Scoped Environmental Impact Study
6620 Rothschild Trail
Block 21 Vintages Select
City of Mississauga
Part of Lot 21 and 22, Registered Plan 43M-1710

Prepared For:

DiBlasio Homes

Prepared By:

Beacon Environmental Limited

Date:	*Project:*
2024-12-09	**215194**

BEACON ENVIRONMENTAL

GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT

Executive Summary

Beacon Environmental Limited (Beacon) was retained by DiBlasio Homes to prepare a Scoped Environmental Impact Study (EIS) in support of a proposal to re-develop an approximately 0.93 ha property located at 6620 Rothschild Trail in the City of Mississauga (herein referred to as the "subject property"). The legal description of the subject property is Part of Lot 9, Concession 2, WHS. The property is part of Registered Plan 43M-1710. The subject property is located within the jurisdiction of the Credit River Valley Conservation Authority (CVC) and is situated adjacent to two watercourses: the main branch of Fletchers Creek and a small ravine tributary. Both of these features have been characterized as confined valley systems.

The primary objective of this Scoped EIS is to demonstrate that the proposed development and associated site alterations will not have a negative impact on natural heritage features or ecological functions associated with the subject property. Policy 6.3.27 of the City of Mississauga Official Plan lists an EIS as one of the types of studies that may be required as part of a complete application submission for an official plan amendment, rezoning, draft plan of subdivision or condominium or consent application. The scope of work required in support of this Scoped EIS was identified in consultation with the City of Mississauga and CVC. Terms of Reference for the EIS were approved in March 2017.

This Scoped EIS was prepared using an integrated approach. Biophysical features are characterized using background information, technical reports from other consultants on the multi-disciplinary project team, and field investigations to fill in data gaps.

The project study team and their respective roles are described below:

1. Beacon – EIS coordination, fluvial geomorphology, aquatic and terrestrial ecology;
2. Soil Engineers Ltd. – Soil Investigation, Geotechnical Investigation and Slope Stability Assessment;
3. SKIRA & Associates – Functional Servicing Report (FSR) and Site Grading and Servicing Plan;
4. Strybos Barron King Landscape Architecture – Landscape and Compensation Planting Plans.

Background information that was reviewed included, but is not limited, to the following:

- Current and Historical Aerial Photographs;
- Natural Heritage Information System (NHIS) Databases;
- Ministry of Natural Resources and Forestry (MNRF) species at risk (SAR) Screening; and
- CVC Reports.

In addition, the EIS also gave consideration to the technical studies completed by others on the project study team.

Field investigations and ecological surveys undertaken by the study team to characterize existing conditions on the subject property and the immediate adjacent lands included:

- Soil Investigation;
- Vegetation Assessment;

- Tree Inventory; and
- Wildlife Habitat Suitability Assessment.

The findings of the background review and field studies were used to identify potential environmental constraints to development, and to identify opportunities for enhancement. The constraint analysis was also used to establish potential development limits. A summary of the key study findings is provided below:

- A **geotechnical investigation** was completed by Soil Engineers (2017) to characterize subsurface conditions within the tableland portion of the subject property. Results presented in the report indicated that subsurface conditions within the subject property generally consist of a layer of earth fill, underlain by a layer of silty sand till/silty clay till, beyond which shale bedrock was encountered.

- **Ecological surveys** were undertaken by Beacon. Vegetation communities on the subject property and adjacent lands were mapped and classified according to the Southern Ontario Ecological Land Classification System (ELC; Lee *et al*. 1998). The majority of the subject property was characterized as existing development and associated cultural vegetation, with forest and plantation ELC communities along the edges. Floristic surveys of the subject property and adjacent valleylands were conducted on October 13, 2015. A total of 60 species of vascular plants were identified on the subject property, of which 21 are non-native to Ontario and 42 are native. Of the 42 native species, 40 are ranked S5 by the NHIC, indicating that they are common and secure in Ontario. Two species, Honey Locust (*Gleditsia triacanthos*) and Butternut (*Juglans cinerea*), are ranked S2 (imperilled). In Ontario, natural occurrences of Honey Locust are rare; however, Honey Locust is a commonly planted landscape tree. The trees on the property are a planted variety. A single Butternut tree was identified in the woodland adjacent to the subject property. Based on the status ranking provided in *Plants of the Credit River Watershed* (CVC 2002), none of the species observed on or adjacent to the subject property are considered regionally rare or uncommon. Butternut is a provincially endangered species.

    - A tree inventory was also completed for the subject property and immediately adjacent lands. All trees with stems measuring 10 cm in diameter at breast height (DBH) were tagged and assessed. A total of 100 trees (≥ 10 cm DBH) were documented.
    - A desktop wildlife habitat assessment was completed to identify potential habitat for birds, reptiles and mammals that may be associated with the property. General field observations were documented on November 11, 2015. A total of 89 species of birds have been recorded within Ontario Breeding Bird Atlas (OBBA) Square 17PJ03, the square in which the subject property is located. Habitat for the majority of these species is associated with the valleyland forests, wetlands and meadows within 120 m of the subject property.
    - The subject property is not considered to provide suitable habitat for turtles. Potentially suitable habitat for Snapping Turtle (*Chelydra serpentina*) and Midland Painted Turtle (*Chrysemys picta marginata*) does, however, exist within Fletchers Creek adjacent to the subject property and could be used by turtles to migrate to and from other suitable basking / nesting habitats upstream and downstream of the subject property.

- Based on correspondence with MNRF, potential habitat for endangered bats (i.e., Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tricolored Bat (*Perimyotis subflavus*)) in treed cavities was identified. A snag survey was undertaken for the subject property during leaf-off conditions (April 18, 2017). As no cavity trees were documented that have the potential to provide maternity roost habitat within the proposed limit of development. As such, impacts to SAR bat species are not anticipated.
- No suitable breeding habitat for frogs or toads exists on the subject property. Potentially suitable habitat for these species could be present in valleyland wetland habitats located within 120 m of the subject property.
- A total of 21 species of mammals were identified as having the potential to occur on, or within 120 m of the subject property. All identified species are commonly associated with natural or naturalized areas within urban or rural environments in southern Ontario.

- A **Fish Community Assessment** was completed using existing fisheries information for Fletchers Creek which was obtained from CVC fish records and the Fletchers Creek Characterization report (CVC 2012). A total of 34 fish species have been recorded from Fletchers Creek. Fish community sampling within the vicinity of the subject property was undertaken in 1965, 1982, 1989, and 2010 and documented a total of 13 fish species. The fish species composition data indicates that Fletchers Creek supports a diverse coolwater community with some warmwater native species. Fletchers Creek is classified as a coolwater system (CVC 2002). The main branch of Fletchers Creek is classified by the Ministry of Environment, Conservation and Parks (MECP) as occupied Redside Dace (*Clinostomus elongatus*) habitat. No historical fish sampling data was available for the tributary of Fletchers Creek, but the tributary is managed by MECP as contributing to downstream occupied habitat within the main branch of Fletchers Creek. Consultation with MNRF (which administered the *Endangered Species Act* at the time) regarding Redside Dace regulated habitat limits for the subject property was initiated in 2013. On June 4, 2014, a site meeting was held with MNRF staff to review existing site conditions and to confirm Redside Dace regulated habitat limits for the main branch of Fletchers Creek. Subsequently, Fisheries and Oceans Canada (DFO) also protects Redside Dace under the *Species at Risk Act* (SARA) and regulates meander belt plus 30 m under the *Fisheries Act*.

- A **Fluvial Geomorphic Assessment** was completed by Beacon to confirm existing geomorphic conditions along the portions of Fletchers Creek and the tributary of Fletchers Creek adjacent to the subject property on October 7, 2015. Rapid assessment results indicated that Reach FC-1 exhibited minor evidence of stress ('in transition') with a score of 0.28. Widening was identified as the dominant mode of adjustment, with indicators of planimetric form adjustment, degradation and aggradation also observed. Reach FC-2 of Fletchers Creek also exhibited minor evidence of stress ('in transition') with a score of 0.26. Widening was identified as the dominant mode of adjustment, with indicators of planimetric form adjustment, degradation and aggradation also observed. Rapid assessment results indicated that Reach FCT-1 was stable ('in regime') with a score of 0.02.

- A **Site-based Water Balance** and **Stormwater Management Plan** was developed by SKIRA and is included in the FSR. The FSR has determined that the post development site water balance can satisfy relevant CVC and City of Mississauga criteria and achieved through the proposed stormwater management strategy which includes retention of the first 5 mm of rainfall for infiltration. Surface runoff from the proposed condominium block will be directed to the Fletchers Creek Tributary via a new outfall. Runoff from landscaped amenity areas surrounding the condominium will drain uncontrolled towards the adjacent valleylands.

The subject property was designated for residential development in 1997 by the City. In 1998, the lands were included within an approved Draft Plan of Subdivision and were zoned to permit detached dwellings. In recognition of the previously approved nature of the development application, CVC and the City have agreed to reduced variable buffers to existing environmental features relative to current policies and regulations.

The development is proposed on Lot 21 and part of Lot 22 of Registered Plan 43M-1710. The proposed development consists of a 17 townhomes with access from Rothschild Trail via a private condominium road. The development also includes a single residential lot fronting Rothschild Trail. Proposed condominium lands and residential lot limits are identified on the Site Plan and Site Servicing Plan (SKIRA 2024). These limits are not subject to any additional buffers; lands outside the lot limits are proposed for greenbelt dedication. The existing residence on the property will be removed to accommodate redevelopment of the site.

The impact assessment has determined that the proposed development will not negatively impact the natural heritage system or its functions and is being undertaken in accordance with direction provided by both the City and CVC in a manner that complies with applicable environmental legislation, regulations and policies.

While compensation opportunities within the buffer along the southern property limit are limited by Region of Peel requirements to maintain the sanitary sewer easement, all other buffer areas will be planted with native species suitable for the site conditions and reflective of surrounding ELC communities. The Region of Peel requires that the entire 7 m sewer easement from front of the proposed building, along the south side of the building, and to the rear limit of the property, be maintained to allow emergency access to this infrastructure. In email correspondence (dated March 29, 2022), CVC agreed that the easement would be excluded from buffer restoration requirements to support this function.

As the proposed compensation planting plan identifies not only the removal of an existing building from the buffer zone, but restoration of current anthropogenic areas with compensation plantings to enhance terrestrial habitat, it is the conclusion of this EIS that the development will achieve an overall ecological net gain.

Monitoring recommendations are provided in the EIS to ensure that the various protection and mitigation measures are implemented and performing the desired functions to acceptable levels. Monitoring will be undertaken during construction and post-construction to evaluate performance of the proposed erosion and sediment controls and storm servicing plan. Monitoring requirements will be reviewed and refined, as appropriate, during the detailed design phase.

The EIS was previously revised to address comments issued by the City of Mississauga and CVC (dated October 28, 2019, November 26, 2020, December 2021 and January 2022). The EIS has been updated again to reflect revisions to the Site Plan. The findings and recommendations of this report should be read in conjunction with the supporting technical studies.

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Report Versions Issued

Version	Date	Revisions
1.	October 2019	First submission
2.	November 2020	Second submission
3.	December 2021	Third submission
4.	January 2022	Fourth submission
5.	December 2024	Fifth submission

1. Introduction

Beacon Environmental Limited (Beacon) was retained by DiBlasio Homes to prepare a Scoped Environmental Impact Study (EIS) in support of the re-development of 6620 Rothschild Trail in the City of Mississauga (herein referred as the "subject property"). The legal description of the property is Part of Lot 9, Concession 2, WHS. The property is part of Registered Plan 43M-1710 (**Appendix A**). The subject property (shown on **Figure 1**) is located within the jurisdiction of the Credit River Valley Conservation Authority (CVC) and is situated adjacent to two watercourses: the main branch of Fletchers Creek and a small ravine tributary. Both of these features have been characterized as confined valley systems.

The majority of the subject property is identified within the City of Mississauga Land Use Schedule as Low Density Residential. Presently, land use within the subject property consists of an estate lot with a single residential dwelling. The subject property also contains components of the City's Natural Heritage System (NHS). The valleylands are designated as "Significant Natural Areas and Natural Green Spaces" on Schedule 3 of the City's Official Plan, which corresponds with the boundary of Natural Area MV2 in the City's Natural Area Survey. The valleylands are also identified as "Natural Hazards" on Schedule 3.

The policies of the City of Mississauga Official Plan require that an EIS be prepared in support of development and site alteration that are within or adjacent to Significant Natural Areas and Natural Green Spaces. The purpose of the EIS is to demonstrate that the proposed development and/or site alteration will not have a negative impact on natural heritage features or ecological functions associated with the property. Policy 6.3.27 of the City of Mississauga Official Plan lists an EIS as one of the types of studies that may be required as part of a complete application submission for an official plan amendment, rezoning, draft plan of subdivision or condominium or consent application.

A previous development plan was proposed for the subject property, which consisted of a 4-storey mid-rise condominium apartment building with 43 condominium units and one level of underground parking. The revised development plan consists of 17 townhomes with access from Rothschild Trail via a private condominium road. Consistent with the previous plan, the development also includes a 7 m easement for the Region of Peel sanitary sewer along the south side of the subject property. The proposed condo road aligns with an existing gravel laneway over the sanitary sewer easement.

A Scoped EIS was last prepared by Beacon (2022) in support of the Site Plan Application. This updated Scoped EIS has been prepared to address changes to the proposed development. The EIS has also been updated to reflect the current policy and regulatory regime as a number of policy and regulatory changes have also come into effect since the previous submission.

The scope of work required in support of this Scoped EIS was identified in consultation with the City of Mississauga and CVC. The approved Scoped EIS Terms of Reference is provided in **Appendix A.**

2. Policy Review

This section includes an overview of key federal, provincial, and local environmental policies, legislation, and regulations that are directly relevant to this Scoped EIS and land use planning for the subject property:

- Provincial Planning Statement (2024);
- Region of Peel Official Plan (2022);
- City of Mississauga Official Plan (2017);
- *Conservation Authorities Act* – Ontario Regulation (O. Reg.) 41/24;
- Ontario *Endangered Species Act* (ESA; 2007); and
- *Species at Risk Act* (2002).

2.1 Provincial Planning Statement (2024)

The Provincial Planning Statement (PPS 2024) provides policy direction to municipalities on matters of provincial interest as they relate to land use planning and development. The PPS provides for appropriate land use planning and development while protecting Ontario's natural heritage. Development governed by the *Planning Act* must be consistent with the policy statements issued under the PPS. These are outlined in Section 4.1 - Natural Heritage, Section 4.2 – Water, and Section 5.2 - Natural Hazards of the PPS, and relevant sections from each are provided in the following pages.

The PPS includes policies that speak to the identification and protection of natural heritage systems, as well as levels of protection for the various components that comprise such systems. Some of these features are present in the Study Area and must be assessed in the context of these policies.

