AMA Investments Inc.

Environmental Impact Study

84 Nancy Street, Bolton, Ontario

Project No. C14-0252

June 25, 2019

Submitted by:

CIMA Canada Inc
Lisa Cullen, OALA, AAPQ, ISA Certified Arborist
T: 905-697-4464 ext. 6915
415 Baseline Road West, 2nd Floor
Bowmanville, ON L1C 5M2

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Project No. C14-0252

PREPARED BY:

Jennifer Haslett
Senior Project Manager, Environment

CIMA+
415 Baseline Road West, 2nd Floor
Bowmanville, Ontario L1C 5M2

June 25, 2019

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1. Introduction

CIMA Canada Inc. (CIMA+) has been retained by AMA Investments Inc. (AMA) to undertake an Environmental Impact Study (EIS) in support of an application for residential development at 84 Nancy Street in Bolton, Ontario (the 'Project'). The Project is proposed on an irregular 0.77 ha (1.9 acre) parcel of land legally described as Part of Lots 33 and 34, Block 3, Plan BOL7 2124090005051-000000 (the 'Subject Property'). The Subject Property is in the Town of Caledon (Region of Peel), Ontario (Figure 1).

The purpose of the EIS is to document existing conditions, assess potential impacts to natural heritage features present on, and adjacent to, the Subject Property and provide environmental protection / mitigation recommendations in accordance with applicable natural heritage policies and legislation.

2. Natural Features and Designations

Available background information was reviewed to evaluate the landscape context for the Subject Property and identify natural heritage features and designations that require further site-specific assessment. These data sets included:

- Aerial imagery (current and historic)
- Surficial geology mapping (Ontario Geological Survey)
- Soil physiography mapping (Chapman and Putnam)
- Regional and local topography
- Data published through wildlife atlases
- Environment mapping in the Official Plans of the Town of Caledon and Region of Peel
- Wildlife data records from the Land Information Ontario (LIO) Natural Heritage Areas database
- Natural heritage features identified through LIO
- Data sets provided by the Toronto and Region Conservation Authority (TRCA) and the Ministry of Natural Resources and Forestry (MNRF)

CIMA+ also reviewed available relevant technical studies completed on, or directly adjacent to, the Subject Property. Table 1 lists the documents reviewed and Figure 2 outlines the features identified from the background research.

Table 1. Summary of Relevant Documents Reviewed

Document	Date of Issue
84 Nancy Street Bolton – Review of Valley Feature and Related Development Policies (CIMA+)	December 18, 2018
A Geotechnical Investigation for Proposed Residential Development – 84 Nancy Street, Town of Caledon (Bolton) (Soil Engineers Ltd.)	October, 2018
Topographic Sketch of No. 84 Nancy Street, Town of Caledon, Regional Municipality of Peel (ertl surveyors Ontario Land Surveyors)	July 30, 2018
Phase One Environmental Site Assessment – 84 Nancy Street, Town of Caledon (Bolton) (Soil Engineers Ltd.)	July 9, 2018
Peel-Caledon Significant Woodlands and Significant Wildlife Habitat Study (North-South Environmental Inc.; Dougan & Associates; Sorensen Gravely Lowes)	June, 2009
Humber River Watershed Scenario Modelling and Analysis Report (TRCA, 2008)	2008
Humber River Watershed Plan (TRCA)	June, 2008
Humber River Fisheries Management Plan (MNRF and TRCA)	October, 2004

CIMA+

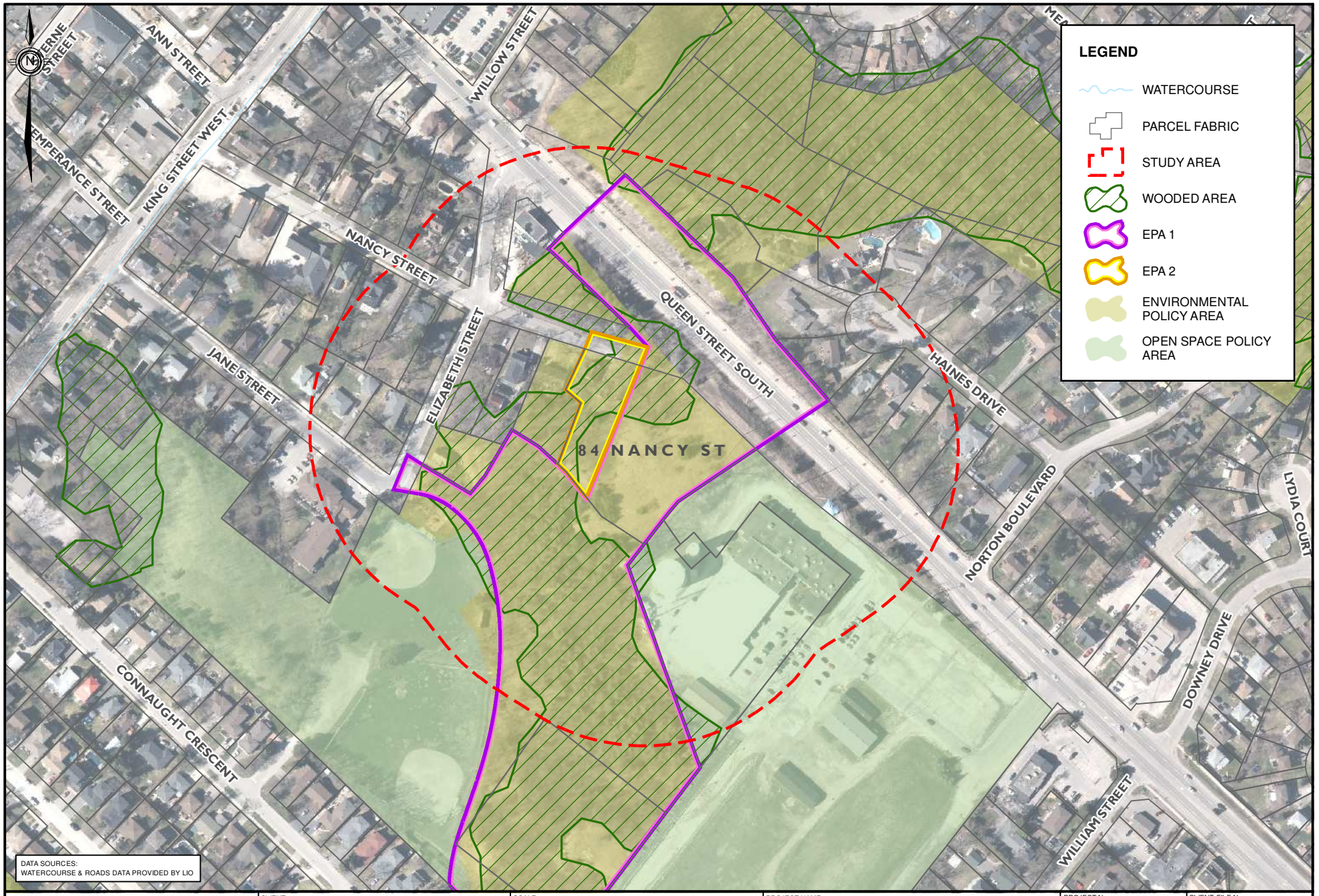
CLIENT
AMA INVESTMENTS INC.

SCALE
30 15 0 30 60 90
meters
1:3,000

PROJECT NAME:
SCOPED EIS
84 NANCY STREET, BOLTON, ONTARIO

SHEET TITLE:
STUDY AREA

PROJECT No: C14-0252		CLIENT FILE No: ---
DRAFTER: S. ELLIOTT	DESIGNER ---	DRAWING No: **FIG. 1**
APPROVER L. CYMBALY	APPROVER ---	
DATE: 12/17/2018		SHEET No: 1 of 1



CIMA+

CLIENT
AMA INVESTMENTS INC.

SCALE
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meters
1:3,000

PROJECT NAME:
SCOPED EIS
84 NANCY STREET, BOLTON, ONTARIO

SHEET TITLE:
RELEVANT SITE FEATURES

PROJECT No: C14-0252		CLIENT FILE No: ---
DRAFTER: S. ELLIOTT	DESIGNER ---	DRAWING No: **FIG. 2**
APPROVER L. CYMBALY	APPROVER ---	
DATE: 12/18/2018		SHEET No: 1 of 1

2.1 Ecoregion

The Subject Property is located within Ecoregion 6E (Lake Simcoe-Rideau Ontario). More than 57% of the ecoregion exists as cropland (44.4%), and pasture and abandoned fields (12.8%). Forest cover includes deciduous (16.0%), coniferous (5.3%), and mixed forest (8.8%). Water covers 4% of the ecoregion.

The vegetation is relatively diverse across the region and include hardwood forests dominated by Sugar Maple (*Acer saccharum*), American Beech (*Fagus grandifolia*), White Ash (*Fraxinus americana*), Eastern Hemlock (*Tsuga canadensis*), and numerous other species are found where substrates are well developed on upland sites. Lowlands, including rich floodplain forests are often established with Green Ash (*Fraxinus pennsylvanica*), Silver Maple (*Acer saccharinum*), Red Maple (*Acer rubrum*), Eastern White Cedar (*Thuja occidentalis*), Yellow Birch (*Betula alleghaniensis*), Balsam Fir (*Abies balsamea*), and Black Ash (*Fraxinus nigra*). Peatlands (including fens, rarely bogs), often established with Black Spruce (*Picea mariana*) and Tamarack (*Larix laricina*) occur along the northern edge and in the eastern portion of the ecoregion (Crins et al., 2009).

2.2 Watershed and Watercourses

The Subject Property is located within the Humber River Watershed under the jurisdiction of the TRCA. The Humber River watershed encompasses approximately 900 square kilometres. From its headwaters in the Oak Ridges Moraine and the Niagara Escarpment the Humber River flows southerly to Lake Ontario over a length of 126 km. The main branch of the Humber River flows through the community of Bolton, which is in the southeast portion of the Town of Caledon.

No watercourses have been mapped or identified on the Subject Property by CIMA+ or others, and no evidence of watercourses was observed during the field investigations.

2.3 Topography and Site Drainage

Regional topographic maps and local site-specific surveys (ertl surveyors, 2018) were reviewed. A technical report and associated policy review regarding the valley feature in the vicinity of the Subject Property was prepared by CIMA+ in December 2018.

The Humber River valley through Bolton is a complex geographic feature of significant scale having a depth in the order of 30 m and a width of approximately 950 m. The downtown area of Bolton that defined the historic village is situated within the river valley, whereby much of the historic development in Bolton is located on the valley floor. The valley is relatively broad having a gentle U-shaped floor varying in width from approximately 300 m to 450 m. The top width of the valley near Bolton spans roughly 950 m. Given the considerable size and depth of the Humber River valley, the area surrounding Bolton contains many topographic variations and the valley walls in some instances are well separated from both the watercourse and the floodplain.

The Subject Property is located at the east end of Nancy Street on sloping ground on the south side of the Humber River valley on the upper slope of the valley wall. The slopes associated with the Subject Property are generally flatter than the typical valley wall, with the maximum slope on site being 22%.

The undeveloped forested lands on the valley wall to the south and south-west of the Subject Property exhibit a 35% slope. This valley wall external to the Subject Property slopes in a westerly direction with a change in elevation from approximately 250 m to 224 m.

Surface drainage is anticipated to flow in a north to north-westerly direction towards Nancy Street and Queen Street South or in a west to south-westerly direction towards Ted Houston Memorial Park.

2.4 Soils and Surficial Geology

The landforms in the surrounding landscape associated with the Humber River watershed are primarily the result of the movement and deposition of material by glaciers and melt-water in the most recent period of glaciation (TRCA, 2008). Six distinct physiographic regions are found in the watershed: Guelph Drumlin Field; Niagara Escarpment; Oak Ridges; South Slope; Peel Plain; and the Iroquois Sand Plain (Chapman and Putnam, 1984).

