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**Species at Risk Screening Assessment
Proposed Commercial Development
5506 Manotick Main Street
Ottawa, Ontario**

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Submitted to:

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7116 Bank Street
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**Species at Risk Screening Assessment
Proposed Commercial Development
5506 Manotick Main Street
Ottawa, Ontario**

December 17, 2019

Project: 65032.03

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1.0 INTRODUCTION

2538702 Ontario Inc. o/a KGMS Construction c/o Cedar Sands Holdings Inc. is proposing a new commercial development, for the property located at 5506 Manotick Main Street in the City of Ottawa, Ontario. The project involves the demolition of the existing building and the construction of a new two-storey building fronting to Manotick Main Street with at grade parking behind the building. In preparation for Site Plan Approval, a Species at Risk Screening Assessment is required for the property.

The general project area is illustrated on Figure A.1 in Appendix A, while a detailed site layout is provided on Figure A.2. The proposed development plan is illustrated on Figure A.3.

1.1 Objective and Scope of Work

The objective of the species at risk (SAR) screening assessment presented herein is twofold; 1) to identify the presence or potential presence of any SAR and their regulated habitat within the project area, and 2) to recommend established and effective avoidance and mitigation measures to ensure that the project is completed in accordance with the provincial *Endangered Species Act, 2007*.

To meet the objectives outlined above, the following scope of work was completed:

- Task 1 – Desktop Assessment
- Task 2 – Site Investigation
- Task 3 – Assessment and Reporting

2.0 METHODOLOGY

2.1 Desktop Review

A desktop information gathering exercise was completed to aid in the scoping of field investigations and to gather information relating to natural heritage features which may be present on the subject project or within 1 km of the subject property. An additional component of the desktop review was to assess the potential presence of species at risk (SAR) to occur on the subject property or within the study boundary based on a review of publicly accessible occurrence records and review of SAR habitat requirements and range maps.

Following changes to the Ontario Ministry of Natural Resources and Forestry (OMNRF) natural heritage information request process, as of 2019, the OMNRF is no longer providing responses to these requests. As such, an information request was not submitted for this project. In lieu of a request response, the Natural Heritage Information Request Guide (OMNRF, 2018) was consulted and the data resources listed below were reviewed for relevant natural heritage feature and SAR data relating to the site.

Information regarding the potential presence of natural heritage features and SAR within the vicinity of the site was obtained from the following sources:

- Make a Map: Natural Heritage Areas (OMNRF, 2014);
- Land Information Ontario (OMNRF, 2011);
- Renfrew County Official Plan (Renfrew, 2002);
- Ontario Geological Survey (OGS, 2019);
- Fisheries and Oceans Canada SAR Maps (DFO, 2019);
- Natural Heritage Information Centre Biodiversity Explorer (OMNR, 2013);
- Breeding Bird Atlas of Ontario (Cadman, et al., 2007)
- Atlas of Mammals of Ontario (Dobbyn, 1994);
- Ontario Herpetofaunal Atlas (Oldham and Weller, 2000); and
- Ontario Ordonata Atlas (OMNR, 2005).

2.2 Site Investigation

A single field investigation was completed on December 6, 2019, from approximately 07:45 to 08:45. Conditions during the site investigation were overcast, -6°C, Beaufort wind 1 and light snow. There was approximately 10 cm of snow cover on the ground at the time of the site investigation.

The field investigation was completed by traversing the site while documenting habitat conditions and the presence/absence of SAR and their regulated habitat on-site.

Photographs taken during the site investigation are provided in Appendix B.

3.0 RESULTS

3.1 Desktop Screening Results

Results of the desktop screening exercise are summarized in Table 3.1 below. The desktop screening exercise identified the potential for one avian, three mammalian and one plant SAR within the project area. All five of the SAR species are considered to have a moderate potential to occur within the project area.

