global environmental solutions

428 Little Avenue
Barrie, Ontario

Scoped Environmental Impact Assessment

December 2, 2019
SLR Project No.: 209.40465.00001

SCOPE ENVIRONMENTAL IMPACT ASSESSMENT

428 LITTLE AVENUE/ 237 FOSTER DRIVE

SLR Project No.: 209.40636.00001

Prepared by
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for

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2 December 2019

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Distribution: 1 copy – 428 Little Inc.
1 copy – SLR Consulting (Canada) Ltd.

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APPENDICES

1.0 INTRODUCTION

SLR Consulting (Canada) Ltd. (SLR) was retained by 428 Little Inc. to undertake a scoped Environmental Impact Study (EIS) to support the Zoning By-Law Amendment and Site Plan Approval Applications for the development of 428 Little Avenue in the City of Barrie, County of Simcoe.

1.1 Study Area

The property is approximately 2.05 ha and is located at 428 Little Avenue and 237 Foster Drive (the Subject Property). A GO Transit (Metrolinx) railway corridor and Hurst Dive boarders the site to northeast (**Figure 1**). The surrounding area is urbanized residential with parkland (open space) (Schedule A, City of Brampton Official Plan). The property is predominately forest (greater than 0.5 ha) identified as Level 3 under Schedule H Natural Heritage resources. There are no wetlands or watercourses within the Subject Property bounderies. Lovers Creek which is part of the core Natural Heritage System (Level 1, Level 2) is located beyond the Subject Property limits with no direct linkage corridors or connections.

Figure 1. Subject Property

This report describes the existing conditions of the natural environment, as well as the potential impacts from the proposed development on the natural environment, and the constraints as they relate to environmental policy and mitigation as per the requirements of the City of Barrie Official Plan.

1.2 Goals and Objectives

The overall goal of this scoped EIS is to demonstrate that the proposed development complies with the requirements of the City of Barrie (the City).

The objectives include the following:

- To demonstrate that the proposed development complies with the natural heritage protection requirements of Policy 2.1 of the Provincial Policy Statement (PPS) (MMAH 2014) as well as those of County of Simcoe, City of Barrie, Lake Simcoe Conservation Authority (LSRCA) as applicable and the Lake Simcoe Protection Plan.

This scoped EIS has been prepared in general accordance with the policies of the City and in consultation with the City and the Lake Simcoe Conservation on Authority (LSRCA) and agreed to through correspondence between SLR, the City and LSRCA on March 28, 2017 (**Appendix A**).

2.0 POLICY CONTEXT

Development on the site is subject to several federal, provincial and local environmental Acts, regulations and policies, which provide direction and guidance regarding proposed changes in land use and the protection of natural heritage features and functions. The following provide the applicable natural heritage regulatory framework that applies to the subject lands which includes:

- Planning Act, 1990: Provincial Policy Statement (2014);
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe – *Simcoe sub-area*
- County of Simcoe Official Plan (2016);
- City of Barrie Official Plan (2017);
- Lake Simcoe Protection Plan Under the Lake Simcoe Protection Act
- Conservation Authorities Act, 1990, Ontario Regulation 179/06 and Alterations to Shorelines and Watercourses Lake Simcoe Region Conservation Authority (LSRCA);
- Endangered Species Act (ESA, 2007);
- Migratory Birds Convention Act (MBCA, 1994) and
- City of Barrie Tree Preservation By-law 2014-1150

The applicability of these policies and regulatory instruments on how the proposed development satisfies their direction, intent and requirements is provided in Section 7.

3.0 METHODOLOGY

Existing conditions on the Subject Property were determined through a review of secondary source material from the Ministry of Natural Resources and Forestry (MNRF) and the Natural Heritage Information Centre (NHIC) database combined with field investigations to assess and delineate natural features. Additional information with respect to wildlife and Species at Risk (SAR) were obtained through targeted surveys and field reconnaissance. **Table 1** provides an overview of the field work completed by SLR.

Table 1. Field Surveys

Date	Task	Weather
May 20, 2017	Ephemeral review, Breeding Bird 1 of 3 ELC, SWH, SAR[1]	Clear Beaufort: 1 / Temperature: 10ºC Avian survey: 06:00-09:00
June 16, 2017	Breeding Bird 2 of 3, Bat review and deploy Acoustic Recording Units SWH, SAR	Partly Cloudy Beaufort: 0 /Temperature: 15ºC Bat Review: 20:00 – 22:30
July 11, 2017	Tree inventory, ELC Breeding Bird 3 of 3 SWH, SAR	Overcast / Beaufort: 0 Temperature: 12ºC / RH: 72% Bats 21:30 – 22:30 / Avian 06:30-09:00
July 12, 2017	Tree inventory, SWH, SAR	Overcast / Beaufort: 1 /Temperature: 27ºC
September 21, 2017	Wildlife general, SWH, SAR	Clear / Beaufort: 0 / Temperature: 19ºC
January 10, 2018	Wildlife general, SWH, SAR	Overcast/ Beaufort: 2 / Temperature: -6ºC
March 9, 2018	Borehole access route and staking with City of Barrie	Overcast/ Beaufort: 2 / Temperature: -6ºC
March 19, 22 and 26, 2018	Tree removals in accordance with approval with City of Barrie (Boreholes)	Overcast/ Beaufort: 1 / Temperature: low -1ºC, high 1ºC

3.1 Background Review

The sources of background information include but are not limited to the following:

- Aerial photography (County of Simcoe interactive mapping 2019;
- Servicing & Stormwater Management Implementation Report, C. F. Crozier and Associates Inc (November 2019);
- Geotechnical Report, C. F. Crozier and Associates Inc (November 2019);
- Phase 1 ESA, Pinchin (2017);
- Stage 1-2 Archaeological Report, Bluestone Research Inc (May 2018)
- Vibration Study, Valcoustics Canada Ltd (July 2019);
- Landscape Concept Plans, Into the Woods (November 2019);
- NHIC Species at Risk database;
- City of Barrie Urban Forestry Strategy (2013)

3.2 Vegetation

Vegetation communities were delineated and classified according to principles of the Ecological Land Classification (ELC) for Southern Ontario: First Approximation and its Application (Lee et. al. 1998). A higher-level approach to community classification was adopted given the cultural

[1] Ecological Land Classification, Significant Wildlife Habitat, Species at Risk

influences of the site. Based on the current model provided by ELC, community series codes (e.g., CUM-CUT-CUW) were tailored to reflect the differences within the communities that relate to species composition and ecosystem function. A targeted early spring survey on May 20, 2017 was completed at the request of the LSRCA to review the forest for spring ephemerals.

3.3 Tree Inventory

A separate inventory of trees was completed by SLR. The tree inventory addresses the City of Barrie requirements for tree inventory and preservations plans and is provided under separate cover in the accompanying application documents.

