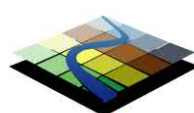


SCOPED ENVIRONMENTAL IMPACT STUDY

Consent (Severance) Application
2045 Heartwood Court, City of Mississauga
6 August 2021



TERRASTORY
environmental consulting inc.

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6 August 2021

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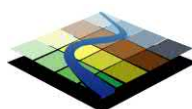


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1 INTRODUCTION

1.1 Study Background

Terrastory Environmental Consulting Inc. (hereinafter “Terrastory”) was retained by Ernesto Rambaldini (hereinafter “the Applicant”) to prepare this Scoped Environmental Impact Study (EIS) in support of a consent (severance) application at 2045 Heartwood Court (hereinafter “Subject Property”) in the City of Mississauga. The Subject Property is an approximately 0.5 hectare (1.2 acre) parcel bounded by Heartwood Court (southwest) and wooded residential parcels (northwest, northeast, and southeast). The Subject Property consists of an existing residence and pool surrounded by amenity space. The location of the Subject Property within its broader landscape setting is shown in **Figure 1**.

The Subject Property is designated Residential Low Density I per Schedule 10 (Land Use Designations) of the City’s Official Plan (OP) and is zoned Residential Low Density 1 (R1-13) per Zoning By-Law 0225-2007. The Credit River valleyland abuts the opposing side of Heartwood Court and is considered an Urban River Valley pursuant to the Greenbelt Plan. The valleyland contains a Regionally Significant Life Science Area of Natural and Scientific Interest (ANSI; Credit River Coastal Marshes) and wetland units associated with the Provincially Significant Credit River Marshes Wetland Complex (hereinafter “PSW”). Owing to the adjacent valleyland the Subject Property is also regulated by Credit Valley Conservation (CVC).

The severance application considered herein will create one new developable lot (and one retained lot). The City has requested the preparation of this Scoped EIS in support of the severance application given the presence of significant natural heritage features (e.g., woodlands, etc.) within and adjacent to the Subject Property. It is expected that the trigger for this Scoped EIS is Section 6.3.25 of the City’s OP, which requires the completion of an EIS for new lots created by land division that will have the effect of fragmenting the ownership of lands within the Natural System. A Terms of Reference (ToR) which scopes the conduct and content of this study was prepared by Terrastory and confirmed via email by CVC (M. Marinas) on 21 June 2021 and the City (M. Hynes) on 16 July 2021. The approved ToR is provided in **Appendix 1**.

1.2 Study Purpose

The purpose of this study is to present a biophysical characterization of the Subject Property and Adjacent Lands as a means to assess the potential for adverse effects on the natural environment and natural heritage features stemming from the proposed single-lot severance. The scope and approach of this study addresses the reporting requirements of **Appendix 1**. It is understood that this report will form part of the severance application package to be submitted for consideration by the City, Region, and CVC.

2 APPROACH AND METHODS

This study is composed of five (5) discrete components which are bulleted below and further described in the following sections.

1. **Acquire background biophysical information and mapping** available for the local landscape surrounding the Subject Property (see **Section 2.1**).

2. **Conduct a site assessment and ecological survey** to field-verify the accuracy of the acquired background biophysical information and collect additional biophysical information as necessary (see **Section 2.2**).
3. **Assess the significance** of the biophysical information collected and natural features identified within the context of applicable natural heritage and environmental policies (see **Section 2.3**).
4. **Predict the effects** of the application on the identified significant natural features and natural environment, particularly the net effects once mitigation measures and technical recommendations are implemented (see **Section 2.4**).
5. **Determine whether the proposed application addresses applicable natural heritage and environmental policies** at municipal, provincial, and federal levels (see **Section 2.5**).

2.1 Background Biophysical Information Assessment

This study is supported by background biophysical information and mapping acquired and reviewed from a variety of sources which are listed below in **Table 1**.

Table 1. Background Biophysical Information Acquired and Reviewed.

Type of Information Acquired	Description
Ortho-rectified Aerial Photographs	<ul style="list-style-type: none"> • 1954, 2004, 2005, 2007, 2009, 2012 – 2019.
Natural Feature Mapping	<ul style="list-style-type: none"> • City of Mississauga Official Plan (April 2021) Schedules 1A and 3. • Region of Peel Official Plan (2018 as amended) Schedule A. • Land Information Ontario (LIO) accessed via MNRF's "Make a Map" web-based platform (accessed 30 June 2021). • CVC regulation mapping (accessed 30 June 2021).
Physiographic Resource Mapping and Datasets	<ul style="list-style-type: none"> • Topographic Survey of the Subject Property. • Ontario Base Mapping produced by MNR (1:10,000) with 5 m contours. • Ontario Well Records (publicly-available). • The Soils of Peel County (Hoffman and Richards 1955). • Agricultural Information Atlas (accessed 30 June 2021). • Surficial Geology of Southern Ontario (Ontario Geological Survey 2010). • Physiography of Southern Ontario (Chapman and Putnam 1984).
Ecological Resource Mapping and Datasets	<ul style="list-style-type: none"> • Natural Heritage Information Centre (NHIC) database accessed via MNRF's "Make a Map" web-based platform (squares: 17PJ1024, 17PJ1023, 17PJ1022, 17PJ1124, 17PJ1123, 17PJ1122, 17PJ1224, 17PJ1223, 17PJ1222; accessed 30 June 2021). • iNaturalist "(NHIC) Rare species of Ontario" project (accessed 30 June 2021). • iNaturalist "Herps of Ontario" project (accessed 30 June 2021). • iNaturalist "Ontario Odonata" project (accessed 30 June 2021). • Ontario Breeding Bird Atlas (OBBA) database and the Atlas of the Breeding Birds of Ontario, 2001–2005 (Cadman et al. 2007) (square: 17PJ12). • Ontario Butterfly Atlas database (square: 17PJ12; accessed 30 June 2021). • Aquatic Species at Risk Maps by Fisheries and Oceans Canada (accessed 30 June 2021). • Atlas of the Mammals of Ontario (Dobbyn 2005).

Type of Information Acquired	Description
	<ul style="list-style-type: none"> • City of Mississauga Natural Areas Survey (2017): Natural Areas Fact Sheet: Site CRR8 – Stavebank Oak Woods. • Credit River Estuary: Species at Risk Research Project (CVC 2014).

2.2 Site Assessment and Survey

A site assessment was carried out by Terrastory staff (R. Aitken) on 16 June 2021 from 7:00 am to 9:00 am. Conditions during the survey were included air temperature of 19 °C, wind levels of 0-1 on the Beaufort Scale (0-5 km/h), 75-100% cloud cover, and limited background noise. The site assessment centred on characterizing the land use (e.g., historical development patterns, existing built features, land maintenance, etc.), physiographic (e.g., topography, drainage, surface water features, etc.), and ecological (e.g., vegetation, wildlife, habitats, etc.) conditions and features of the Subject Property and (where appropriate) Adjacent Lands. All land-use, physiographic, and ecological information described for Adjacent Lands was collected from either current aerial photographs or observations from inside the Subject Property and/or publicly-accessible areas (e.g., rights-of-way, etc.). The locations and boundaries of significant natural features and/or habitats were recorded on-site with a GPS supported by representative photographs.

In addition to collecting general biophysical information, the following targeted assessments (i.e., feature- or species-specific surveys) were undertaken:

- **Vegetation Mapping according to Ecological Land Classification (ELC):** Vegetation communities on the Subject Property were characterized and mapped according to Ecological Land Classification (Lee et al. 1998) and the 2008 update to the Vegetation Type List (Lee 2008). Vegetation communities were initially identified based on current aerial photographs and then verified and refined (as necessary) on-site. ELC mapping was scaled to the finest level of resolution deemed appropriate (i.e., either Ecosite or Vegetation Type).
- **Vascular Plant Survey:** Vascular plants were recorded based on a comprehensive area search (“wandering transects”) within naturally-occurring (i.e., non-planted) or naturalizing areas of vegetation. Particular effort was paid to areas with the greatest potential to support significant vascular plants (i.e., designated Species at Risk, provincially rare, etc.) and areas with the greatest potential for impact based on the proposed development plan. Nomenclature and common names for the recorded vascular plant species are generally consistent with the Southern Ontario Vascular Plant Species List (Bradley 2013) except where a name change has more recently been adopted by NHIC.
- **Breeding Bird Survey according to the Ontario Breeding Bird Atlas Protocol:** One breeding bird survey was conducted in accordance with the Ontario Breeding Bird Atlas (OBBA) protocol (Bird Studies Canada et al. 2001). This survey occurred within the appropriate season (May 24–July 10), time of day (between dawn and approximately 5 hours after dawn), and weather conditions (no rain, wind speed ≤3 on the Beaufort Wind Scale).
- **Dripline Delineation:** The existing limit of the woodland was determined (and plotted via GPS) based on the outer edge of the dripline.

2.3 Significance Assessment

2.3.1 Definitions and Criteria

“Significant natural features” as described herein represent natural features and habitats that have recognized status (and therefore policy significance) within the planning jurisdiction in which an application is proposed. Significant natural features are defined herein to include those referenced in section 2.1 of the 2020 Provincial Policy Statement (PPS), namely:

- Significant Wetlands;
- Significant Woodlands;
- Significant Valleylands;
- Significant Wildlife Habitat (SWH);
- Significant Areas of Natural and Scientific Interest (ANSIs);
- Habitat of Endangered and Threatened Species; and
- Fish Habitat.

Defining “significant natural features” pursuant to the PPS is considered warranted herein as such features form part of the City’s Natural Heritage System (NHS) as defined in Section 6.3 of the City’s OP and are shown on Schedules 1a and Schedule 3. It is noted that the City’s NHS also captures additional natural features apart from the requirements of the PPS. The potential presence of these significant features is also considered herein and includes:

- Significant Natural Areas;
- Natural Green Spaces;
- Special Management Areas;
- Residential Woodlands; and
- Linkages.

The ROP also provides provisions that consider and/or protect additional natural features beyond the requirements of the PPS. The potential presence of these significant features form part of the Regional Greenlands System and include:

- Core Areas;
- Natural Areas and Corridors; and
- Potential Natural Areas and Corridors.

Criteria used to determine the presence or absence of the above significant natural features within the Subject Property and Adjacent Lands were considered from a variety of sources including the City’s OP, ROP, Natural Heritage Reference Manual (MNR 2010a), and (for Significant Wildlife Habitat) the Ecoregion 7E Criteria Schedule (MNRF 2015).

Apart from PPS/City/ROP derived significant natural features, this study also seeks to determine whether any natural features or hazards regulated by CVC pursuant to O. Reg. 160/06 occur within the Subject Property and/or Adjacent Lands. CVC regulated features and hazard lands include:

- Wetlands (significant, evaluated, or identified);
- Watercourses and their associated meanderbelts and floodplains;
- Valleylands;
- Steep slopes and other hazard lands; and
- Shorelines.

Like significant natural features, “significant species” represent individuals of wild species which have recognized status (and therefore policy significance) within the planning jurisdiction in which an application is proposed. Significant species are defined herein to include:

- Species designated Endangered, Threatened, or Special Concern under O. Reg. 230/08 pursuant to the provincial *Endangered Species Act, 2007*.
- Species designated Provincially Rare (i.e., S1, S2, or S3) by NHIC.
- Species considered Regionally Rare in Peel Region pursuant to the *Distribution and Status of the Vascular Plants of the Greater Toronto Area* (Varga et al. 2000).

2.3.2 Determination

After collecting the background biophysical information and conducting the site assessment, the data was interpreted to determine whether any significant natural features (pursuant to the PPS, City Natural Heritage System, or Regional Greenand System), natural features/hazards regulated by CVC, and/or significant species occur on the Subject Property and/or Adjacent Lands. If a natural feature or species met the significance criteria, it is considered “confirmed”. If a natural feature or species may be present on the Subject Property and/or Adjacent Lands given the prevailing biophysical or habitat conditions but was not confirmed based on either background or site-specific biophysical data, it is considered potential or “candidate”. Candidate significant natural features and species are treated as confirmed where no additional information is available.

2.4 Effects Assessment and Mitigation

The potential ecological effects of an application can be understood spatially as zones that radiate outward from the direct project footprint (e.g., building envelope, etc.) and associated areas of site alteration (e.g., grading, etc.). While the greatest potential for effects typically occurs within areas directly subject to development or disturbance, surrounding areas may also be affected indirectly. Such indirect effects can include light or noise pollution that affects wildlife communities on Adjacent Lands, or degradation of water quality within a downstream receptor resulting from sediment runoff during construction.

The five-pronged approach described below is employed herein to assess the effects of an application on significant natural features and species and (where warranted) the natural environment in general:

1. **Scope** the effects assessment to environmental components that warrant consideration. The effects assessment herein centres principally on significant natural features and species (i.e., those that have policy significance within the planning jurisdiction, as defined in **Section 2.3**) but may also consider general environmental effects where warranted.

2. **Identify the predicted direct and indirect effects** of the application on each significant natural feature or species during all project stages (i.e., pre- to -post-development) in the absence of mitigation. Direct effects are those where there is a cause-effect relationship between a proposed activity and an effect on a natural feature or species (e.g., tree clearance within a building footprint, etc.). Indirect effects result when an activity is linked to a direct effect through a chain of foreseeable interactions or steps.
3. **Evaluate the significance** of the predicted effects for each environmental component based on their attributes (i.e., spatial extent, magnitude, timing, frequency, and duration) and likelihood (i.e., high, medium, low).
4. Where the potential for negative effects are anticipated, **recommend ecologically-meaningful mitigation measures** to avoid such impacts first (where possible), and where impacts cannot be avoided to minimize, compensate, and/or enhance as appropriate.
5. **Identify the predicted residual or net effects** of the application assuming implementation of all recommended mitigation measures.

Per step 4, mitigation measures are offered where the potential for negative effects are anticipated to a degree that cannot be supported given the prevailing policy context. Whenever possible, Terrastory works iteratively with the project team to identify development plan options that avoid negative effects first; options that would minimize or mitigate such negative effects are less preferred and considered secondarily. In general, avoidance measures that have already been incorporated into the application or project design are not duplicated as technical recommendations herein. The effects assessment and any recommended mitigation measures are provided in **Section 5**.

2.5 Natural Heritage Policy Context

There is an overlapping municipal, provincial, and federal policy framework respecting the protection of natural heritage features and areas across southern Ontario. These requirements include objectives, policies, and directives which are principally contained in federal and provincial statutes, regulations, policy statements, Official Plans, and guidance documents. The overarching natural heritage policy framework directing development activities within the Subject Property is outlined below in **Table 2**. A determination of whether the application considered herein addresses such policies is provided in **Section 6**.

Table 2. Applicable Natural Heritage Policies.

Level of Government	Natural Heritage or Environmental Policy Requirements
Municipal	City of Mississauga Official Plan (April 2021 office consolidation). Regional Municipality of Peel Official Plan (December 2018 office consolidation).
Provincial	Provincial Policy Statement 2020, pursuant to the <i>Planning Act</i> , R.S.O. 1990, c. P.13, including: <ul style="list-style-type: none"> • Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005 (MNR 2010a). • Significant Wildlife Habitat Technical Guide (MNR 2010b). • Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015). • Significant Wildlife Habitat Mitigation Support Tool (MNRF 2014). <i>Conservation Authorities Act</i> , R.S.O. 1990, c. C.27, including:

Level of Government	Natural Heritage or Environmental Policy Requirements
	<ul style="list-style-type: none"> • 160/06 - Credit Valley Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses • CVC Planning and Development Administrative Procedural Manual (December 2011). • CVC Environmental Impact Study Terms of Reference (January 2008), <p><i>Endangered Species Act</i> (ESA), S.O. 2007, c. 6, including:</p> <ul style="list-style-type: none"> • Ontario Regulation 230/08 – Species at Risk in Ontario List. • Ontario Regulation 242/08 – General. <p><i>Fish and Wildlife Conservation Act</i>, S.O. 1997, c. 41.</p>
Federal	<p><i>Fisheries Act</i>, R.S.C. 1985, c. F-14, including:</p> <ul style="list-style-type: none"> • Fish and Fish Habitat Protection Policy Statement (DFO 2019). <p><i>Migratory Birds Convention Act</i>, S.C. 1994, c. 22, including:</p> <ul style="list-style-type: none"> • Migratory Birds Regulations, C.R.C., c. 1035.

3 EXISTING BIOPHYSICAL CONDITIONS

The following is a description of the biophysical features and conditions of the Subject Property, which are shown spatially on **Figure 2**. Representative photographs are provided in **Appendix 2**.

3.1 Land-use and Landscape Setting

The Subject Property is situated south of Queensway West, north of the Queen Elizabeth Way, west of Stavebank Road, and east of the Credit River. Parcels immediately adjacent to the Subject Property contain single family residences and larger/mature trees which (given their size and composition) likely predated construction of the subdivision. The surrounding landscape consists of natural features associated with the Credit River valley and suburban, low-density development.

