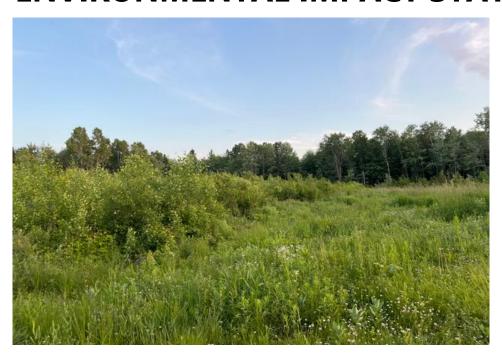
# **ENVIRONMENTAL IMPACT STATEMENT**



6688 Franktown Road, Richmond, Ontario

Project No.: CCO-25-1134

## Prepared for:

Venerable Jen Chun Kuan International Buddhist Progress Society of Ottawa - Carleton 6688 Franktown Road Richmond, Ontario KOA 2Z0

## Prepared by:

Egis Canada Ltd. 750 Palladium Drive, Unit# 310 Kanata, ON K2V 1C7



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K0A 2Z0

Prepared by:



Egis Canada Ltd. 750 Palladium Drive Kanata, Ontario KOA 1L0

August 29, 2025

Prepared by:

Reviewed by:

Jesse Lewis Biologist, Natural Sciences Egis Christian Lyon Manager, Natural Sciences Egis



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#### 1.0 PROPERTY INFORMATION AND INTRODUCTION

Egis Canada Ltd. (Egis) was retained by the International Buddhist Progress Society Ottawa - Carleton (the Client) to prepare a Preliminary *Environmental Impact Statement* (EIS) for the proposed lot redevelopment at 6688 Franktown Rd in Richmond, Ontario, legally known as "PCL 19-1, SEC GB-3; PT LT 19, CON 3, PT 1, 4R7040; GOULBOURN". The subject property is located west of the Village of Richmond, with 259 metres (m) of frontage on the south side of Franktown Road, approximately 620 m west of Joy's Road. The total size of the subject property is 39.89 hectares (ha), but the proposed lot redevelopment will only occur within a 4.52 ha section on the north end of the property. The 4.52 ha disturbance footprint, in addition to a 120 m surrounding buffer area, is the focus of the EIS and is herein referred to as the study area.

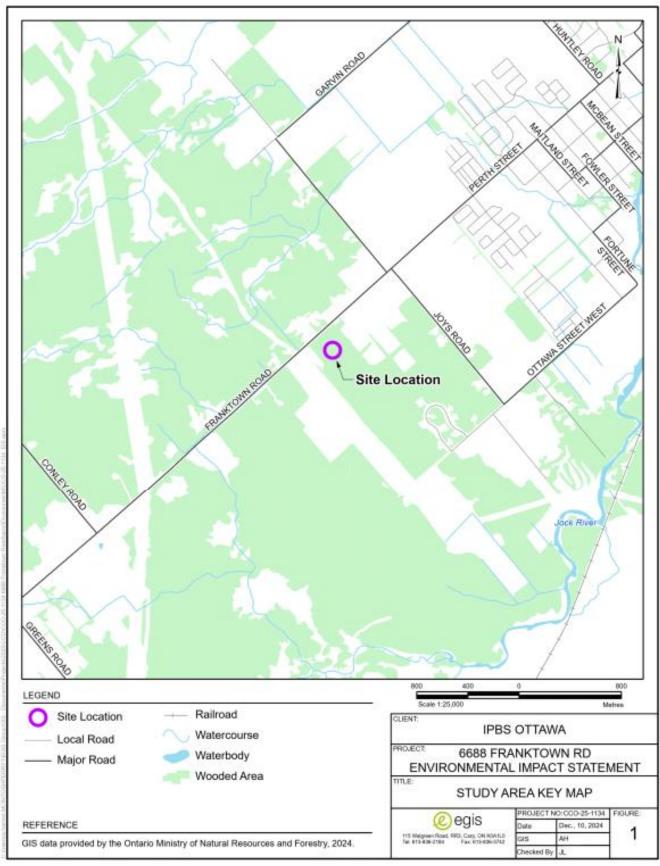
In March of 2019, an EIS was written by McIntosh Perry Consulting Engineers Ltd. (now Egis Canada Ltd.) and was submitted to Bing Professional Engineering Inc. for 6688 Franktown Road prior to the Phase 1 development of the property that involved the vegetation clearing and the construction of current buildings and infrastructure. Phase 2 development of the property involves reconfiguring and expanding on the development. In January of 2025 a Preliminary EIS was developed by Egis in preparation for the 2025 field season when a more thorough environmental assessment that involved targeted Species at Risk (SAR) surveys were to occur. This report intends to act as a revision of the Preliminary EIS with the information that was collected through the 2025 field season.

The City of Ottawa requires an EIS be carried out for the subject property, as it relates to the proposed development plans and their impact on the property's natural heritage features and ecological function. This EIS assesses the potential impacts that the development of a place of worship and associated infrastructure may have upon the existing woodlands, natural heritage features, including Significant Woodlands and SAR and their habitat. The potential for Significant Wildlife Habitat (SWH) and other features that form the City of Ottawa's natural heritage system has been considered in the development of this EIS. If identified, impacts on these natural heritage features within the study area because of the proposed development will be outlined, and, if applicable, mitigation measures for each will be provided.

The study area (**Figure 1, Photos 1 to 16**) includes a 4.52 ha area of proposed development that contains the Fo Guang Shan Buddhist Temple, parking lot, garden, children's play area, septic system, and outbuildings. The property is boarded by rural residential properties to the east and west, with Franktown Rd to the north and a 35-ha woodlot to the south. two small ephemeral wet depressions are present on the property; in addition, unevaluated wetlands occur within 200 m, and Provincially Significant Wetlands (PSW) occur within 300 m of the property. The study area is within the municipality of the City of Ottawa and the Township of Goulbourn, Ontario, and within the Rideau Valley Conservation Authority (RVCA) district.

This EIS report was prepared in accordance with applicable policies and regulations described below in **Section 2.0.** 







# 2.0 LEGISLATION, POLICY, AND REGULATORY OVERVIEW

This report has been prepared to address policies and guidelines from legislation relevant to municipal development within the *City of Ottawa Official Plan*, as well as provincial policies including the *Provincial Planning Statement* (PPS), the *Conservation Authorities Act* and the *Endangered Species Act*, 2007 (ESA). Additionally, the report also addresses federal policies, where applicable, related to the *Fisheries Act*, *Migratory Birds Convention Act*, 1994 (MBCA), and the *Species at Risk Act* (SARA).

The policy documents discussed below were used to scope the field survey and impact assessments, assess the natural heritage features and functions of the study area, as well as to determine natural heritage constraints within the study area.

## 2.1 Municipal Policy

#### 2.1.1 City of Ottawa Official Plan

Per the *City of Ottawa Official Plan*, the subject property was part of a Zoning By-law Amendment in 2007 (By-law No. 2007-385), which amended the former Township of Goulbourn Zoning By-law No. 40-99, now reflected in the City of Ottawa Zoning By-law 2008-250. The amendment changed the zoning category applicable to the front (northern) portion of the subject lands (approximately 22 ha) to site-specific Rural Institutional "RI[643r]" Zone. The RI[643r] Zone permits a place of worship, day nursery, accessory pagoda and accessory rooming house. The zoning category applicable to the rear (southern) portion of the subject lands (approximately 18 ha) is site-specific Rural Countryside "RU[644r]" Zone.

The proposed temple supports the City's policy intention. Policy 3.7.2.5(e) is particularly noteworthy as it expressly identifies a place of worship as a permitted use, subject to a zoning by-law amendment:

Pol. 3.7.2.5 A zoning by-law amendment will be required where any of the following uses are proposed in General Rural Areas: (e) "New institutional uses such as places of worship and school should ideally be located within a Village but may be considered in close proximity to a Village where Village land is insufficient or inappropriate. The expansion of existing institutional uses will be evaluated on their merits and by those matters included in policy 6 below."

A site-specific Zoning By-law Amendment was obtained specifically to accommodate the proposal.

## 2.2 Provincial Legislation and Policy

#### 2.2.1 Provincial Planning Statement

The new Provincial Planning Statement (PPS) was approved by the lieutenant Governor in Council and came into effect on October 20, 2024. Decisions made by Planning Authorities shall be consistent with the policy statements issued under the *Planning Act*, such as the PPS, which includes policies on development and land use patterns,



resources and public health and safety. Section 4.1 of the PPS deals with Natural Heritage and requires natural heritage systems to be identified in various Ecoregions including Ecoregion 6E, which includes the study area.

#### 2.2.2 Endangered Species Act

The ESA, 2007 protects habitat and individuals of wildlife species designated as threatened, endangered, or extirpated in Ontario. Provincial SAR are identified and assessed by the Committee on the Status of Species at Risk in Ontario (COSSARO).

The ESA protects species and their habitats by prohibiting anyone from killing, harming, harassing, or possessing protected species, as well as prohibiting any damage or destruction to the habitat of protected species. All listed species are provided with general habitat protection under the ESA aimed at protecting areas that species depend on to carry out their life processes, such as reproduction, rearing, hibernation, migration or feeding. Some species have had detailed habitat regulations passed that go beyond the general habitat protection to define specifically the extent and character of protected habitats.

#### 2.2.3 Fish and Wildlife Conservation Act

The Ontario *Fish and Wildlife Conservation Act*, 1997 (FWCA) provides protection to many birds, mammals, reptiles, amphibians, and invertebrates. FWCA legislation prohibits hunting (killing, capturing, injuring, and harassing) and trapping of 'specially protected wildlife' as defined in *O. Reg. 699/98* of the Act. Birds that are not protected by the MBCA, such as raptors including Peregrine Falcon (Falco peregrinus), and bats that are not protected by SARA or the ESA may receive protection for individuals and their habitat (e.g., nests, roosts) under the FWCA.

## 2.3 Federal Legislation and Policy

#### 2.3.1 Migratory Birds Convention Act

The *MBCA*, 1994 protects migratory birds and their nests (S.4). Published in Part 1 of the Canada Gazette on June 1, 2019, proposed updates to the MBCA Regulations were released. Proposed prohibitions under the Regulations are as follows:

Section 5 (1) – A person who does not hold a permit authorizing one or more of the following activities or who is not otherwise authorized by these Regulations to carry out that activity must not:

- a) Capture, kill, take, injury or harass a migratory bird
- b) Destroy, take or disturb an egg; or
- c) Damage, destroy, remove, or disturb a nest, nest shelter, eider duck shelter or duck box

Exemptions under the Regulations are as follows:

Section 5 (2) – However, the following may be damaged, destroyed, removed or disturbed without a permit:

a) A nest shelter, eider duck shelter or duck box that does not contain a live bird or viable egg



- b) A nest that was built by a species that does not appear in a Table to Schedule 1 if that nest does not contain a live bird or a viable egg; and
- c) A nest that was built by a species that appears in a Table to Schedule 1 if the following conditions are met:
  - i. The person who damages, destroys, removes or disturbs that nest provided written notice to the Minister a number of months beforehand that corresponds to the number of months set out in column 4 of the relevant Table to that schedule for the species, and
  - ii. The nest has not been used by migratory birds since the notice was received by the Minister.

#### 2.3.2 Fisheries Act

The Fisheries Act, 1985 protects fish and fish habitats (S. 34) within Canadian waters. Under the recently amended fish and fish habitat protection provisions of the Fisheries Act, any works, undertaking or activity of a project must incorporate measures to avoid causing the death of fish and the harmful alteration, disruption, or destruction (HADD) of fish habitat. To assist proponents with determining if their project will comply with the fish and fish habitat provisions, DFO has outlined several measures to protect fish and fish habitat as well as several standards and codes of practices (DFO, 2019). If it is determined that a project can't completely implement the measures to protect fish and fish habitat and if the standards and codes of practice don't apply or are considered non-applicable to the project, then it is recommended that the proponent request a review of the project by DFO. If it has been determined that a project can't avoid and/or mitigate impacts that will cause death of fish, a HADD to fish habitat and/or aquatic species at risk protected under the SARA, an Authorization under the Fisheries Act may be required (DFO, 2019).

## 2.4 Summary of Policy Implications

The policies summarized above provide the context within which the approval of the client's proposed redevelopment will be granted from a natural environment perspective. The corresponding opportunities and constraints established by these policies and supporting guidelines should be recognized and addressed through the development design, location and supporting documentation, including the identification of appropriate mitigation and compensation measures to offset potential negative impacts.



## 3.0 METHODOLOGY

## 3.1 Background Information

The fieldwork for the original EIS that was developed in 2019 took place in the summer of 2018. The fieldwork for the Preliminary EIS (2025) took place on October 29, 2024. The Preliminary EIS (2025) recommended targeted surveys for the spring and summer of 2025, which occurred on May 5, May 20, June 12, June 23 and June 24 of 2025. The field visits and desktop review for this EIS was compared to the 2025 Preliminary EIS and updated accordingly.

The following background documentation and related information sources were reviewed to identify natural heritage features and constraints in the study area:

- Ontario's Natural Heritage Information Centre (NHIC) (Ministry of Natural Resources [MNR], 2024a);
- Land Information Ontario (LIO) (MNR, 2024);
- Fish ON-line (MNR, 2024c);
- Satellite imagery (Google Earth Pro, 2024);
- City of Ottawa Official plan (2022); and
- Rideau Valley Conservation Authority (RVCA) Mapping Tool (2024).

Natural heritage information gathered during the literature review was used to identify potentially significant natural heritage features in the study area.

A list of SAR—designated under the federal SARA and/or Ontario's ESA as endangered, threatened or special concern—with potential to occur in the study area was developed by reviewing the following sources:

- Ontario's NHIC;
- Fisheries and Oceans Canada (DFO) Species at Risk Mapping (DFO, 2025b);
- Atlas of Breeding Birds of Ontario (OBBA) (Cadman et al., 2007);
- eBird Canada (eBird, 2025);
- Ontario Reptile and Amphibian Atlas (Toronto Entomologists' Association, 2025a);
- Ontario Butterfly Atlas Online (Toronto Entomologists' Association, 2025b); and
- Atlas of the Mammals of Ontario (Dobbyn, 1994).

Some of the sources above provide data at a scale as large as 10 x 10 km. Therefore, results were screened to assess their relevance to the study area, and species were removed from consideration if no suitable habitat was observed in the study area.

## 3.2 Field Investigations

In support of the client's proposed development, Egis performed a single site visit on October 29, 2024, to identify and classify the existing site conditions (e.g., vegetation communities) and confirm any natural heritage features in the study area that were identified through the background review process. The recommendations gathered



from that site assessment included spring and summer vegetation surveys, and SAR bat, birds, reptile, and amphibian surveys

**Table 1** outlines activities carried out within the study area during the 2024 field investigations.

Table 1: Summary of Field Investigation Activities								
Purpose of visit	Date	Start/End Time (24 hour)	Weather Conditions	Biologists				
<ul> <li>Site reconnaissance</li> <li>General/Significant Wildlife         Habitat Assessment</li> <li>Natural features         identification</li> <li>Butternut/Black Ash search</li> <li>SAR Bat Maternity Roost         Assessment</li> <li>Stream Assessment</li> <li>Ecological Land         Classification</li> </ul>	October 29, 2024	09:00 - 11:30	Temperature: -1°C Wind (Beaufort scale): 1 Cloud Cover: 50% (partly cloudy) Precipitation: No 24/hr. Precipitation: No	J. Lewis and D. Rice				
<ul> <li>SAR bird survey</li> <li>SAR vegetation Survey</li> <li>SAR amphibian Survey</li> <li>SAR Reptile Survey</li> <li>General/Significant Wildlife Habitat Assessment</li> <li>Natural features identification</li> </ul>	May 5, 2025	08:00 - 13:15	Temperature: 11°C Wind (Beaufort scale): 3 Cloud Cover: 75% (mostly cloudy) Precipitation: No 24/hr. Precipitation: No	J. Lewis				
<ul> <li>SAR bird survey</li> <li>SAR vegetation Survey</li> <li>SAR amphibian Survey</li> <li>SAR Reptile Survey</li> <li>General/Significant Wildlife Habitat Assessment</li> <li>Natural features identification</li> <li>Tree Inventory</li> </ul>	May 20, 2025	08:00 – 13:30	Temperature: 7°C Wind (Beaufort scale): 3 Cloud Cover: 20% (mostly sunny) Precipitation: No 24/hr. Precipitation: No	J. Lewis				



Table 1: Summary of Field Investigation Activities									
Purpose of visit	Date	Start/End Time (24 hour)	Weather Conditions	Biologists					
<ul><li>Tree Inventory</li><li>Evening SAR bat surveys</li></ul>	June 12 20, 2025	16:30 – 22:45	Temperature: 19°C Wind (Beaufort scale): 2 Cloud Cover: 10% (mostly sunny) Precipitation: No 24/hr. Precipitation: No	J. Lewis and D. Rice					
SAR bird survey	June 23 20, 2025	07:55 – 09:37	Temperature: 24°C Wind (Beaufort scale): 3 Cloud Cover: 0% (sunny) Precipitation: No 24/hr. Precipitation: No	J. Lewis					
Evening SAR bat surveys	June 24 20, 2025	20:15 – 23:15	Temperature: 26°C Wind (Beaufort scale): 1 Cloud Cover: 50% (partly cloudy) Precipitation: No 24/hr. Precipitation: Yes	J. Lewis and D. Rice					

#### 3.2.1 Ecological Land Classification and Vegetation

Initial characterization of existing vegetation communities was completed by interpreting available aerial imagery. Vegetation was identified, and communities were verified and assessed in the field within the study area following a meandering transect method. Community characterizations (ecosites and vegetation types) were based on the Ontario Ecological Land Classification (ELC) system (Lee *et. al.*, 2008).