3.4 Wildlife and Wildlife habitat

Targeted wildlife surveys focused primarily on breeding birds and Species of Conservation Concern. Since no fish habitat or wetlands occur on the property, fish and herpetofauna surveys were not conducted. Incidental wildlife observations were recorded during each site visit. Evidence of presence was determined from direct sightings, and indirectly from such indicators as calls, nests, tracks, scat, browse and burrows.

3.4.1 Breeding Birds

Breeding bird surveys were undertaken on May 20, June 16 and July 11, 2017. Surveys followed standard methodologies and conditions established by the Ontario Breeding Bird Atlas (OBBA) (i.e., between 5:30 and 10:00, low winds, no precipitation and suitable temperatures). Breeding evidence was recorded for each wildlife unit and evaluated as probable, possible or confirmed (e.g., singing male, pair observed or adult carrying food) in accordance with the standard protocols.

3.4.2 Significant Wildlife Habitat

The criteria provided in the MNRF Significant Wildlife Habitat Technical Guide and Ecoregion Criterion Schedules 6E (MNRF, 2015) for significant wildlife habitat (SWH) was reviewed. Anthropogenic features do not qualify as SWH, and therefore was not assessed. Candidate SWH (if present) is limited given the current site context and dominate forest type (regenerating Ash immature forest).

3.5 Species of Conservation Concern

For the purpose of this scoped EIS, species that are designated federally, provincially and which are of regional or local interest (e.g., rare to the watershed or municipality) are collectively identified as Species of Conservation Concern. Species protected under the *Endangered Species Act* are also included in this category. Given the scope of this assessment, a habitat-based approach was applied to evaluate the potential for Species of Conservation Concern to occur within the Subject Property and adjacent lands.

A screening of natural heritage information was undertaken using data listed in Sections 3.1 and 3.2, including current Ministry of the Environment Conservation and Parks (MECP) guidelines *Clients Guide to Preliminary Screening for Species at Risk (Draft 2019)* within and adjacent to the Subject Property to identify potential candidate species to be included in this assessment.

3.5.1 Flora

Targeted surveys for Butternut trees and Butternut seedlings were completed by a MECP qualified Butternut Health Assessor.

3.5.2 Fauna

Within the regional context of the Subject Property, SAR and their habitats are limited. As noted in Section 3.2.1 targeted surveys for birds were undertaken. Given the recent endangered status of four species of bats under the ESA 2007, coupled with the presence of mature trees, the need to address bats was justified.

General guidance for bat surveys related to development projects under the ESA, 2007 does not describe a method that fits all projects. Thus, the protocol should be adapted to the local landscape and existing conditions. While draft guidance documents have been prepared by various MNRF districts for internal use, no formal document has been developed providing direction for use by non-MNRF personnel. Surveys of tree suitability and building review are generally the preferred preliminary step to identify potential bat use. A cursory review for bat presence and absence was completed with a review of the existing trees surveyed as part of the tree inventory. Winter hibernation habitats are not present, however; summer roost sites can be under the loose bark of dead trees, the hollows of trees or within man-made structures. The purpose of the bat surveys was to determine if potential roost habitat occurs and if bats occur generally within the context of the Subject Property. The survey did not involve targeted emergence review of individual trees.

Hand held Heterodynes (Bat box II, Echo Metre Touch [EMT]) were used by an experienced SLR biologist in conducting bat surveys which identify bat pulses (passes) to evaluate presence in-situ (active monitoring). SLR conducted 5-minute stationary points within the forest and along the edges and near mature trees and forest openings. A passive Acoustic Recording Unit (ARU) was deployed on June 16, 2017 for a two week period to assist with species detection and potential identification.

4.0 EXISTING CONDITIONS

4.1 Physiography and Geologic Setting

The Subject Property is in the Simcoe Lowlands physiographic region of southern Ontario (Chapman and Putnam 1984). As described by Bluestone (2018) "*the Simcoe Lowlands consists of two major divisions. To the west are plains draining into Nottawasaga Bay. The eastern portion is a lowland area draining into Lake Simcoe and is part of the Lake Simcoe Basin. These areas were flooded by Lake Algonquin and are bordered by shorecliffs, beaches and boulder terraces. As a result, these areas are floored by sand, silt and clay*."

The topography of the Subject Property gently slopes downward towards the North (Rail Corridor) where a steep grade change occurs down towards the rail tracks (greater than 80% slope). The soils within the Subject Property and surrounding areas are Sargent gravelly sandy loam (Hoffman, D.W. and R.E. Wicklund 1962: 50). Soils are thin and often calcareous and considered as being moderately well-drained.

Whiskey Creek and Lovers Creek subwatersheds occur in proximity to the Subject Property. The Subject Property has no wetlands, watercourses or surface water connections to Whiskey or Lovers Creek. Further details regarding the subwatershed boundaries are described by C.F.

Crozier & Associates Inc. as part of their Servicing & Stormwater Management Implementation Report (November 2019).

4.2 Vegetation Communities

The property is forested with a defined mature remnant hedgerow edge located along the rail line corridor to the northeast. Trees on site are remnant of previous disturbances where trees are mature near the rail line and transition to a cultural woodland (uniform in size and age [younger trees]) towards the south. The majority of the forest composition is White Ash (*Fraxinus Americana).* The Ecological Land Classification of best fit is *FOD4-2 Dry Fresh White Ash Deciduous Forest Type.* Trees within this community are generally less than 10 cm diameter at breast height (DBH) intermixed a few mature Manitoba Maple (*Acer negundo*, White Pine (*Pinus strobus*) and Scots pine (*Pinus sylvestris).* Black Walnut (*Juglans nigra*) also occurs in varying sizes (10 – 30 cm DBH) and has smaller caliper trees. Wild Grape (Vitis spp) engulfs many of the trees and is abundant in understory layers of the forest.

The remnant hedgerow is best described *FOD5-3 Dry Fresh Sugar Maple Oak Deciduous Forest*. Mature (over 40 cm DBH) Red Oak (*Quercus rubra*) and Sugar Maple (*Acer saccharum*) occur in a linear row (possibly historically planted) at the top of slope.

At the southeast corner of the property a small cultural meadow occurs. Shrubby Cinquefoil (*Potenlla fruccosa*), Orchard Grass (*Dactylis glomerata*) is abundant with Awnless Brome (*Bromus inermis*), Wild Carrot (*Daucus carota*), Virginia Creeper (*Parthenocissus quinquefolia*) and Common Buckthorn (*Rhamnus catharca*) are present. Larger Willows (Salix sp) occur with planted White Spruce (*Picea glauca*).

Generally, disturbances throughout the property are evident. An informal path traverses the length of the site with garbage and refuse dumping noted along the south property line adjacent to existing residences. Many of the trees along the south property edge also have broken limbs, tops broken and damage due to previous ice or storm events.

