Environmental Impact Study

Dealership Drive

Dealership Drive Site-Colonnade BridgePort

25 November 2022

→ **The Power of Commitment**

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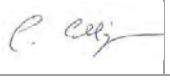
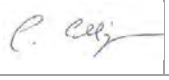
S4	V2	Emma Northey, Chris Ellingwood	Chris Ellingwood		Chris Ellingwood		Nov. 25/22

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Executive Summary

GHD was retained by Colonnade BridgePort in 2022 to complete an Environmental Impact Study for a proposed commercial/industrial development on the subject lands identified as Block 6 off of Dealership Drive within the City of Ottawa.

The property is not shown with any natural heritage features in the new City of Ottawa Official Plan. An EIS was prepared as some fencerows and other naturally vegetated areas were present. The development includes construction of several large warehouse/commercial buildings, driveways and associated parking areas.

The proposed development is to be an industrial park facility with several buildings, driveways, truck/trailer storage and parking areas. The total developable area proposed for Block 6 is approximately 6.05 hectares of land (Appendix D).

The subject property is located in an area that has historically and currently is active agriculture. Fields had a recently harvested soya bean crop on 4 of the 5 field areas.

The subject site includes several small fields with fencerows and rockpiles between. The site is fairly bare, with regards to trees and woodlands but a good diversity of trees were present.

The topography of the entire site slopes from Highway 416 down to Dealership Drive.

Two ELC communities were identified during the ELC surveys. Each community is described below and illustrated on Figure 1.

A total of 58 plant species were identified during field surveys. The dominant species in each community are described below and a complete plant list is found in Appendix A. No regionally rare plants were found during the biological inventories.

There were no identified natural heritage features on the property. The fencerows and edges of the agricultural field did not contain any significant species.

Preservation of some of the larger trees in the southern fencerow is recommended if grading allows. In addition, native trees should be used in the landscaping, where possible.

A small woodland south of the property was not mapped as key feature in the City of Ottawa Official Plan. Regardless the development of this Site will not impact on that woodland.

There were no identified watercourses on the Site. A manmade ditch to the east provides drainage from the adjacent road. No impacts on downstream watercourses is predicted from this development.

Construction impacts can be minimized through detail design and implementation of the recommendations outlined in Sections 5 and 7 of this report. GHD’s recommendations have been made to address potential impacts to natural features and/or their functions during the site preparation, construction and post-construction period. No negative impacts are predicted on the natural features.

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1. Introduction

1.1 Background

GHD was retained by Colonnade BridgePort in 2022 to complete an Environmental Impact Study for a proposed commercial/industrial development on the subject lands identified as Block 6 off of Dealership Drive within the City of Ottawa.

The property is not shown with any natural heritage features in the new City of Ottawa Official Plan. An EIS was prepared as some fencerows and other naturally vegetated areas were present. The development includes construction of several large warehouse/commercial buildings, driveways and associated parking areas.

1.2 Location and Study Area

The property is located on Dealership Drive to the north and Street Two to the east with Highway 416 bordering the west, in the City of Ottawa. The study area included the entire property.

1.3 Scope and Limitations

This report: has been prepared by GHD for Colonnade BridgePort and may only be used and relied on by Colonnade BridgePort for the purpose agreed between GHD and Colonnade BridgePort as set out in section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Colonnade BridgePort 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 section(s) 1 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

1.4 Study Rationale

This section identifies federal, provincial and other regulatory legislation, policies, official plans (OPs) and official plan amendments that are applicable and relevant to the study area and the immediate vicinity. This includes policies that triggered the study. These documents may identify Species at risk, natural features and habitats or other features relevant to this study.

1.4.1 Federal Legislation

1.4.1.1 Migratory Birds Convention Act

The purpose of the Migratory Birds Convention Act (MBCA 1994) is to implement the Convention by protecting and conserving migratory birds as populations, individual birds, and their nests.

No work is permitted to proceed that would result in the destruction of active nests (i.e., nests with eggs or young birds) or the wounding or killing of bird species protected under the MBCA and/or Regulations under that Act.

1.4.2 Provincial Legislation

1.4.2.1 Endangered Species Act, 2007

The purposes of the Ontario Endangered Species Act (ESA 2007) are to:

1. To identify species at risk based on the best available scientific information, including information obtained from community knowledge and aboriginal traditional knowledge;
2. To protect species that are at risk and their habitats, and to promote the recovery of species that are at risk;
3. To promote stewardship activities to assist in the protection and recovery of species that are at risk. 2007, c. 6, s. 1. (Government of Ontario, 2019)

The ESA clearly defines the five classifications of species status as extinct, extirpated, endangered, threatened, or special concern, and provides guidelines on the process of species status determination.

Regulations made under this Act include: Ontario Regulation 230/08 and 242/08. Ontario Regulation 230/08 provides the list of Species at Risk (SAR) in Ontario, which is updated regularly. This list was most recently consolidated on August 1, 2018 (Government of Ontario, 2018). Species status provided in the list is assessed by an independent body, the Committee on the Status of Species at Risk in Ontario (COSSARO), based on the best-available science and Aboriginal Traditional Knowledge.

