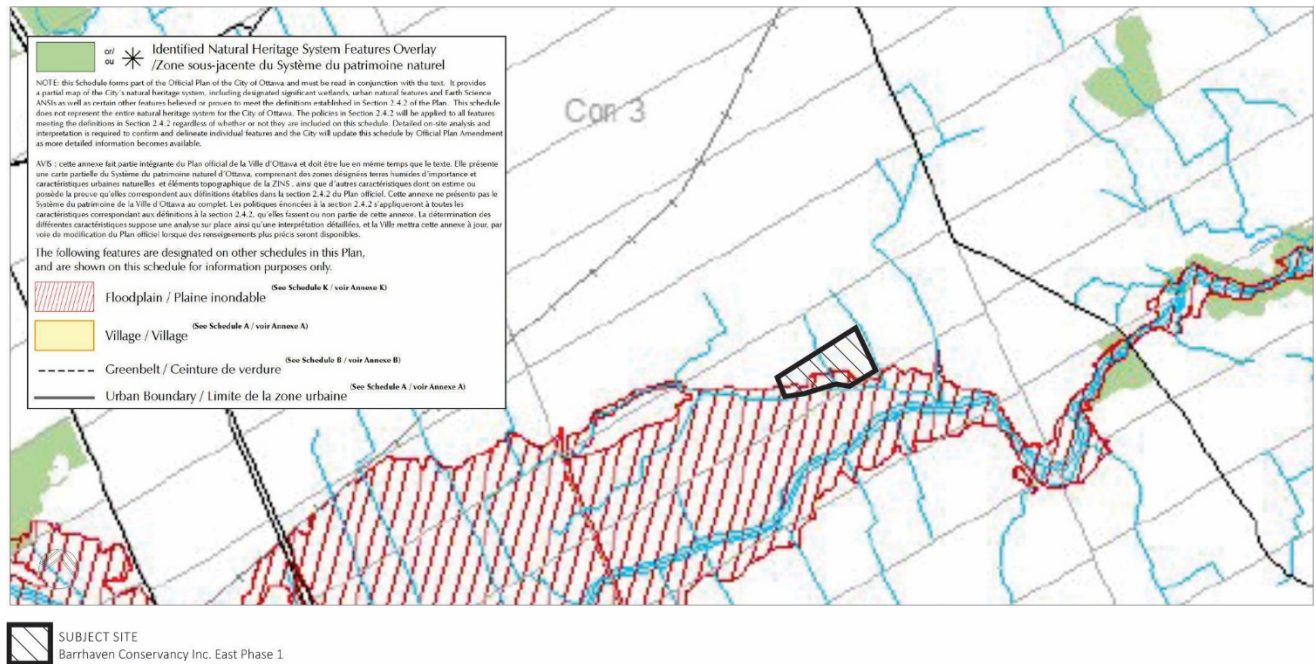


Figure 11: City of Ottawa Official Plan, Natural Heritage System Overlay (West), Schedule L3

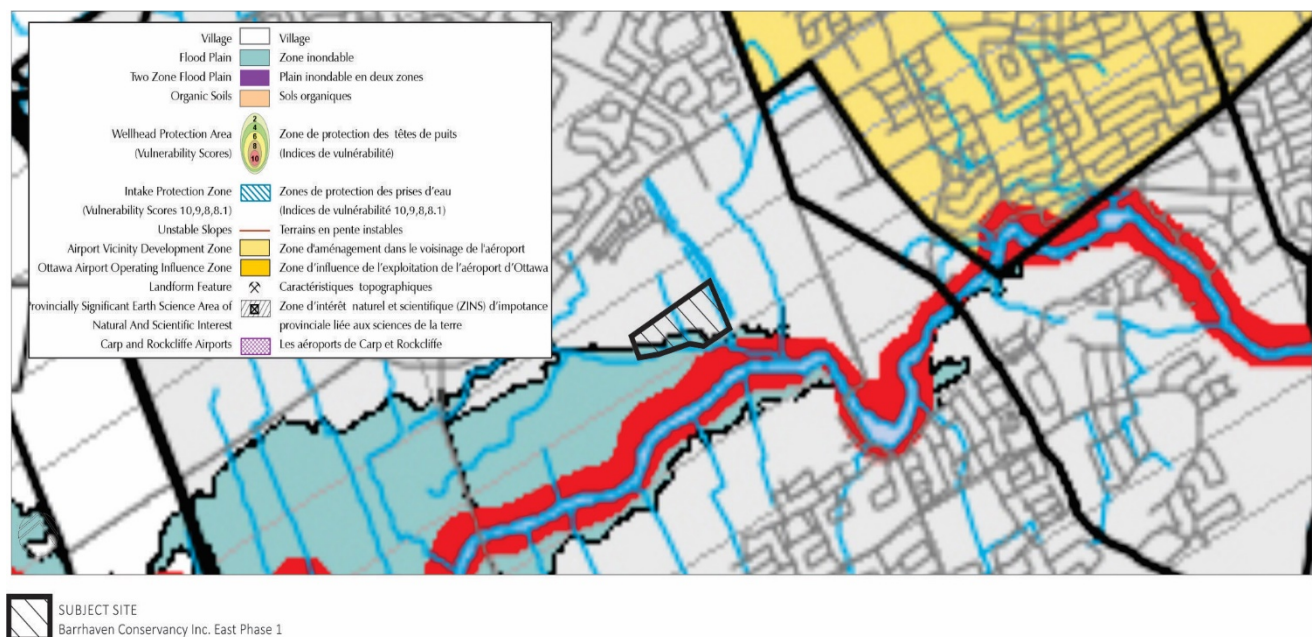


Figure 12: City of Ottawa Official Plan, Environmental Constraints, Schedule K

3 Proposed Plan of Subdivision

The following section describes the key components of the proposed plan of subdivision.

3.1 Details

Layout

The proposed plan of subdivision for the subject site comprises approximately 11.16 hectares within the urban boundary of the City of Ottawa. This site is part of a larger, primarily residential community that is in various stages of the development process.

The structural components of the plan include the following, as shown on Figure 13.:

- Accommodation of the new Chapman Mills Drive extension which will straddle the property line along the north boundary
- 18 and 16.5 metre ROW local roads and 8.5 metre wide public lanes;
- 125 Detached Singles;
- 75 Rear Lane Townhomes; and,
- 1 Park Block of 0.523 hectares.
- 1 Environmental Block of 1.83 hectares (watercourse corridor)

The site is proposed to be developed as one phase.