4.2.1 Tree Inventory

As noted in Section 3.6 a separate tree inventory has been completed. Over 750 trees were tagged and assessed documenting health and vigour. Generally, trees are young Ash with mature Oaks and Maples in good condition. Several trees are potentially hazardous with many trees along the property limits in fair to poor condition. Evidence of decline and mortality due to Emerald Ash Borer

No locally, regionally or provincially rare trees or vegetation were observed on the Subject Property during the tree inventory or site assessments.

4.3 Wildlife

4.3.1 Avifauna Results

Birds observed on the Subject Property are typical of cultural forested areas and urban environments. These species are tolerant to disturbances within the landscape and able to adapt to changing environments. American Crow (*Corvus brachyrhynchos*), American Goldfinch (*Spinus tristis*), American Robin (Turdus migratoriu), Blue Jay (*Cyanocitta cristata*), Mourning Dove (*Zenaida macroura*), Eastern Phoebe (*Sayornis phoebe*), Cedar Waxwing (Bombycilla

cedrorum), Northern Cardinal (*Cardinalis cardinalis*), Song Sparrow (*Melospiza melodia*) Indigo Bunting (*Passerina cyanea*), Brown-headed Cowbird (*Molothrus ater*) and Common Grackle (*Quiscalus quiscula*) were observed. One Eastern Wood-pewee (*Contopus virens*) was observed during the May 20, 2017 survey only.

SAR Avian species are discussed in Section 4.7 below.

4.3.2 Wildlife General

Wildlife observed were characteristic of the culturally influenced landscapes of urban areas where species are tolerant to disturbances within the landscape and able to adapt to changing environments. Eastern Chipmunk (*Tamias striatus*), Eastern Gray Squirrel (*Sciurus carolinensis*) and Raccoon (*Procyon lotor*) species were observed generally. American Toad (*Anaxyrus americanus*) and Gray Tree Frog (*Hyla versicolor*) were heard near Foster Driver. There are no ephemeral vernal pools or wetlands within or in proximity to the subject property. Only a few frogs were heard (less than 5). This is not unexpected as these two species are often found in urban environments.

During the bat review very few bat passes were detected during the active survey and few recordings on the ARU detector. Bats are further discussed in Section 4.4.

4.4 Species of Conservation Concern

The background screening identified potential species of conservation concern. The list was scoped to species which may occur on the Subject Property based on the presence of suitable habitat and excluded those species that do not have habitat affinities on the site or are historical in nature (i.e., observations made greater than 40 years). Recently, Black Ash has been designed as Special Concern and Threatened respectively by Committee on the Status of Endangered Wildlife in Canada (COSEWIC) but is not currently listed under O. Reg. 230/08 Species at Risk in Ontario List under the Endangered Species Act, 2007. This species is included as it may be listed within the next five years. The review provided below includes a summary of species relevance to the proposed application.

Table 2. Species of Conservation Concern Screening Results

Common Name[1]	Scientific Name	Provincial Designation[2]	Habitat Affinities Present Within Subject Property
Mammals			
[1] Tri- Coloured Bat	*Perimyotis subflavus*	Endangered ESA regulated	Suitable trees present. ARU recordings and active surveys did not indicate high frequency bat pulses[2]
[1,3] Little Brown	*Myotis lucifugus*	Endangered ESA regulated	Suitable trees present. ARU recordings and active surveys did not indicate high frequency bat pulses
[1]Northern Long-eared Bat	*Myotis septentrionalis*	Endangered ESA regulated	Limited - forested habitat is mostly Ash regeneration ARU recordings and active surveys did not indicate high frequency bat pulses
[1]Eastern Small-footed Bat	*Myotis leibii*	Endangered ESA regulated	No – available habitats types are not suitable for this species
Avian			
[1]Barn Swallow	*Hirundo rustica*	Threatened	Not Observed No structures, habitats types are not suitable
[1, 3] Chimney Swift	*Chaetura pelagica*	Threatened	Not Observed No structures. Natural treed cavities occur
[1,3] Red-headed Woodpecker	*Melanerpes erythrocephalus*	Special Concern	Not Observed Suitable trees present assessed during surveys
[1] Wood Thrush	*Ammodramus savannarum*	Special Concern	Not Observed Habitats types are not suitable for this species
[1,3]Eastern Wood-pewee	*Contopus virens*	Special Concern	1 male observed, not observed during subsequent breeding bird surveys. May occur but not expected to be breeding based on 2017 survey results.
Flora			
[1, 2, 3] Butternut	*Juglans cinerea*	Endangered ESA Regulated	Not observed during surveys Known to occur in area
[1] Black Ash	*Fraxinus americana*	Not Designated under ESA but recently (2018) listed as Threatened by COSEWIC	Not observed during surveys Known to occur in area
[1]Fogg's Goosefoot	*Chenopodium foggii*	S2? Not Designated under ESA	Known to occur within a broad 10 km radii area (NHIC details unknown). Identification of Chenopodium is very difficult and often impossible without mature fruit. Often misidentified. Habitats include non-anthropogenic

[2] Bat echolocation pulses of high frequency (greater than 40 kilohertz) are indicators of SAR Myotis Species.

Common Name[1]	Scientific Name	Provincial Designation[2]	Habitat Affinities Present Within Subject Property
			habitats such as rock outcrops and along sparsely wooded slopes andforest openings. Characteristics of this species group were not observed.
Insects			
[1]Monarch	*Danaus plexippus*	Special Concern	Not observed during surveys, limited occurrences of Milkweed (Host Plant). Known to occur in area
[1]Nine-Spotted Lady Beetle	*Coccinella novemnotata*	Endangered (added 2017)	Limited - Habitat generalist. Found in areas with grassland, parkland, riparian, agricultural fields other habitats where aphids (food source) is in abundance
[1]Traverse Lady Beetle	*Coccinella transversoguttata*	Endangered	Limited - Habitat generalist typically found in areas with grassland, parkland, riparian areas, agricultural fields and other habitats where aphids (food source) is in abundance. This broad habitat range reflects their ability to exploit seasonal changes in prey availability across different vegetation types (https://species-registry.canada.ca/index-en.html#/species/1326-965).
[1]Gypsy Cuckoo Bumble Bee	*Bombus bohemicus*	Endangered	Limited - Habitat generalist. Often overlooked. It is a nest parasite of other bumble bees. Significant search effort throughout Canada in recent years has failed to detect this species, even where its hosts are still relatively abundant. Occurs in a range of habitats including farmlands, meadow and grasslands
[1]Rusty-patched Bumble Bee	*Bombus affinis*	Endangered	Limited - Active searches throughout its Canadian range have detected only one small population over the past seven years which suggests a decline of at least 99% over the past 30 years (https://species-registry.canada.ca/index-en.html#/species/1081-744).
[1]Yellow-banded Bumble Bee	*Bombus terricola*	Special Concern	Limited - Habitat generalist. Often overlooked. Occurs in a range of habitats including mixed Woodlands, urban areas, farmlands, meadow and grasslands. Nests underground using abandoned (existing) burrows and cavities. Queens overwinter underground (e.g., organic matter / rooting logs).