General habitat protection is afforded to all species listed as endangered or threatened. General habitat descriptions are technical, science-based documents that have been developed for some of the species that are most likely to be affected by human activity (Government of Ontario 2020). Further information including a Recovery Strategy or Management Plan is required for each listed species, on a timeline dictated by the species status.

Ontario Regulation 242/08 explains possible exemptions to the ESA and details on how the purpose of the ESA is to be carried out.

1.4.2.2 Provincial Policy Statement, 2020

The Provincial Policy Statement, 2020 (PPS) is the statement of the Ontario government's policies on land use planning. It applies province-wide (in the province of Ontario) and provides provincial policy direction on land use planning. Municipalities use the PPS to develop their official plans and to guide and inform decisions on other planning matters. The PPS is issued under Section 3 of the Planning Act and all decisions affecting land use planning matters 'shall be consistent with' the Provincial Policy Statement (Government of Ontario, 2020).

Portions of Sections 2.1.4-2.1.8 of the Provincial Policy Statement (PPS 2020) apply to this project.

2.1.4 Development and site alteration shall not be permitted in:

- *a. significant wetlands in Ecoregions 5E, 6E and 7E1; and*
- *b. significant coastal wetlands.*

2.1.5 Development and site alteration shall not be permitted in:

- *a. significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;*
- *b. significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*
- *c. significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*
- *d. significant wildlife habitat;*
- *e. significant areas of natural and scientific interest; and*
- *f. coastal wetlands in Ecoregions 5E, 6E and 7E1 that are not subject to policy unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

2.1.7 Development and site alteration shall not be permitted in the habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

2.1.8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

1.4.3 Local and Other Regulatory Bodies

1.4.3.1 City of Ottawa Official Plan

Several sections of the City of Ottawa Official Plan are applicable to this EIS. As the key issue is the adjacent woodland on site, the natural heritage policies in section 5.4 are the main policies discussed in this EIS report. Further assessment of the compliance of the applicable OP sections in found in later sections of this report.

1.4.3.2 Rideau Valley Conservation Authority (RVCA) (Ontario Regulation 174/06)

The Conservation Authority whose jurisdiction the study area falls under is the Rideau Valley Conservation Authority. Under the Conservation Authorities Act, Ontario Regulation 174/06, Regulation of Development Interference with Wetlands and Alterations to Shorelines and Watercourses is applicable. Specifically, under this regulation, LTRCA is required to: Prohibit, regulate or provide permission for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or changing or interfering with a wetland. Prohibit or regulate or provide permission for development if the control of flooding, erosion, dynamic beaches, pollution, or the conservation of land may be affected by the development.

1.5 Other Resources Referenced

Prior to field surveys, background information for the study area and surrounding lands from a variety of sources was reviewed to provide context for the setting and sensitivity of the site. Background information sources included:

1.5.1 Data Sources

- Aerial imagery
- MNRF Land Information Ontario (LIO) database mapping and Natural Heritage Information Centre (NHIC) Make-a-map tool (2021)
- Ontario Breeding Bird Atlas data (Bird Studies Canada, (BSC) 2001-2005 field data)
- Ontario Ministry of Natural Resources, Aquatic Resource Area, Fish Species List (OMNR, 2019)
- Department of Fisheries and Oceans (DFO) Aquatic Species at Risk Mapping (DFO, 2019)

1.5.2 Literature and Resources

- Natural Heritage Reference Manual (MNRF, 2010)
- Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. Peterborough, 38pp. (OMNRF, 2015)
- City of Ottawa Official Plan

1.6 Description of Development

The proposed development is to be an industrial park facility with several buildings, driveways, truck/trailer storage and parking areas. The total developable area proposed for Block 6 is approximately 6.05 hectares of land (Appendix D).

1.6.1 Scope of Report

The scope of work for the project includes the following:

- Description of current and proposed land uses
- Ecological Land Classification (ELC) of all vegetation communities
- Woodland delineation and setbacks;
- Assessment of potential Significant Wildlife Habitat (SWH)
- Species At Risk (SAR) presence and habitat assessment, including habitat of endangered and threatened species
- Analysis of possible impacts of development on the natural features and ecological functions of all significant features identified,
- Mitigation recommendations
- Potential compensation options
- Figure illustrating lot layout that respects all significant natural features and buffers/setbacks per EIS recommendations

2. Study Methods

2.1 General Approach

The study was completed in four distinct phases. The first phase involved a literature review of existing information and standard sources of biological data including natural heritage mapping. NEA Biologists completed a review of natural heritage databases from OMNRF and obtained the latest information on natural features and Species at Risk.