The common names and scientific nomenclature of the species observed follow the provincial Ontario Species List—Vascular Plants. The provincial significance of vegetation communities and plant species was based on the rankings assigned by the NHIC.



#### 3.2.2 General Wildlife Habitat Assessment

General wildlife habitat assessments were completed in the study area during the survey above. This assessment focused on the identification of wildlife habitat features, specifically SWH features, as outlined in the MNR's Criteria Schedules for Ecoregion 6E (Ministry of Natural Resources and Forestry [MNRF], 2015). When encountered, these features were identified, recorded, and assessed for significance. All wildlife species were observed by sight, sound and/or through distinctive signs (e.g., tracks, scat, etc.).

Wildlife habitat suitability assessments were also completed for ESA protected species that may occur in the area, including species identified in the NHIC database and Ontario wildlife atlases during the background data review process.

#### 3.2.3 Significant Wildlife Habitat Assessment

To provide a comprehensive approach to identifying and evaluating SWH in the study area, significance has been determined based on guidance provided in the *Natural Heritage Reference Manual* (NHRM) (MNRF, 2010) and criteria from the *Significant Wildlife Habitat Ecoregion 6E Criterion Schedule* (MNRF, 2015) with support from the *Significant Wildlife Habitat Technical Guide* (SWHTG) (MNRF, 2000) as appropriate. The NHRM divides wildlife habitat into four broad categories:

- 1. Habitats of seasonal concentrations of animals;
- 2. Rare vegetation communities or specialized habitats for wildlife;
- 3. Habitats of species of conservation concern (excluding endangered and threatened species); and
- 4. Animal movement corridors.



# 4.0 EXISTING ECOLOGICAL CONDITIONS AND STUDY AREA DESCRIPTION

## 4.1 Existing Land Use

At the time of the last field investigation that occurred June 24, 2025, the study area was observed to contain a 4.19 ha open area with the existing Buddhist Temple and associated parking lot, paved basketball court and playground, two small ephemeral wet depressions, an open pine tree stand used for ceremonial purposes, septic system, and patches of manicured grass lawn. A single small storage structure is also present within the property. The study area is surrounded by rural properties that include forests and unevaluated wetlands, Provincially Significant Wetlands (PSW), agricultural fields, and a 0.8 ha unnamed pond.

## 4.2 Landforms, Soils and Geology

The geology of the 6E – 11 Smiths Falls Ecodistrict is influenced by the underlying Paleozoic dolomite and limestone bedrock, which is found throughout Smith Falls Ecodistrict 6E-11, except for the Frontenac Axis between Algonquin Park and the Adirondacks. The surficial geology of the study area is shown as being fine to medium-grained sand, which is calcareous and commonly fossiliferous in nature (Ontario Geological Survey 2010).

Regional physiography is characterized by medium acidic to neutral mineral material (95%) covering a rolling landscape, with several areas of bare bedrock outcroppings (Henson and Brodribb, 2005). The dominate substrate type are Gray Brown Luvisols and Melanic Brunisols.

## 4.3 Landscape Ecology

The study area is situated in the Smiths Falls Ecodistrict (6E-11) within the Lake Simcoe – Rideau Ecoregion. Over half of this Ecodistrict is covered by cropland and pastures (57%). Forest includes deciduous (16%), coniferous (5%) and mixed forests (9%), with large areas characterized by limestone and sandstone plains with ridges of siliceous ingenious bedrock, shallow to deep deposits of siliceous sand and moderate to high lime loam, silt, and clay. Land use in 6E-11 is driven by agriculture. Other less significant land uses are settlement and associated infrastructure (5%) and protected areas (7%) (Henson and Brodribb, 2005).

The study area is located in the Upper St. Lawrence section of the Great Lakes-St. Lawrence Forest Region, where the forests, are characterized by sugar maple (*Acer saccharum*), American beech (*Fagus grandifolia*), red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), basswood (*Tilia americana*), white ash (*Fraxinus americana*), largetooth aspen (*Populus grandidentata*), red oak (*Quercus rubra*), and bur oak (*Quercus macrocarpa*). Other tree species occurring in the Upper St. Lawrence section include white oak (*Quercus alba*), green ash (*Fraxinus pennsylvanica*), rock elm (*Ulmus thomassi*), blue-beech (*Carpinus caroliniana*), and bitternut hickory (*Carya cordiformis*). Coniferous trees such as eastern hemlock (*Tsuga canadensis*), white spruce (*Picea glauca*), and balsam fir (*Abies balsamea*) occur frequently on shallow, acidic, or eroding materials. Eastern white pine (*Pinus*)



strobus), red pine (*Pinus resinosa*), black spruce (*Picea mariana*), and eastern white cedar (*Thuja occidentalis*) may be found where soil conditions are favorable (Rowe, 1972).

## 4.4 Groundwater, Surface Water and Fish Habitat

The study area is situated within the Rideau Valley watershed within the Jock River Subwatershed boundaries (Jock River Subwatershed Report, 2016) and lies within 2 km of the Jock River. In addition, the adjacent lands of the study area contain the Richmond Fen, a PSW (300 m from the property). Additional unevaluated wetlands are also found within 200 m of the property. The wetlands that surround the study area are of marsh, swamp, fen and unknown types. A 0.8 ha pond is present withing the study area on the neighbouring property.

There are two small seasonal wet depressions with emergent vegetation (Cattail spp. [*Typha spp.*]) on the property. See **Figure 2** for the locations of these features. The depression on the western side of the property is approximately 205 m², and 50 cm at the deepest point (**Photos 9 to 11**), and the depression on the northern side of the property is ~325 m² and 40 cm at the deepest point (**Photos 7 and 8**). The size and depth were assessed during the May 5, 2025, site assessment when the ponds were at their deepest. It was confirmed that both are ephemeral as they were dry during the October 29, 2024, site assessment.

## 4.5 Natural Heritage Features

Using the provincial NHIC (2024a) and LIO (2024b) databases as well as the sources identified in **Section 3**, the following natural heritage features have been identified within 2 km the study area:

- Jock River (ARA, 2025);
- Woodland Areas (NHIC, 2025);
- Richmond Fen PSW (LIO, 2025); and
- Unevaluated wetlands (LIO, 2025).

The forest to the south of the proposed redevelopment area is classified as Significant Woodland. The City of Ottawa's "Significant Woodlands Guidelines for Identification, Evaluation, and Impact Assessment" (2016) defines a Significant Woodland as:

- **i.** Any treed area meeting the definition of woodlands in the Forestry Act, R.S.O. 1990, c. F.26 or forest in the Ecological Land Classification for Southern Ontario; and
- **ii**. In the rural area, meeting any one of the criteria in the Natural Heritage Reference Manual, as assessed in a sub-watershed planning context and applied in accordance with Council-approved guidelines, where such guidelines exist; or
- **iii.** In the urban area, any area 0.8 hectares in size or larger, supporting woodland 60 years of age and older at the time of evaluation.

6688 Franktown Road is considered a rural area in which the "Natural Heritage Reference Manual  $-2^{nd}$  Edition" (2010) dictates the definition of Significant Woodland as:



**Woodlands:** Treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of woodland products. Woodlands include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels.

**Significant:** An area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history.

Based on the above definitions, all forested vegetation communities within the study area (See **Section 4.6.1** below) and forested habitat to the south are classified as Significant Woodland based off this definition. These vegetation communities are contiguous within the subject property and contain moderate to mature-aged stands of trees (based on visual observation, tree coring was not performed to age the trees), interior forest habitat, and are adjacent (or within) a surface water feature (i.e., wetland). The property is indicated in Schedule C11 as part of the City of Ottawa Natural Heritage System due to the Significant Woodlands present that requires an EIS be developed to conform with the City of Ottawa Council-approved guidelines found in the Environmental Impact Statement Guidelines (2023).

## 4.6 Vegetation Cover

Vegetation surveys were completed during the 2024 and 2025 site visits. The following section outlines the existing vegetation communities within the study area. For a map of the vegetation communities present, refer to **Figure 2**. Photographs of the vegetation communities can be found in **Appendix A**. A complete listing of vegetation species observed within the study area during the 2024/2025 field investigations is found in **Table 2** in **Section 4.6.2**.

#### 4.6.1 Ecological Land Classification

#### 4.6.1.1 Vegetation Community 1: Fresh – Moist Deciduous Forest Ecosite (FOD7)

Vegetation Community 1 was classified through ELC as a Fresh – Moist Lowland Deciduous Forest Ecosite (FOD7) (**Photo 3 and 6**). This community was located at the north end of the property, adjacent to Franktown Road. The canopy of this community was dominated by poplar species, red maple, and green ash. Understory species included sensitive fern, marsh fern, alternate-leaved dogwood, and dwarf raspberry. These species are indicative of moist to wet soils.

## 4.6.1.2 Vegetation Community 2: Fresh – Moist White Cedar – Hardwood Mixed Forest (FOMM7)

Vegetation Community 2 was classified through ELC as a Fresh – Moist White Cedar – Hardwood Mixed Forest (FOMM7) (**Photo 2**). This community was located south of Vegetation Community 1. This canopy in this



community was dominated by eastern white cedar (Thuja occidentalis) and red maple (Acer rubrum). The understory was heavily vegetated.

#### 4.6.1.3 Vegetation Community 3: Dry White Pine – Red Pine Calcareous Bedrock Coniferous Forest (FOCS1-2)

Vegetation Community 3 was classified through ELC as Dry White Pine – Red Pine Calcareous Bedrock Coniferous Forest (FOCS1-2) (**Photo 5**). This community is 0.25 ha area within the subject property directly north of the existing temple is open white pine forest with little to no understory or shrub layer.

#### 4.6.1.4 Vegetation Community 4: Fresh – Moist Forb Meadow (MEFM4)

Vegetation Community 4 was classified through ELC as Fresh – Moist Forb Meadow (MEFM4) (**Photo 2**) that is approximately 0.25 ha in size. This community appears to be mowed regularly.

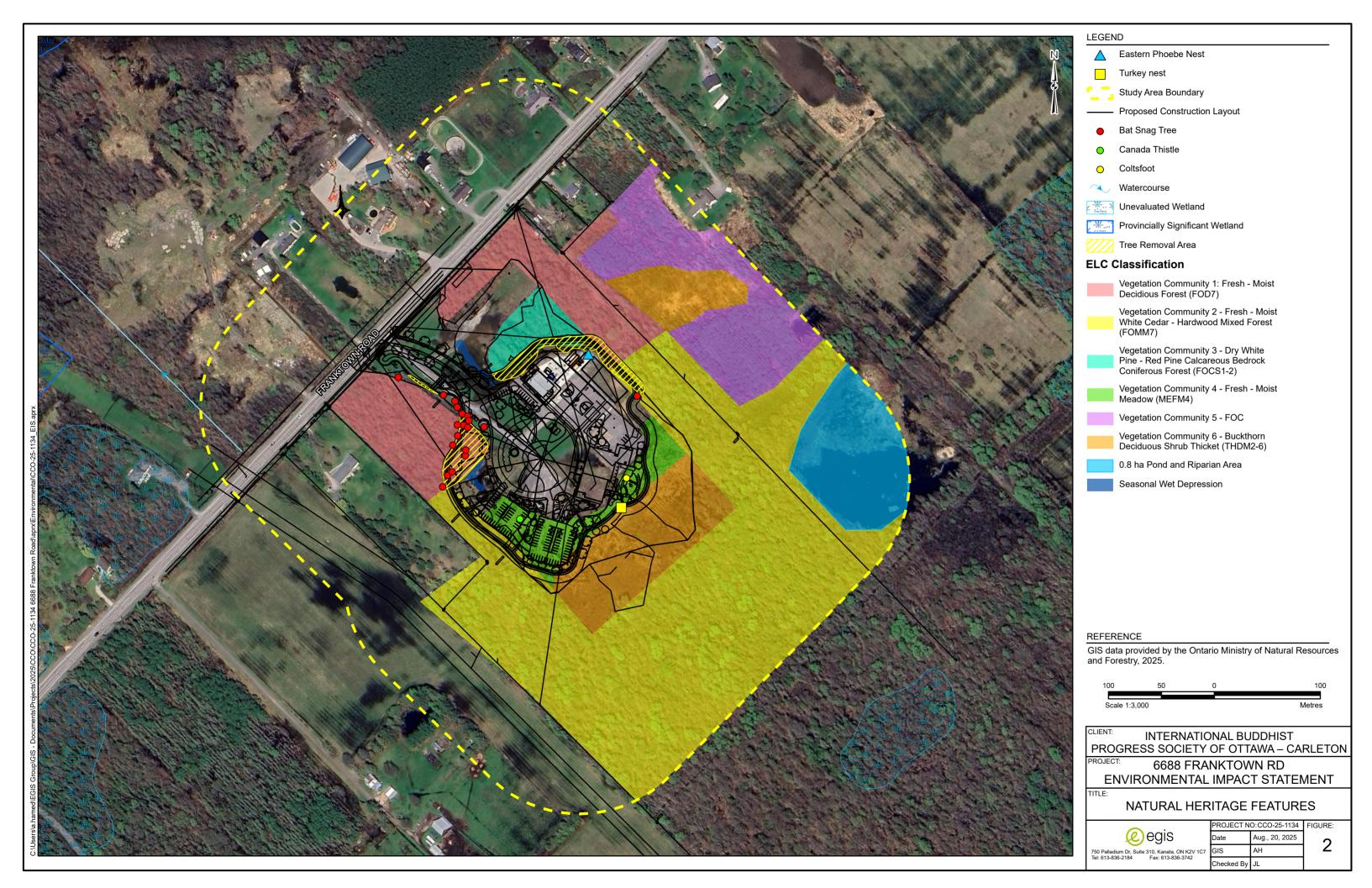
#### 4.6.1.5 Vegetation Community 5: Fresh – Coniferous Forest (FOC)

Vegetation Community 5 was classified through ELC as Fresh – Coniferous Forest (FOC) which makes up a 1.10 ha area in the adjacent property within the study area that contains planted rows of coniferous trees. This community was derived through the desktop review.

#### 4.6.1.6 Vegetation Community 6: Buckthorn Deciduous Shrub Thicket (THDM2-6)

Vegetation Community 6 was classified through ELC as Buckthorn Deciduous Shrub Thicket (THDM2-6) (**Photos 2 and 4**). Much of the lot redevelopment will expand into this vegetation community that is approximately 1.24 ha area. This early successional deciduous shrub thicket, that is composed of buckthorn, willow, and poplar. The vegetation present within this thicket indicates higher moisture levels due to the presence of some moisture-loving plants such as sedges, rushes, balsam poplar, and sphagnum moss. Additionally, 0.45 ha area that is on the adjacent property within the study area is present.





#### 4.6.2 Vascular Flora

During the 2024/2025 field visits, a total of 65 different vegetative species were observed, which are listed below in **Table 2**. No SAR vegetation species were observed.

	Table 2: Vegetation Specie	s Observed within the Study	/ Area
Common Name	Scientific Name	Common Name	Scientific Name
	Tre	ee Species	
American elm	Ulmus americana	ginko	Ginkgo biloba
balsam Fir	Abies balsamea	green ash	Fraxinus pennsylvanica
balsam poplar	Populus balsamifera	red maple	Acer rubrum
basswood	Tilia americana	red pine	Pinus resinosa
black cherry	Prunus serotina	sugar maple	Acer saccharum
common apple	Malus domestica	tamarack	Larix laricina
eastern cottonwood	Populus deltoides	trembling aspen	Populus tremuloides
eastern hemlock	Tsuga canadensis	white birch	Betula papyrifera
eastern white cedar	Thuja occidentalis	white pine	Pinus strobus
eastern white pine	Pinus strobus	white spruce	Picea glauca
	Shr	ub Species	
alder buckthorn	Frangula alnus	northern wild raisin	Viburnum cassinoides
alternate-leaved dogwood	Cornus alternifolia	red raspberry	Rubus idaeus
beaked hazelnut	Corylus cornuta	red-osier dogwood	Cornus stolonifera
dwarf raspberry	Rubus pubescens	staghorn sumac	Rhus typhina
European buckthorn	Rhamnus cathartica	thicket creeper	Parthenocissus vitacea
grey alder	Alnus incana	willow spp.	Salix spp.
nannyberry	Viburnum lentago	-	-
	For	b Species	
alfalfa	Medicago sativa	curled dock	Rumex crispus
American royal fern	Osmunda regalis	dandelion spp.	Taraxacum spp.
American vetch	Vicia americana	dog-strangling vine	Vincetoxicum rossicum
bitter wintercress	Barbarea vulgaris	fox sedge	Carex vulpinoidea



Table 2: Vegetation Species Observed within the Study Area										
Common Name	Scientific Name	Common Name	Scientific Name							
black-eyed susan	Rudbeckia hirta	greater mullein	Verbascum thapsus							
blue bead lily	Clintonia borealis	hedge bindweed	Calystegia sepium							
bog moss	Sphagnum sp.	horsetail spp.	Equisetum spp.							
bulblet fern	Cystopteris bulbifera	horseweed	Erigeron canadensis							
bunchberry	Cornus canadensis	intermediate woodfern	Dryopteris intermedia							
Canada mayflower	Maianthemum canadense	interrupted fern	Osmunda claytoniana							
Canada thistle	Cirsium arvense	lesser burdock	Arctium minus							
cattail spp.	Typha spp.	meadow hawkweed	Hieracium caespitosum							
common marsh bedstraw	Galium palustre	marsh fern	Thelypteris palustris							
common milkweed	Asclepias syriaca	nodding trillium	Trillium cernuum							
common motherwort	Leonurus cardiaca	northern blueflag	Iris versicolor							
common mugwort	Artemisia vulgaris	northern starflower	Lysimachia borealis							
common ragweed	Ambrosia artemisiifolia	perennial sow-thistle	Sonchus arvensis							
common selfheal	Prunella vulgaris	sensitive fern	Onoclea sensibilis							
coltsfoot	Tussilago farfara	wild parsnip	Pastinaca sativa							
garlic mustard	Alliaria petiolata	-	-							

#### 4.6.3 Landscape Planting Plan

The landscape plan, that is found within the Tree Conservation Report in **Appendix B**, outlines the species of trees and shrubs that are anticipated to be planted as part of the landscaping of the property. In total, 63 trees, comprising of 15 species, and 870 shrubs comprising of three (3) species are proposed as part of the planting plan. Of the 15 species, eight (8) are considered native to the Ottawa area, and seven (7) are non-native. The native species include bur oak (*Quercus macrocarpa*), eastern white cedar, Freeman's maple (*Acer x freemanii*), red maple, red oak (*Quercus rubra*), serviceberry, sugar maple, and white spruce. Of the three (3) species of shrubs, one (1) species is considered to be native to the area, the red-osier dogwood. In total, 63 trees and 870 shrubs are planned to be planted within the landscaping plan. Twenty-six trees will be from a native species, and 37 will be non-native, and 460 shrubs will be of a native species, while 410 will be non-native.