3.2 Physical Setting

The Subject Property generally slopes from east to west from Stavebank Road to Heartwood Court. There is a small depression located in the middle of the proposed severance that drains to a catch basin located within a drainage easement on the southern half of the Subject Property. A copy of the drainage easement title is provided in

The soils on the Subject Property are classified as Fox Sand, which is described as a well sorted sandy outwash material that is well drained with a smooth, gently sloping topography.

3.3 Ecological Setting

3.3.1 Vegetation Communities

There are two vegetation communities present on the Subject Property, including a Dry - Moist Old Field Meadow (CUM1-1) and a Dry – Fresh Mixed Oak Deciduous Forest (FOD1-4) (see **Figure 2**).

The Dry – Moist Old Field Meadow (CUM1-1) is dominated by Tall Goldenrod (*Solidago altissima*), Poison Ivy (*Toxicodendron radicans*), Canada Thistle (*Cirsium arvense*), and Virginia Creeper

(*Parthenocissus inserta*). A small depression is located centrally within the proposed severance area and contains Sensitive Fern (*Onoclea sensibilis*); this area is small, situated within a drainage easement, and conveys runoff to a catch-basin. This area was dry during the site assessment. Shrubs such as Choke Cherry (*Prunus virginiana*) are sparsely scattered through this community along with regenerating Green Ash (*Fraxinus pennsylvanica*) and Manitoba Maple (*Acer negundo*) saplings. Some piles of wood chips from the previous tree removal were also noted.

The Dry – Fresh Mixed Oak Deciduous Forest (FOM2-1) occupies the sloped western and northern boundaries of the Subject Property. The canopy is dominated by White Oak (*Quercus alba*) with some Red Oak (*Quercus rubra*), Black Oak (*Quercus velutina*), and White Pine (*Pinus strobus*). The subcanopy is dominated by Black Cherry (*Prunus nigra*), Manitoba Maple, and Green Ash. The shrub layer consists of a mixture of Riverbank Grape (*Vitis riparia*), Allegheny Blackberry (*Rubus allegheniensis*), and Green Ash saplings. The herbaceous groundcover includes Garlic Mustard (*Alliaria petiolata*), Poison Ivy, and Virginia Creeper.

It is understood that a top-of-bank staking exercise with CVC and City staff occurred sometime in 2020. It is unclear if the dripline was also staked at that time, as this information has not been provided by the project Surveyor. As such, the dripline shown per **Figure 2** represents observations made by Terrastory during the site assessment.

It is further understood that tree removal activities occurred recently to address hazard trees in decline (or dead) due to larval feeding by Emerald Ash Borer (*Agrilus planipennis*). The approximate limit (dripline) of the former woodland is shown in **Figure 2**. Terrastory staff are not privy to additional information related to forest conditions (e.g., composition, structure, etc.) prior to hazard tree removal.

The remainder of the Subject Property (i.e., southeast corner) contains the existing residence and its associated amenity areas and built features.

3.3.2 Vascular Plants

A total of 61 vascular plant species were recorded within the Subject Property (see **Appendix 4**). No provincially rare or at risk vascular plant species were documented. Black Oak is considered Regionally Rare in Peel (Varga et al. 2000).

3.3.3 Breeding Birds

A single breeding bird survey was undertaken on 16 June 2021. A total of 15 bird species were recorded during the breeding bird surveys. As only a single survey was undertaken, all birds recorded are considered “Probable Breeders” (with the exception of flyovers). Seven species were classified as “Probable Breeding” on the Subject Property, seven were classified as “Probable Breeding” on the Adjacent Lands, and one was classified as “Observed” flying over the Subject Lands. The assemblage and abundance of birds recorded generally reflects the prevailing structure and composition of on-site vegetation communities and variable habitats of the Subject Property (e.g., urban woodland, disturbed open areas). The full survey results indicating each species’ breeding status by survey station can be found in **Appendix 5**. The locations of significant bird species recorded are shown on **Figure 3**. A general summary of the breeding bird communities present within the Subject Property is provided below.

Species that were recorded on the Subject Property included American Goldfinch (*Spinus tristis*), American Robin (*Turdus migratorius*), Blue Jay (*Cyanocitta cristata*), Downy Woodpecker (*Dryobates pubescens*), Gray Catbird (*Dumetella carolinensis*), Northern Cardinal (*Cardinalis cardinalis*) and White-breasted Nuthatch (*Sitta carolinensis*). Species that were recorded on Adjacent Lands included Brown-headed Cowbird (*Molothrus ater*), Carolina Wren (*Thryothorus ludovicianus*), Eastern Phoebe (*Savornis phoebe*), Eastern Wood-pewee (*Contopus virens*), European Starling (*Sturnus vulgaris*), House Sparrow (*Passer domesticus*) and Red-bellied Woodpecker (*Melanerpes carolinus*). Ring-billed Gull (*Larus delavarensis*) was observed as a flyover.

One (1) significant bird species was recorded on Adjacent Lands south of Heartwood Court during the breeding bird survey: Eastern Wood-pewee. The documented location of this species on the Adjacent Lands along with its habitat requirements are described in **Section 4.4**.

3.3.4 Incidental Wildlife Recorded

Incidental wildlife observations recorded during the site assessment included Red Fox (*Vulpes vulpes*) and Eastern Gray Squirrel (*Sciurus carolinensis*).

4 SIGNIFICANCE ASSESSMENT

Based on the biophysical information collected during background information gathering (per **Table 1**) and the results of Terrastory's site assessment (per **Sections 2.2** and **3**), **Table 3** below provides a determination of the presence (or potential presence) of each significant natural feature considered herein. Shaded rows denote features which were confirmed or may be present within the Subject Property or Adjacent Lands and are considered further as part of the effects assessment in **Section 5**. Significant natural feature mapping is provided in **Figure 3**.

Table 3. Summary of the Assessment of Significant Natural Features on the Subject Property and Adjacent Lands.

Significant Natural Feature	Status on the Subject Property	Status on Adjacent Lands (i.e., < 120 m from the Subject Property)
PPS Significant Natural Features		
Significant Wetlands	Absent. See Section 4.1 .	Confirmed. See Section 4.1 .
Significant Woodlands	Confirmed. See Section 4.2 .	Confirmed. See Section 4.2 .
Significant Valleylands	Absent. See Section 4.3 .	Confirmed. See Section 4.3 .
Significant Wildlife Habitat	Candidate. See Section 4.4 .	Confirmed/Candidate. See Section 4.4 .
Significant Areas of Natural and Scientific Interest	Absent. See Section 4.5 .	Confirmed. See Section 4.5 .
Habitat of Endangered and Threatened Species (per ESA)	Candidate. See Section 4.6 .	Candidate. See Section 4.6 .
Fish Habitat (per <i>Fisheries Act</i>)	Absent.	Confirmed. Fish habitat present in the Credit River.
City of Mississauga Natural Heritage System		
Significant Natural Areas	Confirmed. See Section 4.7 .	Confirmed. See Section 4.7 .

Significant Natural Feature	Status on the Subject Property	Status on Adjacent Lands (i.e., < 120 m from the Subject Property)
Natural Green Spaces	Absent. See Section 4.7.	Absent. See Section 4.7.
Special Management Areas	Absent. See Section 4.7.	Absent. See Section 4.7.
Residential Woodlands	Absent. See Section 4.7.	Absent. See Section 4.7.
Linkages	Absent. See Section 4.7.	Absent. See Section 4.7.
Region of Peel Greenlands System		
Core Areas	Absent. See Section 4.8.	Confirmed. See Section 4.8.
Natural Areas and Corridors	Absent. See Section 4.8.	Confirmed. See Section 4.8.
Potential Natural Areas and Corridors	Absent. See Section 4.8.	Absent. See Section 4.8.
Conservation Authority Regulated Features and Hazard Lands		
Wetlands, watercourses, valleylands, meanderbelts, floodplains, steep slopes, and shorelines.	Absent. See below.	Confirmed. See below.

4.1 Significant Wetlands

The Provincially Significant Credit River Marshes Wetland Complex flanks the Credit River west of the Subject Property. The PSW was identified by MNRF and is also recognized by CVC regulation mapping and relevant schedules under the City/Regional OPs. The PSW is separated from the Subject Property by Heartwood Court and existing residences. Given this, and the fact that the PSW is >110 m from the Subject Property, potential impacts to the PSW stemming from the proposed severance are negligible and not considered further herein.

4.2 Significant Woodlands

Woodlands that meet the following criteria are considered “Significant” in the City of Mississauga per Clause 6.3.12[f] of the City’s OP:

- *Woodlands, excluding cultural savannas, greater than or equal to four hectares;*
- *Woodlands, excluding cultural woodlands and cultural savannas, greater than or equal to two hectares and less than four hectares;*
- *Any woodland greater than 0.5 hectares that:*
 - *supports old growth trees (greater than or equal to 100 years old);*
 - *supports a significant linkage function as determined through an Environmental Impact Study approved by the City in consultation with the appropriate conservation authority;*
 - *is located within 100 metres of another Significant Natural Area supporting a significant ecological relationship between the two features;*
 - *is located within 30 metres of a watercourse or significant wetland; or*
 - *Supports significant species or communities;*

The woodland within the Subject Property is greater than 0.5 ha and located within 100 m of other Significant Natural Areas, particularly the Regionally Significant Credit River Marshes Life Science ANSI and Stavebank Oak Woods Environmental Significant Area. On this basis, the Dry – Fresh Mixed Oak Deciduous Forest (FOD1-4) is considered a Significant Woodland pursuant to the City’s

OP. Notwithstanding this, and as further described in **Section 4.8.1**, the woodland does not meet Regional Core Woodland criteria.

An assessment of potential effects to the Significant Woodland associated with the proposed development plan is provided in **Section 5.3.1**.

4.3 Significant Valleylands

The City's OP defines Significant Valleylands in Clause 6.3.12[h] as:

those that are associated with the main branches, major tributaries, and other tributaries and watercourse corridors draining directly to Lake Ontario including the Credit River, Mimico Creek and Sixteen Mile Creek.

Schedule 3 of the City's OP identifies Natural Hazards, which includes Valleylands, abutting the south/west side of Heartwood Court. While the Significant Valleyland is in close proximity to the Subject Property, it is separated by Heartwood Court and it is understood there are no geotechnical concerns related to this application. As such, potential impacts (ecological or geotechnical) to the Significant Valleyland stemming from the proposed severance are negligible and not considered further herein.

4.4 Significant Wildlife Habitat

An assessment of the likelihood that any candidate or confirmed SWH types occur within the Subject Property or Adjacent Lands is provided in **Appendix 6**. Based on the results of this assessment, three (3) SWH types are considered further through this study:

- Seasonal Concentration Areas of Animals
 1. Bat Maternity Colonies
 2. Landbird Migratory Stopover Areas
- Habitat of Species of Conservation Concern
 3. Special Concern and Rare Wildlife Species

Also based on this assessment, a total of three (3) Special Concern or provincially rare species are considered to have at least a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southern Ontario (or were confirmed based on the site assessment):

- 1) Eastern Wood-pewee (*Contopus virens*)
- 2) Monarch (*Danaus plexippus*)
- 3) Yellow Banded Bumble Bee (*Bombus terricola*)

A general description of each SWH type and Special Concern/provincially rare species and their habitats within the Subject Property is offered below. An assessment of potential effects to the identified candidate SWH types and Special Concern/provincially rare species associated with the proposed development plan is provided in **Section 5.3.2**.

4.4.1 Bat Maternity Colonies

Big Brown Bat (*Eptesicus fuscus*) and Silver-haired Bat (*Lasionycteris noctivagans*) form maternity colonies that roost with pups in various features, particularly cracks, cavities, or loose bark associated with large-diameter trees (≥ 25 cm diameter at breast height), snags, and buildings. Snags/cavity trees in earlier stages of decay (i.e., decay classes 1-3) may be preferred.

The Subject Property contains a few larger diameter trees/snags with potential access/entry points for roosting bats.

4.4.2 Landbird Migratory Stopover Areas

The Credit River valleyland stretching from Port Credit to north of Erindale is known to support a diverse assemblage of migratory songbirds (CVC 2014).

4.4.3 Eastern Wood-pewee

Eastern Wood-pewee is designated Special Concern in Ontario per O. Reg. 230/08 pursuant to the *Endangered Species Act* (ESA) and is federally designated Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). This species is most commonly associated with relatively open, deciduous and mixed forests of various sizes, as well as forest edges and other areas with relatively continuous canopy cover (e.g., parks, cemeteries, etc.). This species' preference for open forests and forest edges may be attributed to its aerial foraging behaviour (COSEWIC 2012). Territory sizes were shown to average approximately 1.75 ha (representing a circle with a radius of 75 m) in a study in southern Ontario (as cited in COSEWIC 2012).

Eastern Wood-pewee was documented on Adjacent Lands south of Heartwood Court. While this species did not vocalize within the Subject Property, the mixed oak forest community along the western and northern property lines provides potentially suitable breeding habitat.

4.4.4 Monarch

Monarch is designated Special Concern in Ontario per O. Reg. 230/08 pursuant to the ESA and is federally designated Endangered by COSEWIC. Monarch is well-known to be host-specific and oviposits exclusively on species of milkweed (*Asclepias* spp.). This species is a generalist forager and may nectar in any area with wildflowers.

While no confirmed breeding via observations of ovipositing individuals, eggs, or caterpillars was documented, the presence of Common Milkweed (*Asclepias syriaca*) indicates that Monarch may breed within the Subject Property. The Subject Property would also support general nectaring opportunities.

4.4.5 Yellow-banded Bumble Bee

Yellow-banded Bumble Bee is designated Special Concern in Ontario per O. Reg. 230/08 pursuant to the ESA and is federally designated Special Concern by COSEWIC. This species occupies a range of open areas that contain nectaring sites and nests underground in abandoned rodent burrows or decomposing logs, typically in woodlands.

The Subject Property provides potentially suitable nectaring, nesting, and overwintering habitat for this species. As bumble bee surveys were not undertaken as part of this study, the Subject Property is assumed to contain suitable habitat for Yellow-banded Bumble Bee.

4.5 Areas of Natural and Scientific Interest

The Regionally Significant Credit River Coastal Marshes Life Science ANSI is associated with the adjacent Credit River valleyland on the south/west side of Heartwood Court. As the ANSI does not overlap with the Subject Property and there are existing residences within the ANSI to the west of Heartwood Court, potential impacts to the ANSI stemming from the proposed severance application are negligible and not considered further herein.

4.6 Habitat of Endangered and Threatened Species

An assessment of the likelihood that any Endangered and Threatened species or their habitats occur within the Subject Property or Adjacent Lands is provided in **Appendix 7**. A total of three (3) Endangered or Threatened species are considered to have a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southern Ontario:

- 1) Little Brown Myotis (*Myotis lucifugus*)
- 2) Northern Myotis (*Myotis septentrionalis*)
- 3) Tri-colored Bat (*Perimyotis subflavus*)

A general description of each Endangered/Threatened species and their habitat is offered below. An assessment of potential effects to these Endangered/Threatened species associated with the proposed development plan is provided in **Section 5.3.3**.

4.6.1 Bats

Per the assessment in **Appendix 7**, Little Brown Myotis, Northern Myotis, and Tri-colored Bat have the potential to roost and forage on the Subject Property. Each of these bat species are designated Endangered in Ontario per O. Reg. 230/08 pursuant to the *Endangered Species Act* (ESA) and are federally designated Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Little Brown Myotis and Northern Myotis form maternity colonies that roost in large-diameter trees with cracks, crevices, and/or exfoliating bark; Little Brown Myotis will also frequently roost in buildings (e.g., attics, barns, etc.). Roosting sites for Tri-colored Bat maternity colonies are less understood but have been documented in dead or dying leaf clusters of oaks (*Quercus* spp.) and maples (*Acer* spp.), along with live foliage and buildings (Humphrey and Fotherby 2019). Individuals (i.e., non-reproductive females and males) of all three bat species may roost in smaller diameter trees and other spaces (e.g., beneath house siding, etc.) which are not occupied by maternity colonies. Overwintering habitat includes caves and mines that maintain temperatures above 0°C. White Nose Syndrome (a fungal disease caused by an introduced pathogen) has devastated populations of each species across their ranges. The fungus causes hibernating individuals to become dehydrated, leading to excessive arousal, depleted fat reserves, and ultimately emaciation and/or death.

4.7 City Natural Heritage System

4.7.1 Significant Natural Areas

Significant Natural Areas within the City of Mississauga are comprised of:

- Provincially or regionally significant life science ANSIs;
- Environmentally sensitive or significant areas;
- Habitat of threatened species or endangered species;
- Fish habitat;
- Significant wildlife habitat;
- Significant woodlands;
- Significant wetlands; and
- Significant valleylands.

Of the features listed above, only “Environmentally sensitive or significant areas” have not been addressed in previous sections of this report. It is noted that no Significant Natural Areas are shown from the Subject Property per Schedule 3 of the City’s OP.