Our second phase consisted of site visits by our terrestrial/wetland and fisheries biologists through the months of April – June 2022. During these visits new site-specific data was collected to verify the information that had been obtained through the earlier literature reviews, and to confirm wetland and woodland boundaries adjacent to the property. The purpose of the surveys included to:

– Delineate any wetland boundaries on site and identify whether the features meet the definition of wetland as per the Ontario Wetland Evaluation System (OWES) and Rideau Valley Conservation regulations;
– Identify and map any on-site ponds, creeks, seepage areas and/or other water features;
– Conduct a preliminary assessment of habitat suitability for species at risk;
– Search for significant trees (butternut) and/or rare plants;
– Record incidental observations birds, amphibians, snakes and other wildlife;
– Confirm woodland community types and botany surveys

The final phase involved preparation of this EIS report, including specific mitigation measures for protecting any other natural features on or adjacent to the study site. This report also includes a figure that illustrates the location of vegetation communities, wildlife survey stations, and the recommended buffers and setbacks and developable area.

2.2 Study Site Methodology

2.2.1 Physical Site Characteristics

Site characteristics were assessed during field visits. This assessment included general documentation of existing disturbances, current property use, age of vegetation cover, topography and natural features.

2.2.2 Biophysical Inventory

2.2.2.1 Vegetation

ELC Survey Method

All vegetation encountered in the study was inventoried during the site visits. Delineation and classification of the vegetation community types was based on the Ecological Land Classification for Southern Ontario (Lee et al., 1998). General notes on disturbance, topography, soil types, soil moisture and state of each community were also compiled. All vegetation communities in the study area were included.

Rare, significant, or uncommon species were searched for. Species significance or rarity on a national, provincial, regional, or local level was based on published literature and standard status lists. These included SARA (2021), COSEWIC (2021), SARO (2018), Brunton (2000) and most recent City of Ottawa SAR list (2022).

2.2.2.2 Birds

Area Searches

Birds detected while on-site during all other field surveys were recorded along with a breeding evidence code if known. The search area for these surveys included all of the vegetation communities in the study area.

Rare, significant or uncommon species were searched for. Species significance or rarity on a national, provincial, regional or local level was based on published literature and standard status lists. These included SARA (2021), COSEWIC (2021), SARO (2018), and most recent City of Ottawa SAR list (2022).

2.2.2.3 Other Wildlife

While surveyors were on site conducting surveys of vegetation communities (e.g., surveys of vegetation communities) observations of any wildlife encountered on site were recorded (including mammals, amphibians and reptiles). Documentation included notes about the species detected, their location and the type of encounter (i.e., direct sightings and indirect evidence such as calls, tracks, scat, burrows, dens, trails and browse).

Rare, significant or uncommon species were searched for. Species significance or rarity on a national, provincial, regional or local level was based on published literature and standard status lists. These included SARA (2021), COSEWIC (2021), COSSARO (2021), and most recent City of Ottawa SAR list (2022)

2.2.2.4 Wetlands

Wetland boundaries were determined by GHD biologists certified to conduct wetland evaluations under the Ontario Wetland Evaluation System, third edition, version 3.3, southern manual (2014). Biologists first reviewed aerial photographs and available wetland mapping, including MNRF GIS database layers and previous mapping. Subsequently, they walked the entire property, checking plant species, soil type and soil moisture. The boundary of any wetlands was then delineated in the field using a handheld GPS unit.

2.2.2.5 Significant Woodlands

Significant woodlands are a component of the Natural Heritage System in the City of Ottawa's Official Plan. Wooded areas on the site were inventoried while ELC surveying was conducted. An analysis of the woodland in terms of significance was assessed based on City of Ottawa guidelines.

2.2.2.6 Significant Wildlife Habitat (SWH)

Prior to site visits, a candidate list of SWH features were determined based on the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E, 2015. During site visits, GHD biologists looked for evidence of those candidate significant wildlife habitat features (i.e., to determine presence/absence). Upon compiling field data, further consideration was given to which candidate SWHs could be confirmed as present on the property.

2.2.2.7 Species At Risk

Although habitats were limited on this agricultural property, searches were conducted for butternut trees and bat cavity trees. Bat surveys were in off-leaf season with biologist looking for trees with cavities, snags and decaying stems

3. Survey Results

The following section presents GHD site-specific survey data only. Supporting information, the background review and other sources of information will be presented and discussed in Section 4.0 – Discussion and Analysis.

3.1 Physical Site Characteristics

The subject property is located in an area that has historically and currently is active agriculture. Fields had a recently harvested soya bean crop on 4 of the 5 field areas.

The subject site includes several small fields with fencerows and rockpiles between. The site is fairly bare, with regards to trees and woodlands but a good diversity of trees were present.

The topography of the entire site slopes from Highway 416 down to Dealership Drive.

ELC Types - 1st Approximation

Ecological Land Classification for Southern Ontario: First Approximation and Its Application. 1998.

ELC Code	Ecosite-Vegetation Type Description
CUM1-1	Dry-Moist Old Field Meadow

Data Disclaimer

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Legend

- Cavity Tree
- Property Limit
- Assessment Parcel
- Vegetation Communities

1 cm = 14 meters

0 9.5 19 28.5 38

Meters

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 18N

Paper Size ANSI B

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Print date: 01 Dec 2022 - 09:39

Colonnade BridgePort
Dealership Drive, Ottawa, ON
City of Ottawa
Environmental Impact Study
Vegetation Communities, Surveys & Constraints

Project No. 12574213
Revision No.
Date Dec 1, 2022

Figure 1

Data source: Image @ City of Ottawa, 2021.