#### 4.6.4 Invasive and Noxious Vegetation Species

Dog-strangling vine was observed within the study area, and this species is listed as 'Restricted' under the *Invasive Species Act* (2015) and is also considered a 'Noxious weed' under the *Weed Control Act* (1990). Additionally,



coltsfoot, Canada thistle, common ragweed, perennial sow-thistle, wild parsnip, and European buckthorn were observed and are also classified as 'Noxious Weeds' under the *Weed Control Act* (1990).

## 4.7 Habitat for Species at Risk

Background information obtained from the sources listed in **Section 3.0** of this report, indicated that SAR and their habitat are potentially present within the study area.

SAR habitat in the study area is outlined in **Table 3** based on background information sources and habitat availability. The status of each species under the provincial ESA and the federal SARA are also listed in **Table 3**. Additional protection afforded to species under the provincial FWCA and federal MBCA are noted as well.



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
				Birds						
Bank Swallow <sup>2, 5</sup>	Riparia riparia	Threatened	Yes	Threatened	Yes	МВСА	No. No suitable steep banks exist within the study area to support the life processes of this species.			
Barn Swallow <sup>2, 5</sup>	Hirundo rustica	Special Concern	No	Threatened	Yes	МВСА	Yes, the existing buildings on the property are suitable; however, no evidence of nesting by this species was observed during the site assessments, although one (1) individual was observed flying over the site.			
Black Tern <sup>1,2</sup>	Chilodonias niger	Special Concern	No	No Status	No	МВСА	No, this species prefers to nest in shallow marshes. The subject property is greater than 300 m of the Richmond Fen PSW that may be suitable habitat for Black Tern.			
Bobolink <sup>1,2, 5</sup>	Dolichonyx oryzivorus	Threatened	Yes	Threatened	Yes	МВСА	No. There is no suitable grassland/open meadow habitat present within the study area.			
Canada Warbler <sup>2</sup>	Cardellina canadensis	Special Concern	No	Threatened	Yes	МВСА	Yes. There is suitable mixed forest with a well-developed shrub layer that the			



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
							species prefers to nest in present within the study area. This species was not detected during the bird surveys.			
Chimney Swift <sup>5</sup>	Chaetura pelagica	Threatened	Yes	Threatened	Yes	МВСА	No. There is no suitable habitat present within the study area.			
Common Nighthawk <sup>5</sup>	Chordeiles minor	Special Concern	No	Threatened	Yes	МВСА	Yes. Common Nighthawk breed in a wide variety of open habitats where bare ground is available for nesting. Nesting habitats include clear cuts, burns, rock outcrops, rocky areas, sandy coastal habitats, and flat gravel rooftops. Nests are built on the ground in well-drained areas near shade. During the 2024 site visit, it was observed to contain gravel areas that may be suitable for Common Nighthawk to nest in. No individuals or nests were observed during 2025 surveys.			
Eastern Meadowlark <sup>2, 5</sup>	Sturnella magna	Threatened	Yes	Threatened	Yes	MBCA	No. There is no suitable grassland/open meadow habitat present within the study area.			



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
Eastern Wood- pewee <sup>2</sup>	Contopus virens	Special Concern	No	Special Concern	Yes	МВСА	Yes. Species may be found within the general study area since it is surrounded by forested habitats (FOMM7 and FOD7). Eastern Woodpewee prefers mid-canopy deciduousmixed type forests. No individuals were detected.			
Golden-Winged Warbler <sup>2</sup>	Vermivora chrysoptera	Special Concern	No	Threatened	Yes	МВСА	Yes. Individuals prefer early successional forests with less dense cover. The Buckthorn Deciduous Shrub Thicket (THDM2-6) may be suitable for breeding; however, this species was not encountered during the surveys.			
Least Bittern <sup>2</sup>	Ixobrychus exilis	Threatened	Yes	Threatened	Yes	МВСА	No. Least Bittern are found in a variety of wetland habitats but prefer cattail marshes with open pools and channels. The subject property is greater than 300 m of any potentially suitable habitat (Richmond Fen PSW).			
Olive-Sided Flycatcher <sup>2</sup>	Contopus cooperi	Special Concern	No	Special Concern	No	МВСА	Yes. There is potentially suitable habitat present within the study area though the study property is located			



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
							at the southern edge of the species range (and therefore it is often absent from suitable habitat). Olive-sided Flycatcher prefer to nest in forest openings and edges, such as those that have been previously logged or burned. Individuals also prefer to nest within white and black spruce, jack pine and balsam fir. No individuals were detected during the surveys,			
Peregrine Falcon <sup>2</sup>	Falco peregrinus anatum/tundrius	Special Concern	No	Special Concern	No	FWCA	No. There is no suitable habitat present within the study area. Species prefer cliff ledges 50 to 200 m in height for nesting, and in urban centres, tall buildings or bridges. Species may be encountered during spring and fall migration but are not anticipated to be dependent on habitat within the study area.			
Red-Headed Woodpecker <sup>1,2</sup>	Melanerpes erythrocephalus	Endangered	Yes	Endangered	No	FWCA	Yes. Red-headed Woodpecker are habitat generalists, who prefer open woodlands and forest edges. This species has declined significantly in			



	Table 3: Potential SAR habitat within the Study Area								
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area		
							Ontario in recent years and is often absent from apparently suitable habitat across much of its range in the province. Individuals nest in deciduous trees that have some degree of decay; during the site visit, there were multiple large snag trees observed in the study area that may be utilized by individuals. However, this species was not detected during the 2025 bird surveys.		
Eastern Whip- poor-will <sup>2</sup>	Antrostomus vociferus	Special Concern	Yes	Threatened	No	МВСА	Yes. There is available open understory of the mixed forest habitat present within the study area that is suitable. This species is known to be most active and has the highest detectability within seven (7) days of a full moon. One (1) of the evening bat surveys occurred on June 12, with a full moon occurring June 11. This species was not detected during the evening surveys.		



Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area		
Wood Thrush <sup>1,</sup> 2, 5	Hylocichla mustelina	Special Concern	No	Threatened	No	МВСА	Yes. Species was detected within the forested habitats (FOD7 and FOMM7) to the north of the proposed work boundary.		
Yellow Rail <sup>1, 2</sup>	Coturnicops noveboracensis	Special Concern	No	Special Concern	No	MBCA	No. The species prefers marsh wetlands that contain reeds and sedges. The proposed disturbance boundary is 300 m from the Richmond Fen PSW and 200 m from other unevaluated wetlands, so no suitable habitat exists within the study area.		
				Mammals					
Eastern Small- Footed Myotis <sup>6</sup>	Myotis leibii	Endangered	Yes	No status	No	FWCA	No. This species prefers to utilize rocky outcroppings, rock barrens or cliff and talus slopes. As these features do not exist within the general study area this species is not anticipated to be present within the general study area.		
Little Brown Myotis <sup>6</sup>	Myotis lucifugus	Endangered	Yes	Endangered	No	FWCA	Yes. Suitable habitat may be present within the forest community (FOMM5-2) that surrounds the subject property.		



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
							19 suitable bat snags were documented within the study area, and 13 are within the proposed clearing boundary. However, this species was not detected during the 2025 SAR bat surveys.			
Northern Myotis <sup>6</sup>	Myotis septentrionalis	Endangered	Yes	Endangered	No	FWCA	Yes. Suitable habitat may be present within the forest community (FOD7			
Tri-colored Bat <sup>6</sup>	Perimyotis subflavus	Endangered	Yes	Endangered	No	FWCA	and FOMM7)) that surrounds the subject property. These species may use a wider range of treed habitats than the Little Brown Myotis as it is typically less dependent on large snag trees as maternity colony sites. these species however were not detected during the 2025 SAR bat surveys.			
Hoary Bat <sup>6</sup>	Lasiurus cinereus	Endangered	Yes	Endangered (pending)	No	FWCA	Yes, forested habitat within the study area provides suitable conditions for these "tree bat" species. Unlike other SAR bats these species are not			



Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area		
Silver-haired Bat <sup>6</sup>	Lasionycteris noctivagans	Endangered	Yes	Endangered (pending)	No	FWCA	dependant on features such as cavities in large trees or snags and may be found utilizing a wider range of forested habitat types. Hoary Bat and Silver-haired Bat were detected during the 2025 SAR bat surveys.		
Eastern Red Bat <sup>6</sup>	Lasiurus borealis	Endangered	Yes	Endangered (pending)	No	FWCA			
				Insects					
Bogbean Buckmoth <sup>1</sup>	Hemileuca spp.	Endangered	Yes	Endangered	No	FWCA	No. this species is dependent on calcium-rich fens and is only documented in two (2) wetlands in southeastern Ontario, one (1) of them being the Richmond Fen PSW.  However, the Richmond Fen PSW is 300 m away from the disturbance boundary and is not within the study area.		
Monarch <sup>4</sup>	Danaus plexippus	Special Concern	No	Endangered	No	FWCA	Yes. The Monarch larvae host species (i.e., common milkweed) was observed during the 2025 field investigation.		



	Table 3: Potential SAR habitat within the Study Area								
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area		
				Herptiles					
Eastern Milksnake <sup>1,3,5</sup>	Lampropeltis triangulum triangulum	No Status	No	Special Concern	No	FWCA	No. The Eastern Milksnake prefer rocky terrain for sunbathing. Suitable habitat does not occur within the study area.		
Blanding's Turtle (Great Lakes/St. Lawrence population) <sup>1,3,5</sup>	Emydoidea blandingii	Threatened	Yes	Endangered	No	FWCA	Yes. Category 3 habitat is present within the study area. The 0.8 ha pond on the neighboring property is considered Category 2 habitat and is approximately 110 m from the disturbance boundary. Additionally, the boundary is 200 m from unevaluated wetlands that is also classified as Category 2 habitat. Blanding's Turtles are known to inhabit shallow lakes, slow-moving creeks and wetlands that contain soft organic substrates. The study area is less than 1 km north of an NHIC Blanding's Turtle occurrence (NHIC 18VR3203).		



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
Eastern Musk Turtle <sup>3</sup>	Sternotherus odoratus	Special Concern	No	Special Concern	No	FWCA	No. Though the Eastern Musk Turtle may be found within the general study area, this species is typically restricted to larger bodies of water (i.e., lakes and rivers) in Ontario, which provide stable conditions for the species to overwinter.			
Midland Painted Turtle <sup>1,3</sup>	Chrysemys picta marginata	No Status	No	Special Concern	No	FWCA	Yes. One (1) individual Midland Painted Turtle was observed within the western ephemeral wet depression on June 23, 2025. Due to ephemeral nature of this water feature, it was likely used as a migratory stop over. This species generally inhabit slow moving, relatively shallow and well- vegetated wetlands including swamps, marshes, ponds, fens, bogs, lakes, rivers, and creeks with abundant basking sites and organic substrate. The study area contains a section of a pond on neighboring property, about 110 m from the proposed disturbance area. Additionally, it is 300 m from the			



	Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area			
							Richmond Fen PSW and 200 m from other unevaluated wetlands.			
Northern Map Turtle <sup>3</sup>	Graptemys geographica	Special Concern	No	Special Concern	No	FWCA	No. Though the Northern Map Turtle may be found within the general study area, this species is typically restricted to larger bodies of water (i.e., lakes and rivers) in Ontario, which provide stable conditions for the species to overwinter.			
Common Snapping Turtle <sup>1,3,5</sup>	Chelydra serpentina	Special Concern	No	Special Concern	No	FWCA	Yes. Common Snapping Turtle are known to inhabit a wide range of wetland habitats including ponds, streams, rivers, and shallow bays with slow moving water. The study area contains a section of a pond on neighbouring property, about 110 m from the proposed disturbance area. Additionally, it is 300 m from the Richmond Fen PSW and 200 m from other unevaluated wetlands. The study area is less than 1 km of an NHIC Snapping Turtle occurrence (NHIC 18VR3203).			



Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area		
Western Chorus Frog (Great Lakes – St. Lawrence – Canadian Shield population) <sup>1,3</sup>	Pseudacris maculata	No Status	No	Threatened	Yes	FWCA	Yes. Western Chorus Frogs are a lowland terrestrial species that are found in marshes, meadows, and forest habitat near water. Breeding ponds are small, shallow wetlands that usually dry out in the late summer and contain no fish (e.g., predators). Adults forage in upland habitat generally within 250 to 300 m of the breeding pond and overwinter under rocks, leaf litter, loose soil, or old animal burrows. The subject property contains ephemeral pools that have potential to contain breeding Western Chorus Frogs. This species was not detected however during the 2025 amphibian surveys.		
				risn			No American Felica migrator:		
American Eel <sup>1</sup>	Ligumia nasuta	Special Concern	No	Special Concern	No	N/A	No. American Eel is a migratory species that does not spawn within Canada, and inhabits almost all freshwater habitats, estuaries and coastal waters in Canada where it		



Table 3: Potential SAR habitat within the Study Area									
Common Name	Scientific Name	Provincial Status	Provincial Habitat Protection	Federal Status	Federal Protection of Individual and Residence outside of Federal lands	Other Applicable Legislation	Suitable Habitat Present Within General Study Area		
							overwinters. American Eel prefers waters that are at least 10 m deep in both lotic and lentic waters with varying types of bottom substrates. However, the waters need to provide connectivity to the Atlantic Ocean.		
				Vegetation					
Black Ash <sup>6</sup>	Fraxinus nigra	Endangered	No	No Status	No	N/A	No. Despite the presence of suitable habitat within the study area, the species was not observed within or directly adjacent to the subject property discussed in this report during the 2024/2025 field investigations.		
Butternut <sup>6</sup>	Juglans cinerea	Endangered	Yes	Endangered	Yes	N/A	No. Despite the presence of suitable habitat within the study area the species, was not observed within or directly adjacent to the subject property discussed in this report during the 2024/2025 field investigations.		

This table was assembled from various sources of background information. The following information sources were consulted to compile background information: 1 – Land Information Ontario (NHIC database, MNRF 2020b);



- 2 Ontario Breeding Birds Atlas (OBBA) (Bird Studies Canada et al., 2008);
- 3 Ontario Reptile and Amphibian Atlas (ORAA) (Ontario Nature., 2020);
- 4 Ontario Butterfly Atlas (OBA) (Toronto Entomologists Association, 2020)
- 5 iNaturalist (2024)
- 6 General Range (GR)



Suitable habitat for the following species was potentially present within the study area (i.e., within 120 m), based on desktop review information and the field investigations:

#### Birds:

 Barn Swallow, Canada Warbler, Common Nighthawk, Eastern Wood-pewee, Golden-Winged Warbler, Olive-Sided Flycatcher, Red-Headed Woodpecker, Eastern Whip-poor-will, and Wood Thrush.

#### Mammals:

 Little Brown Myotis, Northern Myotis, Hoary Bat, Silver-haired Bat, Eastern Red Bat, and Tri-colored Bat.

#### Herptiles:

o Blanding's Turtle, Midland Painted Turtle, Common Snapping Turtle, and Western Chorus Frog.

All other SAR identified through the desktop review were ruled out due to the study area not appearing suitable for their life processes; as such, these species are not discussed further.

#### 4.7.1 Birds

Based on desktop review and the 2024/2025 field investigations, potential suitable habitat for several SAR birds is present on or in the adjacent habitats to the subject property. The subject property is surrounded by Fresh – Moist Deciduous Forest (FOD7) and Fresh – Moist White Cedar – Hardwood Mixed Forest (FOMM7) with open gravel areas, and early successional willow/poplar thickets that may provide suitable habitat for Barn Swallow, Canada Warbler, Common Nighthawk, Golden-Winged Warbler, Olive-Sided Flycatcher, Red-Headed Woodpecker, Eastern Wood-pewee, Eastern Whip-poor-will, and Wood Thrush.