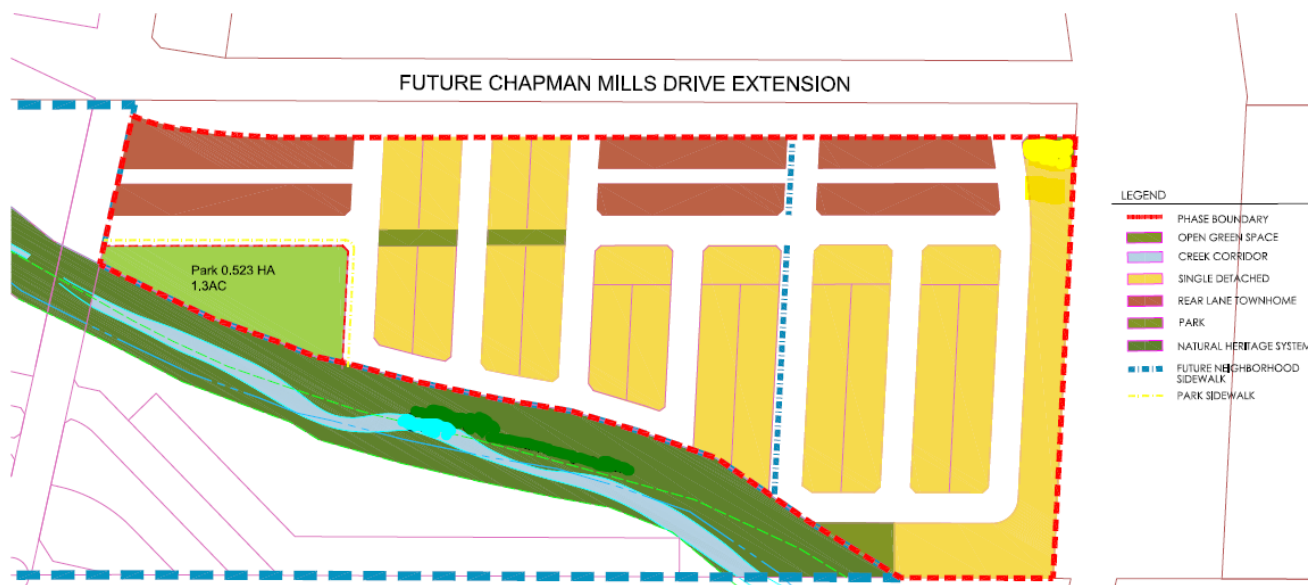


Figure 13: Conceptual Layout

Statistics: Height/Density/Unit Type/Mix

The proposal presents a mix of 62.5 % detached single residential units and 37.5 % townhouses. The single detached unit blocks are generally 21 metres deep, located along 18 and 16.5 metre wide local roads, and 14 metre wide window streets. Parking for the detached units is provided in driveways and garages at the front, with on street parking also available on both sides of the local roads. The rear lane townhouses are generally 27.5 metres deep, supported by an 8.5 metre laneway, with parking, at the rear.

A park block and a single loaded road are adjacent the Fraser-Clarke watercourse corridor.

Two walkway blocks are provided to allow pedestrian connections between streets at mid-block.

Five single family residences flank on to the Chapman Mills Drive extension, with three rows of rear lane townhouse blocks (containing between 3 and 8 units) facing the roadway.

The total number of units (200) divided by the total land area devoted to residential use, including lanes (5.03 ha) provides a density of 39.76 units per hectare.

Landscaping & Streetscaping

A landscaping and street scape plan will be prepared in consultation with City of Ottawa staff and in keeping with geotechnical recommendations. The Chapman Mill Drive frontage treatment will be provided consistent with the requirements of the future ROW.

Parks and Open Space

One 0.52 hectare park is proposed adjacent the Fraser-Clarke watercourse corridor. A parks plan has been prepared illustrating pathways, signage, active and passive activity areas and substantial plantings. Two sides of the park front on public roads and the shared boundary with the Fraser-Clarke corridor will be fenced. This park space will be adjusted to meet the City's Parkland Dedication By-law requirement of 1 hectare/300 units. The exact size will be confirmed once the unit count is finalized.

Parking

Parking will be provided in excess of the Minimum Parking Space Rates By-Law (Section 101).

Transportation and Access

Access to the subject site will be provided from the Future Chapman Mills Drive extension which runs along the northern boundary of the subject site. Phase 2 construction between Strandherd and Longfields Drive is planned for 2020-2025 as per the Transportation Master Plan, however an interim condition will be constructed in advance as part of this development. Strandherd Drive and the realigned Greenbank Road provide additional connections out to Highway 416 or into Barrhaven Town Centre.

Five local road entrances (right in, right out) are proposed to connect to Chapman Mills Drive. Refer to Figures 14 and 15.

The subject site's location also benefits from access to the future Bus Rapid Transit line which is combined with Chapman Mills Drive. Two additional access shall be available off of an extension roadway south of the Chapman Mills/BRT intersection in the north-west corner of the subdivision.

A Transportation Impact Study is underway and will be submitted as part of, and subject to, the Transportation Impact Study Guidelines.

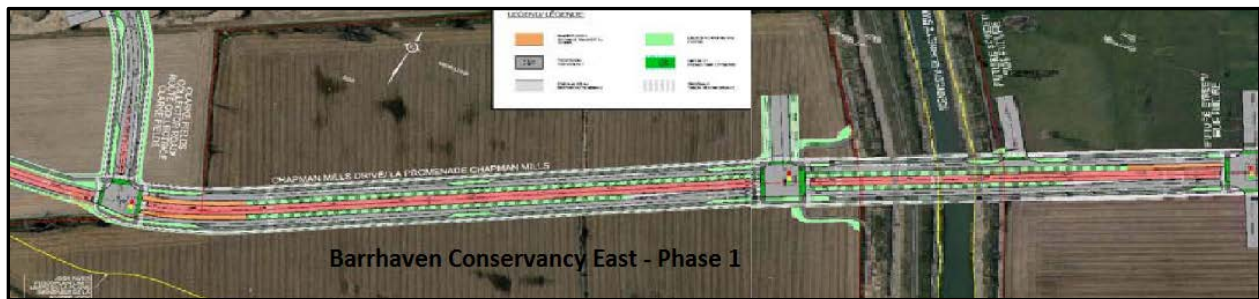


Figure 14: Chapman Mills Extension



Figure 15: Bus Rapid Transit Detail

A multi-use pathway is planned as part of the ultimate cycling/pedestrian network of the city to connect the Jock River at the base of the K-B SWMF to Strandherd Drive. Although it is shown along the Fraser-Clarke watercourse alignment, the proposed Chapman Mill Drive Extension includes a dedicated bicycle lane along a similar route which also connects/transforms into a multi-use pathway out to Borrisokane Road along the future Bus Rapid Transitway, and up to Strandherd Drive along the Clarke Fields Collector Road. Pathways and sidewalk alignments and connections are expected to be refined through the review process.

Outdoor amenity space

Rear yard private outdoor amenity space is provided with each detached unit and balconies for each rear-lane townhouse unit. The proposed park provides additional open space area for the local community, as do the open space corridors along the adjacent K-B SWMF facility and watercourses.

Noise and air quality

A noise feasibility assessment has been performed to consider the potential for noise from adjacent transportation routes (a minor and major collector) to affect the proposed residential development. Noise contours were established to reflect the general building massing based on the conceptual plan. Results indicate noise control mitigation measures near the two collectors may be considered following further detailed noise studies once the final plan is established.

No air quality impacts are expected.

Sunlight

The proposed units are all low rise and are not adjacent any existing structures. No impacts related to sunlight or shading are expected.

Microclimate

The nature of the proposed residential development, which is characterized by private amenity areas and open landscaped space is not likely to contribute to microclimatic change in the local area.