3.2 Biological Inventories

3.2.1 Vegetation

3.2.1.1 Level of Effort

The vegetation communities were delineated within the study area by GHD biologists according to methodologies outlined in Section 2.2.2.1. A summary of the level of effort and environmental conditions have been provided in Table 1.

Table 1 Vegetation Surveys - Level of Effort

Survey Date	Survey Type	Weather	Start Time	Effort (person hrs.)
November 2, 2022	Ecological Land Classification (ELC)	14°C, Cloud cover 0%, Beaufort Wind Scale 1, no precipitation	14:00	1

3.2.1.2 ELC Code Descriptions

Two ELC communities were identified during the ELC surveys. Each community is described below and illustrated on Figure 1.

A total of 58 plant species were identified during field surveys. The dominant species in each community are described below and a complete plant list is found in Appendix A. No regionally rare plants were found during the biological inventories.

Appendix B shows a list of significant plant species (hairy willow-herb (*Epilobium hirsutum*) and common reed (*Phragmites australis)),* however, neither of the species are considered to be rare or regionally rare but rather an indication of potentially invasive species based on the regional ranking of Brunton, 2005, Ottawa. No further comment or transplanting is needed on these two species.

Community 1- Fencerows ELC Code: No Code

This community is very similar to community two but includes the fencerow and the ditch area.

This community included the associated fencerows which included Tatarian honeysuckle (*Lonicera tatarica*), sugar maple, basswood, red oak, bitternut hickory (*Carya cordiformis*), Carolina poplar (*Populus X canadensis*), and Virginia waterleaf (*Hydrophyllum virginianum*) and staghorn sumac (*Rhus typhina*). The ditch area just off site to the east included common reed (*Phragmites australis*), common burdock (*Arctium minus*)

Photo 1: Community 1, ELC Code: CUM1 Showing the fencerow and field area.

Community 2- Dry- Moist Old Field Meadow Type ELC Code: CUM1-1

Community 2 is in the northwest portion of the Block 6 as an old abandoned agricultural field. The majority of this community is made up of wild red raspberries (*Rubus idaeus*) and tall goldenrod (*Solidago altissima)* with some apple trees spread across the community (*Malus domestica*) and a patch of red-osier dogwood (*Cornus stolonifera*). Many common 'weed' species were found in this community which are typical to this type of community, these included Queen-Anne's lace (*Daucus carota),* wild parsnip (*Pastinaca sativa),* common milkweed (*Asclepias syriaca*) and wild grape (*Vitis riparia*). Scattered tree species that were identified here included eastern white pine (*Pinus strobus*), bur oak (*Quercus macrocarpa*) and hawthorn (*Crataegus spp.*). A few white spruce were located closer to the highway.

Photo 2: Community 2 ELC Code CUM1-1. Showing dominate ground cover of tall golden rod and wild red raspberries

Woodland

This small wooded area was located to the south of the property and south of the fencerow that separates the two properties. The woodland contains similar species to the fencerow with sugar maple, red oak, basswood and eastern white cedar.

3.2.1.3 Birds

A total of eleven (11) bird species were identified as incidentals while on site. Some species included; black-capped chickadee, American crow (*Corvus brachyrhynchos*), blue jay, dark-eyed junco (*Junco hyemalis*), cedar waxwing (*Bombycilla cedrorum*) and, song sparrow (*Melospiza melodia*). As the surveys were conducted in the fall most of these species would be migrating through or be year-round residents. A full list of bird species can be found in Appendix C.

3.2.1.4 Mammals

Evidence of mammals observed during the surveys included white-tailed deer (*Odocoileus virginianus*), eastern grey squirrel (black phase) (*Sciurus carolinensis*), and red squirrel (*Sciurus vulgaris*).

No amphibians or reptiles were recorded during field visits.

3.2.1.5 Herpetozoa

No amphibians or reptiles were identified by sight or call during the time of the survey.

3.2.1.6 Wetlands

No wetlands were identified on the property.

3.2.1.7 Woodlands

No woodlands were identified on the site. City of Ottawa Official Plan does not show any Natural Heritage Features, urban natural features or Environmental areas.

3.2.1.8 Significant Wildlife Habitat

During our review of candidate significant wildlife habitat, the following were identified as potentially present on site: bat maternity roosting habitat, and habitat for Special Concern and Rare Wildlife species. Refer to Table 2.

3.2.1.9 Bat Cavity trees

The bat cavity searches identified three cavity trees within the fencerows across the entire property. The trees included ash (*Fraxinus spp*.), trembling aspen (*Populus tremuloides*) and American elm (*Ulmus americana*). All three of the trees were a decay code 4.

4. Discussion and Analysis

4.1 Species and Communities

4.1.1 Vegetation

GHD biologists found no species that are classified as federally and/or provincially rare in the study area (SARA 2021; COSEWIC 2021; COSSARO 2021).

None of the ecological communities (i.e., ELC ecosites or vegetation communities) found in the study are considered provincially rare (NHIC, 2021).