The Subject Property is located within the South Slope physiographic region which is characterized by a sloping plain that extends across the lower headwater areas in a band from an elevation of about 245 m at the boundary with the Oak Ridges to about 220 m at the southern boundary with the Peel Plain (TRCA, 2008). Surficial Geology was noted to be primarily comprised of Diamicton (TRCA, 2015), with soils generally dominated by Halton Till material of silt to silty clay matrix, high in carbonate content and clast poor. Bedrock in the area of the Subject Property is part of the Georgian Bay Formation comprised of limestone, dolostone, shale and siltstone, with earth fill (silty clay mixed with topsoil) noted within the vicinity of the Subject Property.

The results of the geotechnical investigation revealed that beneath a topsoil veneer and a layer of earth fill in places, the Subject Property is underlain by strata of silty clay and silty clay till (Soils Engineering Ltd., 2018). Groundwater was encountered at one of the borehole locations at an elevation of 234.7m.

Soil auger samples were taken at various locations on the Subject Property to support the Ecological Land Classification assessment. The results were consistent with the background review. Soils were observed to be predominantly mineral soil (silty clay with traces of sand and gravel) overlain with approximately 8 to 25 cm of organic materials (topsoil). Soil moisture was classified as dry to fresh. No seeps, springs or surface water pooling was observed on or directly adjacent to the Subject Property at the time of the CIMA+ surveys.

2.5 Surrounding Land Cover / Land Uses

The Subject Property is bordered by Queen Street South on the northeast, Albion Bolton Community Centre to the southeast, undeveloped forest and recreational lands to the southwest, and residential development to the north-west along Nancy Street.

The lands southwest of the King Street West and Queen Street South intersection are primarily residential, with some Environmental Policy Area and Open Space Policy Area identified.

2.6 Natural Heritage Features

Natural heritage maps obtained through LIO and online resources were used to identify natural heritage features that receive legislative or policy protection in Ontario.

CIMA+ also sent out an information request to the MNRF to identify significant natural heritage features near the Subject Property and obtain additional information on restricted Species at Risk records or other data on file concerning the Subject Property.

2.6.1 Provincial Natural Heritage System

The Provincial Natural Heritage System (NHS) is comprised of the protected lands identified in the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and the Niagara Escarpment Plan. The Subject Property is not within the Provincial NHS. The nearest component of the provincial NHS is approximately 900 m west of the Subject Property.

2.6.2 Areas of Natural and Scientific Interest

No Areas of Natural and Scientific Interest (ANSIs) are present within or near the Subject Property. The nearest ANSI is the Palgrave Moraine Earth Science ANSI located about 7 km northwest of the Subject Property.

2.6.3 Provincially Significant Wetlands

No Provincially Significant Wetlands (PSWs) are present on or near the Subject Property. The nearest PSW is located about 800 m northeast of the Subject Property.

2.6.4 Significant Woodlands

A portion of the Subject Property has been mapped by the province and the Region of Peel as Woodland. Designation of forested lands as *Significant Woodlands* is a decision made at the local planning level and is often confirmed during an EIS.

Aerial photo interpretation was used to delineate the actual boundary of woodland near the Subject Property, and this boundary was confirmed through site investigations conducted by CIMA+. Figure 3 illustrates the results of this delineation.

The treed area delineated on Figure 3 meets the definition of Woodland in the Town of Caledon's Official Plan. Woodland Core Area in the Town of Caledon is defined as woodlands meeting one or more of the criteria in Table 1 of the Region of Peel Official Plan.

Table 1 of the Region of Peel Official Plan was consulted, and the size of the woodland as delineated on Figure 3 qualifies it as Woodland Core Area (>4 ha).

2.6.5 Significant Valleylands

The Subject Property is within the Humber River Valley, which meets the definition of valley as per the Town of Caledon Official Plan. The catchment area of the valley and prominence of the landform would qualify the feature as being significant in accordance with Provincial criteria.

2.6.6 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) is generally defined as critical areas where animals and other organisms live, and find adequate amounts of food, water, shelter, and space needed to sustain their populations.

The MNRF's Significant Wildlife Habitat Technical Guide, and Criteria for Identifying SWH in Ecoregion 6E was used to evaluate the potential for SWH to be present on or near the Subject Property. Where potential for SWH was identified from the desktop assessment, a field assessment was completed to confirm if the criteria for SWH was met. The results of this evaluation are provided in Appendix A.

Based on the results of the assessment, SWH is not present on or adjacent to the Subject Property. No SWH records were identified through agency correspondence or the background review.

2.6.7 Fish Habitat

No watercourses are present on, or adjacent to, the Subject Property; therefore, fish habitat is not present.

2.6.8 Species at Risk Habitat

The MNRF identified that there are records of Species at Risk (SAR) in the general vicinity of the Subject Property.

A SAR screening was completed to evaluate potential for the presence of SAR on the Subject Property. SAR identified by the MNRF, identified in the general area from third party data sources, or observed during the field assessment were included in the screening. Habitat requirements for these species were compared to the habitat available on or near the Subject Property. If matching habitat was not present, and no observations of the species were made, the likelihood of occurrence was deemed low. If matching habitat was present on the Subject Property, but no individuals of the species were observed, the likelihood of occurrence was

deemed to be Low to Moderate. Where matching habitat was present, and the species was observed on the Subject Property, the likelihood of occurrence was deemed to be High.

The results of the screening assessment indicate that likelihood for SAR on the Subject Property is low. Refer to Appendix B for details.

2.6.9 Natural Heritage Features in Official Plans

The Region of Peel's Greenlands System as mapped in the Official Plan does not include the Subject Property; however, the interpretation of the actual location and components of the Greenlands System is to be governed by the text of the Official Plan and site-specific investigations.

The Greenlands System is meant to be comprised of ANSI's, Environmentally Sensitive or Significant Areas (ESA's), the Escarpment, the Oak Ridges Moraine, wetlands, woodlands, valley and stream corridors, natural corridors, shorelines, and habitats of threatened and endangered species. Of this list of components, there are none present on the Subject Property. Woodland and corridor are present on the forested slope adjacent to the Subject Property and would meet the definition of the Greenlands System. The Greenlands area corresponds to the forested area delineated on Figure 3.

The Caledon Official Plan identifies the Subject Property as an Environmental Policy Area (EPA). Refer to Figure 2 for the specific zoning on the Subject Property. EPA's are intended to comprise all the Natural Core Areas and Natural Corridors identified in Table 3.1 of the Official Plan. The policy text of the Official Plan further stipulates that as more detailed environmental information becomes available through site investigations and studies, such as this EIS, refinements to the limits of lands designated EPA may be permitted.

Table 3.1 was reviewed in light of the information collected through this EIS, and none of the ecosystem components described in the Natural Core Areas and Natural Corridors columns of the table are present on the Subject Property. The EPA designation should instead follow the woodland feature as delineated on Figure 3 of this report.

2.6.10 Conservation Authority Regulated Features

The Subject Property is located within TRCA's Regulated Area of the Humber River Watershed. TRCA administers this regulation through O. Reg. 166/06 (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses) and their Living City Policies.

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CLIENT
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PROJECT NAME:
SCOPED EIS
84 NANCY STREET, BOLTON, ONTARIO

SHEET TITLE:
SIGNIFICANT WOODLANDS ASSESSMENT

PROJECT No: C14-0252		CLIENT FILE No: ---
DRAFTER: S. ELLIOTT	DESIGNER ---	DRAWING No: **FIG. 3**
APPROVER L. CYMBALY	APPROVER ---	
DATE: 12/21/2018		SHEET No: 1 of 1

3. Field Investigations

3.1 Methods

CIMA+ conducted field assessments of the Subject Property and adjacent lands (where accessible) on May 29 and June 21, 2018 to evaluate existing ecological conditions. The field program included the following surveys:

- Vascular plant inventories
- Existing habitat assessments, including ecological community characterization completed in general accordance with MNRF Ecological Land Classification (ELC) for Southern Ontario standard procedures and protocols
- Evaluation of natural heritage features for provincial significance in accordance with Provincial criteria set out in the Natural Heritage Reference Manual (2010)
- Breeding bird survey conducted in accordance with the Ontario Breeding Bird Atlas (OBBA) standard procedures and protocols
- Incidental wildlife and wildlife habitat observations (auditory, visual, tracks, scat, burrows, nests, etc.) throughout the Subject Property
- Photographic documentation (Appendix D)

3.2 Vegetation Communities

Lands on, and directly adjacent to, the Subject Property were assessed to document vegetation species of conservation concern and evaluate habitat conditions. The assessment included detailed biological inventories and vegetation community characterization.

Several ELC community classes were identified within the Study Area, including mixed coniferous-deciduous forested communities, Constructed Green Lands (actively managed undeveloped lands) as well as built environments (Constructed Residential, Commercial, Industrial, and Institutional). Table 2 details the communities observed within the Study Area. The locations of the vegetation communities present on and adjacent to the Subject Property are outlined on Figure 4.

Table 2. Ecological Communities Present on, and Surrounding the Subject Property

ELC Code	Dominant Species	Notes
CGL Constructed Green Lands	Lands associated with the Subject Property are actively managed undeveloped lands. Lands are predominantly established with Kentucky Blue Grass intermixed with Orchard Grass, Common Dandelion, English	• Soil composition exhibited an 8-25 cm layer of topsoil followed by silty clay with trace sand and gravel. Soils were dry-fresh at the

ELC Code	Dominant Species	Notes
	Plantain, Goldenrod, Motherwort, Garlic Mustard and occasional Wild Red Raspberry, and some Virginia Creeper. Several shrubs and small trees are also present closer to the existing residence and along the fence line to the southeast. Shrub and tree species within the property limits include Common Buckthorn, Staghorn Sumac, Green Ash, Morrow's Honeysuckle, Chokecherry, and Alternate-leaved Dogwood.	time of the spring ELC surveys. • No pooling of water observed in any areas of the unit. • Adjacent property backyard trees to the northwest include Sugar Maple and Norway Maple. • ELC Community S Rank: Not Applicable
FOMM2-3 Dry-Fresh Pine – Hardwood Mixed Forest	Forest canopy is dominated by Red and White Pine, followed by equal portions of Green Ash and Black Walnut, with associates of Sugar Maple, White Spruce, and a minor component of Black Cherry. Subcanopy species are dominated by Eastern White Cedar, Honeysuckle (Morrow's, Tartarian, and hybrids), and Common Buckthorn. Staghorn Sumac, Black Walnut, crabapple, honeysuckles and Common Buckthorn dominate the forest edge habitat. Forest groundcover is dominated by ash saplings, avens, asters, goldenrods, Wild Red Raspberry, Virginia Creeper, Bittersweet Nightshade, and occasional associates of Enchanter's Nightshade, Wild Strawberry, Herb Robert and bedstraws.	• Steep slope and uneven ground. • Dense understory vegetation (subcanopy + groundcover). Tree size classes ranged from saplings to large individuals including Black Walnuts reaching up to ~30 cm DBH. • Tree density and basal area was noted to be high. • No pooling or defined drainage paths observed (erosion scarring, cobble substrate exposure, etc.). • ELC Community S Rank: S5
CGL-4 Constructed Recreational Green Lands	Lands associated with Ted Houston Memorial Park are actively managed greenlands established with manicured grass (baseball diamond and associated recreational fields).	• ELC Community S Rank: Not Applicable

ELC Code	Dominant Species	Notes
CVC Constructed Commercial and Industrial	Lands associated with the commercial development are predominantly covered by built features (buildings and asphalt). Greenspace is extremely limited in this inclusion. Existing greenspace includes actively managed lawns (manicured grass) with several boulevard trees.	• ELC Community S Rank: Not Applicable
FOM Mixed Coniferous – Deciduous Treed Community	Undeveloped lands located between Nancy Street and Queen Street South encompass a nearly even part mixture of coniferous and deciduous trees/shrubs, including, but not limited to: honeysuckles, locust trees, poplar, White Pine, Eastern White Cedar, Black Walnut, elm, ash, European Barberry, Norway Maple, Manitoba Maple, willows, lilac, Alternate-leaved Dogwood, and Choke Cherry. Groundcover was dominated by asters and goldenrods emerging in gaps between dense clumps of shrubs and saplings. Virginia Creeper and occasional masses of Riverbank Grape and Poison Ivy were observed growing between or over vegetation.	• These undeveloped lands extend much of the length of Nancy Street on the north side. These lands are a fragmented 0.4 ha woodlot (considered an inclusion to the surrounding cultural built environment rather than a defined ecosite due to size class). • ELC Community S Rank: Not Applicable
CVS-2 Constructed Institutional - Health	Lands associated with the Albion Bolton Community Centre are predominantly covered by built features (buildings and asphalt). Greenspace is generally actively managed lawns (manicured grass) with naturalized trees and shrubs scattered along the property fence line including Staghorn Sumac, honeysuckles, and occasional Black Walnut and American Elm.	• ELC Community S Rank: Not Applicable
CVR-3 Cultural – Single Family	Lands associated with residential properties included actively managed lawns established with ornamental variants of	• ELC Community S Rank: Not Applicable

ELC Code	Dominant Species	Notes
Residential	Kentucky Blue Grass, as well as scattered planted and/or naturally established trees intermixed with planted landscape features. Trees and shrubs observed on residential lands along Nancy Street included Norway Maple, Red Maple, Manitoba Maple, White Pine and crabapple.	