Supporting Neighbourhood Services

This additional residential density supports the use of parkland, schools and transportation systems that are existing and planned for the adjacent established and developing communities.

3.2 Approvals

No approvals have been applied for to support this development at this time in advance of this submission. Future required approvals will include:

- Ministry of the Environment and Climate Change: Environmental Compliance Approval for construction of new sanitary and storm sewers.
- Ministry of the Environment and Climate Change: Permit to Take Water for construction of services and basements.
- City of Ottawa: Ministry of the Environment Form 1 Record of Watermains Authorized as a Future Alteration for construction of watermains.
- Rideau Valley Conservation Authority: Permit under O.reg 174/06 for stormwater connections to the watercourses, potential modifications to the Fraser-Clarke Drain and site alteration within the 1:100 year floodplain of the Jock River.

3.3 Summary of Proposal in Context and Zoning By-Law Amendment

Views and focal points have been established in the proposal layout. The arrangement of the roads and blocks is intended to address the relationship with the adjacent transportation corridor and developing neighbourhood to the north, and be sensitive to the environmental corridor along the south. The road network is designed as a permeable grid with pathways and walkway blocks. The single loaded road provides connection between the community and the open space corridor of the Fraser-Clarke watercourse. The development proposal features wider frontage singles with shallower depths without compromising overall densities. The established residential townhouse frontage along Chapman Mills Drive from the west is continued, interspersed by a segment of detached dwellings. This interruption to the visual massing of the townhouses provides a visual opening into the community from the corridor, and adds some building variety along the transportation corridor.

4 Policy and Regulatory Framework

4.1 The Planning Act and 2014 Provincial Policy Statement

Under Section 3 of the Planning Act, the Provincial Policy Statement 2014 (2014 PPS) provides for appropriate development and land management while protecting public resources. Specifically, it promotes growth in urban areas for the efficient use of land, resources, infrastructure and public service facilities. The policies also seek to protect and conserve the natural resources that support the long term health and social well being of communities, and the sustainability of natural features and systems in the environment. Relevant policies are discussed below.

The proposed development supports efficient and resilient development and land use land patterns in accordance with policies under Section 1.

- Promotes long term and sustainable efficient development and land use patterns;
- Accommodates an appropriate range and mix of land uses to meet long-term needs;
- Avoids environmental or public health and safety concerns;
- Avoids inhibiting the efficient expansion of appropriate settlement areas to minimize land consumption and servicing costs;
- Improves accessibility and supports participation in society for all;
- Ensures that necessary infrastructure is available to meet current and projected needs.

The subject area is located in a development area as directed under Section 1.1.3.

- Settlement areas shall be the focus of growth and development;
- Land use patterns within settlement areas shall efficiently and appropriately use land, resources, infrastructure and public service facilities which are planned or available, including the support of public and active transit;
- Minimize negative impacts to air quality and climate change, and promote energy efficiency;
- New development in designated growth areas should occur adjacent to the existing built-up area and shall have a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities.

The residential use of land adheres to the Section 1.4 housing provisions.

- Accommodates residential growth in Settlement Areas in designated areas;
- Supports a range of appropriate housing types and densities;
- Directs new housing to areas where existing infrastructure and services are available.

The subdivision design and layout promotes public spaces, recreation, parks and trails, and open space as per Section 1.5.

- Design of safe public streets, spaces and facilities which foster community interaction, connectivity and active transportation;
- Equitable distribution of publicly accessible natural settings for active and passive recreation, trails and linkages, and, water-based resources;
- Recognition and minimization of negative impacts on protected areas.

Sewage, water and stormwater services are provided to the development in accordance with Section 1.6.6.

- The efficient use of existing municipal sewage services and municipal water services are optimized
- The services are physically and financially sustainable, and compliant with regulatory requirements;
- The systems protect human health and the natural environment;
- The stormwater management system shall protect surface and ground water quality and quantity, and support the water balance and erosion thresholds of the receivers.

Efficient use shall be made of existing and planned transportation infrastructure systems as per Section 1.6.7.

The development layout has been prepared to protect the natural heritage features and areas for the long term in conformity with Section 2.1

- The diversity, connectivity and long-term function of natural features in the area shall be maintained, restored and, where possible, improved.
- Connections between natural heritage features and areas, surface water features and ground water features are supported.

The proposed development design adheres to the direction provided by Section 2.2 by protecting the quality and quantity of water by maintaining linkages and related functions among natural heritage features and areas, and surface water features including shoreline areas.

The subdivision layout respects the policies in Section 3.0 for the protection of public health and safety.

- Development shall not be undertaken where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.
- Development is generally directed to areas outside of hazardous lands adjacent to river systems which are impacted by flooding hazards and/or erosion hazards;
- Site alteration may be permitted in the flood fringe, subject to appropriate floodproofing to the flooding hazard elevation.

The proposed development is consistent with above direction provided in the PPS 2014 as it is located within the urban area and leverages the advantages of available services and infrastructure. The proposal avoids hazard lands (to be discussed further) and respects the natural heritage of the site and adjacent lands, while providing for an effective and efficiently serviced community which extends the development fabric in a logical manner.

4.2 City of Ottawa Official Plan (2003, as amended)

This subject property is within the 'General Urban Area' designation of Schedule B in the Official Plan, as shown on Figure 16. The General Urban Area designation (S 3.6.1.) supports a range of uses including the proposed housing at a variety of densities.

As per Policy 2 of the 'General Urban Area' designation, new development applications must reflect Urban Design compatibility objectives in Section 2.5.1 and the Urban Design and Compatibility policies in Section 4.11.