4.1.2 Birds

The Ontario Breeding Bird Atlas (OBBA – 2nd atlas) records for the 10 km by 10km square that overlaps the property (17QJ39) included eleven (11) bird species that are listed nationally or provincially as species at risk (COSSARO 2021; SARA 2021; COSEWIC 2020). These records were of least bittern (*Ixobrychus exilis*), common nighthawk (*Chordeiles minor*), Eastern whip-poor-will (*Caprimulgus vociferus*), red-headed woodpecker *(Melanerpes erythrocephalus*), Eastern wood-pewee (*Contopus virens*), bank swallow (*Riparia riparia*), barn swallow (*Hirundo rustica*), wood thrush (*Hylocichla mustelina*), grasshopper sparrow (*Ammodramus savannarum*), bobolink (*Dolichonyx oryzivorus*), and eastern meadowlark (*Sturnella magna*).

None of the species were found on this property during our previous or current field investigations. There is no habitat available for species associated with exposed bluff faces such as bank swallow, or wetlands dominated by narrow leaved plant species for least bitterns, neither of which were present on the site. There is no habitat for any of the woodland species or mixed habitat species due to the soya bean field and lack of woodlands nearby. Habitat is not ideal for those species that prefer more open forest. Species that are associated with open grassland, would not be present as the soya bean crop and the abandoned field in the northwest would not provide suitable habitat for bobolink, eastern meadowlark, and grasshopper sparrow.

The Ontario Natural Heritage Information Centre (NHIC) does not include the subject property and the immediate area in its data base.

4.1.3 Other Wildlife

No other federal or provincial species at risk were recorded on the subject property during the site visit (SARA 2021; COSEWIC 2020; COSSARO, 2021). Our background review using the Ontario Natural History Information Centre did not identify any significant wildlife species on the property. Habitat for foraging bats may exist on the property. GHD did identify three candidate maternity roost trees on site in the northwest corner.

4.2 Natural Features

4.2.1 Significant Wildlife Habitat

Significant Wildlife Habitat often occurs within other natural heritage features and areas covered by Policy 2.1 of the Provincial Policy statement (e.g., significant wetlands). Therefore, it has been suggested that identification and evaluation of Significant Wildlife Habitat is best undertaken after other natural heritage features have been identified (Natural Heritage Reference Manual, 2010).

GHD biologists analysed the information collected from the ecological communities on the subject property using the criteria for Significant Wildlife Habitat in Ecoregion 6E (2015) and identified five (5) candidate SWH on the property: Bat Maternity Colonies, Amphibian Breeding Habitat (Wetland), Woodland Area-Sensitive Bird Breeding Habitat, Special Concern and Rare Wildlife Species

Of these candidates SWH features, none were confirmed on site.

The four candidate SWH types that were found to be possible with a low to moderate degree of probability of occurring on site were based on ELC codes and on-site surveys. Bat Maternity Colonies were thought to be possible due to the presence of several mature trees in the fencerow and Special Concern and Rare Wildlife Species.

Table 2 Significant Wildlife Habitat – Candidate and Confirmed

Wildlife Habitat	Wildlife Species	Candidate SWH and Confirmed Habitat Criteria		Confirmed SWH and Defining Criteria	Candidate Habitat found within the Study Area	Confirmed Habitat found within the Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources			
Bat Maternity Colonies ***Rationale***: Known locations of forested bat maternity colonies are extremely rare in all Ontario landscapes	– Big Brown Bat – Silver-haired Bat	Maternity colonies considered SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: – FOD – FOM – SWD – SWM	– Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH). – Maternity roosts are not found in caves and mines in Ontario. – Maternity colonies located in Mature deciduous or mixed forest stands with >10/ha large diameter (>25 cm dbh) wildlife trees – Female Bats prefer wildlife tree (snags) in early stages of decay, class 1–or class 1 or – Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred **Information Sources** – OMNRF for possible locations and contact for local experts University Biology Departments with bat experts.	– Maternity Colonies with confirmed use by: – >10 Big Brown Bats – >5 Adult Female Silver-haired Bats – The area of the habitat includes the entire woodland, or a forest stand ELC Ecosite or an Eco element containing the maternity colonies	Possible. Some large diameter trees were identified in mature woodland edge; however the density of snags and appropriate trees were low. The probability of this SWH to occur on this site is low.	Not Confirmed
Special Concern and Rare Wildlife Species ***Rationale:*** These species are quite rare or have experienced significant population declines in Ontario.	All Special Concern and Provincially Rare (S1–S3, SH) plant and animal species. Lists of these species are tracked by the NHIC.	All plant and animal element occurrences (EO) within a 1- or 10-km grid. Older element occurrences were recorded prior to GPS being available; therefore, location information may lack accuracy	When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites **Information Sources** NHIC will have Special Concern and Provincially Rare (S1–S3, SH) species lists with element occurrences data. – NHIC Website “Get Information”: http://nhic.mnr.gov.on.ca – Ontario Breeding Bird Atlas Expert advice should be sought as many of the rare spp. have little information available about their requirements.	Studies Confirm: – Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable. The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH, this must be delineated through detailed field studies. The habitat needs be easily mapped and cover an important life stage component for a species e.g. specific nesting habitat or foraging habitat.	No SC species identified.	No

4.2.2 Wildlife Corridors

No wildlife corridors or connectivity were identified in the Official Plan and no evidence of corridors on site. Fencerows and agricultural fields may provide some foraging habitat for local deer population.