The policies specific to natural heritage are found in Section 4.1 of the PPS and are provided in their entirety below:

1 Natural features and areas shall be protected for the long term.

2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

3 Natural heritage systems shall be identified in Ecoregions 6E & 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.

4. Development and site alteration shall not be permitted in:

a. Significant wetlands in Ecoregions 5E, 6E and 7E; and

b. Significant coastal wetlands

5 Development and site alteration shall not be permitted in:

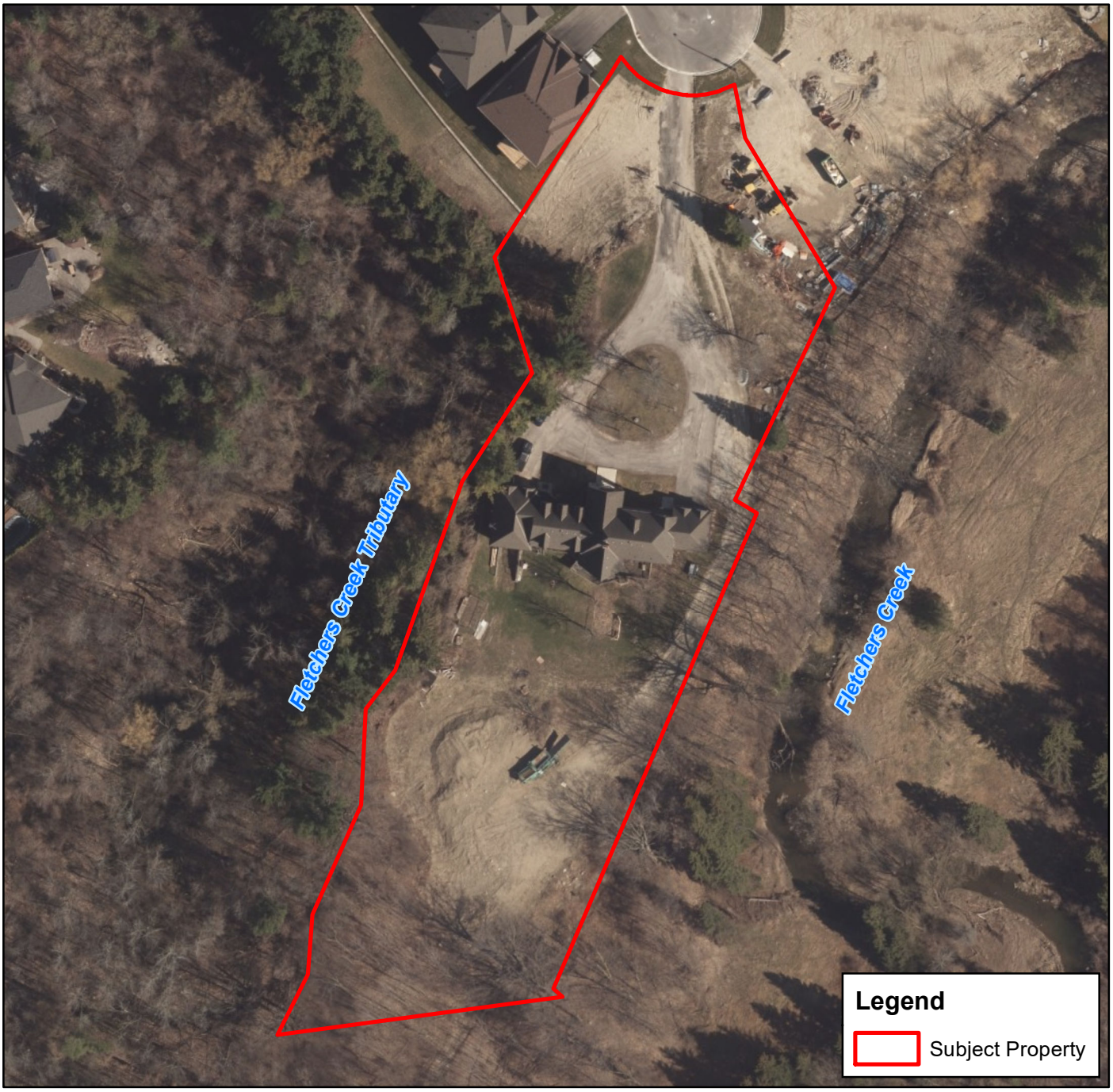
a. Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;

b. Significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);

c. Significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);

d. Significant wildlife habitat;

e. Significant areas of natural and scientific interest; and



Site Location	Figure 1
Block 21 Vintages Selected Scoped EIS	
BEACON ENVIRONMENTAL	Project: 215194 Last Revised: March, 2021
Client: DiBlasio Homes	Prepared by: DU Checked by: SG
N 1:1,200	Inset Map:1:20,000

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f. Coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 4.1.4(b).

Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5 and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

9 Nothing in policy 2.1 is intended to limit the ability of agricultural uses to continue.

Policy 5.1 of the PPS provides direction to municipalities regarding land use planning in natural hazard areas. These policies generally prohibit or restrict development in areas prone to flooding and erosion. In support of the Planning Statement, a Technical Guide - Rivers and Streams: Erosion Hazard Limit document was prepared (MNR 2002) to outline standardized procedures for the delineation and management of riverine erosion hazards in the Province of Ontario. The guide presents erosion hazard protocols based on two generalized landform systems through which watercourses flow: confined and unconfined valley systems. Through this approach, the meander belt width plus an erosion access allowance is defined to determine the erosion hazard limit of an unconfined valley system. For confined valley systems, the erosion hazard limit is governed by geotechnical considerations, including the stable slope allowance and an applicable toe erosion allowance (i.e., channel migration component).

The intent of the toe erosion allowance is to mitigate risk to the adjacent tablelands by accounting for the potential of the stream to migrate laterally into the valley wall and erode the toe of slope. This process can result in subsequent slope adjustments or failure and cause the loss of property or pose a risk to human life. Policy dictates that, for confined valley systems, an initial screening must be undertaken to determine whether the valley wall is less than 15 m from the watercourse. Where soil conditions are not known, a 15 m toe erosion allowance is recommended. Based on a more detailed evaluation, the Technical Guide provides recommendations for the toe erosion allowance referencing existing soil structure and channel stability conditions (**Table 1**).

Table 1. Minimum Toe Erosion Allowance based on Existing Conditions (MNR 2002)

Type of Material Native Soil Structure	Evidence of Active Erosion or where the Bankfull Flow Velocity is Greater than Competent Flow Velocity	No Evidence of Active Erosion		
		Bankfull Width		
		<5m	5-30m	>30m
Hard Rock (e.g. granite)	0-2 m	0 m	0 m	1 m
Soft Rock (shale, limestone), cobbles, boulders	2-5 m	0 m	1 m	2 m
Clays, clay-silt, gravels	5-8 m	1 m	2 m	4 m
Sand, silt	8-15 m	1-2 m	5 m	7 m

2.2 Region of Peel Official Plan (2022)

The Peel Region Official Plan (ROP) contains policies aimed at protecting, maintaining, and restoring a Greenlands System consisting of "Core Areas", "Natural Areas and Corridors (NAC's)", and "Potential Natural Areas and Corridors (PNAC's)". Key elements of the Region's Greenlands System include the following:

- Areas of Natural and Scientific Interest (ANSI);
- Environmentally Sensitive or Significant Areas;
- Escarpment Natural Areas;
- Escarpment Protection Areas;
- Fish and wildlife habitat;
- Habitats of threatened and endangered species;
- Wetlands;
- Woodlands;
- Valley and stream corridors;
- Shorelines;
- Natural lakes;
- Natural corridors;
- Groundwater recharge and discharge areas;
- Open space portions of the Parkway Belt West Plan; and
- Other natural features and functional areas.

The above key elements are to be interpreted, identified, and protected in accordance with the policies of the ROP.

2.2.1 Core Areas

Core Areas represent those features and areas that are considered to be significant at the provincial and regional levels. They generally correspond with significant features and areas listed in the PPS and include:

- Significant Wetlands;
- Significant Coastal Wetlands;
- Core Woodlands;

- Environmentally Sensitive or Significant Areas;
- Provincial Life Science ANSI;
- Significant Habitat of Threatened and Endangered Species;
- Escarpment Natural Areas of the Niagara Escarpment Plan; and
- Core Valley and Stream Corridors.

Core Areas of the Greenlands System are mapped on Schedule A of the ROP. Criteria for identifying additional core features of the Greenlands System are provided in the ROP.

Policy 2.3.2.6 prohibits development and site alteration within the Core Areas of the Greenlands System in Peel except for:

- Forest, fish, and wildlife management;
- Conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all reasonable alternatives have been considered;
- Essential infrastructure exempted, pre-approved or authorized under an environmental assessment process;
- Passive recreation;
- Minor development and minor site alteration;
- Existing uses, buildings, or structures;
- Expansions to existing buildings or structures;
- Accessory uses, buildings, or structures; and
- A new single residential dwelling on an existing lot of record, provided that the dwelling would have been permitted by the applicable planning legislation or zoning by-law on May 23, 2014. A new dwelling built after May 23, 2014 in accordance with this policy shall be deemed to be an existing building or structure for the purposes of the exceptions permitted in clauses g) and h) above.

The above noted exceptions are permitted provided that:

a) the exceptions are permitted in accordance with the policies in an approved local municipal official plan or the Niagara Escarpment Plan, where applicable;

b) any development and site alteration will not be permitted unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions and that:

i. there is no reasonable alternative location outside of the Core Area and the use, development or site alteration is directed away from the Core Area to the greatest extent possible;

ii. if avoidance of the Core Area is not possible, the impact to the Core Area feature is minimized;

iii. any impact to the Core Area or its functions is mitigated through restoration or enhancement to the greatest extent possible; and

iv. where ecosystem compensation is determined to be appropriate and feasible, including for essential infrastructure, it may be considered in accordance with local municipal or conservation authority ecosystem compensation guidelines.; and

c) within significant wetlands and significant coastal wetlands the above exceptions may only be considered in accordance with federal and provincial legislation, regulations and policies (e.g. Conservation Authorities Act); and

d) when developing policies to allow the exceptions, the local municipalities may consider appropriate implementation tools including existing approval requirements and tools of other agencies

2.2.2 Natural Areas and Corridors (NAC) and Potential Natural Areas and Corridors (PNAC)

NAC include:

- Evaluated non-provincially significant wetlands;
- Woodlands meeting one or more of the criteria in Table 1 of the ROP;
- Significant wildlife habitat meeting one or more of the criteria in the Ministry of Northern Development, Mines, Natural Resources and Forestry's Significant Wildlife Habitat Technical Guide and associated Criteria Schedules for Ecoregions 6E and 7E;
- Fish habitat;
- Regionally significant life science Areas of Natural and Scientific Interest;
- Provincially significant earth science Areas of Natural and Scientific Interest;
- Escarpment Protection Areas of the Niagara Escarpment Plan;
- The Lake Ontario shoreline and littoral zone and other natural lakes and their shorelines;
- any other valley and stream corridors that have not been defined as part of the Core Areas;
- sensitive headwater areas and sensitive ground water discharge areas; and
- any other natural features and functional areas interpreted as part of the Greenlands System Natural Areas and Corridors by the local municipalities, in consultation with the conservation authorities and the Ministry of Northern Development, Mines, Natural Resources and Forestry, including, as appropriate, elements of the Potential Natural Areas and Corridors.

PNAC include:

- Unevaluated wetlands and coastal wetlands;
- Cultural woodlands and cultural savannahs within the Urban System and Rural Service Centres meeting one or more of the criteria in Table 1 of the ROP;
- Any other woodlands greater than 0.5 hectares;
- Regionally significant earth science Areas of Natural and Scientific Interest;
- Sensitive groundwater recharge areas;
- Portions of Historic shorelines;
- Open space portions of the Parkway Belt West Plan Area;
- Potential ESAs identified as such by the conservation authorities; and
- Any other natural features and functional areas interpreted as part of the Greenlands System Potential Natural Areas and Corridors, by the individual area municipalities in consultation with the conservation authorities.

NAC's and PNAC's represent natural features and areas that are considered locally significant. NAC's and PNAC's are considered locally important. Regional policies pertaining to NAC's and PNAC's defer their interpretation, protection, restoration, enhancement, proper management, and stewardship to local municipalities.

The subject property includes lands identified as Core Areas in the Region's Greenlands mapping (Schedule A).

2.3 City of Mississauga Official Plan (2015; 2024 Office Consolidation)

The 2024 Office Consolidation of the Mississauga Official Plan (City of Mississauga 2015) in effect at the time of writing this report has been considered as the basis for the policy review. The Official Plan Land Use Designations Schedule (Schedule 10) identifies the subject property as Residential Low Density II. The Official Plan Natural System Schedule 3 identifies Fletchers Creek and the Fletchers Creek Tributary valley systems adjacent to the subject property as Natural Hazard lands and as Significant Natural Area / Natural Green Space. Policies specific to the Official Plan relevant to the subject property are discussed in this section. An assessment of existing environmental features within and adjacent to the subject property in accordance with the noted applicable policies is provided in **Section 8**.

Chapter 6 of the City's Official Plan provides policies pertaining to the natural environment. General policies (Section 6.1) include commitments to, among other things:

- Protect, enhance, restore and expand the NHS (policy 6.1.1a);
- Protect life and property from natural and human made hazards (policy 6.1.1c);
- Promote education and awareness for the protection and enhancement of the environment (policy 6.1.5); and
- Improve air quality (policy 6.1.6) and address climate change mitigation and adaptation (policy 6.1.7).

Section 6.3 of the Mississauga Official Plan contains policies pertaining to the protection of the Green System. The Green System is comprised of:

- The Natural Heritage System;
- The Urban Forest;
- Natural Hazard Lands; and
- Parks and Open Spaces.

Each of these categories is relevant to the subject property and may overlap with one or more of the other three categories. Key policies from each are presented in the following subsections.

Natural Heritage System (NHS) and Urban Forest

The City's NHS consists of:

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

The City's Urban Forest consists of the wooded portions of any of these five categories as well as trees outside of wooded natural areas of the NHS.

Significant Natural Areas include one or more of the following features:

- Provincially or regional significant life science ANSIs;
- Environmentally sensitive or significant areas (as inventoried and designated by the Conservation Authorities and Provincial government;
- Habitat of threatened species or endangered species;
- Fish habitat;
- Significant wildlife habitat (SWH);
- Significant woodlands;
- Significant wetlands, including PSWs, coastal wetlands, and other wetlands greater than 0.5 hectares; and
- Significant valleylands, including the main branches, major tributaries and other tributaries and watercourse corridors draining directly to Lake Ontario including the Credit River, Etobicoke Creek, Mimico Creek and Sixteen Mile Creek.

The subject property does not contain and is not adjacent to any ANSIs, environmentally sensitive or significant areas or significant wetlands, but is located adjacent to the habitat of threatened species or endangered species, SWH, significant woodlands and significant valleylands (refer to **Section 5**).