A vascular plant inventory is presented in Appendix C. No Species at Risk (SAR), or other species of conservation concern were observed on the Subject Property at the time of the site surveys.

3.3 Wildlife

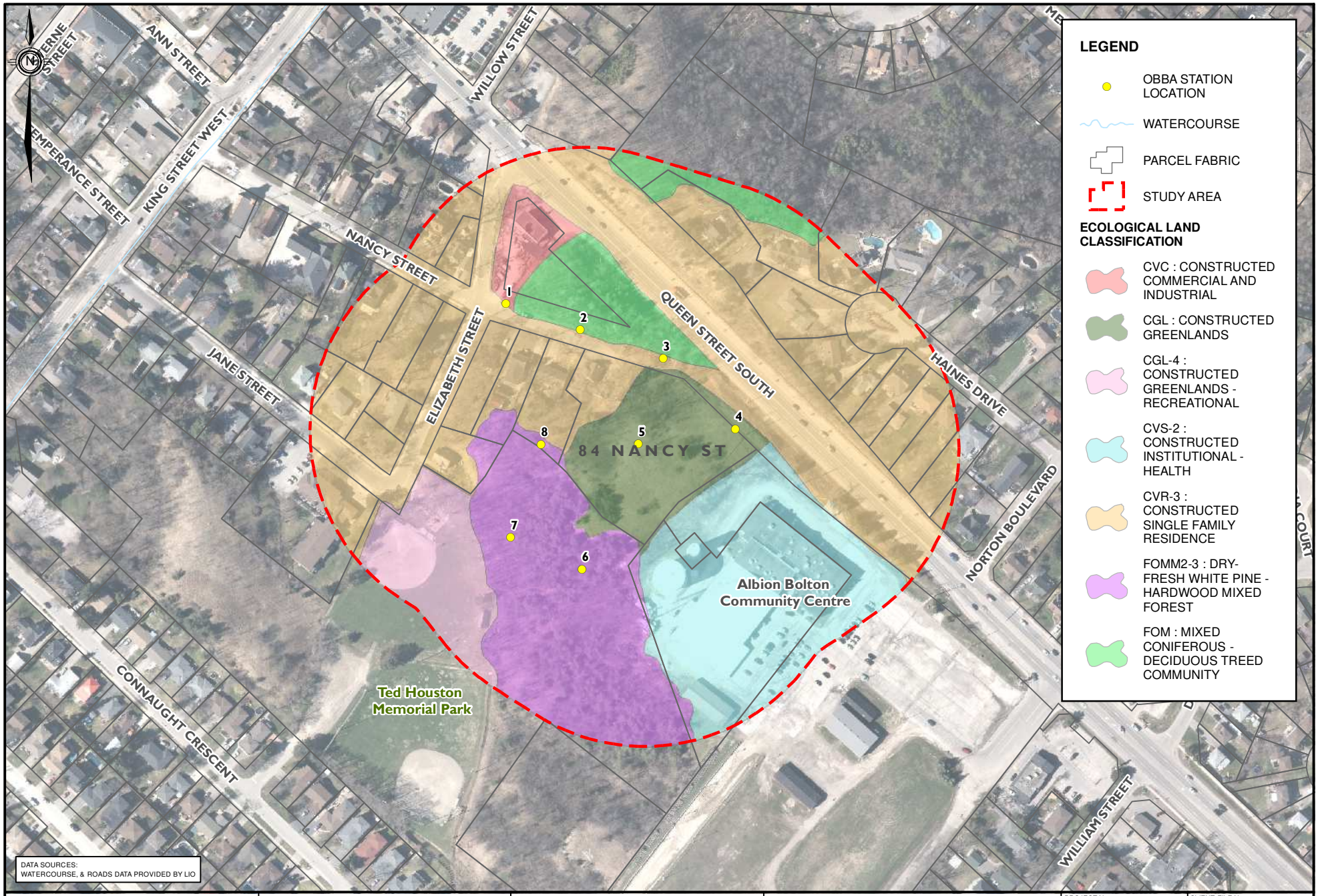
3.3.1 Mammals

Two Grey Squirrels (*Sciurus carolinensis*) were observed and one Red Squirrel (*Sciurus vulgaris*) was heard in the forest feature present to the south / southwest of the Subject Property. One Grey Squirrel nest was observed in a Black Walnut tree in the hedgerow northeast of the Subject Property.

No other mammals, or wildlife signs (tracks, scat, nests, dens, deer laying areas, trails etc.) were observed on or directly adjacent to the Subject Property at the time of the site surveys.

Correspondence from the MNRF Aurora District Office noted that there is potential for endangered bats (Eastern Small-footed Myotis, Little Brown Myotis, Northern Myotis and Tri-colored Bat) in tree cavities at or adjacent to the Subject Property.

MNRF protocols state that determination of potential for bat habitat begins with identifying forested areas. Where forested area exists, potential for bat habitat exists. There is no forested habitat on the Subject Property, but the adjacent forest as shown on Figure 3 could have potential for bat habitat.



CIMA+

CLIENT
AMA INVESTMENTS INC.

SCALE
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PROJECT NAME:
SCOPED EIS
84 NANCY STREET, BOLTON, ONTARIO

SHEET TITLE:
ECOLOGICAL LAND CLASSIFICATION

PROJECT No: C14-0252		CLIENT FILE No: ---
DRAFTER: S. ELLIOTT	DESIGNER ---	DRAWING No: **FIG. 4**
APPROVER L. CYMBALY	APPROVER ---	
DATE: 12/18/2018		SHEET No: 1 of 1

3.3.2 Birds

A review of available bird data from Ebirds Canada, the Natural Heritage Information Centre (NHIC) database governed by Land Information Ontario (LIO), and Ontario Nature databases was completed as part of the assessment. Furthermore, wildlife records were requested from the Ministry of Natural Resources Aurora District Office. The results of the data review identified SAR species records within or adjacent to the Subject Property.

Specifically, the database search returned records for Eastern Wood-pewee (*Contopus virens*). Eastern Wood-pewee is listed both provincially and federally as a species of Special Concern. The observation was recorded within a 1km square over the Subject Property. A screening was completed for this species, and it was determined to have a low likelihood of occurrence on the Subject property (Appendix B).

CIMA+ completed a breeding bird survey in accordance with Ontario Breeding Bird Atlas (OBBA) standard procedures and protocols as part of the assessment. Two site visit surveys were completed. Each site survey included 8 point count stations which covered the Subject Property and adjacent lands, as outlined on Figure 4**Error! Reference source not found.**. Point counts were taken on May 29 and June 21, 2018 between the hours of 6:30am and 9:30am. Conditions were sunny and clear both days (no precipitation), with recorded morning temperatures of approximately 17 °C on May 29th and 15 °C on June 21st, 2018. The results of the survey are outlined in Table 3.

All incidental wildlife observations throughout the various field surveys and site visits were also recorded. No SAR species or other species of conservation concern were observed (visual or auditory) within or adjacent to the Subject Property at the time of the field investigations.

Lands on and directly adjacent to the Subject Property were inspected for ground nesting structures, or nests within shrubs or trees. Artificial structures were also inspected for wildlife nesting. No bird nests were observed in these areas at the time of the site surveys.

Table 3. OBBA Survey Results

Scientific Name	Common Name	S Rank	G Rank	N Rank	ESA Status	COSEWIC	SARA Status	Visit #	Breeding Code
Bombycilla cedrorum	Cedar Waxwing	S5B	G5	N5	-	-	-	2	Po(H)
Cardinalis cardinalis	Northern Cardinal	S5	G5	N5	-	-	-	1,2	Pr(P,T)
Zenaida macroura	Mourning Dove	S5	G5	N5	-	-	-	2	Ob(X)
Cyanocitta cristata	Blue Jay	S5	G5	N5	-	-	-	1,2	Po(S)
Agelaius phoeniceus	Red-winged Blackbird	S4	G5	N5B,N5N	-	-	-	1	Ob(X)
Melospiza melodia	Song Sparrow	S5B	G5	N5B,N5N	-	-	-	1,2	Pr(A)
Spizella passerina	Chipping Sparrow	S5B	G5	N5B	-	-	-	1,2	Po(S)
Colaptes auratus	Northern Flicker	S4B	G5	N5	-	-	-	1	Po(S)
Turdus migratorius	American Robin	S5B	G5	N5B,N5N	-	-	-	1,2	PR(P,A)

OBBA CODE LEGEND:

Ob. – Observed
(**X**) – Species observed in its breeding season; no evidence of breeding.

Po. – Possible
(**H**) – Species observed in breeding season in suitable nesting habitat.
(**S**) – Singing male present or breeding calls heard in breeding season in suitable nesting habitat.

Pr. – Probable
(**P**) – Pair observed in their breeding season in suitable nesting habitat.
(**T**) – Permanent territory presumed through registration of territorial song on that least 2 days, one week or more apart at the same place.
(**D**) – Courtship or display between a male and a female or 2 males including courtship feeding or copulation
(**V**) – Visiting probable nest site
(**A**) – Agitated behavior or anxiety calls of an adult
(**B**) – Brood Patch on adult female or cloacal protuberance on adult male
(**N**) – Nest building or excavation of nest hole

Conf. – Confirmed
(**DD**) – Distraction display or injury feigning
(**NU**) – Used nest or egg shell found (occupied / laid during atlas period)
(**FY**) – Recently fledged young or downy young
(**AE**) – Adults leaving or entering nest site in circumstances indicating occupied nest
(**FS**) – Adult carrying faecal sac
(**CF**) – Adult carrying food for young
(**NE**) – Nest containing eggs
(**NY**) – Nest with young seen or heard

3.3.3 Reptiles and Amphibians

CIMA+ biologists accessed the Ontario Reptile and Amphibians Atlas to perform a search of reptile and amphibian observations recorded within the 10 km^2 grid which covers the Subject Property. 346 herpetofauna observation records were found, totalling 17 species, 16 species of which have been observed within the last 20 years (Appendix C). Three species of conservation concern were among the list: Western Chorus Frog (*Pseudacris triseriata*; a federally listed Threatened species), Eastern Milksnake (*Lampropeltis triangulum*; a federally listed species of Special Concern) and Snapping Turtle (*Chelydra serpentine*; a provincially and federally listed species of Special Concern). The species were determined to have a low to negligible likelihood of occurring on the Subject Property (Appendix B).

The results of the background review and MNRF correspondence did not identify additional records for SAR herpetofauna on or near the Subject Property.

No herpetofauna species were observed (visual or auditory) throughout the field surveys. No roadkill, carapaces, snakeskins, egg shells, tracks, nests, burrows, or other evidence of turtles or snakes were observed at the time of the site visits or field surveys. No significant rock piles or concrete structures such as retaining walls or building structures conducive to the formation of snake hibernacula were observed on the Subject Property at the time of the site investigations.