5. Impact Assessment and Recommendations

The following section provides a description of the predicted impacts that may result from the proposed development (Table 7). It also identifies mitigation measures to be implemented to avoid and/or minimize adverse effects to the natural environment features within or near the project. A full list of mitigation measures has been provided in Section 7 of this report.

5.1 Natural Features

There were no identified natural heritage features on the property. The fencerows and edges of the agricultural field did not contain any significant species.

Preservation of some of the larger trees in the southern fencerow is recommended if grading allows. In addition native trees should be used in the landscaping, where possible.

A small woodland south of the property was not mapped as key feature in the City of Ottawa Official Plan. Regardless the development of this Site will not impact on that woodland.

There were no identified watercourses on the Site. A manmade ditch to the east provides drainage from the adjacent road. No impacts on downstream watercourses is predicted from this development.

5.2 Wildlife corridors

No local or regionally significant wildlife corridors or linkages were identified in the City of Ottawa Official Plan in this area. The agricultural land on this site may provide some foraging for local deer and other animals, but the area is undergoing development and habitat is limited.

5.3 Species at Risk

No provincially and federally threatened bird species were identified on the subject property. Three potential bat cavity trees were found on site in the open part of the abandoned field. The presence of the bat cavity trees does indicate that endangered bat species may be present. The decay code of the trees (almost ready to fall) and the small diameter would limit the use by bats. However, it is recommended that those trees not be cut in the maternity roosting season from May 1 to September 30th.

6. Policies and Legislative Compliance

The following section describes how the proposed development will be in conformance with the relevant federal, provincial and other regulatory legislation, policies, official plans and OP amendments that are applicable and relevant to the study area and the immediate vicinity.

6.1 Federal Legislation

6.1.1 Migratory Birds Convention Act

The core breeding period in Ontario for migratory birds under the MBCA for Bird Conservation Region 13 (i.e., the one the subject property lies within) extends from April 15th to August 15th (Environment and Climate Change Canada, 2014). As such clearing of the trees and other vegetation for the development cannot occur during this timing window.

6.2 Provincial Legislation

6.2.1 Endangered Species Act, 2007

No provincially threatened species were detected on the subject property therefore the project is in compliance with the act.

6.2.2 Provincial Policy Statement, 2020

In this EIS report, Section 5.1.1 contain recommendations that would permit the proposed development to proceed in a manner consistent the applicable sections of the Provincial Policy Statement (PPS).

6.3 Local and Other Regulatory Bodies

6.3.1 City of Ottawa Official Plan (2019)

In this EIS report, Section 4.8, 5.1 and 6.1 describe measures that would permit the proposed development application to proceed in a manner consistent the Official Plan (2016). Provided these measures are followed, there should be no negative impacts on Natural Features on the site.

6.3.2 Rideau Valley Conservation (Ontario Regulation 174/06)

There are no watercourses, or wetlands on this property or floodplain. Permitting will likely not be required by RVCA under O. Reg 174/06 prior to development.

7. Summary of Recommendations

7.1 General

1. The limit of development shall be staked in the field. No development or site alteration activities are to occur outside of this area.
2. A detailed sediment and erosion control plan will be completed for the site.
3. Recommendations from the tree protection and preservation plan be implemented.
4. The overall existing drainage patterns for the lots will be maintained
5. Removal of vegetation within development envelopes and/or along access routes shall be done outside of the peak breeding bird season (April 15th – August 15th) as per Environment and Climate Change Canada's guidelines.
6. Any areas outside of the buildings and built infrastructure shall be vegetated as soon as possible after construction to stabilize the soils and re-establish vegetation cover.
7. Where it is feasible, native trees, shrubs, grasses and/or wildflower seed mixes shall be used in the landscaping.
8. Client to obtain relevant permits from City of Ottawa and Rideau Valley Conservation.

8. Conclusion

GHD Limited has prepared this Environmental Impact Study report to address potential environmental issues associated with a proposed industrial development on Dealership Drive in Ottawa.

Construction impacts can be minimized through detail design and implementation of the recommendations outlined in Sections 5 and 7 of this report. GHD's recommendations have been made to address potential impacts to natural features and/or their functions during the site preparation, construction and post-construction period. No negative impacts are predicted on the natural features.

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Appendices

Appendix A

Plant Species by Community

APPENDIX A Plant Species by Community

Families and genera for the plant species found in this appendix are listed in taxonomic order. The species are listed alphabetically by scientific name within each genus.

Three standard reference works were used for the botanical nomenclature and taxonomy (Newmaster et. al., 1998; Gleason and Cronquist 1991; Voss 1980; 1985). Other published works for botanical names included; ferns (Cody and Britton 1989); grasses (Dore and McNeill 1980); orchids (Whiting and Catling 1986); shrubs (Soper and Heimburger 1982) and trees (Farrar 1995).