TABLE 3.1
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	SARA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian						
Bald Eagle	Special Concern	Not Currently Listed	Confirmed nest at Shirley's bay since 2012.	Nest in mature forests near open water	Low	Site lacks suitable forest habitat adjacent to open water and foraging area to support Bald Eagle activity
Bank Swallow	Threatened	Threatened	12 confirmed, 2 probable and 8 possible nests in recent OBBA.	Colonial nester, burrows in eroding silt, to sand banks, sand pit walls, etc.	Low	No suitable nesting habitat located on-site or within study area. Preferred foraging field habitat is not located on-site.
Barn Swallow	Threatened	Threatened	33 confirmed, 2 probable, and 3 possible nests in recent OBBA.	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Low	Suitable nesting habitat or structures located on-site; however, preferred foraging field habitat is not located on-site.
Bobolink	Threatened	Threatened	Widespread in the Ottawa region, confirmed and probable nests found in 39 or 40 local atlas squares during recent OBBA.	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	Suitable grassland habitat to support nesting and foraging bobolink is not present on-site or within the broader study area.
Canada Warbler	Special Concern	Threatened	1 confirmed, 2 probable, 6 possible nests during recent OBBA. No critical habitat identified in Ottawa region.	Prefers wet forests with dense shrub layers.	Low	No suitable forest habitat to support Canada warbler on-site.
Cerulean Warbler	Threatened	Endangered	No nests reported during recent OBBA. SARO and SARA range maps both include parts of Ottawa.	Prefers mature deciduous forests.	Low	No suitable forest habitat to support cerulean warbler on-site.
Chimney Swift	Threatened	Threatened	3 confirmed, 2 probable and 11 possible nests in recent OBBA. No critical habitat identified in Ottawa.	Nests in traditional-style open brick chimneys.	Moderate	Suitable nesting habitat (open chimneys) is present within study area. Chimney Swift were flagged by the City of Ottawa planning staff.
Common Nighthawk	Special Concern	Threatened	6 probable, 5 possible nests reported in recent OBBA. No critical habitat identified in Ottawa region.	Nests in a variety of open sites: beaches, fields, and gravel rooftops.	Low	Suitable habitat does not occur on-site.
Eastern Meadowlark	Threatened	Threatened	Sporadic occurrences in Ottawa region, more common in rural areas with pasture or fallow fields.	Nests and forages in dense tall grass fields and meadows, higher tolerance to woody vegetation.	Low	Suitable grassland habitat to support nesting and foraging eastern meadowlark is not present on-site or within the broader study area.
Eastern Whip-poor-will	Threatened	Threatened	Primary breeding range located east, west and south of the Precambrian shield. 7 probable and 10 possible nests in recent OBBA. Critical habitat tentatively identified in 4 squares in western Ottawa.	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	No suitable woodland habitat on-site or within broader study area to support eastern whip-poor-will.
Eastern Wood-Pewee	Special Concern	Special Concern	4 psosible, 15 probable and 19 confirmed nests in recent OBBA for Ottawa area	Woodland species, often found near clearings and edge habitat.	Low	No suitable forest habitat to support eastern wood-pewee on-site.
Golden Eagle	Endangered	Not Currently Listed	Migrant only in the Ottawa area.	Nests on remote, bedrock cliffs overlooking large burns, lakes or tundra.	Low	Suitable nesting habitat does not occur on-site.
Golden-winged Warbler	Special Concern	Threatened	1 confirmed, 1 probable nest in recent OBBA. Critical habtiat identified in Quebec, northest of Ottawa.	Ground nesting, edge species. Breeds in successional scrub habitats surrounded by forests.	Low	Site is unlikely to provide suitable habtiat for golden-winged warblers due to the lack of successional scrub habitat.
Grasshopper Sparrow	Special Concern	Special Concern	4 confirmed, 5 probable, 2 possible nests in recent OBBA	Area-sensitive grassland species, nests on ground	Low	Suitable grassland habitat to support grasshopper sparrow is not present on-site.
Henslow's Sparrow	Endangered	Endangered	No nests in recent OBBA	Prefers open, moist tallgrass fields.	Low	Suitable grassland habitat to support Henslow's sparrow is not present on-site.
Loggerhead Shrike	Endangered	Endangered	1 possible nest in recent OBBA. Critical habitat in Montague Township, however no confirmed nests from MNRF since 2002, and the MNRF do not consider Ottawa to include any significant habitat	Prefers grazed pastures with short grass and scattered shrubs, especially hawthorn.	Low	Preferred pasture habitat and shrub vegetation does not occur on-site.
Olive-sided Flycatcher	Special Concern	Threatened	1 probable, 1 possible nest in recent OBBA.	Forest edge species, forages in open areas from high vantage points in rees.	Low	No suitable forest habitat to support olive-sided flycatcher on-site.
Peregrine Falcon	Special Concern	Special Concern	1 confirmed nest in recent OBBA and second nest established in 2011 in the Ottawa downtown.	Nests on cliffs near water and on more anthropogenic structures such as tall buildings, bridges and smokestacks	Low	Site lacks suitable nesting structure for peregrine falcon
Red Knot	Endangered	Endangered	Migrant only, Ottawa River shores, area lagoons, etc.	Nests in the far north, shorelines and lagoons of the Ottawa River	Low	Site does not provide sutiable habitat for migrant Red Knot
Red-headed Woodpecker	Special Concern	Threatened	1 confirmed, 1 probable and 1 possible during recent OBBA. Nestin gpair reported from village of Constance Bay in recent years.	Prefers open deciduous woodlands.	Low	Mixed woodlands study area do not provide preferred habitat and structure for nesting red-headed woodpeckers.
Rusty Blackbrid	Special Concern	Special Concern	No nests in recent OBBA, primarily observed during migration	Wet wooded or shrubby areas (nests at edges of Boreal wetlands)	Low	Suitable habtitat does not occur on-site
Short-eared Owl	Special Concern	Special Concern	1 confirmed, 2 probable, 2 possible nests in recent OBBA.	Ground nester, prefers open habitats: fields and marshes	Low	No suitable open field or open marsh habitat on-site.
Wood Thrush	Special Concern	Threatened	5 possible, 15 probable, and 16 confirmed nests in recent OBBA for Ottawa area.	Prefers deciduous or mixed woodlands.	Low	No suitable woodland habitat on-site or within broader study area to support wood thrush.