Policy 6.3.27 states:

> *"Development and site alteration as permitted in accordance with the Greenlands designation within or adjacent to a Significant Natural Area will not be permitted unless all reasonable alternatives have been considered and any negative impacts minimized. Any negative impact that cannot be avoided will be mitigated through restoration and enhancement to the greatest extent possible. This will be demonstrated through a study in accordance with the requirements of the Environmental Assessment Act. When not subject to the Environmental Assessment Act, an Environmental Impact Study will be required."*

Natural Green Spaces are areas that meet one or more of the following criteria:

- Woodlands greater than 0.5 hectares that do not qualify as significant woodland;
- Wetlands that do not qualify as significant wetland;
- Watercourses that do qualify as significant valleyland; and
- All natural areas greater than 0.5 hectares that have vegetation that is uncommon in the City.

Policy 6.3.32 states that development and site alteration will not be permitted within or adjacent to Natural Green Spaces unless it has been demonstrated through an EA or an EIS that there will be no negative impact to the natural heritage features and their ecological functions and development opportunities for their protection, restoration, enhancement and expansion have been identified.

As per policy 6.3.7 and 6.3.8, buffers will be determined for NHS components on a site-specific basis as part of an EIS to the satisfaction of the City and appropriate Conservation Authority.

Special Management Areas "are lands adjacent to or near Significant Natural Areas or Natural Green Spaces and will be managed or restored to enhance and support the Significant Natural Area or Natural Green Space" (policy 6.3.15).

The Official Plan also states that "Mississauga will protect, enhance, restore and expand the Urban Forest" (policy 6.3.42) through a variety of tools and approaches including strategic tree planting and maintenance on public lands and "ensuring development and site alteration will not have negative impacts on the Urban Forest". Policy 6.3.44 specifically states that:

> *"Development and site alteration will demonstrate that there will be no negative impacts to the Urban Forest. An arborist report and tree inventory that demonstrates tree preservation and protection both pre and post construction, and where preservation of some trees is not feasible, identifies opportunities for replacement, will be prepared to the satisfaction of the City in compliance with the City's tree permit by-law*."

In general, the City "will have regard for the maintenance of the long term ecological integrity of the Natural Heritage System in all decisions" (policy 6.3.23) and is committed to using native and non-invasive species for plantings (policy 6.3.24c) and to working with the Conservation Authorities to encourage enhancement of natural areas and naturalize City-owned lands "particularly where they abut or directly connect areas within the Natural Heritage System" (policy 6.3.4).

Natural Hazard Lands

Natural Hazard lands are associated with valley and watercourse corridors, as well as the Lake Ontario shoreline. These areas are prone to flooding and erosion and are generally unsuitable for development. Land use in Natural Hazard lands is limited to conservation, flood and/or erosion control, essential infrastructure and passive recreation.

Development and site alternation are not permitted within the erosion hazard lands associated with valleylands and watercourses (policy 6.3.47). Development proposed adjacent to erosion hazard lands may need to be supported by slope stability and/or stream erosion studies (policy 6.3.48) as well as an Erosion and Sediment Control Study (policy 6.3.63).

With respect to flood plains, it is the policy of the City that lands subject to flooding are a danger to life and property and, as such, development is generally prohibited. However, it is recognized that some historic development has occurred within flood plains and may be subject to special flood plain policy consideration.

As per policy 6.3.7 and 6.3.8, buffers will be determined for Natural Hazard Lands on a site-specific basis as part of an EIS to the satisfaction of the City and appropriate Conservation Authority.

2.4 Credit Valley Conservation Authority Policies and Regulations

CVC regulates activities within and adjacent to wetlands, watercourses and hazard lands under O. Reg. 42/21 under Section 28 of the *Conservation Authorities Act*. A permit must be obtained from CVC for development or site alteration within regulated areas.

It is understood that CVC is initiating a comprehensive policy review and update to their current policies (*Watershed Planning and Regulation Policies, April 2010.*). As there are no transitional policies in place, CVC continues to refer to the 2010 policies recognizing that O. Reg 41/24 supersedes some sections of the policy particularly those related to non-hazard items (e.g. woodlands, Environmentally Significant

Areas, SWH, fish habitat etc.). CVC will defer to and take guidance from O. Reg 41/24 in their reviews until their policies are updated to be consistent with current legislation.

2.4.1 Slope Stability Definition and Determination Guideline (CVC 2014)

The CVC (2014) Slope Stability Definition and Determination Guideline defines the Long Term Stable Slope Line as consisting of a Stability Component and the Erosion Component. The Erosion Component is further defined as:

> *The regression of the slope toe/channel bank due to erosion over the design life of the structure at the crest of the slope and is measured as a horizontal distance.*

Factors for identified within the Guideline for consideration in the determination of the Erosion Component include:

- Proximity of the slope toe to the watercourse;
- Sediment load carried by the watercourse;
- Average and peak flow rates and velocities of the watercourse;
- Fluvial geomorphological processes affecting the reach within which the site is located;
- Susceptibility of the soils to erosion;
- Increases in surface runoff over the slope;
- Type and extent of vegetation; and
- Weathering of slope face.

As illustrated in Figure 4a of the Guideline, delineation of the Erosion Component consists of two separate factors:

- Determination of the distance from the toe of the valley wall to the watercourse channel bank; and
- Determination of the design toe erosion allowance.

The design toe erosion allowance can either be calculated based on historical records for the site or based on suggested allowances as identified in the guideline (**Table 2**).

Table 2. Suggested Design Toe Erosion Allowance (CVC 2014)

Material at Channel Bank or Bankfull	Bank Condition		
	Active Erosion of Bank	Erosion Not Currently Evident	Existing Bank Protection in Place and Maintained Along Bank
Limestone/Dolostone	2 m	1 m	0 m
Shale	5 m	2 m	0 m
Cohesive Soils (Silty Clays, Clayey Silts)	8 m	4 m	0 m
Cohesionless Soils (Silts, Sands)	15 m	7 m	0 m

2.5 Ontario *Endangered Species Act* (2007)

Ontario's ESA came into effect on June 30, 2008, with over 200 species in Ontario identified as extirpated, endangered, threatened, or of special concern. The MECP provides oversight of the ESA for the regulation of Species at Risk (SAR) in Ontario. Under the ESA, native species that are in danger of becoming extinct or extirpated from the province are identified as being extirpated, endangered, threatened and special concern. These designations are defined as follows:

- Extirpated – a species that no longer exists in the wild in Ontario but still occurs elsewhere;
- Endangered – a species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA;
- Threatened - a species that is at risk of becoming endangered in Ontario if limiting factors are not reversed; and
- Special Concern – a species with characteristics that make it sensitive to human activities or natural events.

Under the ESA, protection is provided to threatened or endangered species and their habitat, as well as providing stewardship and recovery strategies for species. Permitting is required to conduct works within habitat regulated for threatened or endangered species.

A Species at Risk screening letter was received from Aurora District MNRF on April 26th, 2017 (**Appendix B**). The following species have been recorded in the vicinity of the study area:

- Butternut – Endangered; and
- Redside Dace (occupied habitat in Fletchers Creek) – Endangered.

The potential habitat for endangered bat habitat (i.e., Eastern Small-footed Myotis (*Myotis leibii*), Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tricolored Bat (*Perimyotis subflavus*)) was also identified.

2.6 *Species at Risk Act* (2002)

The Federal *Species at Risk Act* - SARA (2002) is intended to prevent Federally Endangered or Threatened wildlife (including plants) from becoming extinct from the wild, and to help in the recovery of these species. The Act is also intended to help prevent species listed as Special Concern Federally from becoming Endangered or Threatened. To ensure the protection of Species at Risk (SAR), SARA contains prohibitions that make it an offence to kill, harm, harass, capture, take, possess, collect, buy, sell or trade an individual of a species listed in Schedule 1 of SARA as Endangered, Threatened or extirpated.

Redside Dace is a fish species that has been listed as Threatened in Ontario since 2000 and was added to Schedule 1 of SARA as Endangered on May 3, 2017. As such, Redside Dace is now protected under Sections 32 and 33 of SARA. A Recovery Strategy and Action Plan was finalized in July 2024, which named critical habitat as meander belt plus 30 m. DFO regulated this critical habitat under the federal *Fisheries Act*.

Fletchers Creek is known to support Redside Dace habitat and therefore, the regulations of SARA (2002) apply.

2.7 *Migratory Birds Convention Act* (1994)

The Federal *Migratory Birds Convention Act* – MBCA (1994) protects the nests, eggs and young of most bird species from harassment, harm or destruction. This legislation would apply in relation to any proposed vegetation clearing or removal of other nesting habitats as part of the implementation of the proposed development. Although there are no permitting requirements, proponents must comply with the legislation, which typically can be achieved by confirming no active nests are present prior to commencing site works, or by removing vegetation or other potential nesting habitat outside of the breeding bird season

2.8 Agency Consultation

The following section provides an overview of agency consultation undertaken to date in support of the project.

2.8.1 City of Mississauga and Credit Valley Conservation

Consultation meetings were held with staff from the City of Mississauga and CVC on the following dates in support of the Scoped EIS:

- May 26, 2015 - Site meeting with City and CVC staff to stake the limit of environmental features within the subject property (dripline and physical top of bank);
- July 6, 2015 - Consultation meeting with the City and CVC to discuss work completed to date in support of the EIS, the Scoped EIS Terms of Reference, opportunities and constraints;
- July 21, 2015 - Site meeting with CVC ecology staff and City staff to review existing site conditions;
- April 4, 2017 – Consultation meeting with the City and CVC to review the approved Scoped EIS Terms of Reference and constraint mapping for the subject property;
- January 24, 2020 – Consultation meeting with the CVC to review their comments on the EIS first submission (letter dated October 2019), proposed development plan revisions and buffer planting opportunities in the form of a landscape plan and compensation planting plan; and
- February 26, 2020 – Consultation meeting with the City of Mississauga Community Services Department to review their comments on the EIS first submission (letter dated October 2019), proposed development plan revisions and buffer planting opportunities in the form of a landscape and compensation planting plan.

During the April 4, 2017 consultation meeting, both CVC and the City acknowledged the unique history of the subject property, which was designated for residential development in 1997 by the City. In 1998, the lands were included within an approved Draft Plan of Subdivision and were zoned to permit detached dwellings. As a result, CVC and the City agreed to reduced (variable) buffers to existing environmental features relative to current policies and regulations in recognition of the previously approved nature of the development application.

At the January 24, 2020 meeting with CVC, the following development design elements were agreed to in principle:

- Use of the exposed underground garage structure as retaining wall which could be visible from the valley lands;
- Use of precast retaining wall structure in areas where the underground parking structure foundation wall does not exist;
- Grading within buffer areas at a 4:1 slope (where feasible) to eliminate the need for retaining walls where possible;
- Small encroachments into the dripline would be acceptable for the proposed underground parking structure foundation and associated grading requirements; and
- A storm sewer connection to the existing municipal storm sewer could be located within the existing long-term stable slope line to avoid the requirement for a separate storm outlet to the Fletchers Creek Tributary valley system. A lot and block line revision (future residential LOT 1) may be proposed in association with this servicing connection.

At the February 26, 2020 meeting with the City of Mississauga, City staff requested that the proposed condominium building (proposed development limit) be moved south to follow the existing sewer easement limit. Grading within buffer areas at a 4:1 slope was requested by the City to eliminate the need for retaining walls where possible and minimize the amount of retaining wall exposure to the Natural Heritage System.

On February 9, 2021, a revised Site Plan was circulated to the City via email in which a 3 m extension of the development limit was proposed along the north and west limit of the property to facilitate construction and long-term maintenance of the retaining wall at the western limit of the property along the proposed amenity area. The City confirmed (via email correspondence dated March 3, 2021) that staff were supportive of this revision to the development limit, so long as an amended EIS was submitted in support of the amendment.

The Site Plan was revised in March 2022 to accommodate Region of Peel requirements to maintain the entire 7 m sewer easement from front of the proposed building, along the south side of the building, and to the rear limit of the property, as a gravel laneway to allow emergency access to this infrastructure. In email correspondence (dated March 29, 2022), CVC agreed that the easement would be excluded from buffer restoration requirements to support this function.

2.8.2 Regional Municipality of Peel

As a result of consultation with the Region, a 7 m easement has been provided for the regional sanitary sewer within the limits of development.

2.8.3 Ministry of Natural Resources and Forestry (MNRF) and Ministry of the Environment, Conservation, and Parks (MECP)

Consultation with MNRF regarding the subject property has been ongoing since 2013. On June 4, 2014, a site meeting was held with MNRF staff to review existing site conditions and to confirm Redside Dace regulated habitat limits for the main branch of Fletchers Creek.

Based on a discussion of the proposed development plan, MNRF indicated that the development plan could likely be dealt with through the issuance of a Letter of Advice (LOA) under the ESA (2007), but that a formal submission that included details regarding the development plan, stormwater servicing, erosion and sediment control would be required.

The Ministry of the Environment, Conservation, and Parks (MECP) now administers the ESA; therefore, any further review or authorizations that are required in relation to threatened or endangered species will need to go through this agency.

3. Background Review

The following section summarizes background information and available reporting relevant to the subject property. The following background information resources were also reviewed in support of this study:

- City of Mississauga Natural Areas Inventory data and associated Fact Sheets;
- MNRF Natural Heritage Information Centre (NHIC) database;
- Available Data on Fish Records and Habitat from CVC;
- Natural heritage species records from CVC;
- Ontario Breeding Bird Atlas (OBBA) data;
- Ontario Herpetofaunal Summary Atlas data;
- Historical and current aerial photography; and
- Soils and topographic mapping.

3.1 Fletchers Creek Characterization Report (Draft 2012)

Fletchers Creek is a major tributary of the Credit River and the subject property is located within the lower watershed of Fletchers Creek. The Fletchers Creek subwatershed is located on the gently sloping glacial till plain known as South Slope of the Peel Plain. The surficial geology in this area is mainly Halton Till, with lake deposits and valley fill with moderate slopes that dip perpendicular to the Credit River.

As part of the characterization report, a geomorphology assessment was completed on Fletchers Creek. Rapid field assessments were completed for 32 reaches along the main channel. The RGA results indicate that the reach of Fletchers Creek adjacent to the subject property (FC1-5) is in transition, widening is the dominant mode of adjustment.

CVC classifies ecosystems primarily via the Ecological Land Classification system. Within the study area, the woodlands are identified as Riparian Forests, which are described as having tree species tolerant of fluctuating moisture and disturbances associated with floodplains. These ecosystems are critical for controlling erosion, filtering run-off, providing thermoregulation and providing habitat.

CVC's Landscape Scale Analysis evaluates specific characteristics by looking at their configuration, connectivity and importance at a broader scale. Based on this analysis, the woodlands adjacent to the subject property were given a score of 6 and classified as 'Highly Supporting biofunction habitats'.

