

PLANNING RATIONALE REPORT SUBDIVISION AND ZONING BY-LAW AMENDMENT

OCTOBER 2021

4305, 4345, 4375 MCKENNA CASEY DRIVE & 3288,
3300 BORRISOKANE ROAD
Part of lots 13, 14, and 15, Concession 4 (Rideau Front) –
Geographic Township of Nepean

Prepared For:

Barrhaven Conservancy Development Corporation

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1 Introduction

1.1 Background

J. F. Sabourin and Associates Inc. has been retained by Barrhaven Conservancy Development Corporation ('BCDC') to assist in the development approval processes for lands comprising of 4305, 4345, and 4375 McKenna Casey Drive, as well as a portion of 3288 and 3300 Borrisokane Road (the 'Subject Lands').

The Subject Lands are within the urban boundary area and are primarily designated as 'General Urban Area' (Ottawa Official Plan: Schedule "B"), which allows for a variety of urban land uses including residential, employment, commercial, recreational uses. More specifically, the South Nepean Urban Areas 9 and 10 Secondary Plan, as amended by Official Plan Amendment 212, designates these lands for residential land uses. Additional areas of the Subject Lands are designated as 'Major Open Space' intended to generally support quality of life in neighbouring communities as well as to the overall integrity of the natural environment

This Planning Rationale has been prepared in support of an application for a Subdivision and Zoning By-law Amendment to advance these lands' ability to develop for their designated urban residential purposes.

1.2 Location

The Subject Lands are a 67.256 hectare irregular-shaped parcel currently addressed 4305, 4345, and 4375 McKenna Casey Drive, as well as a portion of 3288 and 3300 Borrisokane Road. The Subject Lands are part of lots 13, 14, and 15, Concession 4 (Rideau Front) in the Geographic Township of Nepean (Figure 1). These lands are located within Barrhaven, north of the Jock River, east of Highway 416, south of McKenna Casey Drive, and west of the Foster Watercourse. Surrounding lands uses include retail and employment areas to the north, a residential subdivision pending draft approval (Conservancy East) to the east, open space lands to the south, and agricultural uses to the south of the Jock River and across Highway 416 to the west.

Figure 1: Location of Subject Lands



1.3 Consultation

In partnership with the City of Ottawa, all public engagement activities will comply with *Planning Act* requirements, including the circulation of notices.

The following Public Engagement steps and activities are proposed:

- Notification of Ward Councillor, Councillor Harder, prior to application submission (completed);
- Community “Heads Up” and technical circulation to local registered Community Associations (City of Ottawa); and,
- Statutory public meeting for Draft Plan of Subdivision, to be held by Client in collaboration with Councillor Harder and the City of Ottawa.

Due to COVID-19, alternative public consultation processes may be required, such as an online Community Information and Comment Session.

1.4 Supporting Reports

These applications are accompanied by the following reports and plans:

- Draft Plan of Subdivision
- Plan of Survey (4R-33706)
- Area Parks Plan (NAK, October 2021)
- Conservancy Master Plan (NAK, October 2021)
- Conservancy Community Structure (NAK, October 2021)
- West Concept Plan SK12 (CAIVAN, October 2021)
- Zoning Land Use Plan (CAIVAN, October 2021)
- Adequacy of Public Services Report (DSEL, October 2021)
 - a. Conceptual Grading Plan
 - b. Conceptual Servicing Plan
 - c. Erosion and Sediment Control Plan
 - d. Sanitary and Storm Trunk Profiles
 - e. Sanitary Tributary Area Plan
 - f. Storm Tributary Area Plan
- Geotechnical Study (Paterson, October 2021)
- Environmental Impact Assessment and Tree Conservation (Kilgour, October 2021)
- Integrated Environmental Review (Kilgour, October 2021)
- Noise Assessment (Gradient Wind Engineering Inc., October 2021)
- Phase 1 ESA (Golder, October 2018)
- Planning Rationale (JFSA, October 2021)
- Transportation Impact Assessment (CGH, October 2021)
- Transportation Memorandum (CGH, October 2021)
- Archaeological Resource Assessment (Paterson, February 2020)

2 Context

The local context, a design with nature approach and consultation with municipal and Conservation Authority staff have influenced the layout of the subdivision and arrangement of amenities/services within. The arrangement of the roads and pathway blocks is intended to address the relationship with the adjacent developing subdivision to the east and the conservation lands to the south. Local roads are designed as a modified grid, with pathway blocks connecting to the parks and Jock River Open Space System. The park blocks provide an open space with more urbanized amenities, while the conservation lands to the south provide a more naturalized open space, providing passive recreational opportunities and supporting the environmental integrity of the Jock River corridor.

2.1 Surrounding Area

The Subject Lands are located within Barrhaven. The lands to the north are designated Urban Employment Area. To the east the lands are designated as General Urban Area. To the south, the lands are designated as Major Open Space and General Urban Area. To the west, the lands are designated General Rural Area and Agricultural Resource Area. As shown in the 2018 air photo, the surrounding lands are characterized by the following land uses (see Figure 2):

- North
The lands north consist of an employment area, Citigate Business Park. This area is rapidly developing into a series of light industrial and commercial uses, sited on large lots with excellent access to Highway 416. The Subject Lands are separated from the Citigate Business Park by McKenna Casey Drive and the rail line, the Barrhaven Snow Disposal Facility, Gregory Casey Stormwater Management Facility, and the Strandherd Ultimate Field.
- East
To the east, a residential subdivision (Conservancy East) is currently submitted to the city and anticipates draft approval soon. The residential communities are designed to integrate together and consist of a mix of residential uses. Additionally, two large vacant City Owned parcels are situated to the north-east, which are expected to develop as a transit-oriented development district.
- South
To the South, city owned environmental lands abut the Jock River. This area is preserved for environmental protection. The current subdivision proposal is designed to integrate with and enhance the environmental value of these lands. Across the Jock River, agricultural lands are zoned as 'Development Reserve', which will continue the urban residential fabric if they are developed.
- West
To the west Highway 416 establishes the boundary with agricultural and rural uses beyond.

Figure 2: Site Context



2.2 Site Conditions

The existing site conditions are comprised primarily of former agricultural croplands which have been altered in preparation for development and to address previous floodplain constraints. The remaining subject lands remain undisturbed and extend to the banks of the Jock River in the south. The river and associated tributaries are buffered with varying amounts of vegetation, from large trees and shrubs, riparian hedgerows, and in other cases limited to narrow grassed strips. The O’Keefe Municipal Drain runs north to south through the site and the Foster Municipal Drain runs along the eastern edge of the Subject Lands.

2.3 Relationship to Landscape

The site is in the urban area of Ottawa and will be complementary to the surrounding residential fabric once build out is complete. The overarching objective of the proposed development will be to create a community defined by its direct adjacency to a rich ecological open space system which includes the Jock River corridor, and leverages its proximity to the existing Barrhaven community.

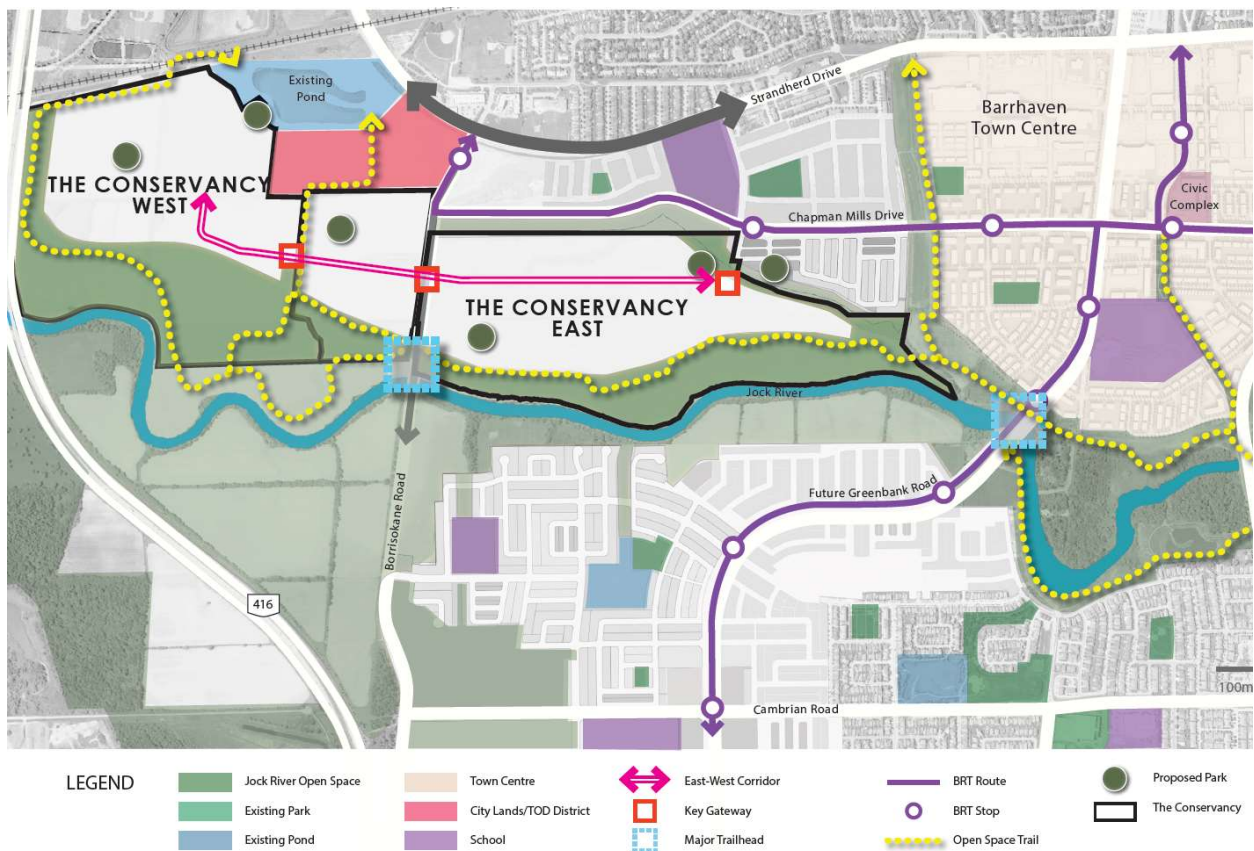
The Jock River Open Space System will be a key feature of this community, promoting physical activity and public health, supporting existing natural features and restoring the river corridor, and creating a new destination within Barrhaven.

The Jock River corridor is proposed to contain a series of environmental features, passive recreational spaces and educational opportunities. The corridor will be connected to the Subject Lands and the broader community through multi-directional community linkages. Existing natural features, such as tree canopy, wildlife habitat and fish habitat, will be preserved and the riparian ecosystem will be enhanced and conserved through creation of diverse habitats.

2.4 Transportation Connections

Access to the Subject Lands is currently provided from Borrissokane Road through the adjacent developing subdivision (Figure 3). Upon full buildout two east-west collector streets with ROW's of 24m and 20m respectively will provide access to a series of local roads laid out in a modified grid providing access to individual residential lots and blocks

Figure 3: Transportation Connections

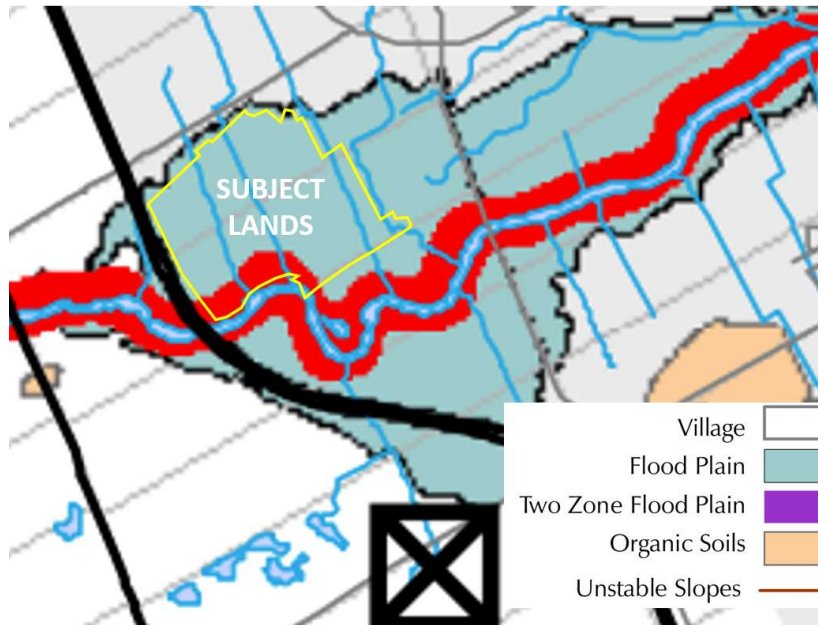


The Chapman Mills Bus Rapid Transit ('BRT') is proposed to terminate at Borrisokane Road, with the transit route continuing in accordance with the alternatives presented within the Transportation Memo (CGH, 2021). This transit route connects the Barrhaven Civic Complex and Town Centre to the proposed terminus BRT stop located in the southwest quadrant of Borrisokane Road and Strandherd Drive. The Technical Memo prepared by CGH addresses the rationale for the BRT corridor and terminus.