TABLE 3.1
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	SARA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Mammalian						
Eastern small-footed Myotis	Endangered	Not Listed	Rare throughout its range. Historical records in downtown Ottawa.	Roosts in rock crevices, barns and sheds. Overwinters in abandoned mines. Summer habitats are poorly understood in Ontario, elsewhere pregers to roost in open, sunny rocky habitat and occasionally in buildings (Humphrey, 2017).	Moderate	Anthropogenic structures within study area may provide roosting habitat.
Little Brown Myotis	Endangered	Endangered	Various sites in central and western parts of the Ottawa area. No critical habitat (hibernacula) identified in Ottawa to date.	Maternal colonies known to use buildings, may also roost in trees during summer. Affinity towards anthropogenic structures for summer roosting habitat and exhibit high site fidelity (Environment Canada, 2015).	Moderate	Anthropogenic structures within study area may provide roosting habitat.
Northern myotis (Northern Long-eared Bat)	Endangered	Endangered	Historical records in downtown Ottawa, more recently in sites to east (Orleans, Clarence-Rockland). No critical habitat (hibernacula) identified in Ottawa to date. Ottawa and region is at southern most limit of range.	Occurs throughout eastern North America in associated with Boreal forests. Roosts mainly in trees, occasionally anthropogenic structures during summer (Environment Canada, 2015). Overwinters in caves and abandoned mines.	Low	Species affinity is for Boreal forest habitat, which is not present on-site. Species does not typically roost in anthropogenic structures.
Tri-colored Bat	Endangered	Endangered	Provincially Uncommon, only 26 documented occurrences in Ontario from pre-1980 to present (MNRF, 2016). Unknown distribution in Ottawa; historical records from sites in urban Ottawa and Lanark County.	Roosts in trees, rock crevices and occasionally buildings during summer. Overwinters in caves and mines.	Moderate	Anthropogenic structures within study area may provide roosting habitat.
Plants						
Butternut	Endangered	Endangered	Range is confined to eastern and southern Ontario. Widespread in Ottawa and region.	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	Moderate	Site is in a relatively open state.
Lichens						
Pale-bellied Frost Lichen	Endangered	Endangered	Historical records in downtown , however locally extirpated. No critical or regulated habitat identified in Ottawa	Grows on the bark of hardwood trees such as hop hornbeam. It may also grow on white ash, black walnut, American elm, fence posts and boulders.	Low	Species believed to be extirpated from the Ottawa area.
Insects						
Bogbean Buckmoth	Endangered	Endangered	Richmond Fen	Preferred food plant is bog bean, present in a variety of wetlands including bogs, swamps and fens.	Low	Preferred wetland habitat is not present on-site.
Gypsy Cuckoo Bumble Bee	Endangered	Endangered	Historic occurrences only. Range in Ontario uncertain.	Inhabits a wide range of habits: open meadows, agricultural and urban areas, boreal forests and woodlands.	Low	Currently the only known population is in Pinery Provincial Park
Monarch Butterfly	Special Concern	Special Concern	Widespread in the Ottawa area	Caterpillars require milkweed plants confined to meadow and open areas. Adult butterflies use more diverse habitat with a variety of wildflowers	Low	No sutiable foraging vegetation available for monarch on-site.
Mottled Duskywing	Endangered	Not Currently Listed	Constance Bay area, Burnt Lands Alvar	Larval food plant (New Jersey Tea) found in sandy areas and alvars.	Low	Sandy areas and alvars not present in the study area.
Nine-spotted Lady Beetle	Endangered	Not Currently Listed	Historically present but no reports in Ontario since mid-1990s	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated
Rusty-patched Bumble Bee	Endangered	Endangered	Histroic records in Ottawa and Gatineau	Habitat generalist	Low	Currently the only known population is in Pinery Provincial Park
Traverse Lady Beetle	Endangered	Special Concern	Unknown in Ottawa region. No southern Ontario records since 1985	Habitat generalist	Low	No new records of Traverse Lady Beetle in Ontario, species thouhgt to be absent in former habitats.
West Virginia White Butterfly	Special Concern	Not Currently Listed	Unknown. No NESS or NHIC records. SARO range map inlcudes Ottawa.	Requries mature moist deciduous woods with larval host plant toothwort.	Low	Necessary vegetation and toothwort plant not present on-site or within study area
Yellow-banded Bumble Bee	Special Concern	Special Concern	Unknown. Historic occurrences and a few recent occurrences in Eastern Ontario/Western Quebec region.	Habitat generalist; mixed woodlands, variety of open habitat	Low	No suitable foraging vegetation available for yellow-banded bumble bee on-site.