1. Source: (1) MNRF, SARO List, SLR expertise; (2) NHIC (2019)
2. ESA, 2007 – Endangered Species Act: Ontario Regulation 230/08. Act current to 2019-01-07. (http://www.mnr.gov.on.ca/en) EXT [Extinct] A species that no longer exists. EXP [Extirpated] A species no longer existing in the wild in Canada but occurring elsewhere. END [Endangered] A species facing imminent extirpation or extinction. THR [Threatened] A species likely to become endangered if limiting factors are not reversed. SC [Special Concern] (formerly vulnerable) - A species that may become a THR or END species because of a combination of biological characteristics and identified threats. NAR [Not At Risk] A species that has been evaluated and found to be not at risk of extinction given the current circumstances. DD [Data Deficient] (formerly Indeterminate) - Available information is insufficient to resolve a species' eligibility for assessment
3. Habitat Sources: Several sources including: Cadman, M.D. [et.al]. 2007 Atlas of the Breeding Birds of Ontario; COSEWIC status reports http://www.cosewic.gc.ca/eng/sct5/index_e.cfm; Species at Risk Habitat Tool. V.3.; the MNR. 2000. Significant Wildlife Habitat Technical Guide. Appendix G. and MNR SAR fact Sheets. http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/288994.html

4.4.1 Vegetation

No Butternut trees were inventoried, or seedlings observed. This species is known to occur in the area and may be present within the Metrolinx lands. SLR did not have permission to access adjacent land.

Survey Limitations

While every effort was used to detect the presence of Butternut and Black Ash by visual examination, seedlings are difficult to detect due to visibility restrictions. Furthermore, seed dispersal (squirrels) may occur and seeds may remain dormant for prolonged periods. Thus, seedlings may occur in the future especially if a parent trees occurs in proximity to the subject property.

4.4.2 Avian

One Special Concern Species, the Eastern Wood-pewee was observed. A male was heard singing within the northwest corner of the property near Foster Drive. Efforts to detect breeding individuals over the subsequent two surveys (June and July) did not record this species. Presence is expected to be a vagrant. The Ash dominated forest community is typically not suitable to support breeding territories. This is based on SLR's expertise and observations from the 2017 surveys.

4.4.3 Mammals (Bats)

Trees were assessed as having good opportunities for roosting bats (generally) but limited for Northern and/or Tri-coloured Bats based on current science and species biology. Mature trees and snag tree areas are associated with the northern property limits along the Top of Slope. The lack of water and open foraging habitat is anticipated to be a limiting factor for these species and bats generally. This is evident by the very few bat pulse detections during the active and passive survey. Microhabitats (proximity to water) is especially important for maternity roots. The mature Oak and Maple are trees are features identified to be protected as part of the proposed plan. Given that in Ontario Little Myotis (SAR) is often associated with buildings, trees are likely to be used by non-SAR such a Big Brown Bat or Hoary Bat. During the bat review several low frequency bat passes were detected indicting non-SAR species.

Survey Limitations

While every effort was used to detect the presence of bats by visual examination, the absence of key signals is not an indication that occurrence may not occur in the future. The mobility of these species means that it is difficult to rule out bats using any type of structure for roosting or habitat for foraging in the future.

4.4.4 Insects

Six (6) insects currently designated at risk in Ontario were identified as having limited habitat suitability within the Subject Property. Habitats were not excluded because these species are habitat generalists and may occur in forested areas, small meadow areas or parklands where forbs and grasses suitable for pollinator species occur and therefore their presence cannot be discounted. No adult Monarch butterflies were observed. Milkweed (Monarch caterpillar host plant) were observed but in limited numbers, and only along the fringe areas of the forest and

meadow community. While no targeted insect surveys were completed, the Subject Property may provide some foraging for pollinator species. Occurrence locations of the insect species identified (for example Rusty Patch Bumble Bee) are well documented in Ontario. Habitat ranges occur broadly within the County of Simcoe, however none of the Ladybeetle or Bumble species identified in **Table 2** have been directly recoded in the area or by the NHIC within a 10 km radius.

4.5 Significant Wildlife Habitat

The significance of an area as wildlife habitat is often difficult to appropriately determine at the site-specific level, as the assessment must incorporate information from a wide geographic area and consider other factors such as regional resource patterns and landscape effects. This is why, under the PPS, the planning authorities have the responsibility to identify and designate Significant Wildlife Habitat. Wildlife habitat significance includes:

- Seasonal concentration areas (e.g., conifer forests for deer wintering);
- Rare vegetation communities or specialized habitats for wildlife;
- Habitats of species of conservation interest, excluding the habitats of endangered and threatened species which are protected under the 2014 PPS and 2007 ESA); and
- Animal movement corridors.

Using criteria outlined in Ecoregion Criterion Schedules, candidate significant wildlife habitat identified through the background review was limited to the following:

- Special Concern and Rare Wildlife
- Bat Maternity Colonies

One Eastern Wood-pewee was heard calling and identified as a “possible breeder” and was heard only once in May. The lack of additional observations in June, July and September confirm that breeding is not occurring, and occupation of this species is not regular. Therefore, Special Concern and Rare Wildlife habitat is not confirmed and is not present within the Subject Property.

During the bat review very few low-frequency (indication of SAR bat species) bat pulses were detected. Trees suitable to provide roost opportunities will be preserved within the property. If roosting is occurring within the Subject Property, impacts are not anticipated given known tolerances of bats to urban environments. Foraging will continue with proposed landscaping and design of the new dry pond and existing Metrolinx rail corridor.

4.6 Landscape Connectivity (Corridors and Linkages)

The Subject Property does not have a direct linkage to adjacent natural features identified as Level 1 or 2 Natural Heritage Systems as outlined in the City of Barrie OP Schedule H. The Rail corridor, Hurst Drive and Little Avenue create barriers to wildlife movement. For example, Hurst Drive to the north abutting the rail line is a 4-lane arterial road, and while a larger forested block occurs to the north, the road is a direct barrier to connectivity. Similarly land use to the northeast is residential with small patchy open space beyond Little Avenue limiting a natural corridor connection to Lovers Creek.

5.0 DESCRIPTION OF THE UNDERTAKING AND PROPOSED DEVELOPMENT

The development proposed for the subject property includes a condominium complex which will consist of 56 town homes. The existing undeveloped woodlot is currently zoned R1, R2, R3, and R4 (Crozier, 2019). The proposed development seeks to rezone these lands as RM2 with a private roadway connecting Little Avenue and Foster Drive. Stormwater will be conveyed via a dry pond

at the east property limits, underground storage (west property limits) and infiltration provided via the bioretention facilities (north property limits). The proposed development plan as presented in **Figure 2** is a result of several adjustment to the location of these facilities and rear lots to accommodate the preservation of mature trees on site. Landscaping and amenity space will avoid tree preservation areas (roots zones) and grading has been shifted away from the north property limits.