2.5 Natural Heritage System and Parks

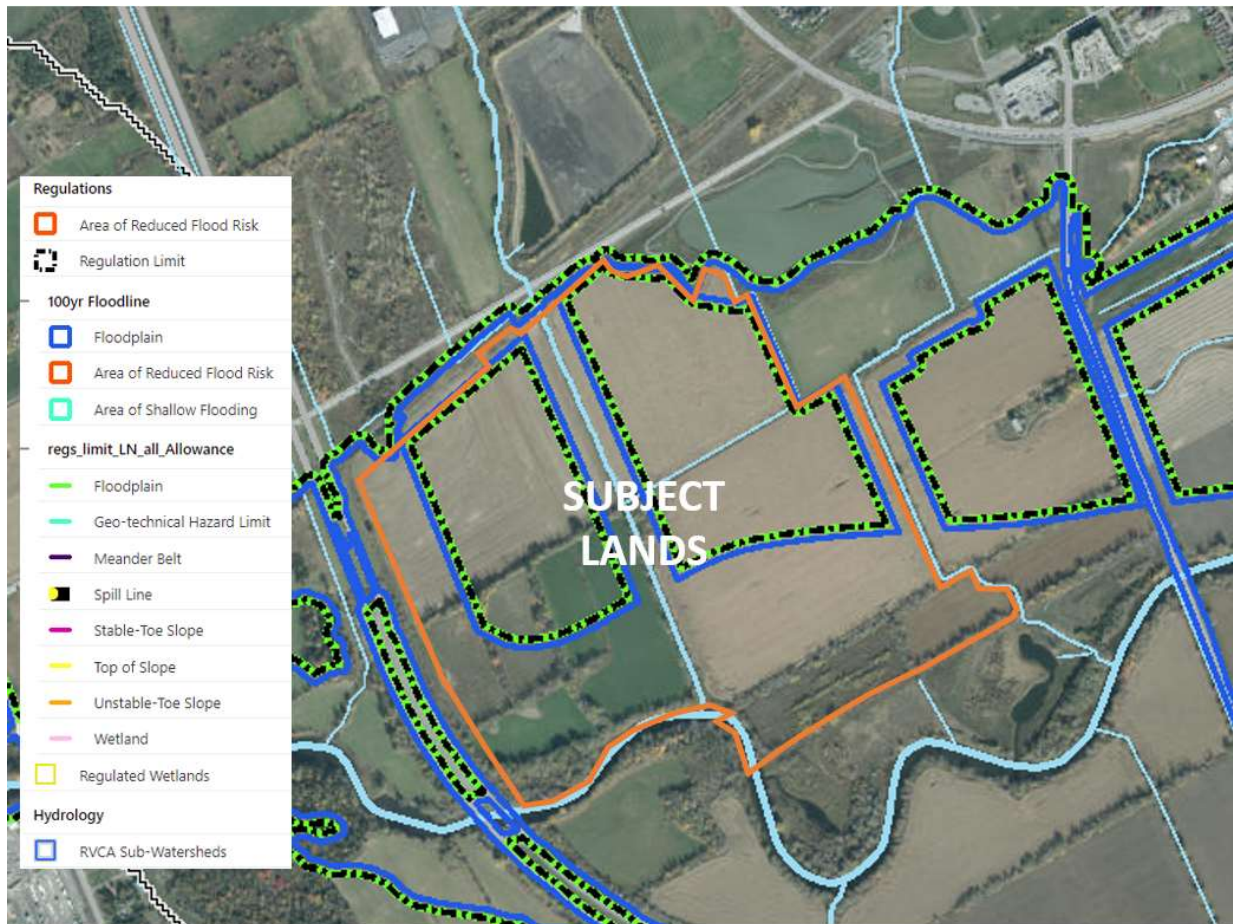
The Subject Lands are not located within an area identified by the Natural Heritage System Feature Overlay on Schedule L2. However, the legacy delineation of the former floodplain area on Schedule K continues to persist and will be revised to reflect accurate depiction in future official Plan documentation (See Figure 4). Unstable slopes are noted along the shore of the Jock River, however built development is not adjacent the watercourse.

Figure 4: Environmental Constraints Noted on Schedule K



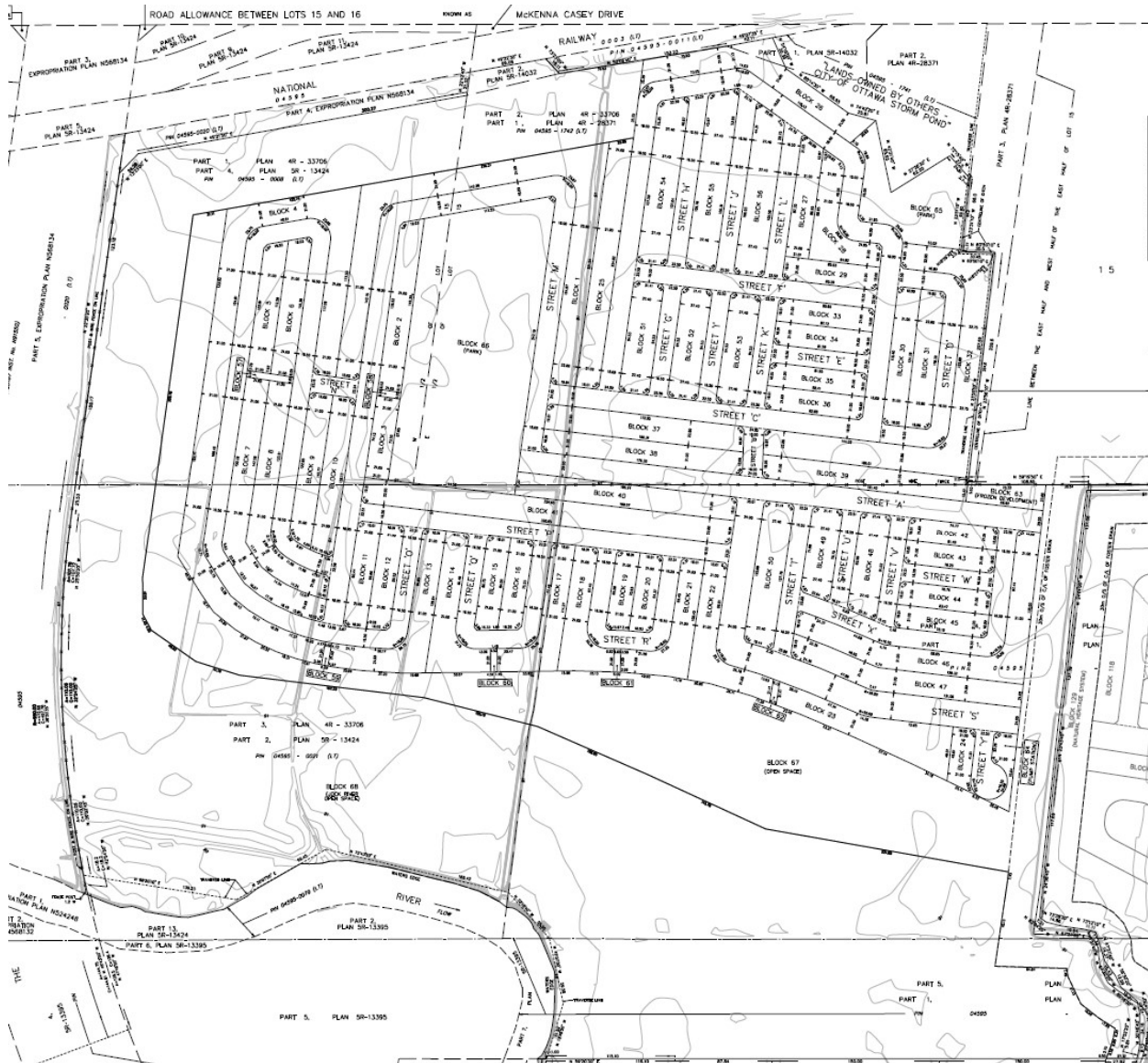
Following the submission and confirmation of a site-specific elevation survey in May 2020, the RVCA updated their regulatory mapping of the Jock River in July 2020 (See Figure 5). This boundary between the floodplain and the developable lands is reflected on the Draft Plan of Subdivision, identifying the Jock River open space blocks and the residential lot fabric (See Figure 6).

Figure 5: RVCA Updated Regulatory Floodplain



The draft plan identifies a block of land currently in the flood plain, between the Jock River floodplain open space block and the residential development envelope. This land is expected to be zoned as development reserve until such a time as an application for a wetland cut and fill is considered by the Rideau Valley Conservation Authority. If approval is not forthcoming, the lands will be conveyed to the City as part of the Jock River open space corridor

Figure 6: Draft Plan of Subdivision Prepared by J.D. Barnes



As proposed, the existing draft plan will be implementable without encroaching on lands within the regulatory floodplain. There is no conflict between the current delineated floodplain and the proposed residential development. If any future permit is granted by the RVCA for alterations within the floodplain (cut and fill), development will not proceed in the area until after the flood plain boundary has been re-evaluated.

As can be seen on Figure 6, a significant portion of the Subject Lands will be dedicated to extending the Jock River corridor from the east. This proposal will ultimately enhance the existing floodplain lands for ecological habitat development and passive public access opportunities.

Additional major community parks exist to the north-east of the site with the Strandherd Ultimate Field located at 4061 Strandherd Drive, a soccer field, baseball diamond, playground and BMX

track at Clark Fields Park, and the components of the area parks plan being implemented across the Conservancy lands, east and west.

Figure 7: Barrhaven Conservancy Community Plan



3 Proposed Plan of Subdivision

3.1 Details

3.1.1 Layout

The proposed subdivision development is expected to support approximately 1000 residential lots over the 67.25 ha site. The layout has been designed to integrate into the adjacent residential lands within Barrhaven, in accordance with the Ottawa's Official Plan and the South Nepean Secondary Plan Areas 9 & 10.

The structural components of the plan include the following, as shown in Figure 8:

- Approximately 1000 residential lots (20.09 ha)
- 2 park blocks
- 1 pump station
- 6 pedestrian linkages
- 25 roads
 - a. 3 collector roads
 - b. 22 local roads
- Development Reserve 63 & 67 (8.16 ha)
- Open Space (23.6 ha)

Figure 8: Concept Plan



3.1.2 Statistics: Height/Density/Unit Type/Mix

As illustrated above, the proposal provides lots for back-to-back townhomes, townhomes and single detached homes. The lots vary in depth and frontage to provide variation in unit mix in keeping with the suburban character of Barrhaven. The approximate number of units (1000) divided by the total land area (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) (20.1 ha) provides an approximate post development density of 49.75 units per net hectare at full build out. This density is comparable to other subdivisions in the area and falls between the Secondary Plan medium and high density targets of 30-37.5 units and 62.75 units per net hectare. This represents an efficient use of these urban residential lands.

3.1.3 Landscaping and Streetscaping

Integration and connection with the Jock River Corridor is an important component of the Conservancy community. This has been achieved with multiple pedestrian accesses into the open space lands and limiting infrastructure and road crossings over watercourses.

Streets are expected to be typical suburban residential ROW with on street parking and sidewalks as proposed in the Community Connections Plan in the Area Park Plan (NAK, 2021). Streets will benefit from continuity with the residential character of the Conservancy lands to the east, including consistent setbacks, a variety of housing typologies and tree planting around the residential envelopes.