Barn Swallow, Canada Warbler, Common Nighthawk, Eastern Wood-pewee, Golden-Winged Warbler, Olive-Sided Flycatcher Eastern Whip-poor-will, and Wood thrush are listed as 'Special Concern' under the ESA. Therefore, habitat for these species is not afforded protection under the ESA. However, individuals of all these species, their eggs, nests, and fledglings are protected under the MBCA.

Red-Headed Woodpecker is listed as 'Endangered' under the ESA and is therefor afforded habitat protection under the ESA. Red-Headed Woodpecker's are habitat generalist that can be found in a variety of habitats such as, open woodlands and forest edges, and disturbed areas such as cemeteries, parks, golf courses, sparsely treed pastures, and agricultural areas. Individuals prefer dead limbs or snags for nesting purposes. During the 2024 field visit, several deciduous snags were observed immediately adjacent to the subject property that are in various stages of decay, that may be suitable for Red-headed Woodpecker to nest in. This species however was not detected during the 2025 SAR bird surveys.

The results of the SAR bird surveys that were conducted in 2025 detected the presence of only one (1) of the above listed species (Wood Thrush). This species is listed as 'Special Concern', as such, it is not afforded habitat protection. See **Section 7.3** below for mitigation measures for working around this ESA listed species.



#### 4.7.2 Bats

Little Brown Myotis, Northern Myotis, Tri-colored Bat, Hoary Bat, Silver-haired Bat, and Eastern Red Bat are SAR bats that share similar habitat preferences during their active season and are described together. They are aerial insectivores that use mature trees as summer and maternity roosting habitat (COSEWIC, 2013; MNRF, 2017). They have been observed using trees as small as 10 cm diameter at breast height (DBH), but typically exhibiting early stages of decay, with cavities (usually > 10 m high), loose bark, and/or leaves within forested habitats for maternity roosting purposes. Additionally, these species are known to use anthropogenic structures (e.g., houses, barns) for roosting as well (COSEWIC, 2013).

There are 19 suitable SAR bat snag trees present (**Photos 12 to 14**) in the adjacent forests of the subject property. Thirteen of those are within the proposed clearing boundary (**Figure 2**). The results of the SAR bat surveys that took place on June 12 and June 24, 2025 documented the presence of Hoary Bat and Silver-haired Bat. These species are less reliant on snag trees for roosting purposes then other SAR bats (i.e. Little Brown Myotis). The two (2) species detected are listed as 'Endangered' under the ESA and are afforded habitat protection. An "Information Gathering Form" (IGF) and "Avoidance Alternative Form" (AAF) was submitted to MECP on August 20, 2025, detailing the results of the surveys and describing the habitat. The purpose of these forms is to inform MECP of the of the works that may impact SAR habitat that is protected under the ESA. Based on the information provided, MECP may recommend applying for an overall benefit permit under clause 17(2)(c) of the ESA. More information can be found in **Section 6.5.3** below.

### 4.7.3 Herptiles

### 4.7.3.1 Turtles

Suitable habitat for Blanding's Turtle, Common Snapping Turtle and Midland Painted Turtle are found in the study area due to the 0.8 ha pond on the adjacent property within 120 m, in addition to being within 300 m proximity to Richmond Fen PSW and 200 m proximity to various unevaluated wetlands.

The Blanding's Turtle is designated as 'Threatened' under the ESA and 'Endangered' under the SARA and receives formal habitat protection. Elemental occurrences are recorded in most of the 1 km by 1 km grid squares surrounding the subject property (18VR3202) which indicates Blanding's Turtle presence around the study area. Based on the *General Habitat Description for the Blanding's Turtle (Emydoidea blandingii)* by the MECP (2013), Category 2 habitat for Blanding's Turtle is available in any connected wetland and waterbody complex extending up to 2 km from the Blanding's Turtle occurrences as well as 30 m around these suitable wetlands/waterbodies. Category 3 Blanding's Turtle habitat is any area from 30 m to 250 m around Category 2 habitat. The unevaluated wetlands that are within 200 m in addition to the 0.8 ha pond within the study area are considered Category 2 habitat. Because the proposed development footprint is within 250 m from the Category 2 habitat, Category 3 Blanding's Turtle habitat is present within the survey area which affects ~3.05 ha of the proposed disturbance area (see **Figure 3**). The two (2) seasonal wet depressions within the proposed disturbance boundary are planned for removal. Based off the conditions of these two (2) features, they are unlikely to provide functions of Category 2 habitat. More details into why can be found within **Section 6.5.4** below.





Snapping Turtle and Midland Painted Turtle are also anticipated to be present in 0.8 ha pond or unevaluated wetlands and associated wetland habitat that surrounds the study area. During the June 23, 2025 site assessment. The 2019 EIS that was developed for this property did not consider the habitat within the study area to be suitable for all turtle species. However, during the desktop review it was indicated that the presence of the 0.8 ha wetland within the study area appears to be suitable habitat for pond dwelling turtles listed above.

A single Midland Painted Turtle was observed within the western seasonal wet depression on the western side of the property that are within the proposed disturbance boundary. Based on the conditions of this feature, it is likely that this individual was migrating from water feature to water feature and encountered the water. Due to the ephemeral nature of this water feature however, the painted turtle will eventually need to continue its migration to suitable overwintering habitat. This species is not protected under the ESA and is therefore not afforded habitat protection.

### 4.7.3.2 Western Chorus Frog (Great Lakes – St. Lawrence Population)

Western Chorus Frogs are a lowland terrestrial species that are found in marshes, meadows, and forest habitat near water. Breeding ponds are small, shallow wetlands that usually dry out in the late summer and contain no fish (e.g., predators). Adults forage in upland habitat generally within 250 to 300 m of the breeding pond and overwinter under rocks, leaf litter, loose soil, or old animal burrows. However, Western Chorus Frog has 'No Status' under the ESA and therefor does not receive habitat protection and will not be discussed further. This species was not detected during the 2025 SAR surveys and is therefor. Not mentioned for the remainder of this report.

## 4.8 Wildlife and Significant Wildlife Habitat

The study area is located in the Smiths Falls (6E-11) Ecodistrict of the Lake Simcoe - Rideau (6E) Ecoregion within the Mixedwood plains Ecozone (Ecological Stratification Working Group, 1996). Characteristic wildlife of the Ecoregion includes but not limited to white-tailed deer (*Odocoileus virginianus*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), woodchuck (*Marmota monax*), wood duck (*Aix sponsa*), great blue heron (*Ardea Herodias*), Wilson's snipe (*Gallinago delicata*), field sparrow (*Spizella pusilla*), grasshopper sparrow (*Ammodramus savannarum*), Eastern Meadowlark (*Sturnella magna*), hairy woodpecker (*Leuconotopicus villosus*), wood thrush, scarlet tanager (*Piranga olivacea*), rose-breasted grosbeak (*Pheucticus ludovicianus*), Red-spotted Newt (*Notophthalmus viridescens*), American Bullfrog (*Lithobates catesbeianus*), Northern Leopard Frog (*Lithobates pipiens*), Spring Peeper (*Pseudacris crucifer*), Common Snapping Turtle, Eastern Garter Snake (*Thamnophis sirtalis*), and Common Watersnake (*Nerodia sipedon*).

### 4.8.1 Migratory and Non-migratory Birds

During the 2025 surveys, a total of 57 bird species were identified within the project area. Two (2) active nests were documented within the disturbance boundary, one Eastern Phoebe nest (**Photo 15**) was observed on a shed on the north side of the property, and one (1) Wild Turkey nest (**Photo 16**) was observed within the Buckthorn Deciduous Shrub Thicket (THDM2-6) (**Figure 2**). The following section outlines migratory and non-



migratory birds that were observed within the subject property. **Table 4** lists the species observed, heard, and/or recorded during the 2024/2025 field investigations.

Table 4: Wildlife Species Observed Within and Adjacent to the Study Area				
Common Name	Scientific Name	Resident/ Migratory	Evidence	Applicable Legislative Protection
	Bir	ds		
Alder Flycatcher	Empidonax alnorum	Migratory	Auditory observation	МВСА
American Crow	Corvus brachyrhynchos	Resident	Visual observation	None
American Goldfinch	Spinus tristis	Resident	Visual observation	MBCA
American Pipit	Anthus rubescens	Migratory	Visual observation	МВСА
American Robin	Turdus migratorius	Migratory	Visual observation	МВСА
American Tree Sparrow	Spizelloides arborea	Migratory	Visual observation	MBCA
Barn Swallow	Hirundo rustica	Migratory	Visual observation	MBCA, SARA
Belted Kingfisher	Megaceryle alcyon	Migratory	Auditory observation	MBCA
Black-and-white Warbler	Mniotilta varia	Migratory	Auditory observation	MBCA
Black-Capped Chickadee	Poecile atricapillus	Resident	Visual observation	MBCA
Blue Jay	Cyanocitta cristata	Resident	Visual observation	FWCA
Broad-winged Hawk	Buteo platypterus	Migratory	Visual observation	FWCA
Canada Goose	Branta canadensis	Migratory	Visual observation	MBCA
Cedar Waxwing	Bombycilla cedrorum	Migratory	Auditory observation	MBCA
Chestnut-sided warbler	Setophaga pensylvanica	Migratory	Visual observation	MBCA
Chipping Sparrow	Spizella passerina	Migratory	Auditory observation	MBCA
Common Grackle	Quiscalus quiscula	Migratory	Visual observation	None
Common Raven	Corvus corax	Resident	Visual observation	FWCA
Dark-Eyed Junco	Junco hyemalis	Migratory	Auditory observation	MBCA
Downy Woodpecker	Dryobates pubescens	Resident	Auditory observation	MBCA
Eastern Phoebe	Sayornis phoebe	Migratory	Visual observation	MBCA
European Starling	Sturnus vulgaris	Resident	Visual observation	None
Fox Sparrow	Passerella iliaca	Migratory	Visual observation	MBCA



Table 4: Wildlife Species Observed Within and Adjacent to the Study Area				
Common Name	Scientific Name	Resident/ Migratory	Evidence	Applicable Legislative Protection
Great-crested Flycatcher	Myiarchus crinitus	Migratory	Auditory observation	MBCA
Grey Catbird	Dumetella carolinensis	Migratory	Visual observation	MBCA
Hairy Woodpecker	Dryobates villosus	Resident	Auditory observation	MBCA
House Wren	Troglodytes aedon	Migratory	Auditory observation	MBCA
Indigo Bunting	Passerina cyanea	Migratory	Auditory observation	MBCA
Mallard	Anas platyrhynchos	Migratory	Visual observation	MBCA
Mourning Dove	Zenaida macroura	Migratory	Auditory observation	MBCA
Nashville Warbler	Leiothlypis ruficapilla	Migratory	Visual observation	MBCA
Northern Cardinal	Cardinalis cardinalis	Resident	Auditory observation	MBCA
Northern Flicker	Colaptes auratus	Migratory	Auditory observation	MBCA
Northern Waterthrush	Parkesia noveboracensis	Migratory	Auditory observation	MBCA
Ovenbird	Seiurus aurocapilla	Migratory	Auditory observation	MBCA
Palm Warbler	Setophaga palmarum	Migratory	Auditory observation	MBCA
Pileated Woodpecker	Dryocopus pileatus	Resident	Visual observation	MBCA
Purple Finch	Haemorhous purpureus	Migratory	Visual observation	MBCA
Red-eyed Vireo	Vireo olivaceus	Migratory	Auditory observation	MBCA
Red-winged Blackbird	Agelaius phoeniceus	Migratory	Auditory observation	MBCA
Rose-breasted Grosbeak	Pheucticus ludovicianus	Migratory	Auditory observation	MBCA
Ruby-throated Hummingbird	Archilochus colubris	Migratory	Visual observation	МВСА
Rusty Blackbird	Euphagus carolinus	Migratory	Visual observation	MBCA, SARA
Song Sparrow	Melospiza melodia	Migratory	Visual observation	MBCA
Swamp Sparrow	Melospiza georgiana	Migratory	Auditory observation	MBCA
Tennessee Warbler	Leiothlypis peregrina	Migratory	Auditory observation	MBCA
Turvey Vulture	Cathartes aura	Migratory	Visual observation	FWCA
Veery	Catharus fuscescens	Migratory	Auditory observation	MBCA
Warbling Vireo	Vireo gilvus	Migratory	Auditory observation	MBCA



Table 4: Wildlife Species Observed Within and Adjacent to the Study Area				
Common Name	Scientific Name	Resident/ Migratory	Evidence	Applicable Legislative Protection
White-throated Sparrow	Zonotrichia albicollis	Migratory	Auditory observation	MBCA
Wild Turkey	Meleagris gallopavo	Resident	Visual observation	FWCA
Wilson's Snipe	Gallinago delicata	Migratory	Auditory observation	MBCA
Wood Duck	Aix sponsa	Migratory	Visual observation	MBCA
Wood Thrush	Hylocichla mustelina	Migratory	Auditory observation	MBCA, SARA
Yellow Warbler	Setophaga petechia	Migratory	Auditory observation	MBCA
Yellow-bellied Sapsucker	Sphyrapicus varius	Migratory	Visual observation	MBCA
Yellow-rumped Warbler	Setophaga coronata	Migratory	Auditory observation	МВСА
Amphibians				
Grey Tree Frog	Dryophytes versicolor	N/A	Visual observation	FWCA
American Toad	Anaxyrus americanus	N/A	Auditory observation	FWCA
Green Frog	Lithobates clamitans	N/A	Visual observation	FWCA
Northern Leopard Frog	Lithobates pipens	N/A	Visual observation	FWCA
Spring Peeper	Pseudacris crucifer	N/A	Visual observation	FWCA
Salamander spp.	Caudata spp.	N/A	Visual observation	FWCA
Reptiles				
Midland Painted Turtle	Chrysemys picta	N/A	Visual observation	FWCA

### 4.8.2 Significant Wildlife Habitat

The study area was examined under the Significant Wildlife Habitat Technical Guide (MNRF, 2000) and its supporting document Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) to determine if SWH is present within the existing study area. **Table 5** outlines the various SWH categories and rationale on their designation within the study area.

The PPS defines, with respect to Natural Heritage features (Section 2.1.5 of OPP), that "development and site alteration shall not be permitted in... significant wetlands, significant wildlife habitat, significant areas of natural and scientific interest, and coastal wetlands...unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions."



Table 5: Significant Wildlife Habitat within the Study Area				
Specialized Wildlife Habitat Category	Candidate Significant Wildlife Habitat (Y/N)	Confirmed Significant Wildlife Habitat (Y/N)		
Seasonal Concentration Are	as of Animals			
Waterfowl Stopover and Staging Areas (Terrestrial)	No	No		
Waterfowl Stopover and Staging Areas (Aquatic)	No	No		
Shorebird Migratory Stopover Area	No	No		
Raptor Wintering Area	No	No		
Bat Hibernacula	No	No		
Bat Maternity Colonies	Yes	No		
Bat Migratory Stopover Area	No	No		
Turtle Wintering Area	Yes	No		
Reptile Hibernaculum	No	No		
Colonially-Nesting Bird Breeding Habitat (Bank and Cliff)	No	No		
Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)	No	No		
Colonially-Nesting Bird Breeding Habitat (Ground)	No	No		
Migratory Butterfly Stopover Areas	No	No		
Landbird Migratory Stopover Areas	No	No		
Deer Yarding Areas	No	No		
Deer Winter Congregation Area	No	No		
Rare Vegetation Communities or Specia	lized Habitat for Wildlife			
Cliff and Talus Slopes	No	No		
Sand Barren	No	No		
Alvar	No	No		
Old Growth Forest	No	No		
Tallgrass Prairie	No	No		
Savannah	No	No		
Specialized Habitat for Wildlife				
Waterfowl Nesting Area	No	No		



Table 5: Significant Wildlife Habitat within the Study Area				
Specialized Wildlife Habitat Category	Candidate Significant Wildlife Habitat (Y/N)	Confirmed Significant Wildlife Habitat (Y/N)		
Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat	No	No		
Woodland Raptor Nesting Habitat	No	No		
Turtle Nesting Area	No	No		
Seeps and Springs	No	No		
Mineral Lick	No	No		
Amphibian Breeding Habitat (Woodland)	Yes	No		
Amphibian Breeding Habitat (Wetlands)	Yes	No		
Woodland Area-Sensitive Bird Breeding Habitat	No	No		
Habitat for Species of Conservation Concern (Not include	ing Endangered or Threate	ened Species)		
Marsh Bird Breeding Habitat	No	No		
Open Country Bird Breeding Habitat	No	No		
Shrub/Early Successional Bird Breeding Habitat	No	No		
Terrestrial Crayfish	No	No		
Special Concern and Rare Wildlife Species	Yes	No		
Animal Movement Corridors				
Amphibian Movement Corridors	No	No		
Deer Movement Corridors	No	No		
Exceptions for Ecoregion 6E				
Eco-district 6E-14 – Mast Producing Areas	No	No		
Eco-district 6E-17 – Lek	No	No		

Based on the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (MNRF, 2015), Candidate SWH was determined to be present within the study area (i.e., within 120 m) for five (5) categories: Bat Maternity Colonies, Turtle Wintering Area, Amphibian Breeding Habitat (Woodland), Amphibian Breeding Habitat (Wetlands), and Special Concern and Rare Wildlife Species.

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) defines candidate Bat Maternity Colonies as the following:



- Maternity colonies can be found in tree cavities, vegetation and often in (buildings are not considered to be SWH).
- Maternity roosts are not found in caves and mines in Ontario.
- Maternity colonies located in Mature deciduous or mixed forest stands, with >10/ha large diameter (>25cm dbh) wildlife trees.
- Female bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2.
- Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred.