Total: Number of communities where plant species was recorded
X : Plant species recorded

Common Name	*Scientific Name*	Total	COMMUNITY NUMBER	
			1	2
PINE FAMILY	*PINACEAE*			
white spruce	*Picea glauca*	1	X	
eastern white pine	*Pinus strobus*	1		X
CYPRESS FAMILY	*CUPRESSACEAE*			
common juniper	*Juniperus communis var. depressa*	1	X	
ELM FAMILY	*ULMACEAE*			
American elm	*Ulmus americana*	1		X
red elm	*Ulmus rubra*	1	X	
WALNUT FAMILY	*JUGLANDACEAE*			
bitternut hickory	*Carya cordiformis*	1	X	
BEECH FAMILY	*FAGACEAE*			
bur oak	*Quercus macrocarpa*	1		X
GOOSEFOOT FAMILY	*CHENOPODIACEAE*			
lamb's-quarters	*Chenopodium album*	1	X	
AMARANTH FAMILY	*AMARANTHACEAE*			
redroot pigweed	*Amaranthus retroflexus*	1	X	
BUCKWHEAT FAMILY	*POLYGONACEAE*			
curled dock	*Rumex crispus*	1		X
LINDEN FAMILY	*TILIACEAE*			
American basswood	*Tilia americana*	1	X	
WILLOW FAMILY	*SALICACEAE*			
trembling aspen	*Populus tremuloides*	1	X	
Carolina poplar	*Populus X canadensis*	1	X	

Common Name	*Scientific Name*	Total	COMMUNITY NUMBER	
			1	2
ROSE FAMILY	*ROSACEAE*			
hawthorn species	*Crataegus spp.*	1		X
common strawberry	*Fragaria virginiana*	1	X	
apple	*Malus domestica*	1	X	
wild red raspberry	*Rubus idaeus*	1		X
PEA FAMILY	*FABACEAE*			
bird's-foot trefoil	*Lotus corniculatus*	1		X
red clover	*Trifolium pratense*	1	X	
white clover	*Trifolium repens*	1	X	
cow vetch	*Vicia cracca*	1	X	
EVENING PRIMROSE FAMILY	*ONAGRACEAE*			
hairy willow-herb	*Epilobium hirsutum*	1	X	
DOGWOOD FAMILY	*CORNACEAE*			
alternate-leaf dogwood	*Cornus alternifolia*	1	X	
red panicled dogwood	*Cornus foemina Miller ssp.racemosa*	1		X
red-osier dogwood	*Cornus stolonifera*	1		X
BUCKTHORN FAMILY	*RHAMNACEAE*			
European buckthorn	*Rhamnus cathartica*	1	X	
GRAPE FAMILY	*VITACEAE*			
Virginia creeper	*Parthenocissus inserta*	1		X
wild grape	*Vitis riparia*	2	X	X
MAPLE FAMILY	*ACERACEAE*			
Manitoba maple	*Acer negundo*	2	X	X
sugar maple	*Acer saccharum ssp.saccharum*	1	X	
CASHEW FAMILY	*ANACARDIACEAE*			
western poison-ivy	*Rhus rydbergii*	1	X	
staghorn sumac	*Rhus typhina*	1	X	
GERANIUM FAMILY	*GERANIACEAE*			
herb Robert	*Geranium robertianum*	1	X	
CARROT FAMILY	*APIACEAE*			
Queen-Anne's lace	*Daucus carota*	2	X	X
wild parsnip	*Pastinaca sativa*	2	X	X
MILKWEED FAMILY	*ASCLEPIADACEAE*			
common milkweed	*Asclepias syriaca*	2	X	X
swallow-wort	*Cynanchum rossicum*	1		X
WATERLEAF FAMILY	*HYDROPHYLLACEAE*			
Virginia waterleaf	*Hydrophyllum virginianum*	1	X	
BORAGE FAMILY	*BORAGINACEAE*			
common gromwell	*Lithospermum officinale*	1		X
VERVAIN FAMILY	*VERBENACEAE*			
blue vervain	*Verbena hastata*	1		X
OLIVE FAMILY	*OLEACEAE*			
green ash	*Fraxinus pennsylvanica var. subinteg*	2	X	X

Common Name	*Scientific Name*	Total	COMMUNITY NUMBER	
			1	2
FIGWORT FAMILY	*SCROPHULARIACEAE*			
butter-and-eggs	*Linaria vulgaris*	1	X	
common mullein	*Verbascum thapsus*	1	X	
MADDER FAMILY	*RUBIACEAE*			
white bedstraw	*Galium mollugo*	1	X	
HONEYSUCKLE FAMILY	*CAPRIFOLIACEAE*			
tartarian honeysuckle	*Lonicera tatarica*	1	X	
European high bush cranberry	*Viburnum trilobum var. opulis*	2	X	X
ASTER FAMILY	*ASTERACEAE*			
common burdock	*Arctium minus*	1	X	
common mugwort	*Artemisia vulgaris*	1	X	
tall goldenrod	*Solidago altissima*	2	X	X
Canada goldenrod	*Solidago canadensis*	2	X	X
spiny-leaved sow thistle	*Sonchus asper*	1	X	
calico aster	*Symphyotrichum lateriflorum var.later*	1	X	
New England aster	*Symphyotrichum novae- angliae*	2	X	X
GRASS FAMILY	*POACEAE*			
awnless brome grass	*Bromus inermis ssp.inermis*	2	X	X
orchard grass	*Dactylis glomerata*	1	X	
witch grass	*Panicum capillare*	1	X	
timothy	*Phleum pratense*	1	X	
common reed	*Phragmites australis*	2	X	X
Total Number of Plant Species	58		45	25
			Number of Plant Species Per Community	