The fishery in Fletchers Creek is managed as mixed water, with coolwater species that can tolerate temperatures up to 23°C for short periods of time. A total of 108 stations have been sampled across the Fletchers Creek watershed, dating back to 1982. Majority of sampling sites were stream stations with some sampling completed in stormwater management ponds. A total of 34 fish species were recorded during these surveys. Redside Dace have been recorded in Fletchers Creek, with known captures in the Meadowvale and north Brampton areas of the wastershed. CVC completed a sampling survey in historically occupied reaches in 2010. The lower reaches of Fletchers Creek are categorized as 'Mixed Water' which includes coolwater species with warm water tolerances. The overall Management Zone is Mixed Water and is to be managed as such with respect to buffers and construction timing windows.

3.2 City of Mississauga Natural Areas Survey

The City of Mississauga undertook the Natural Areas Survey (NAS) to identify and inventory 144 natural areas within the City. This included an assessment of woodlands, wetlands, creeks and streams. The goal of the NAS is to maintain the long-term ecological integrity of remnant natural areas to the extent that is feasible.

The subject property is located within Natural Area MV2 – Meadowvale Station Woods and Fletchers Creek. Overburden conditions within Natural Area MV2 consist of Oneida clay loam and Chinguacousy clay loam. Biota identified adjacent to the subject property included Ecological Land Classification (ELC) community FOD7-3.

4. Methodology

Field investigations undertaken in support of this study to characterize existing conditions, natural heritage features and functions are described in detail below and summarized in **Table 3**.

Table 3. Summary of Field Investigations

Survey	Date of Survey(s)
Bat Habitat Suitability Assessment (Snag Survey)	November 11, 2015
Geomorphic Assessment	October 7, 2015
Aquatic Habitat Assessment	N/A – Desktop Assessment
Wildlife Habitat Suitability Assessment	November 11, 2015
Breeding Bird Survey	N/A – Desktop Assessment
Reptiles Survey	N/A – Desktop Assessment
Amphibians Survey	N/A – Desktop Assessment
Ecological Land Classification & Floristic Inventory	October 13, 2015
Tree Inventory	October 13, 2015;January 21, 2019; September, 19 2024
Species at Risk	October - November 2015

4.1 Soils Investigation

A Soil Investigation was completed by Soil Engineers Ltd. (2014) to confirm subsurface conditions and determine the engineering properties of soils within the subject property for the design and construction of the proposed development. Field work for the study was undertaken on July 25, 2014 and consisted of seven (7) boreholes to depths ranging from 4.7 to 5.3 m.

4.2 Vegetation Communities and Flora Inventory

A vegetation inventory of the subject property was conducted on October 13, 2015. Vegetation communities on the subject property were mapped and described following the protocols of the ELC system for Southern Ontario (Lee *et al.* 1998). This involved delineating vegetation communities on aerial photos of the property and recording pertinent information on the community structure and composition. A floristic inventory was also completed on the subject property in conjunction with ELC survey.

4.3 Tree Inventory

All trees measuring ≥10 cm diameter at breast height (DBH; measured 1.4 m above grade) within the proposed development area were assessed by an ISA Certified Arborist on October 13, 2015 and January 21, 2019. The tree inventory was updated on September 19, 2024. In addition, trees measuring ≥15 cm DBH located along the edge of the woodland adjacent to the subject property were also inventoried. Trees were marked with numbered aluminum forestry tags. All tagged trees were surveyed by an Ontario Land Surveyor (OLS). Data was collected for each tagged tree, including the species, trunk diameter (i.e., DBH), approximate crown diameter, and health and condition. This information was used to prepare an Arborist Report and Tree Inventory and Preservation Plan (TIPP) that includes recommendations for tree preservation and tree removal based on the potential to integrate the trees with the proposed development.

4.4 Wildlife Habitat

4.4.1 Breeding Birds

A desktop assessment was completed referencing the Ontario Breeding Bird Atlas (OBBA) and general field observations documented during the November 11, 2015 wildlife habitat assessment to determine the probability of various reported bird species breeding on or within 120 m of the subject property.

4.4.2 Reptiles

A desktop assessment was completed to determine the probability of potentially suitable habitat for reptile species within and adjacent to the property, referencing the Ontario Reptile Atlas (2019) records.

4.4.3 Mammals

A wildlife habitat assessment was completed on November 11, 2015 to determine what species could potentially occur on, or in general proximity to, the subject property and to document their relative significance and sensitivity. This assessment utilized various publicly available resources to identify species that are known to occur in the vicinity of the subject property. Habitat preferences of species that were identified through this review were compared to conditions on, and in general proximity to, the subject property to determine if they could potentially occur. The focus of this assessment was primarily to identify species listed as Threatened or Endangered under the Ontario ESA (2007) or identify habitat that could be considered SWH under the PPS (2024) as per the Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015) and the Region of Peel SWH criteria (Region of Peel 2016).

4.5 Aquatic Habitat

No specific surveys for aquatic species were completed within Fletchers Creek or the tributary. Instead, the aquatic assessment was reliant upon fisheries information available through data requests made to CVC and MNRF.

4.6 Fluvial Geomorphology

4.6.1 Reach Delineation

To facilitate a systematic evaluation of the relevant portions of Fletchers Creek and a Tributary of Fletchers Creek, the watercourses were delineated into reaches (**Figure 2a**). Reaches are homogenous sections of channel with regard to form and function and can, therefore, be expected to behave consistently along their length to changes in hydrology and sediment inputs, as well as to other modifying factors (Montgomery and Buffington 1997; Richards *et al*. 1997).

4.6.2 Rapid Assessments

In order to confirm existing geomorphic conditions along the portions of Fletchers Creek and the tributary of Fletchers Creek adjacent to the subject property, a field investigation was conducted on October 7, 2015. The following standardized rapid visual assessment methods were applied:

i. Rapid Geomorphic Assessment (RGA – MOE 2003)

The RGA documents observe indicators of channel instability by quantifying observations using an index that identifies channel sensitivity. Sensitivity is based on evidence of aggradation, degradation, channel widening and planimetric form adjustment. The index produces values that indicate whether the channel is stable/in regime (score <0.20), stressed/transitional (score 0.21-0.40) or in adjustment (score >0.41).

ii. Rapid Stream Assessment Technique (RSAT – Galli 1996)

The RSAT uses an index to quantify overall stream health and includes the consideration of biological indicators (Galli 1996). Observations concerning channel stability, channel scouring/sediment deposition, physical in-stream habitat, water quality, and riparian habitat conditions are used to calculate a rating that indicates whether the channel is in poor (<13), fair (13-24), good (25-34), or excellent (35-42) condition.

iii. Downs Classification Method (Downs 1995)

The Downs (1995, outlined in Thorne *et al*. 1997) classification method infers present and future potential adjustments based on physical observations, which indicate the stage of evolution, and type of adjustments that can be anticipated based on the channel evolution model. The resultant index classifies streams as stable, laterally migrating, enlarging, undercutting, aggrading, or recovering.

5. Existing Conditions

5.1 Topography

The subject property has an area of approximately 0.9287 hectares. Existing land use consists of a 2 ½ storey detached residential building. Fletchers Creek flows along the east side of the property while a tributary of Fletchers Creek flows along the west side of the property. Valley slopes associated with the two watercourses are located along the east and west property boundaries (Soil Engineers Ltd. 2017). Under existing conditions, surface runoff from the subject property drains as sheet flow in a northerly, westerly and southerly direction towards Fletchers Creek and its tributary (SKIRA and Associates Ltd. 2018).

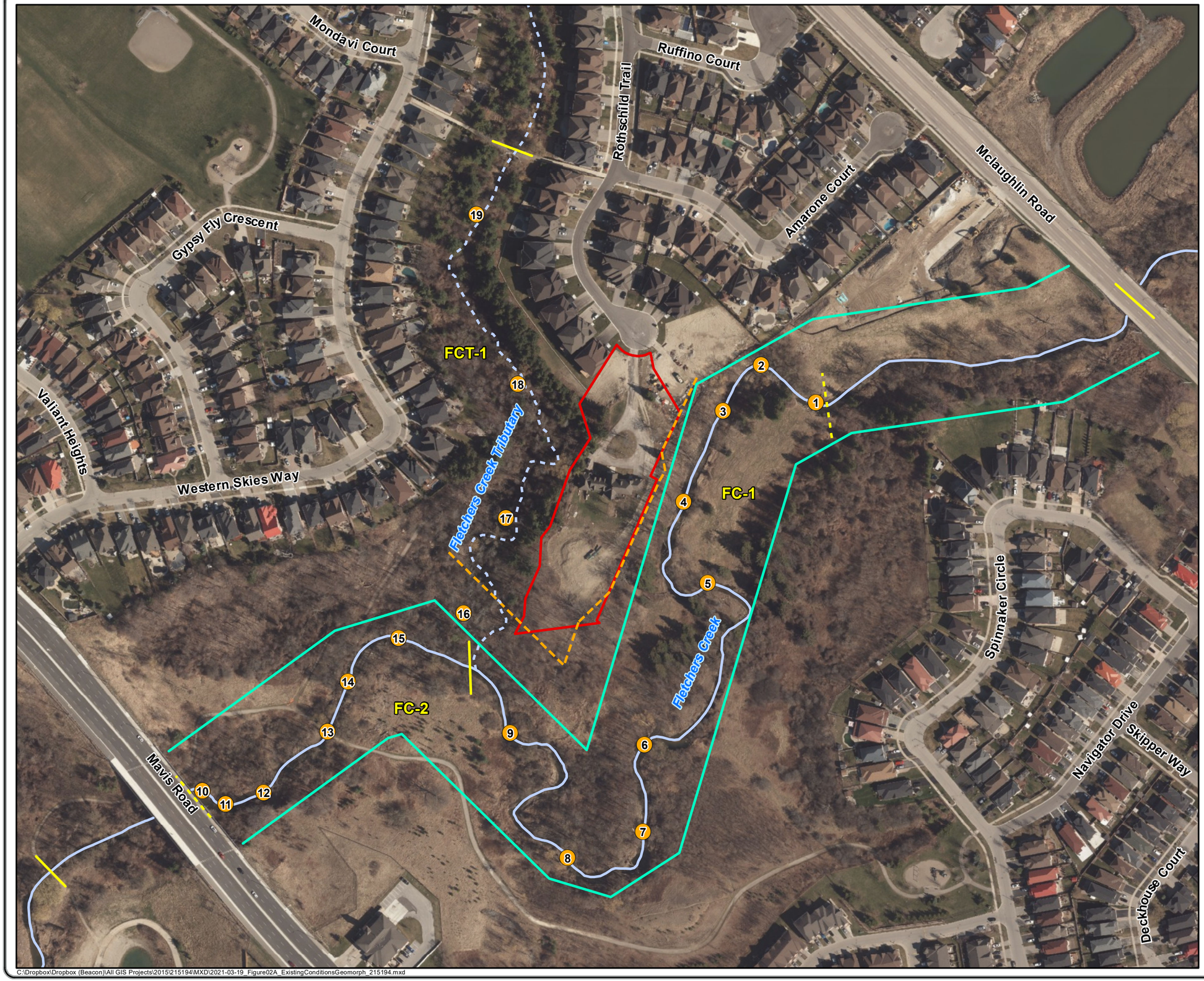
5.2 Soils

The Soil Investigation (Soil Engineers Ltd. 2014) report generally characterized subsurface conditions within the City of Mississauga as follows:

> *"The City of Mississauga is located on Halton-Peel till plain where drift beds onto a shale bedrock at shallow to moderate depths. In places, the drift has been partly eroded by Peel Ponding (glacial lake) and filled with lacustrine sand, silt, clay and reworked tills."*

Results of the borehole investigation were reported as follows:

- *The existing ground surface (Boreholes 2 to 6, inclusive) was covered with a grass lawn and a minor topsoil fill layer. The revealed topsoil thickness varies between 2.5 cm and 7.5 cm.*
- *A layer of earth fill was encountered in all borehole locations; in Boreholes 2 to 6, inclusive, the fill lies beneath the topsoil till. It extended to depths ranging from 0.2± m to 2.4± m from the prevailing ground surface.*



Existing Conditions Geomorphology and Aquatic

Figure 2A

6620 Rothschild Trail Scoped EIS

Legend

- Subject Property
- Photo Location
- Reach Breaks
- Extent Assessed

Aquatic Habitat

- Redside Dace - Occupied Habitat (Beacon, 2019)
- Redside Dace - Contributing Habitat (Beacon, 2019)
- Redside Dace - Occupied Habitat Limit (Beacon, 2019)
- Meander Belt Width (for Redside Dace Occupied Habitat Limit - 80 m (Beacon 2019)

BEACON ENVIRONMENTAL

Project: 215194
Last Revised: March, 2021

Client: DiBlasio Homes

Prepared by: DU
Checked by: SG

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  - *In Boreholes 1, 2 and 7, the fill consisted of sand and gravel with traces to some concrete or brick fragments. Traces of rootlets were also observed in the fill.*
  - *In Boreholes 3, 4, 5, 6 and 7, the fill consisted of sandy silt with some clay and traces of gravel and rootlets.*
- *Silty sand till was encountered below the earth fill in all boreholes, except Borehole 7, where it was found below a silt deposit. It consists of a random mixture of soil particle sizes ranging from clay to gravel, with the sand being the predominant fraction. The material is heterogeneous, showing that it is a glacial till. It extends to depths ranging from 3.4 to 4.6 m from prevailing ground surface. In places, the upper 0.5± m of the till has been weathered.*
- *A silt deposit was encountered beneath the silty sand till in Borehole 6 and extended to the maximum investigated depth of 5.0 m from grade; it was encountered below the earth fill in Borehole 7 and extended to 2.7 m below grade. The upper layer of the silt in Borehole 7 has been weathered.*
- *A sand and gravel layer was encountered below the silty sand till deposit in Borehole 7 which extended to the maximum investigation depth of 4.7 m below grade.*
- *Silty clay till was encountered (Boreholes 1 to 3, inclusive) below the silty sand till at a depth of 4.6 m from grade. It is reddish-brown in colour and contains clay with low plasticity, seams of fine sand and a trace of gravel.*
- *Shale bedrock was found in Boreholes 4 and 5 at a depth of 4.6± m from the prevailing ground surface and extended to the auger and sample refusal depth of 4.7 m below grade.*
- *Refusal to augering occurred at depths ranging from 4.9 to 5.3± m at Boreholes 1, 2 and 3, which indicates that boulders and/or bedrock occurred at these depths.*

For further details and recommendations for construction, refer to the Soil Investigation report (Soil Engineers Ltd. 2014)

5.3 Hydrogeology

The Soil Investigation (Soil Engineers Ltd. 2014) also summarized groundwater levels as reported at the completion of field work for Boreholes 1 to 7. Groundwater levels are summarized in **Table 4**. Results of the assessment were reported as follows:

- *Groundwater was not observed in the majority of boreholes upon completion with the exception of Borehole 7, where groundwater was detected at a depth of 4.6± m in the sand and gravel layer;*
- *Signs of wetness were observed within the silt layer in Boreholes 6 and 7 at depths of 4.5 m and 1.5 m below grade, respectively; and*
- *Perched water derived from infiltrated precipitation may occur at shallower depths in the wet seasons.*

Table 4. Groundwater Levels (Soil Engineers Ltd. 2014)

BH No.	Borehole Depth (m)	Soil Colour Changes Brown to Grey	Seepage Encountered During Augering		Measured Groundwater on Completion	
		Depth (m)	Depth (m)	Amount	Depth (m)	El (m)
1	5.3	5.3+	-	-	Dry	-
2	4.9	4.9+	-	-	Dry	-
3	5.0	5.0+	-	-	Dry	-
4	4.7	0.8	-	-	Dry	-
5	4.7	4.6	-	-	Dry	-
6	5.0	4.6	4.5	Small	Dry	-
7	4.7	4.7+	1.5	Small	4.6	174.1

5.4 Surface Drainage

Surface drainage within the subject property follows the existing topography and drains to Fletchers Creek.