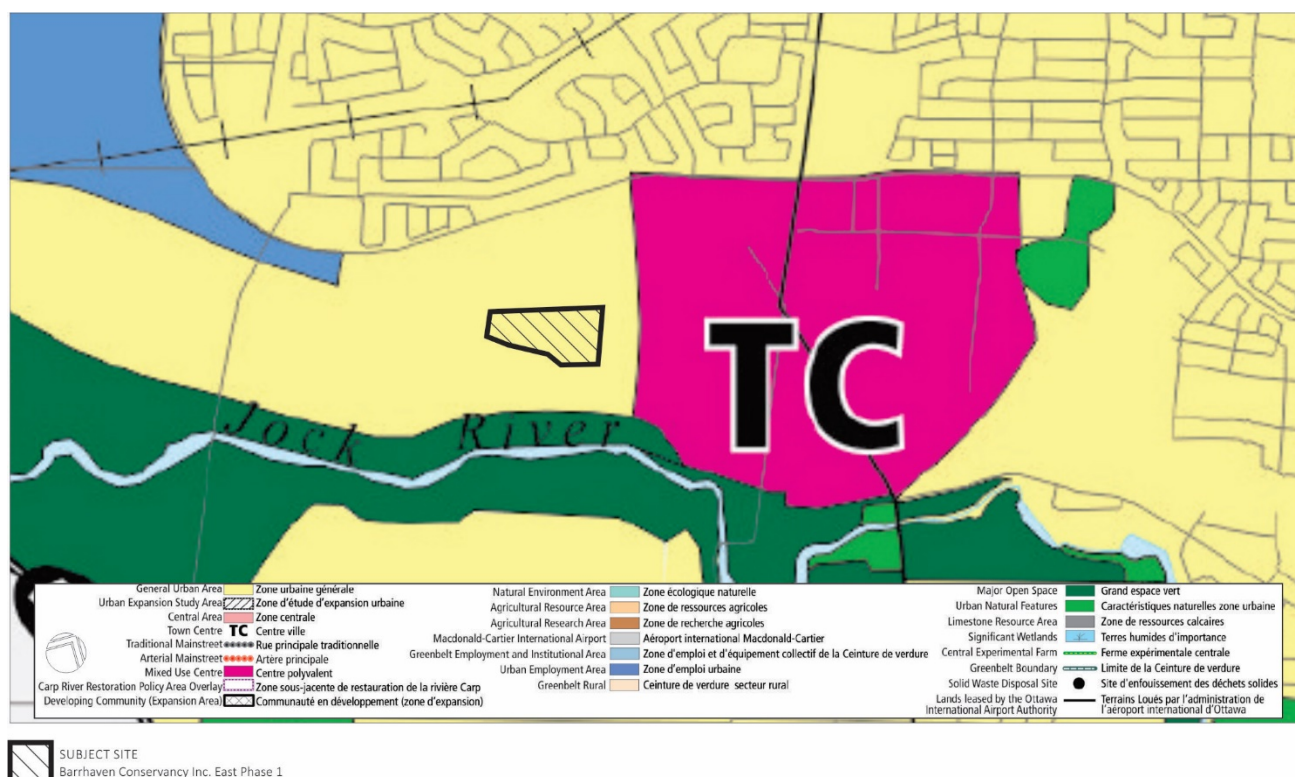


Figure 16: City of Ottawa Official Plan, Urban Policy Plan, Schedule B

Section 2.5.1 – Urban Design and Compatibility

To enhance the sense of community by creating and maintaining places with their own distinct identity.

- The proposal complements the fabric of the developing community to the north and supports two housing forms, continuing the Chapman Mills Drive rear lane townhouses adjacent transit corridor to the east.
- The layout establishes a connection to the open space corridors along the K-B SWMF, the Fraser-Clarke watercourse and Jock River corridors.

To define quality public and private spaces through development.

- The development layout connects the public spaces with the private residential blocks through a network of streets, open space corridors, connecting pathways and significant public ROW frontage for the parkland.

To create places that are safe, accessible and are easy to get to, and move through.

- The development is well connected through a street network that links easily through the neighbourhood and to adjoining transportation corridors and communities.

- Sidewalks and walkway connections allow for pedestrian movement.
- Buildings are street oriented and street frontage is substantial on the public space blocks which support 'eyes on the street' for safety and relationships between residents in the community.

To ensure that new development respects the character of existing areas.

- The development design integrates well with the existing areas.
- The frontage on Chapman Mills Drive continues the housing forms in terms of massing, pattern, rhythm and character expected along this corridor.
- The combination of detached and townhouses is consistent with proposed adjacent community to the north.
- The fabric of streets and open space is linked to the adjacent developed and future development areas.

To consider adaptability and diversity by creating places that can adapt and evolve easily over time and that are characterized by variety and choice.

- The choice of detached and townhouse units provided, combined with public spaces, transit, additional housing types and amenities available in the adjacent developments, provides a contribution to the diverse larger community and supports different housing and transportation voices for residents.

To understand and respect natural processes and features in development design

- The Fraser-Clarke watercourse is protected by a 30 metre setback from the normal highwater mark to adjacent street, park and residential property boundaries.
- This supports an open space corridor which protects the quality of water and the riparian habitat.
- Stormwater run-off from this subdivision will be treated prior to entering the watercourse. Additional vegetation will be planted within the 30 metre setback to restore the natural corridor.

To maximize energy-efficiency and promote sustainable design to reduce the resource consumption, energy use, and carbon footprint of the built environment.

- The provision of residential density along transit corridors and walkable distances to park space and public transportation reduces automobile use.
- Maintenance of natural open spaces and additional plantings contribute to tree cover and carbon sequestration in urban areas.

Section 4.11 of the Official Plan provides further policy criteria to be used in the evaluation of the compatibility of a development application. However, the policies acknowledge that determination of compatibility will vary depending on the use proposed and the immediate planning context and that not all criteria are applicable. In the context of the subject application, the following criteria (supplemental to policies of Policy 2.5.1) have been considered.

Roads should adequately serve the development, with sufficient capacity to accommodate the anticipated traffic generated.

The higher intensity townhouse residential uses are oriented to arterial or major collector roadways and therefore minimizes the potential for traffic infiltration on minor collector roadways and local streets. The road network has sufficient capacity to accommodate the proposed development.

The development should have adequate on-site parking to minimize the potential for spillover parking on adjacent areas.

The by-law required minimum parking of one space per unit will be provided. The careful spacing of driveway locations along street blocks will contribute to the on-street parking supply.

The development should contribute to or be adequately served by existing or proposed services and amenities such as health facilities, schools, parks and leisure areas.

As previously noted, there are adequate services and amenities available to support the proposed development.

2.5.4 – A Strategy for Parks and Leisure Areas and 2.4.2 – Natural Features and Functions

The development layout supports a publicly owned robust Open Space corridor along the south boundary, part of the Fraser-Clarke watercourse. This watercourse connects to the Jock River, K-B SWMF and continues further upstream in a protected corridor to Borrisokane Road. The watercourse is protected by a 30 metre setback from the normal highwater mark. Adjacent this corridor is the proposed 0.52 hectare park for active and passive recreation. A park fit plan is included in the submission documents.

Natural Heritage System Overlay (West), as shown on Figure 17, indicates the watercourse features of the Fraser-Clarke watercourse and a north-south tributary on the site.