Mapping provided in the City of Mississauga Natural Areas Survey and Credit River Estuary Species at Risk Research Project (CVC 2014) indicates that the Stavebank Oak Woods Environmentally Significant Area overlaps with parts of the Subject Property and Adjacent Lands. As this Environmentally Significant Area is confluent with the Significant Woodland, potential effects to these City Significant Natural Areas will be considered concurrently in **Section 5.3.1**.

4.7.2 Natural Green Spaces

Natural Green Spaces within the City of Mississauga are comprised of:

- Woodlands greater than 0.5 hectares that do not fulfill the requirements of a significant woodland;
- Wetlands that do not fulfill the requirements of a significant wetland;
- Watercourses that do not fulfill the requirements of a significant valleyland, even if they are predominantly engineered; and
- All-natural areas greater than 0.5 hectares that have vegetation that is uncommon in the city.

It is noted that no Natural Green Spaces are shown from the Subject Property per Schedule 3 of the City’s OP. No features satisfying the above-criteria have been identified on the Subject Property or Adjacent Lands.

4.7.3 Special Management Areas

Special Management Areas are lands adjacent to or near Significant Natural Areas or Natural Green Spaces that are to be managed or restored to enhance and support Significant Natural Areas or Natural Green Spaces. Where these areas are located on private lands the City and CVC will encourage landowners to promote stewardship and enhancement of their lands.

No Special Management Areas have been identified on the Subject Property and Adjacent Lands under Schedule 3 of the City’s OP.

4.7.4 Residential Woodlands

Residential Woodlands are defined in Section 6.3.17 of the City’s OP as follows:

areas, generally in older residential areas, with large lots that have mature trees forming a fairly continuous canopy and minimal native understorey due to the maintenance of lawns and landscaping.

Development proposals and site alteration for lands within a Residential Woodland must have regard for how existing tree canopy and understorey are protected, enhanced, restored and expanded. No Residential Woodlands have been identified on the Subject Property or Adjacent Lands under Schedule 3 of the City's OP.

4.7.5 Linkages

Linkages are those areas that are necessary to maintain biodiversity and support ecological functions of Significant Natural Areas and Natural Green Spaces but do not fulfill the criteria of Significant Natural Areas, Natural Green Spaces, Special Management Areas or Residential Woodlands. They will provide connections between and among other lands within the Green System, particularly within the Natural Heritage System and Urban Forest.

No Linkages have been identified on the Subject Property and Adjacent Lands by the City.

4.8 Regional Greenlands System

4.8.1 Core Areas

Core Areas within the Region of Peel are comprised of:

- Significant Wetlands;
- Significant Coastal Wetlands;
- Core Woodlands meeting one or more of the criteria put forth by the Region in their OP;
- Environmentally Sensitive or Significant Areas;
- Provincial Life Science ANSIs;
- Significant habitats of threatened and endangered species;
- Escarpment Natural Areas of the Niagara Escarpment Plan; and
- Core Valley and Stream Corridors meeting one or more of the criteria put forth by the Region in their OP.

Of the features listed above only Core Woodlands and Escarpment Natural Areas under the Niagara Escarpment Plan (not relevant to this application) have not been considered in previous sections of this report. For a feature to be considered a "Woodland" pursuant to the ROP, the feature must have a minimum width of 40 m. While the woodland within the Subject Property is considered significant per the City's OP (Significant Natural Area) it does not qualify as significant per the ROP. Overall, Regional Core Areas are absent from the Subject Property but occur on Adjacent Lands west/south of Heartwood Court in association with the Credit River valley.

4.8.2 Natural Areas and Corridors

Natural Areas and Corridors in the Region of Peel are comprised of:

- Evaluated non-provincially significant wetlands;
- Natural Areas and Corridor Woodlands meeting one or more of the criteria put forth by the Region in their OP;

- Significant wildlife habitat meeting one or more of the criteria put forth by the Region in their OP;
- Fish habitat;
- Regionally significant life science ANSIs;
- Provincially significant earth science ANSIs;
- Escarpment Protection Areas of the Niagara Escarpment Plan;
- The Lake Ontario shoreline and littoral zones and other natural lakes and their shorelines;
- Any other valley and stream corridors that have not been defined as part of the Core Areas;
- Headwater source and discharge areas; and
- Any other natural features and functional areas interpreted as part of the Greenlands System Natural Areas and Corridors by the individual area municipalities, in consultation with the conservation authorities and the MNRF, including, as appropriate, elements of the Potential Natural Areas and Corridors.

Natural Areas and Corridors are confirmed for Adjacent Lands given the presence of the Regionally Significant Credit River Marshes Life Science ANSI.

4.8.3 Potential Natural Areas and Corridors

Potential Natural Areas and Corridors in the Region of Peel are comprised of:

- Unevaluated wetlands;
- Cultural woodlands and cultural savannahs within the Urban System and Rural Service Centres meeting one or more of the criteria put forth by the Region in their OP;
- Any other woodlands greater than 0.5 hectares;
- Regionally significant earth science ANSIs;
- Sensitive groundwater recharge areas;
- Portions of historic shorelines;
- Open space portions of the Parkway Belt West Plan Area;
- Potential ESA's identified as such by the conservation authorities; and
- Any other natural features and functional areas interpreted as part of the Greenlands System Potential Natural Areas and Corridors, by the individual area municipalities in consultation with the conservation authorities.

None of the features listed above have been identified on the Subject Property or Adjacent Lands.

5 EFFECTS ASSESSMENT AND MITIGATION

The purpose of this Scoped EIS is to present a biophysical characterization of the Subject Property and Adjacent Lands as a means to identify the potential for adverse effects on the natural environment and natural heritage features stemming from the proposed creation of a new lot. Several significant natural features and species were documented (or may occur) within the Subject Property pursuant to the assessments in **Section 4**. The following effects assessment provides an evaluation of the potential for the proposed application to result in negative effects to such environmental components and offers technical recommendations to mitigate such effects where warranted. Certain technical recommendations offered herein apply to several natural features and/or species simultaneously; as such, all technical recommendations should be read and

considered in their entirety. The baseline or existing conditions against which the application is assessed are treated as the state of the Subject Property at the time of the site assessment. The effects assessment herein is based on anticipated effects of the proposed severance and the placement of a residence within the proposed developable area drawing provided in **Figure 4**.
Proposed

5.1 Proposed Development Plan

The proposed severance application seeks to create one (1) new developable lot on municipal servicing (water and wastewater). A conceptual sketch of the proposed severance is provided in **Appendix 8**.

5.2 Avoidance Measures incorporated into the Proposed Development Plan

Since project commencement Terrastory has provided feedback to and worked iteratively with the project team during formulation of the proposed development plans. These discussions have centred on the need to avoid/minimize impacts to and maintain ecologically/policy appropriate setbacks from the significant natural features identified herein. As a result of these discussions a reduction in the developable area size to accommodate a 5 m setback from the woodland dripline (per **Figure 3**) has been recommended and is to be incorporated into the conceptual severance sketch in **Appendix 8**.

In recognizing the foregoing, an assessment of the potential for negative impacts on the identified significant natural features are further described below.

5.3 Feature-based Effects Assessment and Technical Recommendations

5.3.1 Significant Woodlands

Where development and/or site alteration activities are proposed adjacent to forests or woodlands, adverse effects may occur via the following pathways:

- Mechanical injury to the trunk, roots, branches, and/or foliage of retained woody vegetation.
- Soil compaction from the use of heavy machinery.
- Smothering or exposure of roots due to changes in grade.
- Noise and/or light pollution that may adversely affect the ability of woodland wildlife to successfully carry out their life processes (e.g., breeding, feeding, etc.).
- Increased human activity (i.e., encroachment) within or adjacent to the woodland which may result in soil compaction, dumping, etc.
- Increased potential for introducing invasive species including both animals and plants.

As noted in **Section 4.2** the Significant Woodland on the north/east side of the proposed lot includes upland and mature deciduous forest. The Significant Woodland within the Subject Property also contains candidate SWH and overlaps with the Stavebank Oak Woods Environmentally Significant Area.

As noted in **Section 3.3.1** the configuration of the Significant Woodland was previously modified (see **Figure 2**) as a result of hazard tree removal activities. Based on discussions with the Applicant

it is understood that such activities were rectified with Urban Forestry in respect of the City's Private Tree Protection By-law.

Given the close proximity of the Significant Woodland on the east side of the proposed lot, the following measures are recommended:

- **All development features and site alteration (i.e., grading) within the proposed lot will be restricted a minimum of 5 m from the adjacent Significant Woodland, as shown in Figure 4.**
- **A Woodland Enhancement Plan will be prepared to maintain and enhance the ecological values of the Significant Woodland. The Woodland Enhancement Plan shall include native tree/shrub plantings within the 5 m setback, along with native tree inter-plantings (particularly in canopy openings) within the woodland.**
- **A native shrub buffer will demarcate the 5 m woodland setback to restrict human and pet encroachment into the Significant Woodland.**
- **An invasive species management plan will be prepared and implemented to remove non-native invasive species (particularly European Buckthorn and Tartarian Honeysuckle) from the woodland.**

5.3.2 Significant Wildlife Habitat

Per the assessment in **Section 4.4**, a total of three (3) candidate SWH types were considered further through this study:

- Seasonal Concentration Areas of Animals
 1. Bat Maternity Colonies
 2. Landbird Migratory Stopover Areas
- Habitat of Species of Conservation Concern
 3. Special Concern and Rare Wildlife Species

Given the close proximity of the candidate Landbird Migratory Stopover Area habitat associated with the Significant Woodland on the Subject Property, the following measures are recommended:

- **A mix of the plant species listed on the CVC's Native Plant List for Migrating Birds should be incorporated into the Woodland Enhancement Plan. Where possible these species should also be incorporated into any landscaping.**
- **Bird-Friendly Guidelines as published in the City of Mississauga Green Development Standards (Mississauga 2011) and City of Toronto Best Practices for Bird-Friendly Glass (Toronto 2016) and Best Practices for Effective Lighting (Toronto 2017) should be incorporated into the design of the residence on the severed lot.**

Implementation of the lighting measures discussed above will also mitigate potential impacts to candidate habitat for Bat Maternity Colonies.

Also based on this assessment, a total of three (3) Special Concern or provincially rare species have at least a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southern Ontario (or were confirmed based on the site assessment):

- 1) Eastern Wood-pewee (*Contopus virens*)
- 2) Monarch (*Danaus plexippus*)
- 3) Yellow Banded Bumble Bee (*Bombus terricola*)

No specific recommendations are offered herein to minimize impacts to potential foraging and breeding habitat for Monarch or Yellow Banded Bumble Bee. Both species are habitat generalists and abundant nectaring habitat exists within the wider landscape surrounding the Subject Property. Oviposition and general nectaring habitat for Monarch (e.g., Common Milkweed, Swamp Milkweed) is present within the wider local landscape.

Adherence to the setbacks shown on **Figure 3** and other recommended mitigation measures offered to protect the Significant Woodland and habitat of Endangered and Threatened Species will avoid other impacts to candidate or confirmed SWH.

5.3.3 Habitat of Endangered and Threatened Species

Per the assessment in **Appendix 7** a total of three (3) Endangered or Threatened species are considered to have a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southern Ontario:

- 1) Little Brown Myotis (*Myotis lucifugus*)
- 2) Northern Myotis (*Myotis septentrionalis*)
- 3) Tri-colored Bat (*Perimyotis subflavus*)

Given the need for minor tree removal within the proposed development area, the following measures are recommended:

- **Any necessary tree removal within the proposed development envelope will only take place between October 1 and April 30 to avoid the active season for bats. Should minor tree removal be required between May 1 and September 31, a qualified professional will complete an exit survey of suitable maternal roosting sites identified for removal a maximum of 24 hours before removal. The exit survey must make use of a bat detector and will occur for no less than the time period between sunset and 60 minutes after sunset. If an Endangered bat is identified during the survey, MECP should be contacted to obtain further direction prior to removal of the tree.**
- **If construction activities occur during the active bat season (i.e., May 1 and September 31), work will be restricted to daylight hours only and the use of artificial lighting will be avoided.**
- **Any lighting incorporated into the final building designs should be directed downward (i.e., towards the ground) and/or away from the adjacent woodlot to the extent practicable.**

5.3.4 Other Natural Environment Considerations

While the recommendations offered herein restrict development activities from all significant natural heritage features, some vegetation removal (i.e., woody and herbaceous vegetation) is required to facilitate development. To further minimize potential adverse effects to the natural environment and breeding birds during construction, the following measures are recommended:

- **The removal of trees will be restricted to areas in direct conflict with the footprints of the proposed development features (e.g., residence, septic system, driveway, etc.) and grading, along with any hazardous trees in the immediate vicinity that pose an unacceptable risk to human life or property.**
- **All necessary vegetation removal (e.g., trees, meadow vegetation, etc.) will be completed outside the primary bird nesting period (i.e., to be completed between September 1 and March 31). Should minor vegetation removal be proposed during the bird nesting period, a bird nesting survey will be undertaken to confirm the presence or absence of nesting birds or bird nests within or adjacent to the areas subject to vegetation clearance. The survey is to take place within 48 hours of vegetation removal.**
- **The development and implementation of a sediment and erosion control plan will be required as part of the construction of any residence that will be built on the newly severed lot.**

5.3.5 Summary of Technical Recommendations

All technical recommendations provided in **Section 5.3** are reiterated in **Appendix 9**.

6 APPLICABLE NATURAL HERITAGE AND ENVIRONMENTAL POLICIES

The following sections summarize the various municipal, provincial, and federal environmental policies that may apply to the proposed development plan and describe how the recommendations provided in this study will address these policies (where applicable).

6.1 City of Mississauga Official Plan (April 2021)

The City of Mississauga's OP is a legal document prepared as required under section 14.7(3) of the *Planning Act*. An OP sets out goals, objectives, and policies that direct and manage land-use and future development activities and their effects on the social and natural environment of a municipality. Provincial plans that offer direction on matters of provincial interest (e.g., Greenbelt Plan, etc.) are implemented principally through the City's OP. Provided herein is a description of relevant environmental and natural heritage policies contained within the City's OP and an assessment of whether the application addresses such policies.

A summarized and condensed list of key natural heritage provisions of the City's OP that pertain to the application considered herein is provided below.

- **Section 6** outlines the framework for protecting significant natural features and functions based on a Green System that is comprised of a “Natural Heritage System”, “Urban Forest”, “Natural Hazard Lands” and “Parks and Open Spaces”.
- **Section 6.3.24** identifies measures through which the Natural Heritage System will be protected, enhanced, restored and expanded.
- **Section 6.3.25** states that new lots created by land division that will fragment the ownership of Significant Natural Areas, Natural Green Spaces, Residential Woodlands and buffers will generally be discouraged and will be supported by an EIS
- **Section 6.3.26** states that Significant Natural Areas and their associated buffers will be designated Greenlands and zoned to ensure their long term protection. Uses will be limited to conservation, flood and/or erosion control, essential infrastructure, and passive recreation.
- **Section 6.2.27** states that development and site alteration as permitted in accordance with the Greenlands designation within or adjacent to a Significant Natural Area will not be permitted unless all reasonable alternatives have been considered and any negative impacts minimized or mitigated through restoration and enhancement to the greatest extent possible. This will be demonstrated through a study in accordance with the requirements of the Environmental Assessment Act or EIS.
- **Section 6.3.28** states that notwithstanding the policies of the OP, development and site alteration will not be permitted in the following areas:
 - PSWs or coastal PSWs which are or meet the criteria of a Significant Natural Area;
 - The habitat of endangered species and threatened species, except in accordance with Provincial and Federal requirements;
 - Fish habitat, except in accordance with Provincial and Federal requirements; and
 - Core Areas of the Greenlands System as defined in the ROP, except in accordance with Regional requirements.
- **Section 6.3.29** states that development and site alteration on lands adjacent to a PSW and coastal PSWs and habitat of endangered species and threatened species or other Significant Natural Areas will require an EIS, demonstrating no negative impact to the natural heritage features or their ecological function, to the satisfaction of the City and appropriate conservation authority.
- **Section 6.3.32** states that development and site alteration will not be permitted within or adjacent to Natural Green Spaces, Linkages and Special Management Areas unless it has been demonstrated that there will be no negative impact to the natural heritage features and their ecological functions and opportunities for their protection, restoration, enhancement and expansion have been identified. This will be demonstrated through a study in accordance with the requirements of the Environmental Assessment Act or EIS.
- **Section 6.3.33** states that an EIS will delineate the area to be analysed, describe existing physical conditions, identify environmental opportunities and constraints, and evaluate the ecological sensitivity of the area in relation to a proposal. It will also outline measures to protect, enhance, restore and expand the Natural Heritage System and associated ecological functions. Environmental Impact Studies will be prepared to the satisfaction of the City and appropriate conservation authority.
- **Section 6.3.44** states that development and site alteration will demonstrate that there will be no negative impacts to the Urban Forest. An arborist report and tree inventory that demonstrates tree preservation and protection both pre and post construction, and were

preservation of some trees is not feasible, identifies opportunities for replacement, will be prepared to the satisfaction of the City in compliance with the City's private tree protection by-law.