3.2 Vegetation Communities

The majority of the project area is open, and vegetated by an urban manicured lawn. Trees on-site consisted of a few trees surrounding the existing development and the hedgerows along the southeast and southwest property boundaries.

Tree species on-site included white pine (*Picea glauca*), sugar maple (*Acer saccharum*) and white ash (*Fraxinus americana*). The hedgerows were primarily populated by eastern white cedar (*Thuja occidentalis*). Lesser constituents within the hedgerow included common buckthorn (*Rhamnus cathartica*), white ash, and sugar maple.

3.3 Wildlife

No targeted wildlife surveys were completed as part of this project. No wildlife species were observed at the time of the site investigation, however it is anticipated that more wildlife species would be encountered on-site during the spring and summer months.

3.4 Species at Risk

A total of five SAR species were identified as having a moderate potential to occur on-site during the desktop review. However, following the completion of the site investigation, no species at risk were identified on-site.

Chimney swift, an avian SAR are not anticipated to occur on-site, as the chimney in the existing building has been capped to prevent wildlife from nesting within the chimney structure.

No butternut, a plant SAR were observed on-site. As such no negative impacts are anticipated to occur to butternut as a result of the proposed development.

Three mammalian species (Eastern small-footed myotis, little brown myotis, tri-colored bat) identified as having a moderate potential to occur within the project area. Given the lack of woodland habitat on-site the project area is not likely to support maternity roost colonies, however, the existing dwelling may provide suitable non-maternal summer roosting habitat. The demolition of the existing dwelling may result in a loss of daily, summer roost habitat.

4.0 AVOIDANCE AND MITIGATION MEASURES

The following avoidance and mitigation measures are recommended in order to minimize, to the greatest extent possible, the potential impacts from the redevelopment project on the local environment, including the identified SAR.