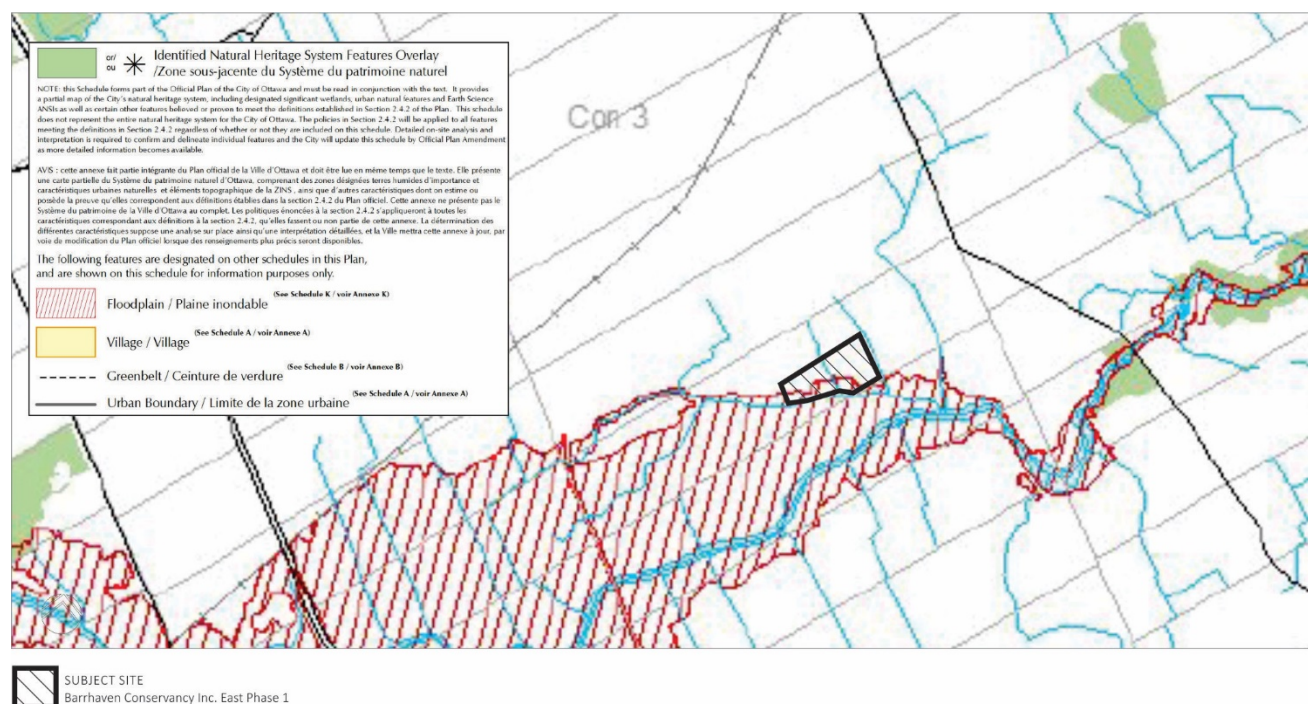


Figure 17: City of Ottawa Official Plan, Natural Heritage System Overlay (West), Schedule L3

The flood plain overlay along the southern boundary of the site is also delineated. The existing north-south tributary is proposed to be closed through an application made to the Rideau Valley Conservation Authority. This closure is supported by the conclusions of a Headwaters Drainage Feature Assessment prepared by Kilgour and Associates. The contribution of surface water by this feature to the hydration of the Fraser-Clarke watercourse will be mitigated by locating the stormwater outlets for the development appropriately. The core components of the Natural Heritage System identified in Schedule L of the Official Plan will be supported by the proposed development plan.

4.7.2 – Protection of Vegetation Cover

The site has very limited existing natural vegetation cover. A planting plan along the Fraser-Clarke watercourse will be established to support the watercourse corridor and improve vegetation cover. Plantings will be provided in the park and residential lands through the development process. There will be a net gain in tree cover realized through the proposed development.

4.7.3 – Erosion Prevention and Protection of Surface Water

As further discussed in Section 5, a Geotechnical study to confirm any required unstable slope allowances along the banks of the Fraser-Clarke watercourse shall be undertaken. Stormwater management quantity releases will be controlled to below the erosion threshold of the receiver (Fraser-Clarke watercourse). Setbacks to the watercourse are the greater of 15 meters from top of bank, 30 metres from the normal highwater mark and geotechnical limits as determined by a slope stability study. As shown on Figure 18, the 1:100 year flood plain of the Jock River extends over the Fraser-Clarke watercourse and beyond the 30 metre setback in some locations. These flood plain lands are proposed to be filled to raise land above the flood plain elevation in

those areas outside of the 30 metre setback boundary. Further consultation with the RVCA is required to confirm the acceptable approach and process for regularizing this boundary.

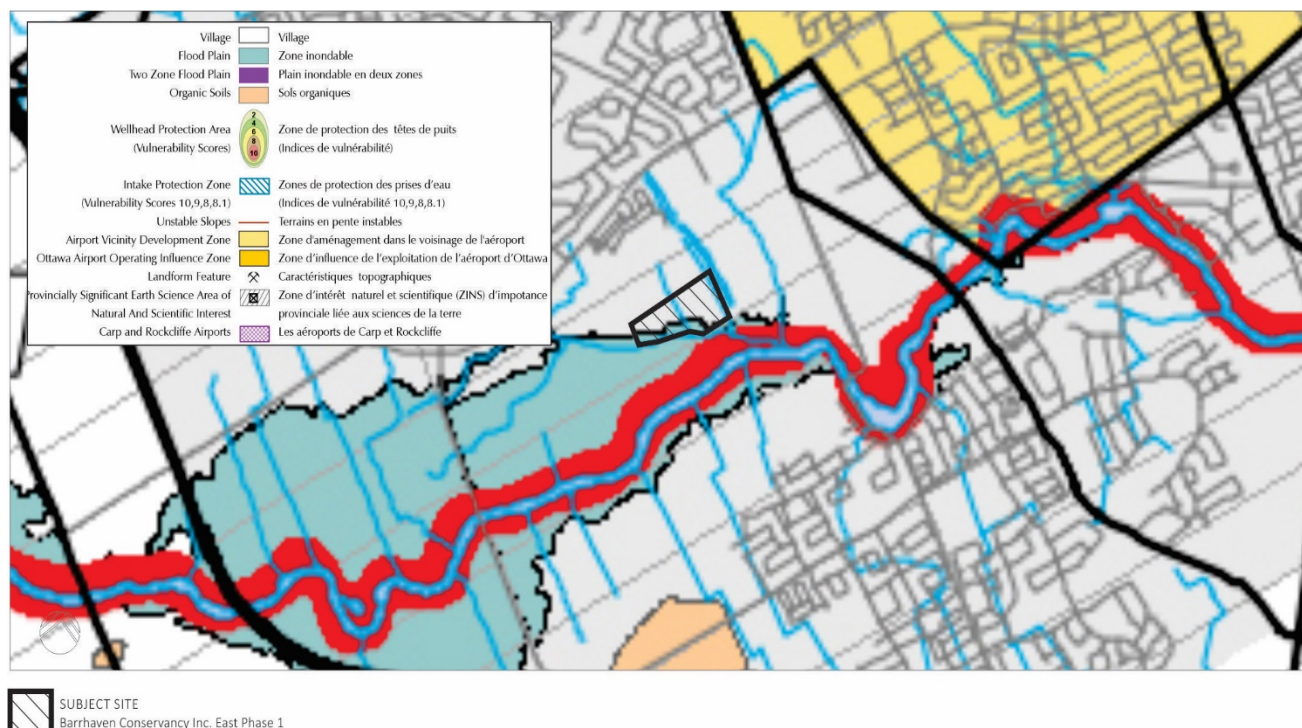


Figure 18: City of Ottawa Official Plan, Environmental Constraints, Schedule K

4.3 Integrated Environmental Review

A full Integrated Environmental Review (IER) will be prepared by Kilgour and Associates as a condition of draft approval for this subdivision. The IER will demonstrate that the supporting studies and design of the subdivision meet Section 4.7.1 requirements in the Official Plan and as such consider the environmental features of the site and integrate a design with nature approach.

4.4 Secondary Plan

Nepean Area 8 Secondary Plan

The Area 8 Secondary Plan provides guidance on the desired organizing principles and objectives for this area. The land use pattern is expected to complement the adjoining development area and provide a mix of residential uses, while acknowledging the Jock River flood plain and available recreational potential along the corridor.