- **Section 6.3.45** states that where tree replacement cannot be accommodated on-site, the City may require cash-in-lieu for replacement trees elsewhere or replacement plantings at a location approved by the City.
- **Section 6.3.47** states that development and site alteration will not be permitted within erosion hazards associated with valleyland and watercourse features. In addition development and site alteration must provide appropriate buffer to erosion hazards, as established to the satisfaction of the City and appropriate conservation authority.

Terrastory reviewed potential impacts to the features identified on the Subject Property and Adjacent Lands that form the City's NHS – including Significant Woodlands, Significant Valleys, Regionally Significant Life Science ANSI, candidate/confirmed SWH, and potential habitat of Endangered and Threatened species – in **Section 5** of this Scoped EIS. Provided that Terrastory's recommended mitigation measures (summarized in **Appendix 9**) are carried out in full, no negative impacts are anticipated to these features.

6.2 Region of Peel Official Plan (December 2018)

A summarized and condensed list of key provisions from the ROP that pertain to the protection of natural heritage features and areas are provided below.

- **Section 2.3.2.1** defines the Greenlands System in Peel as being made up of Core Areas, Natural Areas and Corridors and Potential Natural Areas and Corridors.
- **Section 2.3.2.6** states that development and site alteration is prohibited within the Core Areas of the Greenland System in Peel, with the exception of:
 - Forest, fish and wildlife management
 - Conservation and flood or erosion control projects, if they have been demonstrated to be necessary in the public interest after all reasonable alternatives have been considered
 - Essential infrastructure that is exempted, pre-approved or authorized under an environmental assessment process
 - Passive recreation
 - Minor development and minor site alteration
 - Existing uses, buildings or structures
 - Expansions to existing buildings or structures;
 - Accessory uses, buildings or structures;
 - A new single residential dwelling on an existing lot of record, provided the dwelling would have been permitted by the applicable planning legislation or zoning by-law on the date the Regional Official Plan Amendment 21B came into effect.
- **Section 2.3.2.6** also states that permitted exceptions within significant wetlands, significant coastal wetlands and significant habitat of threatened and endangered species within the Core Areas of the Greenlands System, may only be considered in accordance with provincial and federal legislation policies.
- **Section 2.3.2.7** states that the policies of the ROP ensure that Core Areas in the Greenlands System in Peel and as detailed in area municipal OPs and related planning documents are not damaged or destroyed. It also states that in the even that portions are damaged or destroyed,

the boundary of the Core Area will not be adjusted and that the Region will require the replacement or rehabilitation of the ecological features, functions and/or landforms.

- **Section 2.3.2.11** states that the Regions OP shall direct area municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of Natura Areas and Corridors and Potential Natural Areas and Corridors that confirm within the intent of the Regions OP and is consistent with the PPS, the Niagara Escarpment Plan, the Greenbelt Plan, and local considerations, where applicable.

The Regional Greenlands System is absent from the Subject Property but occurs on Adjacent Lands in association with the Credit River valleyland and its attended natural heritage features/values (woodlands, PSW, fish habitat, etc.).

Overall, Regional natural heritage policies are consistent with the City's policies as described in **Section 6.1**. Provided that Terrastory's technical recommendations (summarized in **Appendix 9**) are implemented in full, no impacts to any significant natural heritage feature protected by the ROP are anticipated.

6.3 Provincial Policy Statement 2020, pursuant to the Planning Act, R.S.O. 1990, c. P. 13

The Provincial Policy Study (PPS) is promulgated under the authority of the *Planning Act* and came into effect on 1 May 2020. The PPS provides direction to municipalities on land-use matters of provincial interest and sets the policy framework for regulating the use and development of land. Municipal OP's must be consistent with the PPS. Per its preamble, the PPS *provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment*.

The principal PPS policies that apply to natural heritage protection are outlined in section 2.1. While recognizing that the natural heritage protection framework is not intended to limit the ability of agricultural uses to continue (Policy 2.1.9), the PPS instructs that *natural features and areas shall be protected for the long term* (Policy 2.1.1) and that their diversity and connectivity be *maintained, restored or, where possible, improved* (Policy 2.1.2). In Ecoregion 7E the PPS separates significant features into three categories:

- 1) Those in which development and site alteration are not permitted, including 1) Provincially Significant Wetlands and 2) Significant Coastal Wetlands (Policy 2.1.4);
- 2) Those in which development and site alteration are not permitted unless it can be demonstrated that no negative impacts on the significant natural feature and/or its functions will occur, including: 1) Significant Woodlands, 2) Significant Valleylands, 3) Significant Wildlife Habitat, 4) Significant Areas of Natural and Scientific Interest, 5) Non-significant Coastal wetlands, and 6) Adjacent Lands (Policy 2.1.5 and 2.1.8).
- 3) Those in which development and site alteration are not permitted except in accordance with federal/provincial requirements, including: 1) fish habitat (Policy 2.1.6) and 2) habitat of Endangered and Threatened Species (Policy 2.1.7).

In considering the aforementioned PPS policies, it has been determined that the proposed severance application addresses relevant natural heritage provisions of the PPS for the following reasons:

- Per **Table 3** of this report, no Significant Wetlands, Significant Areas of Natural or Scientific Interest or Fish Habitat are present within the Subject Property.
- Per **Appendix 9** and **Section 5** of this report, no negative impacts to the Significant Woodland, candidate/confirmed SWH, or potential habitat for Endangered Bats are anticipated as a result of the proposed severance application provided that the recommended mitigation measures are implemented in full.

6.4 Credit Valley Conservation Authority Regulation 160/06, pursuant to the *Conservation Authorities Act*, R.S.O. 1990, c. C.27

CVC's regulatory jurisdiction includes areas within and adjacent to valley and stream corridors, the Lake Ontario shoreline, hazard lands (e.g., floodplains, steep slopes, etc.), watercourses, and wetlands as provided under O. Reg. 160/06 of the *Conservation Authorities Act*. CVC's Planning and Development Administrative Procedural Manual (CVC 2011) provides guidance for the administration of O. Reg. 160/06. Provided herein is a description of relevant policies and an assessment of whether the severance application considered herein addresses such policies.

Activities that constitute "development" (including grading) within 15 metres of the top of bank of a valleyland are regulated by CVC per clause 2(1)(b) of O. Reg. 160/06. Schedule 3 of the City's OP identifies Natural Hazards to the west of Heartwood Court in association with the valleyland, and CVC screening maps indicate the property as regulated. A permit/approval from CVC under O. Reg. 160/06 will be required to facilitate construction on the proposed lot.

6.5 Provincial Endangered Species Act, S.O. 2007, c. 6

The *Endangered Species Act* (ESA) is administered by MECP and protects designated Endangered and Threatened species in Ontario from being killed, harmed, or harassed (s. 9) or having their habitat damaged or destroyed (s. 10). The protection afforded to Endangered and Threatened species "habitat" is either prescribed by O. Reg. 242/08, or (for those species that lack regulated habitat) is defined as *an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding*. Activities that constitute habitat damage and/or destruction can only proceed subject to requirements of s. 17 or (in limited circumstances) an activity registration under O. Reg. 242/08.

A detailed assessment of potential and confirmed Endangered and Threatened habitat within the Subject Property is provided in **Appendix 7**. Per this assessment, and provided that relevant technical recommendations outlined in **Section 5.2** are implemented in full, it has been determined that the proposed development plan is consistent with the species and habitat protection provisions of the ESA and will not affect roosting Endangered bats.

6.6 Federal Fisheries Act, R.S.C. 1985, c. F-14

The amended federal *Fisheries Act* (Bill C-68) received Royal Assent in June 2019 while the updated fish and fish habitat protection provisions came into force in August 2019. Subsection 34.4(1) of the amended *Fisheries Act* prohibits all work, undertaking, or activity from causing the death of fish (other than fishing). Subsection 35(1) requires that project activities not result in the "*harmful alteration, disruption or destruction of fish habitat*" (HADD) unless undertaken in accordance with the requirements of a statutory exemption per subsection 35(2). Based on the Fish and Fish Habitat Protection Policy Statement (August 2019), HADD is interpreted by DFO to include "*any temporary*

or permanent change to fish habitat that directly or indirectly impairs the habitat's capacity to support one or more life processes of fish".

The Subject Property lacks surface water drainage features that contain fish (or are hydrologically connected to fish bearing watercourses). Given the distance between the Subject Property and Credit River and need for an Erosion and Sediment Control plan at detailed design, no impacts to fish habitat are anticipated. Overall, future development of the proposed lot is considered consistent with the fish and fish habitat protection provisions outlined in the *Fisheries Act*.

6.7 **Federal Migratory Birds Convention Act, S.C. 1994, c. 22**

Section 6 of the Migratory Birds Regulations under the *Migratory Birds Convention Act, 1994* (MBCA) prohibits the disturbance or destruction of nests, eggs, or nest shelters of a migratory bird. The provincial *Fish and Wildlife Conservation Act, 1997* extends the protection of bird nests and eggs to certain species not listed under the Migratory Birds Regulations (e.g., Corvids, Strigids, Accipitrids, etc.).

Provided that the recommendations outlined in **Section 5.3.4** are implemented in full (i.e., prohibition on vegetation removal during the bird breeding season), no impacts to breeding birds or bird nests protected by the MBCA or FWCA are anticipated.

7 **CONCLUSIONS**

In accordance with the Terms of Reference for this study (**Appendix 1**) and relevant environmental policies, the preceding Scoped EIS provides a detailed characterization of the natural environment occurring within and adjacent to t 2045 Heartwood Court in Mississauga. This Scoped EIS has been prepared in support of a single-lot severance application and to support CVC's regulatory review under O. Reg. 160/06 pursuant to the *Conservation Authorities Act*. Included herein is a comprehensive approach to identifying the presence or absence of several significant natural features afforded varying degrees of protection by applicable environmental policies. Potential negative impacts to the identified significant natural features are described with mitigation measures and technical recommendations offered to avoid or minimize such impacts as appropriate.

Based on the findings presented in this report, the following natural features with ecological and/or policy significance have been identified:

- **Significant Woodland** and overlapping **Stavebank Oak Woods Environmentally Significant Area**, which are considered Significant Natural Areas pursuant to the City's Official Plan, along the northern and eastern boundaries of the of the proposed lot.
- **Significant Valleyland** and overlapping **Regionally Significant Credit River Coastal Marshes Life Science ANSI** on Adjacent Lands south/west of Heartwood Court.
- **Candidate Significant Wildlife Habitat** for bat maternity colonies, landbird migratory stopover areas, Eastern Wood Pewee, Monarch, and Yellow-banded Bumble-bee.
- Potential habitat for three **Endangered bats** (Little Brown Myotis, Northern Myotis, and Tri-colored Bats) within the woodland on the Subject Property.

Based on the presence of the above-mentioned significant natural heritage features, a comprehensive set of recommendations and mitigation measures are offered in **Section 5.3** to achieve "no negative impact" and address applicable municipal, provincial, and federal policies outlined in **Section 6**.

It has been determined that the recommended mitigation measures (summarized in **Appendix 9**) will appropriately protect the Significant Woodland and other overlapping natural features/areas consistent applicable natural heritage policies provided that all technical mitigation measures recommended herein (summarized in **Appendix 9**) are implemented in full. In particular, this includes the incorporation of a 5 m setback between the Significant Woodland and proposed development area, preparation of a Woodland Enhancement Plan incorporating native plantings, preparation of an invasive species management plan, incorporation of bird friendly measures into the design of the proposed residence, timing restrictions on tree/vegetation removal to protect roosting bats and nesting birds, and preparation of comprehensive Erosion and Sediment Control plan at detailed design. Minor changes to the concept plan (e.g., building size, location, etc.) are acceptable provided that they reflect the natural feature constraints shown in **Figure 4**. It is advised that all technical recommendations offered herein be incorporated into any necessary development approvals that permit the application.

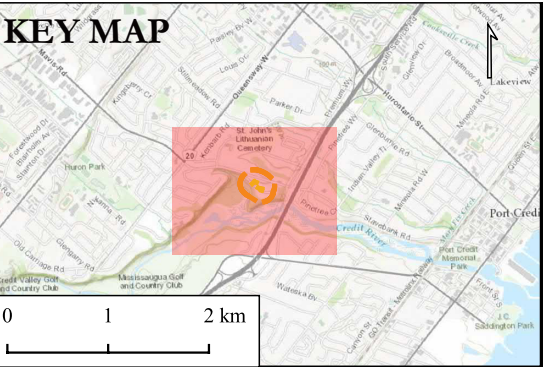
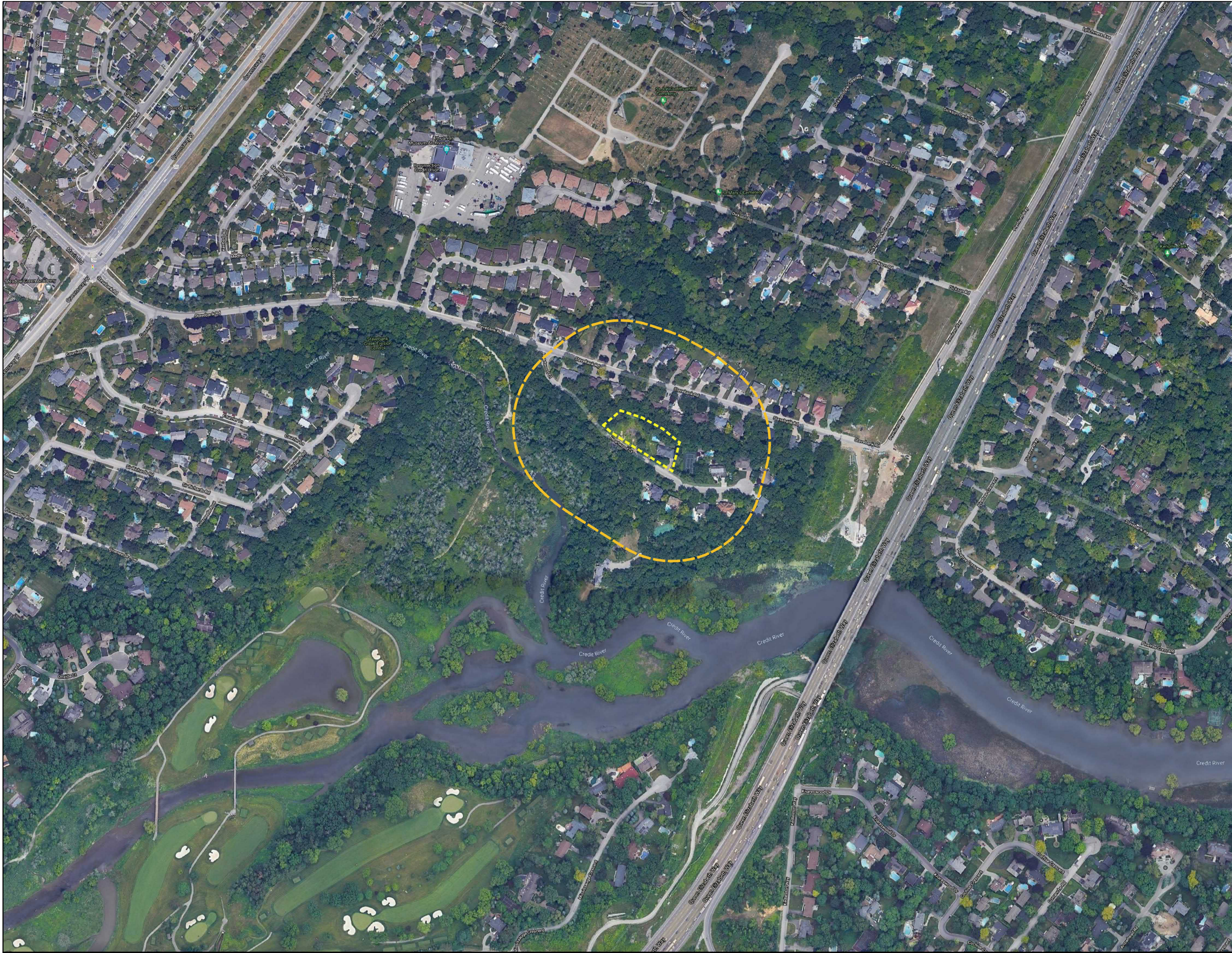
8 REFERENCES

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of Natural Resources Aurora District"




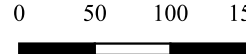
Legend

Study Area

- Subject Property
- Adjacent Lands

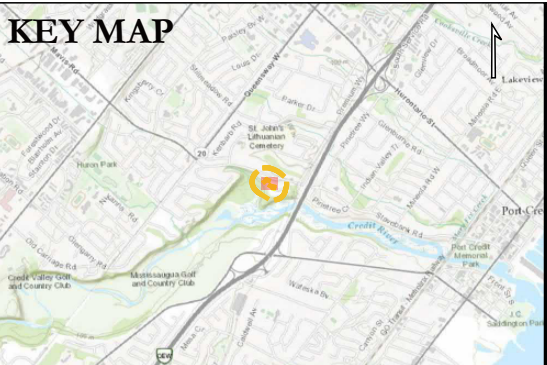
GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.