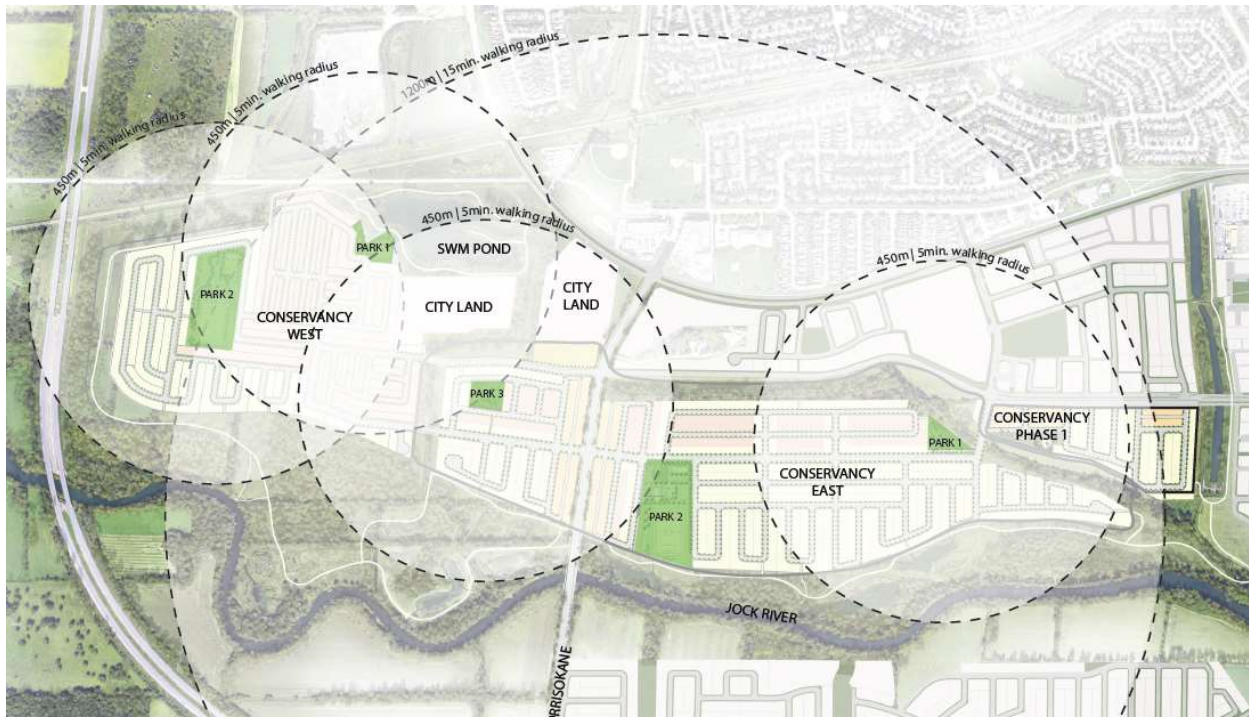
3.1.4 Parks and Open Space

Pathways, parks and the Jock River Corridor lands comprise approximately 40.47% of the lands included in the Draft Plan of Subdivision. Ultimate parkland dedication of all Conservancy Lands will meet the requirements of the Parkland Dedication By-law.

The preservation and enhancement of the Jock River Corridor is critical to the development for both ecological reasons and as a component of community identity. The floodplain area, formerly comprised on mono crop agriculture and limited riparian buffers will be iteratively transformed into a new destination within Barrhaven, embedded with environmental and sustainable practices, aimed at increasing biodiversity, showcasing ecological strategies and improving overall community health.

As located and designed, the parks within the development will form key features of the open space system and will include a variety of amenities and unique designs that appeal to a diversity of ages and abilities. All residential development will be within a 400m radius of a park. Connections to these parks will be provided through the community's active mobility and street network.

Figure 9: Area Parks Plan



3.1.5 Transportation and Access

Access to the proposed development will be through the adjacent development, *The Conservancy East* (See Figure 10). The road network provides for a two east-west collector roads (24 m and 20 m right-of-way widths), which provide connection to lands east of the Subject Lands. An internal grid local road system (18 m and 16.5 m typical rights-of-way widths) provides access to the individual residential lots and blocks.

Figure 10: Road Network



On-street parking has been provided on all local and collector streets, offering additional short-term parking for residents and visitors. Slower vehicular speeds will be encouraged throughout the community. Along with traffic calming strategies, collector roads will have alternating on-street parking,

The proposed Chapman Mills Bus Rapid Transit terminates east of the Subject Lands at Borrisokane Road. The development supports this important transit corridor through strong pedestrian connections (sidewalks and pathways) providing residents with access to the transit network. Further, higher density housing forms are situated in close proximity to the City owned lands that may be developed as a transit oriented district. Barrhaven Town Centre can be easily accessed via the rapid transit line, giving residents the option of fulfilling the majority of their daily needs without access to a car.

Community pedestrian connectivity includes public sidewalks associated with the local road system, linking neighbourhoods, transit nodes and park amenities. Further, a number of internal pathways will bisect the larger residential blocks, as needed, together with several connections

to the Jock River Open Space System, where a series of trails, connecting to Borrisokane Road and areas to the east of the Subject Lands, are contemplated.

3.1.6 Traffic Calming

A safe and efficient approach to community-wide connectivity is important to the design of The Conservancy West street network. Due to the various modes of travel that are anticipated in this new community, a series of traffic calming strategies will be put in place along active mobility routes and areas of higher foot traffic.

Pedestrian and cyclist connectivity will be supported through the implementation of traffic calming measures at the outset of road design for local and collector streets. Tree lined streets and on street parking will contribute to traffic calming. Localized vehicular speeds will be reduced to improve safety.

3.1.7 Outdoor Amenity Space

Public land within and surrounding the subdivision provides additional open space areas (active and passive) for the residents. Access to open space is enhanced by the expansion of the Jock River Corridor adjacent the site.

3.1.8 Noise and Air Quality

Noise from traffic is addressed with noise mitigation features where necessary, based on the Noise Study recommendations prepared for this development. Air Quality will be supported by the extensive undeveloped Jock River corridor and efforts to reduce vehicular traffic by providing opportunities for alternative transportation modes.

3.1.9 Sunlight and Microclimate

As with other residential suburban developments, the street width and front yard setbacks allow sight penetration. Microclimate effects are mitigated best through responsible surface water management and tree planting as proposed.

3.1.10 Supporting Neighbourhood Services

Local rapid transit, proximity to the existing commercial and retail centers of Barrhaven, and a variety of local school sites provide essential services to this residential community.

3.2 Design Proposal

The residential built form will incorporate a unique architectural character that is compatible with the surrounding residential communities and is primarily composed of low to medium density housing forms. The community will include two-storey single-detached housing, and traditional townhomes, along with back-to-back townhomes, strategically interspersed.

3.2.1 Built form

All homes will be designed using high-quality building materials and detailed to help define and establish a harmonious community identity. Key corridors & collector streets will be priority for enhanced architectural elevations / materiality.

A variety of residential typologies and styles will be provided throughout the community to reduce monotony, create visual diversity, and cater to various homebuyers, while complementing the existing architecture in surrounding communities. Homes will be located close to the property line, with their primary face addressing the street, while maintaining minimum setbacks and making room for trees and utilities, to help define street edges and create visually ordered streetscapes.

Primary entrances, windows and porches will be clearly visible, articulated, and identifiable from the street. Garages will not dominate the width of the front facade.

3.2.1.1 Corner Lots

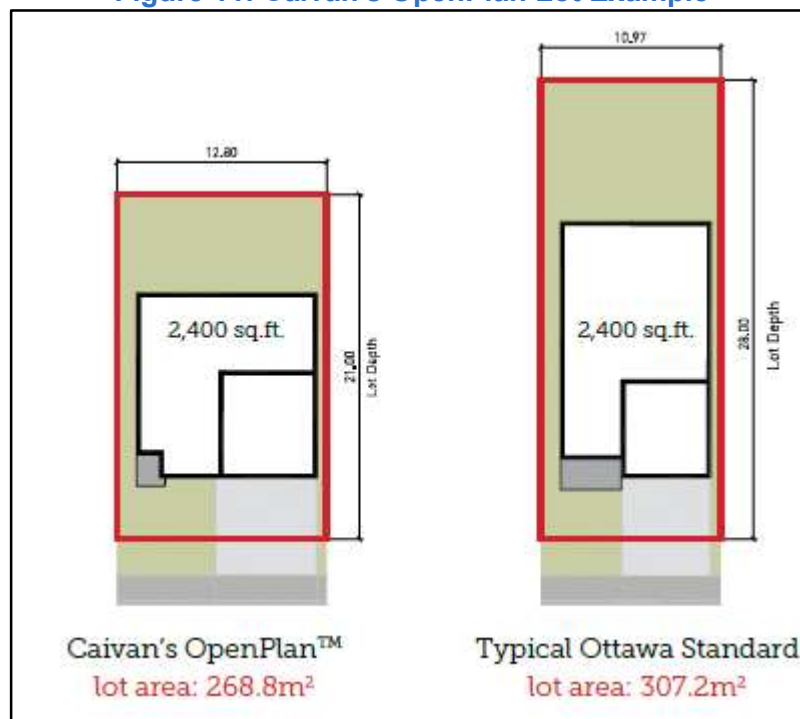
Special consideration will be given for corner lots within the subdivision due to their role in defining the character of the neighbourhoods. Corner units will be provided in the single detached and rear lane townhome typologies. These units will exhibit the following characteristics:

- Where possible, corner units, with driveways and front doors addressing separate streets, will be included to create more active street frontage and reduce the need for long stretches of privacy fences.
- Where possible, incorporate porches, which are big enough to accommodate sitting areas, into the overall architecture of the building.

3.2.1.2 Lot Dimensions

Compared to the typical lot size in Ottawa, Caivan's OpenPlan™ designs decrease lot depth, while increasing lot width. This in turn makes collector and local right-of-ways appear less car-dominated, due to the wider lot widths, while providing additional on street parking frontage between driveways. In addition, Caivan's OpenPlan™ designs allow for greater community density compared to a community with typical lot sizes.

Figure 11: Caivan's OpenPlan Lot Example



3.2.2 Single Detached

Front Drive Single Detached Homes will exhibit unique and distinct characteristics. These homes will be offered in a variety of sizes to cater to a variety of homebuyers. Single detached housing typologies that will be incorporated into the Conservancy neighbourhood will include:

- 35' Single Detached Homes
- 37' Single Detached Homes
- 42' Single Detached Homes
- 50' Single Detached Homes

3.2.3 Traditional Townhome

Two-Storey Traditional Townhomes will complement the aesthetics found within the single detached housing units, showcasing similar features, materials and setbacks. Connected units will vary in style and size to create architectural interest within the facade of each townhome block. These blocks will contribute to the diversity of housing typologies within the Conservancy neighbourhood.

3.2.4 Back-to-Back Townhome

Back-to-Back Townhomes will complement the aesthetics of traditional townhomes and single detached housing units, while also providing additional density in areas closer to the future transit oriented development, north-east of the site. Connected units will vary in style and size to create architectural interest within the facade of each townhome block. These blocks will contribute to the diversity of housing typologies within the Conservancy neighbourhood.