Appendix B

List of Significant Plant Species

APPENDIX B List of Significant Plant Species

Plant species observed by GHD with significant status on national, provincial and relevant regional lists are listed with status codes and where applicable the most current year of publication. Three standard reference works were used for the botanical nomenclature and taxonomy (Newmaster et. al., 1998; Gleason and Cronquist 1991; Voss 1980; 1985). Other published works for botanical names included; ferns (Cody and Britton 1989); grasses (Dore and McNeill 1980); orchids (Whiting and Catling 1986); shrubs (Soper and Heimburger 1982) and trees (Farrar 1995).

NATIONAL RANKING **Committee on the Status of Endangered Wildlife in Canada (COSEWIC), Government of Canada**
Species at Risk Act (SARA), SCHEDULE 1 (Subsections 2(1), 42(2) and 68(2)), Government of Canada

PROVINCIAL RANKING **Species at Risk in Ontario (COSSARO), Government of Ontario**
Provincial Rank (SRANK), Natural Heritage Information Center, Government of Ontario

REGIONAL RANKING **Brunton Ottawa** Brunton, 2005, Ottawa

STATUS CODES

COSEWIC	**END ***	- Endangered Species
COSSARO	**THR ***	- Threatened Species
SARA	**SC ***	- Species of Concern
SRANK	**S1**	- Extremely Rare
	S2	- Very Rare
	S3	- Rare to Uncommon
Regional Lists	**R**	- Rare native species
	RS	-Regional significant
	EXP	- Extirpated native species

***Year of Status Publication included in Code**

Other national or provincial codes not listed

Other Regional codes not listed

			NATIONAL RANKINGS		PROVINCIAL RANKINGS		REGIONAL RANKINGS				
Common Name	**Scientific Name**		**COSEWIC**	**SARA**	**COSSARO**	**SRank**	**Brunton Ottawa**				
hairy willow-herb	Epilobium hirsutum						R				
common reed	Phragmites australis						RS				
Plants with Ranking	**Total:** 2	**Status List Totals**	0	0	0		2	0	0	0	0

Appendix C

Bird Status Report

APPENDIX C Bird Status Report - Comprehensive

Bird species observed by GHD are listed in the order followed the American Ornithologists' Union (AOU) Check-list of North American birds (7th edition, 1999, 47th Supplement). Common and scientific nomenclature are based on those used by AOU. Any significant status for a species on national and provincial lists is displayed as well as those from relevant regional lists.

List Status :	**END - endangered**	A wildlife species facing imminent extirpation or extinction.
	END-R -endangered regulated	A wildlife species facing imminent extirpation or extinction in Ontario which has been regulated under Ontario's Endangered Species Act (ESA).
	THR - threatened	A wildlife species likely to become endangered if limiting factors are not reversed.
	SC - special concern	A wildlife species that may become threatened or an endangered species because of a combination of biological characteristics and identified threats.
	YES - Area Sensitive	A wildlife species that requires large areas of suitable habitat in order to sustain their population numbers.

*** Other status levels are not displayed**

List Sources:	**COSEWIC**	The Committee on the Status of Endangered Wildlife in Canada, October, 2021.
	COSSARO	The Committee on the Status of Species at Risk in Ontario, January, 2021.
	SARA	Species At Risk Act, Schedule 1, Government of Canada, 2022.
	Area Sensitive	Significant Wildlife Technical Guide, Appendix C, OMNR, Oct. 2000
	Region 6	Southern Ontario Wetland Evaluation Appendix 11B, Version 3.2, March 2013

AOU Code	Common Name	Scientific Name	COSEWIC	COSSARO	SARA	Area Sensitive	Region 6		
BLJA	Blue Jay	*Cyanocitta cristata*				No			
AMCR	American Crow	*Corvus brachyrhynchos*				No			
CORA	Common Raven	*Corvus corax*				No			
HOLA	Horned Lark	*Eremophila alpestris*				No			
BCCH	Black-capped Chickadee	*Poecile atricapillus*				No			
AMRO	American Robin	*Turdus migratorius*				No			
CEWX	Cedar Waxwing	*Bombycilla cedrorum*				No			
SOSP	Song Sparrow	*Melospiza melodia*				No			
WTSP	White-throated Sparrow	*Zonotrichia albicollis*				No			
DEJU	Dark-eyed Junco	*Junco hyemalis*				No	RS		
AMGO	American Goldfinch	*Carduelis tristis*				No			
TOTAL SPECIES OBSERVED:	**11**		**0**	**0**	**0**	**0**	**1**	**0**	**0**


GHD