 **TERRASTORY**
environmental consulting inc.
info@terrastoryenviro.com 905.745.5398

 1:5,000 

Location:
2045 Heartwood Court
City of Mississauga

Project No.: 21121		Figure 1: Location of the Subject Property
Date: 2021-08-05		
By: RA	Checked: TK	
Orthophotograph Date: 2019 (Google Maps).		



Legend

Study Area
[Yellow dashed line] Subject Property

Biophysical Conditions - Terrastory
[Green line] Vegetation Communities

Significant Natural Feature Boundaries
[Light green line] Dripline (2018)
[Dark green line] Dripline (2021)


Vegetation Community Codes:

FOD1-4	Dry – Fresh Mixed Oak Deciduous Forest
CUM1-1	Dry - Moist Old Field Meadow
Residential	Residential

GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.



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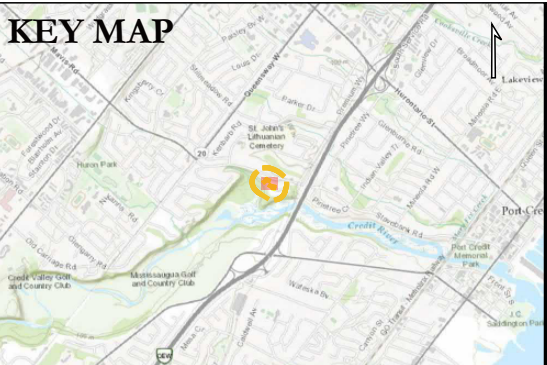
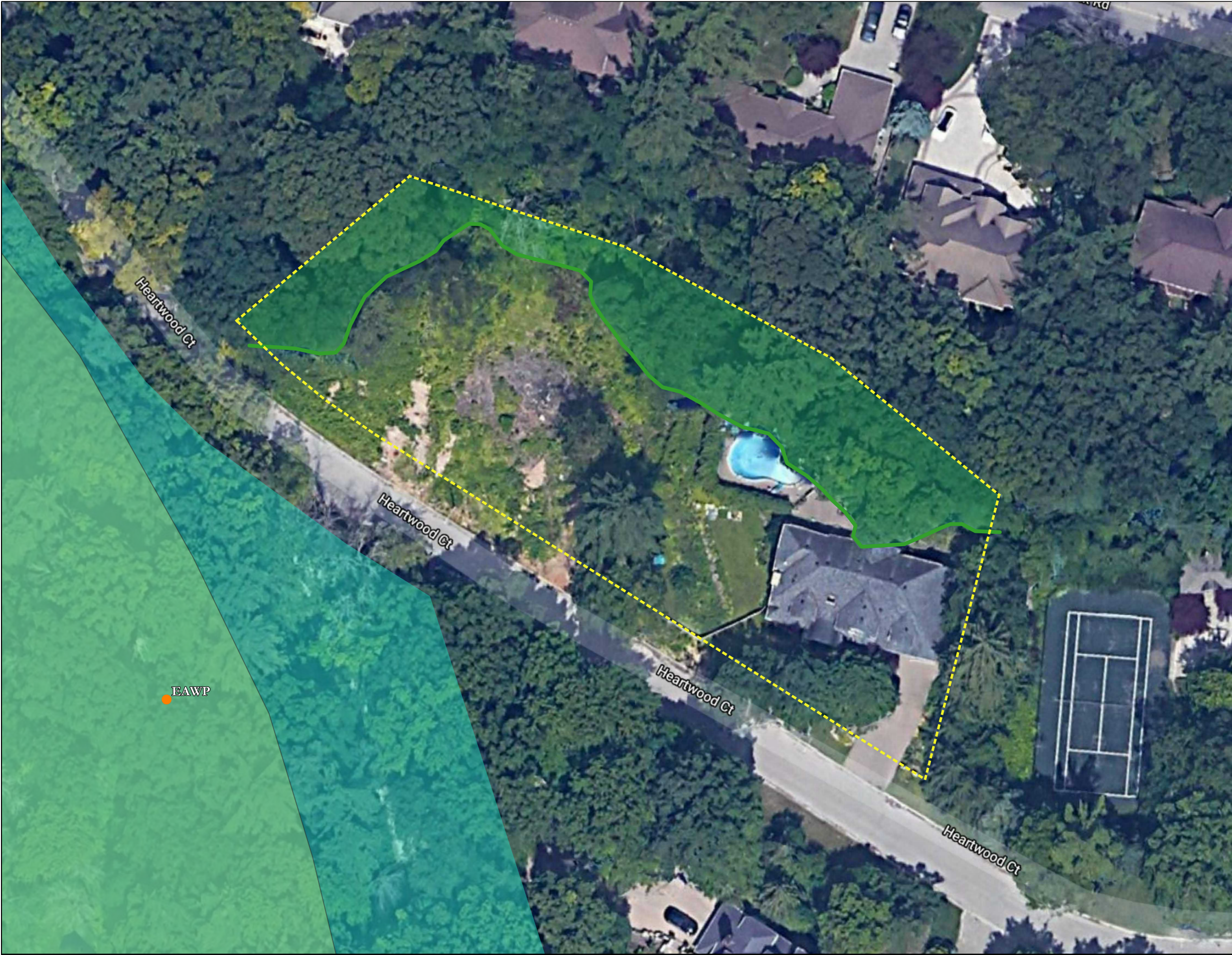


1:500

0 5 10 15 m

Location:
2045 Heartwood Court
City of Mississauga

Project No.: 21121		Figure 2: Biophysical Features and Conditions
Date: 2021-08-05		
By: RA	Checked: TK	
Orthophotograph Date: 2019 (Google Maps).		



Legend

Study Area

- Subject Property

Significant Natural Features - Terrastory

- Significant Woodland
- Dripline (2021)
- Eastern Wood-pewee (Singing Male)


Significant Natural Features - Agency Identified

- Credit River Coastal Marsh Life Science ANSI (MNDNRF)
- Significant Natural Area - ESA, ANSI, Wetland (City of Mississauga)

GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.



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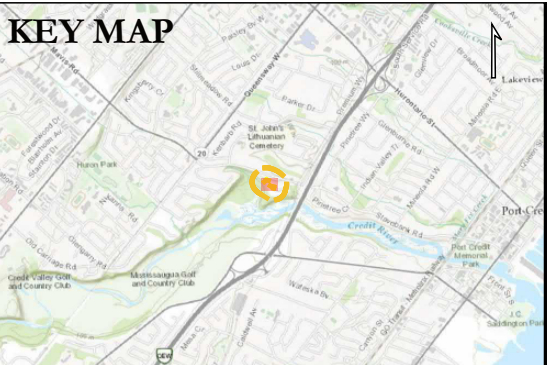


1:500

0 5 10 15 m

Location:
2045 Heartwood Court
City of Mississauga

Project No.: 21121		Figure 3: Significant Natural Features
Date: 2021-08-05		
By: RA	Checked: TK	
Orthophotograph Date: 2019 (Google Maps).		



Legend

Study Area

- Subject Property

Significant Natural Features - Terrastory

- Significant Woodland
- Dripline (2021)
- Eastern Wood-pewee (Singing Male)

Significant Natural Features - Agency Identified

- Credit River Coastal Marsh Life Science ANSI (MNDNRF)
- Significant Natural Area - ESA, ANSI, Wetland (City of Mississauga)

Proposed Activities


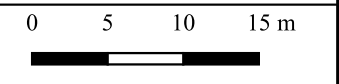
- Lot to be Severed
- Conceptual Developable Area

Recommended Mitigation Measures - Terrastory

- 5 m Woodland Setback
- Woodland Enhancement Area

GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.

 **TERRASTORY**
environmental consulting inc.
info@terrastoryenviro.com 905.745.5398

 1:500 

Location:
2045 Heartwood Court
City of Mississauga

Project No.: 21121		Figure 4: Proposed Severance
Date: 2021-08-05		
By: RA	Checked: TK	
Orthophotograph Date: 2019 (Google Maps).		

Appendix 1. Terms of Reference

Robert Aitken

From: Terrance Glover <tglover@urbaninmind.ca>
Sent: July 16, 2021 3:34 PM
To: Tristan Knight
Cc: Robert Aitken; Lisa Miron
Subject: FW: [External] FW: ToR for Scoped EIS - 2045 Heartwood Court

Importance: High

FYI. This came this morning, but I was sick in bed due to my 2nd Vaccine shot.

Terrance Glover, RPP, CPT
Principal,
Urban in Mind, Professional Urban Planning, Land Development & CPTED Consultants
www.UrbaninMind.ca
(905) 320-8120

Check out our new [On-Line shopping website](#).

From: Michael Hynes <Michael.Hynes@mississauga.ca>
Date: Friday, July 16, 2021 at 7:16 AM
To: Terrance Glover <tglover@urbaninmind.ca>
Cc: "maricris.marinascvc.ca" <maricris.marinascvc.ca>, Sarah Piett <Sarah.Piett@mississauga.ca>, Paul Tripodo <Paul.Tripodo@mississauga.ca>, Katie Henley <Katie.Henley@mississauga.ca>
Subject: FW: [External] FW: ToR for Scoped EIS - 2045 Heartwood Court

Terrance, here are the Terms of Reference for your EIS for 2045 Heartwood Court. Please note that they are the same as CVC except the line in yellow has been added from the City and in red from CVC.

Sorry for the delay.

Michael

Hi Michael,

CVC staff have completed our review of the EIS TOR for 2045 Heartwood Court. Please see CVC staff's comments/additions in **red** below. I will leave it to you to forward this information to the applicant. Thanks and please let me know if you have any questions.

Terms of Reference for Scoped EIS – 2045 Heartwood Court, City of Mississauga

- **Overall Approach and Methodology**
 - Scoped EIS will be undertaken consistent with the City's Environmental Impact Statement (EIS) Terms of Reference Guidelines (2002) and CVC's EIS ToR (revised 2008).
 - Study Area Will include the Subject Property and adjacent parcels to a distance of 50 m.
- **Background Information Gathering**
 - Background biophysical information will be gathered from the following sources:
 - Current and historical aerial photographs

- Existing natural feature mapping (City OP, ROP, NHIC, CVC) -
- Ontario Base Mapping and other sources of topographic information
- Ontario well records from the local landscape
- Soils mapping for the local landscape
- Paleozoic and surficial geology mapping for the local landscape
- Physiographic mapping for the local landscape
- NHIC element occurrences
- iNaturalist element occurrences, including rare species records retrieved through the “(NHIC) Rare Species of Ontario” project.
- **Natural Areas Survey (NAS) Factsheet CRR8**
- eBird
- Ontario Breeding Bird Atlas database
- Ontario Butterfly Atlas
- DFO Aquatic Species at Risk Maps
- Atlas of the Mammals of Ontario
- **Site Assessment and Ecological Surveys (i.e., Fieldwork)**
 - General biophysical description of the Study Area (i.e., direction of drainage, land management, etc.).
 - Ecological Land Classification (ELC) for the Subject Property and adjacent parcels (where feature boundaries extend onto Adjacent Lands).
 - *Note – ELC/feature boundaries on adjacent lands will be mapped based on a review from inside the Subject Property and air-photo interpretation. **Please also add a layer showing the limits of the woodland prior to the recent hazard tree/EAB tree removal such that the full extent of woodland feature is recognized and used in woodland size and function assessments. That said please specifically address the history of the site including previous findings regarding the woodland stratigraphy and composition prior to EAB (e.g. previous canopy layer and shrub layer within the removed woodland section)**
 - One (1) June vascular plant survey.
 - One (1) breeding bird survey.
 - *Note – for EIS studies in urban areas where the potential for occupation by END/THR bird species is low, Terrastory typically proposes only a single bird survey and assumes that all species recorded are “probable breeders”.
 - Documentation and delineation of any significant natural features/functions (e.g., snags, dripline, etc.), where applicable.
 - *Note – it is recognized that the Regionally Significant Credit River Marshes Life Science ANSI occurs on adjacent lands, and that an “identified woodland” is mapped on the Subject Property.
- **Please include an HDF Assessment and recommendations as per TRCA 2014**
- **Significance Assessment**
 - Determination of whether any confirmed or potential significant natural heritage features and/or natural hazards are present within the Study Area.
 - Mapping of significant natural heritage feature boundaries per provincial protocols (where present) **(See comment above regarding original woodland limits prior to the recent tree/woodland removals)**
 - Full screening for SWH and SAR based on background information and the results of the site assessment.
 - If any Endangered/Threatened species are documented, their locations will be mapped and the extent of their habitat will be delineated. Any correspondence with MECP (if required) will be appended to the EIS.
 - If any S1-S3 species are found on site, their locations and habitat extent will be mapped and considered through the impact assessment.
- **Impact Assessment and Recommendations**
 - Mapping which shows the proposed severance plan overlaid with the natural feature mapping on a current airphoto base.
 - Impact assessment for all natural heritage/hazard features identified and their functions from an ecological perspective. **(More specifically, to include individual trees. Please also note that impacts would require on-site compensation, following the mitigation hierarchy of Avoid, Mitigate and Compensate, with Compensation as a last alternative)**
 - Establishment of ecologically/policy appropriate setbacks for all identified natural heritage/hazard features, where applicable

Inclusion of additional mitigation measures (e.g., silt fencing, etc.) to avoid/minimize negative impacts, where applicable.

- Please make mention of a detailed assessment of potential impacts from not only the footprint of proposed structures, amenity space and servicing, but also any required grading.
- **Policy Conformity Assessment**
 - A **detailed technical** assessment of whether the proposed severance application, combined with any design changes and mitigation measures, conforms to relevant natural heritage policies in the City's OP, ROP, PPS, CVC's Watershed Planning and Regulation Policies, *Endangered Species Act*, MBCA, and any other applicable natural heritage policies/legislation.

Regards,
Maricris

Maricris Marinas, M.Sc.

Senior Planner, Planning and Development Services | Credit Valley Conservation

From: Michael Hynes <Michael.Hynes@mississauga.ca>

Sent: Monday, June 21, 2021 1:35 PM

To: Paul Tripodo <paul.tripodo@mississauga.ca>; Marinas, Maricris <Maricris.Marinas@cvc.ca>

Subject: [External] FW: ToR for Scoped EIS - 2045 Heartwood Court

[CAUTION] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If in doubt contact help211@cvc.ca

From: Tristan Knight <tristan@terrastoryenviro.com>

Sent: Wednesday, June 16, 2021 7:34 AM

To: Paul Tripodo <Paul.Tripodo@mississauga.ca>

Cc: Michael Hynes <Michael.Hynes@mississauga.ca>; Maricris.Marinas@cvc.ca; Terrance Glover <tglover@urbaninmind.ca>; Robert Aitken <rob@terrastoryenviro.com>

Subject: Re: ToR for Scoped EIS - 2045 Heartwood Court

Good Morning Paul,

Just checking in on the status of the ToR review.

Thank you.

T.

Sent from my iPhone.

From: Tristan Knight <tristan@terrastoryenviro.com>

Sent: Wednesday, June 2, 2021 3:33 PM

To: Paul.Tripodo@mississauga.ca

Cc: Michael.Hynes@mississauga.ca; Maricris.Marinas@cvc.ca; Terrance Glover

Subject: ToR for Scoped EIS - 2045 Heartwood Court

Hi Paul,

It's been a while, hope you're doing well!

Terrastory has been retained to prepare a Scoped EIS in support of a severance application at 2045 Heartwood Court. I've prepared a Terms of Reference (ToR) to scope the study below. If the City requires modifications please feel free to redline the text, which will be included as an appendix to the Scoped EIS report.

Please let me know if you have any questions or comments.