3.3 Approvals

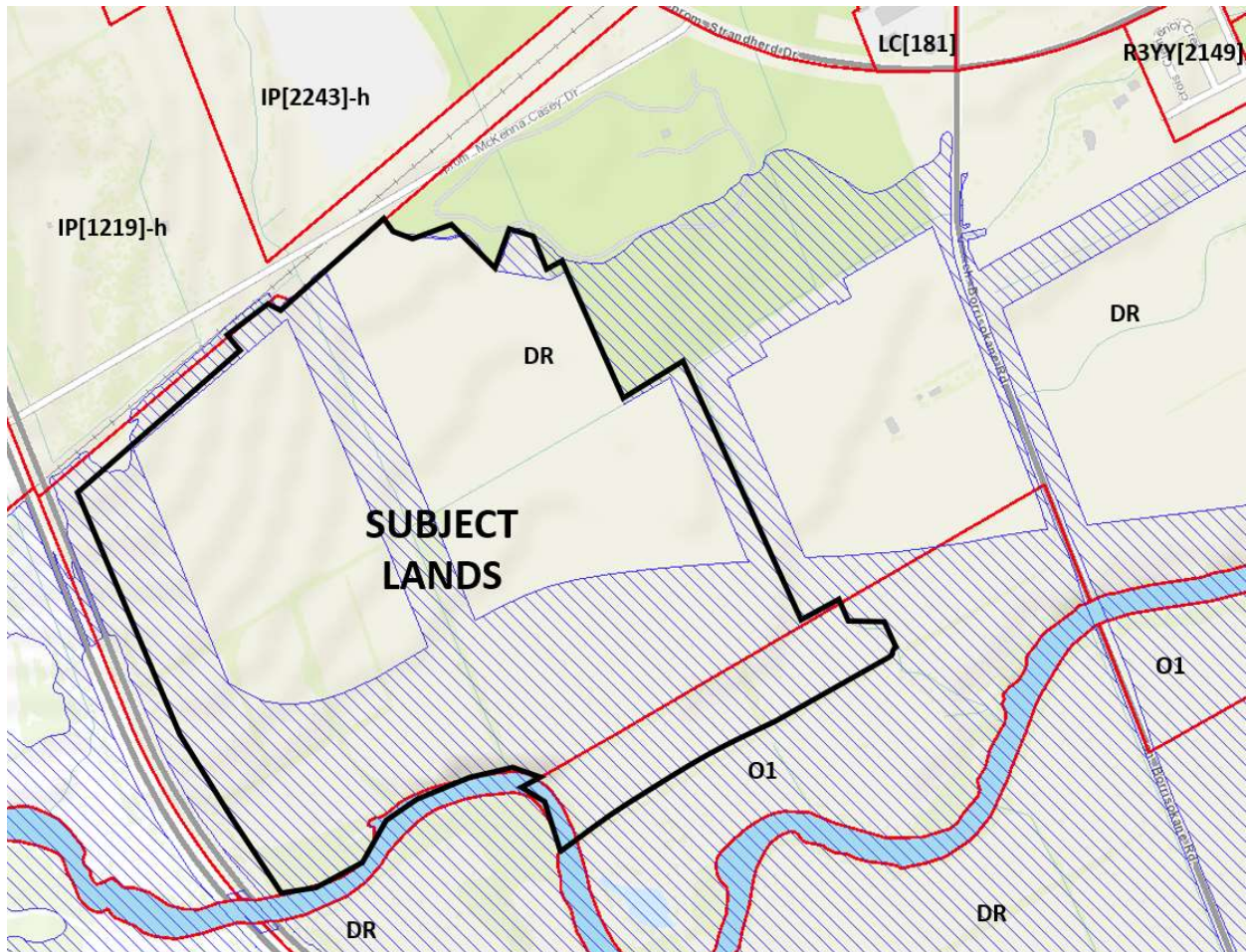
No approvals have been applied for in advance of the submission. Future required approvals will include:

- Ministry of the Environment and Climate Change: Environmental Compliance Approval for Construction of new sanitary and storm sewers throughout the subdivision.
- Ministry of the Environment and Climate Change: Environmental Compliance Approval for implementation of oil-grit separator units for quality control.
- Ministry of the Environment and Climate Change: Permit to Take Water for construction if required.
- Rideau Valley Conservation Authority: Permits under O.reg 174/06 as required.

4 Proposed Zoning By-law Amendment

The majority of the Subject Lands are currently zoned 'Development Reserve ('DR')' in By-law 2008-250, with a small portion of the subject site (adjacent to city owned lands to the south) zoned 'Open Space 1 ('O1') Zone' (See Figure 12). Portions of the Subject Lands are also subject to a 'Flood Plain Hazard Overlay' (identified by the hatched area on the Figure below) which prohibits some uses in the underlying DR and OS1 zoning.

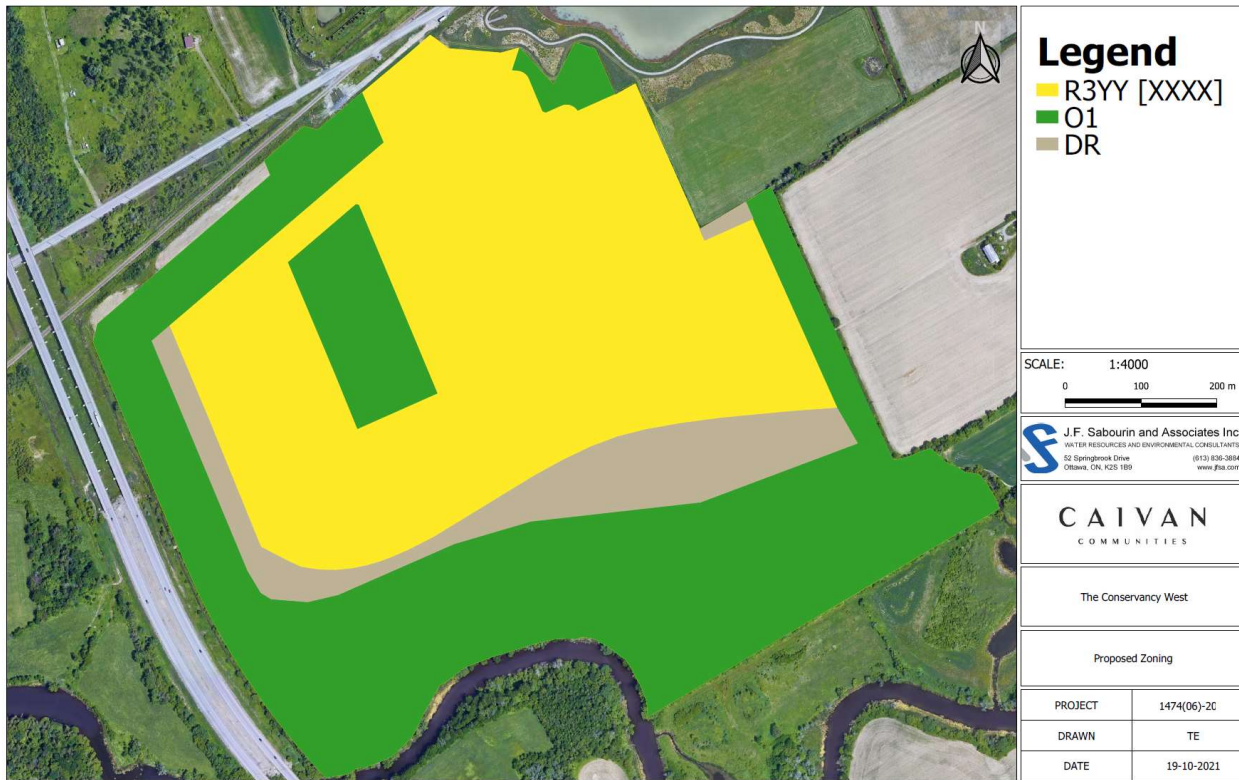
Figure 12: Existing Zoning on Subject Lands



4.1 Details of Proposed Amendment

The lands are composed of single-family, townhouse, and back-to-back townhouse residential housing, at densities in keeping with the suburban character of the area. Open space in the development includes pedestrian linkages, two parks, and the Jock River Corridor. The proposed zoning shall support these residential uses and open space, as per Figure 13. Lands that are not specified as Residential or Open Space will remain Development Reserve.

Figure 13: Proposed Zoning



The proposed zoning by-law amendment applies to approximately 67.25 hectares within the urban boundary of the City of Ottawa. The structural components of the revised plan include the following:

- Approximately 1000 residential lots (20.09 ha)
- 2 park blocks
- 1 pump station
- 6 pedestrian linkages
- 25 roads
 - a. 3 collector roads
 - b. 22 local roads
- Development Reserve 63 & 67 (8.16 ha)
- Open Space (23.6 ha)

With the proposed residential zoning and units, in the overall subdivision, the approximate number of units (1000) divided by the total land area devoted to residential use, supports a **density of 49.75 units per net hectare.**

4.1.1 Residential

The proposed zoning will implement residential dwellings as proposed within the draft plan of subdivision. Such zoning is compatible with the existing and proposed developments adjacent to

the site. The proposed zoning provisions are based on residential zones in adjacent subdivisions to the east. R3YY – (By-law 2008-250), with the following accommodations:

R3YY[XXXX]

General Provisions for Exception

- A maximum of 65 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; except in the case of a back-to-back townhouse where a maximum of 75 per cent of the area of the front yard may be used for a driveway/parking and garbage enclosure.
- 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 5.8 m from the nearest edge of the sidewalk.
- 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.
- Balconies and porches may project to within 0 metres of a corner lot line and sight triangle.
- 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 and sight triangle, from which they can be as close as 0 metres.
- 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 equal to or less than 0.3 metres may project to within 0.3 metres of a lot line.
- An air-conditioning condenser unit may project 1 metre, but no closer than 0.2 metres to a lot line. And the air conditioning condenser may not be located in a front yard (including front yard balcony) except in the case of a back-to-back multiple dwelling or townhouses with rear lane access, but may be located in a corner side yard.
- Section 57 does not apply
- 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.

1) The following applies to detached dwellings:

- minimum lot area: 220 m²
- minimum front yard setback 3
- minimum total interior side yard setback is 1.8 m with a minimum of 0.6 m 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 corner side yard setback: 2.5 m, despite the foregoing, no more than two portions of the building, not exceeding a total floor area of 3m², may be located no closer than 2 m from the side lot line abutting a street
- maximum lot coverage: 55%

- minimum rear yard setback may be reduced to 4.5 m for a maximum of 50% of the lot width, the total area of the rear yard must not be less than 54 m².
- **for a detached dwelling on a corner lot:**
 - a. minimum rear yard setback may be reduced to 2.5 m for part of the building that is no higher than 4.5 m and any part of the building, excluding projections, located less than 6 m from the rear lot line must be located at least 4 m from any interior side lot line.

2) The following applies to semi-detached and townhouse dwellings:

- minimum lot area: 137 m²
- minimum lot width: 5.5 m
- minimum front yard setback: 3.0 m
- minimum interior side yard setback: 1.5 m
- minimum corner side yard setback: 2.5 m
- maximum building height: 14 m
- maximum lot coverage: 65%

3) The following applies to back-to-back townhouse dwellings

- Minimum lot area: 77 m²
- Minimum lot width: 5.5 m
- Minimum front yard setback: 3.0 m
- Minimum interior side yard setback: 1.5 m
- Minimum rear yard setback: 0.0 m
- Minimum corner side yard: 2.5 m
- Maximum building height: 14 m
- Outdoor amenity area is permitted on top of balconies above garages
- Despite Section 102 – Table 201, no visitor parking is required on the same lot as a townhouse
- Despite Section 107(3)(b), driveways may be located in a front yard if the permitted parking space is also in the front yard.
- Despite Section 109(3), the required parking space may be established in a required and provided front yard.
- Balconies and porches, including those higher than 0.6 metres above adjacent grade, may project to within 1.0 m from the front lot line, and may project to within 0.0 m of an interior lot line, corner lot line or the corner sight triangle
- Bay window features and garbage enclosures are permitted to project 1.0 metre, but no closer than 1.2 m from a lot line.
- Maximum lot coverage: no maximum

4) The following applies to townhouse dwellings with access to a rear lane:

- minimum lot area 110 m²
- minimum lot width 5.5 m
- minimum front yard setback 3 m

- minimum rear yard setback: 0 m
- minimum interior side yard setback: 1.5 m
- minimum corner side yard: 2.5 m
- maximum building height: 14 m
- maximum lot coverage: no maximum
- The area of the driveway can cover 100% of the yard in which it is located.
- Outdoor amenity area is permitted on top of garages
- Where access is via the rear lane, the minimum rear yard setback may be reduced to 0 m, and the width of the garage, carport or driveway may be the width of the entire rear yard.
- Balconies and porches, including those higher than 0.6 metres above adjacent grade, may project to within 1.0 m from the front lot line, and may project to within 0.0 m of an interior lot line, corner lot line or the corner sight triangle

4.1.2 Open Space and Parks

Consistent with other local parks, community parks, and natural areas, the Open Space [O1] zoning is proposed.

4.1.3 Remaining Lands

The remaining 8.15 ha (63 & 67) of the site will remain Development Reserve, pending the outcome of a current application to the RVCA, under O. Reg 174/06.

5 Policy and Regulatory Framework

The purpose of the report is to evaluate the proposed Plan of Subdivision with respect to its consistency/conformity with the Provincial Policy Statement 2020, the *Planning Act* and City of Ottawa Official Plan, as amended.

The proposed Plan is evaluated within as part of Provincial and municipal planning policies contained in the following statutory planning documents:

- Provincial Policy Statement 2020;
- City of Ottawa Official Plan;
- South Nepean Areas 9 and 10 Secondary Plan, as amended; and,
- Zoning By-law 2008-250.

The following sections review and analyze the proposed development in the context of the above noted policy and regulatory documents.