No ponds, watercourses, natural drainage features, wetlands or pooled water were observed on or near the Subject Property at the time of the site field assessments nor through the results of the background review and pre-consultation phase. No amphibian or aquatic reptile habitat is present near the Subject Property where the development is proposed. A Photographic Log of existing conditions is presented in Appendix D.

4. Impact Assessment and Mitigation Plan

A multi-story residential building with underground parking is proposed for the Subject Property. Figure 5 shows a conceptual rendering of the proposed development on the Subject Property. Figure 6 shows the footprint of the development in relation to identified natural heritage features and setbacks.

The activities associated with the proposed development were evaluated for potential impacts to the nearby natural features and functions and existing on-site vegetation. Impacts can result from site alterations associated with intensification, activities associated with these site alterations, and potential effects upon existing and potential ecological features and functions characterized in Sections 2 and 3. Impacts can be positive, neutral, or negative, and generally fall into two categories: Direct Impact; and Indirect Impact.

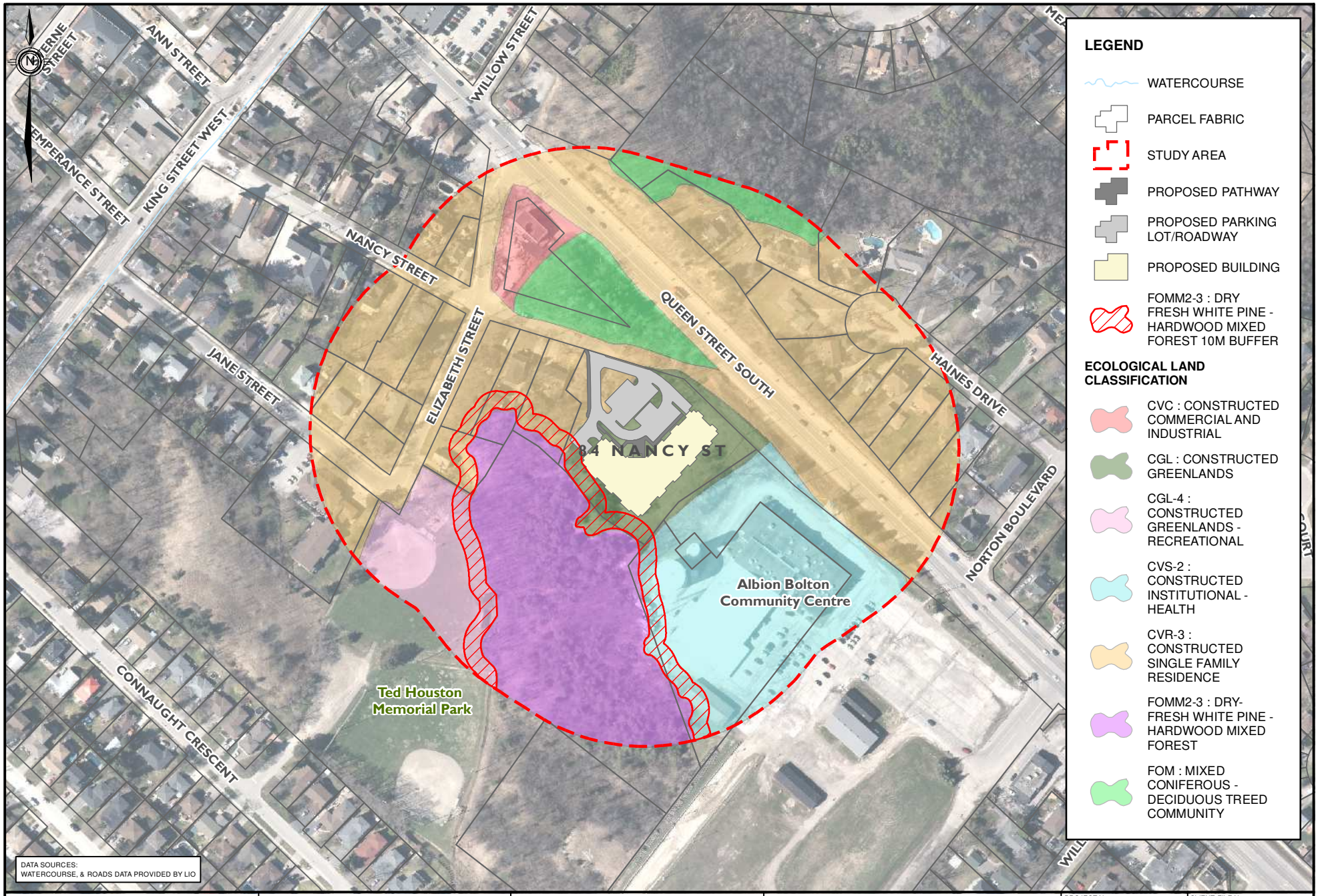
> *Direct Impacts specifically result from the proposed development layout and/or construction activities.*

Indirect Impacts may be caused by altered uses and activities after construction is completed. They include consequences of changes in human behaviours resulting from new development.

Figure 5. Conceptual Rendering of the Proposed Development

In general, the Subject Property is within an urban development matrix that is already heavily altered, with the only significant natural heritage feature being the forested slope adjacent to the site. The following potential impacts were considered:

1. Construction disturbance to wildlife
2. Hazard of the building to migratory & breeding birds
3. Introduction of invasive/non-native species on new development site
4. Loss of natural vegetation
5. Disruption of adjacent habitats for Species at Risk
6. Edge impacts to the adjacent forest



CIMA+

CLIENT
AMA INVESTMENTS INC.

SCALE
30 15 0 30 60 90
meters
1:3,000

PROJECT NAME:
SCOPED EIS
84 NANCY STREET, BOLTON, ONTARIO

SHEET TITLE:
IMPACT ASSESSMENT

PROJECT No: C14-0252		CLIENT FILE No: ---
DRAFTER: S. ELLIOTT	DESIGNER ---	DRAWING No: **FIG. 6**
APPROVER L. CULLEN	APPROVER ---	
DATE: 6/25/2019		SHEET No: 1 of 1

4.1 Construction Disturbance to Wildlife

Construction activities have the potential to negatively impact wildlife through the destruction of bird nests, physical mortality of terrestrial wildlife on construction sites, and disruption of nesting activities from increased noise and/or vibration. Nests of migratory birds may occur on vegetation, buildings, and other structures and removal of these features during the nesting period could result in nest failure.

Construction noise also has the potential to contribute to bird nest failure. As described in Section 3 however, the wildlife encountered on the Subject Property are urban-adapted species of low conservation concern.

Construction impacts to wildlife can be avoided through planning and timing of construction activities, and implementation of effective erosion and sediment control measures.

To prevent incidental destruction of nests and/or nestlings, removal of vegetation must occur outside the active nesting season (April 1st to August 31st). If clearing must occur during the active breeding season, surveys conducted by a qualified biologist should be completed to determine if active nests are present. If no nests are found, then removal may be permitted; otherwise, protection of nests with buffers or delayed clearing should be practiced.

To minimize accidental mortality of wildlife, a sediment and erosion control plan must be prepared. This plan must include a requirement to have silt fence maintained around the construction area for the duration of construction activities. This will reduce the potential for small terrestrial wildlife to be impacted.

4.2 Hazard of the Building to Migratory & Breeding Birds

Addition of new buildings can create an increased collision hazard for migratory and breeding birds. Birds collide with buildings both in daytime and nighttime. Daytime collisions occur because birds do not perceive glass as an obstacle to their flight path, and at nighttime illuminated buildings can attract migratory birds in poor weather conditions.

Bird collisions contribute to the overall cumulative effect of buildings on bird populations, both locally and regionally. New construction tends to have higher glazing ratios which can present increased risk of bird collisions.

Injury and/or mortality of birds caused by building strikes can be mitigated by implementing bird-friendly building design practices. A number of municipalities and bird conservation groups have published bird-friendly development guidelines to provide information on techniques that can be used to mitigate building-related bird mortality (City of Toronto 2007; American Bird Conservancy 2011; City of Calgary 2011; City of San Francisco 2011; City of Portland 2012; City of Markham 2013; City of Vancouver 2014; University of British Columbia 2016). Best practices from these guidelines are summarized as follows, and should be considered in the building design process:

Glass

Untreated reflective or mirrored glass is the primary cause of bird strikes and should not be used. It reflects images of the surrounding habitat and prevents birds from detecting the visual markers that indicate it is a solid surface. Mitigating the danger of glass can be achieved by creating visual markers or muting the reflections in the glass.

The most critical area for preventing bird strikes is within 12-m above grade. Studies have shown that bird strikes can occur at all heights, but most occur at lower levels of a building (approximately the first four storeys). Glass around podium gardens or rooftop gardens however, is also a hazard, and should adhere to bird friendly design regardless of height.

Building exteriors can be designed to provide adequate visual markers for birds to be able to detect solid surfaces. Birds can start to perceive glass on building exteriors when the distance between solid edges is less than 28 cm. The denser the pattern of solid edges, the more effective the design. Solid edges can be created with structural elements, window mullions, decorative grilles, louvres, or artwork.

Alternatively, patterned glass can be used to create visual markers for birds where smaller glass panes are not practical. These patterns can be incorporated into the glass during manufacturing or added as film to the external surfaces. Patterns must adhere to the rule of less than 28 cm between edges.

Awnings and overhangs can also be used to reduce image reflection by shading windows at ground floor levels. Sunshades are also effective at reducing image reflections.

Reduction of Fatal Light Attraction

To limit artificial sky glow that is dangerous for birds, external lighting fixtures should be directed downwards, and oriented in such a way as to minimize direct upward light, spill light, and glare.

If architectural lighting is to be used, it should be projected downwards instead of upwards, and consideration should be given to turning it off during the migratory seasons. Where architectural lighting is used for aeronautical navigation, strobe lights are preferred.

Building Occupation and Operation

Building managers and tenants can contribute to the reduction in bird mortality by reducing unnecessary light pollution at night. This can be accomplished by using motion sensor lighting in occasionally used areas and designing operational systems to automatically turn off non-essential lights after work hours. Tenants can contribute by drawing blinds or curtains at night.

Other practices related to building interiors can help to mitigate bird mortality. Interior plants should not be placed near windows as they create an illusion of safe habitat and reduce the visibility of the glass.

If used by tenants, bird feeders should be located within 1 m of a window, as mortality rates increase when feeders are placed farther from glass.

4.3 Introduction of Invasive/Non-Native Species

Use of invasive/non-native species in planting plans for new developments can act as a source for the spread of non-native seed in the surrounding landscape, thereby contributing to reduced biodiversity over time as native species are displaced by non-native species. Invasive plant species have the potential to impact species diversity and species richness in natural areas, as these plants compete heavily for resources such as light, moisture and soil nutrients that native plants require to establish and grow. Plantings used on new development sites therefore have the potential to negatively impact biodiversity if non-native and invasive plant species are used.

Plantings of diverse native species can avoid impacts related to introduction on non-native species in the HPAN study area and enhance the area's ecological features and functions.

Increasing the spread of invasive and non-native species in the landscape can be avoided by using only native and non-invasive species in landscape plantings within the development envelope. Ecological enhancements can be achieved through increasing the abundance and diversity of native plants in the landscape plan, and in roof gardens if proposed.

Use of native plant species and an increase in biodiversity will support the natural environment of the adjacent areas. Increasing the use of native species in landscape plans and urban forest plantings is an ongoing best management trend in southern Ontario. Given the very low diversity and quality of plant species on the Subject Property, there is a significant opportunity to add more diversity through redevelopment.

4.4 Loss of Natural Vegetation

The vegetation community on the Subject Property is predominantly comprised of non-native or invasive species that are indicative of disturbed sites. No species at risk were identified on the Subject Property, and the vegetation on-site does not contribute significantly to floristic quality or biodiversity.

Minor small tree and shrub removal would occur at the margins of the development site, at the existing edge of the forest community on the valley slope.

Loss of edge trees can be offset by incorporating a diversity of native tree species into the landscape plan.

4.5 Disruption of Adjacent Habitats for Species at Risk

Bats represent the only species at risk group potentially occupying habitats adjacent to the Subject Property. Bats use trees with cavities, cracks, or loose bark as maternity roosts, and the

preferred location for maternity roosts is in woodlands. Therefore, the probability of Endangered bat species being present on the Subject Property is considered low, and direct effects on remaining habitat is likely to be low.