5.5 Vegetation Communities and Flora Inventory

ELC communities identified on and adjacent to the subject property are illustrated on **Figure 2b**. The following is a description of each community.

ELC Unit 1. Dry-Fresh Oak-Hardwood Deciduous Forest (FOD2-4)

This community occurs along the east side of the subject property. The canopy is dominated by Red Oak (*Quercus rubra*), Bur Oak (*Quercus macrocarpa*), Sugar Maple (*Acer saccharum*), and American Basswood (*Tilia Americana*), and Shagbark Hickory (*Carya ovata*). The subcanopy consists of Red Oak, Ironwood (*Ostrya virginiana*), American Beech (*Fagus grandifolia*), Sugar Maple, and Bitternut Hickory (*Carya cordiformis*). The understory consists of Common Buckthorn (*Rhamnus cathartica*), Choke Cherry (*Prunus virginiana*), Wild Red Raspberry (*Rubus idaeas* ssp. *strigosus*), and Tartarian Honeysuckle (*Lonicera tatarica*). Ground covers are generally typical of edge environments and disturbed areas, including Garlic Mustard (*Alliaria petiolata*), Thicket Creeper (*Parthenocissus vitacea*), Tall Goldenrod (*Solidago altissima*), Aven (*Geum* sp.), Zig-Zag Goldenrod (*Solidago flexicaulis*), Smooth Brome Grass (*Bromus inermis*), and Wild Strawberry (*Fragaria virginiana*).

ELC Unit 2. Coniferous Plantation (CUP3)

This community occurs along the west side of the subject property. It is dominated by White Spruce (*Picea glauca*) and White Pine (*Pinus strobus*). The understory consists of Common Buckthorn and Green Ash (*Fraxinus pennsylvanica*). Ground covers are sparse but include Garlic Mustard, Thicket Creeper, Avens, and Bittersweet Nightshade (*Solanum dulcamara*).

Existing Conditions Terrestrial	Figure 2B

6620 Rothschild Trail Scoped EIS

Legend

- Subject Property
- ELCCommunities
- Watercourse (Beacon 2018)
- Butternut (Beacon, 2015)

ELC Unit	ELC Community Type	ELC Code
1	Dry-Fresh Oak-Hardwood Deciduous Forest	FOD2-4
2	Coniferous Plantation	CUP3
3	Fresh-Moist Ash Lowland Deciduous Forest	FOD7-2
4	Anthropogenic	ANT

BEACON ENVIRONMENTAL

Project: 215194
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ELC Unit 3. Fresh-Moist Ash Lowland Deciduous Forest (FOD7-2)

This community occurs to the west of the subject property. It is dominated by Green Ash in association with Crack Willow (*Salix x fragilis*), Manitoba Maple (*Acer negundo*), and American Basswood. Groundcovers include Tall Goldenrod, White Vervain (*Verbena urticifolia*), Calico Aster (*Symphyotrichum lateriflorum*), Panicled Aster (*Symphyotrichum lanceolatum*), Garlic Mustard, avens, and Dame's Rocket (*Hesperis matronalis*).

ELC Unit 4. Anthropogenic

The majority of the subject property consist of existing development, including a building with associated lawn and driveway. Vegetation predominantly consists of introduced weeds and ornamental species.

5.6 Flora

A total of 63 species of vascular plants were identified on and adjacent to the subject property, of which three were identified to genus. A complete list is provided in **Appendix C**.

Of the 60 species identified, 21 are non-native to Ontario and 42 are native. Of the 42 native species, 40 are ranked S5 by the Natural Heritage Information Centre (NHIC), indicating that they are common and secure in Ontario. Two species, Honey Locust (*Gleditsia triacanthos*) and Butternut (*Juglans cinerea*), are ranked S2 (imperilled). In Ontario, natural occurrences of Honey Locust are rare; however, Honey Locust is a commonly planted landscape tree. The trees on the property are a planted variety.

A single Butternut tree was identified in the woodland adjacent to the subject property (**Figure 3**). Butternut is an Endangered species in Ontario.

Based on a review of *Plants of the Credit River Watershed* (CVC 2002), no regionally rare or uncommon species occur on or adjacent to the subject property.

5.7 Tree Inventory

A total of 100 trees were inventoried on and adjacent to the subject property. Inventoried trees ranged in size from 10 to 100 cm DBH, with a median DBH of 26 cm. Detailed findings of the tree inventory are provided in the Arborist Report (Beacon 2024).

5.8 Wildlife Habitat

5.8.1 Breeding Birds

A total of 89 species of birds have been recorded within OBBA Square 17PJ03, the square in which the subject property is located. An assessment to determine the probability of these species breeding on or within 120 m of the subject property was completed. This was completed by comparing the habitat preferences of the species identified through the background review against the conditions on and adjacent to the subject property.

Through this assessment species were classified as having a high, moderate or low chance of being documented as breeding on or within 120 m of the subject property based on the likelihood that they could be breeding within the habitats located within these areas. Species that were considered unlikely to be breeding on or within 120 m of the subject property were not assigned a classification.

A total of 30 species of birds were identified that could potentially breed on, or immediately adjacent to, the subject property. This included 16 species that were considered to have a high probability of breeding on the subject property, seven species that were considered to have a moderate probability of breeding on the subject property and seven species that were considered to have a low probability of breeding on, or immediately adjacent, the subject property.

Once species, Eastern Wood-Pewee (*Contopus virens*), designated Special Concern in Ontario, is considered to have a high probability of breeding within the deciduous forest community to the south of the subject property. This species is listed as Special Concern; however, it is relatively common in both urban and urbanizing woodlands and is somewhat tolerant of forest fragmentation and known to occur along edge habitats as well as forest interior.

Two species identified as having a low probability of being present on the subject property, American Redstart (*Setophaga ruticilla*) and White-breasted Nuthatch (*Sitta carolinensis*), are considered Area Sensitive by the MNRF (2000). American Redstart is also considered to be a Regional Species of Concern by the TRCA (2016). As with most of the species that were identified as having the potential to breed on the subject property, if these species were to occur, they would be associated with the forested habitat within the valleylands that border the subject property.

A total of 64 species of birds were identified that could potentially breed within 120 m of the subject property. This included 30 species that were considered to have a high probability of breeding within 120 m of the subject property, 19 species that were considered to have a moderate probability of breeding within 120 m of the subject property and 15 species that were considered to have a low probability of breeding within 120 m of the subject property. This included 9 species that are considered Area Sensitive by the MNRF (2000) and 12 species that are considered to be a Regional Species of Concern by the TRCA (2010). Habitat for the majority of these species is associated with the forested, wetland and meadow habitats associated with the valleylands within 120 m of the subject property.

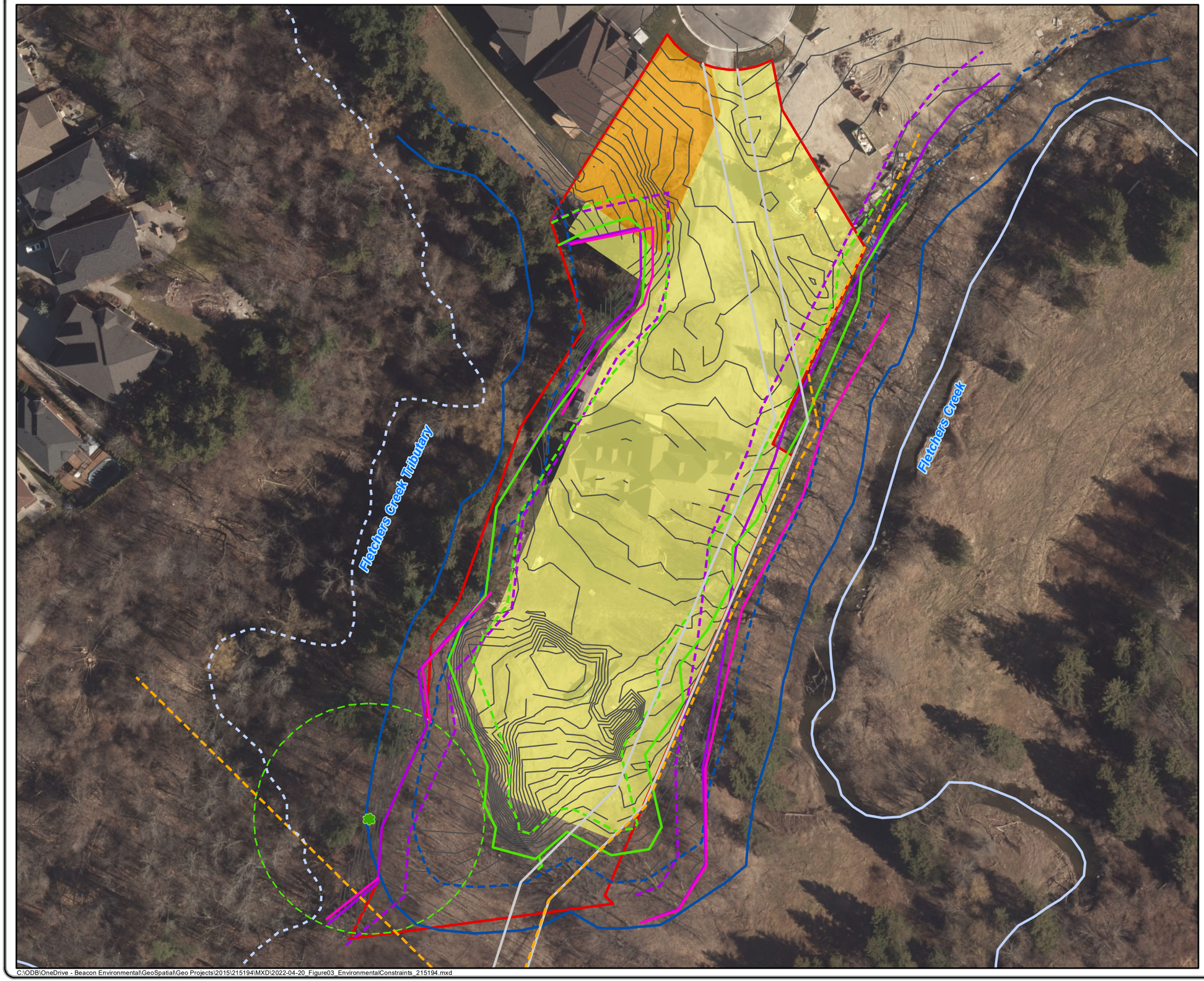
A list of the birds identified through the desktop review, and the probability assigned to them as described above is included in **Appendix D**.

5.8.1.1 Reptiles

Four reptile species have been recorded within Ontario Reptile Atlas (2019) Square 17PJ03. They include Eastern Gartersnake (*Thamnophis sirtalis*), Dekay's Brownsnake (*Storeria dekayi*) Snapping Turtle (*Chelydra serpentina*) and Red-bellied Snake (*Storeria occipitomaculata*).

Habitat on the subject property was not considered to be suitable for turtles. Potentially suitable habitat for Snapping Turtle and Midland Painted Turtle (*Chrysemys picta marginata*) could be present within Fletchers Creek adjacent the subject property, which could be used by turtles to migrate to and from other suitable basking / nesting habitats upstream and downstream of the subject property.

The forested habitat that borders the outer edge of the subject property could provide habitat for Eastern Gartersnake, Dekay's Brownsnake and Red-bellied Snake.



Environmental Constraints

Figure 3

6620 Rothschild Trail Scoped EIS

Legend

- Subject Property
- Condo Lot Limit (pml.A 2021)
- New Residential Lot
- Contours (Searles, 2015)
- Existing Sewer Easement (Searles, 2015)

Environmental Constraints - Terrestrial

- Woodland Boundary (Staked by CVC, May 26, 2015)
- 5.0 m Buffer to Woodland Boundary (Beacon 2019)
- Butternut (Beacon, 2015)
- Butternut + 25 m

Environmental Constraints - Aquatic

- Redside Dace - Occupied Habitat (Beacon, 2019)
- Redside Dace - Contributing Habitat (Beacon, 2019)
- Redside Dace Occupied Habitat Limit (Beacon, 2019)

Hazard Constraints - Slope Stability

- Long Term Stable Slope (Soil Engineers, 2017)
- 6.0 m Setback to Long Term Stable Slope
- Top of Bank (Staked by CVC, May 26, 2015)

Hazard Constraints - Flooding

- Regulatory Floodline (CVC, 2015)
- 10 m Setback to Regulatory Floodline

BEACON ENVIRONMENTAL

Project: 215194
Last Revised: April, 2022

Client: DiBlasio Homes

Prepared by: SZ
Checked by: SG

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5.8.1.2 Amphibians

Six amphibian species have been recorded within Ontario Reptile Atlas (2019) Square 17PJ03. They include American Toad (*Anaxyrus americanus*), Green Frog (*Lithobates clamitans*), Eastern Red-backed Salamander (*Plethodon cinereus*), Northern Leopard Frog (*Lithobates pipiens*), Gray Treefrog (*Hyla versicolor*) and Jefferson Salamander (*Ambystoma jeffersonianum*). The record for Jefferson Salamander, which is listed as an endangered species under the ESA, is from July 1952.

No breeding habitat for frogs or toads is present on the subject property. Potentially suitable habitat for these species could be present within wetland habitat within the valleylands within 120 m of the subject property.

The forested habitat that borders the outer edge of the subject property could provide habitat for Eastern Red-backed Salamander.

5.8.1.3 Mammals

In order to identify which mammals could potentially occur on, or within 120 m of the subject property, the NHIC (2019) data base was accessed and the habitat requirements of mammals that are known or assumed to be present within the area in which the subject property is located was compared to the conditions on the subject property.

Through this analysis a total of 21 species of mammals were identified as having the potential to occur on, or within 120 m of the subject property. Included in this list a three species of bat, Little Brown Myotis, Northern Myotis and Tricolored Bat, that are listed as endangered under the ESA. Roosting habitat for these species could occur in the forested habitat that borders the outer edge of the subject property.

All other species identified are commonly associated with natural or naturalized areas within urban or rural environments in southern Ontario. A list of the mammals identified through this analysis with the potential to occur on or within 120 m of the subject property is included in **Appendix E**.