5.1 Planning Act

Decisions under the *Planning Act*, including the approval of a draft Plan of Subdivision, must have regards to matters of Provincial interest, which includes (among other matters):

- The protection of ecological systems (s. 2(a));
- The orderly development of safe and healthy communities (s. 2(h));
- The adequate provision of a full range of housing, including affordable housing (s. 2(j));
- The adequate provision of employment opportunities (s. 2(k));
- The protection of public health and safety (s. 2(o)); and,
- The appropriate location of growth and development (s. 2(p)).

The Ottawa Official Plan, including the Secondary Plan for Areas 9 and 10, were undertaken pursuant to section 2 of the *Planning Act* and therefore, the implementation of the goals, objectives and policies of these plans would, in turn, have regards for matters of Provincial interest.

Further, the site-specific conditions of Draft Plan approval can be used to ensure that matters of Provincial interest are addressed and secured (as appropriate) before development is permitted to proceed. Therefore, through application of the mechanisms provided for in the *Planning Act*, in our opinion, the implementation of development approvals for the lands can proceed in a manner provided for under the *Planning Act*.

5.2 Provincial Policy Statement

The Provincial Policy Statement, 2020, (“PPS”) came into effect May 1, 2020 and, pursuant to section 3 of the *Planning Act*, is meant to provide further direction on matters of Provincial interest related to land use planning and development. The document, through the *Planning Act*, directs that decisions affecting planning matters “shall be consistent with” the policy statement.

In our opinion, as discussed below, development of the Subject Lands area will proceed in a manner consistent with the PPS.

Section 1.1.1 of the PPS, promotes the establishment of healthy, liveable and safe communities through (among other matters):

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

The Subject Lands are located within the urban boundary and form part of the 'settlement area', where the PPS directs the majority of growth and development to occur. The proposed development includes a range of single detached and townhouse housing that address market demand, together with parks and open space to meet the City's long-term growth objectives. Further, development approvals for these lands will contribute to the PPS (Section 1.4.1) policy that municipalities maintain a residential land supply, with such land supply to be comprised of both residential intensification/redevelopment lands, and greenfield lands designated and available for residential development (such as the Subject Lands).

In terms of short-term housing supply, the PPS (Section 1.4.1) requires that municipalities maintain, at all times, land with servicing capacity sufficient to provide at least a 3-year supply of residential units available through zoned sites for residential intensification/redevelopment, and through lands in draft approved and registered plans. Draft plan approval of the Subject Lands will contribute to this 3-year supply.

The proposal is anticipated to result in net environmental gains, improving the quality and quantity of water as directed in Section 2.2 resulting from the proposed restoration of the Jock River corridor lands and enhancements to tributary watercourse vegetated buffers. The Environmental Impact Review has determined that no significant negative environmental impacts to the Jock River watershed are expected. The proposal consistent with the public health and safety policies related to hazard lands as per Section 3.0 of the PPS as there is no development proposed to occur on flood susceptible lands. The lands ultimately affected by the 100-year floodplain of the Jock River shall be conveyed to the City of Ottawa as open space/constraint lands.

In our opinion, the applications are consistent with the current PPS.

5.3 Ottawa Official Plan

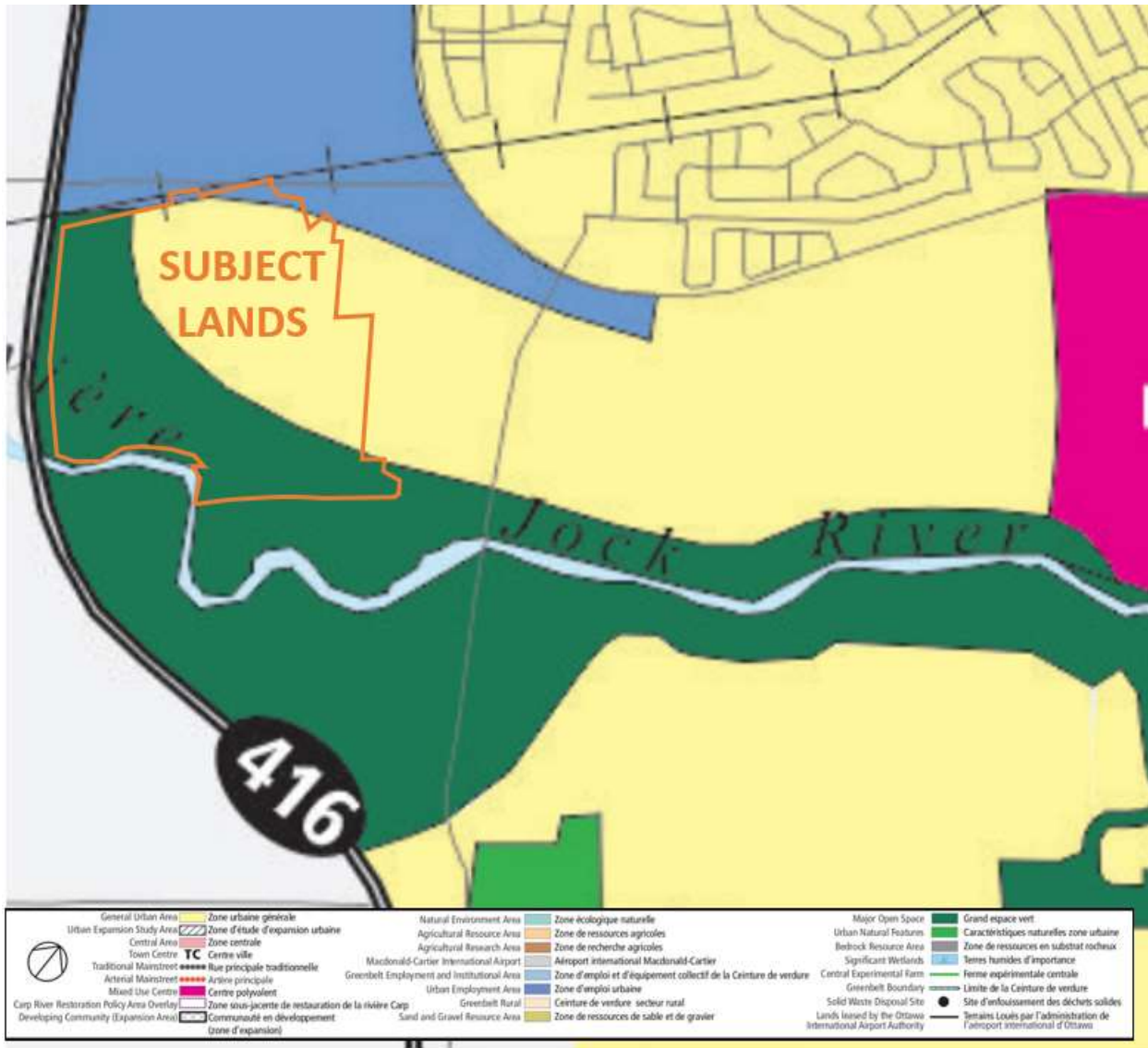
On Schedule B of the Ottawa Official Plan the Subject Lands are designated as (See Figure 14):

- 'Major Open Space' along the north side of the Jock River; and,
- 'General Urban Area'.

The 'General Urban Area' designation permits all types and densities of housing, as well as employment, retail uses, service, industrial, cultural, leisure, greenspace, entertainment and institutional uses.

The *Major Open Space* designation reflects components of the City's Greenspace Network; in this instance, the corridor along the Jock River within the Subject Lands. The boundary of this designation is intended to be refined based on site specific environmental and hazard setbacks from the Jock River. The intent is that the open space lands associated with the Jock River corridor and hazard lands will be placed in public ownership.

Figure 14: Subject Lands on City of Ottawa Schedule B (Urban Policy Plan)



5.3.1 Maintaining Environmental Integrity – Section 2.4

Section 2.4 of the Official Plan deals with “Maintaining Environmental Integrity” and the policies contained therein address how to protect and enhance the quality of the City’s environment through:

- Identifying and projecting natural features;
- Planning on the basis of the natural systems defined by watersheds;
- Managing groundwater resources; and,
- Planning for forests and other greenspaces.

5.3.1.1 Natural Features and Functions – Section 2.4.2

Section 2.4.2: Natural Features and Functions, includes natural corridors such as flood plains that are identified through planning or environmental studies as being important linkages between other features such as wetlands, valleylands, etc. The Jock River is part of this linked system of watercourses, valley lands and other natural features with interrelated functions that require protection and support. Lands along the Jock River which encompass the regulatory floodplain and environmental setbacks are identified as an open space block with the Draft Plan of Subdivision and are intended to protect and enhance the natural heritage system associated with the Jock River. The proposed development is in keeping with policies of Section 4, discussed further below.

5.3.1.2 Watershed and Subwatershed Plans – Section 2.4.3

Section 2.4.3 addresses watershed planning as an integrated, ecosystem approach to land use planning with defined watershed boundaries. The Subject Lands are situated within the Jock River Reach 1 Subwatershed Plan (JRR1SWSP). These Official Plan policies indicate that through the identification of natural features and functions within a particular area, watershed planning identifies considerations that should be applied to setbacks from water bodies, stormwater management requirements, protection of significant natural features and habitat linkages, and opportunities to rehabilitate degraded areas or otherwise enhance the environment.

At the time the JRR1SWS was approved in 2006 and based on the available information regarding development potential at that time, limited consideration was given to the Subject Lands. For this reason, further study was required for the areas north of the Jock River, to finalize the conceptual stormwater management and natural environment plans.

To address the limitations of the existing subwatershed plan, and promote additional environmental coordination, the enhanced technical studies prepared in support of this application provide additional information and guidance. Similar to an Environmental Management Plan and Master Servicing Study, these reports expand upon the objectives and direction provided by the JRR1SWS, and integrate the restoration and protection of the natural environment features and function of the area with the proposed community design and servicing strategies. The reports address such matters as:

- the investment in establishing appropriately wide robust vegetated setbacks from the watercourses on and adjacent the site;
- consideration of wetland creation opportunities to re-establish lost habitat and diversity in this reach of the Jock River;
- tree planting to restore forest cover and canopy objectives along the Jock River and tributary corridors;
- natural feature improvements to existing features and the creation of new features (e.g., enhancements to aquatic habitat),
- creation of passive recreational activities such as pathways and access to water opportunities for the public in the open spacer corridor, and
- stormwater management designed to maintain natural drainage, potentially hydrate new wetland areas and provide appropriate water quality and thermal mitigation for the receiver.

5.3.1.3 Greenspaces – Section 2.4.5

Section 2.4.5: Greenspaces of the Official Plan addresses a broad range of greenspaces such as wetlands, forest, parks, stormwater management facilities, National Capital Commission lands, etc. Supported by the City's Greenspace Master Plan, the Official Plan policies support the achievement of the Greenspace Master Plan strategies through (among other matters);

- Establishing a target of 4.0 hectares per 1,000 population for open space, park etc. purposes (or approximately 16-20% of the gross land area);
- Increasing forest cover to 30% of the entire City by protecting existing trees and supporting tree planting through the development process;
- Public acquisition of lands for greenspace purposes;
- Implementing the City's multi-use pathway system; and,
- Securing access to greenspace in partnership with private entities.

When applied to the Draft Plan of Subdivision, the parks, Jock River corridor, and other open space areas represent approximately 40.47% of the gross land area of the Subject Lands, which satisfies these Official Plan policies.

Reforestation and aquatic habitat creation is ultimately proposed within the Jock River corridor, which lands will be transferred into public ownership.

Public access to the Jock River corridor is proposed through pedestrian connections linking into a pathway system within the Jock River Open Space System. The location, construction and alignment of pathways within the corridor shall be determined in consultation with municipal and Conservation Authority staff.

5.3.2 Site Specific Policies and Secondary Policy Plans – Section 4.1

As directed in Section 4.1 of the Official Plan, the proposed development is consistent with direction and policies identified in the secondary plans for the area as detailed in Section 5.4 of this report. Through these detailed development applications, the matters set out in Section 4 of the Official Plan (as discussed below), together with other relevant Official Plan land use policies contained in the relevant Secondary Plan related to greenfield development lands can be achieved, such as a range/mix of housing, efficient development densities, providing appropriate community amenities (such as parks, pathways, etc.), will be secured.

5.3.3 Adjacent to Land-Use Designations – Section 4.2

An Environmental Impact Statement has been provided with the application, provided in accordance with the requirements of Section 4.2 of the Official Plan. A summary of the Environmental Impact Statement can be found in Section 7.1 of this report.