- To protect roosting and foraging bats, tree removal and building demolition should take place outside of the spring and summer active season (typically May 1 to September 1), when bats are more likely to be using tree and buildings for daily roosting. If vegetation

clearing must be conducted during the spring and summer timing window then a roost survey should be conducted by a qualified professional.

- Vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of migratory birds and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the aforementioned timing window then a nest survey shall be conducted by a qualified professional.
- To protect trees identified to be retained during construction, the Critical Root Zone (CRZ) should be identified and fenced. The CRZ is defined as 10 cm from the base of the tree for every centimetre in diameter of the tree trunk at breast height.
- Perform daily pre-work sweeps of the construction area to ensure no species at risk are present and to remove any wildlife from inside the construction area.
- All on-site construction staff should undergo environmental awareness training to be able to identify the potential SAR that may occur on-site.
- Should any additional species at risk be discovered throughout the course of the proposed works, the species at risk biologist with the local MECP district should be contacted immediately and operations modified to avoid any negative impacts to species at risk or their habitat until further direction is provided by the MECP.

5.0 REFERENCES

Cadman M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier. 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature. Toronto.

Dobbyn, J.S. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists, Toronto.

Oldham, M.J and W.F. Weller. 2000. Ontario Herpetofaunal Atlas.

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Ontario Ministry of Natural Resources and Forestry (OMNRF). 2018. Natural Heritage Information Request Guide.

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Ontario Ministry of Natural Resources (OMNR). 2005 Natural Heritage Information Centre. Ontario Odonata Atlas.

6.0 CLOSURE

This Species at Risk Assessment was completed based on our understanding of the project at the time of writing. The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

This report has been prepared for the application noted and it is based, in part, on visual observations made at the site, all as described in the report. Unless otherwise stated, the findings contained in this report cannot be extrapolated or extended to previous or future site conditions or for portions of the site that were unavailable for direct investigation.

Should new information become available during future work or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions presented herein.