As shown on Figure 19, the Land Use Plan: Schedule A5 designates the subject site as 'Residential', with Schedule B5 indicating a development target of 360 units in Area 2 which also includes the subject site and parts of the adjacent Clarke-Harmony development. The proposed density of this development is generally in keeping with the City of Ottawa intensification and transit oriented development guidelines.

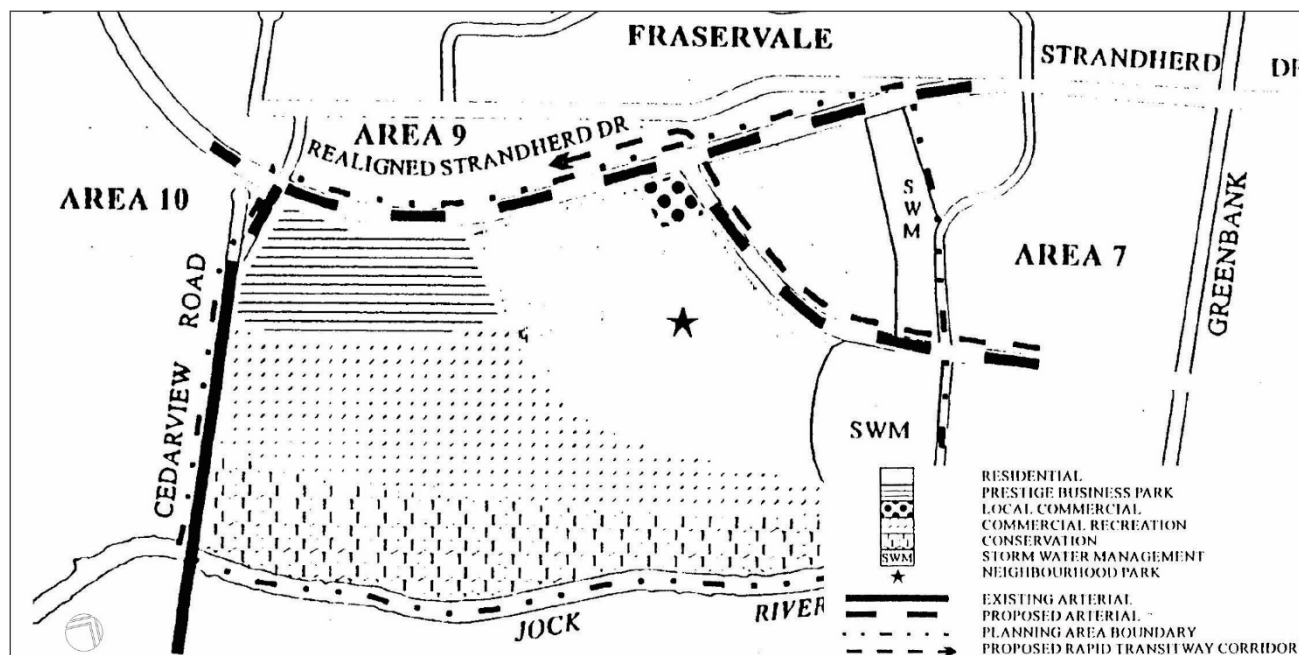


Figure 19: South Nepean Secondary Plan, Land Use Area 8, Schedule A5

This proposal provides for a mixture of low to medium density residential units, with single detached and townhome housing types as per Section 4.3.1.3.

The applicable residential policies of Section 4.3.1.4 are provided for as follows:

- No rear lotting of development is proposed along the Chapman Mills Extension,
- Public and/or private linkages are provided to open space corridors connecting to the Jock River.
- No single detached or semi-detached front on to the Chapman Mills Drive Extension; uses fronting on this street are of medium density.

The land requirements of the retrofit to the K-B SWMF have been addressed in consultation with City of Ottawa Staff in accordance with Section 4.3.6 (Storm Water Management).

The Transportation, Transit and Pedestrian and Bicycle policies (Sections 5.0, 5.2, 5.3) are generally adhered to, although updated to fit with transportation corridor decisions and current guidelines. As per the Environmental Assessment process for the Chapman Mills extension and Bus Rapid Transit (BRT) route, the delineated arterial has been realigned as part of the Chapman Mill Drive extension and BRT so that it no longer turns north towards Strandherd Drive and instead continues west to Borrisokane Road. The Clarke Fields collector now makes the connection up to Strandherd Drive. This main transportation corridor has evolved in both function and design since the secondary plan was created. However, a pedestrian and cycling network is integrated, fitting well with the modified urban grid pattern proposed for the residential street design, and the development provides for the land requirements of the transportation corridor. Sidewalk locations shall be refined in consultation with City of Ottawa staff.

The Urban Design (Section 6.) component of the secondary plan is respected through adherence to the more recent City of Ottawa's Urban Design Guidelines for Greenfield Development, discussed further below in Section 4.6.

The proposed infrastructure is described in the Functional Servicing Report submitted in support of this subdivision application. In keeping with the infrastructure policies of this secondary plan, the report confirms that the proposed infrastructure:

- is in conformity with the City of Ottawa Infrastructure Master Plan;
- is in conformity to the South Nepean Master Drainage Plan and Master Servicing Plans;
- maximizes utilization of existing infrastructure;
- provides for extensions of existing infrastructure in a logical and orderly pattern;
- minimizes costs of future infrastructure; and
- applies a flexible approach to the development of infrastructure.

This development proposal is the next logical development to proceed in the 8, 9 and 10 areas of the South Nepean Urban Area. The implementation section (8) of the Secondary Plan supports this continuous, orderly extension of the Community and the most efficient and economical use of existing and proposed infrastructure. This proposed plan of subdivision conforms with the applicable policies and designations of this Secondary Plan, and meets the requirements of more recent municipal guidelines where more appropriately applied.

4.5 Zoning By-law

The entire subject property is currently zoned as *Development Reserve (DR)*. The purpose of this zone is to recognize the lands as intended for future development and allow for uses which do not preclude the ultimate preferred uses. In preparation for future development, this subdivision and zoning application are accompanied by the required studies to support the proposed uses. Through the review and approval process, the site will be rezoned to reflect the plan of subdivision layout and uses.

There is a flood plain overlay (Section 58), with an irregular boundary, affecting the southern extent of the site along the Fraser-Clarke watercourse corridor. This delineates the 1:100 year flood plain boundary of the Jock River as currently mapped by the Rideau Valley Conservation Authority. The flood plain boundary will be aligned with the boundary of the watercourse corridor and will not encroach on any park, street or residential blocks.

4.6 Relevant Documents

Urban Design Guidelines for Greenfield Development

The proposed development had been laid out in accordance with these guidelines approved by the City of Ottawa in September 2007. Like other guideline documents, the document set out the desired approach and considerations for new greenfield development, however not every guideline is applicable in every case.