4.6 Edge Impacts to the Adjacent Forest

Development and soil excavation can negatively impact trees in the adjacent natural area by direct damage, increased shadows from new buildings, changes in hydrology due to change in permeable surfaces, and/or compaction of soil in root zones.

Vitality of trees can be maintained through appropriate design and construction practices. To minimize impact to existing trees that will remain, minimum tree protection zones (TPZ), hoarding barriers, and tree protection plans can be put in place. For this development, a 10 m buffer from the forest edge as shown on Figure 6 is recommended. Implementation of these measures could be achieved within a construction management plan for the proposed development.

Maintaining or enhancing infiltration will be important for tree vitality and can be achieved through effective storm water management.

4.7 Tree Inventory and Forest Edge Management

A Tree Inventory and Preservation Plan was prepared for the Subject Property by CIMA+. All existing trees on site and on neighbouring property within 6 m were inventoried. A Forest Edge Management Plan was also prepared for the Subject Property by CIMA+. There is a 10 m setback from the existing forest edge as shown on Figure 6.

5. Policy and Legislation Compliance

5.1 Migratory Birds Convention Act

The Migratory Birds Convention Act regulates the protection and conservation of migratory birds as populations and individuals, and also protects their nests. The Act applies to any areas that provide potential for nesting habitat of migratory birds.

Section 6 of the Migratory Bird Regulations made under the Act states that no person shall disturb, destroy or take a nest, egg, nest shelter, eider duck shelter or duck box of a migratory bird except under authority of a permit.

Portions of the Subject Property provide nesting opportunities for migratory birds; therefore, the provisions of this Act apply. Provided that vegetation clearing occurs between September 1 and March 31, the Project will be in compliance with the Migratory Birds Convention Act.

5.2 Provincial Policy Statement

The Provincial Policy Statement (PPS) was issued under Section 3 of the Planning Act and is applicable province-wide to all planning decisions. The Subject Property is located in Ecoregion 6E, and there are natural heritage features adjacent to the Subject Property that are protected by the PPS.

Specifically, development and site alteration are not permitted on lands adjacent to significant natural heritage features unless it has been demonstrated that there will be no negative impacts. In this case, the Subject Property is adjacent to a Significant Woodland.

Negative impact is defined by the PPS as degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified. The assessment conducted for this project demonstrates that impacts to the adjacent woodland can be mitigated, and no lasting effects are anticipated. Therefore, the project is in compliance with the PPS.

5.3 Endangered Species Act

The Endangered Species Act (ESA) precludes persons from damaging or destroying habitat or individuals of threatened or endangered species in Ontario. The only endangered species identified in the area are bats, that could be using the forest adjacent to the Subject Property.

No impact to the forest is anticipated; therefore, no contravention of the ESA is expected.

5.4 Region of Peel Official Plan Policies

The Region of Peel's Greenlands System is comprised of ANSI's, Environmentally Sensitive or Significant Areas (ESA's), the Escarpment, the Oak Ridges Moraine, wetlands, woodlands, valley and stream corridors, natural corridors, shorelines, and habitats of threatened and endangered species. Of this list of components, there are none present on the Subject Property. However, woodland and corridor on the forested slope adjacent to the Subject Property meets the definition of the Greenlands System.

The policies of the Region of Peel Official Plan indicate that development and site alteration shall be prohibited in core areas of the Greenlands System. The core area of the Greenlands System (the significant woodland identified through this EIS) is not located on the Subject Property, therefore the development application would not be contravening the policies of the Region's Official Plan.

5.5 Town of Caledon Official Plan Policies

The Caledon Official Plan identifies the Subject Property as an Environmental Policy Area (EPA). EPA's are intended to comprise all the Natural Core Areas and Natural Corridors

identified in Table 3.1 of the Official Plan. The policy text of the Official Plan further stipulates that as more detailed environmental information becomes available through site investigations and studies, such as this EIS, refinements to the limits of lands designated EPA may be permitted.

Table 3.1 was reviewed in light of the information collected through this EIS, and none of the ecosystem components described in the Natural Core Areas and Natural Corridors columns of the table are present on the Subject Property. The EPA designation should instead follow the woodland feature as delineated on Figure 3 of this report.

The policies of the Town's Official Plan indicate that new development is prohibited in EPA zones. The site-specific analysis in this EIS demonstrates that the EPA should be delineated as the significant woodland adjacent to the Subject Property; therefore, development of the Subject Property would not be occurring within an EPA, and would be in compliance with Official Plan policy.

5.6 TRCA Regulation and Living City Policies

The Conservation Authorities Act was enacted to provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario. Under Section 21 of the Act, Conservation Authorities have the power to study and investigate the watersheds of their jurisdictions and to determine programs whereby the natural resources of the watershed may be conserved, restored, developed and managed.

The Subject Property is located within the jurisdiction of the TRCA; therefore, Section 21 of the Act applies. TRCA will be a commenting agency on issues related to the natural environment.

The Act also states that Conservation Authorities have the power to develop watershed management plans, work with private landowners for conservation projects, implement flood control measures, own and operate Conservation Areas, and create regulations pertaining to water bodies and flooding.

Based on regulation mapping, portions of the Subject Property are regulated by the TRCA; therefore, the provisions set out by Ontario Regulation 166/06 apply. Under O.Reg 166/06, the TRCA regulates development, interference with wetlands and alterations to shorelines and watercourses. Specifically, the Regulation states that development is not permitted within river valleys, unless the TRCA is of the opinion that control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development (the five tests of the Regulation).

With respect to the Subject Property, CIMA+ conducted an evaluation of the five tests of the regulation, which is provided in a separate report. The conclusion from that report was:

- **Test 1 – Flooding:** A flood risk assessment demonstrated that flooding is not an issue for the site or access to the site.
- **Test 2 – Erosion:** A geotechnical investigation demonstrated that with proper setbacks, design details and construction methods slope stability can be maintained and that no erosion issues are anticipated.
- **Test 3 – Dynamic Beaches:** The site is not located on a shoreline with dynamic beach features.
- **Test 4 – Pollution:** A Phase 1 ESA and testing of soil samples was conducted, and no risk of environmental contamination was identified.
- **Test 5 – Conservation of Land:** The Environmental Impact Study indicates that there are no natural features meeting the criteria for inclusion as EPA on the Subject Property. Conservation of land would not be compromised by development of this portion of the site.

As per section 8.2.3 of the TRCA's Living City Policies, permission for development may be granted in a regulated valley feature if the five tests of the regulation (noted above) can be passed. For the Subject Property, the five tests can be met.

6. Information Sources

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Appendix A

Significant Wildlife Habitat Assessment

Significant Wildlife Habitat (SWH) Assessment for Areas in Ecoregion 6E

Project No. C14-0252 – 84 Nancy Street, Bolton

Seasonal Wildlife Concentration Areas

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Waterfowl stopover and staging areas (terrestrial)	American Black Duck, Wood Duck, Green-winged Teal, Blue-winged Teal, Mallard, Northern Pintail, Northern Shoveler, American Widgeon, Gadwall	– Fields with sheet water in spring (including agricultural)	– Mixed aggregations of 100 or more individuals of relevant species	The flooded field ecosite and 100 to 300 m buffer	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Waterfowl stopover and staging areas (aquatic)	Canada Goose, Cackling Goose, Snow Goose, American Black Duck, Northern Pintail, Northern Shoveler, American Widgeon, Gadwall, Green-winged Teal, Blue-winged Teal, Hooded Merganser, Common Merganser, Lesser Scaup, Greater Scaup, Long-tailed Duck, Surf Scoter, Black Scoter, Ring-necked Duck, Common Goldeneye, Bufflehead, Redhead, Ruddy Duck, Red-breasted Merganser, Brant, Canvasback	– Ponds, marshes, lakes, bays, coastal inlets and watercourses and reservoirs – Sewage treatment ponds or stormwater facilities do not qualify; however, a reservoir managed as a large wetland or pond/lake does qualify	– Aggregations of 100 or more individuals of relevant species for 7 days (i.e. >700 waterfowl use days), or – Areas with annual staging of Ruddy Ducks, Canvasbacks, and Redheads	The aquatic ecosite and 100 m buffer	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Shorebird migratory stopover areas	Greater Yellowlegs, Lesser Yellowlegs, Marbled Godwit, Hudsonian Godwit, Black-bellied Plover, American Golden-Plover, Semipalmated Plover, Solitary Sandpiper, Spotted Sandpiper, Semipalmated Sandpiper, Pectoral Sandpiper, White-rumped Sandpiper, Baird's Sandpiper, Least Sandpiper, Purple Sandpiper, Stilt Sandpiper, Short-billed Dowitcher, Red-necked Phalarope, Whimbrel, Ruddy Turnstone, Sanderling, Dunlin	– Shorelines of lakes, rivers, wetlands, beaches, bars, seasonally flooded areas, muddy and un-vegetated shorelines – Great Lakes coastal shorelines, including groynes and other armoured rock areas – Sewage treatment ponds or stormwater facilities do not qualify	– Presence of 3 or more relevant species and >1000 shorebird use days during spring or fall migration, or – >100 whimbrel during spring migration for 3 years or more	The shoreline ecosite and 100 m buffer	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Raptor wintering areas	Rough-legged Hawk, Red-tailed Hawk, Northern Harrier, American Kestrel, Snowy Owl, Short-eared Owl, Bald Eagle	– Combination of upland field and woodland habitat >20 ha total (>15 ha of field/meadow is ideal) – Field areas must be windswept with limited snow depth – Eagle sites are within forest communities along open water with large trees and snags for roosting	– Presence of 1 or more Short-eared Owls, or – 1 or more Bald Eagles, or – At least 10 individuals including 2 relevant hawk/owl species using the site regularly at least 3 out of 5 years for a minimum of 20 days each year	For hawks and owls, the ecosite communities associated with the field and woodland. For eagles, the shoreline forest directly adjacent the prime hunting area.	Woodland and upland habitat is present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.
Bat hibernacula	Big Brown Bat, Tri-coloured Bat	– Caves, mine shafts, underground foundations, karsts – Active mine sites and buildings do not qualify	– Any site with confirmed hibernating bats	The hibernaculum site and 200 m buffer around the entrance, 1000 m buffer for wind farms	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Bat maternity colonies	Big Brown Bat, Silver-haired Bat	– All forested ecosites with >10 trees/ha that are >25 cm DBH that are in early stages of decay (class 1-3) – Buildings do not qualify	– Confirmed use by >10 Big Brown Bats or >5 adult female Silver-haired Bats	The entire woodland or forest stand containing the colony	Forested areas are present adjacent to the Subject Property, and could contain snags.	The steep forested slope adjacent to the Subject Property has some standing snags, but the density does not meet the criteria for significance.	Not present.
Turtle wintering areas	Midland Painted Turtle, Northern Map Turtle, Snapping Turtle	– Areas with permanent water deep enough not to freeze, with mud/soft substrates – Permanent waterbodies, large wetlands, bogs or fens with adequate dissolved oxygen – Artificial ponds, sewage lagoons, and stormwater ponds do not qualify	– Presence of 5 or more over-wintering Midland Painted Turtles, or – 1 or more over-wintering Northern Map Turtles or Snapping Turtles	The ecosite containing the over-wintering turtles, or the deep pool elements of the site if the over-wintering is within a stream or river	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Reptile hibernacula	Eastern Gartersnake, Northern Watersnake, Northern Red-bellied Snake, Northern Brownsnake, Smooth Green Snake, Northern Ring-necked Snake, Milksnake, Eastern Ribbonsnake, Five-lined Skink	– Locations below the frost line in rock barrens, crevices and caves, talus, alvars, rock piles, slopes, stone fences and crumbling foundations	– Evidence of use or nearby congregations of 5 or more individuals of a snake species or individuals of 2 or more snake species, or – Presence of snake species at risk – Evidence of any use by skink	The feature in which the hibernaculum is located and 30 m buffer	Stone piles or old foundations could be present on the Subject Property.	No suitable habitat features were observed on or adjacent to the Subject Property during the field investigations.	Not present.

