Integrated Environmental Review Statement

Trailsedge East Development
Part Lots 1-4, Concession 3 City of Ottawa

Richcraft Group of Companies

10 May 2021

→ **The Power of Commitment**

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Contents

Appendices

1. Introduction

GHD (formerly Niblett Environmental Associates Inc. (NEA)) was retained by Richcraft Group of Companies to complete an Integrated Environmental Review Statement (IERS) to fulfill the City of Ottawa's requirements for the draft plan of subdivision application.

As per the City of Ottawa OP, an Integrated Environmental Review provides, "*a comprehensive understanding of the relationship between the natural environment and the built environment* [and is] *the foundation of site design and subdivision planning, as well as planning for larger areas subject to community design plans. The integrated environmental review considers as a whole the significant findings from individual support studies (i.e., tree preservation and protection plans, environmental impact statements, stormwater site management plans, Phase 1 Environmental Site Assessments). It also ensures that development proceeds in keeping with the analysis and recommendations of any watershed and subwatershed studies and federal or provincial environmental policies contained in Section 4, and that the principles of design with nature have been applied. [Amendment #13, September 8, 2004].*

The Integrated Environmental Review Statement will provide:

- *A brief overview of the results of individual technical studies and other relevant environmental background material;*
- *A graphic illustration, such as an air photo, summarizing the spatial features and functions (e.g. natural vegetation, watercourses, significant slopes or landform features, recharge/infiltration areas) as identified in the individual studies;*
- *A summary of the potential environmental concerns raised, the scope of the environmental interactions between studies, and the total package of mitigation measures, including and required development conditions and monitoring, as recommended in individual studies;*
- *A statement with respect to how the recommendations of the support studies and the design with nature approach have influenced the design of the development;*
- *An indication that the statement has been reviewed and concurred with by the individual sub consultants involved in the design team and technical studies;*
- *A description of how the principles of Design Objective 7 (Section 2.5.1) to maximize the energy-efficiency of development and to promote sustainable design that reduces consumption, energy use and carbon footprint of the built environment have been considered. A sustainable design checklist will be prepared to assist in this description [Amendment #150 December 21, 2017].*

The following technical study reports were provided by Richcraft Group of Companies in the preparation of this report. It should be noted that all drafts received were reviewed, however only the final or most recent copies of individual studies were summarized in this report. Some updates have been added to the IERS, based on final versions of some of the technical reports in April 2021.

1. **Environmental Impact Study Trails Edge Development: North/Phase 5 Part Lots 1 & 2, Concession 3, City of Ottawa**. Dated August 26, 2020, Project 11217236, Report No. 1, prepared by GHD.
2. **2a. Stage 2 Archaeological Assessment Trailsedge Phase 5 North Part Lots 1, 2 & 3 & 4 Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN 04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542, Geographic Township of Gloucester City of Ottawa, Ontario** Dated: January 2021. PIF: P378-0037-2020, Report: PA1191-REP.01, prepared by Paterson Group Inc.

2b. Supplementary Documentation Stage 2 Archaeological Assessment Trailsedge Phase 5 North Part Lots 1, 2 & 3 & 4 Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN 04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542, Geographic Township of Gloucester City of Ottawa, Ontario Dated: January 2021. PIF: P378-0037-2020, Report: PA1191-REP.01, prepared by Paterson Group Inc.

3. **3a. Stage 3 Archaeological Assessment: Mahar Site (BiFv-26), Trailsedge Phase 5 North Part Lots 1, 2, 3 & 4 Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN 04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R-22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542 Geographic Township of Gloucester City of Ottawa, Ontario.** Dated January 2021. PIF: P378-0048-2020. Report: PA1207-REP.01, prepared by Paterson Group Inc.

   3b. Supplementary Documentation Stage 3 Archaeological Assessment: Mahar Site (BiFv-26), Trailsedge Phase 5 North Part Lots 1, 2, 3 & 4 Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN 04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R-22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542 Geographic Township of Gloucester City of Ottawa, Ontario. Dated January 2021. Report: PA1207-REP.01, prepared by Paterson Group Inc.
4. **Phase I – Environmental Site Assessment Trails Edge Update – Phase 5 (North) Ottawa, Ontario.** Dated August 26, 2020. File PE5000-LET.01, prepared by Paterson Group Inc.
5. **Phase II – Environmental Site Assessment Trails Edge: Phase 5 (North) Ottawa, Ontario.** Dated October 27, 2020. Report PE5000-1, prepared by Paterson Group Inc.
6. **Geotechnical – Existing Conditions Report East Urban Community Mixed Use CDP Mer Bleue Road, Ottawa - Ontario.** Dated July 7, 2019. Report PG3130-2 Revision 2, prepared by Paterson Group Inc.
7. **Environmental Noise Feasibility Assessment Trailsedge North Ottawa, Ontario.** Report 20-170 – Environmental Noise. Dated September 14, 2020. Prepared by Gradient Wind Engineers and Scientists.
8. Trailsedge Phase 5 Subdivision Planning Rationale: Draft Plan of Subdivision and Zoning By-law Amendment Application. Dated May 6, 2021, prepared by Fotenn Planning and Design Consultants Inc.
9. **Trailsedge North Block Concept Plan.** Dated August 10, 2020, prepared by Fotenn Planning and Design Consultants Inc.
10. **Proposed Trailsedge North (EUC Phase 3) Orleans, Ottawa, Richcraft Homes Transportation Impact Assessment.** Dated April 14, 2021, prepared by Castelglenn Consultants. Project 7255.
11. **Functional Servicing Report for Richcraft Homes Trails Edge North City of Ottawa.** Dated April 2021, prepared by David Schaeffer Engineering Limited. Project No. 20-1195.

1.1 Scope and limitations

This report: has been prepared by GHD for the Richcraft Group of Companies and may only be used and relied on by the Richcraft Group of Companies for the purpose agreed between GHD and the Richcraft Group of Companies.

GHD otherwise disclaims responsibility to any person other than the Richcraft Group of Companies arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer to Section 4 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

2. Development Plan

Richcraft Group of Companies has proposed a mixed-use community development that would be located on the east side of the City of Ottawa, Ontario within Orléans. The proposed development is known as Trailsedge Phase 5 (alternately Trailsedge North). The property is described as Part of Lots 1, 2, 3 & 4, Concession OF, City of Ottawa. The lands subject site is located on the west side of Mer Bleue Road, between a hydro corridor (hydro easement) to the south and Innes Road to the north (Appendix B). The property currently consists of a combination of grassland, agricultural land as well as light brush. It is surrounded by mixed residential and commercial properties.

The development proposal includes the creation of low density residential detached units (340), low density residential townhome units (529), low density residential back-to-back townhome units (138), medium density residential (200) and high density residential areas (859 apartment dwelling units). In addition, a future employment area, two community parks (1.234ha and 4.591ha, respectively), a parkette (0.585ha), roads and a stormwater management facility have been proposed. The development encompasses approximately 82 ha (203 acres) (Appendix C).

3. Summary of Technical Studies

All of the studies and resulting reports for the proposed project were in support of development and provided recommendations and mitigation measures targeted to achieve development goals while minimizing impacts to the natural environment. Key reports providing environmental context have been presented in this section and discussed in the context of the IERS objectives.

3.1 Environmental Impact Study (GHD, August 26, 2020, Project 11217236, Report No. 2)

The Environmental Impact Statement was completed by GHD in August, 2020. The submission of the development applications included this Environmental Impact Statement as per the Consolidated City of Ottawa Official Plan (s. 4.7.8).

The following excerpt was taken from the executive summary of the EIS report.

A Natural Environment Existing Conditions Report was prepared by GHD for the East Urban Community (EUC) lands that fall within an area requiring a Community Design Plan (CDP) prior to development. Natural environmental surveys and background research were conducted by NEA (now GHD Limited) over multiple site assessments to inventory vegetation, birds, mammals, reptiles, amphibians, fish and their habitat in 2012 and 2013. Additional surveys were conducted in 2017, 2018 and 2019 on bats, reptiles and butternut.

The study area was generally flat with mostly former agricultural fields that have regenerated in early successional species. A majority of the site was fields, with swamp and woodland pockets (Appendix D). A rock barren was identified south of Innes Park Woods.

The proposed development will not result in negative impacts on the identified natural heritage features or their functions, provided the measures described in Sections 5 and 7 [of the EIS] *are implemented. GHD's*

recommendations have been made to address potential impacts to natural heritage features and/or their functions during site preparation, construction and post-construction periods. Additional dialogue with the MECP is required to ensure compliance with the Endangered Species Act. As well, discussions are required with the conservation authority regarding the wetlands. The extension of Frank Bender Street will also require especial construction to allow for snake passages under the roadway.

3.2 Stage 2 Archaeological Assessment Trailsedge Phase 5 North Part (Paterson Group Inc., January 2021, Report PA1191-REP.01)

The following excerpt was taken directly from the archaeology report.

The Stage 2 archaeological assessment involved a pedestrian survey at 5 m intervals of the area where ploughing was possible. Subsurface testing occurred in areas that could not be ploughed, such as woodlots, which consisted of hand excavated test pits at 5 m intervals. The field portion was undertaken on August 19, 20, 28, 31 and September 3, 4, 8, 9, 2020. Weather conditions were overcast to sunny and temperatures ranged between 15 and 25° Celsius. Permission to access the property was provided by Richcraft.