Specifically, this subdivision proposal:

- Structures the layout of the proposed neighbourhood by respecting and preserving existing natural heritage features and sustaining their function through stormwater management design and appropriate setbacks. Connects parks, greenspace and public lands to natural features. Pathways and corridors, sidewalks and streets create an accessible network for non-motorized transportation.
- Designed the streets, sidewalks, pathways and streetscapes to provide visual and accessible connections to the greenspaces and provide opportunities for new tree planting and landscaping.
- Focuses higher density development closer to transit.
- Connections between residential areas, transit, recreational, commercial amenities and greenspace are provided.
- Connections to proposed and potential future developments are protected.
- Rear yard amenities are oriented away from arterial and collector roads while single loaded streets and rear lane access is provided where possible.
- The local park has extensive street frontage and streetscape views terminate at greenspace amenities.
- Situates residential sites and buildings to address the street.
- Allows for a mix of housing type and architectural design.
- Incorporates mid-block walkways and connections to support community permeability and safety, and provide connections between residential areas and adjacent non-residential areas.
- Designed greenspaces to be located with accessible frontages and fencing and buffers to protect environmentally sensitive setbacks.
- Tree planting and sidewalks are proposed to support the local park with connection by pathways and sidewalks for local community accessibility.
- Utilities and amenities shall be located and designed to minimize visual impacts while supporting access and maintenance requirements.

Building Better Suburbs

The strategic directions and principles established in the Building Better Suburbs initiative are largely reflected in the servicing and community design, and layout of the proposed subdivision plan.

5 Supporting Studies

The following summarizes the analysis and conclusions/recommendations of various studies undertaken in support of the application.

5.1 Site Servicing Study & Site Servicing Plan, Erosion and Sediment Control Plan & Stormwater Management Report

DSEL Functional Servicing Report for Barrhaven Conservancy East Inc. dated November 24, 2017 report #17891 prepared by David Schaeffer Engineering Ltd.

Water supply will be provided from the future Clarke Fields collector (also known as the North-South Chapman Mills extension), with a second connection to a future local road east of Greenbank Road.

Sanitary service is to be provided via the off-site South Nepean collector trunk sanitary sewer as part of the Phase 2 alignment, as shown on Figure 20.

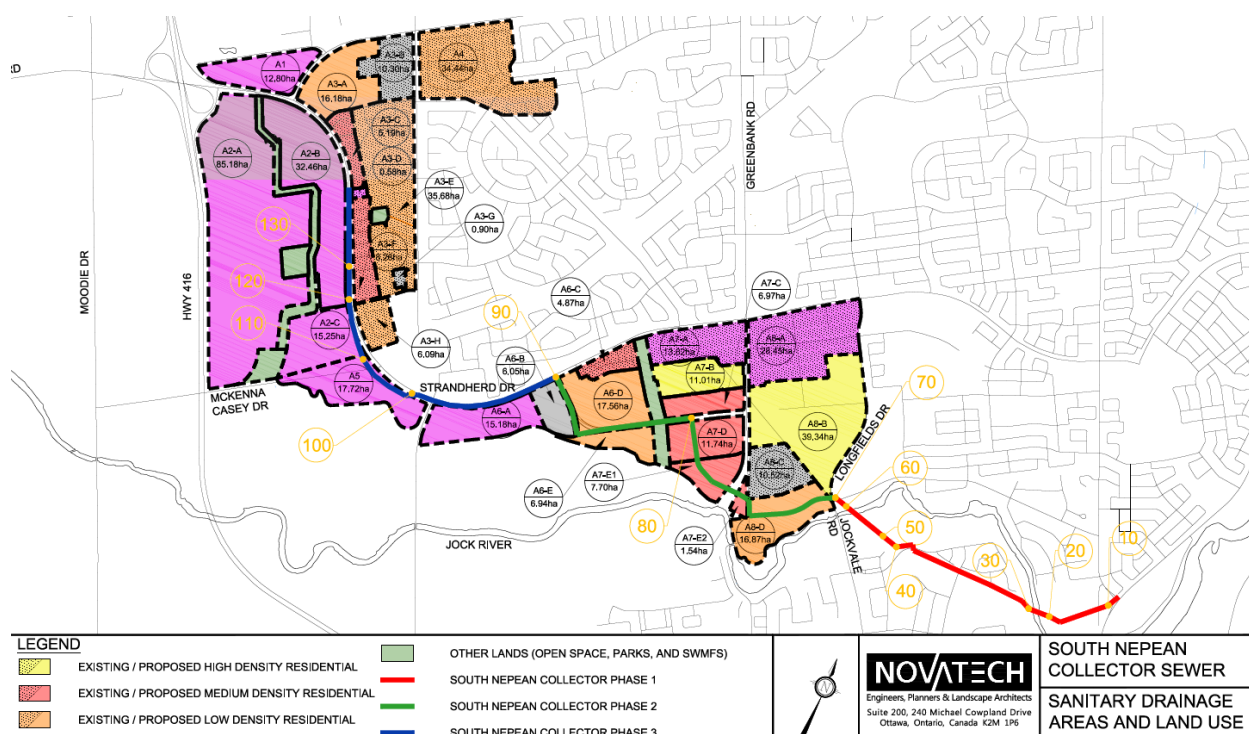


Figure 20: South Nepean Collector Trunk Sanitary Sewer

Stormwater shall be collected and outlet to the Fraser-Clarke watercourse. Enhanced quality controls shall be provided by OGS units. Quantity control shall be provided to respect the erosion thresholds of the Fraser-Clarke watercourse. The ultimate receiver, the Jock River does not require quantity control. A hydraulic grade line analysis will be undertaken in detailed design, and infiltration strategies will be implemented where feasible.

5.2 Transportation Impact Brief

This study is underway by Parsons and will be provided upon completion.

5.3 Geotechnical Study /Slope Stability Study

Geotechnical Investigation ~Proposed Residential Development Conservancy Lands- Phase, 1 dated September 2017 report # 1771847 -Phase 1 prepared by Golder Associates.

The report identifies the surficial material at the site as a clay with limitations on its capacity to support additional stress. This typically has implications for the foundation loads of structures, the weight of fill used to raise grades and the effects of lowering the groundwater table. Permissible grade raises were identified as 1.8 metres for roadways and 1.6 metres for houses. Conventional construction is determined to be feasible provided grade raise fill weight recommendations are followed.

The report also provide recommendation for foundation design, seismic considerations, frost protection, excavations, site servicing practices and materials, pavement design, future building permit requirements.

5.4 Noise Feasibility Report

Roadway Traffic Noise Feasibility Assessment ~ Conservancy Subdivision dated November 23, 2017 report # GWE17-151-Traffic Noise prepared by Gradient Wind Engineering Inc.

Noise contours were established based on the general massing for the townhouses and single homes. The contours were used to determine what level of noise control for various areas on site would be required. The results of the current study indicate that the highest roadway traffic noise levels will occur nearest to the intersection of the two collectors and that some outdoor living areas may also require noise control measures. Once the development layout is finalized, future detailed noise studies would be performed to determine site specific noise control measures.

5.5 Archeological Resource Assessment

Due to seasonal constraints, the archaeological resource assessment will be undertaken in spring 2018 and any recommendations arising from this report will be incorporated into the development proposal, as required.

5.6 Phase 1 Environmental Site Assessment

Phase One Environmental Site Assessment ~ 3150 Borrisokane Road dated September 2017 report #1785874 prepared by Golder Associates.