It should be noted that Metrolinx is proposing an expansion to the GO Transit which would involve an additional rail line within their right-of-way (Crozier 2019). The rail corridor expansion which abuts the northeast property line, proposes constructing a retaining wall along the proposed 428 Little Avenue development. This retaining wall will be on Metrolinx's property and is not part of the 428 Little Avenue development. A slope stability assessment and geotechnical investigation were performed by WSP (May 2018). This has some significance to the mature trees located along the top of slope to which the presented development plan reflects, and efforts made by Plazacom Investments limited to retain these trees.

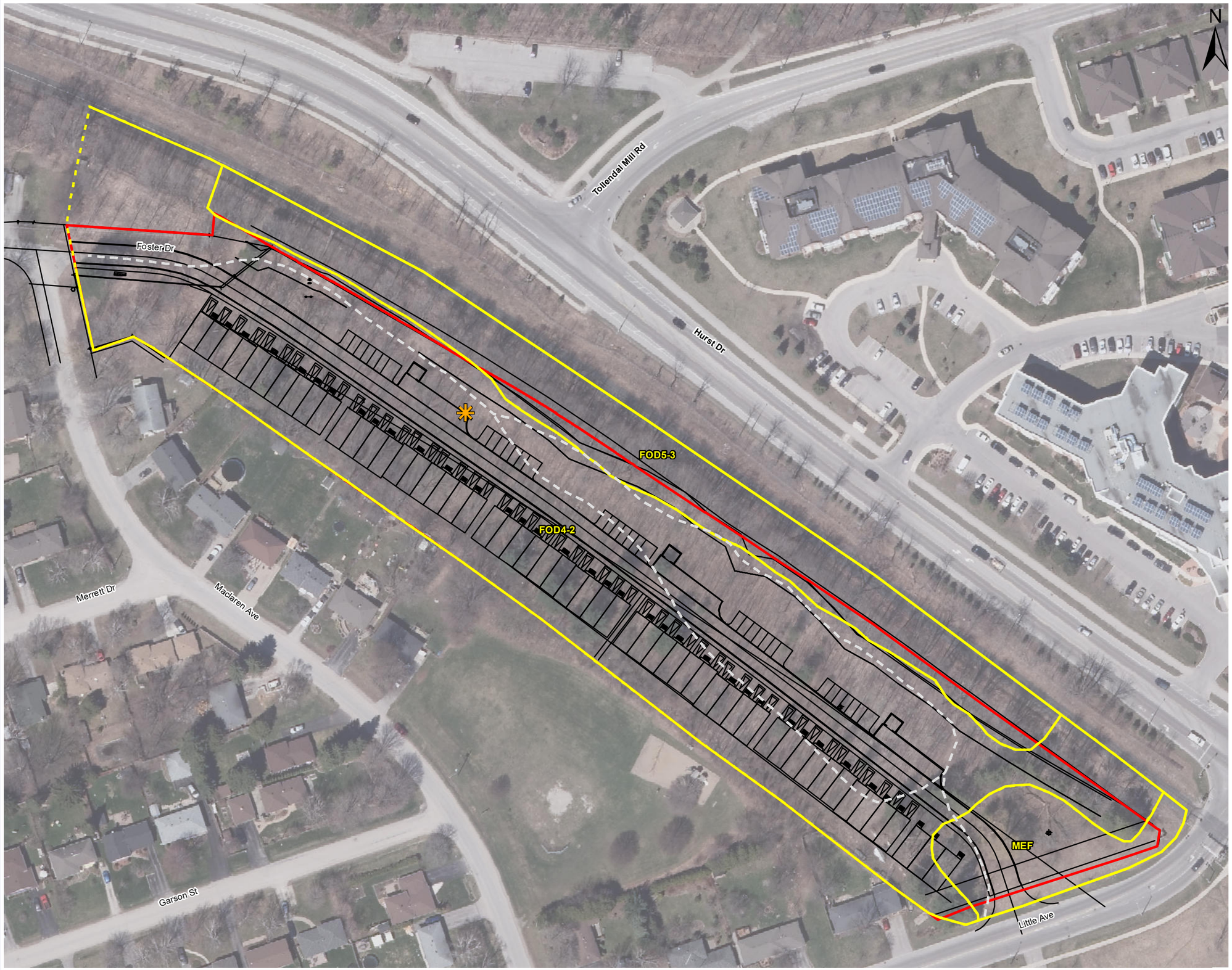
The landscape plan prepared by Into the Woods (November 2019) will identify locations for enhancements and other features supported in the Draft Plan. The proposed plan will incorporate an all native plant scheme (with a few native cultivars in the amenity area).

6.0 IMPACT ASSESSMENT

The proposed development scenario has been overlaid on the existing conditions map (**Figure 2**) to determine the impacts related to the proposed development. Impacts are based on the following key considerations:

- Mature trees and potential opportunities for SAR bats;
- Abundance of Ash trees and regeneration;
- Historical and existing disturbances, specifically, previous land clearing evident through historical aerial photographs; and,
- Wildlife typical of urban environments.

The tree preservation drawings (TPP1) provided by SLR in the Tree Inventory and Arborist Report (2019) illustrates the extent of grading and tree locations identified as constraints.



LEGEND

- Property Boundary (C.F. Crozier & Associates Consulting Engineers, 2019)
- Existing Footpath (SLR Consulting, 2019)
- Site Plan (C.F. Crozier & Associates Consulting Engineers, 2019)
- Bat ARU Location (SLR Consulting, 2019)
- Ecological Land Classification (SLR Consulting, 2019)

ELC Code	Description
FOD4-2	Dry Fresh Ash Deciduous Forest Type
FOD5-3	Sugar Maple OAIC Deciduous Forest Type (Remanent Hedgerow)
MEF	Golden Rod Cultural Meadow Type

0 12.5 25 50 Meters

SCALE: 1:1,200
WHEN PLOTTED CORRECTLY AT 11 x 17
NAD 1983 UTM Zone 17N

NOTES
This map is for conceptual purposes only and should not be used for navigational purposes.

LITTLE AVE, BARRIE

SCOPED NATURAL HERITAGE EVALUATION

DEVELOPMENT OVERLAY AND EXISTING CONDITIONS

November 15, 2019	Rev **0.0**	Figure No. **1**
Project No. 209.40467.00000		

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6.1 Vegetation / Woodland

As described in Section 4.2 the Subject Property is forested and dominated by Ash (evidence of decline and mortality due to Emerald Ash Borer) with mature trees located along the northeast property limits (top of slope), under the County of Simcoe and City of Barrie OP the FOD communities would classify a woodlot. The area is greater than 0.5 hectors and has been identified under Schedule H of the City of Barrie OP as Level 3 resource under the City of Barrie Natural Heritage Resource Classification System. Level 3 resources are:

- Regional or significant life science ANSI's, woodlands greater than 0.5 hectares and less than 4 hectares woodlands;
- within 30 m of a level 1 or 2 feature;
- cultural thicket or cultural meadow communities with contiguous with woodland or wetland patches;
- connectively linkages.