During the pedestrian survey of the western fields a cluster of artifacts was identified and collected from a concentrated location in the northwestern area of the property measuring approximately 15 x 25 m. A total of 106 artifacts were collected indicating a date range of mid-late 19th century. The artifacts in the scatter relate to a domestic Euro-Canadian occupation registered with the MHSTCI as the Mahar Site (BiFv-26). Under Standard 1.c. of Section 2.2 of the Standards and Guidelines for Consultant Archaeologists (MHSTCI 2011) this site is considered to have significant Cultural Heritage Value or Interest (CHVI) and Stage 3 assessment is recommended (MHSTCI 2011).

During the pedestrian survey of a field in the eastern portion of the study area a total of 15 artifacts were identified and collected from a concentrated location measuring approximately 30 x 15 m. This site has been registered with the MHSTCI as the Taillefer Site (BiFv-27). As fewer than 20 artifacts predating 1900 were recovered, the scant historical scatter does not have significant CHVI and no further assessment is warranted as per Section 1.c., Standard 2.2 (MHSTCI 2011).

3.3 Stage 3 Archaeological Assessment: Mahar Site (BiFv-26) Trailsedge Phase 5 North (Paterson Group Inc., January 2021, Report: PA1207-REP.01)

The following excerpt was taken directly from the archaeology report.

The Stage 3 assessment of the Mahar site (BiFv-26) involved the excavation of 23 1 x 1m units across a 5 m grid (MHSTCI 2011) (Supp. Doc. Map 2). An additional 5 units (22% of the total) were excavated to examine on areas of interest within the site with the goal of documenting artifact concentration drop-offs, increasing the sample size to better determine the nature and chronology of the site, and to delineate the extent of the site (MHSTCI 2011). A total of 447 artifacts were recovered from the Mahar Site during the Stage 3 assessment. Fieldwork was undertaken on November 5-6, 2020.

The Mahar Site (BiFv-26) is considered culturally significant as 80% or more of the artifact assemblage dates the occupation of the site to pre-1870 as per Section 3.4.2, Standard 1.a (MHSTCI 2011). Upon consultation with Richcraft, it was determined that the location of the Mahar site falls within an area of the proposed development where it cannot be protected or avoided as per Section 4.1.4 (MHSTCI 2011). Therefore, Stage 4 mitigation in the form of excavation is recommended for the Mahar Site (BiFv-26).

3.4 Phase I – Environmental Site Assessment Update Trails Edge – Phase 5 (North), Ottawa, Ontario (Paterson Group Inc., August 26, 2020 File: PE5000-LET.01)

The following statements were taken directly from the environmental site assessment report.

This report updates a previous Phase I ESA report, completed by Paterson in February 2015. This letter report is intended to meet the requirements for an updated Phase I ESA, as per Ontario Regulation 153/04 and is to be read in conjunction with the previous 2015 Phase I ESA report.

A review of more recent historical information, in combination with personal interviews and a site inspection, generally confirmed the findings presented in the previous 2015 Phase I ESA. The subject site has not changed significantly since the time of the previous 2015 Phase I ESA and no new environmental concerns were identified as part of this assessment. ***It is our opinion that a Phase II ESA will be required for the subject site.***

3.5 Phase II – Environmental Site Assessment Trail's Edge: Phase 5 (North), Ottawa, Ontario (Paterson Group Inc., October 27, 2020 Report PE5000-1)

A Phase II ESA was conducted for a portion of land situated within the proposed Trail's Edge: Phase 5 (North) residential subdivision development, in the City of Ottawa, Ontario. The purpose of the Phase II ESA was to address the potentially contaminating activity (PCA) that was identified during the Phase I ESA and was considered to result in an area of potential environmental concern (APEC) on the subject site.

The subsurface investigation for this assessment was conducted on September 28, 2020. The field program consisted of drilling three (3) boreholes on the subject site (BH1-20 - BH3-20), all of which were instrumented with groundwater monitoring wells. The boreholes were advanced to depths ranging from approximately 3.96 m to 5.06 m below ground surface and terminated within the bedrock.

A second soil sampling program was carried out on October 5, 2020. The program consisted of the direct sampling of surficial soils (G1-G12) within the subject area. The soil samples were obtained using a hand shovel dug within select areas to an average depth of 0.30 m below ground surface.

Three (3) soil samples recovered from the boreholes, as well as three (3) surficial soil grab samples were submitted for laboratory analysis of: BTEX, PHCs (F1-F4), metals, SAR, and EC. According to the analytical results, the levels of EC and SAR were detected in soil samples BH1-20-SS2, BH2-20-SS4, and/or G7 which exceed the MECP Table 3 residential standards.

Three (3) groundwater samples were recovered from the monitoring wells installed in BH1-BH3 and submitted for laboratory analysis of: BTEX, PHCs (F1-F4), metals, and chloride. All detected parameter concentrations in the groundwater samples analyzed comply with the selected MECP Table 3 residential standards.

3.6 Geotechnical – Existing Conditions Report, East Urban Community Mixed Use CDP, Mer Bleue Road Ottawa, Ontario (Paterson Group Inc., July 7, 2019, Report PG3130-2 Revision 2)

The following excerpts were taken directly from the geotechnical report.

Paterson Group (Paterson) was commissioned by Richcraft Group of Companies (Richcraft) to complete an existing conditions report from a geotechnical perspective for the proposed East Urban Community (EUC) development to be located along Mer Bleue Road, in the City of Ottawa.

The objective of the study is:

- *to determine the subsurface soil and groundwater conditions based on available subsoil information and supplemental borehole investigation.*
- *to provide preliminary geotechnical recommendations for the design of the proposed development including construction considerations which may affect the design.*

Conditions investigated for this study included surface conditions and subsurface profiles (i.e., overburden profile and groundwater). The geotechnical assessment of the site included discussions on foundation design (e.g., bearing resistance values, settlement/grade raise), design for earthquakes, groundwater control and a stormwater management facility. Field investigations occurred on September 12 and 15, 2014. Previous geotechnical investigations had also occurred in the study area between March 2002 and February 2012 by Paterson Group Inc. During that time, a total of fifty-four (54) test holes consisting of boreholes, test pits and hand auger holes were extended to a maximum depth of 22m. Previous geotechnical investigations were also completed by others. These results are also discussed in the report.

3.7 Environmental Noise Feasibility Assessment – Trailsedge North, Ottawa, Ontario. Report: 20-170-Environmental Noise. (Gradient Wind Engineers and Scientists, September 14, 2020)

The following excerpt was taken directly from the environmental noise feasibility assessment report.

The major sources of traffic noise impacting the residential subdivision are Brian Coburn Boulevard and the Cumberland Transitway. Also, Fern Casey Boulevard, Van Guard Drive, and Frank Bender Street have been defined as collector and major collector roads within the development and have been considered in our analysis. Mer-Bleue Road is situated more than 400 metres off the development site, therefore, was not considered as a significant source of noise.

The focus of the stationary noise assessment is the existing snow disposal facility located to the east of the development.

The assessment is based on (i) theoretical noise prediction methods that conform to the Ministry of the Environment, Conservation and Parks (MECP) and City of Ottawa requirements; (ii) noise level criteria as specified by the City of Ottawa's Environmental Noise Control Guidelines (ENCG); (iii) future vehicular traffic volumes based on the City of Ottawa's Official Plan roadway classifications; (iv) the sound power levels of snow disposal facility activities based on the Innes Road Snow Disposal Facility Environmental Study and Design Report1; and (v) site plan drawings prepared by Annis, O'Sullivan, Vollebekk Ltd.

Building components with a higher Sound Transmission Class (STC) rating will be required where exterior noise levels exceed 65 dBA. The results of the calculations indicate that the buildings that are directly exposed to major collector roadways will require STC rated building components as well as central air conditioning. For the other blocks, forced air heating with provision for the installation of central air conditioning will be required except for those outside the 55 dBA contour. Additionally, Warning Clauses will also be required to be placed on all Lease, Purchase and Sale Agreements.

Results of the roadway traffic noise calculations also indicate that outdoor living areas bordering and having direct exposure to traffic noise may require noise control measures. Mitigation measures are described in Section 5.1.1, with the aim to reduce the Leq to as close to 55 dBA as technically, economically and administratively feasible. A detailed roadway traffic noise study will be required to determine specific noise control measures for the development.

A stationary noise assessment was conducted to assess the noise impact from the Innes (Mer Bleue) Snow Disposal Facility on the proposed subdivision. The results indicate that the noise levels produced by activities associated with the SDF are within the noise level limits of the ENCG of the City of Ottawa.

3.8 Trailsedge Phase 5 Subdivision Planning Rationale Draft Plan of Subdivision & Zoning By-law Amendment Applications (Fotenn, May 6, 2021)

The zoning by-law amendment was required to, “rezone the property from various industrial zoning typologies to zones commensurate with the proposed uses, including:

- “Residential Third Density Zone, Subzone Z, with Exceptions (R3Z[XXXX])” for the residential component;
- “Parks and Open Space Zone (O1)” for the proposed municipal parkland;
- “Open Space zone (O1)” for the rock barren and adjacent lands;
- “Residential Fifth Density (R5)” for the future higher density blocks; and
- Maintain the “Light Industrial (IL2)” zoning for the employment lands located on the eastern portion of th subject lands but remove the holding zoning and Exception 1624.