5.9 Aquatic Habitat

The main branch of Fletchers Creek and a small ravine tributary are located adjacent to the subject property (**Figure 2a**). The Fletchers Creek subwatershed drains an area of approximately 45 km^2 (CVC 2012). Fletchers Creek drains into the Credit River south of Highway 401 in the City of Mississauga (CVC 2012), approximately 3 km downstream from the subject property.

5.9.1 Fish Community

Existing fisheries information for Fletchers Creek was obtained from CVC fish records and the Fletchers Creek Characterization report (CVC 2012). A total of 34 fish species have been recorded in Fletchers Creek. Fish community sampling within the vicinity of the subject property was undertaken in 1965, 1982, 1989, and 2010 and documented a total of 13 fish species. The fish species composition data indicates that Fletchers Creek supports a diverse coolwater community with some warmwater native species. Fletchers Creek is classified as a coolwater system (CVC 2002).

The main branch of Fletchers Creek is classified by MNRF (now MECP) as occupied Redside Dace habitat, and by DFO as critical habitat for Redside Dace. Redside Dace has been historically found in Fletchers Creek with the most recent record in 2010 found in north Brampton (CVC 2012). Other species of interest captured near the subject property include Northern Hog Sucker (*Hypentelium nigricans*), Longnose Dace (*Rhinichthys cataractae*), Rainbow Darter (*Etheostoma caeruleum*) and Fantail Darter (*Etheostoma flabellare*). Several species have been recorded that are known to be sensitive to environmental degradation, such as siltation and pollution, including the provincially Endangered Redside Dace.

No historical fish sampling data was available for the tributary of Fletchers Creek, but the tributary has been identified by MNRF as contributing to downstream occupied habitat within the main branch of Fletchers Creek.

5.10 Fluvial Geomorphology

5.10.1 Reach Delineation

For the purposes of this study, the portion of Fletchers Creek from McLaughlin Road to the Fletchers Creek Tributary confluence was delineated as Reach FC-1. The section of Fletchers Creek between the tributary confluence and the trail crossing approximately 125 m west of Mavis Road was delineated as Reach FC-2 (**Figure 2a**). The determination of reach extents was based on a desktop assessment of transitions in valley form, riparian vegetation and meander geometry (channel planform), referencing available aerial imagery and topographic mapping.

5.10.2 Results

Rapid assessment results are summarized in **Table 5** and **Table 6** below. A photographic record of site conditions at the time of the assessment is provided in **Appendix F**.

5.10.2.1 Reach FC-1

Reach FC-1 was characterized as a low sinuous, well-defined channel situated within a confined valley setting. Within the extent assessed, the reach displayed a moderate gradient and low degree of entrenchment. Riparian vegetation was generally characterized as fragmented, measuring 1-5 channel widths in dimension. Vegetation consisted of herbaceous plants and deciduous trees. Bank angles ranged between 30-60 degrees with 30-60% of banks identified as exhibiting evidence of erosion. Banks exhibited evidence of mass failure and where present, bank undercuts measured in the range of 1.20 m. Bank materials were comprised of clay, silt and shale.

Bankfull widths and depths ranged from 10.1-10.5 m and 0.60-0.50 m, respectively. Riffle substrate consisted of gravel, cobble and boulders. Pool substrate consisted of clay/silt, sand and gravel. Channel morphology was influenced locally by the presence of instream large woody debris.

Rapid assessment results indicated that Reach FC-1 exhibited minor evidence of stress ('in transition') with a score of 0.28. Widening was identified as the dominant mode of adjustment, with indicators of planimetric form adjustment, degradation and aggradation also observed.

Evidence of widening included leaning/fallen trees, occurrence of large organic debris, exposed tree roots, basal scour on inside meander bends and both side of channel through the riffle and an outflanked pedestrian crossing. Existing channel disturbances included an informal pedestrian crossing and the McLaughlin Road crossing.

An RSAT score of 21.5 indicated a 'fair' degree of overall ecological health, with channel stability identified as the primary limiting factor. The Downs model reflected the RGA evaluation of this reach through a classification of U – 'undercutting' based on evidence of widening and erosion (largely at valley wall contact points).

Table 5. General Reach Characteristics

Reach	Bankfull Width (m)	Bankfull Depth (m)	Substrate	Riparian Vegetation	Notes
FC-1	10.1-10.5	0.50-0.60	gravel, cobble, boulder	Deciduous trees, herbaceous plants.	• Valley wall contact points observed • Existing disturbances: informal pedestrian and McLaughlin Road crossings
FC-2	8.6-11.6	0.60-1.05	gravel, cobble, boulder	Deciduous trees, herbaceous plants.	• Valley wall contact points observed • Existing disturbances: formal trail and Mavis Road crossings
FCT-1	1.40-2.75	0.25-0.35	Clay, silt, sand, shale fragments	Trees, shrubs and herbaceous plants	• Intermittently defined • Secondary/multiple flow paths • Existing disturbances: formal trail crossing • Exposed underlying shale

Table 6. Rapid Assessment Results

Reach	Rapid Geomorphic Assessment			Rapid Stream Assessment Technique			Downs Classification Method
	Score	Condition	Dominant Mode of Adjustment	Score	Condition	Limiting Feature	
FC-1	0.28	In Transition	Widening	21.5	Fair	Channel Stability	U – 'undercutting'
FC-2	0.26	In Transition	Widening	22	Fair	Physical Instream Habitat and Riparian Habitat Conditions	U – 'undercutting'
FCT-1	0.02	In Regime	N/A	32	Good	Physical Instream Habitat	S – 'stable'

5.10.2.2 Reach FC-2

Reach FC-2 was characterized as a moderately sinuous, well-defined channel situated within a confined valley setting. Within the extent assessed, the reach displayed a moderate gradient and a moderate degree of entrenchment. Riparian vegetation was generally characterized as fragmented, measuring 1-5 channel widths in dimension.

Vegetation consisted of herbaceous plants and deciduous trees. Bank angles ranged between 30-60 degrees with 30-60% of banks identified as exhibiting evidence of erosion. Banks exhibited evidence of mass failure and where present, bank undercuts measured in the range of 0.60 m. Bank materials were comprised of clay, silt and shale.

Bankfull widths and depths ranged from 8.60-11.6 m and 0.60-1.05 m, respectively. Riffle substrate consisted of gravel, cobble and boulders. Pool substrate consisted of sand, gravel and cobble. Channel morphology was influenced locally by the presence of instream large woody debris.

Rapid assessment results indicated that Reach FC-2 exhibited minor evidence of stress ('in transition') with a score of 0.26. Widening was identified as the dominant mode of adjustment, with indicators of planimetric form adjustment, degradation and aggradation also observed. Evidence of widening included leaning/fallen trees, occurrence of large organic debris, exposed tree roots and basal scour on inside meander bends and both side of channel through the riffle. Existing channel disturbances included a formal trail crossing and the Mavis Road crossing.

An RSAT score of 22 indicated a 'fair' degree of overall ecological health, with physical instream habitat and riparian habitat conditions identified as the primary limiting factor. The Downs model reflected the RGA evaluation of this reach through a classification of U – 'undercutting' based on evidence of widening and erosion (largely at valley wall contact points).

5.10.2.3 Reach FCT-1

Reach FCT-1 was characterized as an intermittently defined, slightly sinuous channel situated within a confined valley setting. Within the extent assessed, the reach displayed a moderate gradient and a low degree of entrenchment. Riparian vegetation was generally characterized as continuous, measuring >5 channel widths in dimension. Vegetation consisted of trees, shrubs and herbaceous plants. Bank angles ranged between 30-60 degrees with 5-30% of banks identified as exhibiting evidence of erosion. Bank materials were comprised of clay, silt and sand.

Where defined, bankfull widths and depths ranged from 1.40-2.75 m and 0.25-0.35 m, respectively. Bed substrate consisted of clay, silt, sand and shale. Channel morphology was influenced locally by the presence of large woody debris and saturated floodplain conditions that resulted in the formation of secondary and multiple flow paths.

Rapid assessment results indicated that Reach FCT-1 was stable ('in regime') with a score of 0.02. Existing channel disturbances included the Amarone Court trail crossing. An RSAT score of 32 indicated a 'good' degree of overall ecological health, with physical instream habitat identified as the primary limiting factor. The Downs model reflected the RGA evaluation of this reach through a classification of S – 'stable' based on a general lack of observable morphological adjustment.

5.11 Endangered Species and Species of Conservation Concern

5.11.1 Redside Dace

The Redside Dace is a small colourful minnow that reaches a maximum length of about 12 cm.

In Canada, this species is present only in southern Ontario where it occurs most frequently in streams between Oshawa and Hamilton, in the Holland River drainage, one tributary of the Grand River and three tributaries of Lake Huron.

The Redside Dace is listed as Endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO). It has an S-rank of S2 indicating that it is imperilled and vulnerable to extirpation (NHIC 2012). The species is protected under the Ontario ESA *(*2007*).*

Redside Dace was added to Schedule 1 of SARA as Endangered on May 3, 2017. As such, Redside Dace is now protected under Sections 32 and 33 of SARA. A Recovery Strategy and Action Plan was finalized in July 2024, which named critical habitat as meander belt plus 30 m. DFO regulates this critical habitat under the federal *Fisheries Act*.

Based on our correspondence with MNRF, we understand that the main branch of Fletchers Creek (occupied habitat) and its tributary (contributing habitat) are regulated under the ESA as they support habitat for provincially Endangered Redside Dace. Fletcher's Creek is part of DFO's distribution mapping for Redside Dace and is therefore regulated under SARA and the *Fisheries Act*.

5.11.2 Butternut

One Butternut was identified in the forest adjacent to the subject property (**Figure 2b**).

5.11.3 Bats

Based on correspondence with MNRF (**Appendix B**), potential habitat for endangered bats (i.e., Eastern Small-footed Myotis, Little Brown Myotis, Northern Myotis, Tri-colored Bat) in tree cavities were identified. A survey of tree snags was undertaken for the subject property during leaf-off conditions (November 11, 2015) to evaluate for potential maternity roost habitat for bat species. No cavity trees were documented that have the potential to provide maternity roost habitat within the limit of development. There is potential roosting habitat for these species associated with the woodland habitats that borders the outer edge of the subject property and adjacent lands.

6. Evaluation of Significance

The findings of the background review and field investigations have been relied upon to determine if the subject property supports any of the natural heritage components recognized under the PPS, as well as the Region's and City's Official Plans. The *Natural Heritage Reference Manual* (MNR 2010) was consulted to provide additional technical guidance, where required. The subject property was screened for the following natural heritage features:

- Significant Wetlands;
- Habitat for Threatened or Endangered Species;
- ANSI;
- Significant Valleylands;
- Significant Woodlands;

- SWH; and
- Fish Habitat.

6.1 Significant Wetlands

No significant wetlands were identified on or adjacent to the subject property.

6.2 Habitat for Threatened or Endangered Species

There are no Threatened or Endangered species associated with the tableland portion of the subject property. The adjacent woodlands associated with the Fletchers Creek and tributary valleylands provide habitat for several species at risk, including Butternut, Reside Dace, and potential habitat for endangered bats.

6.2.1 Redside Dace

Fletchers Creek is classified as occupied habitat for Redside Dace, while the tributary has been classified as providing contributing habitat to the downstream occupied reaches of Fletchers Creek.

6.2.2 Butternut

A single Butternut tree was observed in the forest community adjacent to the subject property. In Ontario, the general habitat of Butternut includes suitable areas within a 50 m radius around the trunk of an individual Butternut tree. Suitable area within 25 m of a Butternut tree is considered to be the most critical for the tree to carry out its life processes and has the lowest tolerance to alteration. Suitable areas between 25 m – 50 m from a tree are considered important for nut dispersal and seedling establishment and have a moderate tolerance to alteration.

6.2.3 Bats

Woodland habitat that surrounds the subject property could contain roosting habitat for bat species that are listed as endangered under the ESA.

6.3 Significant Areas of Natural and Scientific Interest (ANSI)

There are no ANSIs on or adjacent to the subject property.

6.4 Significant Valleylands

Policy 6.3.12 g The City of Mississauga Official Plan defines significant valleylands as follows:

> *"Significant valleylands are associated with the main branches, major tributaries and other tributaries and watercourse corridors draining directly to Lake Ontario including the Credit River, Etobicoke Creek, Mimico Creek and Sixteen Mile Creek."*

Both Fletchers Creek and its tributary located adjacent to the subject property are considered Significant Valleylands.

6.5 Significant Woodlands

Significant woodlands are defined by the City of Mississauga as any woodland greater than 0.5 hectares that:

- Supports old growth trees (greater than or equal to 100 years old);
- Supports a significant linkage function as determined through an Environmental Impact Study approved by the City in consultation with the appropriate conservation authority;
- Is located within 100 m of another Significant Natural Area supporting a significant ecological relationship between the two features;
- Is located within 30 metres of a watercourse or significant wetland; or
- Supports significant species or communities.

The woodlands on and adjacent to the subject property qualify as Significant Woodlands on the basis that they contain watercourses (Fletchers Creek and tributary).

6.6 Significant Wildlife Habitat

According to the Significant Wildlife Habitat Technical Guidelines (MNR 2000), there are four broad categories of SWH:

- Seasonal Concentration Areas of Animals;
- Rare Vegetation Communities or Specialized Habitat for Wildlife;
- Habitat for Species of Conservation Concern; and
- Animal Movement Corridors.

Within each of these categories, there are multiple types of SWH, each intended to capture a specialized type of habitat that may or may not be captured by other existing feature-based categories (e.g., significant wetlands, significant woodlands). Within the Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015) are recommended criteria to identify SWH within Ecoregion 7E.

Three types of candidate SWH have been identified that could potentially occur within the woodlands/valleylands adjacent to the subject property. They include:

- Bat Maternity Colonies within the deciduous forest habitat;
- Habitat for Special Concern and Rare Wildlife Species based on suitability for Eastern Wood-Pewee within the deciduous forest habitat; and
- Animal Movement Corridors for the wildlife that occupies the natural or naturalized habitats adjacent to the subject property.

6.7 Fish Habitat

Both Fletchers Creek and its tributary are considered fish habitat.

6.8 Summary

In summary, the valley lands adjacent to the property support the following significant natural heritage features:

- Significant Valleylands,
- Significant Woodlands,
- Potential SWH,
- Fish Habitat, and
- Habitat for Threatened or Endangered Species.

7. Constraints Analysis

The purpose of the constraint analysis is to identify natural heritage features that require protection and/or natural hazards that must be considered in the context of future development. While impact avoidance is considered the primary method for environmental protection, it is also recognized that constrained areas cannot always be avoided, and that other effective methods exist that can mitigate potential adverse impacts of development on the environment. Constraint limits associated subject property have been discussed in depth with the City and CVC through the project's agency consultation process and are illustrated in **Figure 3**.