Terms of Reference for Scoped EIS – 2045 Heartwood Court, City of Mississauga

- **Overall Approach and Methodology**
 - Scoped EIS will be undertaken consistent with the City's Environmental Impact Statement (EIS) Terms of Reference Guidelines (2002) and CVC's EIS ToR (revised 2008).
 - Study Area Will include the Subject Property and adjacent parcels to a distance of 50 m.
- **Background Information Gathering**
 - Background biophysical information will be gathered from the following sources:
 - Current and historical aerial photographs
 - Existing natural feature mapping (City OP, ROP, NHIC, CVC)
 - Ontario Base Mapping and other sources of topographic information
 - Ontario well records from the local landscape
 - Soils mapping for the local landscape
 - Paleozoic and surficial geology mapping for the local landscape
 - Physiographic mapping for the local landscape
 - NHIC element occurrences
 - iNaturalist element occurrences, including rare species records retrieved through the "(NHIC) Rare Species of Ontario" project.
 - eBird
 - Ontario Breeding Bird Atlas database
 - Ontario Butterfly Atlas
 - DFO Aquatic Species at Risk Maps
 - Atlas of the Mammals of Ontario
- **Site Assessment and Ecological Surveys (i.e., Fieldwork)**
 - General biophysical description of the Study Area (i.e., direction of drainage, land management, etc.).
 - Ecological Land Classification (ELC) for the Subject Property and adjacent parcels (where feature boundaries extend onto Adjacent Lands).
 - *Note – ELC/feature boundaries on adjacent lands will be mapped based on a review from inside the Subject Property and air-photo interpretation.
 - One (1) June vascular plant survey.
 - One (1) breeding bird survey.
 - *Note – for EIS studies in urban areas where the potential for occupation by END/THR bird species is low, Terrastory typically proposes only a single bird survey and assumes that all species recorded are "probable breeders".
 - Documentation and delineation of any significant natural features/functions (e.g., snags, dripline, etc.), where applicable.
 - *Note – it is recognized that the Regionally Significant Credit River Marshes Life Science ANSI occurs on adjacent lands, and that an "identified woodland" is mapped on the Subject Property.
- **Significance Assessment**
 - Determination of whether any confirmed or potential significant natural heritage features and/or natural hazards are present within the Study Area.
 - Mapping of significant natural heritage feature boundaries per provincial protocols (where present)
 - Full screening for SWH and SAR based on background information and the results of the site assessment.
 - If any Endangered/Threatened species are documented, their locations will be mapped and the extent of their habitat will be delineated. Any correspondence with MECP (if required) will be appended to the EIS.
 - If any S1-S3 species are found on site, their locations and habitat extent will be mapped and considered through the impact assessment.
- **Impact Assessment and Recommendations**
 - Mapping which shows the proposed severance plan overlaid with the natural feature mapping on a current airphoto base.

- Impact assessment for all natural heritage/hazard features identified and their functions from an ecological perspective.
- Establishment of ecologically/policy appropriate setbacks for all identified natural heritage/hazard features, where applicable.
- Inclusion of additional mitigation measures (e.g., silt fencing, etc.) to avoid/minimize negative impacts, where applicable.
- **Policy Conformity Assessment**
 - An overall assessment of whether the proposed severance application, combined with any design changes and mitigation measures, conforms to relevant natural heritage policies in the City's OP, ROP, PPS, CVC's Watershed Planning and Regulation Policies, *Endangered Species Act*, MBCA, and any other applicable natural heritage policies/legislation.

Tristan Knight M.E.S., M.Sc.
 Senior Ecologist | President
 Terrastory Environmental Consulting Inc.
 (c) 905-745-5398
www.terrastoryenv.com

The information contained in this Credit Valley Conservation electronic message is directed in confidence solely to the person(s) named above and may not be otherwise distributed, copied or disclosed including attachments. The message may contain information that is privileged, confidential and exempt from disclosure under the Municipal Freedom of Information and Protection and Privacy Act and by the Personal Information Protection Electronic Documents Act. The use of such personal information except in compliance with the Acts, is strictly prohibited. If you have received this message in error, please notify the sender immediately advising of the error and delete the message without making a copy. Thank you.

Appendix 2. Representative Photographs



Photo 1. Dry – Moist Old Field Meadow (CUM1-1) with Dry – Fresh Mixed Oak Deciduous Forest (FOD1-4) in background.



Photo 2. Dry – Moist Old Field Meadow (CUM1-1) with Dry – Fresh Mixed Oak Deciduous Forest (FOD1-4) in background.



Photo 3. Dry – Moist Old Field Meadow (CUM1-1) with Dry – Fresh Mixed Oak Deciduous Forest (FOD1-4) in background.



Photo 4. Dry – Moist Old Field Meadow (CUM1-1) with existing residence and amenity areas in background.



Photo 5. Area of remaining mulch.

Appendix 3. Drainage Easement

Transfer/Deed of Land

Form 1 — Land Registration Reform Act

A

FOR OFFICE USE ONLY

(1) Registry ☐ Land Titles ☒ (2) Page 1 of 3 pages

(3) Property Identifier(s) Block Property Additional See Schedule ☐

(4) Consideration
TWO Dollars \$ 2.00

(5) Description This is a Property Division ☐ Property Consolidation ☐

FIRSTLY: Part of Parcel 9-1, Section 43M-814, being Part of Lot 9, Plan 43M-814, designated as Parts 1, 2 and 3 on Plan 43R-20024, City of Mississauga, Regional Municipality of Peel.

SECONDLY: Part of Parcel 10-1, Section 43M-814, being Part of Lot 10, Plan 43M-814, designated as Parts 4, 5 and 6 on Plan 43R-20024, City of Mississauga, Regional Municipality of Peel.

11457005

93 DEC 9 P 300

9-1, 43M-814
10-1, 43M-814

Peel No 43
New Prop. Land Registrar
SOL - Registrant's Address

Additional See Schedule ☐

Additional See Schedule ☐

(6) This Document Contains (a) Redescription New Easement Plan/Sketch ☐ (b) Schedule for Description ☐ Additional Parties ☐ Other ☒ (7) Interest/Estate Transferred Easement

(8) Transferor(s) The transferor hereby transfers the land to the transferee

Name(s) UNITED LANDS CORPORATION LIMITED Signature(s) Per: John Z. Walton Title: Assistant Secretary

I have authority to bind the Corporation.

9934710

(9) Spouse(s) of Transferor(s) I hereby consent to this transaction

Name(s) Signature(s) Date of Signature Y M D

(10) Transferor(s) Address for Service 2904 South Sheridan Way Oakville, Ontario

(11) Transferee(s) THE CORPORATION OF THE CITY OF MISSISSAUGA

Date of Birth Y M D

(12) Transferee(s) Address for Service 300 City Centre Drive Mississauga, Ontario L5B 3C1

(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 50 of the Planning Act.

Signature Date of Signature Y M D

Solicitor for Transferor(s) I have explained the effect of section 50 of the Planning Act to the transferor and I have made inquiries of the transferor to determine that this transfer does not contravene that section and based on the information supplied by the transferor, to the best of my knowledge and belief, this transfer does not contravene that section. I am an Ontario solicitor in good standing.

Name and Address of Solicitor Signature Date of Signature Y M D

(14) Solicitor for Transferee(s) I have investigated the title to this land and to adjoining land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 50 (22) (c) (i) of the Planning Act and that to the best of my knowledge and belief this transfer does not contravene section 50 of the Planning Act. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing.

Name and Address of Solicitor Signature Date of Signature Y M D

(15) Assessment Roll Number of Property City Mun Map Sub Par Not assigned

(16) Municipal Address of Property Not assigned

(17) Document Prepared by: Messrs. Bratty and Partners Barristers and Solicitors 4950 Yonge Street, 20th Floor North York, Ontario M2N 6K1

Fees and Tax

Registration Fee	
Land Transfer Tax	NIL

FOR OFFICE USE ONLY

Additional Property Identifier(s) and/or Other Information

The Transferor hereby transfers to the Transferee, the right, interest and easement on, over, under and through the lands of the Transferor, hereinbefore described as the servient tenement, for the following purposes, namely, to channelize, improve, construct, install, operate, maintain, inspect, alter, remove, replace, reconstruct, enlarge and repair catchbasins, leads, drainage swales and an open watercourse and appurtenances thereto.

And for every such purpose and for all purposes necessary or incidental to the exercise of the rights hereby created, the Transferee shall have access to the servient tenement at all times by its or their servants, agents, contractors, and its vehicles, supplies and equipment, as appurtenant to the dominant tenement of the Transferee, consisting of the system of pipes of the Transferee, situate in the City of Mississauga, in the Regional Municipality of Peel together with the buildings and plants of the Transferee situate on land owned by the Transferee and including in part the public highways proximate thereto and vested in the Transferee.

The Transferor, for themselves, their heirs, successors and assigns, covenant with the Transferee, its successors and assigns, to remove from and keep the said lands free and clear of any trees, buildings, structures or obstructions; to use the said land only as a lawn, garden, flower bed or walkway, not to deposit on or remove any fill from the said land except as may be approved in writing by the Transferee and not to do or suffer to be done any other thing which might cause injury or damage.

The Transferor, for themselves, their heirs, successors and assigns, covenants with the Transferee, its successors and assigns, that the Transferee shall have the right to enter upon the servient tenement and to remove any and all trees, buildings, structures or obstructions, concrete pavement or any unauthorized fill or any other thing which might injure or damage the said works.

Notwithstanding any rule of law or equity, any pipes, drains or the construction and appurtenances thereto, located upon the servient tenement pursuant to this easement, shall be the property of the Transferee, even though the same may have become annexed or affixed to the servient tenement.

(sub:cp.32)

Refer to all instructions on reverse side.

IN THE MATTER OF THE CONVEYANCE OF (insert brief description of land) Firstly: Part of Lot 9, Plan 43M-814, designated as Parts 1, 2 and 3 on Plan 43R-2024, City of Mississauga, Regional Municipality of Peel. Secondly: Part of Lot 10, Plan 43M-814, designated as Parts 4, 5 and 6 on Plan 43R-2024, City of Mississauga, Regional Municipality of Peel.BY (print names of all transferors in full) United Lands Corporation LimitedTO (see instruction 1 and print names of all transferees in full) THE CORPORATION OF THE CITY OF MISSISSAUGAI, (see instruction 2 and print name(s) in full) Mary Brennan, of the City of Etobicoke
in the Municipality of Metropolitan Toronto

MAKE OATH AND SAY THAT:

1 I am (place a clear mark within the square opposite that one of the following paragraphs that describes the capacity of the deponent(s)): (see instruction 2)

☐ (a) A person in trust for whom the land conveyed in the above-described conveyance is being conveyed.☐ (b) A trustee named in the above-described conveyance to whom the land is being conveyed.☐ (c) A transferee named in the above-described conveyance.☒ (d) The undersigned is a solicitor acting in this transaction for (insert name(s) of principal(s)) The Corporation of the City of Mississauga☐ (e) The President, Vice-President, Manager, Secretary, Director, or Treasurer authorized to act for (insert name(s) of corporation(s)) _____☐ (f) A transferee described in paragraph(s) (a), (b), (c) above, (strike out references to inapplicable paragraphs)☐ (f) I am making this affidavit on my own behalf and on behalf of (insert name of spouse) _____ who is my spouse described in paragraph () (insert only one of paragraph (a), (b) or (c) above, as applicable) and as such, I have personal knowledge of the facts herein deposed to.

2. (To be completed where the value of the consideration for the conveyance exceeds \$400,000).

I have read and considered the definition of "single family residence" set out in clause 1(1)(ja) of the Act. The land conveyed in the above-described conveyance

☐ contains at least one and not more than two single family residences.☐ does not contain a single family residence☐ contains more than two single family residences. (see instruction 3)

Note: Clause 2(1)(d) imposes an additional tax at the rate of one-half of one per cent upon the value of consideration in excess of \$400,000 where the conveyance contains at least one and not more than two single family residences.

3 I have read and considered the definitions of "non resident corporation" and "non-resident person" set out respectively in clauses 1(1)(f) and (g) of the Act and each of the following persons to whom or in trust for whom the land is being conveyed in the above-described conveyance is a "non-resident corporation" or a "non-resident person" as set out in the Act (see instructions 4 and 5) none

4 THE TOTAL CONSIDERATION FOR THIS TRANSACTION IS ALLOCATED AS FOLLOWS:

(a) Monies paid or to be paid in cash	\$	<u>2.00</u>
(b) Mortgages (i) Assumed (show principal and interest to be credited against purchase price)	\$	<u>nil</u>
(ii) Given back to vendor	\$	<u>nil</u>
(c) Property transferred in exchange (detail below)	\$	<u>nil</u>
(d) Securities transferred to the value of (detail below)	\$	<u>nil</u>
(e) Liens, legacies, annuities and maintenance charges to which transfer is subject	\$	<u>nil</u>
(f) Other valuable consideration subject to land transfer tax (detail below)	\$	<u>nil</u>
(g) VALUE OF LAND, BUILDING, FIXTURES AND GOODWILL SUBJECT TO LAND TRANSFER TAX (Total of (a) to (f))	\$	<u>2.00</u>
(h) VALUE OF ALL CHATTELS - items of tangible personal property (Retail Sales Tax is payable on the value of all chattels unless exempt under the provisions of the "Retail Sales Tax Act", R.S.O. 1980, c 454, as amended)	\$	<u>nil</u>
(i) Other consideration for transaction not included in (g) or (h) above	\$	<u>nil</u>
(j) TOTAL CONSIDERATION	\$	<u>2.00</u>

All Banks
Must Be
Filed In.
Insert "NR"
Where
Applicable.5. If consideration is nominal, describe relationship between transferor and transferee and state purpose of conveyance. (see instruction 6) n/a6 If the consideration is nominal, is the land subject to any encumbrance? n/a7 Other remarks and explanations, if necessary no monies passing directly or indirectlySworn before me at the City of Mississauga
in the Regional Municipality of Peel
this 8th day of December 1993Alma A. d'Amico
A Commissioner for taking Affidavits, etc.Mary Brennan
signature(s)

Property Information Record

A Describe nature of instrument Transfer of Easement

B. (i) Address of property being conveyed (if available) not assigned

(ii) Assessment Roll No. (if available) not assigned

C. Mailing address(es) for future Notices of Assessment under the Assessment Act for property being conveyed (see instruction 7) 300 City Centre Drive,
Mississauga, Ontario L5B 3C1

D. (i) Registration number for last conveyance of property being conveyed (if available) *

(ii) Legal description of property conveyed Same as in D (i) above Yes ☐ No ☐ Not known ☐

E Name(s) and address(es) of each transferee's solicitor
Mary Brennan, Office of the City Solicitor, The Corporation of the City of Mississauga,
300 City Centre Drive, Mississauga, Ontario L5B 3C1

For Land Registry Office Use Only

Registration No.	
Registration Date	Land Registry Office No.

School Tax Support (Voluntary Election) See reverse for explanation

(a) Are all individual transferees Roman Catholic? Yes ☐ No ☐

(b) If Yes, do all individual transferees wish to be Roman Catholic Separate School Supporters? Yes ☐ No ☐

(c) Do all individual transferees have French Language Education Rights? Yes ☐ No ☐

(d) If Yes, do all individual transferees wish to support the French language school system?

Appendix 4. Vascular Plant List

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Coefficient of Conservatism	Coefficient of Wetness
<i>Acer negundo</i>	Manitoba Maple	Aceraceae	S5	0	0
<i>Acer platanoides</i>	Norway Maple	Aceraceae	SNA	0	5
<i>Agrimonia gryposepala</i>	Hooked Agrimony	Rosaceae	S5	2	3
<i>Anemonastrum canadense</i>	Canada Anemone	Ranunculaceae	S5	3	-3
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	Araliaceae	S5	4	3
<i>Arctium minus</i>	Common Burdock	Asteraceae	SNA	0	3
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	Araceae	S5	5	-3
<i>Asclepias syriaca</i>	Common Milkweed	Asclepiadaceae	S5	0	5
<i>Bidens frondosa</i>	Devil's Beggarticks	Asteraceae	S5	3	-3
<i>Carex bebbii</i>	Bebb's Sedge	Cyperaceae	S5	3	-5
<i>Carex blanda</i>	Woodland Sedge	Cyperaceae	S5	3	0
<i>Carex lupulina</i>	Hop Sedge	Cyperaceae	S5	6	-5
<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade	Onagraceae	S5	2	3
<i>Cirsium arvense</i>	Canada Thistle	Asteraceae	SNA	0	3
<i>Cirsium arvense</i>	Canada Thistle	Asteraceae	SNA	0	3
<i>Cornus sericea</i>	Red-osier Dogwood	Cornaceae	S5	2	-3
<i>Daucus carota</i>	Wild Carrot	Apiaceae	SNA	0	5
<i>Equisetum arvense</i>	Field Horsetail	Equisetaceae	S5	0	0
<i>Erigeron annuus</i>	Annual Fleabane	Asteraceae	S5	0	3
<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	Asteraceae	S5	1	-3
<i>Fraxinus pennsylvanica</i>	Green Ash	Oleaceae	S4	3	-3
<i>Galium aparine</i>	Cleavers	Rubiaceae	S5	4	3
<i>Geranium pratense</i>	Meadow Geranium	Geraniaceae	SNA	0	5
<i>Geranium robertianum</i>	Herb-Robert	Geraniaceae	S5	2	3
<i>Geum urbanum</i>	Wood Avens	Rosaceae	SNA	0	5
<i>Hamamelis virginiana</i>	American Witch-hazel	Hamamelidaceae	S4S5	6	3
<i>Hypericum perforatum ssp. perforatum</i>	Common St. John's-wort	Clusiaceae	SNA	0	5
<i>Impatiens capensis</i>	Spotted Jewelweed	Balsaminaceae	S5	4	-3
<i>Ligustrum vulgare</i>	European Privet	Oleaceae	SNA	0	3
<i>Lonicera dioica</i>	Limber Honeysuckle	Caprifoliaceae	S5	5	3
<i>Lonicera tatarica</i>	Tartarian Honeysuckle	Caprifoliaceae	SNA	0	3
<i>Lythrum salicaria</i>	Purple Loosestrife	Lythraceae	SNA	0	-5
<i>Maianthemum racemosum</i>	Large False Solomon's Seal	Liliaceae	S5	4	3
<i>Matricaria discoidea</i>	Pineappleweed	Asteraceae	SNA	0	3
<i>Onoclea sensibilis</i>	Sensitive Fern	Dryopteridaceae	S5	4	-3
<i>Parthenocissus vitacea</i>	Thicket Creeper	Vitaceae	S5	4	3
<i>Phalaris arundinacea</i>	Reed Canary Grass	Poaceae	S5	0	-3
<i>Pinus strobus</i>	Eastern White Pine	Pinaceae	S5	4	3
<i>Poa pratensis</i>	Kentucky Bluegrass	Poaceae	S5	0	3
<i>Podophyllum peltatum</i>	May-apple	Berberidaceae	S5	5	3
<i>Prunus serotina</i>	Black Cherry	Rosaceae	S5	3	3
<i>Prunus virginiana</i>	Choke Cherry	Rosaceae	S5	2	3
<i>Quercus alba</i>	White Oak	Fagaceae	S5	6	3
<i>Quercus rubra</i>	Northern Red Oak	Fagaceae	S5	6	3