This report examines the policy and regulatory framework applicable to the proposed development and provided a response to these policies outlining the Provincial Policy Statement (2020), City of Ottawa Official Plan (2003, as amended), East Urban Community Phase 3 Area Community Design Plan (2021), East Urban Community Secondary Plan, Urban Design Guidelines for Greenfield Neighbourhoods (2007), Building Better and Smarter Suburbs Strategic Framework (2015) and Zoning Framework.

The report concludes as follows:

It is Fotenn’s professional opinion that the proposed subdivision represents good planning and is in the public interest for the following reasons:

- *The proposed development is consistent with the Provincial Policy Statement (2020) in developing an area that is located within the City of Ottawa’s Urban Area, immediately adjacent to an existing built-up area, which allows for the logical and efficient extension of existing services and roads. The proposal provides for a range of housing options interspersed with parkland.*
- *The proposal conforms to the Official Plan (2003, as amended). The subject lands are largely designated General Urban Area, which permits a range of uses including the proposed detached, townhouse, and back-to-back townhouse units and associated municipal parkland. The eastern edge of the subject lands is designated Urban Employment Area, which are proposed to remain as future employment lands. As per the direction of the Official Plan, the development of the site builds on the direction of and requirements for the EUC Phase 3 Area CDP (2021).*

- *The proposed subdivision meets a number of the Urban Design Guidelines for Greenfield Neighbourhoods (2007) and Building Better and Smarter Suburbs Strategic Directions (2015);*
- *The proposed development meets some of the Preliminary Policy Directions of the City's New Official Plan (December 2019) and the Draft Official Plan (November 2020);*
- *The proposed Zoning By-law Amendment would apply a Residential Third Density, Subzone Z with Exceptions (R3Z[XXXX]) zoning to the majority of the proposed residential units, which ensures efficient development patterns of a suitable scale and density which are in keeping with the nearby zoning and neighbourhood context. Further, the proposed Zoning By-law Amendment would also apply a Parks and Open Space (O1) zoning to the proposed municipal parkland; Open Space (O1) for the rock barren and adjacent lands; Residential Fifth Density (R5) for the future medium and higher density blocks; and maintain the Light Industrial (IL2) zoning for the employment lands on the east portion of the subject lands, with the removal of the existing holding zone and Exception.*
- *The proposed development is supported by a range of technical studies, including geotechnical, civil engineering, transportation, environmental, and noise-related reports.*

3.9 Proposed Trailsedge North (EUC Phase 3) Orleans, Ottawa, Richcraft Homes, Traffic Impact Assessment (Castleglenn Consultants, April 14, 2021, Project 7255)

The report provided a multi-modal analysis of the impacts of the Trailsedge Phase 5 community on the surrounding transportation network. The site is located within the future East Urban Community (EUC) Phase 3 lands and is part of Richcraft's Trailsedge development initiative. *The proposed development isi located within the General Urban Area. A review of the current Zoning By-law indicates an "IL-Light Industrial Zone" designation. The site is currently greenfield. The Traffic Impact Study is in support of a Major Zoning By-law Amendment application and an application for Plan of Subdivision Application (Draft Plan Approval) in accordance with the "East Urban Community (EUC) Phase 3 Area Community Design Plan's (CDP) Master Transportation Study (MTS)."*

The transportation impact assessment report (TIA) described existing traffic conditions in the area (e.g., existing roadways that would survey the proposed development and surrounding area), area traffic management, study area intersections, existing cycling facilities, existing pedestrian facilities, existing transit provisions, traffic volumes as of 2020 and existing road safety information. It also described planned modifications to the transport network, both in the EUC Phase 3 area and in other adjacent development initiatives.

The proposed Trailsedge North development meets the trip generation triggers requiring both a Design Review and Network. The study area is proposed to include Brian Cobourn Blvd., Innes Road and Mer Bleue Road as Boundary Streets for analysis. Ten intersections are addressed in the analysis. The traffic study analyzes morning and afternoon peak hours of travel demand (as they are considered "worst-case" scenarios in terms of traffic volume). *For analysis purposes, the traffic study proposes to analyze three horizon years: a 2037 horizon that corresponds with "opening day" or built-out of Phase 1; a 2042 horizon that corresponds with build-out of Phase 2; and a 2047 horizon that corresponds with build out of Phase 3 residential.*

The forecasting methodology presented in the report involved the addition of development-generated travel demand by dwelling type (i.e., by automobile drivers, automobile passengers, transit and non-motorized methods). It also considered the origin of the trips by land use type (i.e., single-detached dwellings, townhouses, mid-rise apartments) in each horizon with and without the Cumberland Transitway in Place. Altogether, the Cumberland Transitway was forecast to reduce auto trip peak hour volumes by less than 10% based on long-term planning assumptions. Historical background network traffic was considered along with traffic generation from surrounding developments and site generated traffic volumes.

Future network constraints (i.e., intersection capacity) were then discussed along with recommendations for improvements within the vicinity of the proposed development.

The TIA strategy is described as follows:

Trailsedge North residential development proposes the following phase and residential unit breakdown:

- *Phase 1: 95 single dwelling units, 155 townhouse dwelling units and 444 apartment dwelling units located northwest of the Brian Coburn Blvd / Fern Casey Street intersection;*
- *Phase 2: 119 single dwelling units, 188 townhouse dwelling units, 64 back-to-back townhouse dwelling units, and 200 dwelling apartment units.*
- *Phase 3: would see the remainder of the residential development being implemented, which would involve 126 single units, 186 townhouse dwelling units, 50 back-to-back townhouse dwelling units, and 415 apartment dwelling units.*

The development would involve the following major collector/collector roadways each with a 24.0m ROW, a sidewalk and a MUP configuration as depicted within the EUC Phase III CDP:

- *Fern Casey Street, between Brian Coburn Boulevard and Vanguard Drive;*
- *Vanguard Drive, between the Glenview development and Mer Bleue Road; and*
- *Frank Bender Street, from Fern Casey Street to the Belcourt Blvd / Innes Road Commercial intersection;*

The following internal intersection configurations are recommended for the internal collector-collector junctions:

- *A single-lane roundabout configuration at Fern Casey/Frank Bender and Vanguard Drive/ Frank Bender; and*
- *A mini-roundabout configuration at the Vanguard Drive/Glenview access intersection. However, this improvement is beyond the purview of this study and would rely on the Glenview Subdivision application to follow the EUC Phase III MTS & CDP.*

The detailed design of the Trailsedge North subdivision would be required to accommodate the required right-of-way for the recommended roundabout improvements.

The following intersection modifications would be required to accommodate access into the Trailsedge North community:

- *The implementation of the north leg of the Brian Coburn Boulevard / Fern Casey Street roundabout intersection;*
- *The extension of Vanguard Drive to connect with Glenview Access (Street One) of the Glenview community to the west. This intersection is envisioned as either a mini-roundabout or with STOP control on the minor legs; and*
- *the west leg of the Mer Bleue Road / Vanguard Drive intersection to support Phase 3 of the development and the future employment lands within the EUC Phase 3 community.*

The report concludes by saying: *it is recommended that the City of Ottawa be encouraged to assemble the appropriate conditions that would permit the development application for the Trailsedge North subdivision to proceed. It is recognized that, given the long-term planning horizons within this study and the pending EUC Phase 3 Community Design Plan approval, additional conditions could be applicable for this subdivision application.*

3.10 Functional Servicing Report for Richcraft Homes Trails Edge North, City of Ottawa (David Schaeffer Engineering Ltd., April 2021, Project No: 20-1195)

Italicized sections are taken directly from the Functional Servicing Report.

The objectives of this report are to:

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- *Provide sufficient detail to demonstrate that development of the study area will be adequately supported by municipal services, as set out in the Master Servicing Study for East Urban Community Phase 3 Area Community Design Plan (DSEL, Dec 2020);*
- *Justify any alternative servicing strategies to those proposed in the MSS, to be evaluated for the purpose of optimizing the development potential of the study area;*
- *Define the course of subsequent detailed design, review, and acceptance of the proposed municipal services;*
- *Demonstrate how the proposed municipal services will conform with current Ministry of the Environment servicing design criteria and other applicable agency guidelines; and,*
- *Demonstrate good engineering practice for the protection of public safety, the environment, and sustainable operation.*

3.10.1 Water supply

The study area will connect to the City's 2E pressurized water supply network to meet the water demands of the proposed concept plan, via the trunk watermain infrastructure identified in the MSS and a network of local watermains. The proposed concept plan development statistics yield a water demand below what was anticipated by the MSS, therefore it follows that the trunk watermain infrastructure described in the MSS will adequately service the study area.

Detailed future modelling will confirm phasing of the extension of trunk watermains and sizing of the local watermain network. The proposed water supply design will conform to all relevant City and MECP Guidelines and Policies.

3.10.2 Wastewater Servicing

The proposed wastewater system for the subject lands is to be designed to conform to all relevant City of Ottawa Sewer Design Guidelines and MECP Guidelines.

The study area will be serviced by local and trunk sanitary sewers within the study area and an off-site trunk sanitary sewer network extending through neighbouring developments towards the FVT in Pagé Road, consistent with the MSS. There is proven to be adequate capacity in the downstream infrastructure to accommodate the anticipated flows from the subject lands in the Draft Plan of Subdivision.

3.10.3 Stormwater Management

Consistent with the MSS, the study area is to be serviced by directing post development runoff to the EUC Pond 1 SWM facility, which is to be modified to support development in the catchment area. Capacity in the EUC Pond 1 SWM facility is demonstrated in the MSS and will be confirmed at the time of detailed design.