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

Sincerely,



Taylor Warrington, B.Sc.
Biologist



Drew Paulusse, B.Sc.
Senior Biologist



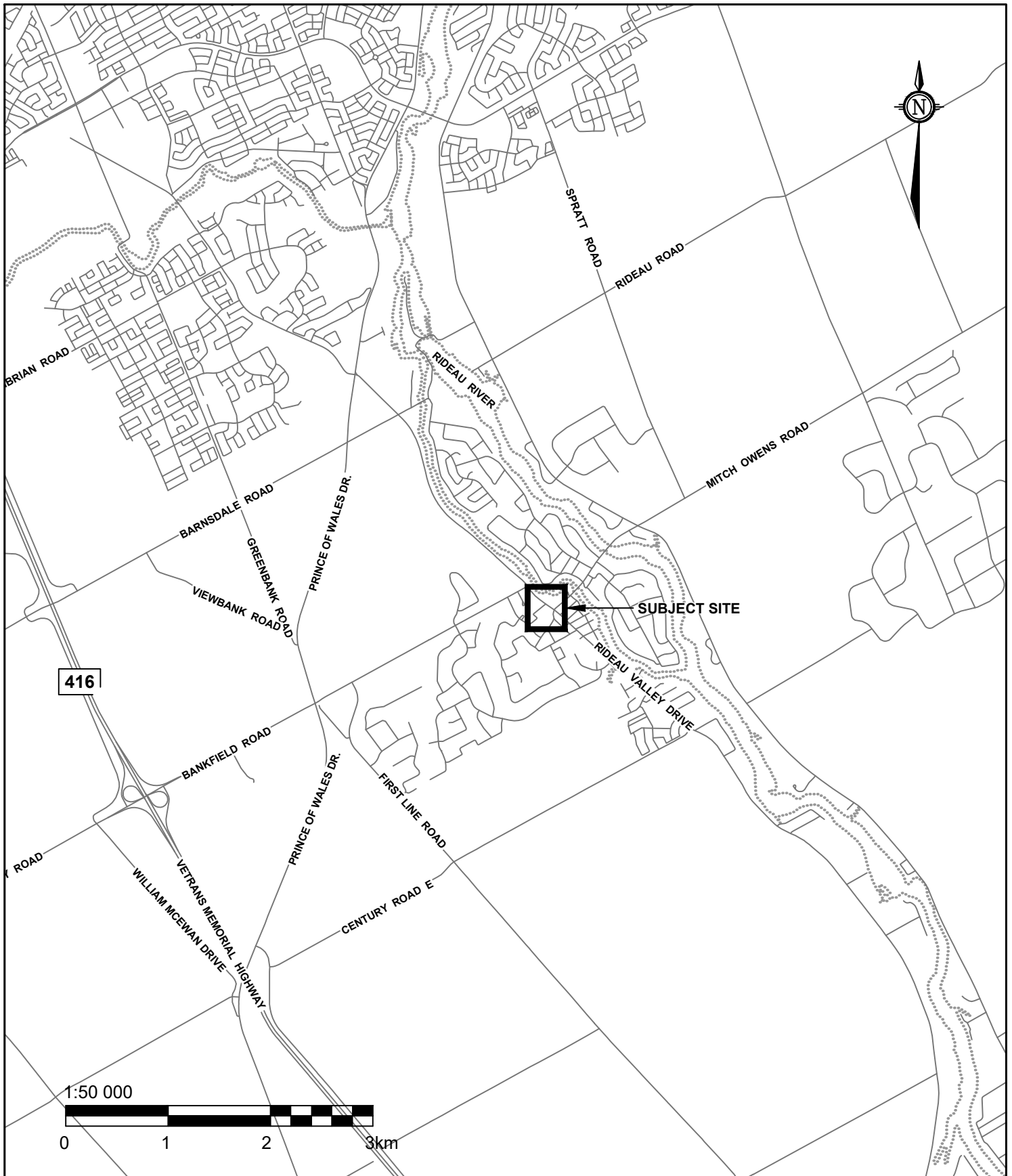
APPENDIX A


Report Figures

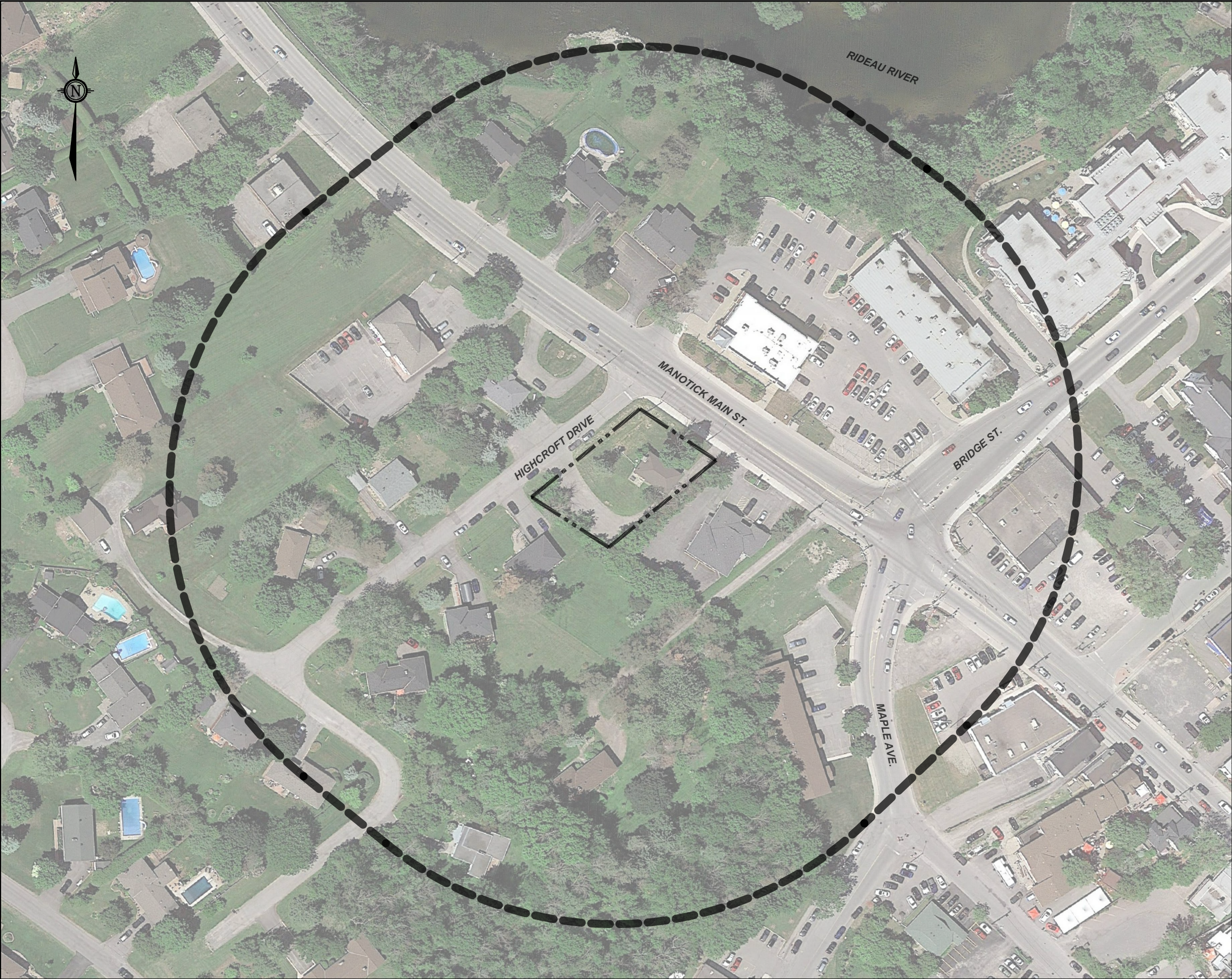
Figure A.1 – Site Location

Figure A.2 – Site Layout

Figure A.3 – Proposed Development



 GEMTEC CONSULTING ENGINEERS AND SCIENTISTS <small>32 Steacie Drive, Ottawa, ON K2K 2A9 T: (613) 836-1422 www.gemtec.ca ottawa@gemtec.ca</small>	Project SPECIES AT RISK SCREENING ASSESSMENT 5506 MANOTICK MAIN ST. OTTAWA, ONTARIO			Drawing SITE LOCATION		
	Drwn By P.C.	Chkd By T.W.	Date DECEMBER 2019	Project No. 65032.03	Revision No. 0	FIGURE A.1



LEGEND

----- APPROXIMATE DEVELOPMENT AREA

----- STUDY AREA, 120m AROUND PROPERTY BOUNDARY

Scale 1:1250

0 25 50 75m

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AND SCIENTISTS

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Drawing

SITE LAYOUT

Client

KGMS CONSTRUCTION

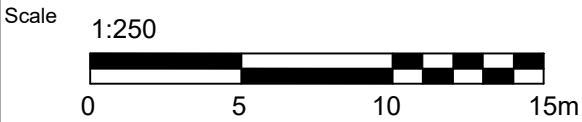
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Chkd by	T.W.	

Date	DECEMBER 2019	Rev.	0	FIGURE A.2