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Coefficient of Conservatism	Coefficient of Wetness
<i>Quercus velutina</i>	Black Oak	Fagaceae	S4	8	5
<i>Rhamnus cathartica</i>	Common Buckthorn	Rhamnaceae	SNA	0	0
<i>Rosa multiflora</i>	Multiflora Rose	Rosaceae	SNA	0	3
<i>Rubus allegheniensis</i>	Allegheny Blackberry	Rosaceae	S5	2	3
<i>Rubus odoratus</i>	Purple-flowering Raspberry	Rosaceae	S5	3	5
<i>Rumex crispus</i>	Curly Dock	Polygonaceae	SNA	0	0
<i>Scirpus atrovirens</i>	Dark-green Bulrush	Cyperaceae	S5	3	-5
<i>Solanum dulcamara</i>	Bittersweet Nightshade	Solanaceae	SNA	0	0
<i>Solidago altissima</i>	Tall Goldenrod	Asteraceae	S5	1	3
<i>Symphotrichum lanceolatum</i>	Panicled Aster	Asteraceae	S5	3	-3
<i>Thuja occidentalis</i>	Eastern White Cedar	Cupressaceae	S5	4	-3
<i>Toxicodendron radicans</i>	Poison Ivy	Anacardiaceae	S5	2	0
<i>Typha latifolia</i>	Broad-leaved Cattail	Typhaceae	S5	1	-5
<i>Ulmus americana</i>	American Elm	Ulmaceae	S5	3	-3
<i>Urtica dioica</i>	Stinging Nettle	Urticaceae	S5	2	0
<i>Verbascum thapsus</i>	Common Mullein	Scrophulariaceae	SNA	0	5
<i>Vitis riparia</i>	Riverbank Grape	Vitaceae	S5	0	0

Appendix 5. Breeding Bird Survey Results

1 BREEDING BIRD SURVEY METHODOLOGY

One breeding bird surveys was conducted following Ontario Breeding Bird Atlas (OBBA) protocols (Bird Studies Canada et al. 2001). The survey occurred within the appropriate season (May 24–July 10), time of day (between dawn and 5 hours after dawn), and weather conditions (no rain, wind speed ≤ 3 on the Beaufort Wind Scale). The station was surveyed for a minimum duration of ten (10) minutes.

One (1) survey station was established and situated systematically to cover the variety of bird habitats on-site, particularly habitats with a high potential to support significant bird species and those that occur within or adjacent to proposed areas of disturbance. The locations of all point count stations and significant bird species were recorded in the field with a high-accuracy GPS.

Signs of breeding activity accompanied each bird record (e.g., singing male, probable pair, agitation, carrying nest material, etc.). The OBBA provides four (4) breeding categories to accompany each observation:

Observed: Species observed during its breeding season (no evidence of breeding).

Possible Breeding: Includes any of the following observation types: 1) species observed in its breeding season in suitable nesting habitat, and 2) singing male present, or breeding calls heard, in its breeding season in suitable nesting habitat.

Probable Breeding: Includes any of the following observation types: 1) pair observed in their breeding season in suitable nesting habitat, 2) permanent territory presumed through registration of territorial song on at least 2 days, a week or more apart, at the same place, 3) courtship or display between a male and a female or 2 males, including courtship feeding or copulation, 4) visiting probable nest site, 5) agitated behaviour or anxiety calls of an adult, 6) brood patch on adult female or cloacal protuberance on adult male, and 7) nest-building or excavation of nest hole.

Confirmed Breeding: Includes any of the following observation types: 1) distraction display or injury feigning, 2) used nest or egg shell found (occupied or laid within the period of the study), 3) recently fledged young or downy young, including young incapable of sustained flight, 4) adults leaving or entering nest site in circumstances indicating occupied nest, 5) adult carrying faecal sac, 6) adult carrying food for young, 7) nest containing eggs, and 8) nest with young seen or heard.

As per the TOR, since only one breeding bird survey was completed, any species observed utilizing suitable habitat on or adjacent to the Subject Lands was classified as “Probable Breeding” for the purposes of this study.

2 RESULTS

Table 1 . Results of Breeding Bird Surveys.

Common Name	Scientific Name	Breeding Bird Stations and Breeding Status ¹	
		Subject Lands	Adjacent Lands
American Goldfinch	<i>Spinus tristis</i>	Pr	
American Robin	<i>Turdus migratorius</i>	Pr	
Blue Jay	<i>Cyanocitta cristata</i>	Pr	
Brown-headed Cowbird	<i>Molothrus ater</i>		Pr
Carolina Wren	<i>Tbryothornus ludovicianus</i>		Pr
Downy Woodpecker	<i>Dryobates pubescens</i>	Pr	
Eastern Phoebe	<i>Sayornis phoebe</i>		Pr
Eastern Wood-pewee	<i>Contopus virens</i>		Pr
European Starling	<i>Sturnus vulgaris</i>		Pr
Gray Catbird	<i>Dumetella carolinensis</i>	Pr	
House Sparrow	<i>Passer domesticus</i>		Pr
Northern Cardinal	<i>Cardinalis cardinalis</i>	Pr	
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>		Pr
Ring-billed Gull	<i>Larus delawarensis</i>		O
White-breasted Nuthatch	<i>Sitta carolinensis</i>	Pr	

¹ All species recorded (with the exception of flyovers) are considered “Probable Breeders”.

Appendix 6. Significant Wildlife Habitat Assessment

Table 1. Results of the Significant Wildlife Habitat Assessment.

Ecoregion 7E	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 7E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 7E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Seasonal Concentration Areas of Animals			
Waterfowl Stopover and Staging Areas (Terrestrial)	No. Meadows, fields, and/or thickets that annually flood during spring and could support significant congregations of migrating waterfowl are absent.	--	--
Waterfowl Stopover and Staging Areas (Aquatic)	No. Large surface water features (e.g., ponds, lakes, bays, coastal inlets, large watercourses, etc.) and/or wetlands that annually flood during spring could support significant congregations of migrating waterfowl are absent.	--	--
Shorebird Migratory Stopover Areas	No. Unvegetated open areas adjacent to surface water features (e.g., shorelines, beaches, mudflats, etc.) and could support significant congregations of migrating shorebirds are absent	--	--
Raptor Wintering Areas	No. While forest and meadow habitats are present, which may occasionally support wintering raptors, such habitats are too small to support significant congregations of wintering raptors.		--
Bat Hibernacula	No. Natural features and habitats that could support hibernating bats (e.g., caves, mine shafts, crevices, karsts, etc.) are absent.	--	--
Bat Maternity Colonies	Yes. Mature deciduous and mixed forests with a high-density (i.e., >10/ha) of large-diameter (i.e., ≥25 cm DBH) trees containing cracks/cavities are present on the Subject Property.	Unknown. Acoustic monitoring devices not deployed as part of this study.	Negligible. Development and site alteration activities are restricted from the boundary (i.e., dripline) of the remaining forest, which has the greatest likelihood of supporting maternal colonies of this species. Any necessary removal of trees outside of the forest, which are unlikely to support maternal roosting colonies of this species, will be subject to a timing restriction. See report for greater details.
Turtle Wintering Areas	No. Surface water features and/or wetlands with soft muddy substrate which do not freeze to the bottom during winter are absent.	--	--
Reptile Hibernaculum	No. Features (e.g., small mammal burrows, rock crevices, etc.) and/or habitats (e.g., certain wetlands with a fluctuating water table, etc.) that could provide snakes with access below the frost line are not present.	--	--
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	No. Features that could support nesting by Cliff Swallow and Northern Rough-winged swallow (e.g., eroding banks, sandy hills, borrow pits, steep slopes, cliff faces, etc.) are absent.	--	--
Colonially - Nesting Bird Breeding Habitat Breeding Habitat (Tree/Shrubs)	No. Swamp and treed fen communities are absent.	--	--
Colonially - Nesting Bird Breeding Habitat (Ground)	No. Rocky islands or peninsulas along lakes or large rivers are absent.	--	--
Migratory Butterfly Stopover Areas	No. While forest and (to a lesser extent) meadow habitats are present, which may occasionally support migrating butterflies, the habitats on the Subject	--	--

Ecoregion 7E	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 7E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 7E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
	Lands are too small to support significant congregations of migrating butterflies.		
Landbird Migratory Stopover Areas	<u>Yes.</u> Woodlands on the Subject Property are located within 5 km from the shoreline of Lake Ontario.	<u>Unknown.</u> Spring migration surveys were not undertaken.	<u>Negligible.</u> Development and site alteration activities are restricted from the boundary (i.e., dripline) of the remaining forest, which has the greatest likelihood of supporting migratory passerines.
Deer Winter Congregation Areas	<u>No.</u> The Subject Property and/or Adjacent Lands have not been identified as a deer wintering area by MNRF.	--	--
Rare Vegetation Communities or Specialized Habitats for Wildlife			
Cliffs and Talus Slopes	<u>No.</u> Cliffs and talus slope communities are absent.	--	--
Sand Barren	<u>No.</u> Sand barren communities are absent.	--	--
Alvar	<u>No.</u> Flora characteristic of alvars are absent.	--	--
Old Growth Forest	<u>No.</u> Despite the presence of certain mature/old trees, this feature occurs in a residential area and exhibits considerable disturbance.	--	--
Savannah	<u>No.</u> Flora characteristic of savannahs are absent.	--	--
Tallgrass Prairie	<u>No.</u> Flora characteristic of tallgrass prairies are absent.	--	--
Other Rare Vegetation Community	<u>No.</u> Provincially rare vegetation communities are absent.	--	--
Waterfowl Nesting Area	<u>No.</u> Wetland communities are absent.	--	--
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	<u>Yes.</u> Forest communities adjacent to large surface water features are absent.	<u>No.</u> Stick nests are absent, visibility of the canopy benefited from considerable defoliation by Gypsy Moth.	--
Woodland Raptor Nesting Habitat	<u>Yes.</u> On-site forest communities may support nesting raptors.	<u>No.</u> Stick nests are absent, visibility of the canopy benefited from considerable defoliation by Gypsy Moth. Cavities that could support Barn Owl are also absent.	--
Turtle Nesting Areas	<u>No.</u> Exposed mineral soils adjacent to surface water features (e.g., lakes, ponds, etc.) and/or wetlands that may support turtles are absent.	--	--
Seeps and Springs	<u>No.</u> Areas where groundwater emerges at the surface and may support specialized habitat for plants and wildlife are absent.	--	--
Amphibian Breeding Habitat (Woodland)	<u>No.</u> Forests with wetlands, ponds, and/or pools that may support significant congregations of breeding amphibians are absent.	--	--
Amphibian Breeding Habitat (Wetlands)	<u>No.</u> Wetlands and surface water features (e.g., ponds, lakes, etc.) that may support significant congregations of breeding amphibians are absent.	--	--

Ecoregion 7E	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 7E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 7E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Woodland Area-Sensitive Bird Breeding Habitat	No. Interior forest interior conditions (i.e., >200 m from edge) are absent.	--	--
Habitat for Species of Conservation Concern			
Marsh Bird Breeding Habitat	No. Wetlands with shallow water and emergent aquatic vegetation are absent.	--	--
Open Country Bird Breeding Habitat	No. Meadow habitats of sufficient size are absent.	--	--
Shrub/Early Successional Bird Breeding Habitat	No. Shrub/early-successional habitats of sufficient size are absent.	--	
Terrestrial Crayfish	No. Marsh and swamp communities and/or wet fields are absent.	--	--
Special Concern and Rare Wildlife Species	Yes. See Table 2 below.	Yes. See Table 2 below.	Possible. See Table 2 below.
Animal Movement Corridors			
Amphibian Movement Corridors	No. Significant amphibian breeding habitat is absent. Subject Property is not expected to act as a significant movement corridor between breeding and summer habitat for amphibians.	--	--

Table 2. Results of the Special Concern and Provincially Rare Species Assessment.

Species	Status per O. Reg. 230/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Birds					
Black Tern (<i>Chlidonias niger</i>)	SC	OBBA	<ul style="list-style-type: none">Forages and nests in freshwater marshes with floating vegetation mats.	Negligible. Suitable breeding habitat is absent.	--
Canada Warbler (<i>Cardellina canadensis</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in a wet thickets, swamps, and mature deciduous forest.	Unlikely. Species was not documented during the site visit. Potential breeding habitat on the Subject Property is marginal.	--
Common Nighthawk (<i>Chordeiles minor</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in a variety of open habitats with sparse cover of woody vegetation.Also occupies urban areas and nests on flat roof tops.	Negligible. Suitable breeding habitat is absent.	--
Eastern Wood-pewee (<i>Contopus virens</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in relatively open, deciduous and mixed forests of various sizes (including urban forest fragments) and along forest edges.	Confirmed. Woodland south of Heartwood Court provides habitat for Eastern Wood-pewee. Woodlands on the Subject property could potentially provide habitat as well.	Negligible. Species recorded on Adjacent Lands only. Proposed development and disturbance will not adversely affect habitat for this species given the recommended 50 m dripline setback..
Golden-winged Warbler (<i>Vermivora chrysoptera</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in thickets and early-successional forests/thickets adjacent to deciduous or mixed forest.	Negligible. Suitable breeding habitat is absent.	--
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in hayfields, savannahs, pastures, meadows, grasslands, and prairies.	Negligible. Suitable breeding habitat is absent.	--
Peregrine Falcon (<i>Falco peregrinus</i>)	SC	OBBA	<ul style="list-style-type: none">Nests on tall, steep ledges usually close to waterbodies, including cliffs, quarry walls, and buildings.	Negligible. Suitable breeding habitat is absent.	--
Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in open forests, savannahs, and forest edges that tend to contain large, mature trees.	Unlikely. Species was not documented during the site visit. Potential breeding habitat on the Subject Property is marginal.	--
Short-eared Owl (<i>Asio flammeus</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in a variety of open habitats.Overwinters in similar habitats as breeding and foraging areas.	Negligible. Suitable breeding habitat is absent.	--
Wood Thrush (<i>Hylocichla mustelina</i>)	SC	OBBA	<ul style="list-style-type: none">Breeds and forages in second-growth and mature deciduous and mixed forests with a well-developed understory.	Negligible. Suitable breeding habitat is absent.	--
Insects					
Monarch (<i>Danaus plexippus</i>)	SC	Ont. Butterfly Atlas	<ul style="list-style-type: none">Oviposits on Milkweeds (<i>Asclepias</i> spp.).Generalist foraging that nectars in most areas with wildflowers.	Possible. Ovipositing sites (i.e., species in the genus <i>Asclepias</i>) are present, and species may forage on the Subject Property.	Negligible. Areas of proposed development and disturbance lack Milkweed. The landscape surrounding the Study Area provides nectaring and ovipositing sites for this species.
Yellow Banded Bumble Bee (<i>Bombus terricola</i>)	SC	Distribution and on-site habitat conditions	<ul style="list-style-type: none">Occupies a range of open areas with nectaring sites.Nests underground in abandoned rodent burrows or decomposing logs.	Possible. Species is a habitat generalists and occupies a wide range of areas.	Negligible. Proposed development and disturbance will not adversely affect nectaring opportunities for this species.