Candidate Bat Maternity Colonies are present within the study area due to the large diameter wildlife trees present with varying decay classes within a mature mixed forest stand that is approximately 40 ha in size.

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) defines candidate Turtle Wintering Areas as the following:

- For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates.
- Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen.
- Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.

Candidate Turtle Wintering Areas are present within the study area due to the 0.8 ha pond that exists in the neighbouring property. Due to its location on adjacent private property, it was not assessed during the site assessments. However, based on satellite imagery, it is suitable to have a depth that is conducive to turtle overwintering.

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) defines candidate Amphibian Breeding Habitat (Woodland) as the following:

- Presence of a wetland, pond or woodland pool (including vernal pools) >500 m² (about 25m diameter) within or adjacent (within 120 m) to a woodland (no minimum size). Some small wetlands may not be mapped and may be important breeding pools for amphibians.
- Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat.

In addition, the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (MNRF, 2015) defines candidate Amphibian Breeding Habitat (Wetlands) as the following:

- Wetlands>500 m<sup>2</sup> (about 25m diameter), supporting high species diversity are significant; some small or
  ephemeral habitats may not be identified on MNR mapping and could be important amphibian breeding
  habitats.
- Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators. •
- Bullfrogs require permanent water bodies with abundant emergent vegetation.

Candidate Amphibian Breeding Habitat (Woodland and Wetlands) exist within the study area due proximity to a permanent 0.8 ha pond that is ~100 m away from the disturbance footprint within a woodland.



The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) defines candidate Special Concern and Rare Wildlife Species Habitat as the following:

• When an elemental occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites

Candidate Special Concern and Rare Wildlife Species habitat is potentially present within the study area based on background information and suitable habitat. There is suitable habitat for Barn Swallow, Canada Warbler, Common Nighthawk, Eastern Wood-pewee, Eastern Whip-poor-will, Golden-winged Warbler, Olive-sided Flycatcher, Red-headed Woodpecker, Wood Thrush, Midland Painted Turtle, Northern Map Turtle, Snapping Turtle, and Western Chorus Frog within the woodland and wetlands that surround the subject property.



## 5.0 DESCRIPTION OF THE PROPOSED PROJECT

The proposed redevelopment within the study area involves the following:

- Expanding the development footprint from a 4.19 ha to a 4.52 ha footprint with the removal of a 0.35 ha treed area that includes the removal of ~193 trees;
- Implementing a landscape plan that includes the planting of 63 trees and 870 shrubs (see Tree Conservation Report in **Appendix B** for the landscape plan);
- Construction of a 0.19 ha single-story place of worship with a forecourt and a rear courtyard;
- Installing a Gazebo on the southeast corner of the disturbance boundary;
- Installing a fenced-in children's play area with sand pit;
- Moving the basketball court location;
- Improved septic system by expanding the existing septic bed in the northeast corner of the property;
- Reconfiguring the laneway through the property with landscaping and tree planting along the new entrance road and installing a rock garden;
- Developing a 0.34 ha parking lot on the southwest corner of the property; and
- Construction of multiple service and access lanes within the lot.



## 6.0 IMPACT ASSESSMENT

The following section outlines and assesses any potential impacts that are expected as a result of the proposed development based on review of available background information and the results of the 2024/2025 field investigations. Recommendations for mitigation measures to avoid these impacts are outlined in **Section 7.0** of this report.

## 6.1 Natural Heritage System Components

Approximately 0.35 ha (~193 trees > 10 cm dbh) area of tree removal is anticipated within a 65-ha forested habitat that is considered Significant Woodland as per the City of Ottawa's Significant Woodlands Guidelines for Identification, Evaluation, and Impact Assessment (2022). As required by the City of Ottawa, a Tree Conservation Report (TCR) was completed to detail the number trees that require removal, their species, size, and condition, and can be found in **Appendix B**.

The removal of 0.35 ha (as seen in **Figure 2**) is not anticipated to impact the functionality of the Significant Woodland that is present within the study area. 0.35 ha represents ~0.5% of the connected 65 ha forested habitat that south and southeast of the work area. The locations that are to have trees removed are along the edge of the previously disturbed area. As such, the anticipated removal will not impact the interior forest habitat that is important to an array of flora and fauna species. The section of trees on the west side of the property in between the disturbance boundary and the neighbouring residential property may act as a travel corridor of wildlife due to the continuous tree line. The section of tree removal is adjacent to the wildlife corridor and may reduce the amount of area available for migrating wildlife. It does not however, impact the functionality of the travel corridor.

Unevaluated wetlands and a PSW (Richmond Fen), is also located to the southwest of the subject property. Given that both areas are located greater than 200 m from the area of proposed development, impacts are not anticipated to wetland habitat as a result of the proposed development.

## 6.2 Landforms, Soils and Geology

The subject property contains minimal landform types according to (Ontario Geological Survey, 2010). Regulation limits (*O. Reg. 153/06*) are located within the study area. No other significant landforms or geology were noted within the study area based on the 2024/2025 field investigation or based on background information.

## 6.3 Groundwater, Surface Water and Fish Habitat

The two (2) seasonal wet depressions that are within the disturbance boundary are not historical and had developed after the phase 1 site clearing in 2019 and are planned for removal. Because of their ephemeral nature, they are not considered fish habitat. No significant groundwater resources or surface water features were identified within the disturbance area during the 2024/2025 field investigations, and it is not anticipated that the proposed development will negatively impact the 0.8 ha pond to the east or the Unevaluated wetlands and PSW



(Richmond Fen) present within 200 m of the proposed disturbance area as it is well outside of the development area.

## 6.4 Vegetation Cover

The proposed construction plan does require some impacts to vegetation and vegetation communities that are present within the study area. Approximately 1.38 ha of Fresh – Moist Meadow (MEFM4) and Buckthorn Deciduous Shrub Thicket (THDM2-6) will be impacted by the proposed development plans. Approximately 0.35 ha for treed habitat is anticipated to be removed. As such, a TCR (**Appendix B**) was completed in 2025 to assess which individual trees are going to be removed and their conservation value.

No rare, significant, or SAR vegetation (i.e., Butternut) was identified within the study area.

### 6.4.1 Landscape Planting Plan

Potential ecological impacts of the landscaping plan come from the use of some non-native species, as some of the proposed species have the potential to negatively impact the surround habitats. The rugosa rose is known to be invasive and spreads aggressively through both seed and sucker dispersal. Native to east Asia, it is cold and disease resistant and forms dense thickets that can outcompete native plants. The northern catalpa and honey locust are common ornamental trees in eastern Ontario. Although they are native to areas of the USA, they are not native to Ontario. These species also have the potential for seed dispersal and to develop naturalized populations.

The 870 shrubs that are outlined within the planting plan are made up of three (3) species, with only one (1) native species. Because of this, there is an opportunity for potential ecological benefit that is being missed that could be achieved with a greater variety of native species. See recommendations outlined in **Section 7.2** below for shrub species diversification and ways to prevent non-native tree species naturalization.

#### 6.4.2 Restricted and Noxious Weeds

One (1) species listed as 'Restricted' under the *Invasive Species Act* (2015) and is also considered a 'Noxious Weed' under the *Weed Control Act* (1990) (dog-strangling vine) was documented during the field investigation. Additionally, six (6) other 'Noxious Weeds' were documented all within the disturbance boundary (coltsfoot, Canada thistle, common ragweed, perennial sow-thistle, wild parsnip, and European buckthorn). To prevent further degradation and colonization by noxious or invasive species (based on the colonization of the property by invasive plant species), it is advised during development that workers follow the Clean Equipment Protocol for Industry (Halloran, Anderson, and Tassie, 2013).

## 6.5 Habitat for Species at Risk

Given proposed project works plans to remove  $\sim 0.35$  ha of forested habitat that contains approximately 13 suitable bat snag trees with SAR bats present, in addition to the disturbance of  $\sim 3.05$  ha of Category 3 Blanding's



Turtle habitat, it is possible that the proposed project works will have an impact on SAR or their habitat. The following sections outline discussions on specific species and groups of SAR.

### 6.5.1 Vegetation

Although suitable habitat for Butternut and Black Ash is available in the study area, none were identified during the 2024/2025 surveys. No impacts to these species are anticipated to occur as part of the development. However, if a Butternut is observed prior to construction (i.e., sprouts from the time of the submission of this report and the beginning of proposed development works), it will require a Butternut Health Assessment (BHA) to determine whether the Butternut(s) are retainable for the recovery of the species.

#### 6.5.2 Birds

Two (2) species of SAR birds were detected during the 2025 SAR surveys (Wood Thrush and Rusty Blackbird). Due to both of their status classified as 'Special Concern' under the ESA, these species are not afforded habitat protection. Timing windows allow vegetation removal activities to avoid periods when birds are actively nesting. As such, any required removal of vegetation should be completed prior to or after the core bird breeding window for this region (April 15 – September 15, of any year), to ensure migratory birds or their nests are not adversely impacted.

If vegetation removal will be required prior to September 15 but later than April 15, a visual inspection of the areas to be cleared should be conducted by a qualified avian specialist prior to disturbance to ensure that no birds are using the area for the purposes of nesting. If migratory bird breeding and/or nesting activity is encountered at any time of year within the study areas, an appropriate setback distance should be maintained from the nest/nesting birds. Works should not continue in the location of the nest until after it has been determined by an avian specialist that the young have fledged and vacated the nest and work areas. Further recommendations for mitigation measures to avoid harm to SAR birds and their habitat will be discussed in **Section 7.3** in accordance with the MBCA and the ESA.

#### 6.5.3 Bats

During the 2025 field investigations, two (2) species of SAR bats, both of which are listed as 'Endangered' under the ESA, were detected within the proposed disturbance boundary (Hoary Bat and Silver-haired Bat). These species may be found utilizing a wider range of forested habitat types and are generally not as dependent on snag trees as other SAR bat species (i.e. Little Brown Myotis). However, the removal of 0.35 ha of forested habitat that contains 13 snag trees are anticipated to be removed within the disturbance boundary (**Figure 2**). Because these provincially endangered species utilize a wide variety of forest types, the removal of the 0.35 ha of forested habitat will impact protected SAR habitat. As such, an IGF and AAF was submitted to MECP on August 20, 2025 detailing the impacts, which begins a consultation process to determine of the works are required to be registered for an Overall Benefit Permit (Section 17 (2)(c)).



The 0.35 ha of treed habitat to be removed however, is not likely to have a significant impact on SAR bats and SAR habitat, due to the abundance of forested habitat that is present south and southeast of the disturbance boundary. The 0.35 ha is connected to 65 ha of intact forest. Additional recommendations for SAR bat protection involve the timing restrictions on the clearing of vegetation, that must take place outside of the active season for SAR bats within this region (April 1 – September 30, of any year).

#### 6.5.4 Turtles

Category 2 and 3 Blanding's Turtle habitat is present throughout the study area based on an elemental occurrence of Blanding's Turtle identified within the vicinity of the study area (MNR, 2024). Category 2 and 3 Blanding's Turtle habitats are defined by any wetland or waterbody complex that extends up to 2 km from an elemental occurrence. As per the General Habitat Description for Blanding's Turtle "Suitable habitat for Blanding's Turtles during the active season includes a variety of wetlands such as marsh, swamps, ponds, fens, bogs, slow-flowing streams, shallow bays of lakes or rivers, as well as graminoid shallow marsh and slough forest habitats that are adjacent to larger marsh complexes". The 0.8 ha pond that is east of the disturbance area and the unevaluated wetlands to the west, as well as 30 m from these features is considered Category 2 Blanding's Turtle habitat. The area 220 m beyond Category 2 habitat, which covers 3.05 ha within the disturbance boundary, is considered Category 3 Blanding's Turtle habitat (**Figure 3**). It is anticipated that Blanding's Turtles may utilize the work area for the purpose of overland migration life processes. No individuals or evidence of nesting activity (i.e., predated nests, etc.) were observed within the study area limits during 2024/2025 field investigations.

Based on the MECP guidance document Categorizing and Protecting Habitat under the ESA (<a href="https://www.ontario.ca/page/categorizing-and-protecting-habitat-under-endangered-species-act">https://www.ontario.ca/page/categorizing-and-protecting-habitat-under-endangered-species-act</a>), key terms and principles associated with the damage or destruction of habitat include:

### **Damaging Habitat**

An activity that damages the habitat of a species is one that alters the habitat in ways that impair the function (usefulness) of the habitat for supporting one or more of the species' life processes.

#### **Destroying Habitat**

An activity that destroys the habitat of a species is one that alters the habitat in ways that eliminate the function (usefulness) of the habitat for supporting one or more of the species' life processes.

In some cases, the anticipated alteration that a proposed activity will have on habitat may be so minor that the function of the habitat for supporting the species life processes will not become impaired or eliminated. In such cases, the activity would not contravene subsection 10(1) of the ESA and would not require authorization under the Act with respect to this provision.

The existing two (2) seasonal wet depressions within the disturbance boundary (**Figure 3**) were observed to be dry in October of 2024 but had water during the last site visit in June of 2025. The northern seasonal wet



depression is ~325 m² and 40 cm at deepest section (**Photos 7 to 8**), and the western seasonal wet depression is ~205 m² and 0.5 m at deepest point (**Photos 9 to 11**). Both deepest points were determined in May when the features were at their deepest in the year. Given the history of the site, the wet depressions have developed after the phase 1 site clearing in 2019. One (1) small Midland Painted Turtle was observed in the western seasonal wet depression in June of 2025. The likelihood of this turtle, or any other turtles coming across the wet depressions during overland migration is anticipated to be low due to the size, depth, and ephemeral nature of them.

The pooled areas did contain emergent vegetation (cattails) at the time of the site visit. The bottom of the western wet depression was all muck, and northern wet depression was a mix of cobbles and muck (**Photo 7**).

Though individual Blanding's Turtles can access the site via overland migration, the seasonal wet depressions appear to lack features that would provide functions as aquatic Category 2 habitat primarily due to their size, constructed nature and lack of suitable habitat features.:

- **Feeding**: It is possible that individual Blanding's Turtles may temporarily utilize the pooled areas for the purpose of feeding as insects and amphibian larvae were observed in both wet depressions during the 2025 field investigation. Lack of habitat structure (i.e., large woody debris, etc.), size, and ephemeral nature does limit the ability of these areas to provide feeding function for any length of time (i.e., low abundance of prey items).
- **Mating**: It is not anticipated that Blanding's Turtles would be dependent on this area for the purposes of mating. Passage through the property by the Blanding's Turtle is possible due to the PSW, 0.8 ha pond, and assorted unevaluated wetlands within 300 m of the study area. However, it is not anticipated that individuals would congregate in this area to complete this life process at this time due to the size of the wet depressions, ephemeral nature, lack of aquatic access, and lack of suitable breeding substrate to lay eggs in.
- Thermoregulation: Blanding's Turtles may use the pooled area for the purpose of thermoregulation; however, they are not anticipated to be dependent on this feature for this life process. There is no access to deeper water available within immediate area. There are, however, open basking areas are available in the grass around the pooled area. Given the lack of suitability for other life processes (i.e., feeding, mating), it is unlikely individual Blanding's Turtles would remain in this feature for any length of time.
- **Movement**: Access to the wet depressions is limited overland as no channels flow in or around these features. It is not anticipated that Blanding's Turtles would be dependent on this feature given its lack of aquatic means of accessing it for the purposes of movement.
- **Protection from Predators**: Though there is emergent aquatic vegetation that could be used for predator protection, the size of the wet depressions limits the use of this pooled habitat to provide protection from predators. Especially during later in the season as the water levels drop, leaving only the deepest areas of the pool as the periphery dries up, until eventually there is no water remaining. As adult Blanding's Turtles are somewhat immune to predation due to their size and physical adaptations, they (as discussed above) may temporarily enter the pooled area but are unlikely to remain present for any length of time. Juvenile or hatchling Blanding's Turtles could find refuge from predators due to the vegetation cover associated with the wet depressions but are unlikely to be present due to the lack of aquatic access and mating habitat present.



As there is a potential for the project to impact individual Blanding's Turtles and their habitat based on the element occurrence and site conditions as of 2024/2025, an IGF and AAF was submitted to MECP. No response has been received as of the writing of this report. Potential impacts to Blanding's Turtles during construction may be avoided with effective implementation of mitigation measures as outlined in **Section 7.3** below.

## 6.6 Wildlife and Significant Wildlife Habitat

### 6.6.1 Migratory and Non-migratory Birds

During the 2024/2025 field investigations, a total of 57 migratory bird species were observed. Additionally, two (2) active nests were documented within the disturbance boundary (**Figure 2**). Any future development (i.e., clearing of vegetation) may have negative impacts for migratory birds as there is some vegetation clearing that is anticipated in the proposed work plan. The conservative core nesting period for birds within the study area is approximately April 1 to September 15 (i.e., the period when most birds are anticipated to be actively nesting). Provided that the appropriate mitigation measures are implemented during development, such as timing of vegetation clearing outside of the core nesting period (see **Section 7.4**),

### 6.6.2 Significant Wildlife Habitat

Five (5) Candidate Significant Wildlife Habitat listed in the 'Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (2015) exist within the study area:

#### • Amphibian Breeding Habitat (Wetland)

Amphibian Breeding Habitat (Wetland) is not anticipated to be affected from the works as the 0.8 ha pond (**Figure 2**) is greater than 100 m away from the disturbance boundary with a large tree stand buffer.