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Colonially-nesting bird habitat (cliff/bank)	Cliff Swallow, Northern Rough-winged Swallow	– Eroding banks, sandy hills, borrow pits, steep slopes, sand piles, cliff faces – Licensed aggregate areas do not qualify – Bridges and buildings do not qualify – Recently disturbed soil areas (within 2 years) and material stockpiles do not qualify	– Presence of 1 or more nest sites with 8 or more Cliff Swallow pairs or Rough-winged Swallow pairs during the breeding season	The colony and 50 m buffer from the peripheral nests	Steep slope is present adjacent to the Subject Property.	No eroding banks or suitable habitat was observed on or adjacent to the Subject Property during the field investigations.	Not present.
Colonially-nesting bird habitat (tree/shrub)	Great Blue Heron, Black-crowned Night-Heron, Great Egret, Green Heron	– Live or dead standing trees in wetlands, lakes, islands and peninsulas, occasionally shrubby and emergent vegetation	– Presence of 5 or more active nests of relevant species	The colony and 300 m buffer from edge of colony, or extent of the forest ecosite containing the colony, or entire island if <15 ha	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Colonially-nesting bird habitat (ground)	Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird	– For gulls and terns, rocky islands or peninsulas (natural or artificial) within a lake or large river – For Brewer's Blackbirds, low bushes in proximity to streams or ditches within open fields or pastures	– Presence of >25 active nests of Herring Gulls or Ring-billed Gulls, or – Presence of >5 active nests of Common Terns, or – Presence of >2 active nests of Caspian Terns, or – Presence of 5 or more pairs of Brewer's Blackbirds, or – Any active nesting colonies of any number of Little Gulls or Great Black-backed Gulls	The colony and 150 m buffer from edge of colony, or extent of ecosites containing the colony, or entire island if <3 ha	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Migratory butterfly stopover areas	Painted Lady, Red Admiral, Monarch	– At least 10 ha of habitat, with undisturbed field/meadow and forest or woodland edge habitat present, within 5 km of Lake Ontario	– Presence of Monarchs during fall migration (>5000 use days), or – >3000 Monarch use days where Painted Ladies or Red Admirals are also present	The entire ecosites where the observations occurred	Field/meadow habitat is present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Landbird migratory stopover areas	All migratory songbirds and raptors	– Woodlands >10 ha and within 5 km of Lake Ontario – Where woodlands are rare, fragments can be considered – Woodlands <2 km from Lake Ontario are more significant	– Use by >200 birds/day, consisting of >35 species, with at least 10 species recorded on each of 5 different survey dates	The entire woodland	Woodlands are present, but the Subject Property is greater than 5 km from Lake Ontario.	Not required.	Not present.
Deer yarding areas	White-tailed Deer	– Deer management is the responsibility of the MNRF, and significant areas are mapped by the Ministry – Areas where artificial feeding occurs do not qualify	– Deer management is the responsibility of the MNRF, and significant areas are mapped by the Ministry	The area mapped by MNRF	No deer yard areas are identified by the MNRF on or adjacent to the Subject Property.	Not required.	Not present.
Deer winter congregation areas	White-tailed Deer	– Woodlands >100 ha – Areas where artificial feeding occurs do not qualify	– Deer management is the responsibility of the MNRF, and significant areas are mapped by the Ministry	The area mapped by MNRF	No deer congregation areas are identified by the MNRF on or adjacent to the Subject Property.	Not required.	Not present.

Rare Vegetation Communities

Significant Wildlife Habitat Type	Relevant Ecosites	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Cliffs and talus slopes	Any ecosite within a TAO, TAS, TAT, CLO, CLS or CLT	– Presence of cliffs (vertical to near vertical >3 m in height), or – Presence of talus slope (rock rubble at the base of a cliff made up of coarse rocky debris)	– Confirmation of presence of cliffs or talus slopes	The area of the cliff or talus slope	No cliff or talus ecosites are present on or adjacent to the Subject Property.	Not required.	Not present.
Sand barren	Ecosites SBO1, SBS1 or SBT1	– Presence of exposed sand that is sparsely vegetated and caused by lack of moisture, with periodic fires and erosion	– Area of sand barren must be >0.5 ha, and not dominated by exotic or introduced species (>50% native vegetation)	The area of the sand barren	No sand barren ecosites are present on or adjacent to the Subject Property.	Not required.	Not present.

Significant Wildlife Habitat Type	Relevant Ecosites	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Alvar	Ecosites ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1 or CUW2 Indicator species are *Carex crawei, Panicum philadelphicum, Eleocharis compressa, Scutellaria parvula, and Trichostema brachiatum*	– Presence of level, mostly unfractured calcareous bedrock with a mosaic of pavements overlain by a thin veneer of soil	– Area of alvar must be >0.5ha, and – Presence of four of the five indicator species, and – Not dominated by exotic or introduced species (>50% native vegetation)	The area of the alvar	No alvar ecosites are present on or adjacent to the Subject Property.	Not required.	Not present.
Old growth forest	Ecosites within an FOD, FOC, FOM, SWD, SWC or SWM	– Woodlands >30 ha in size or with at least 10 ha of interior habitat, and – Characteristics of old growth (canopy gaps, multi-layered canopy, abundance of snags and woody debris)	– Dominant tree species >140 years old, and – No recognizable signs of forestry practices (old stumps)	The entire ecosite containing the old growth trees	Woodlands are present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.
Savannah	Ecosites TPS1, TPS2, TPW1, TPW2, CUS2	– Savannah habitat with 25-60% tree cover – Remnant sites such as railway rights-of-way do not qualify	– Savannah habitat of any size, where presence of one or more indicator species from Appendix N of the SWH Technical Guide (2000) has been confirmed, and – Not dominated by exotic or introduced species (>50% native vegetation)	The area of the savannah	No savannah ecosites are present on or adjacent to the Subject Property.	Not required.	Not present.
Tallgrass prairie	Ecosites TPO1 or TPO2	– Tall grass prairie habitat with <25% tree cover – Remnant sites such as railway rights-of-way do not qualify	– Tall grass prairie habitat of any size, where presence of one or more indicator species from Appendix N of the SWH Technical Guide (2000) has been confirmed, and – Not dominated by exotic or introduced species (>50% native vegetation)	The area of the tall grass prairie	No tallgrass prairie ecosites are present on or adjacent to the Subject Property.	Not required.	Not present.
Other rare vegetation communities	Ecosites listed in Appendix M of the SWH Technical Guide (2000)	– Presence of any provincially rare (S1, S2, S3) vegetation community listed in Appendix M of the SWH Technical Guide (2000)	– Confirmation that the vegetation community is listed as rare for the geographic subject area	The area of the rare ecosite	None of the rare ecosites listed for Peel Region are present on or adjacent to the Subject Property.	Not required.	Not present.

Specialized Habitats

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Waterfowl nesting areas	American Black Duck, Northern Pintail, Northern Shoveler, Gadwall, Blue-winged Teal, Green-winged Teal, Wood Duck, Hooded Merganser, Mallard	– Upland habitat adjacent to and within 120 m of a wetland	– Upland habitat must be at least 120 m wide, and – Presence of 3 or more nesting pairs of relevant species (if Mallards excluded), or – Presence of 10 or more nesting pairs or relevant species (if Mallards included), or – Any active American Black Duck nesting site	The area of upland habitat where the nesting was documented	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Bald Eagle or Osprey nesting, foraging and perching habitat	Osprey, Bald Eagle	– Forest communities adjacent to large waterbodies such as lakes, ponds, rivers, or wetlands – Nests located on human-made objects (e.g. telephone poles, constructed platforms) do not qualify	– Presence of 1 or more active Bald Eagle or Osprey nests – Nests must be used annually – Inactive nests must be known to be inactive for at least 3 years, or suspected unused for 5 years to be discounted	For Osprey, the active nest and 300 m buffer, or the contiguous woodland For Bald Eagle, the active nest and 400-800 m buffer	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Woodland raptor nesting habitat	Northern Goshawk, Cooper's Hawk, Sharp-shinned Hawk, Red-shouldered Hawk, Barred Owl, Broad-winged Hawk	– Any natural woodland or plantation >30 ha with >10 ha interior habitat (200 m buffer)	– Presence of 1 or more active nests of relevant species	For Red-shouldered Hawk and Northern Goshawk, 400 m buffer around nest or 28 ha of habitat For Barred Owl, 200 m buffer around nest For Broad-winged Hawk and Cooper's Hawk, 100 m buffer around nest For Sharp-shinned Hawk, 50 m buffer around nest	Woodlands are present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Turtle nesting areas	Midland Painted Turtle, Northern Map Turtle, Snapping Turtle	– Exposed sand or gravel areas <100 m from, or within, shallow wetland habitats – Must be located in open sunny areas, away from roads – Road embankments and shoulders do not qualify	– Presence of 5 or more nesting Midland Painted Turtles, or – Presence of 1 or more nesting Northern Map Turtles or Snapping Turtles	The area of sand and gravel where nest sites are located, and 30-100 m buffer around the nesting area, plus the travel route from the wetland to the nesting area	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Seeps and springs	Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamanders	– Any forested area within a headwater area of a stream or river system	– Presence of 2 or more seeps/springs	The area of the forest containing the seep or spring, plus the recharge area	Forested areas are present, but the Subject Property is not within a headwater area.	Not required.	Not present.
Amphibian breeding habitat (woodland)	Eastern Newt, Blue-spotted Salamander, Spotted Salamander, Gray Treefrog, Spring Peeper, Western Chorus Frog, Wood Frog	– Presence of wetlands, ponds or vernal pools >25 m diameter within or adjacent (within 120 m) to a woodland – Typically, the features must contain water until mid-July	– Presence of breeding population of 1 or more relevant newt / salamander species, or – Presence of breeding population of 2 or more relevant frog species with at least 20 individuals (adults or egg masses), or – 2 or more of the relevant frog species with call code 3 levels	The wetland area and 230 m buffer, plus the travel corridor from the wetland to the woodland if applicable	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Amphibian breeding habitat (wetland)	Eastern Newt, American Toad, Spotted Salamander, Four-toed Salamander, Blue-spotted Salamander, Gray Treefrog, Western Chorus Frog, Northern Leopard Frog, Pickerel Frog, Green Frog, Mink Frog, Bullfrog	– Typically, wetlands that are isolated from woodlands (>120 m) and >25 m diameter – Presence of shrubs and logs	– Presence of breeding population of 1 or more relevant newt / salamander species, or – Presence of breeding population of 2 or more relevant frog / toad species with at least 20 individuals (adults or egg masses), or – 2 or more of the relevant frog / toad species with call code 3 levels, or – Presence of breeding bullfrogs	The wetland area and shoreline, plus movement corridors	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Area-sensitive breeding bird habitat (woodland)	Yellow-bellied Sapsucker, Red-breasted Nuthatch, Veery, Blue-headed Vireo, Northern Parula, Black-throated Green Warbler, Blackburnian Warbler, Black-throated Blue Warbler, Ovenbird, Scarlet Tanager, Winter Wren, Cerulean Warbler, Canada Warbler	– Large mature forests (>60 years old) >30 ha with interior habitat at least 200 m from the edge	– Presence of nesting or breeding pairs of 3 or more relevant species, or – Any site with breeding Cerulean Warblers or Canada Warblers	The contiguous forest ecosite	Woodlands are present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.