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LEGEND

----- APPROXIMATE DEVELOPMENT AREA



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Drawing
PROPOSED DEVELOPMENT

Client
KGMS CONSTRUCTION

Project 65032.03	SPECIES AT RISK SCREENING ASSESSMENT 5506 MANOTICK MAIN ST. OTTAWA, ONTARIO
Drwn by P.C.	

Date DECEMBER 2019	Rev. 0	FIGURE A.3
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APPENDIX B

Site Visit Photographs



Site Photograph 1 – Existing Vegetation and Dwelling



Site Photograph 2 – Existing Vegetation



Site Photograph 3 – Existing Vegetation



Site Photograph 4 – Existing Vegetation



Site Photograph 5 – Existing Vegetation,
Southeast Hedgerow



Site Photograph 6 – Existing Vegetation,
Southwest Hedgerow

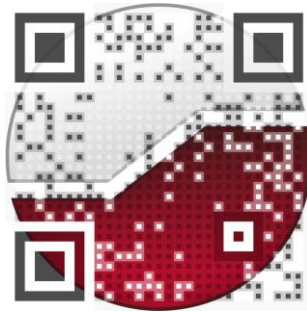


Site Photograph 7 – Capped Chimney



Site Photograph 8 – Capped Chimney

experience • knowledge • integrity



civil
geotechnical
environmental
field services
materials testing

civil
géotechnique
environnementale
surveillance de chantier
service de laboratoire des matériaux

expérience • connaissance • intégrité