5.3.4 Walking, Cycling, Transit, Roads and Parking Lots – Section 4.3

Section 4.3 directs that the adequacy of the transportation network in subdivisions, including travelling by walking, cycling and transit, be considered in design of the development. These matters have been considered in the CGH Transportation Impact Study submitted with this application and summarized in Section 7 of this report.

5.3.5 Water and Wastewater Servicing – Section 4.4

Servicing reports have been prepared to address water and wastewater infrastructure capacity and location in accordance with Section 4.4: Water and Wastewater Servicing of the Official Plan. These are discussed in Section 7 of this report.

5.3.5.1 Development in Public Service Area – Section 4.4.1

As per Section 4.4.1, an Adequacy of Services Report has been prepared. This report is based on the conclusions of the accompanying Master Infrastructure Review which considers and evaluates various options for water and sanitary services. Preferred options are identified and recommended. Briefly, water supply is expected to be connected through neighbouring properties to the Town Centre Lands along Chapman Mills Drive and shall conform to all City and MECP guidelines and Policies and capacity in the South Nepean Collector sanitary sewer has been confirmed.

5.3.6 Cultural Heritage Resources – Section 4.6

A Stage 1-2 Archeological Assessment has been prepared in accordance with Section 4.6 and concluded that no further archaeological investigations of the lands were required.

5.3.7 Environmental Protection – Section 4.7

The objectives of the policies in Section 4.7 are based on design with nature principles that support natural features and functions. The development proposal initially identified the natural features and functions on the subject lands and prepared both the development layout and servicing design to support and enhance these components. This proposal is supported by an Environmental Impact Statement and an Integrated Environmental Review Statement. No Tree Conservation Report was prepared as there are no trees in the development area of the site. A detailed Erosion and Sediment Control Plan will be prepared as a condition of draft approval.

The proposed development plan includes preservation and restoration of vegetation cover in the previously tilled land along the river corridor and within the residential community. The stormwater management plan shall provide quality control treatment in advance of directing stormwater to the Jock River.

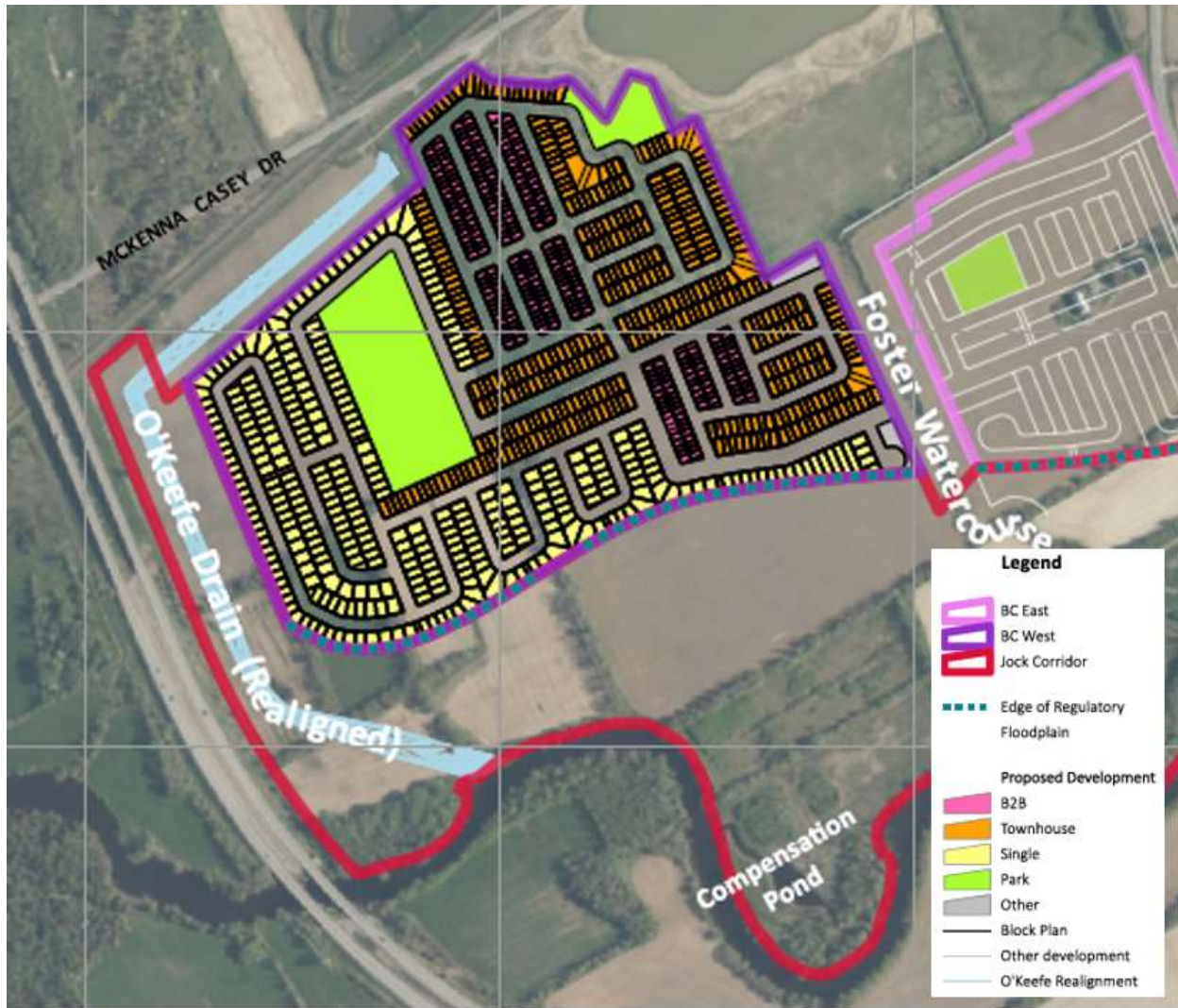
The subdivision layout establishes 30 metre setbacks on either sides of the tributary watercourses, and larger buffers of 80 to 400 metres along the Jock River which include tree planting, meadows, and low impact passive recreation opportunities.

BCDC is proposing to realign the O'Keefe Drain (Figure 15). The new route will have the feature aligned west at McKenna Casey Drive along the north side of the BCDC lands, southward to an improved outlet. Relocation of the watercourse corridor to the western edge of the new community provides several opportunities for significant improvements to the overall feature. The new corridor will: (1) include setbacks of ≥ 30 m from the community and the Highway 416 corridor; (2) be well distanced from the drainage ditch beside Highway 416; and (3) be revegetated, especially on the westward side, providing improved shading and inputs of sediment and coarse woody debris.

The new channel form is designed using natural channel design principles resulting in increased sinuosity and enhanced habitat diversity that can be anticipated to support a more diverse aquatic community. The new drain outlet would provide both new nursery and spawning habitat directly along the edge of the Jock River.

This realignment is subject the Drainage Act and Section 28 of the Conservation Authorities Act. An engineer has been appointed and the onsite meeting has occurred. Pre-consultation with CA staff has been undertaken to solicit input regarding the design.

Figure 15: O'Keefe Drain Proposed Realignment

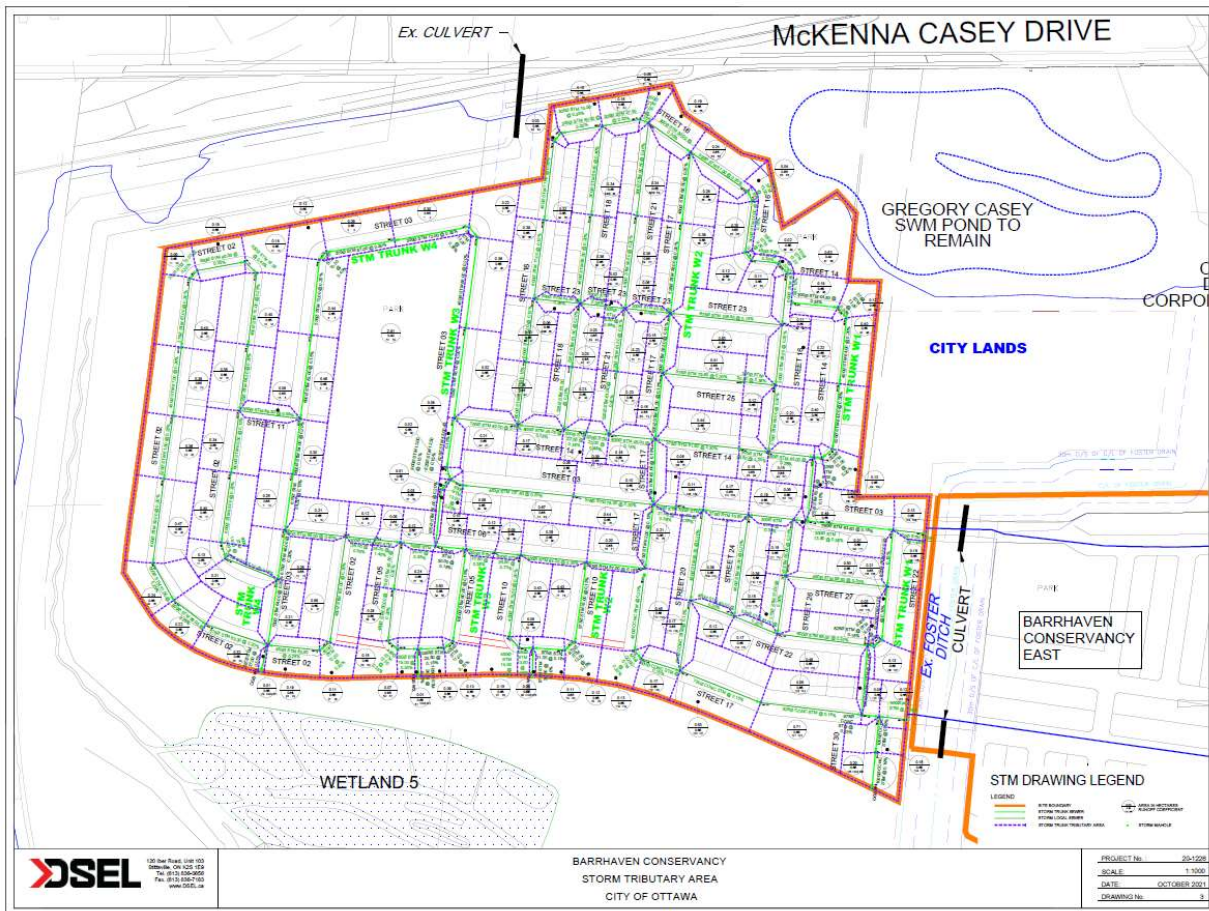


5.3.7.1 Stormwater Management – Section 4.7.6

The stormwater management strategy for the site considers the natural drainage pattern, site constraints, the requirements of the receiver and opportunities to support the Jock River Open Space environmental restoration as per Section 4.7.6 of the Official Plan. Within the development area, stormwater is collected and conveyed by underground pipe sewer, and passed through a local OGS unit which provides 80% TSS removal (enhanced quality control) at the south boundary of the development area.

The drainage outlets along the southern edge of the development area (See Figure 16) outlet above the 2-year event summer water levels on the Jock River.

Figure 16: Storm Tributary Area



Quantity controls are not required in the reach of the Jock River in accordance with the subwatershed study, however management for erosion control, if required, will be accommodated.

Constraint considerations on the site such as clay soils, high water table and grade raise restrictions limit the opportunities to implement effective LID measures, and will result in the requirement for sump pump servicing of residences.