Species	Status per O. Reg. 230/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Reptiles					
Northern Map Turtle (<i>Graptemys geographica</i>)	SC	NHIC	<ul style="list-style-type: none">Occupies lakes and large rivers with slow moving currents.Nests in exposed, usually coarse, friable substrate.	Negligible. While species is known to occur in the adjacent Credit River marshes, suitable basking and overwintering habitat is absent from the Subject Property.	--
Snapping Turtle (<i>Chelydra serpentina</i>)	SC	NHIC	<ul style="list-style-type: none">Occupies a variety of aquatic habitats with slow moving water.Nests in exposed, usually coarse, friable substrate.Known to make long-distance overland movements (i.e., several kilometers) between habitats.	Negligible. While species is known to occur in the adjacent Credit River marshes, suitable basking and overwintering habitat is absent from the Subject Property.	--

¹ Likelihood categories should be interpreted as follows:
Negligible: so limited that the assessed species can be assumed absent.
Unlikely: while theoretically conceivable, species presence very improbable or temporary based on available information (e.g., habitat conditions, range, abundance in local landscape, etc.).
Possible: species presence plausible based on available information; no convincing evidence suggesting species could not occur on-site.
Probable: while not confirmed, available information suggests species has a high likelihood of being present.
Confirmed: species observed and/or evidence of occupation (e.g., tracks, etc.) documented.

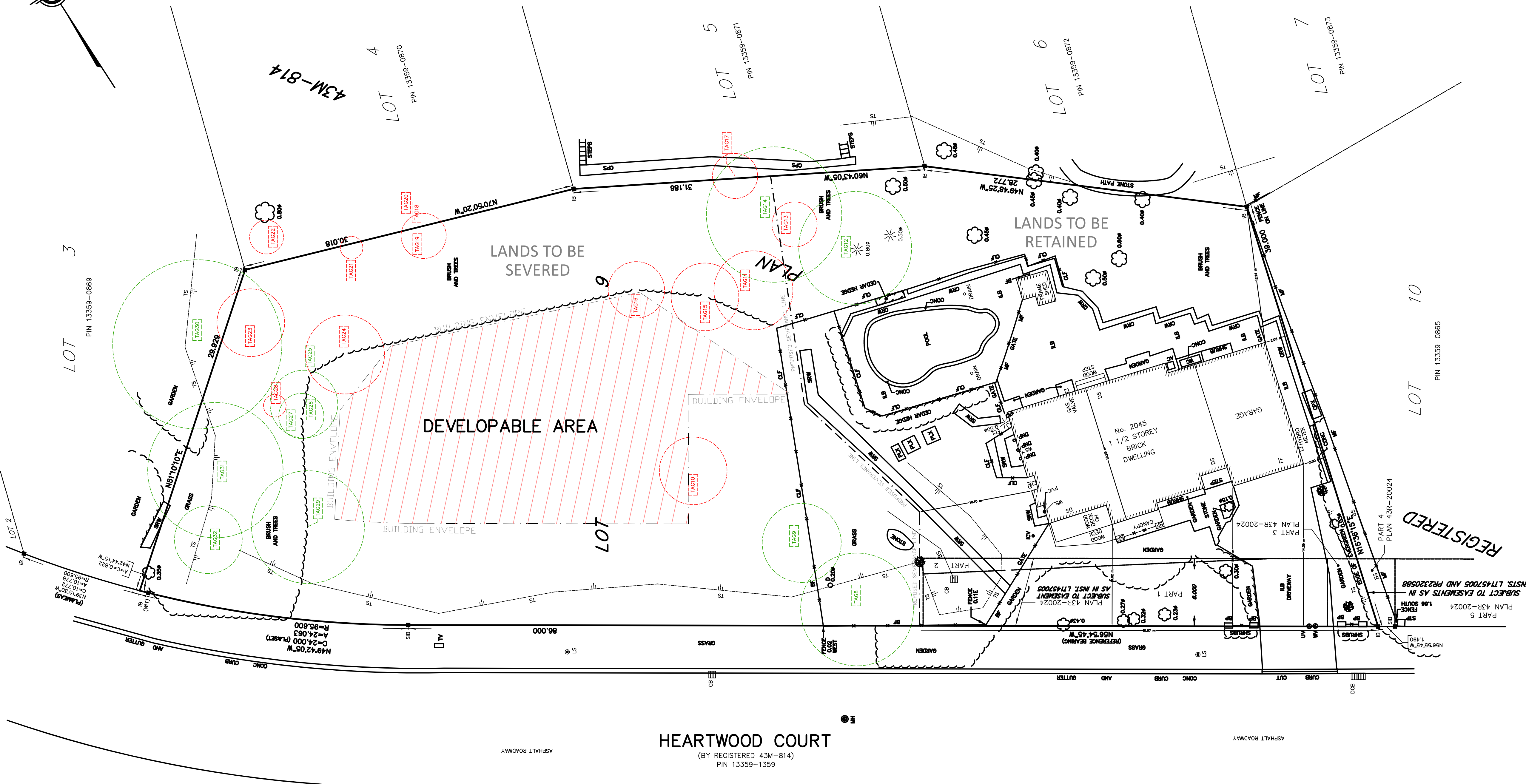
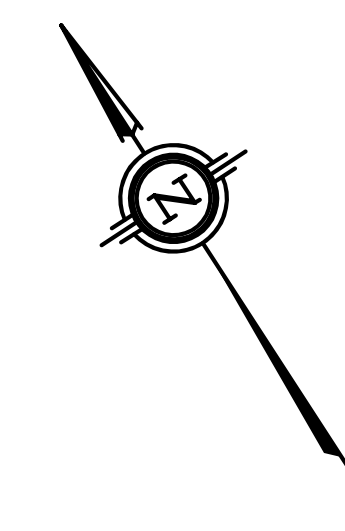
Appendix 7. Endangered and Threatened Species Assessment

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “Damage” or “Destruction” as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Birds					
Acadian Flycatcher (<i>Empidonax virescens</i>)	END	OBBA	<ul style="list-style-type: none">Breeds and forages in mature, relatively undisturbed deciduous forest and swamps, often in valleys/ravines.	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Bank Swallow (<i>Riparia riparia</i>)	THR	OBBA	<ul style="list-style-type: none">Nests in natural or anthropogenically derived exposed, sandy substrates on vertical or steep surfaces.Forages in a variety of open areas including agricultural lands, meadows, prairies, woodland clearings, marshes, and above waterbodies.	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Barn Swallow (<i>Hirundo rustica</i>)	THR	OBBA	<ul style="list-style-type: none">Nests in barns, bridge/culvert undersides, awnings/overhangs on sides of buildings, and (historically) tree cavities.Forages in a variety of open areas including agricultural lands, meadows, prairies, woodland clearings, marshes, and above waterbodies.	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Bobolink (<i>Dolichonyx oryzivorus</i>)	THR	OBBA, NHIC	<ul style="list-style-type: none">Breeds and forages in hayfields, pastures, meadows, grasslands, and prairies which are often (but not always) greater 4 ha.May be found in more marginal habitats (e.g., shrubby fields, smaller fields, etc.) during migration or following disturbance to breeding habitats (e.g., hay cutting).	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Cerulean Warbler (<i>Setophaga cerulea</i>)	THR	OBBA	<ul style="list-style-type: none">Breeds and forages in mature and second-growth deciduous forest with a relatively open understory.	Negligible. Suitable breeding habitat is absent from the Subject Property.	
Chimney Swift (<i>Chaetura pelagica</i>)	THR	OBBA	<ul style="list-style-type: none">Nests in large, uncapped chimneys and (historically) tree cavities.May forage above a wide variety of anthropogenic (e.g., cities, towns) and natural (e.g., fields, forests) areas.	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Eastern Meadowlark (<i>Sturnella magna</i>)	THR	OBBA, NHIC	<ul style="list-style-type: none">Breeds and forages in hayfields, savannahs, pastures, meadows, grasslands, prairies, and shrubby fields.	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Henslow’s Sparrow (<i>Ammodramus henslowii</i>)	END	NHIC	<ul style="list-style-type: none">Breeds and forages in hayfields, pastures, meadows, and wet meadows.	Negligible. Suitable breeding habitat is absent from the Subject Property.	
Least Bittern (<i>Ixobrychus exilis</i>)	THR	OBBA	<ul style="list-style-type: none">Breeds and forages in marshes dominated by robust emergent vegetation containing areas of open water (i.e., interspersion).	Negligible. Suitable breeding habitat is absent from the Subject Property.	--
Fish					
American Eel (<i>Anguilla rostrata</i>)	END	NHIC	<ul style="list-style-type: none">May occupy all freshwater, estuary, and coastal marine waters accessible to the Atlantic Ocean.	Negligible. Suitable habitat for this species is absent from the Subject Property.	--
Lake Sturgeon (Great Lakes – Upper St. Lawrence River Population) (<i>Acipenser fulvescens pop 3</i>)	END	NHIC	<ul style="list-style-type: none">Lives almost exclusively in freshwater lakes and rivers with soft bottoms of mud, sand or gravel.Usually found at depths of five to 20 metres.Spawn in relatively shallow, fast-flowing water (usually below waterfalls, rapids, or dams) with gravel and boulders at the bottom.	Negligible. Suitable habitat for this species is absent from the Subject Property.	--

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “Damage” or “Destruction” as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Redside Dace (<i>Clinostomus elongatus</i>)	END	NHIC	<ul style="list-style-type: none">Occupies pools and low-velocity areas of small coolwater streams.	Negligible. Suitable habitat for this species is absent from the Subject Property.	--
Shortnose Cisco (<i>Coregonus reighardi</i>)	END	DFO	<ul style="list-style-type: none">Lives in the deep, cold water of the Great Lakes, usually at depths between 22 to 110 metres.	Negligible. Suitable habitat for this species is absent from the Subject Property.	--
Mammals					
Eastern Small-footed Myotis (<i>Myotis leibii</i>)	END	Habitat / Range Assessment	<ul style="list-style-type: none">Maternal roosting sites include exposed rock outcrops, crevices, and cliffs.Overwinters in caves and mines that maintain temperatures above 0°C.	Negligible. Suitable roosting habitat for this species is absent from the Subject Property.	--
Little Brown Myotis (<i>Myotis lucifugus</i>)	END	Habitat / Range Assessment	<ul style="list-style-type: none">Maternity roosts sites most often include buildings and large diameter trees with cracks, crevices, and/or exfoliating bark.Overwinters in caves and mines that maintain temperatures above 0°C.	Possible. Potentially suitable roosting habitat for this species is present within the woodland.	Negligible. The proposed development area is open necessitating limited tree removals. A timing window restriction will also be applied to tree removal activities to avoid impacting roosting bats (individuals or maternity colonies). Additional mitigation measures for construction and detailed design are also provided See report for greater details.
Northern Myotis (<i>Myotis septentrionalis</i>)	END	Habitat / Range Assessment	<ul style="list-style-type: none">Maternity roosts most often include large diameter trees with cracks, crevices, and/or exfoliating bark (buildings rarely used).Overwinters in caves and mines that maintain temperatures above 0°C.	Possible. Potentially suitable roosting habitat for this species is present within the woodland.	Negligible. The proposed development area is open necessitating limited tree removals. A timing window restriction will also be applied to tree removal activities to avoid impacting roosting bats (individuals or maternity colonies). Additional mitigation measures for construction and detailed design are also provided See report for greater details.
Tri-colored Bat (<i>Perimyotis subflavus</i>)	END	Habitat / Range Assessment	<ul style="list-style-type: none">Maternal roosting sites include Maple (<i>Acer</i> spp.) and Oak (<i>Quercus</i> spp.) with dead/dying leaf clusters.Overwinters in caves and mines that maintain temperatures above 0°C.	Possible. Potentially suitable roosting habitat for this species is present within the woodland.	Negligible. The proposed development area is open necessitating limited tree removals. A timing window restriction will also be applied to tree removal activities to avoid impacting roosting bats (individuals or maternity colonies). Additional mitigation measures for construction and detailed design are also provided See report for greater details.
Plants					
American Chestnut (<i>Castanea dentata</i>)	END	NHIC	<ul style="list-style-type: none">Occupies dry deciduous forests.	Negligible. Species not documented during vascular plant survey.	--
Butternut (<i>Juglans cinerea</i>)	END	Habitat / Range Assessment	<ul style="list-style-type: none">Occupies a variety of treed habitats including mature forests, early-successional forests, and hedgerows.	Negligible. Species not documented during vascular plant surveys.	--

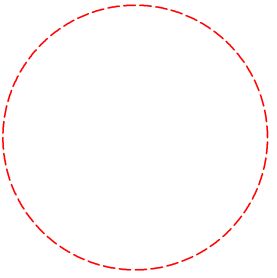
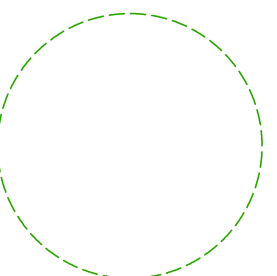
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Probable: while not confirmed, available information suggests species has a high likelihood of being present.
Confirmed: species observed and/or evidence of occupation (e.g., tracks, etc.) documented.

Appendix 8. Severance Sketch



HEARTWOOD COURT
(BY REGISTERED 43M-814)
PIN 13359-1359

LEGEND

-  TREES TO BE REMOVED
-  TREES TO BE PRESERVED


DEVELOPABLE AREA

2045 HEARTWOOD COURT

MISSISSAUGA, ONTARIO

SITE STATISTICS
EXISTING LOT AREA: 3,725.1 m ² (0.92 acres, 0.37 ha)
LANDS TO BE RETAINED: 1,639.4 m ²
LANDS TO BE SEVERED: 2,085.7 m ²
CURRENT ZONING: R1-13

BASE SURVEY INFORMATION FROM:



HOLDING JONES VANDERVEEN INC.
ONTARIO LAND SURVEYORS
1700 LANGSTAFF ROAD, SUITE 1002
VAUGHAN, ON L4K 3S3
PHONE: 905-660-4000 EMAIL: hjv@hvj-ola.ca

NOVEMBER 23/2020	DRAWN BY: J.Y.	CHKD. BY: G.V./J.P.	JOB NO: 20-2865 SRPR & TOPO
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NOTE: DRAWING IS
FOR DISCUSSION
PURPOSES ONLY

PROJECT FILE NO.
2018_41

SCALE: 1:200
WHEN PRINTED ON 24 X 36

DATE:
DECEMBER 18, 2020

DRAWN BY: S.C.
REVIEWED BY: T.G.



Urban in Mind

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Appendix 9. Summary of Technical Recommendations

Natural Feature	Technical Recommendations (per Section 5 of report)
Significant Woodlands	<ul style="list-style-type: none"> • All development features and site alteration (i.e., grading) within the proposed lot will be restricted a minimum of 5 m from the adjacent Significant Woodland, as shown in Figure 4. • A Woodland Enhancement Plan will be prepared to maintain and enhance the ecological values of the Significant Woodland. The Woodland Enhancement Plan shall include native tree/shrub plantings within the 5 m setback, along with native tree inter-plantings (particularly in canopy openings) within the woodland. • A native shrub buffer will demarcate the 5 m woodland setback to restrict human and pet encroachment into the Significant Woodland. • An invasive species management plan will be prepared and implemented to remove non-native invasive species (particularly European Buckthorn and Tartarian Honeysuckle) from the woodland.
Significant Wildlife Habitat	<ul style="list-style-type: none"> • A mix of the plant species listed on the CVC's Native Plant List for Migrating Birds should be incorporated into the Woodland Enhancement Plan. Where possible these species should also be incorporated into any landscaping. • Bird-Friendly Guidelines as published in the City of Mississauga Green Development Standards (Mississauga 2011) and City of Toronto Best Practices for Bird-Friendly Glass (Toronto 2016) and Best Practices for Effective Lighting (Toronto 2017) should be incorporated into the design of the residence on the severed lot.
Habitat of Endangered and Threatened Species	<ul style="list-style-type: none"> • Any necessary tree removal within the proposed development envelope will only take place between October 1 and April 30 to avoid the active season for bats. Should minor tree removal be required between May 1 and September 31, a qualified professional will complete an exit survey of suitable maternal roosting sites identified for removal a maximum of 24 hours before removal. The exit survey must make use of a bat detector and will occur for no less than the time period between sunset and 60 minutes after sunset. If an Endangered bat is identified during the survey, MECP should be contacted to obtain further direction prior to removal of the tree. • If construction activities occur during the active bat season (i.e., May 1 and September 31), work will be restricted to daylight hours only and the use of artificial lighting will be avoided. • Any lighting incorporated into the final building designs should be directed downward (i.e., towards the ground) and/or away from the adjacent woodlot to the extent practicable.
Other Natural Environment Considerations	<ul style="list-style-type: none"> • The removal of trees will be restricted to areas in direct conflict with the footprints of the proposed development features (e.g., residence, septic system, driveway, etc.) and grading, along with any hazardous trees in the immediate vicinity that pose an unacceptable risk to human life or property. • All necessary vegetation removal (e.g., trees, meadow vegetation, etc.) will be completed outside the primary bird nesting period (i.e., to be completed between September 1 and March 31). Should minor vegetation removal be proposed during the bird nesting period, a bird nesting survey will be undertaken to confirm the presence or absence of nesting birds or bird nests within or adjacent to the areas subject to vegetation clearance. The survey is to take place within 48 hours of vegetation removal. • The development and implementation of a sediment and erosion control plan will be required as part of the construction of any residence that will be built on the newly severed lot.