7.1 Physical Top of Bank

During the pre-consultation site meeting held with CVC and the City of Mississauga on May 26, 2015, the top of bank associated with the Fletchers Creek and its tributary was staked within the subject property. The staked limit, was surveyed by David B. Searles Surveying Ltd. This information was incorporated in the topographic survey and constraint mapping for the subject property (**Figure 3**).

7.2 Woodland Boundary (Dripline)

The boundary of the woodland was defined by the dripline which was also staked during the pre-consultation site meeting held with CVC and the City of Mississauga on May 26, 2015. The staked limit was surveyed by David B. Searles Surveying Ltd. **Figure 3** identifies the staked dripline as well as a 5 m buffer, which was approved through the previous Site Plan Application.

7.3 Natural Heritage Constraints

Based on the background information and the data gathered through field investigations, as well as the natural heritage assessment, it was determined that the tableland portions of the subject property (ELC Unit 4) are relatively unconstrained from a natural heritage perspective and is suitable for development.

Natural heritage constraints identified on or adjacent to the subject property include:

- Significant Valleyland,
- Significant Woodland,
- Potential SWH (associated with woodlands and valleylands), and
- Fish Habitat.

These features collectively make up the Regional Greenlands System and the City's Natural Heritage System.

7.4 Redside Dace Regulated Habitat

In accordance with O.Reg. 832/21 , **Figure 3** identifies the tributary (limit of feature) as regulated under the ESA (2007). Regulated occupied habitat associated with Fletchers Creek is also delineated on **Figure 3** referencing the meander belt plus 30 m.

The meander belt width is generally defined as the lateral extent that a meandering channel has historically occupied and will likely occupy in the future. In cases such as Reach FC-1 and Reach FC-2, where the watercourse is confined, the valley wall acts a constraint to channel migration. As Ontario Regulation 242/08 does not distinguish between confined and unconfined systems, the procedure to delineate the meander belt referenced the lateral extent of the outermost meander bends within each reach, but also considered valley floor (floodplain) dimensions. This resulted in a recommended meander belt width of 80 m for both reaches. It is our opinion that this procedure is in accordance with applicable guidelines (TRCA 2004).

In accordance with O.Reg. 832/21, a 30 m setback was then applied to the meander belt. In consultation with MNRF, this limit was then revised to reflect the limit of existing vegetated area as:

- Limit of disturbed area along the existing sewer easement; and
- Limit of disturbed area beyond the existing sewer easement (property limit).

7.5 Natural Hazards

Natural hazard constraints relevant to the subject property include:

- Regulatory Floodline (CVC 2015); and
- Long term stable top of slope (Soil Engineers Ltd 2017).

7.5.1 Regulatory Floodline

The Regional Floodline delineated for Fletchers Creek and the Fletchers Creek Tributary represents the Regulatory Floodplain Limit relevant to the subject property. Floodplain mapping was obtained from the CVC on December 1, 2015. **Figure 3** identifies a 10 m setback to Regulatory Floodline.

7.5.2 Long Term Stable Top of Slope

Soil Engineers Ltd. (2017) carried out a slope stability assessment to determine the stability of the existing slopes along the east and west property boundaries of the subject property. The assessment referenced the seven boreholes advanced for the Soil Investigation (Soil Engineers 2014) report, as well as a visual inspection of slope conditions. Slope conditions were reported as follows:

- *The site inspection indicates that the slopes are well vegetated with shrubs and trees.*
    - *Bare spots were observed occasionally along the slopes.*
    - *No signs of sloughing and creep was evident along the slopes at the time of inspection.*
- *Fletchers Creek is located at the bottom of slope along the east side of the property.*
    - *Active erosion along the edge of creek is evident.*
- *The tributary at the west side of the property is at least 6 m away from the bottom of the slope and no erosion is evident along the tributary.*

Slope stability analysis was completed at two cross-sections along the Fletchers Creek valley slope. The surface profile for each section was interpolated based on topographic mapping from 2007 and 2014, and subsurface soil information derived from the borehole findings. Slope stability analysis results were reported as follows:

- *In accordance to the CVC toe erosion allowance requirement, the visual inspection along the creek and the borehole information, a toe erosion allowance of 5.0 m is considered adequate for shale with active erosion at the east slope near Fletchers Creek.*
- *Since the tributary along the west slope is located at least 6.0 m away from the bottom of slope, which exceeded the recommended toe erosion allowance of 4.0 m for silty sand till, it was not necessary to incorporate a toe erosion allowance setback component for the west slope.*
- *The slope at Cross Section A-A is remodeled and re-analyzed for its stability. The resulting Factor of Safety (FOS) of the remodeled slope are 1.607 (Local) and 1.880 (Global), which meets the OMNR and CVC requirements. Therefore, the remodeled slope can be considered as geotechnically stable.*
- *The Long Term Stable Slope Line (LTSSL), [was] determined by incorporating the stability setback and toe erosion allowance.*

The complete Slope Stability Assessment (Soil Engineers Ltd. 2017) report, including recommendations for construction, is provided in **Appendix I**. **Figure 3** identifies a 6.0 m setback to the long-term stable slope.

7.6 Development Limit

In accordance with direction provided through the agency consultation process, the proposed development limit is identified on **Figure 3** (refer to 'New Condo Lot Limit').

8. Description of Proposed Development

The development is proposed on Lot 21 and part of Lot 22 of Registered Plan 43M-1710 (**Appendix G**) located at 6620 Rothschild Trail. The proposed redevelopment consists of 17 townhomes with access from Rothschild Trail via a private condominium road. The redevelopment also includes a 7 m easement for the Region of Peel sanitary sewer along the south side of the subject property. The proposed condo road aligns with an existing gravel laneway over the sanitary sewer easement.

The FSR (SKIRA 2024) defines the existing and proposed servicing and stormwater management plan for the proposed development. Details from the FSR are summarized below.

The site plan and proposed grading are illustrated in **Appendix H.**

8.1 Water and Sanitary Servicing

The proposed condominium will be serviced by the existing 200 mm diameter watermain located on Rothschild Trail.

The proposed condominium will be serviced by the existing 250 mm diameter sanitary sewer located within the existing sanitary sewer easement located along the southern property limit. The building, basement and underground drains will gravity drain to the existing sanitary system.

8.2 Stormwater Management

Surface runoff from the proposed condominium block will be directed to the Fletchers Creek Tributary via a new stormwater outfall (**Attachment H**).

Permeable paving is proposed for the visitor parking, driveways, and sections of the common element condo road, totalling 373 m^2, which will provide storage for infiltration (Skira 2024).

Roof-top drainage controls will restrict roof runoff to a rate of 35.0 L/s/ha via short-term roof-top detention measures. Landscaped and amenity areas surrounding the condominium will drain uncontrolled towards the adjacent valleylands.

The proposed development will implement a treatment train approach to provide long-term removal of 80% of Total Suspended Solids (TSS). Clean water sources will be provided by landscaped areas rooftops. Dirty water from the parking/asphalt area will pass through permeable paving and filtered through gravel layers prior to final treatment with an oil/grit interceptor.

9. Impact Assessment and Mitigation

The following section evaluates potential impacts associated with the proposed development plan and provides recommendations to mitigate potential impacts.

9.1 Trees and Woodlands

A total of 33 trees ≥10 cm ranging in size from 15 to 53 cm DBH are recommended for removal to accommodate the proposed development. The majority of trees to be removed are young to mid-aged planted ornamental trees located on the tablelands, including Thornless Honey Locust, White Spruce, and Norway Maple. Of the 33 trees for removal, 14 are from the woodland along the north side of the subject property and 19 are from the existing yard.

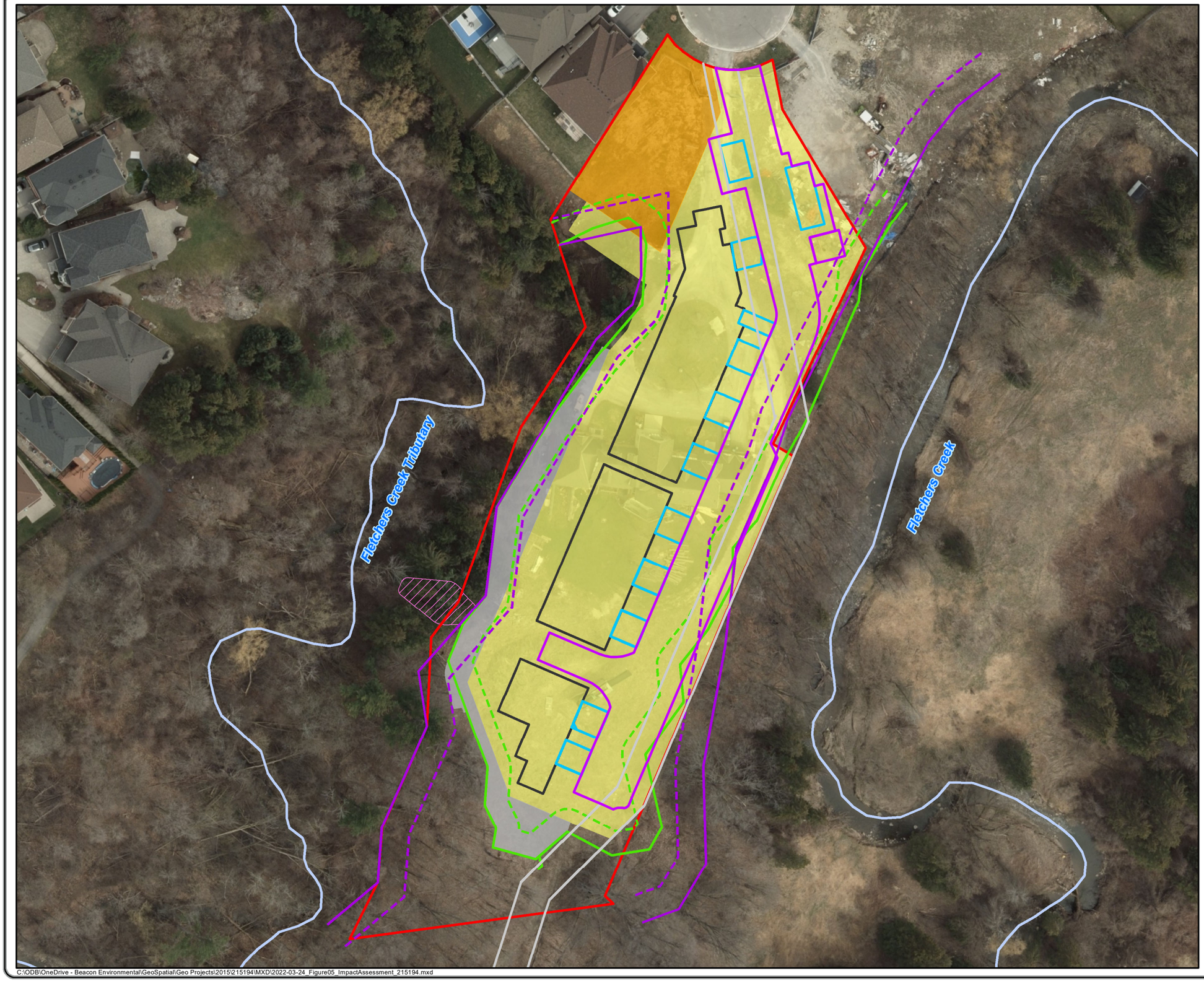
As discussed through the agency consultation process (ref. **Section 2.8**), grading within buffer areas at a 4:1 slope was requested by the City to eliminate the need for retaining walls where possible, minimize the amount of retaining wall exposure to the Natural Heritage System, and to facilitate demolition of the existing building. **Figure 4** and **Appendix H** illustrate limits of grading. A short length of retaining wall (max. 1 m in height) is proposed in order to avoid grading directly into the woodland feature north of the subject property, thereby minimizing tree removals. A small area of grading extends under the dripline at the northwest corner of the subject property; however, based on the Arborist Report (Beacon 2024), no tree removals are required from this area of the woodland.

Grading within the buffer areas is not expected to have a significant impact on trees identified for protection along the existing woodland edge. Where fill placement is proposed within the buffer, the depth of fill tapers off toward the dripline and the amount of fill within 1 m of the dripline is very minimal. Where cut is proposed within the buffer to remove existing fill and achieve positive drainage, the proposed grades match existing grades at or before the dripline. Further, removal of existing fill piles from within the buffer could promote root growth and have a positive impact on the adjacent trees.

Based on the Arborist Report (Beacon 2024), 14 trees have been identified for removal from the woodland edge on the north side of the subject property due to grading and construction of a new SWM outfall. The majority are planted spruce trees.

To mitigate this impact, trees will be replaced in accordance with City of Mississauga requirements and disturbed areas within the buffers and around the outfall will be fully restored within native trees, shrubs, and groundcovers following construction. Reer to the Arborist Report (Beacon 2024) for details.

A total of 72 trees are identified for preservation (Beacon 2024) all of which are located within the woodlands adjacent to the proposed development. Trees will be protected by installing tree protection fencing and silt fencing along the limit of development/grading. Hoarding should be installed before any construction or site alteration takes place and should not be removed until after construction is completed.



Impact Assessment	Figure 4

6620 Rothschild Trail Scoped EIS

Legend

- Subject Property
- Grading Area of Impact (745 m²)
- SWM Outfall (113 m²)
- Existing Sewer Easement (Searles, 2015)
- Watercourse (Beacon 2018)
- Building
- Condo Lot Limit (pml.A 2021)
- Access/Parking
- New Residential Lot
- Permeable Paving
- Long Term Stable Slope (Soil Engineers, 2017)
- 6.0 m Setback to Long Term Stable Slope
- Woodland Boundary (Staked by CVC, May 26, 2015)
- 5.0 m Buffer to Woodland Boundary (Beacon 2019)

BEACON ENVIRONMENTAL

Project: 215194
Last Revised: December 2024

Client: DiBlasio Homes

Prepared by: BD
Checked by: DW

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Any tree removal or vegetation clearing and transplanting should be conducted to be in compliance with the *Migratory Birds Convention Act*. Generally, the clearing of vegetation should only take place outside of the breeding bird season in southern Ontario, between September 1 and March 31. For any proposed clearing of vegetation within the breeding bird season, or where birds may be suspected of nesting outside of typical dates, an ecologist should undertake detailed nest searches immediately prior (within two days) to site alteration to ensure that no active nests are present.

9.2 Erosion and Sediment Control

Construction works such as grading, grubbing and excavation have the potential to cause the movement of sediment into the adjacent watercourses, which can degrade water quality and impact downstream aquatic habitat.

To avoid this impact, erosion and sediment control measures will be implemented during and following construction in accordance with City of Mississauga By-Law No. 512-91 and *Guidelines for Development Activities in Redside Dace Protected Habitat* MNRF (2016) and *Erosion and Sediemnt Control Guide for Urban Construction* (TRCA 2019). The FSR Erosion Control Plan identifies the following erosion and sediment control measures:

- Installation of a double row of sediment fence with straw bale staked in between along the entire subject property along the proposed limits of grading prior to the commencement of any grading activities;
- Installation of sediment barriers for all catch basins within landscaped areas;
- Installation of sediment control bulkheads at all manhole connections with the existing storm sewer system; and
- Mud tracking control consisting of flushing and sweeping of roads, in accordance with the City of Mississauga guidelines.