Major system conveyance will generally be accounted for by routing surface flow along the road network, service easements, and the Hydro Corridor towards the EUC Pond 1 SWM facility. Consistent with the MSS, the proposed major system design is to have employment, commercial, park, medium density residential, and medium-high density residential blocks within the study area provide onsite storage up to the 100-year storm event. The proposed minor and major storm conveyance systems will be designed in accordance with City of Ottawa, RVCA, and MECP requirements as set out in background studies and current standards.

A preliminary site grading plan has been developed to optimize earthworks, tie into the surrounding transportation network and provide major system conveyance. The site is subject to permissible grade raises and at the time of detailed design, the grading plans will be subject to review by a Geotechnical Engineer.

Consistent with the MSS, using infiltration trenches in backyards of singles and townhomes where feasible will be considered to appropriately promote infiltration of stormwater.

In general, the proposed Draft Plan of Subdivision has a comparable development pattern and impervious to the MSS, and therefore it follows that the trunk storm sewer network and EUC Pond 1 modifications described in the MSS will adequately service the study area.

3.10.4 Utilities

Utility services extending to the site may require connections to multiple existing infrastructure points. Consultation with Enbridge gas, Hydro Ottawa, Rogers, and Bell is required as part of the development process to confirm the servicing plan for the subject lands. It is understood through preliminary discussions that there is existing infrastructure surrounding the study area on Innes Road, Mer Bleue Road and Pagé Road. The servicing strategy is to be confirmed as the design process advances.

3.10.5 Required Permits/Approvals

The City of Ottawa must approve detailed engineering design drawings and reports prior to construction of the municipal infrastructure identified in this report. This is expected to occur as part of the next steps in the Draft Plan of Subdivision process. An MECP Environmental Compliance Approval (ECA) is required for the installation of the proposed storm and sanitary sewers within the site under the MECP's transfer of review program. A Permit to Take Water may be required for dewatering works during construction of proposed land uses (e.g., basements for residential homes) and services. The Rideau Valley Conservation Authority will need to be consulted in order to obtain permission under Ontario Regulation 174/06 because proposed land uses and municipal infrastructure will require grading within the subject lands that will result in the closure of existing ditches. *Please note that other permits and approvals may be required, as detailed in the other studies submitted as part of the Draft Plan of Subdivision application. Coordination and permissions from the land owner will be required for any infrastructure works outside of the study area.*

4. Summary of Environmental Recommendations, Mitigation Measures and Monitoring Commitments

All studies were identified in the section below outlining environmental recommendations, mitigation measures and monitoring commitments, if any.

4.1 Environmental Impact Study (GHD, August 26, 2020, Project 11217236, Report No. 2)

Eleven recommendations appear in this report. They are listed below.

1. *The construction envelopes must be clearly defined and delineated and a line staked and clearly marked in the field prior to any construction activities occurring on the site.*
2. *Phasing of the development area is recommended to limit loss of habitat.*
3. *Conservation Authority to be consulted in order to determine the best option for the removal of the wetland on the future mixed-use development lands.*
4. *Prior to any site preparation activities (e.g., grading, placement of fill) erosion and sediment control measures should be installed along all sides of construction envelope to ensure sediment laden runoff does not leave the site and interfere with adjacent natural features. The silt fence should be inspected and maintained throughout the construction phase and remain in place until the soils are stabilized and re-vegetated.*

5. *Any vegetation clearing required for site access prior to construction shall be completed outside the breeding bird timing window of April 15th to August 15th.*
6. *Obtain relevant permits from the Conservation Authority.*
7. *MECP must be contacted in order to ensure compliance with the Endangered Species Act for least bittern habitat.*
8. *A detailed mitigation plan be prepared for the snake hibernaculum and protection of this significant wildlife habitat feature. The plan is to include recommendations regarding monitoring programs.*
9. *Protection of the snake hibernacula and a 30 metre buffer are required to comply with SWH policies. The hibernacula cannot be directly impacted during the overwintering period, which is from October 1st to May 15th. The only construction proposed is the extension of Frank Bender Street and some commercial areas. Snake restrictive fencing may be required to limit snakes entering the active construction area. In addition, the road extension is to be designed with several wildlife crossing tunnels designed specifically for passage by snakes.*
10. *Minimum 10 meter buffer around Innes Park Woods. This buffer will protect mature trees from negative impacts of the development. An open window on street A will provide green space north through the rock barren to the forest edge. The planting of additional trees and native species is recommended where soil depths allow and within any open space blocks and the buffer.*
11. *A landscape plan should be developed to include a variety of native trees, shrubs and seed to be planted and incorporated into the subdivision plan.*

4.2 Stage 2 Archaeological Assessment Trailsedge Phase 5 North Part (Paterson Group Inc., January 2021, Report PA1191-REP.01)

Four recommendations were provided in this report. These appear below.

Based on the results of this investigation it is recommended that:

For the Mahar site (BiFv-26):

1. *A Stage 3 archaeological assessment be conducted by a licensed archaeologist in the archaeological site area as indicated in Supp. Doc. Map 1 and 2.*
2. *As it is not clearly evident that the site should go to Stage 4, the Stage 3 grid should be laid out in the form of 1 x 1 m excavation units on the full 5 m grid as per Standard 1, Section 3.2.3 (MHSTCI 2011).*
3. *Furthermore, as per Standard 1, Section 3.2.3, as (MHSTCI 2011), an additional 20% infill of the initial grid unit total should be excavated in areas of interest.*

For the Taillefer Site (BiFv-27):

4. *No further archaeological study is required for the study property as delineated in Map 10.*

4.3 Stage 3 Archaeological Assessment: Mahar Site (BiFv-26) Trailsedge Phase 5 North (Paterson Group Inc., January 2021, Report: PA1207-REP.01)

Based on the results of this investigation it is recommended:

1. *That a Stage 4 mitigation of development impact through excavation be conducted by a licensed archaeologist as per Section 4.2 (MHSTCI 2011).*

and

2. *In areas of the site that have been subject to ploughing for many years, plough zone soils within the site area shall be mechanically stripped using either a high-hoe or grade-all with smooth-edged bucket. Following mechanical stripping, all exposed subsoil surfaces will be cleaned by shovel ("shovel shine") to aid in identifying features. Cultural features shall be left in place until fully exposed after mechanical topsoil removal. The extent of soil stripping will proceed to 10 m past features as per Section 4.2.3, Standard 1 and 2 (MHSTCI 2011). All features will be hand excavated and documented with photographs and plan and profile drawings as per Section 4.2, Standard 7 and 9 (MHSTCI 2011).*

4.4 Phase I – Environmental Site Assessment Update Trails Edge – Phase 5 (North), Ottawa, Ontario (Paterson Group Inc., August 26, 2020 File: PE5000-LET.01)

Based on the findings of the Phase I ESA, Paterson stated the opinion that a Phase II ESA would be required for the subject site.

4.5 Phase II – Environmental Site Assessment Trail's Edge: Phase 5 (North), Ottawa, Ontario (Paterson Group Inc., October 27, 2020 Report PE5000-1)

The following recommendations were provided in the Phase II ESA.

Based on the findings of this Phase II ESA, elevated levels of EC and SAR were detected in the soil within the vicinity of BH1-20, BH2-20, and surficial sample G7. Despite exceeding the MECP Table 3 residential and/or commercial standards, this material is deemed suitable for use as subgrade material for future roadways within the proposed subdivision development where salt will be applied.

If the soil with the elevated EC and SAR levels cannot be reused on-site beneath future roadways, and off-site reuse sites cannot be identified to accept this soil, then it will have to be disposed of at an approved waste disposal facility.

Prior to any off-site soil disposal at a licenced landfill site, a leachate analysis of a representative sample of this soil must be conducted in accordance with Ontario Regulation 347/558.

If the groundwater monitoring wells installed in BH1, BH2, and BH3 are not going to be used in the future, or will be destroyed during future redevelopment activities, then they must be decommissioned according to Ontario Regulation Reg. 903 (Ontario Water Resources Act). The monitoring wells will be registered with the MECP under this regulation. Further information can be provided upon request in this regard.

4.6 Geotechnical – Existing Conditions Report, East Urban Community Mixed Use CDP, Mer Bleue Road Ottawa, Ontario (Paterson Group Inc., July 7, 2019, Report PG3130-2 Revision 2)

The following excerpt is taken directly from the Geotechnical report.

This existing conditions report provides preliminary design information. A detailed geotechnical investigation will be required once the proposed design is finalized. It is recommended that the following be carried out once the design plans and site development are determined:

- *Carry out a detailed geotechnical investigation for the final detailed design which will include boreholes at strategic locations to recover undisturbed soil samples of the sensitive underlying silty clay deposit for consolidation testing.*

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- *Review detailed grading plan(s) from a geotechnical perspective.*
- *Review detailed foundation plan(s) from a geotechnical perspective.*
- *A MOE Permit to Take Water (PTTW) will be required for the subject site and should be applied for well in advance of building construction (4 to 5 months).*

4.7 Environmental Noise Feasibility Assessment – Trailsedge North, Ottawa, Ontario. Report: 20-170-Environmental Noise. (Gradient Wind Engineers and Scientists, September 14, 2020)

The following excerpts are taken from the Environmental Noise Feasibility Assessment.