#### Amphibian Breeding Habitat (Woodland)

o Amphibian Breeding Habitat (Woodland) may be impacted due to the potential removal of individual trees within the disturbance boundary that is within 120 m to the 0.8 ha pond. However, if individual tree removal does occur, it is unlikely to have a significant impact to the SWH as the size, functionality, and connectivity of the woodlot will not be affected.

### • Turtle Overwintering Areas

• Turtle Overwintering Areas is not anticipated to be affected from the works as the 0.8 ha pond (**Figure 2**) is greater than 100 m away from the disturbance boundary with a large tree stand buffer.

### • Special Concern and Rare Wildlife Species

Through the desktop review, elemental occurrences of SAR have been identified and listed in Section
 4.8.2. See Section 7.3 and Section 7.4 for mitigation recommendations.

#### • Bat Maternity Colonies

o Bat Maternity Colonies have the potential to be impacted as 0.35 ha of treed habitat removal is required, which includes 13 bat snag trees as part of the redevelopment (Figure 2). SAR bat surveys were conducted and did not observe any bats exiting from any of the identified bat snags. See



**Section 7.3** and **Section 7.4** for mitigation recommendations.

Candidate Amphibian Breeding Habitat (Wetland), Amphibian Breeding Habitat (Woodland), Special Concern and Rare Wildlife Species, Overwintering Turtle Habitat, and Bat Maternity are present throughout the study area. Provided the appropriate mitigation measures are followed (**Section 7**), it is not anticipated that the proposed development will negatively impact individual SWHs.



## 7.0 RECOMMENDATIONS

In order to minimize or eliminate environmental impacts and to help achieve ecological and environmental improvements from the proposed construction and development, the following mitigation measures are recommended.

### 7.1 Groundwater, Surface Water, and Fish Habitat

The proposed lot redevelopment is not expected to negatively impact surface water, groundwater and fish habitat within the study area, other then the two seasonal wet depressions (~325 m² and ~205 m²) that will be removed.

## 7.2 Vegetation Cover

To mitigate the cumulative and long-term impacts to the study area and adjacent areas, the following principles should be implemented during the proposed development.

- To prevent the introduction or spread of invasive, noxious, or otherwise undesirable vegetation species, the Clean Equipment Protocol for Industry (Halloran, Anderson, and Tassie, 2013) should be followed. This includes mitigation such as:
  - Work shall occur in a manner to prevent the spread of invasive species and noxious vegetation to, from and within the Working Area;
  - Soil from areas impacted by invasive species shall not be stockpiled for reuse;
  - Debris, including earth clods and invasive and noxious vegetation material attached to the outside surfaces of equipment, is prohibited from entering the Working Area. Equipment coming on-site shall be inspected as close to the site entrance as possible for debris. If present, debris shall be completely removed prior to the equipment proceeding to the Working Area and shall be collected and managed by disposal to a licensed waste disposal site as non-hazardous solid industrial waste prior to the equipment proceeding to the working area;
  - Equipment shall also be inspected for debris prior to leaving the Working Area. Any debris shall be removed and managed as specified above and in a manner that prevents equipment from coming into further contact with standing, sprayed or cut invasive or noxious vegetation.
- Herbicides will not be used unless to control noxious and/or invasive plants such as common buckthorn;
- It is recommended that only locally appropriate native species be used for landscaping within the subject property. This would contribute to re-establishing native plants within the wider landscape and potentially have a positive impact for biodiversity (i.e., using native species for pollinators such as Monarchs and bees). Native shrub species that could be used instead of the proposed rugosa rose include:
  - Mapleleaf viburnum (Viburnum acerifolium);
  - o Spicebush (Lindera benzoin); and
  - New Jersey tea (Ceanothus americanus).



• If the proposed species in the landscaping plan are to be planted, then annual maintenance will likely be required to prevent the non-native species from spreading through suckers or seed dispersal.

A Tree Conservation Report has been conducted and is included in **Appendix B**. See this report for additional recommendations on how to preserve trees that are close to the construction footprint but are not anticipated to be removed.

## 7.3 Habitat for Species at Risk

As discussed in **Section 4.7.3** and **Section 6.5.4**, due to the anticipated impact to Category 3 Blanding's Turtle habitat within the planned development area (approximately 3.05 ha) on the subject property (**Error! Reference s ource not found.**), and the presence of two (2) seasonal wet depressions within the disturbance boundary, an IGF and AAF was submitted to MECP in order to provide comments and recommendations on whether an ESA authorization will be required for the planned development. No response has been received as of the time of this report submission.

Due to the potential of encountering SAR birds or turtles within the study area, the following mitigation measures are recommended:

- **SAR Birds**: Due to the likelihood of migratory birds during project works vegetation clearing should occur outside of the bird nesting window of April 1 to September 15 of any year to avoid contravention of the ESA for species that may be present;
- If any SAR are observed during construction, all work within the work area shall cease and the local MECP management biologist will be contacted (Ottawa District Office: 613-521-3450);
- **Avoidance:** To avoid potential impacts to SAR, construction activities should, if possible, be completed between November 1 March 31 of any year. If works are undertaken between April 1 and October 31, additional mitigation is recommended:
  - SAR Awareness Training: This training shall be provided for the Contractor and all staff working
    on site. All employees involved in construction activities should be trained in the identification
    and life cycles of SAR that may be present on the work site which includes Barn Swallow, Wood
    Thrush, Blanding's Turtle, Hoary Bat, and Silver-haired Bat;
  - Daily Site Inspections for SAR: For the duration of the project works, the Contractor shall perform a thorough sweep of the construction zone before works are to begin to encourage any SAR on-site to move away. Site inspections shall be undertaken throughout the workday to determine if SAR are present within the work area. The following mitigation measures are required if SAR enter the site and to prevent adverse impacts to the SAR.
- During the active season for turtles (April 1 to October 31), a thorough sweep of the construction zone should be conducted before works are to begin to encourage any SAR on-site to move away:



- o If turtle eggs are encountered or unearthed during the construction activities, all operations must immediately stop within 5 m of the turtle eggs;
- If a turtle is encountered that has already begun to nest (i.e., digging and/or sitting in a nest pit), construction activities should stop within 10 m of the turtle, and the turtle be allowed to finish nesting and leave the area of its own accord,
- All exposed soils and/or stockpiled topsoil, sand, and gravel must be encircled with temporary turtle fencing or completely covered with geotextile to prevent turtles from accessing and nesting in the materials from May 1 to July 15 of any year.
- Because SAR bats were detected within the study area, the forested habitat that is planned for removal is suitable habitat for SAR bats. It is recommended that vegetation clearing take place outside of the active season for SAR bats within this region (April 1 September 30);
- The core bird breeding window for this region is April 15 September 15, of any year. If vegetation clearing must take place prior to September 15 or after April 15, a qualified avian biologist must perform a sweep of the proposed development area and prior to construction to ensure no species are nesting there.

## 7.4 Wildlife and Significant Wildlife Habitat

To mitigate the cumulative and long-term impacts to the study area and adjacent areas, the following mitigation measures for wildlife should be implemented during the proposed redevelopment.

In accordance with the MBCA and the ESA, any required removal of vegetation should be completed prior to or after the bird nesting and active bat period of April 1 to September 30 of any given year to ensure SAR bats and migratory birds or their nests are not adversely impacted. If vegetation removal is required prior to September 30, but later than April 1, a visual inspection of the areas to be cleared should be conducted by a qualified avian specialist before disturbance to ensure that no birds are using the area for the purposes of nesting. Note: The Canadian Wildlife Service does not support relying on inspections for migratory bird nests in such habitats due to the difficulty of locating all nests and risk to birds; therefore, it is always a better option to clear vegetation outside of the breeding bird period. If migratory bird breeding and/or nesting activity is encountered at any time of year within the study area, an appropriate setback distance should be maintained from the nest/nesting birds. Works should not continue in the location of the nest until after it has been determined by an avian specialist that the young have fledged and vacated the nest and work areas. This is recommended in order to prevent negative impacts to migratory birds and other bird species, their nests, and eggs, which are protected under the MBCA or the FWCA.



## 8.0 **SUMMARY**

This EIS supports the proposed redevelopment on the property at 6688 Franktown Road, near the Town of Richmond, Ontario, legally known "PCL 19-1, SEC GB-3; PT LT 19, CON 3, PT 1, 4R7040; Goulbourn" in the Geographic Township of Goulbourn, given the condition that all recommendations put forth by MECP in response to the IGF and AAF are followed, in addition to the mitigation measures recommended in this report are followed during construction. The design of the development should incorporate considerations that will help mitigate or offset impacts to habitat for birds, mammals, and SAR reptiles. Provided that the above recommendations are followed, the development is not anticipated to result in negative impacts to natural heritage features within or adjacent to the study area, including *significant wildlife habitat as per* Section 2.1.5 *and habitat for endangered species and threatened species* as per Section 2.1.7 of the PPS.



## 9.0 LIMITATIONS

The investigation undertaken by Egis with respect to this report and any conclusions or recommendations made in this report reflect Egis' judgment based on the site conditions observed at the time of the site inspection on the date set out in this report and on information available at the time of the preparation of this report. The first field visit occurred outside of the activity window for all potential SAR that may be present within the study area. The recommendations provided may be altered or adjusted based on the results of the SAR surveys recommended.

This report has been prepared for specific application to this site, and it is based, in part, upon visual observation of the site and field investigation during a specific time interval, as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, or portions of the site which were unavailable for direct investigation.

If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary.



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# **APPENDIX A: STUDY AREA PHOTOGRAPHS**





Photo 1: Existing conditions at the entrance to the property, facing southeast. October 29, 2024



**Photo 2:** Existing conditions of the Fresh – Moist Meadow (MEFM4) in the front, followed by the Buckthorn Deciduous Shrub Thicket (THDM2-6), with the Fresh – Moist White Cedar – Hardwood Mixed Forest (FOMM7) making up the tree line. June 23, 2025.





**Photo 3:** Existing conditions of the Fresh – Moist Deciduous Forest (FOD7) that surround the property. October 29, 2024.



**Photo 4**: Existing conditions of the Buckthorn Deciduous Shrub Thicket (THDM2-6). June 23, 2025.





**Photo 5**: Existing conditions of the Dry White Pine – Red Pine Calcareous Bedrock Coniferous Forest (FOCS1-2) used for ceremonial purposes. October 29, 2024.



**Photo 6**: Existing conditions of the Vegetation Community 1: Fresh – Moist Deciduous Forest Ecosite (FOD7) that is potentially suitable SAR bat maternity roosting tree within the study area. May 5, 2025





**Photo 7**: Existing conditions of seasonal wet depression on north end of the property. May 20, 2025.



**Photo 8**: Existing conditions of seasonal wet depression on north end of property. May 5, 2025.





**Photo 9**: Existing conditions of seasonal wet depression on west side of property. May 5, 2025.



**Photo 10**: Existing conditions of seasonal wet depression on west side of property. May 5, 2025.





**Photo 11**: Existing conditions of seasonal wet depression on west side of property. June 23, 2025.

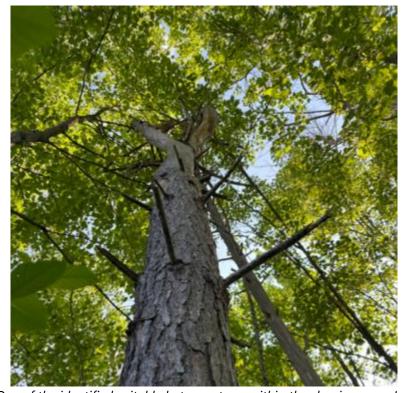


**Photo 12**: One of the identified suitable bat snag trees within the clearing area. May 5, 2025.





**Photo 13**: One of the identified suitable bat snag trees within the clearing area. June 12, 2025.



**Photo 14**: One of the identified suitable bat snag trees within the clearing area. June 12, 2025.





**Photo 15**: One (1) Eastern Phoebe nest being constructed on a shed. May 20, 2025.



**Photo 16**: One (1) Wild Turkey nest was observed within the Buckthorn Deciduous Shrub Thicket (THDM2-6). May 5, 2025.



## **APPENDIX B: TREE CONSERVATION REPORT**



# TREE CONSERVATION REPORT



## 6688 FRANKTOWN ROAD, RICHMOND, ONTARIO

Project No.: CCO-25-1134

Prepared for:

Venerable Jen Chun Kuan International Buddhist Progress Society of Ottawa - Carleton 6688 Franktown Road Richmond, Ontario KOA 2Z0

Prepared by:

Egis Canada Ltd. 750 Palladium Drive, Kanata, Ontario K2V 1C7



#### TREE CONSERVATION REPORT

6688 FRANKTOWN ROAD, RICHMOND, ONTARIO

Prepared for:

Venerable Jen Chun Kuan
International Buddhist Progress Society of Ottawa - Carleton
6688 Franktown Road
Richmond, Ontario
K0A 2Z0

Prepared by:



Egis Canada Ltd. 750 Palladium Drive, Kanata, Ontario K2V 1C7

#### **DRAFT**

August 29, 2025

Prepared by:	Reviewed by:
Jesse Lewis	Christian Lyon
Biologist	Manager, Natural Sciences

Egis



Egis

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### 1.0 INTRODUCTION

Egis Canada Ltd. (Egis) has been retained by the International Buddhist Progress Society Ottawa - Carleton (the Client) to complete a *Tree Conservation Report* in support of the proposed lot redevelopment at 6688 Franktown Rd in Richmond, Ontario. The study area is located in Lot 19, Concession 3 in the Geographic Township of Goulbourn.

This Tree Conservation Report has been prepared in accordance with the City of Ottawa's Tree Protection (Bylaw No. 2020-340). This report outlines the condition of all existing vegetation on-site, any impacts of the proposed development on the vegetation, and the associated mitigation measures recommended to minimize impacts and preserve conserved trees.

A tree inventory was conducted on May 20 and June 12, 2025, by Egis staff (J. Lewis and D. Rice) to review trees within the project footprint and document conditions of the vegetation growing in the study area. The tree inventory and assessment included all trees within and directly adjacent to the project boundary. Photos of the tree investigation areas can be found in **Appendix A.** 

The objectives of the Tree Conservation Report include the following:

- To describe the existing trees that are ≥ 10 cm diameter at breast height (DBH) growing on-site, including species composition, size (DBH), age, and condition and health of the trees;
- To identify vegetation that could be retained and the rationale to support this decision;
- To assess the impact of the development on the conserved portions of vegetation;
- To describe mitigation measures that will be used to promote the long-term survival of retained trees, and any other measures as required based on the site conditions; and
- To describe protection measures being implemented on-site.



#### 2.0 EXISTING VEGETATION

The study area consists of forested habitat surrounding the previously cleared project boundary. Within the project boundary, there is currently a 4.19 ha open area with the existing Buddhist Temple and associated parking lot, a paved basketball court and playground, an open pine tree stand used for ceremonial purposes, septic system, and patches of manicured grass lawn. There are six (6) natural vegetation communities that were identified within the study area, which include Mixed Forest (FOM), Fresh – Moist White Cedar – Hardwood Mixed Forest (FOMM7), Dry White Pine – Red Pine Calcareous Bedrock Coniferous Forest (FOCS1-2), Moist Forb Meadow (MEFM4), Fresh – Coniferous Forest (FOC) and Buckthorn Deciduous Shrub thicket (THDM2-6).

The inventory data focused on existing trees within and directly beside the clearing work boundary and included tree species identification, a general health condition assessment and data on tree DBH measurements. All specimens with a DBH of 10 cm or greater were included in the inventory. DBH measurements were taken at approximately 1.4 m above the ground surface at the base of each tree.

The tree health assessment was graded on a scale including Dead, Poor, Fair, and Good based on characteristics such as trunk integrity, canopy structure and canopy vigour. Outlined below are the detailed guidelines utilized for the classification/condition rating:

#### Good: (Healthy)

No major branch mortality: the crown is reasonably normal with less than 25% branch or twig mortality; little to no evidence of decay.

#### **Fair (Light-Moderate Decline)**

Branch mortality, twig dieback in 26-50% of the crown: broken branches or crown missing based on presence of old snags is 50% or less; decay evident.

#### **Poor: (Severe Decline)**

Branch mortality, 50% or more of the crown dead: broken branches or crown area missing based on presence of old snags in more than 50%, decay resulting in potential hazard.

#### Dead:

Tree is dead, standing and is considered a potential hazard to public health and safety.



## 3.0 TREE RESOURCE DESCRIPTION

Within the proposed disturbance boundary, there is 0.35 ha of treed habitat that will require clearing that consists primarily of red maple (*Acer rubrum*), eastern white pine (*Pinus* strobus), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), and red pine (*Pinus resinosa*). **Table 1** outlines species of trees inventoried within proposed clearing area. The tree inventory identified 193 trees in total, with 177 within the clearing area, and 16 trees on the boarder of the clearing area. Note that the table below displays the Tree Numbers going up to 160. This is because some of the Tree Numbers correspond with multiple trees of the same size in the immediate vicinity of the point, as indicated in the Comments column of the table. Most of the trees are red maple (110) with the second most trees being eastern white pine (27), followed by red pine (19), then green ash (16) (**Figure 1**). The health status of the inventoried trees varied depending on the species. Most of the coniferous trees and green ashes that were inventoried were either dead or in poor condition. The dominant red maples however were primarily in good condition.