The Phase 1 ESA determined that since the site has only been used for agricultural and residential purposes, it is not considered a candidate for an enhanced investigation, and no Phase 1 ESA has been completed to support a record of site conditions. No Phase 2 ESA was recommended for the site.

5.7 Environmental Impact Statement and Tree Conservation Report

Environmental Impact Statement for Barrhaven Conservancy Phase 1 dated September 21, 2017 prepared by Kilgour and Assoc. Ltd.

The report inventories and assesses the existing natural features on the site and concludes that the proposed development will have no impacts to these features or wildlife species. Requirements will include mitigation measures to protect surface water features, trees and general wildlife, as well as MNRF site registration and Butternut tree planting.

5.8 Headwater Drainage Feature Assessment

Headwater Drainage Feature Assessment ~ Barrhaven Conservancy dated September 8, 2017 prepared by Kilgour and Assoc. Ltd.

The report identifies two surface water features on the site, reach 14 (the Fraser-Clarke watercourse) and reach 16 (agricultural drainage ditch). Reach 14 is determined to warrant protection due to important hydrology. Reach 16 provides contributing functions which must be mitigated through replication or enhancement if altered.

5.9 Park Concept and Facility Plans

The proposed public park block is 0.523 hectare in area and as such, is classified as a parkette under the City of Ottawa's Park and Pathway Development Manual. The design of the public park block has been prepared in conformity with design criteria and guidelines in Section 3.4.4.

Park Facility Fit Plan dated November 16, 2017 prepared by NAK Design Strategies has also been prepared to meet the City of Ottawa's Accessibility Design Standards for inclusive play spaces.

6 Zoning By-law Amendment

The entire subject property is a Development Reserve (DR) zone. The zoning by-law amendment application is accompanied by the required studies to support the proposed uses. Through the review and approval process, the site will be rezoned to reflect the plan of subdivision layout and uses with the residential lots and blocks placed in an R3 – Residential Third Density Zone.

The purpose of the R3 - Residential Third Density Zone is to:

- allow a mix of residential building forms ranging from detached to townhouse dwellings in areas designated as General Urban Area in the Official Plan;
- allow a number of other residential uses to provide additional housing choices within the third density residential areas;
- allow ancillary uses to the principal residential use to allow residents to work at home;
- regulate development in a manner that is compatible with existing land use patterns so that the mixed dwelling, residential character of a neighbourhood is maintained or enhanced; and
- permit different development standards, identified in the Z subzone, primarily for areas designated as Developing Communities, which promote efficient land use and compact form while showcasing newer design approaches.

The ultimate proposed zoning is expected to be R3YY, with exception [1909] or similar which provides for the following:

- A maximum of 60 per cent of the area of the front yard, or the required minimum width of one parking space, whichever is the greater, may be used for a driveway, and the remainder of the yard, except for areas occupied by projections permitted under Section 65 and a walkway with a maximum width of 1.8 metres, must be landscaped with soft landscaping
- Where an attached garage accesses a public street by means of a driveway that crosses a sidewalk, the attached garage must be setback at least 6 metres from the nearest edge of the sidewalk.
- Despite Table 65, Rows 1, 2 and 3, a chimney, chimney box, fireplace box, eaves, eave-troughs, gutters and ornamental elements such as sills, belts, cornices, parapets and pilasters may project 1 metre into a required interior side yard but no closer than 0.2 metres to the lot line.
- Despite Table 65, Row 6(b), balconies and porches may project to within 0 metres of a corner lot line.
- Despite Table 65 Row 6(b), the steps of a porch may project 2.5 metres into a required yard, but may be no closer than 0.5 metres from a lot line other than a corner side lot line, from which they can be as close as 0 metres.
- Despite Table 65, Row 6(a), any portion of a deck with a walking surface higher than 0.3 metres but no higher than 0.6 metres above adjacent grade may project to within 0.6 metres of a lot line, and any portion of a deck with a walking surface less than 0.31 metres may project to within 0.3 of a lot line.
- Despite Table 65, Row 8, an airconditioning condenser unit may project 1 metre, but no closer than 0.2 metres to a lot line, and may not be located in a front yard except in the case of a back-to-back multiple dwelling, but may be located in a corner side yard.
- Despite Section 57(2), for townhouse dwellings, the corner sight triangle will be calculated using 57(1) and in the instance of any dwelling listed in (1) including multiples, the distance used to determine a corner sight triangle is 2.75 metres and not 6 metres.

- In the case of a home based business operating within a townhouse or semi-detached dwelling, a parking space is only required if a non-resident employee works on-site.
- Section 136, which limits the maximum number of units in a townhouse dwelling to eight, does not apply.

Zone Requirements:	Detached Dwellings	Semi-Detached and Townhouse Dwellings	Rear Lane Townhouse Dwellings
Minimum Lot Area	220 m ²	137 m ²	81 m ²
Minimum Lot Width	9 m	5.5 m	4.4 m
Minimum Front Yard Setback	3 m	3.0 m	3.0 m
Minimum Front Yard Setback for an Attached Garage	3.5 m		n/a
Minimum Total Interior Side Yard Setback	1.8 metres with a minimum of 0.6 metres on at least one side. Where there is a corner lot on which is located only one interior side yard, the minimum required interior side yard setback equals the minimum required for at least one yard.		
Minimum Rear Yard Setback	6 m	6.5 m	n/a
Minimum Interior Side Yard Setback	1.8 m, with 1 yard min. of 0.6 m, 0.6 m for corner lot	1.5 m	1.5 m
Minimum Corner Side Yard	2.5 m	2.5 m	2.5 m
Maximum Building Height	12 m	14 m	12 m
Maximum Lot Coverage	55%	65%	65%

The proposed Zoning By-law amendment will implement the proposed detached and townhouse residential dwellings as proposed within the draft plan of subdivision. Such zoning is compatible with the existing and proposed developments adjacent the site. The proposed zoning provisions are based on similar zones used in other City of Ottawa suburban communities.

The proposed public park block will be placed in an O1 Zone which allows for an environmental preserve and education area, a park, urban agriculture and a farmer's market. This is consistent with other similar park zoning in the area.

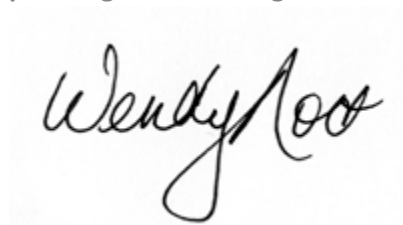
The block containing the Fraser-Clarke watercourse and related 30 metre setback will be placed in an EP Zone which permits environmental preserve and education area forestry operation, consistent with other protected watercourse corridors in the area.

7 Conclusions

Based on the applicable policies and guidelines presented in this report, the draft plan of subdivision represents good land planning and is in the public interest. It is consistent with Provincial Policy Statement intent and objectives and in conformity with Ottawa Official Plan and Secondary plan for the Area. The introduction of development at this time on the subject site is appropriate.

The proposed zoning by-law implements the regulations required to support development that meets design guideline objectives and sensitivity to the natural environment and adjacent land uses.

WND associates
planning + urban design



Wendy Nott, FCIP, RPP
Senior Principal

J. F. Sabourin and Associates Inc.



Jocelyn Chandler, MCIP, RPP
Water Resource Planner