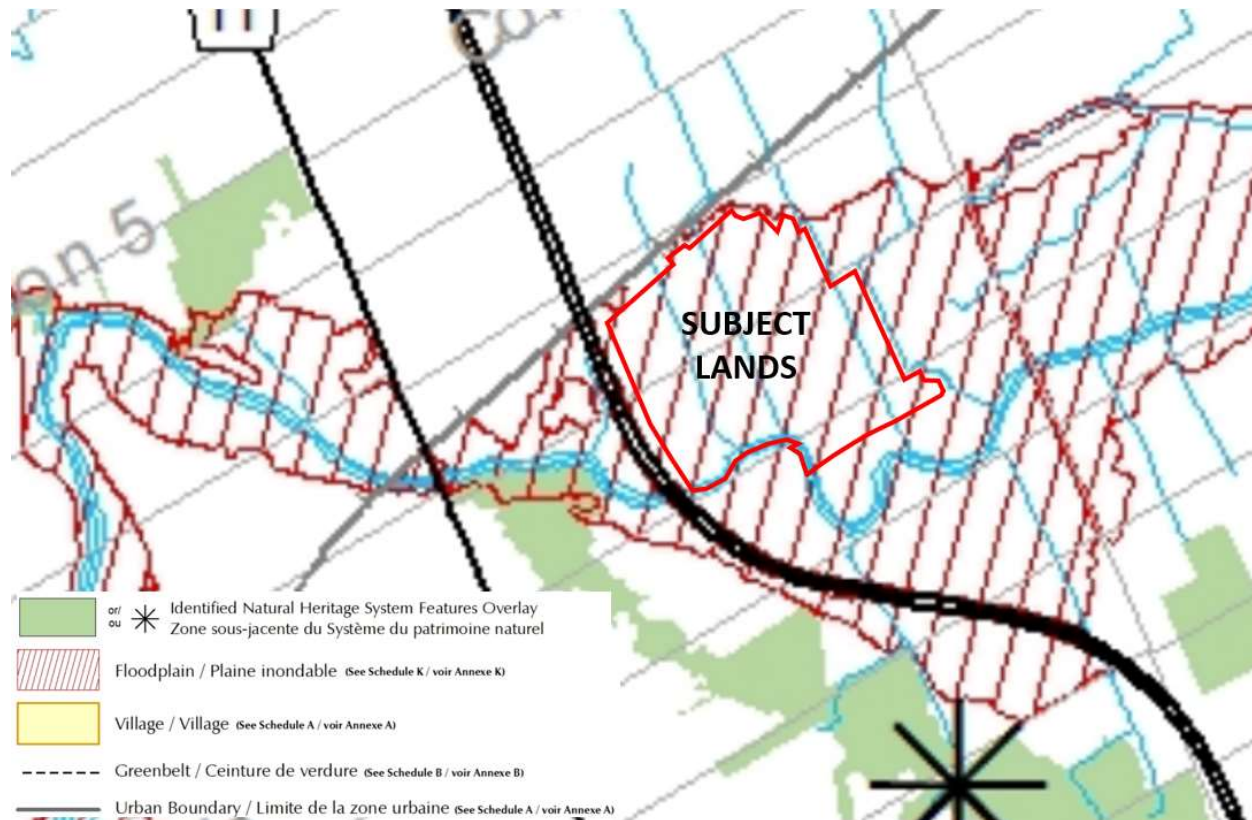
5.3.8 Protection of Health and Safety – Section 4.8

Although a portion of the Subject Lands are identified as floodplain, only the proposed open space block along the Jock River corridor are within the floodplain. Section 4.8.1.2 of the Official Plan indicates that refinements and updates to the Floodplain mapping may be undertaken without the need to amend Schedule K. As previously discussed, the RVCA has updated its floodplain mapping of the 100-year flood plain and regulatory boundary consistent with the approvals granted under permit RV5-4419. The policy specifically contemplates that Schedule K will be updated by the City at the time of a comprehensive Official Plan review, or at the time that any technical corrections are made to the Official Plan by the City and the revised flood plain mapping would be reflected on Schedule K at that time. As previously noted, no residential development is proposed within the floodplain. The floodplain lands identified at time of registration shall be

conveyed to the City of Ottawa as part of a larger open space conservation and passive recreation area, in keeping with the recommendations of the Jock River Reach 1 subwatershed study.

There is a similar 'Flood Plain' area identified on Schedule L2 (See Figure 17) – 'Natural Heritage System Overlay' of the Official Plan based on earlier flood plain mapping, which has now been updated by the RVCA. Floodplains are identified by land elevation in relation to the adjacent watercourse 100-year water elevation and the RVCA has confirmed that the proposed development lands are not within the flood plain based on current mapping.

Figure 17: Subject Lands on Schedule L2 - Natural Heritage System Overlay South



5.4 South Nepean Secondary Plan Areas 9 and 10

South Nepean Areas 9 and 10 Secondary Plan (which apply west of Borrisokane Road), as amended by Official Plan Amendment 212, provides an area-specific policy framework and designates the Subject Lands as follows:

- 'Conservation' for areas along the Jock River; and,
- 'Residential'.

5.4.1 Conformity With Secondary Plan Goals & Objectives

The South Nepean Areas 9 and 10 Secondary Plan also contains a number of goals and objectives, to which the proposed development contributes (where relevant), as follows:

Goal 1 - To have regard for provincial and federal planning policies and initiatives.

- The proposed development is consistent with Provincial policies.

Goal 2 - To blend new residential areas with existing residential communities.

- The proposed development will integrate with existing neighbourhoods through the road network, open space systems and compatible residential land uses.

Goal 3 - To provide recreation, open space and education facilities that are conveniently located and contribute to the quality of residential areas.

- Local parks are dispersed through the development and oriented to natural heritage features. The Jock River Corridor is continued from the east.

Goal 4 - To provide for a range of housing types with a transition of density from the west to the east.

- Single-detached and townhouse units are distributed throughout the proposed development with a concentration of townhouse units occurring in the east, adjacent to the city lands planned as a future transit-oriented development.

Goal 6 - To conserve the Jock River floodplain and utilize the recreation potential that may be available from it.

- The Jock River flood plan is retained as open space, accessible for passive recreation use. A formalized canoe/kayak launch may be coordinated with the municipal lands closest to Borrisokane Road.

Goal 10 - To enhance views and vistas into and within South Nepean.

- Views into the Jock River open space corridor are provided through parks and pedestrian linkages.

Goal 11 - To provide a transportation network of roads that blends into the existing network.

- The proposed east-west collector roads connect through other development lands to the east. The modified grid structure provides optimal access for pedestrians, while also calm traffic by reducing long straight roads.

Goal 12 - To provide a convenient and safe pedestrian and bicycle network.

- The developed incorporates a variety of different means of travel throughout the community which connect users to major greenspace elements, such as parks and the Jock River corridor.

Goal 13 - To enable the provision of local transit service and recognize the long term provision of Rapid Transit Corridor service

- Local transit connections through the proposed east-west collector road, will ultimately connect to the rapid transit corridor located northeast of the proposed development.

Goal 14 - To provide a cost effective and flexible strategy for the provision of infrastructure.

- The extension of water and wastewater services utilizes capacity in the existing system which supports the economic feasibility of the public services. The stormwater servicing strategy relies on natural drainage patterns and supports efficient land use.

Goal 15 - To enable phasing of development as a logical extension of the existing community.

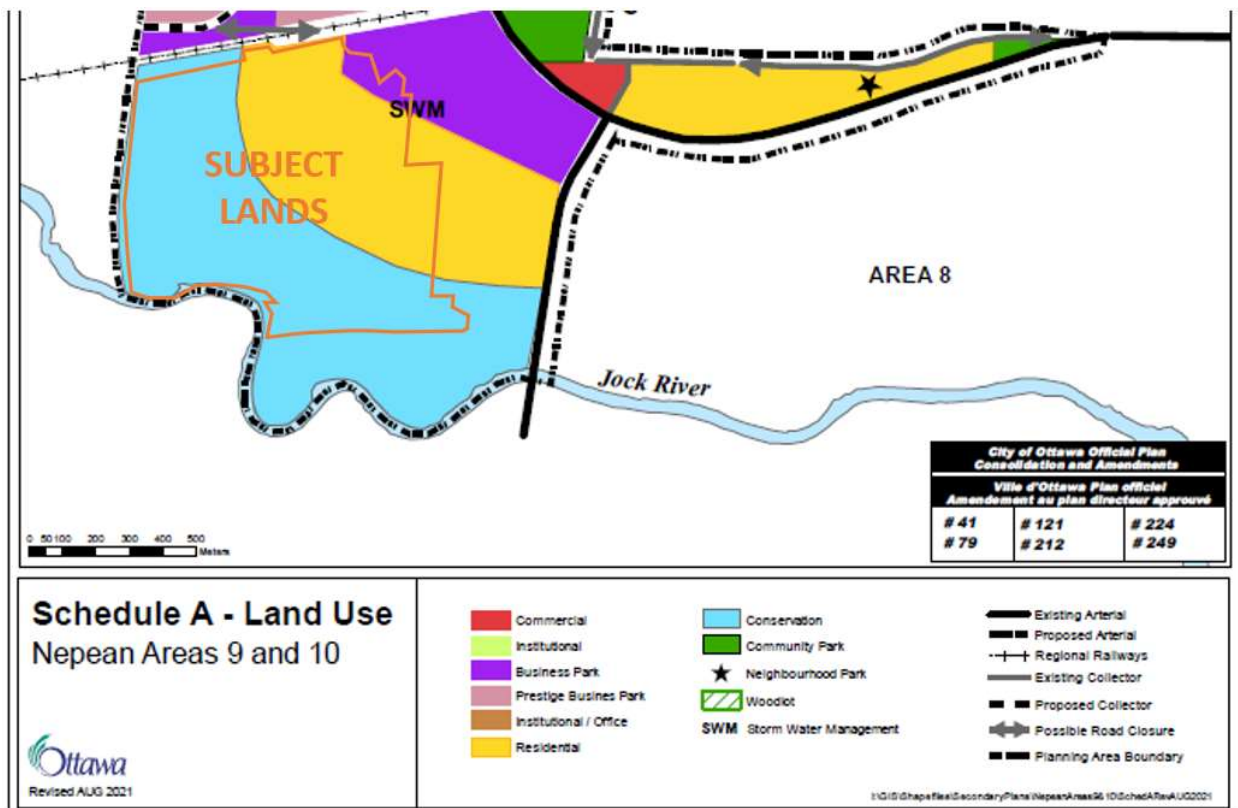
- The proposed development connects to the existing road and servicing network and integrates with development occurring to the east of the Subject Lands.

5.4.2 The Land Use Plan – Section 1.4

The South Nepean Area 9 and 10 Secondary Plan is predominantly concerned with the development of the business park to the north of the Subject Lands. Very little policy sought to guide the development of the Subject Lands, other than the “residential” and “conservation” designations (See Figure 18). The secondary plan refers to the subject lands in this manner:

“The remaining land mass is constrained by the Jock River Flood Plain and may be suitable for residential development subject to clarification as to what lands remain flood prone or may be required for flood mitigation” (Section 1.4)

Figure 18: Subject Lands on South Nepean Secondary Plan Areas 9 and 10 Schedule A



5.4.3 Land Use Designations – Section 2.2

As the extent of the Jock River floodplain has now been altered, development can proceed on the Subject Lands. The proposed development is in keeping with the land use designations outlined in the Schedule A of the South Nepean Secondary Plan Areas 9 and 10.

5.4.4 Residential Areas – Section 2.2.1

The proposed development consists of single-detached dwellings and townhomes, conforming with the intent of the secondary plan to provide “single detached dwellings, semi-detached dwellings, row dwellings and apartment dwellings”. As this subdivision is the furthest from existing and planned transit service within the Secondary Plan area, it is the most suitable to low density

development. The secondary plan sets a low density target of 22-25 units per net hectare, the 1036 units proposed in the development provide a density of 48.28 units per hectare.

Maximum building height of the grade-related residential uses proposed will not exceed 10.7 metres.

5.4.5 Parks/Open Space Areas – Section 2.2.2

A community park is planned in the north portion of the proposed development. An additional local park is proposed in the northeast adjacent to the city owned stormwater management facility. Parkland dedication for all completed phases of The Conservancy will collectively meet or exceed the parkland dedication requirements as set out by the City of Ottawa.

Public open space will be accessible to residents in the south of the development, via a series of pedestrian linkages to the Jock River Corridor.

5.4.6 The Jock River Flood Plain – Section 2.2.6

The secondary plan notes that the conservation lands outlined on Schedule A are subject to change based upon the results of flood plain mapping studies.

“Conservation lands are shown symbolically on Schedule A5 and the boundary of these lands is deemed to be the regulatory flood line for the Jock River together with any additional land required by the City or the Conservation Authority for flood mitigation or stormwater control facilities.”

Following the submission and confirmation of a site-specific elevation survey in May 2020, the RVCA updated their regulatory mapping of the Jock River in July 2020. The proposed residential development is outside the new regulatory flood limit.