From above the site evaluation it was determined that the inclusion within the Level 3 category is based on the size and "as the crow fliess" distance to adjacent Level 1 and Level 2 features (30m). SLR concurs the size of the woodland, however the cultural nature and history of the feature should be considered in the assessment. Furthermore, the existing barriers as outlined in Section 4.6 also need to be considered when determining proximity (30m) as there is no direct linkages (truncated by a 4-lane arterial road and rail corridor). Based on the 2017 field observations and evaluation, the woodland would not meet criteria for significant under the PPS, 2014 but meets the definition under OP policies. The City of Barrie OP allows for Level 3 features to be removed provided that the EIS demonstrates there will be no impact and no loss of "ecological form or function" of the NHS.

Within the larger landscape, given that the woodland is comprised of mostly regenerating Ash, and successional young tree species, removal of FOD 4-2 is not anticipated to have a negative impact or loss of "ecological form or function" of the NHS as a whole within the City of Barrie. Furthermore, the mature tree elements (seed producing trees) will be retained with the habitat corridor retained (TPZ). This area will be enhanced as part of the proposed development. For example, refuse will be removed, native shrubs planted and left in a natural state.

The discussion points as noted above is consistent with the City of Barrie Urban Forest Strategy and Management Plan whereby tree protection and forest health and pest management are objectives for private lands.

6.1.1 Tree Removal

Tree removals fall under the City of Barrie Tree By-law 2014-115 Private Tree By-law. Based on the TPP prepared by SLR (2019), 351 trees will be required to be removed to accommodate the proposed development. In addition, 178 Ash trees (greater than 10 cm) are also recommended for removal. There are 247 trees recommended for preservation; the majority of these being mature Oak, Maple, Walnut and are located along the northeast property limits (top of slope) provided appropriate tree protection measures are followed throughout construction. The TPP provides details of the removals and preservation plan. Compensation plantings for tree removals will be established in consultation with the City.

6.2 Buffers

Buffers are a mitigation technique that places an area adjacent to sensitive features to eliminate or reduce effects on that feature from the adjacent land use change. In the case of the Subject Property, historical clearing has occurred (approximately 1990's, County of Simcoe Historical imagery https://maps.simcoe.ca/public/).

Figure 3 illustrates the Subject Property (historical) where one can see the mature row of trees (identified for protection) clearly defined and open cleared lands (now mostly regenerating Ash) are located.

Figure 3. Historical Conditions

The wildlife associated with the Subject Property is largely urban tolerant, and do not have requirements for exceptional buffers. The development limits (grading extent) is driven by the root protection zone of the 40 to 90 cm mature trees. Typically, the root zones (driplines) ranges from 8-10 m. The limit of amenity, servicing and lot footprints have been set back from the top of slope to maintain an 8 – 10 m minimum tree preservation zone. This area will also be maintained as a "no touch zone" where development is proposed with the intent to remain natural. The proposed landscape plan (Into the Woods, year) reflects this naturalization and provides enhancement opportunities by providing a corridor of natural habitat to retain opportunities for wildlife, especially potential for bats roosts. The tree preservation limits as identified in the Arborist report and Tree Inventory Preservation Plan are determined to be appropriate from the boundaries of these trees recommended for preservation. The greater of these TPZ becomes the recommended limit of development.

6.3 Landscape Connectivity and Significant Wildlife Habitat

Neither the Simcoe County nor the City of Barrie has identified SWH within the Subject Property. Using the criteria for evaluating SWH as described in Section 3.5 and observations outlined in Section 4.5, no confirmed significant wildlife habitats are present. For example, while bat roost habitats (candidate) may have potential to occur, evaluating roost trees under this criterion is very challenging and evidence from the targeted 2017 surveys observed few occurrences of bat pulses. With the preservation of the mature trees within the property there are no anticipated impacts to SWH.

Landscape connectivity is extremely limited with no direct linkages to the forested habits beyond the rail corridor and Hurst Drive to the north or Lovers Creek beyond Little Avenue to the east. Furthermore, the proposed rail expansions and associated retaining wall further restricts any linkages to Level 1 and 2 features within 30 m of the Subject Property.

6.4 Species of Conservation Concern

As outlined in Section 4.4, SAR bats, Red-headed Woodpecker and Monarch may occur based on habitat affinities and presence of milkweed. Eastern wood-pewee was observed but confirmed not to be breeding and considered a vagrant. The results of the 2017 survey in SLR's expert opinion demonstrate that the mature trees on site and adjacent lands provide suitable roosting and foraging opportunities for bats. However, mature trees with suitable affinities are proposed to be retained whereby only Ash trees will need to be removed as they are considered undesirable due to the presence of EAB by the City of Barrie and could become hazard trees once the site is developed.

7.0 LEGISLATIVE AND POLICY CONFORMITY

The analysis of the proposed Draft Plan which is within the "Settlement Area" in relation to the identification, protection and management of the natural heritage features and functions within and adjacent to the Subject Property confirms that the proposed Plan conforms to the applicable policies. This conformity will be achieved through the adoption of an environment first approach to planning, the protection of mature trees (identified as natural features requiring preservation) and the implementation of the proposed TPZ setbacks and mitigation measures. Policy conformity outlined in **Table 3**.

Table 3. Summary of Policy Conformity

Policy	Consistent	Rationale
Policy 2.1 Provincial Policy Statement (2014)	Yes	Refer to Section 6
County of Simcoe and City of Barrie Official Plan	Yes	The Simcoe County OP policy 3.8.14 defers to local municipalities to determine whether a woodland is a significant woodland within a settlement area based on criteria established within the local OP. Under the City of Barrie OP policy 4.7.2.6, significant woodlands development and site alterations are allowed in significant woodlands provided it is demonstrated that there will be "no negative