Building components with a higher Sound Transmission Class (STC) rating will be required where exterior noise levels exceed 65 dBA. The results of the calculations indicate that the buildings that are directly exposed to major collector roadways will require STC rated building components as well as central air conditioning. For the other blocks, forced air heating with provision for the installation of central air conditioning will be required except for those outside the 55 dBA contour. Additionally, Warning Clauses will also be required to be placed on all Lease, Purchase and Sale Agreements.

The noise levels predicted due to roadway traffic exceed the criteria listed in the ENCG for potential outdoor living areas (OLA). Therefore, noise control measures as described below, subscribing to Table 2.3a in the ENCG and listed in order of preference, will be required to reduce the Leq to 55 dBA at some receptors:

- *Distance setback with soft ground*
- *Insertion of noise insensitive land uses between the source and sensitive points of reception*
- *Orientation of buildings to provide sheltered zones in rear yards*
- *Shared outdoor amenity areas*
- *Earth berms (sound barriers)*
- *Acoustic barriers*

Examining the noise control measures listed above, these conclusions consider the possibility that not all of the proposed buildings will be oriented to provide screening elements for outdoor living areas against roadway traffic sources. Distance setback, insertion of non-noise sensitive land uses, and building orientation to provide sheltered zones in rear yards may not be feasible due to the requirements of the Community Development Plan. It is also not feasible to have shared outdoor amenity areas for this development with respect to rear yards, as this would have a significant impact on marketability. Therefore, the most feasible measures are insertion of earth berms or acoustic wall barriers between the sensitive rear yards and sources of noise, as mentioned in Section 5.1. By siding lots along the collector roadway, the extent of barriers are minimized. The use of earth berms or acoustic barriers will depend on the grading plan when it becomes available. Both options have the ability to reduce OLA noise levels to below 55 dBA.

A detailed roadway traffic noise study will be required to determine specific noise control measures for the development.

4.8 Trailsedge Phase 5 Subdivision Planning Rationale Draft Plan of Subdivision & Zoning By-law Amendment Applications (Fotenn, May 6, 2021)

There were no recommendations or mitigation measures presented in this report.

4.9 Proposed Trailsedge North (EUC Phase 3) Orleans, Ottawa, Richcraft Homes, Traffic Impact Assessment (Castleglenn Consultants, April 14, 2021, Project 7255)

1. *The following internal intersection configurations are recommended for the internal collector-collector junctions:*
    - *A single-lane roundabout configuration at Fern Casey/Frank Bender and Vanguard Drive/Frank Bender; and*
    - *A mini-roundabout configuration at the Vanguard Drive/Glenview access intersection. However, this improvement is beyond the purview of this study and would rely on the Glenview Subdivision application to follow the EUC Phase II MTS & CDP.*
2. *The detailed design of the Trailsedge North subdivision would be required to accommodate the required right-of-way for the recommended roundabout improvements.*
3. *The following intersection modifications would be required to accommodate access into the Trailsedge North community:*
    - *The implementation of the north leg of the Brian Coburn Boulevard / Fern Casey Street roundabout intersection;*
    - *The extension of Vanguard Drive to connect with Glenview Access (Street One) of the Glenview community to the west. This intersection is envisioned as either a mini-roundabout or with STOPcontrol on the minor legs; and*
    - *the west leg of the Mer Bleue Road / Vanguard Drive intersection to support Phase 3 of the development and the future employment lands within the EUC Phase 3 community.*
4. *The following transportation infrastructure improvements are recommended to be considered to support the network as a whole:*
    - *The widening of Brian Coburn Boulevard to 4-lanes after the 2031 TMP horizon to provide additional east-west capacity and to support the Innes Road corridor. It is recognized that this improvement is not within the current TMP affordable or concept networks (2031);*
    - *Pedestrian crossing improvements in the form of zebra striping at the intersections of Innes Road / Glenview-Former BMR Access, Innes Road / Viseneau Drive and Innes Road. This improvement could be implemented with isolated transit priority measures along the Innes Road corridor;*
    - *Develop a planning timeframe for the implementation of the Cumberland Transit to provide a higher level of transit to the proposed development and the EUC Phase 3 lands as a whole;*
    - *The investigation of transit priority measures at the intersection of Innes Road / Lamarche Avenue (Caivan Access) inclusive of an EB queue jump lane and a NB-LT transit lane; and*
    - *The investigation of east-west left-turn bike boxes along Innes Road to support cycling along the corridor. The viability of the bike boxes depends on future transit initiatives along Innes Road to assure design consistency across the corridor.*

4.10 Functional Servicing Report for Richcraft Homes Trails Edge North, City of Ottawa (David Schaeffer Engineering Ltd., April 2021, Project No: 20-1195)

The following excerpt is taken from the conclusions and recommendations section of the FSR.

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This Functional Servicing Report (FSR) (DSEL, April 2021) provides details on the planned on-site and off-site municipal services for the subject property, highlights proposed deviations from the MSS, and demonstrates that adequate municipal infrastructure capacity is expected to be available for the planned development of the subject property.

- *Water service is to be provided to the study area via extensions of the existing 2E pressure zone watermains, including through neighbouring properties, per the MSS.*
- *Sanitary service is to be provided to the study area via extensions of the existing sanitary sewer network through neighbouring properties, directing wastewater to the west, to the existing Forrest Valley Trunk sanitary sewer within Pagé Road. Downstream capacity has been confirmed within the MSS.*
- *Consistent with the MSS, the study area is to be serviced by directing post development runoff to the EUC Pond 1 SWM facility, which is to be modified to support development in the catchment area. Capacity in the EUC Pond 1 SWM facility is demonstrated in the MSS, and will be confirmed at the time of detailed design.*
- *Major system conveyance will generally be accounted for by routing surface flow along the road network, service easements and the Hydro Corridor towards the EUC Pond 1 SWM facility. Consistent with the MSS, the proposed major system design is to have employment, commercial, park, medium density residential, and medium-high density residential blocks within the study area provide onsite storage up to the 100-year storm event.*
- *The site will be graded in accordance with City of Ottawa design guidelines and standards. Consistent with the MSS, in certain areas the proposed road grades are to be higher than the maximum permissible grade raises of 0.5-1.5 m and 2 m per the Geotechnical – Existing Conditions Report East Urban Community Mixed Use CDP (Paterson Group, July 7, 2019). The detailed grading design will be reviewed and certified by a Geotechnical Engineer prior to construction.*
- *Consistent with the MSS, select Low Impact Development techniques detailed in* ***Section 5.7*** *will be implemented to promote infiltration of stormwater.*

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.

Prior to detailed design of the infrastructure presented in this report, this FSR will require approval under the Planning Act as supporting information for the Draft Plan of Subdivision application. Project-specific approvals are also expected to be required for the infrastructure presented in this report from the City of Ottawa, Ministry of Environment, Conservation and Parks, and Rideau Valley Conservation Authority, among other agencies.

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Table 4.1 Scope of Potential Environmental Interactions within each Study Report

Studies	Potential Environmental Interactions								
	Air Quality and Noise	Geology and Soil	Groundwater	Surface water	Terrestrial Ecology	Aquatic Ecology	Human Disturbance	Land Use Sustainability	Other
Draft Environmental Impact Statement (GHD, August 26, 2020)		x		x	x	x	x	x	
Stage 2 Archaeological Assessment (Paterson Group, January 2021)		x					x	x	x
Stage 3 Archaeological Assessment (Paterson Group, January 2021)		x					x	x	x
Phase I - ESA Update (Paterson Group, August 26, 2020)		x	x	x			x	x	x
Phase II – Environmental Site Assessment Phase 5 (North) (October 27, 2020)		x	x				x	x	
Geotechnical Existing Conditions Report (Paterson Group, July 7, 2019)		x	x					x	
Environmental Noise Feasibility Assessment (GWE, September 14, 2020)	x								
Trailsedge Phase 5 Subdivision Planning Rationale: Draft Plan of Subdivision and Zoning By-Law Amendment Applications (Fotenn Inc., May 6, 2021)								x	x
Proposed Trails Edge North (EUC Phase 3) Transportation Impact Assessment (Castleglenn Consultants, April 14, 2021)									x
Functional Servicing Report for Trails Edge North. (David Schaeffer Enginneering Ltd., April, 2021)		x	x	x				x	

5. Design with Nature Principles and Subdivision Design

"Design with Nature" is identified within Section 8 of the City of Ottawa OP (2003) as:

An approach that utilizes natural methods during site design to work with the terrestrial, aquatic, and biological characteristics of the site and the relationship between them. These measures may serve to reduce the reliance on technological solutions, which may be expensive, energy- or management-intensive, and less environmentally sensitive. This may include:

- *Retention of natural vegetation on slopes to reduce erosion;*
- *Conservation of as many existing trees as feasible;*
- *Use of appropriate natural infiltration techniques on site to reduce the need for stormwater management ponds;*
- *Orientation of streets to maximize opportunities for passive solar heating and reflection of natural contours;*
- *Protection of natural stream corridors and incorporation of natural features onto open spaces.*

The residential and commercial development proposed on the subject lands meets the above mentioned as outlined below:

- Erosion: The Environmental Impact Statement (GHD, November 2020) recommends that prior to any site preparation activities, erosion and sediment control measures should be installed on all sides of the construction envelope, which should be inspected and maintained throughout the construction phase and remain in place until soils are stabilized. David Schaeffer Engineering Ltd's Functional Servicing Report (April 2021) also discusses erosion control measures to be utilized during construction. The Paterson Group's Geotechnical Existing Conditions Report (July 2019) reports on areas of existing erosion in the study area and recommends "a stable slope allowance", an "erosion allowance" and an "erosion access allowance" based on MNR guidelines.
- Tree Conservation: The largest woodland in the study area, Innes Park Woods, will be protected by a 10-metre buffer from the dripline of trees. Outside of this area, there are few trees older than 20 years on the site. Instead of retention, GHD recommends that a landscape plan be developed that includes a variety of native trees, shrubs and seeds that would be incorporated into the subdivision plan. This landscape plan would improve the biodiversity within the area.
- Natural Infiltration: The Environmental Impact Statement (GHD, August 2020) recommends sediment and erosion control measures and a landscape plan be developed and implemented. The Planning Rationale (Fotenn, May 2021) states, "A large amount of open space is proposed in the subdivision, including landscaped front, rear and side yards on each lot, the hydro corridor, and the proposed 6.41ha of municipal parkland. These pervious landscape areas should minimize microclimate impacts and allow for water infiltration."
- Street Orientation: "The proposed street network aligns with the Demonstration Plan in the EUC Phase 3 Area CDP, which reflects an offset grid pattern with regularly spaced intersections that will allow for efficient transit, cycling and vehicular travel and pedestrian movements. This will allow for efficient connections to community features such as the parks within the broader CDP area and schools located outside of the CDP area." (Fotenn, May 2021) "As per the CDP Master Transportation Study, the proposed ROW cross-sections for the collectors includes a sidewalk on one side of the street and a MUP on the opposite side of the street." (Fotenn, May 2021)

Section 4.9-*Energy Conservation Through Design* of the Official Plan and Guideline 14 of the City of Ottawa's *Urban Design Guidelines for Greenfield Neighbourhoods* (2007) encourages south facing buildings and windows to reduce summer thermal gain and maximize opportunities for passive energy conservation.

- Environmental Protection: Two watercourses were found that directly supported fish. These watercourses are protected by the Federal Fisheries Act (GHD, August 2020). Three park blocks are proposed in the western, northern and southeastern portions of the subdivision: Block 25 (0.585ha), Block 53 (1.234ha) and Block 79 (4.591ha), respectively.

6. Energy Efficiency and Sustainable Design

Section 2.5.1 Urban Design and Compatibility of the Official Plan outlines design objectives and principles for new development within the City of Ottawa.

Section 4.7.1-Integrated Environmental Review to Assess Development Applications of the Official Plan, an Integrated Environmental Review Statement is required to consider Objective 7 of Section 2.5.1 and the associated principles.

Objective 7: To maximize energy-efficiency and promote sustainable design to reduce the resource consumption, energy use, and carbon footprint of the built environment.

Principles

Design should:

- *Orient development to maximize opportunities for passive solar gain, natural ventilation, and use energy efficient development forms and building measures.*
- *Consider use of renewable energy and alternative energy systems.*
- *Maximize opportunities for sustainable transportation modes (walking, cycling, transit facilities and connections).*
- *Reduce hard surfaces and maximize landscaping and site permeability on site*
- *Consider use of innovative green spaces such as green roofs, and measures that will reduce the urban heat island effect*
- *Maximize re-use and recycling of resources and materials.*
- *Utilize green building technologies and rating systems such as Leadership in Energy and Environmental Design (LEED).*
- *Utilize advanced water conservation and efficiency measures.*

The Trailsedge Phase 5 – Planning Rationale (Fotenn, May 2021) states the following about the proposed subdivision's efforts to maximize energy efficiency and promote sustainable design.

The proposed subdivision is considered infill development, which will add more residents within an existing urban serviced area. More specifically, the proposed density (38 units/net hectare) well exceeds the minimum density of 34 units/net hectare that is required in the Official Plan for new Greenfield development outside of the Greenbelt. As such, the proposed subdivision will result in more efficient use of existing urban land and existing infrastructure, such as pipes, roads, transit, schools, and parkland.

A large amount of open space is proposed in the subdivision, including landscaped front, rear and side yards on each lot, the hydro corridor and the proposed 6.41 hectares of municipal parkland. These pervious, landscaped areas should minimize microclimate impacts and allow for water filtration.

As noted in the Plan of subdivision and zoning by-law amendment (Fotenn, 2021). The development promotes sustainable transportation through:

- The identification of Innes Road as a Crosstown Bikeway/Spine Route and Mer Bleue Road as a Spine Route, both of which have on-street bicycle lanes.
- On-street cycling lanes along the north side of Brian Coburn Boulevard (with a multi-use pathway (MUP) on the south side) and both sides of Fern Casey Street south of Brian Coburn Boulevard.
- All of the collector streets are proposed to have a right-of way (ROW) width of 24 metres, with a sidewalk on one side and a multi-use pathway (which is both a cycling and pedestrian facility) on the alternate side.
- Further, the proposed Community Park is located adjacent to the hydro corridor, with which a multi-use pathway may be developed in the future, connecting the Community Park to the stormwater management facility to the west, which abuts another Neighbourhood Park planned west of the subject lands.

The remainder of the Objective 7 principals will be addressed at the Site Plan and design stage.

7. Concurrence of Project Team

The final Integrated Environmental Review Statement will be reviewed and concurred with all consultants involved in the design team and technical studies, listed in Section 1 of this report. Refer to Appendix A for signed documentation.

8. Conclusion

This Integrated Environmental Review Statement (IERS) outlines how the requirements in Section 4.7.1-Integrated Environmental Review of the Official Plan will be addressed. A thorough review of the various reports completed as part of this development application concludes that the design complies with the environmental policies contained in Section 4 of the City of Ottawa OP and that the principles of design with nature have been applied.

9. References

Castleglenn Consultants. April 14, 2021. Proposed Trailsedge North (EUC Phase 3) Orleans, Ottawa, Richcraft Homes Traffic Impact Assessment. Project 7255.

David Schaeffer Engineering Limited (DSEL). April 2021. Functional Servicing Report for Richcraft Homes Trails Edge North, City of Ottawa. Project No.: 20-1195.

Fotenn Planning and Design Consultants Inc. May 6, 2021. Trailsedge Phase 5 Subdivision – Planning Rationale: Draft Plan of Subdivision and Zoning By-law Amendment Applications.

GHD, August 26, 2020. Environmental Impact Study Trails Edge East Development: North/Phase 5 Part Lots 1 & 2, Concession 3, City of Ottawa. Project 11217236, Report No 2.

Gradient Wind Engineers and Scientists. September 14, 2020. Environmental Noise Feasibility Assessment Trailsedge North Ottawa, Ontario. Report: 20-170-Environmental Noise.

Paterson Group Inc. January 26, 2021. Stage 2 Archaeological Assessment: Trailsedge Phase 5 North Part Lots 1, 2 & 3 & 4, Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2

Plan 4R-22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542, Geographic Township of Gloucester, City of Ottawa, Ontario. PIF: P378-0037-2020. Report: PA1191-REP.01

Paterson Group Inc. January 26, 2021. Supplementary Documentation Stage 2 Archaeological Assessment: Trailsedge Phase 5 North Part Lots 1, 2 & 3 & 4, Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R-22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542, Geographic Township of Gloucester, City of Ottawa, Ontario. PIF: P378-0037-2020. Report: PA1191-REP.01

Paterson Group Inc. January 26, 2021. Stage 3 Archaeological Assessment: Mahar Site (BiFv-26), Trailsedge Phase 5 North Part Lots 1, 2 & 3 & 4, Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R-22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542, Geographic Township of Gloucester, City of Ottawa, Ontario. PIF: P378-0048-2020. Report: PA1207-REP.01

Paterson Group Inc. January 26, 2021. Supplementary Documentation Stage 3 Archaeological Assessment: Mahar Site (BiFv-26), Trailsedge Phase 5 North Part Lots 1, 2 & 3 & 4, Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4R-22552 PIN 04404-0543 and Part 1 Plan 4R22552 PIN 04404-0542, Geographic Township of Gloucester, City of Ottawa, Ontario. PIF: P378-0048-2020. Report: PA1207-REP.01

Paterson Group Inc. October 27, 2020. Phase II – Environmental Site Assessment Trail's Edge: Phase 5 (North) Ottawa, Ontario. Report: PE5000-1.

Paterson Group Inc. August 26, 2020. Phase 1 – Environmental Site Assessment Update Trails Edge - Phase 5 (North) Ottawa, Ontario. File: PE5000-LET.01

Paterson Group Inc. July 7, 2019. Geotechnical – Existing Conditions Report East Urban Community Mixed Use CDP Mer Bleue Road, Ottawa, Ontario. Report: PG3130-2 Revision 2.

Appendix A

Concurrence Documentation

Appendix A Concurrence of Study Team Members

GHD

I have reviewed the sections of this Integrated Environmental Review Statement for the Trails Edge development that are associated with GHD's Environmental Impact Study (August 26, 2020) and concur with the related content and recommendations taken from our report.

Name: ____Chris Ellingwood_____

Position: ____Senior Biologist_____

Company Name: ____GHD_____

Signature: 

Date: _____May 19, 2021_____

Appendix A Concurrence of Study Team Members

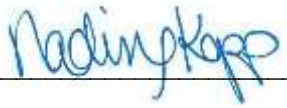
Paterson Group Inc.