	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
1	red maple	Acer rubrum	Native	18	19	Fair					
2	American elm	Ulmus americana	Native	13	15	Good					
3	American elm	Ulmus americana	Native	30	20	Dead					
4	American elm	Ulmus americana	Native	11	12	Fair					
5	balsam fir	Abies balsamea	Native	22	8	Good	Just outside of the disturbance boundary				
6	eastern cottonwood	Populus deltoides	Native	60	25	Poor					
7	American elm	Ulmus americana	Native	10	10	Good					
8	red maple	Acer rubrum	Native	24	15	Fair	5 trunks all about the same dbh				



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
9	eastern white pine	Pinus strobus	Native	30	22	Dead					
10	eastern white pine	Pinus strobus	Native	25	24	Dead					
11	red maple	Acer rubrum	Native	14	18	Good					
12	eastern white pine	Pinus strobus	Native	15	23	Dead					
13	black cherry	Prunus serotina	Native	10	10	Good					
14	American elm	Ulmus americana	Native	11	13	Good					
15	red maple	Acer rubrum	Native	17	18	Good	Multiple trunks				
16	eastern white pine	Pinus strobus	Native	44	25	Poor					
17	red maple	Acer rubrum	Native	13	15	Good					
18	red maple	Acer rubrum	Native	12	6	Fair	Bent over				
19	eastern white pine	Pinus strobus	Native	32	15	Dead					
20	red maple	Acer rubrum	Native	14	18	Good	3 red maples				
21	eastern white pine	Pinus strobus	Native	21	23	Dead	3 dead pines				
22	red maple	Acer rubrum	Native	15	18	Good					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
23	eastern white pine	Pinus strobus	Native	35	25	Dead	4 dead pines				
24	red maple	Acer rubrum	Native	12	17	Good	3 maples				
25	American elm	Ulmus americana	Native	12	12	Good					
26	eastern white pine	Pinus strobus	Native	55	25	Dead	4 dead pines				
27	red maple	Acer rubrum	Native	25	18	Good					
28	eastern white pine	Pinus strobus	Native	33	25	Dead	2 dead pines				
29	eastern white pine	Pinus strobus	Native	40	22	Dead	9 dead pines				
30	red maple	Acer rubrum	Native	31	20	Good	2 red maples				
31	red maple	Acer rubrum	Native	23	17	Good	10 red maples				
32	American elm	Ulmus americana	Native	15	15	Good					
33	red maple	Acer rubrum	Native	20	13	Poor	3 dying red maples				
34	red maple	Acer rubrum	Native	11	7	Good					
35	red maple	Acer rubrum	Native	4	6	Good					
36	American elm	Ulmus americana	Native	6	6	Good					
37	red maple	Acer rubrum	Native	15	5	Good					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
38	white birch	Betula papyrifera	Native	17	5	Good					
39	red maple	Acer rubrum	Native	11	4	Good					
40	green ash	Fraxinus pennsylvanica	Native	13	0	Poor					
41	American elm	Ulmus americana	Native	13	0	Dead					
42	eastern white pine	Pinus strobus	Native	24	0	Dead					
43	green ash	Fraxinus pennsylvanica	Native	30	0	Dead					
44	red maple	Acer rubrum	Native	13	3	Good					
45	red maple	Acer rubrum	Native	20	4	Good					
46	red maple	Acer rubrum	Native	13	4	Poor					
47	green ash	Fraxinus pennsylvanica	Native	18	0	Dead					
48	red maple	Acer rubrum	Native	14	6	Good					
49	eastern white pine	Pinus strobus	Native	35	7	Fair					
50	green ash	Fraxinus pennsylvanica	Native	20	0	Dead					
51	red pine	Pinus resinosa	Native	39	5	Fair					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
52	red maple	Acer rubrum	Native	18	6	Good					
53	red maple	Acer rubrum	Native	18	6	Good					
54	red maple	Acer rubrum	Native	16	4	Good					
55	red maple	Acer rubrum	Native	12	4	Good					
56	red pine	Pinus resinosa	Native	20	3	Good					
57	red maple	Acer rubrum	Native	21	7	Good					
58	red maple	Acer rubrum	Native	21	7	Good					
59	red maple	Acer rubrum	Native	21	6	Good					
60	red pine	Pinus resinosa	Native	2	3	Dead					
61	red maple	Acer rubrum	Native	12	1	Fair					
62	red maple	Acer rubrum	Native	10	6	Good					
63	red maple	Acer rubrum	Native	15	6	Good					
64	red maple	Acer rubrum	Native	17	6	Good					
65	red maple	Acer rubrum	Native	11	4	Good					
66	red maple	Acer rubrum	Native	20	10	Good					
67	red maple	Acer rubrum	Native	20	10	Good					
68	red maple	Acer rubrum	Native	20	10	Good					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
69	red maple	Acer rubrum	Native	13	4	Good					
70	red maple	Acer rubrum	Native	20	7	Good					
72	red maple	Acer rubrum	Native	18	6	Good					
73	red maple	Acer rubrum	Native	10	3	Fair					
74	red maple	Acer rubrum	Native	20	6	Good					
75	red maple	Acer rubrum	Native	16	7	Good					
76	red pine	Pinus resinosa	Native	28	0	Dead					
77	red maple	Acer rubrum	Native	12	6	Dead					
78	red maple	Acer rubrum	Native	12	6	Dead					
79	red maple	Acer rubrum	Native	12	6	Dead					
80	red maple	Acer rubrum	Native	14	7	Good					
81	red maple	Acer rubrum	Native	11	7	Good					
82	red maple	Acer rubrum	Native	10	0	Dead					
83	red pine	Pinus resinosa	Native	33	5	Fair					
84	red pine	Pinus resinosa	Native	39	4	Dead					
85	red maple	Acer rubrum	Native	10	6	Good					
86	red pine	Pinus resinosa	Native	30	2	Poor					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
87	red maple	Acer rubrum	Native	23	6	Good					
88	red maple	Acer rubrum	Native	12	2	Good					
89	red maple	Acer rubrum	Native	23	5	Fair					
90	red pine	Pinus resinosa	Native	32	0	Dead					
91	red pine	Pinus resinosa	Native	10	4	Good					
92	red maple	Acer rubrum	Native	20	5	Good					
93	red maple	Acer rubrum	Native	15	3	Good					
94	red pine	Pinus resinosa	Native	30	3	Poor					
95	red maple	Acer rubrum	Native	18	7	Good					
96	red maple	Acer rubrum	Native	11	4	Good					
97	red maple	Acer rubrum	Native	11	4	Fair					
98	red pine	Pinus resinosa	Native	22	0	Dead					
99	red maple	Acer rubrum	Native	15	6	Good					
100	red maple	Acer rubrum	Native	12	3	Good					
101	red maple	Acer rubrum	Native	17	4	Good					
102	red maple	Acer rubrum	Native	12	4	Good					
103	red maple	Acer rubrum	Native	35	10	Good					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
104	red maple	Acer rubrum	Native	14	14	Good					
105	red maple	Acer rubrum	Native	24	10	Good					
106	red maple	Acer rubrum	Native	17	8	Good					
107	red maple	Acer rubrum	Native	20	8	Good					
108	red maple	Acer rubrum	Native	24	10	Good					
109	red pine	Pinus resinosa	Native	34	0	Dead					
110	red pine	Pinus resinosa	Native	30	0	Dead					
111	red pine	Pinus resinosa	Native	30	0	Dead					
112	red maple	Acer rubrum	Native	30	4	Good					
113	red maple	Acer rubrum	Native	13	4	Good					
114	red maple	Acer rubrum	Native	12	4	Good					
115	red maple	Acer rubrum	Native	14	4	Good					
116	red maple	Acer rubrum	Native	14	3	Good					
117	red pine	Pinus resinosa	Native	36	4	Dead					
118	red maple	Acer rubrum	Native	21	7	Good					
119	red maple	Acer rubrum	Native	12	5	Good					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
120	green ash	Fraxinus pennsylvanica	Native	13	0	Dead					
121	green ash	Fraxinus pennsylvanica	Native	30	0	Dead					
122	red maple	Acer rubrum	Native	12	5	Fair					
123	red maple	Acer rubrum	Native	10	5	Fair					
124	green ash	Fraxinus pennsylvanica	Native	19	0	Dead					
125	red maple	Acer rubrum	Native	30	7	Good					
126	red maple	Acer rubrum	Native	29	6	Good					
127	red maple	Acer rubrum	Native	29	10	Good					
128	green ash	Fraxinus pennsylvanica	Native	10	0	Dead					
129	red maple	Acer rubrum	Native	12	6	Good					
130	red maple	Acer rubrum	Native	23	10	Good					
131	red pine	Pinus resinosa	Native	23	0	Dead					
132	red maple	Acer rubrum	Native	20	8	Good					
133	red maple	Acer rubrum	Native	20	8	Good					
134	red maple	Acer rubrum	Native	20	8	Good					



	Table 1: Tree Resource Composition										
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments				
135	red maple	Acer rubrum	Native	10	5	Good					
136	green ash	Fraxinus pennsylvanica	Native	21	0	Poor					
137	red maple	Acer rubrum	Native	14	5	Good					
138	green ash	Fraxinus pennsylvanica	Native	12	0	Dead					
139	green ash	Fraxinus pennsylvanica	Native	12	0	Dead					
140	red pine	Pinus resinosa	Native	13	2	Poor					
141	red pine	Pinus resinosa	Native	35	8	Poor					
142	green ash	Fraxinus pennsylvanica	Native	15	0	Dead					
143	red maple	Acer rubrum	Native	16	5	Good					
144	red maple	Acer rubrum	Native	14	5	Good					
145	red pine	Pinus resinosa	Native	27	0	Dead					
146	red maple	Acer rubrum	Native	19	10	Good					
147	red maple	Acer rubrum	Native	12	5	Good					
148	red maple	Acer rubrum	Native	12	5	Good					
149	red maple	Acer rubrum	Native	13	6	Good					

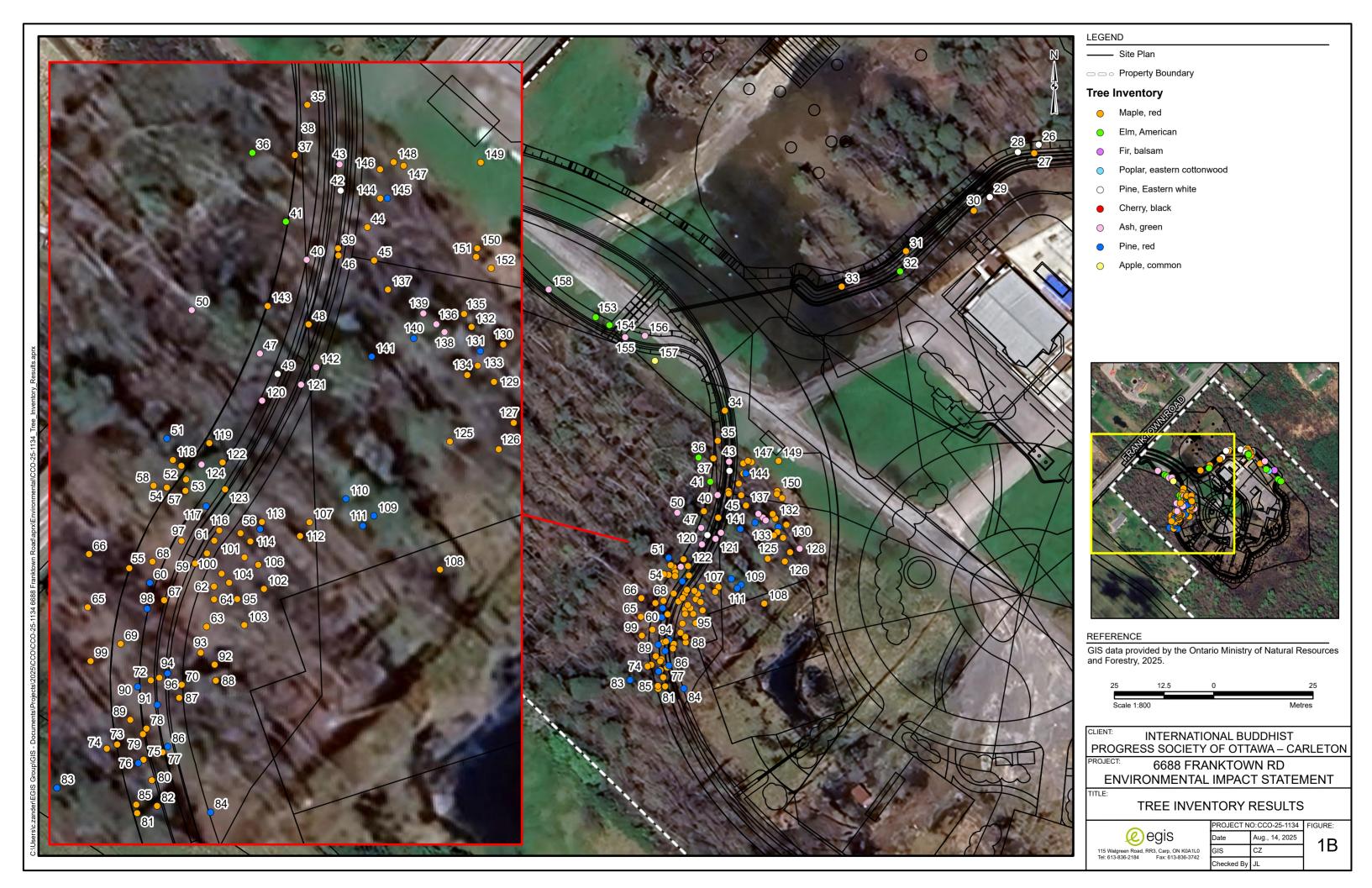


Table 1: Tree Resource Composition							
Tree No. <sup>1</sup>	Common Name	Scientific Name	Status	DBH (cm)	Canopy (m)	Condition	Comments
150	red maple	Acer rubrum	Native	10	6	Good	
151	red maple	Acer rubrum	Native	10	6	Good	
152	red maple	Acer rubrum	Native	10	6	Good	
153	American elm	Ulmus americana	Native	13	12	Good	
154	American elm	Ulmus americana	Native	22	15	Good	
155	green ash	Fraxinus pennsylvanica	Native	30	12	Dead	
156	green ash	Fraxinus pennsylvanica	Native	33	10	Dead	
157	common apple	Malus domestica	Non-native	28	7	Fair	
158	green ash	Fraxinus pennsylvanica	Native	29	15	Dead	
159	green ash	Fraxinus pennsylvanica	Native	18	14	Dead	
160	trembling aspen	Populus tremuloides	Native	16	11	Good	

<sup>&</sup>lt;sup>1</sup>refer to **Figure 1** for an overview of tree locations.







## 4.0 PROPOSED DEVELOPMENT

The proposed redevelopment within the study area involves the following:

- Expanding the previously cleared treed habitat footprint area from a 4.19 ha to a 4.54 ha footprint;
- Construction of a 0.19 ha single-story place of worship with a forecourt and a rear courtyard;
- Construction of drainage swales that will wrap around the property.
- Installing a Gazebo on the southeast corner of the disturbance boundary;
- Installing a fenced-in children's play area with sand pit;
- Moving the basketball court location;
- Improved septic system by expanding the existing septic bed in the northeast corner of the property;
- Reconfiguring the laneway through the property with landscaping and tree planting along the new entrance road and installing a rock garden;
- Developing a 0.34 ha parking lot on the southwest corner of the property; and
- Construction of multiple service and access lanes within the lot.

The clearing is anticipated to take place in November of 2025, with construction planning to begin in 2026.

### 4.1 Proposed Plant List

The proposed landscape plan with the plant list can be found in **Appendix B**. The planting list is a mix of native and non-native trees and shrubs, with 15 species of trees, and three (3) species of shrubs. Amongst the 15 species of trees, eight (8) are considered native to the Ottawa area, and seven (7) are non-native. The native species include bur oak (*Quercus macrocarpa*), eastern white cedar (*Thuja occidentalis*), Freeman's maple (*Acer x freemanii*), red maple, red oak (*Quercus rubra*), red-osier dogwood (*Cornus sericea*), serviceberry (*Amerlanchier canadensis*), sugar maple (*Acer saccharum*), and white spruce (*Picea glauca*). The eastern white cedar, red maple, serviceberry, sugar maple, red-osier dogwood, and white spruce were encountered naturally within the study area during the site assessments.

The non-native species include common ornamental species for this area, which consist of northern catalpa (Catalpa speciosa), makamik crabapple (Malus 'makamik'), Royalty crabapple (Malus 'royalty'), eastern redbud (Cercis canadensis), thornless cockspur hawthorn (Crataegus crus-galli var. inermis), honey locust (Gleditsia triacanthos), common purple lilac (Synringa vulgaris), and Rugosa Rose (Rosa rugusa), eastern redbud, cockspur hawthorn, and honey locust which are native to southwestern Ontario, but are generally not found growing naturally in eastern Ontario.

In total, 63 trees and 870 shrubs are planned to be planted within the landscaping plan. Twenty-six trees will be from a native species, and 37 will be non-native. Additionally, 460 shrubs will be of a native species, while 410 will be non-native. Potential ecological impacts of the landscaping plan come from the use of some non-native species, as some of the proposed species have the potential to negatively impact the surround habitats. The rugosa rose is known to be invasive and spreads aggressively through both seed and sucker dispersal. Native to east Asia, it is cold and disease resistant and forms dense thickets that can outcompete native plants. The



northern catalpa and honey locust are common ornamental trees in eastern Ontario. Although they are native to areas of the USA, they are not native to Ontario. These species also have the potential for seed dispersal and to develop naturalized populations.