Policy	Consistent	Rationale
		impacts on the natural features and ecological function"; refer to Section 6. Habitat for species listed under SARO and SWH is restricted. Refer to Section 6.3 and 6.4 .
A Place to Grow: Growth Plan for the Greater Golden Horseshoe O. Reg. 311/06 (2019) – Simcoe Sub area	Yes	The removal of natural features and other features not identified as key natural heritage features is avoided and where possible, such features have been incorporated into the planning and design of the draft plan including protection of mature trees and their respective TPZ's.
Lake Simcoe Protection Plan Under the Lake Simcoe Protection Act	Yes	6.34-DP – *Where through an application for development or site alteration, a buffer is required to be established as a result of the application of the PPS, the buffer shall be composed of and maintained as natural self-sustaining vegetation.* Refer to Section 6.2. The separately prepared FSR and SWM Report (Crosier, 2019) includes information on the Subject Property's drainage and a SWM plan for the proposed development. This includes low impact designs with the majority of the site's impervious services including driveway and rooftops directing water towards LID consistent with polices to the LSPP. For example, the Lake Simcoe Phosphorus Off-Setting policy requires that all new development control 100% of the phosphorus from leaving a property. Refer to Crosier Servicing & Stormwater Management Implementation Report (2019).
City of Barrie Tree Protection By-law 2014-1150	Yes	Permits will be in accordance with City policies.
Endangered Species Act, 2007	Yes	While SAR bats were identified during the limited review, SLR recognizes the limitations of the surveys and that potential habitat occurs. Mature trees providing possible roost opportunities will be maintained and protected within the TPZ buffer from top of bank.
Migratory Birds Convention Act (1994)	Yes	Vegetation clearing will not occur within the breeding bird period provided under Environment Canada guidance for periods of highest nesting probability (i.e., cannot occur generally between April 1st and August 31st)
LSRCA Ontario Regulation 179/06	Not Applicable	The subject property is not within the regulation area or features present warranting inclusion (e.g., wetlands)

8.0 CONCLUSIONS AND RECOMMENDATIONS.

This scoped Environmental Impact Study identified natural heritage features and functions on the Subject Property and adjacent lands. The potential impacts have been identified, and through avoidance, redesign and mitigation the proposed rezoning and draft site plan respects the direction and guidelines contained in the policy framework that applies to these lands.

Benefits to the City's Urban Forest canopy will be achieved through the protection of the 247 trees (many over 50 – 100 cm DBH) located along the northeast property limits and enhancement of the TPZ keeping the zone in a natural state. These measures demonstrate regard for policies of the City of Barrie and bring the proposed development into conformity with the *Endangered Species Act, 2007*.

Through the protection and planting of the TPZ's with implementation of the recommendations that follow, the application can be approved.

Recommendations

- Recommendations as outlined in the accompanying application documents (i.e., Geotechnical Investigation reports, Servicing and Storm Water Management, Noise and Vibration, Arborist Evaluation/Tree Preservation Plan, Landscape Plans etc.), are to be respected.
- Consultation between the City of Barrie, the proponent and Metrolinx regarding the mature trees along the top of slope is necessary. Impacts to trees recommended for preservation where the rail line corridor expansion is proposed (for example, retaining wall) has the potential to affect the Subject Properties trees. Uncertainty remains if the proposal by Metrolinx respects tree preservation within this area. The large size (dbh) and TPZ warrant additional consideration as work along the slope could affect the minimum root zones protection distances, adversely affecting tree heath, long-term maintenance and safety (creating hazard trees).
- The snow storage and management plan for the Subject Property should respect the tree preservation zone avoiding salt and snow accumulation through clearing activities in the winter within the TPS Refer to SLR's 2019 Arborist Report and Tree Preservation Plan for mitigation and recommendations.
- A Construction Work Plan (or the Sediment and Erosion Control Plan) should designate specific locations for stockpiling of soils and other materials and equipment maintenance having consideration for the Tree Dripline and TPZ. Locations of stockpiling of materials and site grading must not occur within the established TPZ limits outlined within the Tree Preservation Plan.
- Tree or vegetation clearing should be undertaken outside of the breeding period for birds in accordance with provisions of the MBCA. Typically for this area the prime breeding window is from April 1st to August 31st. As a due diligence approach to address the protection of bats, this window should be extended from April 1st to October 1st when Tree removals should not occur. This is a general guideline only as this does not absolve a landowner or contractor's responsibility to protect nesting birds as dictated in the MBCA or ESA regulated species and their habitats.
- Construction monitoring by an ecologist/arborist and certified inspector of sediment and erosion control (CISEC) is recommended as a part of an inspection program to be

developed with City. This may include (but not limited to): photographic records, periodic SEC inspection reports and inspection of trees for damage incurred during construction to ensure appropriate pruning or other mitigation measures are implemented.

- All outdoor lighting (including any new street lighting and external lighting on buildings) should be directed towards the ground and/or away from the area of tree preservation (northeast property limits).
- To protect wildlife in general, no animals are to be knowingly harmed. If wildlife is encountered either during construction or as part of landscape restoration, work must stop, and animals allowed to disperse on their own. If necessary, the MNRF should be contacted for advice. Direction regarding environment standards and guidelines for the protection of SAR and wildlife in general during construction should be established. For example, Ottawa Region Best Management Practices for Wildlife During Construction. (http://ottawa.ca/en/wildlife-strategy-city-ottawa/wildlife-construction-protocol) and MNRF 2016 Best Management Practices for Mitigating the Effects of Roads on Amphibian and Reptile Species at Risk in Ontario.

Note: Species at Risk Information is accurate and up to date as of this report (November 2019). New species designation's under Ontario Regulation 230/08 (Species at Risk in Ontario List) occur periodically. It is the owner's responsibility to ensure that species and habitats regulated under Endangered Species Act (2007) or those described under other policies (i.e. the Migratory Bird Convention Act, Fish and Wildlife Conservation Act) are protected.

9.0 REFERENCES

Bakowsky, W. 1997. Southern Ontario Vegetation Communities. Natural Heritage Information Centre. Revised January 1997.

Bluestone Research Inc. 2018. Stage 1-2 Archaeological Report 428 Little Avenue, City of Barrie.

Brouillet, L., F. Coursol, S.J. Meades, M. Favreau, M. Anions, P. Bélisle & P. Desmet. 2010+. VASCAN, the Database of Vascular Plants of Canada. http://data.canadensys. Accessed May 2017.

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

C. F. Crozier and Associates Inc (a), 2019. Servicing & Stormwater Management Implementation Report 428 Little Avenue, City of Barrie.

C. F. Crozier and Associates Inc (b), 2019. Geotechnical Report 428 Little Avenue, City of Barrie;

Chapman, L.J. and D.F. Putnam. 1984. The Physiography of Southern Ontario, Third Edition. Ontario Geological Survey, Special Volume 2, 270p.

The City of Barrie, 2013. Urban Forestry Strategy. Accessed On-line at https://www.barrie.ca/Living/Environment/Pages/UrbanForestry.aspx.

The City of Barrie. 2017. The City of Barrie Official Plan.

County of Simcoe. 2016. County of Simcoe Official Plan.

COSEWIC, 2003a. COSEWIC as Assessment and Status Report on the Butternut Juglans cinerea in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 32pp. (www.sararegistry.gc.ca/status/status_e.cfm).

Government of Ontario. 1994. Migratory Birds Convention Act. Available online at: http://laws-lois.justice.gc.ca/eng/acts.

Government of Ontario. 2007. Endangered Species Act. Available online at: https://www.ontario.ca/laws/statute/07e06.