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Stage 2 Archaeological Assessment: Trailsedge Phase 5 North (January 2021) and the Stage 3 Archaelogical Assessment: Mahar Site (BiFv-26) Trailsedge Phase 5 North) (January 2021) I concur with the related content and recommendations taken from our report.

Name: _____Nadine Kopp_____

Position: _____Project Archaeoogist_____

Company Name: ___Paterson Group_____

Signature: 

Date: _____May 19, 2021_____

Appendix A Concurrence of Study Team Members

Paterson Group Inc.

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Phase I – Environmental Site Assessment Update Trails Edge – Phase 5 (North) Ottawa, Ontario (August 26, 2020). I concur with the related content and recommendations taken from our report.

Name: Mark D'Arcy

Position: Principal

Company Name: Paterson Group Inc.

Signature: 

Date: May 19, 2021

Appendix A Concurrence of Study Team Members

Paterson Group Inc.

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Phase II - Environmental Site Assessment Trails Edge – Phase 5 (North) Ottawa, Ontario (October 27, 2020). I concur with the related content and recommendations taken from our report.

Name: Mark D'Arcy

Position: Principal

Company Name: Paterson Group Inc

Signature: 

Date: May 19, 2021

Appendix A Concurrence of Study Team Members

Paterson Group Inc.

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Geotechnical – Existing Conditions Report East Urban Community Mixed Use CDP Mer Bleue Road Ottawa – Ontario (July 7, 2019). I concur with the related content and recommendations taken from our report.

Name: ____David Gilbert_____

Position: _____Geotechnical Division Director_____

Company Name: _____Paterson Group Inc._____

Signature: 

Date: _____May 20, 2021_____

Appendix A Concurrence of Study Team Members

Gradient Wind Engineers and Scientists

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Environmental Noise Feasibility Assessment Trailsedge North, Ottawa, Ontario. Report 20-170 – Environmental Noise (September 14, 2020). I concur with the related content and recommendations taken from our report.

Name: Joshua Foster

Position: Principal

Company Name: Gradient Wind

Signature: 

Date: May 20, 2021

Appendix A Concurrence of Study Team Members

Fotenn Planning and Design Consultants Inc.

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Trailsedge Phase 5 Subdivision Planning Rationale: Draft Plan of Subdivision and Zoning By-law Amendment Application (May 6, 2021) and Trailsedge Phase 4 Block Concept Plan (August 10, 2020). I concur with the related content and recommendations taken from our report.

Name: Scott Alain, MCIP RPP_____

Position: Planner_____

Company Name: Fotenn_____

Signature: Scott Alain _____

Date: May 19, 2021_____

Name: Scott Alain, MCIP RPP_____

Position: Planner_____

Company Name: Fotenn_____

Signature: Scott Alain _____

Date: May 19, 2021_____

Appendix A Concurrence of Study Team Members

Castleglenn Consultants

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Proposed Trailsedge North (EUC Phase 3), Orleans, Ottawa Richcraft Homes Traffic Impact Assessment (April 14, 2021). I concur with the related content and recommendations taken from our report.

Name: Jake Berube

Position: Transportation Engineer

Company Name: Castleglenn Consultants Inc.

Signature: 

Date: May 19, 2021

Appendix A Concurrence of Study Team Members

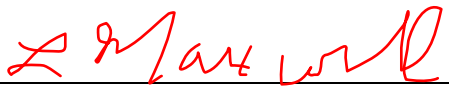
David Schaeffer Engineering Ltd.

I have reviewed the sections of this Integrated Environmental Review Statement for the Trailsedge development that are associated with the Functional Servicing Report for the Richcraft Homes Trails Edge North, City of Ottawa (April, 2021). I concur with the related content and recommendations taken from our report.

Name: Laura Maxwell

Position: Project Manager

Company Name: David Schaeffer Engineering Ltd.

Signature: 

Date: May 20, 2021

Appendix B

Trailsedge East Phase 5 – Phasing Plan

INNES ROAD

INNES ROAD

INNES WOODS

EMPLOYMENT LANDS

PHASE 5 - 4

PHASE 5-2 SITE PLAN

PARK

PHASE 5 - 2

PHASE 5 - 3

MER BLEUE ROAD

EMPLOYMENT LANDS

PARK

PARK

CAIVAN

GLENVIEW

PHASE 5-1 SITE PLAN

PHASE 5-3 SITE PLAN

HYDRO CORRIDOR

PHASE 5 - 1

HYDRO CORRIDOR

PHASE 4-3 MIXED-USED

PHASE 4 - 3

BRIAN COBURN BLVD

HYDRO CORRIDOR

BRIAN COBURN BLVD

RICHCRAFT / MINTO

BRIAN COBURN BLVD

RICHCRAFT

BLOCK 193 / 194

PHASE 4 - 1

PARK

PHASE 4 - 2

PHASE 4-2 COMMERCIAL

SEY STREET

PHASE 3 - 3

BLEUE ROAD

RICHCRAFT

TRAILSEDGE PHASE 5

PHASING PLAN

LEGEND

- Low Density Residential - Detached Units
- Low Density Residential - Townhome Units
- Low Density Residential - Back-to-Back Units
- Medium Density Residential
- Highest Density Residential
- Future Employment
- Park
- Commercial
- Mixed-Use
- Stormwater Management Facility
- Existing Municipal Snow Disposal Facility
- Rock Barren
- Land Adjacent to Rock Barren
- TRAILSEDGE EAST - PHASE 4
- TRAILSEDGE NORTH - PHASE 5
- BLOCK 193 & 194 - Rentals
- PHASE LIMIT

22" X 34" SCALE - 1:3000

11" X 17" SCALE - 1:6000

Appendix C

Trailsedge East Phase 5 – Concept Plan

TRAILSEDGE PHASE 5

BLOCK CONCEPT PLAN

LEGEND

- Low Density Residential - Detached Units
- Low Density Residential - Townhome Units
- Low Density Residential - Back-to-back Townhome Units
- Medium Density Residential
- Highest Density Residential
- Future Employment
- Park
- Stormwater Management Facility
- Existing Municipal Snow Disposal Facility
- Rock Barren
- Land Adjacent to Rock Barren
- Subject Lands

0 50 100 200m

No.	REVISION	DATE	BY
4	REVISE BOUNDARY LINE	2021.05.07	RP
3	REVISE BLOCK 73, 74, 75	2020.08.17	EL
2	FOR CLIENT REVIEW	2020.08.13	RP
1	BLOCK PLAN	2020.08.12	RP

CLIENT
RICHCRAFT

RICHCRAFT Group of Companies

FOTENN
Planning + Design
396 Cooper Street, Suite 300, Ottawa ON K2P 2H7
613.730.5709 www.fotenn.com

DESIGNED	RP
REVIEWED	RP
DATE	2020.08.10

P1

Appendix D

Trailsedge East Phase 5 – Vegetation Communities, Surveys and Natural Features

MTM ZONE 9, NAD83

CA-PET-662-11217236

FIGURE 1.1 - VEGETATION COMMUNITIES, SURVEYS & NATURAL FEATURES

ELC TYPES - 1ST APPROXIMATION

ELC CODE	ECOSITE/VEG TYPE DESCRIPTION
CUM1-1	Dry-moist Old Field Meadow
FOD2-1	Dry-fresh oak-red maple deciduous
FOD5-8	Dry-fresh sugar maple-white ash deciduous
FOD7-1	Fresh-moist white elm lowland deciduous
MAS2-1	Cattail mineral shallow marsh
MAS3-1	Cattail organic shallow marsh
RBO1-1	Dry carbonate open rock barren
SWT2-1	Alder mineral thicket swamp

NON-ELC TYPES

CODE	TYPE DESCRIPTION
AGR	Agriculture
BLT	Built-up Area
DST	Disturbed Area

GEOPDF ENABLED FOR MOBILE USE

LEGEND

- Breeding Bird Survey
- Modified Marsh Monitoring Amphibian Survey
- SAR Observance
- Development Area Limit (Annis, O'Sullivan, Vollebekk Ltd.)
- Watercourse (City of Ottawa, 2013)
- Urban Natural Area (City of Ottawa)
- Vegetation Community
- Wetland Community
- Forest Community

CITATIONS

- Composite imagery obtained via Google, 2020.
- 18818-19. Draft Plan of Subdivision. Annis, O'Sullivan, Vollebekk Ltd., 2020.
- Lee. H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray, 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

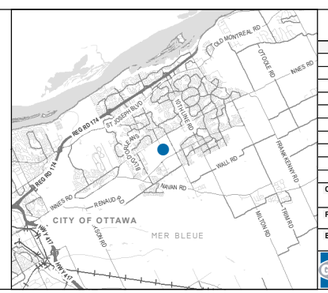
LABELS

1 CUM1-1 — Vegetation Code
1,045 m² — Area (meters squared)
0.45 ha — Area (hecates)

01BBS — Breeding Bird Survey Label

01MAS — Marsh Monitoring Amphibian Survey Label

01LEB — Least Bittern Survey Label



REVISION & WORK HISTORY

REV.	BY	DATE	DESCRIPTION	REQUEST
rev-0	W.P.	2017-04-17	Initial map creation.	K.R.
rev-1	W.P.	2020-10-27	Make current. Amendments to labeling, vegetation, symbology. New development boundary.	C.E.