The 870 shrubs that are outlined within the planting plan are made up of three (3) species, with only one (1) native species. Because of this, there is an opportunity for potential ecological benefit that is being missed that could be achieved with a greater variety of native species. See recommendations outlined in **Section 6.0** below for shrub species diversification and ways to prevent non-native tree species naturalization.



#### 5.0 TREE PROTECTION MEASURES

Tree protection measures described in this section are provided to ensure tree survival for trees on the clearing and construction boundary, in addition to ensuring that trees will continue to grow and remain healthy. The tree protection strategy is to create a safe environment during the construction period while also preserving the remaining trees and ensuring that they do not become a hazard in the long-term. Trees can be damaged in a number of ways during construction. It is recommended that the contractor take every precaution necessary to prevent damage to the trees to be retained/conserved.

### 5.1 Temporary Tree Protection Fencing

The most common injury to a tree is to the crown or trunk. These injuries are visible and permanent and, in some cases, can be fatal to the tree. Their roots are susceptible to physical injury resulting from cutting of the roots, soil compaction and/or smothering of the roots.

To ensure the protection of the root system of trees to be retained outside of the limits of the development, temporary tree protection fencing should be erected at the critical root zone (CRZ) of trees located inside or adjacent to the work area. The CRZ is defined under the City of Ottawa's *Tree Protection* (By-law No. 2020-340) as "...the area of land within a radius of ten (10) cm from the trunk of a tree for every one (1) cm of trunk diameter." Temporary fencing is proposed surrounding the perimeter of the study area which will sufficiently protect the retained trees that are adjacent to the limits of development.

## 5.2 Tree Pruning

Prior to construction, any trees that have branches in the way of the proposed development should be pruned by a Certified Arborist. Pruning should not occur until after the leaves have come out in the spring. At this time, dead wood and hazardous limbs should also be removed; however, pruning of live branches should be avoided unless necessary. Similarly, any roots that are partially exposed, due to earthworks, should be pruned by hand if possible, following standard arboricultural practices. Roots that are exposed due to earthworks should be covered with native topsoil immediately to ensure that the roots do not dry out or have further damage occur to them. Root pruning should be completed by a Certified Arborist.

## 5.3 Tree Monitoring

Trees located adjacent to construction works will experience a change in their immediate environment. As a result, tree health should be monitored. However, adjacent trees that may experience changes in health conditions are located on adjacent property. Monitoring of these trees will only be feasible from the subject property.

#### 5.4 Wildlife Protection

The nests and eggs of many species of birds are protected under federal and/or provincial legislation (i.e., Migratory Bird Convention Act, Fish and Wildlife Conservation Act). Due to the presence of several migratory and



non-migratory birds that receive protection under federal and provincial legislation within the wooded area, vegetation clearing must occur outside of the bird nesting window of April 1 to September 15 to avoid contravention of the *Migratory Bird Convention Act*, 1994 (MBCA) and the *Fish and Wildlife Conservation Act*, 1997 (FWCA). Once vegetation clearing has occurred outside of this timing window, the remaining work (can proceed within the timing window with a low likelihood of negative impacts to birds.



#### 6.0 RECOMMENDATIONS

All trees identified within the disturbance boundary are planned for removal (**Figure 1, Table 1**). Therefore, there are no recommendations for retention of trees within the study area.

The study area is zoned as an 'Rural Institutional (RI[643r]) Zone and is subject to the Planning Act applications. As such, under the City of Ottawa Tree Protection By-law (No. 2020-340) no additional permits are required for removal of trees greater than 10 cm DBH. The following measures are recommended:

- Natural areas to be retained are to be isolated by sturdy construction fencing or similar barriers at least 1 m in height during any future construction in order to ensure their retention;
- Replace vegetative cover with topsoil and seed. It is recommended that a permanent seed mix
  comprised of primarily native species be utilized for all re-vegetation activities within the study area,
  watercourses and riparian areas (OPSS 803). This may include but is not necessarily limited to:
  - Southern Ontario Native Grass and Forb Mix poorly drained areas: for areas that are poorly drained along watercourse banks;
  - Southern Ontario Native Grass and Forb Mix well drained areas: for dry areas intended to be left fallow following construction;
- If there is insufficient time in the growing season for the seed to sprout, the site shall be stabilized
  with temporary erosion and sediment control measures and seeded in the following spring. It is
  important to note that many of the seed mixes outlined above are best established through fall
  seeding to allow normal dormancy and then germination of the following spring as these species are
  adapted to the Ontario environment;
- It is recommended that cover be utilized for areas where seeding is required, given the sensitivities associated with the study area. Recommended covers include:
  - Straw mulch (where conditions permit);
  - Bonded Fibre Matrix or Fibre Reinforced Matrix (where conditions permit); and
  - Erosion control blankets made of natural fibre (i.e., with no nylon or synthetic netting/materials etc.).
- Disturbed areas should be replanted with locally grown native species. Use of non-native plant material should be discouraged; and
- If tree clearing is going to occur, it should be completed outside the active window for birds (and SAR bats) from April 1 to September 30.
- It is recommended that only locally appropriate native species be used for landscaping within the subject property. This would contribute to re-establishing native plants within the wider landscape and potentially have a positive impact for biodiversity (i.e., using native species for pollinators such as Monarchs and bees). Native species that could be used instead of the proposed rugosa rose include:
  - Mapleleaf viburnum (Viburnum acerifolium);



- o Spicebush (Lindera benzoin); and
- o New Jersey tea (Ceanothus americanus).
- If the proposed species in the landscaping plan are to be planted, then annual maintenance for the northern catalpa and honey locust will likely be required to prevent the non-native species from spreading through suckers or seed dispersal.



### 7.0 LIMITING TERMS AND CONDITIONS

The assessment of the trees presented within this report have been made using a visual examination of the above-ground parts of each tree for structural defects, external indications of decay, evidence of insect presence, and discoloured foliage. None of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms, and their health and vigour are constantly changing. They are not immune to changes in site conditions seasonal variations in the weather.

While reasonable efforts have been made to ensure the trees recommended for retention are healthy, no guarantees ae offered or implied, that these trees or any part of them will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviours of a singly tree or group of trees in all circumstances. Every effort has been made to ensure that this assessment is reasonably accurate; however, trees should be re-assessed periodically.



# **APPENDIX A: STUDY AREA PHOTOGRAPHS**





Photo 1: View of the Fresh – Moist Deciduous Forest (FOD7) within the proposed clearing area on the east side of the works boundary. May 5, 2025.



Photo 2: View within the Fresh – Moist Deciduous Forest (FOD7) within the proposed clearing area on the east side of the works boundary. June 12, 2025.



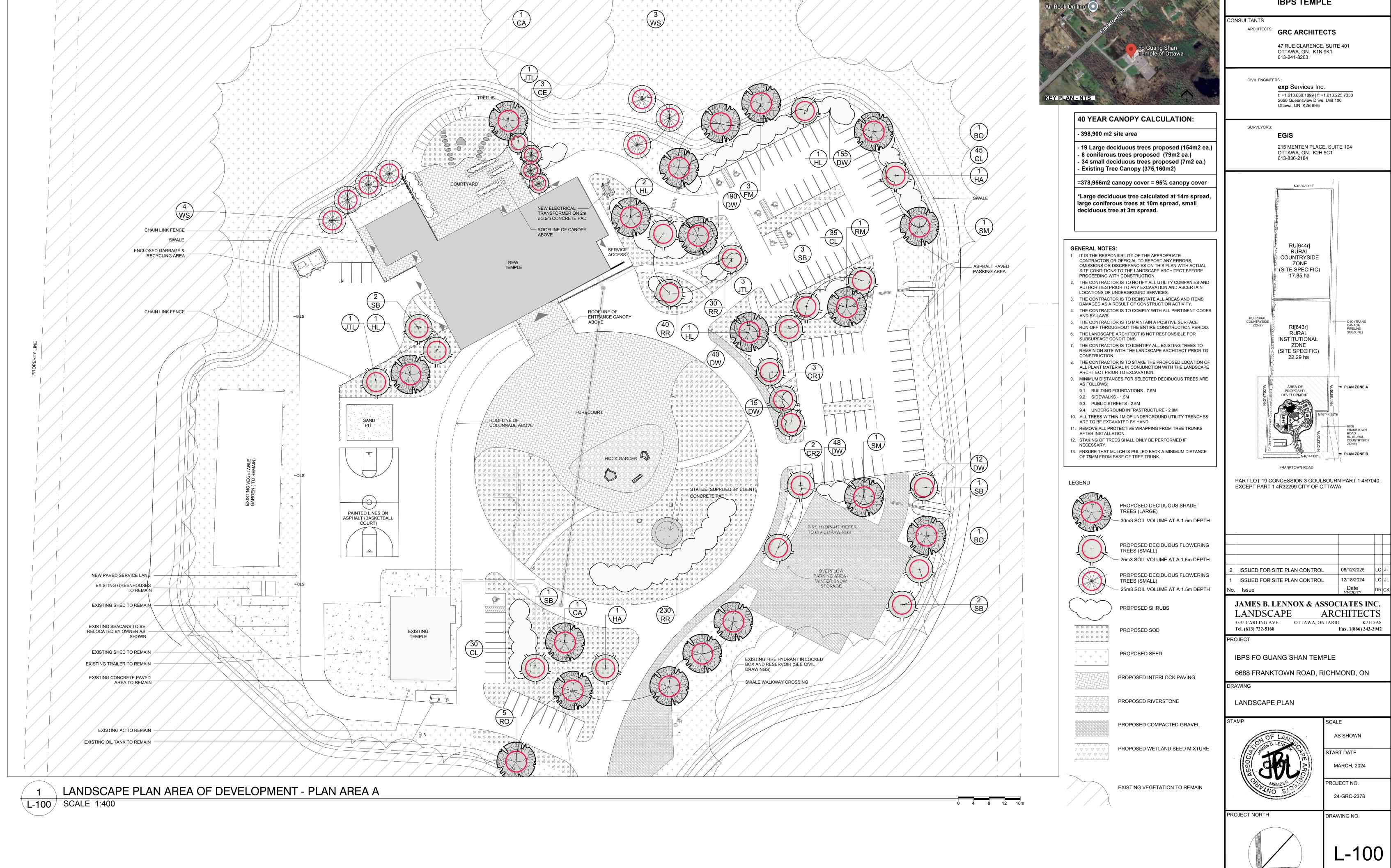


Photo 3: View of the Dry – White Pine – Red Pine Calcareous Bedrock Coniferous Forest (FOCS1-2) within the proposed clearing area on the west side of the works boundary. May 5, 2025.

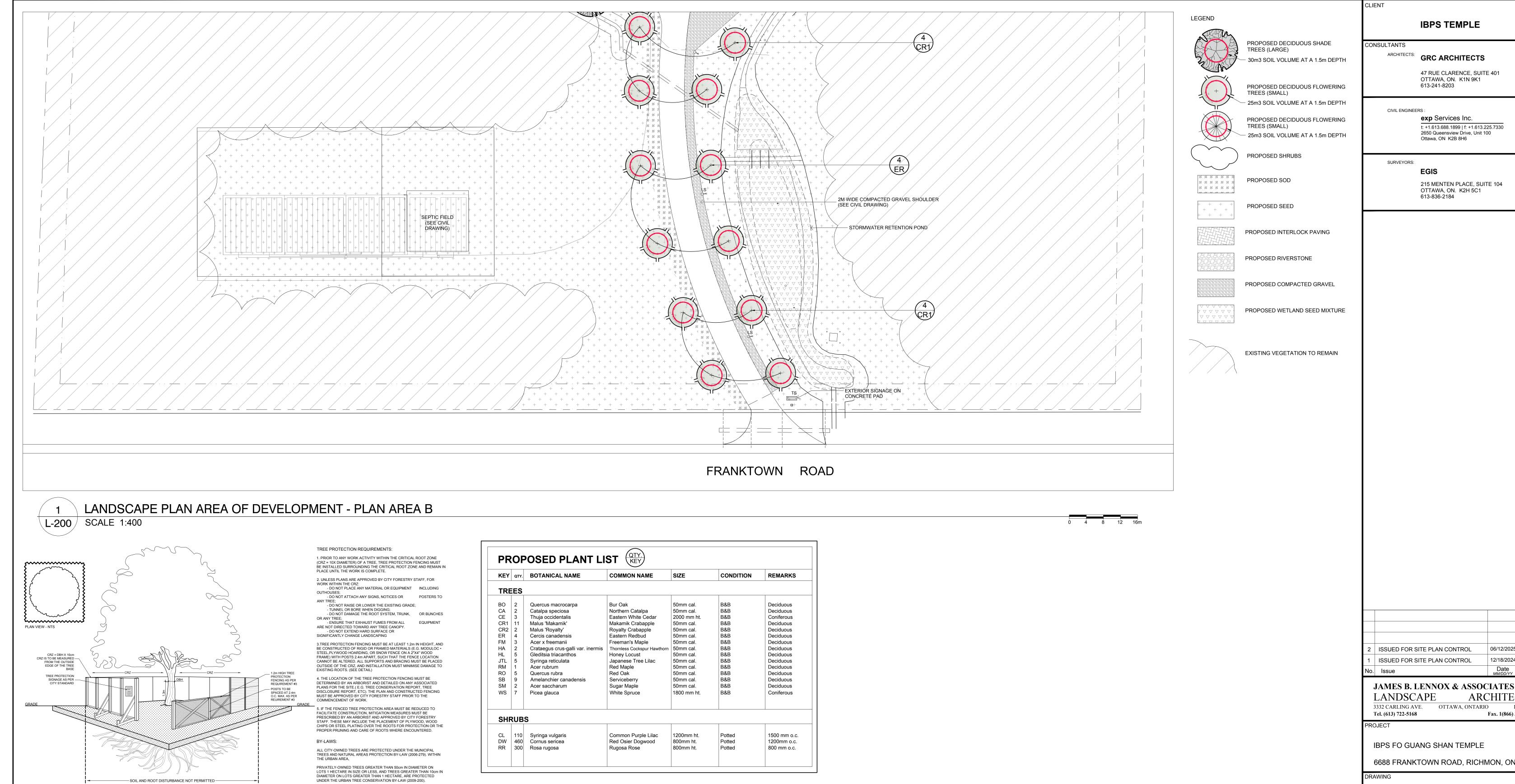


## **APPENDIX B: LANDSCAPE PLAN**





**IBPS TEMPLE** 



REMOVE DAMAGED OR

PLANTING BED AROUND

WITH 75mm DEPTH

MULCH COVERS ALL

EXPOSED SOIL.

FOLLOW PROPER

OBJECTIONABLE BRANCHES.

HORTICULTURAL PRACTICE.

SHRUBS. COVER ENTIRE BED

TAPER TO BLEND NATURALLY

WITH FINISHED GRADE.

SPECIFICATIONS.

TOPSOIL MIXTURE AS PER

WOODCHIP MULCH. PULL BACK MULCH FROM BASE OF SHRUBS. ENSURE THAT

- REMOVE POTS COMPLETELY

WIRE FROM TOP 1/3 OF

ROOTBALL.

L-200 SCALE: NTS

FROM POTTED STOCK OR CUT AND REMOVE BURLAP AND

SHRUB AND PERENNIAL PLANTING

- FINISH GRADE

— CLEAN MASONRY SAND

— LANDSCAPE AREA

- 150 mm GRANULAR "A"

300 mm GRANULAR "B"

PRECAST CONCRETE PAVERS

L-200 SCALE: NTS

APPROVED UNDISTURBED

PAVER TYPE "X" (SEE SPECIFICATIONS)

- 'PAVE EDGE' PAVER EDGE RESTRAINT

SYSTEM BY PAVE TECH. INSTALL TO

MANUFACTURERS SPECIFICATIONS.

COMPACTED IN LIFTS TO 100% SPD

COMPACTED IN LIFTS TO 100% SPD

SUBGRADE OR TYPE 2 GRANULAR

BASE COMPACTED TO 100% SPD

TREE PROTECTION FENCING

CONIFEROUS TREE PLANTING

— PREVAILING WIND

OUTSIDE ROOTBALL.

— 'NATURETIE' BIODEGRADABLE TREE TIE.

- 150x150mm (MIN) SAUCER. FILL WITH 100mm

- TOPSOIL MIXTURE (SEE SPECIFICATIONS)

WITHOUT DISTURBING ROOTS.

COMPACTED ROOTBALL SUPPORT PAD

— TAPER TO BLEND NATURALLY WITH FINISH GRADE

PLACE 1/3 OF ROOT BALL ABOVE GRADE. CUT AND REMOVE

BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL

- 2400mm LONG x 75mmØ TIMBER TREE STAKE PLACED

- PREVAILING WIND

— 'NATURETIE' BIODEGRADABLE TREE TIE.

- 150x150mm (MIN) SAUCER. FILL WITH 100mm

TAPER TO BLEND NATURALLY WITH FINISH GRADE

PLACE 1/3 OF ROOT BALL ABOVE GRADE. CUT AND REMOVE

BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL

- TOPSOIL MIXTURE (SEE SPECIFICATIONS)

COMPACTED ROOTBALL SUPPORT PAD

WITHOUT DISTURBING ROOTS.

2400mm LONG x 75mmØ TIMBER TREE STAKE PLACED

- SPACERS

FINISH GRADE

DECIDUOUS TREE PLANTING

RODENT\_\_\_<del>/</del>

L-200 SCALE: NTS

PROTECTION 3

L-200 SCALE: NTS

L-200 SCALE: NTS