Into the Woods, 2019. Landscape Concept Plans 428 Little Avenue, City of Barrie.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray, 1998.Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Ministry of Natural Resources and Forestry. 2018. Make a Map: Natural Heritage Areas. http://www.gisapplication.lrc.gov.on.ca. Accessed October 2017

Newmaster, S.G. and S. Ragupathy, 2012. Flora Ontario – Integrated Botanical Information System (FOIBIS), Phase I. University of Guelph, Canada. Available at: http://www.uoguelph.ca/foibis/.

Ontario Ministry of Natural Resources and Forestry. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement. Second Edition. Toronto: Queen's Printer for Ontario. 248 pp.

Ontario Ministry of Municipal Affairs and Housing, 2014. Provincial Policy Statement. Available at: http://www.mah.gov.on.ca.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Technical Guide Ecoregion Schedules 6E.

Ontario Nature. 2018. Atlas of Ontario Herpetofauna. Available on-line through the Ontario Nature website, https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/species/.

Pinchin, 2017. Phase 1 ESA 428 Little Avenue, City of Barrie.

SLR Consulting (Canada) Ltd.,2019. Arborist Report and Tree Preservation Plan, 428 Little Avenue, City of Barrie.

Valcoustics Canada Ltd, 2019. Vibration Study 428 Little Avenue, City of Barrie.

10.0 STATEMENT OF LIMITATIONS

This report has been prepared and the work referred to in this report has been undertaken by SLR Consulting (Canada) Ltd. (SLR) for **428 Little Inc.**, hereafter referred to as the "Client". The report has been prepared in accordance with the Scope of Work and agreement between SLR and the Client. It is intended for the sole and exclusive use of Client. Other than by the Client and as set out herein, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted unless payment for the work has been made in full and express written permission has been obtained from SLR.

This report has been prepared for specific application to this site and site conditions existing at the time work for the report was completed. Any conclusions or recommendations made in this report reflect SLR's professional opinion.

Information contained within this report may have been provided to SLR from third party sources. This information may not have been verified by a third party and/or updated since the date of issuance of the external report and cannot be warranted by SLR. SLR is entitled to rely on the accuracy and completeness of the information provided from third party sources and no obligation to update such information.

Nothing in this report is intended to constitute or provide a legal opinion. SLR makes no representation as to the requirements of compliance with environmental laws, rules, regulations or policies established by federal, provincial or local government bodies. Revisions to the regulatory standards referred to in this report may be expected over time. As a result, modifications to the findings, conclusions and recommendations in this report may be necessary.

The Client may submit this report to related environmental regulatory authorities or persons for review and comment purposes.

KLF/klf

APPENDIX A
Agency Meetings and Correspondence

Scoped Environmental Impact Study
Little Ave Barrie
SLR Project No.: 209.40465.00001

Pre-consultation Meeting - LSRCA

Property - 428 Little Ave, Barrie Ontario

MINUTES MARCH 28, 2017 11 AM-12:00 LAKE SIMCOE REGION CONSERVATION HEAD OFFICE

LAKE SIMCOE REGION CONSERVATION	Charles Burgess, Lisa-Beth Bulford, Kate Lillie
PLAZACOMM	Robert Melon, Aaron Gold
SLR CONSULTING	Kim Laframboise
CELESTE PHILLIPS PLANNING INC.	Celeste Phillips

Meeting Purpose:

- Introductory meeting with LSRCA and PlazaComm to review property at 428 Little Ave in Barrie.
- Review proposed development and discuss preliminary environmental issues and potential constraints

Highlights from the discussions

ITEM	DISCUSSION	ACTION
Overall site and proposed plan Review	Celeste provided update – generally zoning is single family detached, with a residential hold zoning for the Rail line. Uncertain if the old plan has lapsed LSRCA - staff have been on site and most of the property is forest with some mature areas (towards the rail line) and scrub. No identified wetlands. Not within LSRCA regulated area. LSRCA role is environmental review for the City of Barrie not permitting. The site is designated as Level 3 in the OP– requiring an EIS. Plazacom – a 20 /30 m setback is required for the rail line, with amenity use (i.e. parking) permitted within the setback. Initial thoughts due to height of lands are to use a crash berm.	
Woodland	Lands are within the settlement area, Official plan policies will be used to determine significant destination/ criteria. LSRCA/MNRF guidelines prepared for the Lake Simcoe Protection Act do not apply. Woodland compensation (if woodland removed) would be calculated and recommended by the LSRCA based on their draft policies. The document is not available as it is currently under review at the Ontario Municipal Board. Example of compensation for woodland may include - 2:1 replacement ratio + Ecosystem Services Value ($5,459/ha) [= (ha loss x 2) + (ha loss x $5459/ha)] or a cash in lieu option of 2:1 replacement ratio multiplied by the Woodland Replacement Cost/ha + Ecosystem Services Value	*LSRCA to send SLR compensation draft formulas*

ITEM	DISCUSSION	ACTION
	($5,459/ha). For example cost for this site using cash in lieu could be approximately $170,000 +	
Endangered species Act, Significant Wildlife Habitat	EIS will need to address species at risk and wildlife habitat. Preliminary site review indicates no butternut but possible SAR birds (i.e. Eastern wood-pewee). The preliminary review also suggests no significant wildlife corridors (LSRCA in agreement). EIS would have to address these issues. LSRCA identified no significant constraints or specific concerns	
Study requirements	Approvals needed – re-zoning, condo approval and site plan approval. Project may be Phased. No feature based study water balance required, Hydrology would be captured under the FSE [SWM] work. EIS Terms of Reference – discussions between Kate (LSRCA) and Kim (SLR) preliminary approach is 2 visits within appropriate season would be acceptable, as along as surveys capture items like spring ephemerals, vegetation (i.e. goldenrods, asters), breeding birds and SAR. This could include mid-June and July. LSRCA open to discussions of a scoped study (to be finalized through the TOR process).	*Kim to send Kate email of TOR discussions*
Next steps – City of Barrie pre-consultation meeting, finalization of due diligence review		

Aaron and Robert thanked the attendees for a very productive and informative meeting.

The forgoing represents the writers understanding of the major items for discussions and the decisions reached and / or future actions required. If the above does not accurately represent all parties attending, please notify the undersigned within 24 hrs. upon receiving these minutes.

Minutes prepared by:

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APPENDIX B
Representative Site Photographs

Environmental Impact Study
Little Ave Barrie
SLR Project No.: 209.40465.0000

Photograph 1. Overview Ash dominated forest near parkland (June 2017).

Photograph 2. Representative tree composition of woodlot (March 2018).

Photograph 3. Representative view of southern property limits and abutting residences (January 2018).

Photograph 4. Representative understory of woodland. Note the common buckthorn (July 2017).

Photograph 5. View of rail corridor and Hurst Drive (Northeast) (January 2018).

Photograph 6. Top of Slope / steep slopes within the northeast property limits (January 2018).

SLR	Little Ave Barrie 1 of 1
SITE PHOTOGRAPHS	Job No: 209.40507.00000

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