Habitat for Species of Conservation Concern (not including species protected under the Endangered Species Act)

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Breeding bird habitat (marsh)	American Bittern, Virginia Rail, Sora, Common Moorhen, American Coot, Pied-billed Grebe, Marsh Wren, Sedge Wren, Common Loon, Sandhill Crane, Green Heron, Trumpeter Swan, Black Tern, Yellow Rail	– Any wetland habitat with presence of shallow water and emergent aquatic vegetation	– Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren, or – 1 or more pairs of Sandhill Cranes – Evidence of breeding by 5 or more relevant species, or – Evidence of breeding by 1 or more Black Terns, Trumpeter Swans, Green Herons, or Yellow Rails	The entire area of the ecosite containing the wetland	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Breeding bird habitat (open country)	Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, Northern Harrier, Savannah Sparrow, Short-eared Owl	– Grassland areas >30 ha (natural or cultural fields and meadows) – Grasslands that are actively used Class 1 or 2 agriculture lands do not qualify	– Breeding evidence of 2 or more relevant species, or – Presence of 1 or more breeding Short-eared Owls	The entire grassland area	Field/meadow is present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.
Breeding bird habitat (shrub / early successional)	Indicator Species: Brown Thrasher, Clay-coloured Sparrow, Yellow-breasted Chat, Golden-winged Warbler Common Species: Field Sparrow, Black-billed Cuckoo, Eastern Towhee, Willow Flycatcher	– Fields >10 ha that are succeeding to shrub and thicket habitat – Fields that are actively used Class 1 or 2 agriculture lands do not qualify	– Breeding evidence of 1 or more of the relevant indicator species and at least 2 of the relevant common species, or – Any breeding evidence of Yellow-breasted Chat or Golden-winged Warbler	The entire field area	Field/meadow is present, but not of sufficient size on or adjacent to the Subject Property.	Not required.	Not present.

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Habitat for terrestrial crayfish	*Fallicambarus fodiens, Cambarus diogenes*	– Wet meadows or shallow marshes of any size where the soil is not too moist and can support a network of tunnels	– Presence of 1 or more individuals of the relevant species or their chimneys (burrows) in suitable habitat	The entire area of suitable habitat within the ecosite	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.
Habitat for special concern and rare wildlife species	All species ranked as S1 to S3 or SH and tracked by the NHIC	– Records of an element occurrence of a relevant species within a 1 or 10 km grid containing the study area	– Presence of 1 or more of the relevant species	The area of the habitat for the relevant species that protects form and function for all important life stages	Snapping Turtle (S3) is reported within the 10 km atlas grid containing the Subject Property.	No snapping turtles or suitable habitat was observed on or adjacent to the Subject Property during the field investigations.	Not present.

Wildlife Movement Corridors

Significant Wildlife Habitat Type	Relevant Species	Criteria for Consideration as Candidate SWH	Criteria Required to Confirm Status as SWH	Protected Area of SWH	Candidate SWH Screening Results	Field Assessment Results for Candidate SWH	Conclusion on SWH Status
Amphibian movement corridors	Eastern Newt, American Toad, Spotted Salamander, Four-toed Salamander, Blue-spotted Salamander, Gray Treefrog, Western Chorus Frog, Northern Leopard Frog, Pickerel Frog, Green Frog, Mink Frog, Bullfrog	– Presence of confirmed SWH amphibian breeding habitat (wetland)	– Presence of vegetated areas unbroken by roads or waterbodies, that connect confirmed SWH – Should be at least 15 m wide on either side of a watercourse if the corridor is a riparian area, or – Should be 200 m wide with gaps of <20 m if the corridor is woodland	The entire corridor	Suitable habitat not present on or adjacent to the Subject Property.	Not required.	Not present.

B

Appendix B

Species at Risk Screening

Species	Provincial Status	COSEWIC Status	Habitat Requirements	Likelihood of Occurrence on Subject Property	Site Area Suitability/ Observations
Eastern Wood-Pewee (*Contopus virens*)	SC	SC	In Canada, the Eastern Wood-Pewee breeds mostly in mature and intermediate-age deciduous and mixed forests (less often in coniferous forest) having an open understory. It is often associated with forests dominated by Sugar Maple (*Acer saccharum*), elm (*Ulmus sp.*) and oak (*Quercus sp.*). It is usually associated with forest clearings and edges within the vicinity of its nest.	Low	*The observation record was obtained from the NHIC database (LIO) which covers lands within a 1 km square. The date of the observation was not published. *The MNRF local records have not flagged this species in the area (MNRF direct correspondence). *Habitat requirements limited. The 0.4 ha treed area north of the Subject Property and the mixed pine-hardwood forest located south and southwest of the Subject Property have dense understory structure which limits suitability for Eastern Wood-Pewee. *This species was not observed during the breeding bird surveys, nor encountered incidentally, throughout the field investigations or nest sweeps.
Eastern Milksnake (*Lampropeltis triangulum*)	NAR	SC	Eastern Milksnake is a habitat generalist quite often found in prairies, rural meadows, pastures, hayfields, rock outcrops, and rocky hillsides. The Eastern Milksnake can also be found in a variety of forest types such as deciduous forests, pine plantations, bog forests, swamps, pine forests, and mixed pine-hardwoods, but are highly associated with open habitat associated with rural landscapes, and utilize crevices in old buildings for hibernacula.	Low	*Two sightings of Eastern Milksnake were documented within a 10 kilometer square within the last 20 years (Ontario Reptile and Amphibians Atlas; Ontario Nature Counts, 2018). *The MNRF local records have not flagged this species in the area (NHIC or MNRF direct correspondence). *The Subject Property is located in an urban setting (not rural landscape). COSEWIC data suggests that Milksnake are no longer found in urbanized areas, and are now only prevalent in rural and low-intensity agricultural landscapes. *No Eastern Milksnakes or evidence of Eastern Milksnakes were observed at the time of the site investigations.
Snapping Turtle (*Chelydra serpentina*)	SC	SC	Slow-moving water with a soft mud bottom and dense aquatic vegetation. Established populations are most often located in ponds, sloughs, shallow bays or river edges and slow streams, or areas combining several types of wetland habitat.	Negligible	*11 sightings of Snapping Turtle were documented within a 10 kilometer square within the last 20 years (Ontario Reptile and Amphibians Atlas; Ontario Nature Counts, 2018). *The MNRF local records have not flagged this species in the area (NHIC or MNRF direct correspondence). *Habitat requirements are not present on or near the Subject Property. *No Snapping Turtles or evidence of Snapping Turtle presence was observed at the time of the site investigations.

Species	Provincial Status	COSEWIC Status	Habitat Requirements	Likelihood of Occurrence on Subject Property	Site Area Suitability/ Observations
Western Chorus Frog (*Pseudacris triseriata*)	NAR	THR	Western Chorus Frog is primarily a lowland, terrestrial species, found on the ground or on low bushes and plants and is a poor climber. The Western Chorus Frog inhabits forest openings around woodland ponds but can also be found in or near damp meadows, marshes, bottomland swamps and temporary ponds in open country. This frog breeds in almost any fishless pond with at least 10 cm of water, including quiet, shallow, usually temporary waterbodies with vegetation that is submerged or protrudes from the water, and especially in rain-flooded meadows and ditches, and in temporary ponds on floodplains.	Low	*112 sightings of Western Chorus Frog were documented within a 10 kilometer square within the last 20 years (Ontario Reptile and Amphibians Atlas; Ontario Nature Counts, 2018). *The MNRF local records have not flagged this species in the area (NHIC or MNRF direct correspondence). *Habitat requirements are limited on and adjacent to the Subject Property. The nearest wetland is located over 500 m north of Subject Property separated by urban development. No surface water, pooling or watercourses (including permanent or intermittent drainage swales) were observed at the time of the site surveys. Sightings of Western Chorus Frog are most likely associated with the floodplain of the Humber River. *No Western Chorus Frogs were observed at the time of the site investigations.
Eastern Small-footed Myotis (*Myotis leibii*)	END	END	Eastern Small-footed Myotis tends to hibernate alone or in small groups, often in cracks or crevices, particularly near the entrance to caves or abandoned mines, and will hibernate in a vertical or horizontal position. Summer habitat is typically associated with crevices and cracks on rocky sites, similar to their preferences for roosting in crevices and cracks during hibernation, and associated with buildings.	Low	*The MNRF local records have flagged this species in the area (MNRF direct correspondence). *Habitat requirements are limited on and adjacent to the Subject Property. Undeveloped lands on and adjacent to the Subject Property are established with graminoides, herbs, shrubs and trees. No alvar, exposed rock / shield, or other natural or anthropogenic rocky surface is present. *No evidence of bat presence was observed at nearby buildings at the time of the site investigations.

Species	Provincial Status	COSEWIC Status	Habitat Requirements	Likelihood of Occurrence on Subject Property	Site Area Suitability/ Observations
Little Brown Myotis (*Myotis lucifugus*)	END	END	Myotis species generally roost in tall, large-diameter snags that are in the early to middle stages of decay and located in open areas within mature-overmature forest.	Low	*The MNRF local records have flagged this species in the general area (MNRF direct correspondence). *Forest is present adjacent to the Subject Property. In general, the trees throughout the forested lands to the south and southwest of the Subject Property are in good to excellent condition. Few snags or significant deadfall were observed within the mixed coniferous-deciduous forested lands. *Suitable habitat not present on the Subject Property.
Northern Myotis (*Myotis septentrionalis*)	END	END	Myotis species generally roost in tall, large-diameter snags that are in the early to middle stages of decay and located in open areas within mature-overmature forest.	Low	*The MNRF local records have flagged this species in the general area (MNRF direct correspondence). *Forest is present adjacent to the Subject Property. In general, the trees throughout the forested lands to the south and southwest of the Subject Property are in good to excellent condition. Few snags or significant deadfall were observed within the mixed coniferous-deciduous forested lands. *Suitable habitat not present on the Subject Property.
Tri-colored Bat (*Perimyotis subflavus*)	END	END	Data on roosting grounds for Tri-colored Bat is more limited, however they are anticipated to be similar to Myotis noting that roosts can also be in dead clusters of leaves on trees.	Low	*The MNRF local records have flagged this species in the general area (MNRF direct correspondence). *Forest is present adjacent to the Subject Property. In general, the trees throughout the forested lands to the south and southwest of the Subject Property are in good to excellent condition. Few snags or significant deadfall were observed within the mixed coniferous-deciduous forested lands. *Suitable habitat not present on the Subject Property.

C

Appendix C

Biological Inventories

FAMILY	SCIENTIFIC NAME	COMMON NAME	S RANK	G RANK	N RANK	PROVINCIAL STATUS	COSEWIC STATUS	FEDERAL STATUS	DATA SOURCE; EBIRDS	DATA SOURCE; MNRF	DATA SOURCE; CIMA+
Bombycillidae - Waxwings	*Bombycilla cedrorum*	Cedar Waxwing	S5B	G5	N5	-	-	-	-	-	x
Cardinalidae - Cardinals and Allies	*Cardinalis cardinalis*	Northern Cardinal	S5	G5	N5	-	-	-	-	-	x
Columbidae - Pigeons and Doves	*Zenaida macroura*	Mourning Dove	S5	G5	N5	-	-	-	-	-	x
Corvidae - Crows and Jays	*Cyanocitta cristata*	Blue Jay	S5	G5	N5	-	-	-	-	-	x
Icteridae - Blackbirds	*Agelaius phoeniceus*	Red-winged Blackbird	S4	G5	N5B,N5N	-	-	-	-	-	x
Mimidae - Mockingbird and Thrashers	*Dumetella carolinensis*	Gray Catbird	S4B	G5	N5B	-	-	-	x	-	-
Passerellidae - Sparrows	*Melospiza melodia*	Song Sparrow	S5B	G5	N5B,N5N	-	-	-	-	-	x
	Spizella passerina	Chipping Sparrow	S5B	G5	N5B	-	-	-	-	-	x
Picidae - Woodpeckers	*Colaptes auratus*	Northern Flicker	S4B	G5	N5	-	-	-	x	-	x
Sittidae - Nuthatches	*Sitta canadensis*	Red-breasted Nuthatch	S5	G5	N5	-	-	-	x	-	-
Turdidae - Thrushes	*Turdus migratorius*	American Robin	S5B	G5	N5B,N5N	-	-	-	-	-	x
Tyrannidae - Flycatchers	*Contopus virens*	Eastern Wood-pewee	S4B	G5	N4N5B	SC	SC	SC	-	x	-
	Myiarchus crinitus	Great Crested Flycatcher	S4B	G5	N5B	-	-	-	x	-	-