5.4.7 Urban Design Policies – Section 3.0

The proposed Draft Plan of Subdivision conforms to the following development requirements as set out in the South Nepean Area 9 and 10 Secondary Plan:

- New residential areas are blended with the existing residential communities in this part of South Nepean.
- The rural and natural landscape character of the Jock River Flood Plain is conserved.
- Development areas are compatible in their form and layout with existing residential areas.
- Park, open space and institutional uses are designed to facilitate convenient and safe pedestrian, cycling and other non-motorized recreational activities.
- Pedestrians and cyclists are given priority in consideration of land use and road pattern design.
- New collector roads connect with and extend the existing collector road system
- Each residential sub area, as created by the major road pattern has at least one local park. Local parks are easily visible and accessible by pedestrians and cyclists.
- All development in residential areas is low profile.
- Accommodation of public linkages to the Jock River floodplain;
- Provision of a multi-use pathway adjacent to and outside the corridor of the O’Keefe Drain. This connection is realized through a north/south combination of sidewalks and parkland.

5.4.8 Infrastructure Policies – section 5.0

The proposed development is consistent with Section 5.0 infrastructure policies except where the details do not account for i) development in this area or ii) where references have become

outdated through infrastructure development and implementation that has occurred in the past 15 years since the plan was prepared.

- Although the South Nepean Master Servicing Study and South Nepean Master Drainage Plan did not fully consider the development of these, stormwater will be managed in accordance with the strategic approach taken in the Area 9 and 10 plan. Stormwater shall be collected by storm and treated in accordance with requirements of the receiver. The regulatory floodplain and watercourse setbacks will be dedicated to the municipality.
- Sanitary sewer service is provided through extensions of the existing system which has sufficient capacity available.
- Water supply is to be provided with from existing capacity available from existing areas and facilities.
- Utilities shall be expanded where required.

6 Relevant Policy Considerations

6.1 Building Better and Smarter Suburbs (2015)

While the recommendations of Building Better and Smarter Suburbs are related to Community Plans (as opposed to individual subdivision plans), the following principles have been incorporated into the proposed Draft Plan of Subdivision:

- Inclusion of a grid-like street network that connects to transit and supports active transportation through inclusion of pedestrian and cycling paths through a 'complete streets' approach and also connects the open space and park facilities;
- Implementation of traffic calming measures, where appropriate;
- Advancement of appropriate-scaled local and collector roads;
- Avoidance of reverse frontage lots;
- Provision of parks that address the City's park size and design criteria;
- Appropriate on-site and street parking opportunities.

6.2 Design Guidelines for Greenfield Neighbourhoods (2007)

Design Guidelines for Greenfield Neighbourhoods illustrate the City's expectations for greenfield neighbourhoods and are to be considered through the processing of plans of subdivision. The following principles have been incorporated into the proposed Draft Plan of Subdivision:

- Establishing a connected network of parks and greenspaces that is structured by the existing Jock River natural heritage feature;
- Conservation of natural features, including healthy trees, associated with the Jock River flood plain corridor;
- Focussing higher density housing forms (in this instance townhouses) to, areas adjacent to future transit-oriented development;
- Providing appropriate collector and local road connections to adjacent developments to complete the road network;
- Providing appropriately-scaled block sizes the enhance pedestrian access;
- Distributing parks so that they are located within 5-minute walk/400 metres of the majority of residents;
- Providing parks with at least two street frontages; and,
- Incorporation a high standard of urban design and architectural design in the built-form.

7 Supporting Studies Summary

7.1 Environmental Impact Statement

The Environment Impact Statement has been prepared by Kilgour & Associates (October 2021) to determine potential impacts of the proposed residential development on existing natural heritage features and provide mitigation and/or design recommendations to protect these features. The report concludes that the proposed development is in keeping with the recommendations in the Jock River Subwatershed Study.

Appropriate watercourse setbacks and a naturalized corridor along the Jock River are correctly established. Wetland and forest cover, with a pathway system along its northern edge are consistent with guidance documents. Previously developed natural features (i.e., fish habitat compensation pond and the former Foster pond) will not be negatively impacted, but shall be integrated and enhanced within the restored corridor. These and other proposed natural feature improvements will benefit the ecological diversity of the Site while simultaneously creating recreational opportunities for the public. No significant negative impacts are anticipated to species-at-risk or their habitats, or to significant natural heritage features present in the broader project vicinity under the proposed project.

Requirements from the subwatershed study related to stormwater management are addressed under the servicing studies for the area.

7.2 Integrated Environmental Review

Prepared by Kilgour and Associates, the IER confirms the environmental conditions have sufficiently been addressed in consideration of the proposed undertakings in accordance with the requirements of the Official Plan. The authors of the various supporting reports have confirmed that their investigation, findings and proposed design solutions are accurately reflected in the summary section of the IER.

7.3 Master Infrastructure Review

The Master Infrastructure Review, July 2020 (prepared by David Schaeffer Engineering Limited) considers and evaluates various options for water and sanitary services. Preferred options are identified and recommended.

Water supply is expected to be connected through the adjacent subdivision and Town Centre Lands along Chapman Mills Drive and shall conform to all City and MECF guidelines and Policies.

Capacity in the SNC sanitary sewer has been confirmed and the development is expected to connect through the adjacent subdivision to a future Chapman Mills Drive manhole.

The stormwater management strategy for the site maintains the natural drainage pattern via surface flows and existing tributaries, by establishing multiple stormwater outlets contributing at different discharge points along the adjacent Jock River. Within the development area, stormwater is collected and conveyed by underground pipe sewer, and passed through a local OGS unit which provides 80% TSS removal (enhanced quality control) at the south boundary of the development area. These OGS's outlet to channels within the open space blocks which outlet to the Jock River.

Quantity controls are not required in the reach of the Jock River in accordance with the subwatershed study; however, management for erosion control, if required, will be accommodated.

7.4 Adequacy of Services Report

The subject lands have been reviewed by Stantec to confirm that servicing is feasible by City of Ottawa PZ SUC. Several alternatives were presented to confirm that servicing is feasible. The water supply network will be expanded through neighboring properties to meet the water demands of the proposed concept plan, via the trunk watermain network and local watermains identified.

Sanitary service is to be provided to the subject property via the off-site South Nepean Collector (SNC) trunk sanitary sewer. There is residual capacity in the downstream SNC providing sufficient

capacity for the peak sanitary flows for the subject property, including external commercial and community park flows.

The stormwater runoff is designed to be captured by an internal gravity sewer system that will convey flows to multiple outlet locations equipped with end of line OGS units. Downstream of the storm outlets along the southern development boundary will be naturalized channels where hydration with treated stormwater will occur in the natural heritage corridor prior to discharge to the Jock River. It is anticipated that quantity control is not required for the Jock River.

Sump pumps are proposed to be installed for all units within residential blocks and lots. The proposed servicing and grading plans are expected to meet all City, RVCA, and MECP requirements as set out in background studies and current standards.

7.5 Transportation Impact Assessment

With respect to the broader effects of the proposed development, in accordance with City guidelines, a Traffic Impact Assessment has been prepared (CGH Transportation; October 2021) which considered future traffic conditions in the AM/PM peak hours, arising from the proposed development and other area developments within a 2029 and 2034 horizon. Significant area-wide capacity constraints are identified as a result of existing traffic conditions, together with growth generated by all future developments (particularly along Strandherd Drive), and AM/PM turning movement at other area intersections such as Cambrian Road/Borrisokane Road.

The report compiles a list of potential area-wide solutions from infrastructure items approved through the Transportation Master Plan, the Development Charge Bylaw, various EAs and noted within various Barrhaven Community Design Plans, including:

- New Re-Aligned Greenbank Road, from Chapman Mills Drive to Cambrian Road
- Re-Aligned Greenbank Road extension south of Cambrian Road
- Widening of Cambrian Road from the Re-Aligned Greenbank Road to the existing Greenbank Road
- Widening of Jockvale Road from Cambrian Road to Prince of Wales Drive
- Widening of Barnsdale Road between Highway 416 and Prince of Wales Drive
- New interchange at Barnsdale Road and Highway 416

The active transportation network includes a pedestrian network along local and collector roads and dedicated rights-of-way connecting to local parks and the Jock River Corridor. The active network also incorporates cycling routes connecting to existing or planned routes in adjacent lands. Direct connections of the active network to the future Chapman Mills BRT stops and a future stop at Borrisokane Road have also been incorporated into the development.

7.5.1 Technical Memorandum Regarding Chapman Mills BRT Corridor

With respect to the continued alignment of the Chapman Mills Drive BRT Corridor, CGH Transportation has prepared a Technical Memorandum to study the feasibility of the conceptual future corridor.

The memo concludes that the conceptual corridor as indicated by city planning documents would have multiple high-level constraints preventing it from being implemented in a realistic and economic way. Therefore, two alternative alignments are explored that would be technically and economically feasible.

The proposed realignments follow either Strandherd Drive, Barnsdale Interchange, or a combination of these approaches, in stages. This solution avoids many constraints and uses existing or planned infrastructure, which will result in a more sustainable and affordable facility.

7.6 Environmental Site Assessment

The Phase One Environmental Site Assessment, October 2018 (prepared by Golder Associates Ltd.). The report concludes that, based on the Subject Lands' prior agricultural and residential use, they do not require a further investigation to support their development for urban residential purposes.

7.7 Geotechnical Investigation

The Geotechnical Investigation, October 2021 (prepared by Paterson Group Inc.) stated that from a geotechnical perspective, the subject site is suitable for the proposed residential development. It is expected that the proposed residential buildings will be founded on conventional shallow footings placed on an undisturbed, stiff to firm silty clay bearing surface or an engineered fill pad over an approved subgrade soil. Due to the presence of a silty clay deposit, permissible grade raise restrictions are recommended for this site.

A construction setback defined as the Limit of Hazard Lands was defined for the slope face along the adjacent segment of the Jock River.

Recommendations regarding construction, tree planting, grading and groundwater management are provided.

7.8 Stage 1 – 2 Archaeological Assessment

The Archaeological Assessment, December 2019 (prepared by Paterson Group Inc.) reviewed the archaeological potential of the Subject lands and concluded that no further archaeological study would be required prior to development. The report was accepted and entered into the Ontario Register of Archaeological Reports in February 2020.

7.9 Noise Assessment

Gradient Wind conducted on-site vibration measurements of the VIA Rail Line for a nearby property located at 3058 Jockvale Road. Vibration levels at that site fell below the criterion of 0.1 mm/s, therefore it is expected that actual vibration levels at the study site will also fall below the criterion, and thus vibration mitigation is not expected. With that notion, it is suggested that an on-site vibration measurement analysis for the study site be conducted at a future stage of development.

The results of the current study indicate that noise levels due to roadway and railway traffic over the site will range between approximately 61 and 68 dBA during the daytime period (07:00-23:00). Lots with rear yards having partial or direct exposure to the minor collector, VIA Rail corridor, or Highway 416 may require noise control measures. Noise mitigation is expected to be technically, economically and administratively feasible.

8 Conclusion

In brief summary, as detailed in this report, we are satisfied that the proposed Draft Plan of Subdivision and Zoning By-law Amendment is appropriate for approval, as follows:

- The application has regard to matters of Provincial interest;
- The application is consistent with the Provincial Policy Statement, 2020;
- The application conforms to, and implements, the Official Plan and relevant Secondary Plan;
- The proposed development will realize urban residential development within the delineated urban area and support the completion of the Barrhaven community ;
- The resultant development promotes efficient, cost-effective development and land use pattern;
- The proposed development is supportive of, and accessible to, the City's planned transit network for the Barrhaven community;
- A net environmental gain and objectives of the subwatershed study and local natural heritage policies is achieved through investment in the ecological restoration of the open space along the Jock River corridor, to be dedicated to the City of Ottawa through this process; and,
- The development resulting from the applications can be adequately serviced by extensions of the existing municipal infrastructure.

We recommend approval of the Draft Plan of Subdivision and Zoning By-Law Amendment to the City.

9 JFSA STATEMENT OF LIMITATIONS

J.F. Sabourin and Associates Inc. (JFSA) has prepared this report, and performed the services described in this report, in a manner consistent with the level of care and skill normally exercised by members of the engineering and science professions currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and financial and physical constraints applicable to the services. No other warranty, expressed or implied, is made. This report has been prepared for the exclusive use of the client representative, for the specific site, objective, and purpose described to JFSA by the client. The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location. Any change of site conditions, purpose and/or development plans may alter the validity of the report. The report, which specifically includes all tables, figures and appendices, is based on data and information assembled by JFSA, and is based on the conditions at the site and study area at the time of the work and on the information provided by others. JFSA has relied in good faith on all information provided and does not accept responsibility for any deficiencies, misstatements, or inaccuracies contained in the report as a result of omissions, misinterpretation, or fraudulent acts of the persons contacted or errors or omissions in the reviewed documentation and data. Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. JFSA accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report