CONTACT: Will Pridham, / GIS Specialist
PHONE: (T) 1.705.749.3317 (M) 1.705.341-0545
EMAIL: will.pridham@ghd.com

PROJECT NO: CA-PET-662-11217236
ORIGINAL DATE: 2017-04-17
PROJECT: Trail's Edge East - Phase 4
RECENT DATE: 2020-10-22
CLIENT: Richcraft Homes
REVISION: rev-1

MTM ZONE 09

GHD LIMITED — NATURAL RESOURCES - SERVICES

FIGURE 1.1 - VEGETATION COMMUNITIES, SURVEYS & NATURAL FEATURES

Trail's Edge North - Phase 4
City of Ottawa
Rideau Valley Conservation Authority (RVCA)

SCALE

1 cm : 85 meters

1 inch : 708 feet

Meters: 0 — 135 — 270 — 540

Document Name: Figure 1.1- Vegetation Communities, Surveys and Natural Features

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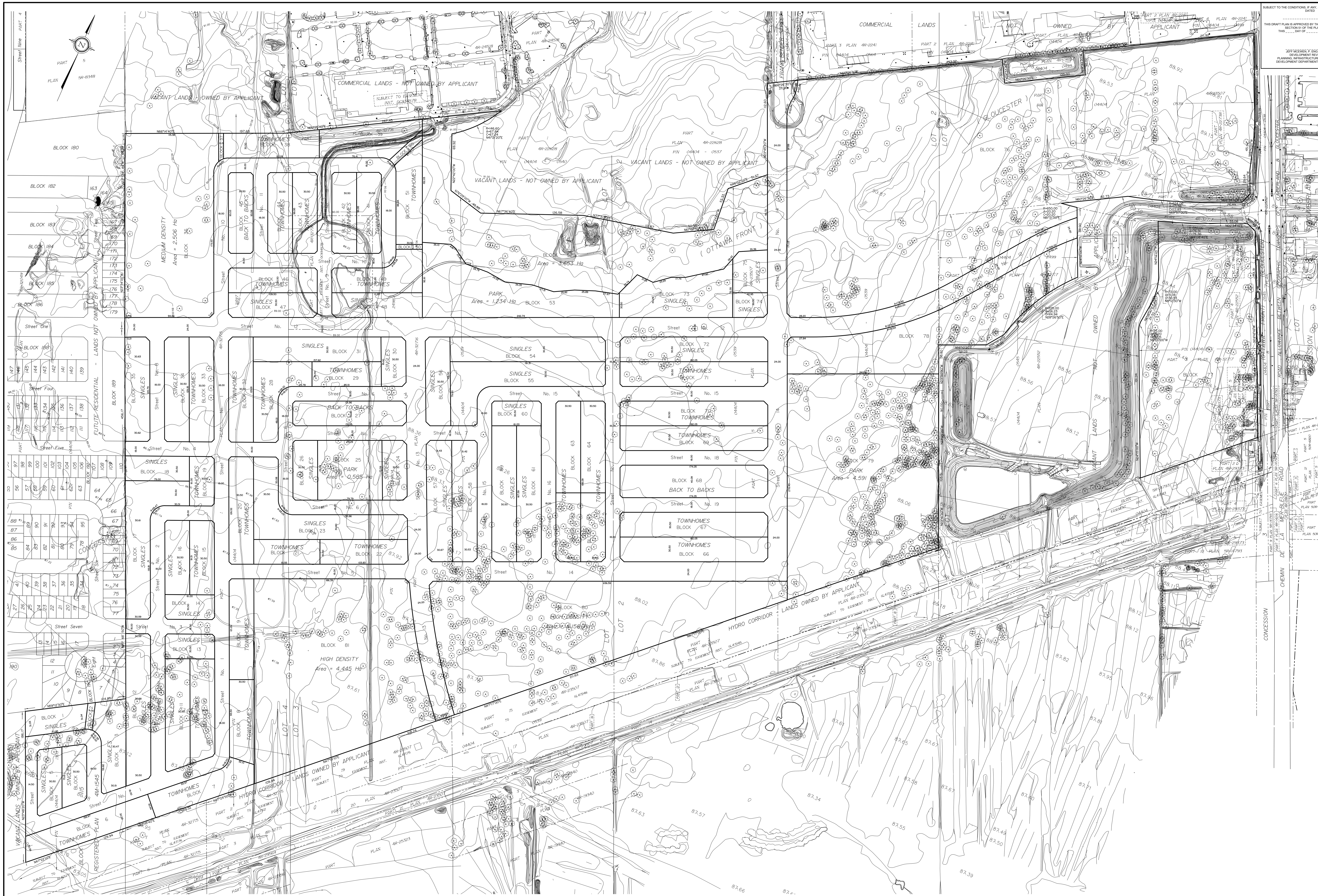
Appendix E

Trailsedge East Phase 5 – Plan of Subdivision

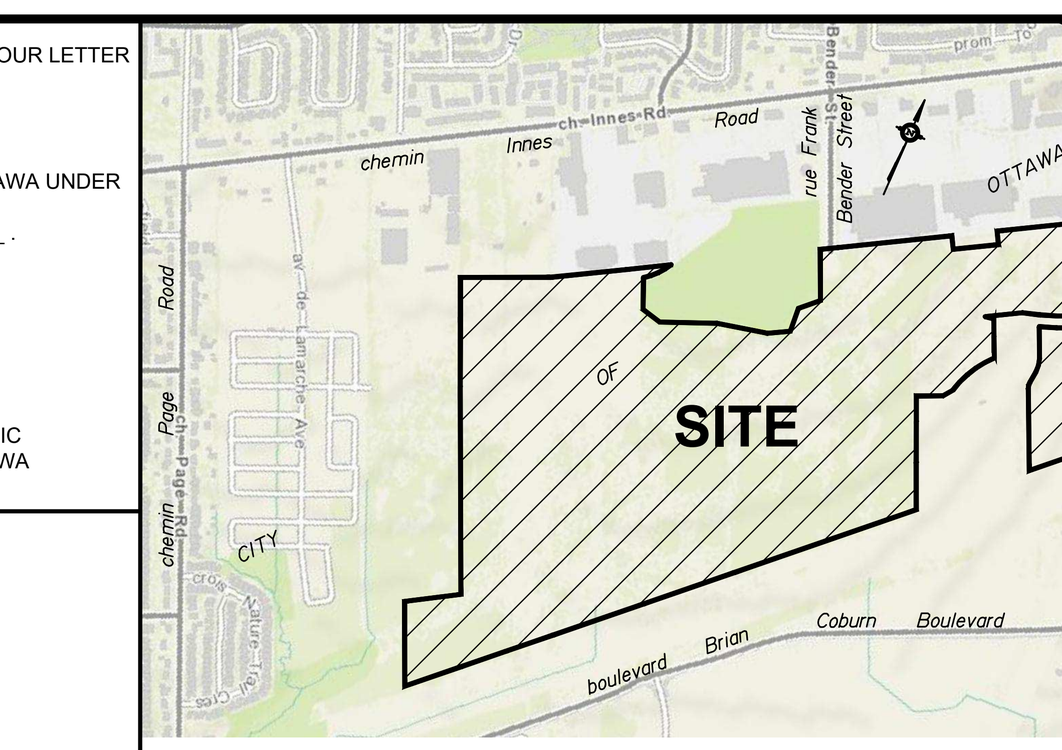


SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED

_______________________.

THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT.
THIS ____ DAY OF ____________, 20__ .

____
JEFF MCEWEN, P. ENG. MANAGER,
DEVELOPMENT REVIEW-EAST
PLANNING, INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



KEY MAP
NOT TO SCALE

DRAFT PLAN OF SUBDIVISION OF

PART OF LOTS 1, 2, 3 and 4
CONCESSION 3 (OTTAWA FRONT)
Geographic Township of Gloucester
and
PART OF BLOCK 115
REGISTERED PLAN 4M-1545
CITY OF OTTAWA
Prepared by Annis , O'Sullivan , Vollebekk Ltd.

Scale 1 : 1250
50 37.5 25 12.5 0 25 50 Metres

Metric
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :
The boundaries of the lands to be subdivided and their relationship to adjoining lands have been accurately and correctly shown.

Date ____________ ____________________
Andre Roy
ONTARIO LAND SURVEYOR

OWNER'S CERTIFICATE

This is to certify that we are the owners of the lands to be subdivided and that this plan was prepared in accordance with our instructions.

Date ____________ ____________________
Steve Grandmont
RICHCRAFT HOMES LTD.
2322028 ONTARIO INC.
I have authority to bind the corporation.

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51-17 OF THE PLANNING ACT
(a) see plan
(b) see plan
(c) see plan
(d) single family, multi-family residential housing, park land
(e) see plan
(f) see plan
(g) see plan
(h) City of Ottawa
(i) see soils report
(j) see plan
(k) sanitary, storm sewers, municipal water, bell, hydro, cable and gas to be available
(l) see plan

REVISION SCHEDULE			
NO.	REVISION	DATE	BY
5	BLK. 36 CHANGED TO MED. DENSITY	OCT. 16, 2020	N
4	REVISIONS	AUG. 13, 2020	N
3	REVISIONS	AUG. 7, 2020	AR/N
2	REVISIONS	JULY 16, 2020	N
1	CONCEPT PLAN PREPARED	JAN. 6, 2020	N

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aovltd.com
Ontario Land Surveyors
Job No. 18818-19 Richcraft Pt Lts 1-4 C3 OF GL DPS D5 | N

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