SPECIES GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	S RANK	N RANK	G RANK	PROVINCIAL STATUS	COSEWIC STATUS	FEDERAL STATUS	Date of most recent observations	# of observation records from the last 20 years
Frogs / Toads	*Bufonidae*	*Anaxyrus americanus*	American Toad	S5	N5	G5	-	-	-	7-Jul-16	6
	Hylidae	*Hyla versicolor*	Gray Treefrog	S5	N5	G5	-	-	-	8-Jul-16	359
		Pseudacris crucifer	Spring Peeper	S5	N5	G5	-	-	-	19-Apr-16	229
		Pseudacris triseriata pop. 2	Western Chorus Frog (Carolinian population)	S4	N4	G5TNR	NAR	THR	THR	16-May-11	112
	Ranidae	*Lithobates catesbeianus*	American Bullfrog	S4	N5	G5	-	-	-	29-Jun-12	1
		Lithobates clamitans	Green Frog	S5	N5	G5	-	-	-	5-Jul-16	35
		Lithobates pipiens	Northern Leopard Frog	S5	N5	G5	NAR	NAR	-	15-Apr-08	3
		Lithobates sylvaticus	Wood Frog	S5	N5	G5	-	-	-	8-Jul-16	72
Salamanders and Newts	*Ambystomatidae*	*Ambystoma maculatum*	Spotted Salamander	S4	N5	G5	-	-	-	3-May-16	1
	Plethodontidae	*Plethodon cinereus*	Eastern Red-backed Salamander	S5	N5	G5	-	-	-	3-May-16	50
	Salamandridae	*Notophthalmus viridescens viridescens*	Red-spotted Newt	S5	N5	G5T5	-	-	-	4-Aug-14	2
Snakes	*Colubridae*	*Lampropeltis triangulum*	Eastern Milksnake	S4	N3N4	G5	NAR	SC	SC	12-Jun-12	2
		Storeria occipitomaculata	Red-bellied Snake	S5	N5	G5	-	-	-	3-Jul-12	1
		Thamnophis sirtalis sirtalis	Eastern Gartersnake	S5	N5	G5T5	-	-	-	12-May-16	3
Turtles	*Chelydridae*	*Chelydra serpentina*	Snapping Turtle	S3	N5	G5	SC	SC	SC	4-May-17	11
	Emydidae	*Chrysemys picta*	Painted Turtle	S4	N5	G5	-	-	-	5-May-16	14

FUNCTIONAL GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	E STATUS	S RANK	N RANK	G RANK	PROVINCIAL STATUS	COSEWIC STATUS	FEDERAL STATUS
Trees / Shrubs	Aceraceae	*Acer negundo*	Manitoba Maple	-	S5	G5	N5	-	-	-
		Acer platanoides	Norway Maple	SE5	SNA	GNR	NNA	-	-	-
		Acer rubrum	Red Maple	-	S5	G5	N5	-	-	-
		Acer saccharum	Sugar Maple	-	S5	G5	N5	-	-	-
	Anacardiaceae	*Rhus typhina*	Staghorn Sumac	-	S5	G5	N5	-	-	-
	Berberidaceae	*Berberis vulgaris*	European Barberry	SE5	SNA	GNR	NNA	-	-	-
	Caprifoliaceae	*Lonicera morrowii*	Morrow's Honeysuckle	SE3	SNA	GNR	NNA	-	-	-
		Lonicera tatarica	Tartarian Honeysuckle	SE5	SNA	GNR	NNA	-	-	-
		Viburnum lentago	Nannyberry	-	S5	G5	N5	-	-	-
	Cornaceae	*Cornus alternifolia*	Alternate-leaved Dogwood	-	S5	G5	N5	-	-	-
	Cupressaceae	*Thuja occidentalis*	Eastern White Cedar	-	S5	G5	N5	-	-	-
	Fabaceae	*Gleditsia triacanthos*	Honey-locust	-	S2?	G5	N2	-	-	-
		Robinia hispida	Bristly Locust	SE1	SNA	G4	NNA	-	-	-
	Juglandaceae	*Juglans nigra*	Black Walnut	-	S4?	G5	N4	-	-	-
	Oleaceae	*Fraxinus pennsylvanica*	Green Ash	-	S4	G5	N5	-	-	-
		Syringa vulgaris	Common Lilac	SE5	SNA	GNR	NNA	-	-	-
	Pinaceae	*Picea glauca*	White Spruce	-	S5	G5	N5	-	-	-
		Picea pungens	Blue Spruce	SE1	SNA	G5	NNA	-	-	-
		Pinus resinosa	Red Pine	-	S5	G5	N5	-	-	-
		Pinus strobus	Eastern White Pine	-	S5	G5	N5	-	-	-
		Pinus sylvestris	Scots Pine	SE5	SNA	GNR	NNA	-	-	-
	Rhamnaceae	*Rhamnus cathartica*	Common Buckthorn	SE5	SNA	GNR	NNA	-	-	-
	Rosaceae	*Malus sp.*	Crabapple	-	-	-	-	-	-	-
		Prunus serotina	Black Cherry	-	S5	G5	N5	-	-	-
		Prunus virginiana	Choke Cherry	-	S5	G5	NNR	-	-	-
		Rubus idaeus ssp. strigosus	Wild Red Raspberry	-	S5	G5T5	N5	-	-	-
	Salicaceae	*Populus alba*	White Poplar	SE5	SNA	G5	NNA	-	-	-
		Salix x sepulcralis	(Salix alba X Salix babylonica)	-	SNA	GNA	NNA	-	-	-
	Ulmaceae	*Ulmus americana*	American Elm	-	S5	G5	N5	-	-	-
Graminoides	Poaceae	*Dactylis glomerata*	Orchard Grass	SE5	SNA	GNR	NNA	-	-	-
		Phleum pratense	Common Timothy	SE5	SNA	GNR	NNA	-	-	-
		Poa pratensis	Kentucky Bluegrass	-	S5	G5	N5	-	-	-
Forbs	Apiaceae	*Daucus carota*	Wild Carrot	SE5	SNA	GNR	NNA	-	-	-
	Asclepiadaceae	*Asclepias syriaca*	Common Milkweed	-	S5	G5	N5	-	-	-
	Asteraceae	*Arctium lappa*	Great Burdock	SE5	SNA	GNR	NNA	-	-	-
		Arctium minus	Common Burdock	SE5	SNA	GNR	NNA	-	-	-
		Cirsium discolor	Field Thistle	-	S3	G5	N4N5	-	-	-
		Eupatorium perfoliatum	Common Boneset	-	S5	G5	N5	-	-	-
		Senecio vulgaris	Common Ragwort	SE5	SNA	GNR	NNA	-	-	-
		Solidago canadensis	Canada Goldenrod	-	S5	G5	N5	-	-	-
		Solidago canadensis var. canadensis	Canada Goldenrod	-	S5	G5T5	N5	-	-	-
		Symphyotrichum lanceolatum var. lanceolatum	White Panicled Aster	-	S5	G5T5	N5	-	-	-
		Symphyotrichum novae-angliae	New England Aster	-	S5	G5	N5	-	-	-
		Symphyotrichum pilosum	White Heath Aster	-	S5	G5	N5	-	-	-
		Symphyotrichum pilosum var. pilosum	Old Field Aster	-	S5	G5T5	N5	-	-	-
		Taraxacum officinale	Common Dandelion	SE5	SNA	G5	N5	-	-	-
	Boraginaceae	*Myosotis discolor*	Yellow-and-blue Forget-me-not	SE1	SNA	G5	NNA	-	-	-
	Brassicaceae	*Alliaria petiolata*	Garlic Mustard	SE5	SNA	GNR	NNA	-	-	-
	Fabaceae	*Lotus corniculatus*	Garden Bird's-foot Trefoil	SE5	SNA	GNR	NNA	-	-	-
		Medicago lupulina	Black Medic	SE5	SNA	GNR	NNA	-	-	-
		Trifolium pratense	Red Clover	SE5	SNA	GNR	NNA	-	-	-
		Vicia cracca	Tufted Vetch	SE5	SNA	GNR	NNA	-	-	-
	Lamiaceae	*Leonurus cardiaca*	Common Motherwort	SE5	SNA	GNR	NNA	-	-	-
	Liliaceae	*Polygonatum pubescens*	Hairy Solomon's Seal	-	S5	G5	N5	-	-	-
	Onagraceae	*Circaea canadensis ssp. canadensis*	Canada Enchanter's Nightshade	-	S5	GNR	NNR	-	-	-
	Plantaginaceae	*Plantago lanceolata*	English Plantain	SE5	SNA	G5	NNA	-	-	-
		Plantago major	Common Plantain	SE5	SNA	G5	NNA	-	-	-
	Rosaceae	*Fragaria virginiana*	Wild Strawberry	-	S5	G5	N5	-	-	-
		Geum aleppicum	Yellow Avens	-	S5	G5	N5	-	-	-
		Geum canadense	White Avens	-	S5	G5	N5	-	-	-
Vines	Anacardiaceae	*Toxicodendron radicans*	Poison Ivy	-	S5	G5	N5	-	-	-
	Vitaceae	*Parthenocissus quinquefolia*	Virginia Creeper	-	S4?	G5	N4N5	-	-	-

TABLE LEGEND

PROVINCIAL STATUS: Species at Risk Ontario - current status as defined by the Endangered Species Act (ESA, S.O. 2007)
COSEWIC STATUS: Current status defined by the Committee on the Status of Endangered Wildlife in Canada
FEDERAL STATUS: Current status as defined by the Species at Risk Act (R.S.O., 2002)

E STATUS: EXOTIC STATUS RANK (ON)
S RANK: SUBNATIONAL STATUS RANK
G RANK: GLOBAL STATUS RANK
N RANK: NATIONAL STATUS RANK

END = Endangered
THR = Threatened
SC = Special Concern
SE = Status Exotic (ON)
NAR = Not at Risk

Ranking System

SX, NX, or GX/TX: Presumed Extinct
SH, NH, or GH/TH: Possibly Extinct
S1, N1 or G1/T1: Critically Imperiled
S2, N2, or G2/T2: Imperiled
S3, N3, or G3/T3: Vulnerable
S4, N4 or G4/T4: Apparently Secure
S5, N5, or G5/T5: Secure
SU, NU or GU/TU: Unrankable
SNR, NNR, or GNR/TNR: Unranked
S#S#, N#N#, or G#G#: Range Rank

N RANK and G RANK Definitions

Presumed Extirpated: Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

Possibly Extirpated (Historical): Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become NH or SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The NH or SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

Critically Imperiled: Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.

Imperiled: Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.

Vulnerable: Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

Apparently Secure: Uncommon but not rare; some cause for long-term concern due to declines or other factors.

Secure: Common, widespread, and abundant in the nation or state/province.

Unranked: Nation or state/province conservation status not yet assessed.

Unrankable: Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

Range Rank: A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

D

Appendix D

Site Photographs

View of the existing residence and lands associated with the Subject Property at 84 Nancy Street, Town of Caledon (community of Bolton).

View of undeveloped lands and associated existing conditions and features present on the Subject Property.

View of the Subject Property and adjacent landscape features to the north of the property limits. The fenceline dividing the private lots can be seen bordering the treeline.

View of treeline marking the edge of the adjacent woodland feature to the south and southwest of the Subject Property.

View of vacant lands associated with the Subject Property and edge of the forest feature located south and southwest of the property limits.

View of the understory associated with the forest feature located south of the Subject Property.

View of the canopy of the forest feature located to the south and southwest of the Subject Property. All *Juglans sp*. near the Subject Property were observed to be Black Walnut.

View of the undeveloped lands located on and adjacent to the Subject Property. The hydroline represents the northeastern property limit.

View of subcanopy in the forest feature located to the south and southwest of the Subject Property.

View of the Nancy Street cul-de-sac at the Subject Property, and adjacent 0.4 ha treed area located on the north side of Nancy Street.

View of the 0.4 ha treed area located on the north side of Nancy Street.

SUBMITTED BY CIMA CANADA INC.
415 Baseline Road West, 2nd Floor
Bowmanville, ON L1C 5M2
T 905 697 4464 F 905 697 0443
cima.ca