9.3 Water Balance

As detailed in the FSR (SKIRA 2024), a site-based water balance will be achieved in accordance with relevant CVC and City of Mississauga criteria through the proposed stormwater management plan which includes retention of the first 5 mm of rainfall for infiltration through use of permeable pavement.

9.4 Bird Collisions

With the construction of buildings adjacent to treed areas, there is a risk of birds colliding against windows. Birds are unable to perceive clear or reflective glass d they sometimes fly into windows when trees or sky are reflected in the glass. There are a number of options available that help make glass visible to birds. For example, patterns or films applied to glass can reduce reflection and provide visual markers that allow birds to perceive and avoid the windows. Window applications are especially important at the first 12 m above grade. It is recommended that the building architects consult resources to inform the design of the building to reduce the risk of bird strikes, including:

- Bird Friendly Best Practices Glass (City of Toronto, 2016); and
- Best Practices for Effective Lighting (City of Toronto, 2017).

9.5 Species at Risk

9.5.1 Redside Dace

No development is proposed within regulated habitat for Redside Dace. However, potential negative impacts on Redside Dace and their habitat resulting from the proposed development activities include:

- Mobilized sediment and elevated turbidity in adjacent watercourses; and
- Thermal impacts on receiving watercourses.

MNRF guidance for development activities in Redside Dace protected habitat (2016) provide guidelines for discharging stormwater to Redside Dace habitat. For smaller developments, generally best efforts should be made to meet the following the criteria:

- Stormwater discharge should not exceed 25 mg/L of total suspended solids (TSS) above the background stream level of total suspended solids;
- There should be no storm run-off from rainfall events in the range of 5 – 15 mm (however, this may depend on the recommendations set forth in a subwatershed plan and on soil permeability); and
- Discharge temperatures should be below 24°C and have dissolved oxygen concentrations of at least seven milligrams per litre.

Proposed measures to mitigate potential impacts on protected Redside Dace habitat include:

- Avoidance of Redside Dace regulated habitat;
- Limiting the size of disturbed areas through appropriate construction phasing;
- Limiting time of exposure for disturbed areas using appropriate stabilization measures;
- Implementation of a multi-barrier, treatment train approach to erosion and sediment control;
- Monitoring and maintenance of ESC measures;
- Site-based water balance, including retention of the retention of the first 5 mm of rainfall for infiltration through use of permeable pavement.
- Treatment train approach to water quality post-development; and
- Mitigation of thermal impacts through the implementation of permeable pavers promoting infiltration.

Thermal impacts are not anticipated given the relatively small contribution of runoff from the property, and that warming of runoff will be minimal as stormwater is intended to be infiltrated through permeable pavers

It is anticipated that the TSS target of less than 25 mg/L above the background stream levels will be achieved through the use of an Oil Grit Separators (OGS), with additional polishing that will occur as the water filters through a well-vegetated lowland forest for approximately 20 m prior to reaching the tributary. The SWM system will be confirmed with MECP as necessary to ensure compliance with the ESA.

9.5.2 SAR Bat Species

Tree removals are proposed from the woodland adjacent to the subject property to accommodate the SWM outfall north of the subject property and the condo road along the south side of the subject property. Fourteen trees are required for removal for the outfall and buffer grading to the north of the proposed development, and one tree is proposed for removal for the condo road. The majority of trees to be removed from the woodland are spruce trees, which typically do not develop cavities that would suitable for maternity roosting.

Previous guidance from MECP states:

> *"If a proposed activity will avoid impairing or eliminating the function of habitat for supporting bat life processes (e.g. remove, stub, etc. a small number of potential maternity or day roost trees in treed habitats) but the timing of tree removal will avoid the bat active season (April 1 – September 30 in Southern Ontario / May 1 to August 31 in Northern Ontario), then there is no need to conduct species at risk bat surveys of treed habitats. "*

Given the extensive area of contiguous protected forest associated with the property and adjacent lands, the removal of tree removals from the woodland are not expected to impair or eliminate the woodland function for supporting bat life processes. It is recommended that tree removals be undertaken prior to April 1 or after September 31 (October 1 to March 31) to avoid the bat active season. This approach should be confirmed with MECP to ensure compliance with the ESA.

9.5.3 Butternut

No development is proposed within 25 m of the Butternut located adjacent to the property; therefore, no impacts on this tree are anticipated.

9.6 Post-development Residential Impacts

Residential development can potentially impact adjacent natural areas as a result of increase human occupation and encroachment. Potential impacts include:

- Dumping yard waste and accumulation of debris in natural areas;
- Informal trails and trampling of vegetation;
- Introduction of invasive species used in landscaping;
- Removal of natural vegetation; and
- Storage of materials, placement of structures.

These impacts are more likely along the north side of the development where rear yards back on the adjacent woodland, whereas the condo road is adjacent to the woodland to the south. Potential indirect impacts associated with increased human occupation of the subject property will be mitigated by establishing the buffer to the adjacent woodlands, fully restoring the buffer with native species, and installing a 1.5 m high chain-link fence at the development limit to discourage encroachments into the adjacent natural area.

9.7 Compensation Planting Plan

To compensate for the removal of trees, the woodland buffer along the north side of the proposed development will be planted with a variety of native trees. Trees removed from the subject property and adjacent lands will be replaced by providing one replacement tree per 15 cm of trunk diameter that is removal based on the City's *Terms of Reference for Arborist Reports, Tree Inventory/Survey & Tree Preservation Plans* guidelines (2022). As per the Arborist Report (Beacon 2024), 61 replacement trees are required to replace a cumulative diameter of 910 cm recommended for removal.

The comprehensive Compensation Planting Plan, developed by SBK in consultation with the City and CVC, incorporates a native seed mix, shrubs, and deciduous and coniferous trees that are consistent with the surrounding ELC communities. If the requisite number of replacement trees cannot be accommodated on-site, then cash-in-lieu may be provided to the City.

9.8 Net Ecological Gain

With the exception of a SWM outfall, the proposed development is limited to disturbed area associated with the footprint of the existing development on the subject property.

The only component of the proposed development that will encroach on the NHS is the proposed grading within the buffer and a very localized area within the drip line. These grading limits are required to remove the existing residential home from the buffer area and provide the 3 m maintenance access area supported by the City.

The removal of the existing building from the woodland buffer and restoration of disturbed anthropogenic areas with native trees and shrubs adjacent to the woodlands on the north side of the subject property will result in an overall ecological net gain. While opportunities to restore the buffer along the south side of the subject property are limited by the Region of Peel sanitary sewer easement requirements (to be maintained clear of trees), an approximately 3 m wide strip within the easement is proposed to be planted with native groundcovers to compliment the adjacent NHS.

10. Policy Conformity

A summary of federal, provincial and municipal environmental protection and planning policies and regulations applicable to the subject property were discussed in **Section 2**. An evaluation of how the proposed re-development complies with the applicable environmental policies and legislation is summarized below in **Table 7**.

Table 7. Policy Compliance Assessment

APPLICABLE POLICY / LEGISLATION	RELEVANT EIS FINDINGS AND RECOMMENDATIONS	Policy Compliance
Federal *Fisheries Act* (1985)	Fish habitat is associated with Fletchers Creek and the tributary to Fletchers Creek adjacent to the subject property. No impacts to fish habitat are anticipated provided that the mitigation recommendations in this report and the FSR are implemented. All development is located outside meander belt plus 30 m, regulated Redside Dace Fish habitat.	Yes
***Endangered Species Act* (2007)**	SAR Bat Habitat could be present adjacent to subject property within the NHS. Limited tree removals from the woodland are required to accommodate the SWM outfall and grading. The tree removals are not expected to impair the function of the woodland for supporting bat life processes. This approach should be confirmed with MECP. One Butternut was identified in the adjacent NHS. No development is proposed within 25 m of the butternut; therefore, no impacts are anticipated. Fletchers Creek and its Tributary are identified as occupied and contributing habitat, respectively. No development activities are proposed within Redside Dace Regulated habitat. An existing stormwater outfall will discharge drainage into the Fletchers Creek Tributary and has been designed per the MNRF guidance for Redside Dace.	Yes. Requirements under the ESA (2007) will be addressed through the detailed design stage.
Provincial Planning Statement (2024) Section 2.1 – Natural Heritage		
1. Habitat for Threatened and Endangered Species	See above.	Yes
2. Significant Valleylands	Fletchers Creek and its tributary qualify as significant valleylands in the City of Mississauga. Impacts on the valleyland are limited to removal of a small number of trees to accommodate a SWM outfall. Tree replacement will be provided in accordance with City requirements and disturbed areas within the valleyland will be restored with native species. Long term impacts on the valleyland are not anticipated. Potential Indirect impacts can be avoided or minimized by implementing the recommendations of this report.No impacts are anticipated if mitigation measures are implemented.	Yes
3. Significant Wetlands	N/A. There is no wetland habitat.	N/A
4. Significant Woodlands	There are no Significant Woodlands on the subject property, but Natural Area (MV2) adjacent to the subject property qualifies as significant. Impacts on the woodland are limited to the removal of 14 trees to accommodate the SWM outfall and grading. Tree replacement will be provided in accordance with City requirements and disturbed areas within the woodland and	Yes

APPLICABLE POLICY / LEGISLATION	RELEVANT EIS FINDINGS AND RECOMMENDATIONS	Policy Compliance
	buffers will be restored with native species. Long term impacts on the NHS are not anticipated. Indirect impacts can be avoided or minimized by implementing the mitigation recommendations of this report.	
5. Significant Wildlife Habitat	The MV2 Natural Area qualifies as potential SWH. The limited tree removals required for the SWM outfall and grading are not expected to result in adverse impacts on the potential SWH identified for the lands adjacent to the subject property.	Yes
6. Significant Areas of Natural and Scientific Interest	N/A – There are no Areas of Natural of Scientific Interest.	Yes
7. Fish Habitat	Fish habitat is associated with Fletchers Creek and the tributaty to Fletchers Creek adjacent to the subject property. No impacts to fish habitat are anticipated provided that the mitigation recommendations in this report are implemented.	Yes
PPS (2024) Section 4.2 – Water	No impacts to sensitive surface water features are anticipated. The EIS has identified mitigation measures to be implemented to reduce impacts to sensitive surface water features.	Yes
PPS (2024) Section 5.2 – Natural Hazards	Development of the subject property will be limited to areas outside natural hazards (i.e. slopes, floodplains).	Yes
Region of Peel Official Plan	There are no Core Areas within the subject property, but the MV2 Natural feature adjacent to the subject property is considered a Core Area. The proposed development will result in the removal of a small number of trees from the Core Woodland to accommodate grading and construction of the SWM outfall. The majority of trees to be removed are non-native, planted spruces. Tree replacement will be provided in accordance with City requirements and the buffers will be fully restored with native species. Long term impacts on the NHS are not anticipated. Indirect impacts can be avoided or minimized by implementing the recommendations of this report.	Yes
Mississauga Official Plan (2015, 2024 Consolidation)		
1. Natural Heritage System		
Significant Natural Areas	Significant natural areas associated with the subject property and adjacent lands include: • Fish Habitat • Significant Woodland • Significant Valleyland • Potential Significant Wildlife Habitat • Habitat of Threatened and Endangered Species The proposed development will result in the removal of a small number of trees from the woodlands to accommodate grading and construction of the SWM outfall. The majority of trees to be removed are non-native, planted spruces. Tree replacement will be provided in accordance with City requirements and the	Yes

APPLICABLE POLICY / LEGISLATION	RELEVANT EIS FINDINGS AND RECOMMENDATIONS	Policy Compliance
	buffers will be fully restored with native species. Long term impacts on the NHS are not anticipated. Indirect impacts can be avoided or minimized by implementing the recommendations of this report.	
2. Natural Hazard Lands	Development of the subject property will be limited to areas outside natural hazards (i.e. slopes, floodplains).	Yes
CVC Regulations and Policies		
Ontario Regulation 41/24 Watershed Planning and Regulation Policies (CVC, 2010) and Slope Stability Definition and Determination Guideline (2014)	As the CVC Regulation Limit extends within the subject property, a permit under Ontario Regulation 41/24 will be required to undertake site alteration and grading for the proposed development. Long term stable slope limit was determined in conformance with the PPS and CVC policies and guidelines.	Yes

10.1 Permit Requirements

10.1.1 Endangered Species Act (2007)

Requirements for the proposed development under the ESA (2007) will be confirmed with MECP at the detail design stage.

10.1.2 CVC Ontario Regulation 41/24

As the subject property overlaps with the CVC Regulation Limit, a permit under Ontario Regulation 41/24 will be required to undertake site alterations for the proposed development.

10.1.3 City of Mississauga

Trees on private property are subject to the City of Mississauga's Private Tree Protection Bylaw 0021-2022. Pursuant to this by-law, a permit must be obtained from the City to remove private trees. having a DBH greater than 15 cm A permit is required to remove trees from adjacent City-owned lands pursuant to the City's Public Tree by-law (0020-2022).

10.1.4 DFO Fisheries Act

As the proposed development activities are not anticipated to have negative impacts fish habitat, no authorization requirements under the *Fisheries Act* are anticipated.

11. Monitoring

To ensure compliance with the recommendations of the Scoped EIS and evaluate the effectiveness of proposed mitigation measures an environmental monitoring program will be implemented. The program will be multidisciplinary and will include monitoring of surface water resources, aquatic habitat, geomorphology, and natural heritage resources.

Table 8 summarizes the proposed environmental monitoring framework, subject to approval by the City and CVC.

Table 8. Proposed Monitoring Framework

Ecosystem Component	Objective(s) /Rationale	Monitoring Parameter(s)	Monitoring Indicator(s)	Methods/Protocols/Analyses	Frequency & Duration*			Comments
					Pre-Development	During Construction	Post-Development	
Geomorphology	To assess for changes in channel morphology as a result of urbanization	General site conditions at the stormwater outfall and downstream receiving reach	Repeated, documented photographs	Photographic record of site conditions from common viewpoint.	Once to establish baseline conditions	N/A	Years 1 and 5	Timing of Monitoring: summer or fall.
Terrestrial Resources	To assess changes in the type and extent of natural cover in the study area over the long term.	Natural Cover	Type and extent of natural vegetation cover	Vegetation resources will be classified according to ELC standards. The area of each ELC vegetation type will be estimated using aerial photography. GIS analyses will be used to compare changes in area over time.	None	N/A	Year 1 and 5	Timing of Monitoring: summer or fall.
	To evaluate the effectiveness of buffers in reducing encroachment related impacts to protected features within the natural heritage system.	Buffer Integrity	Human related disturbance	The interface between the development and natural heritage system will be surveyed to document evidence of human disturbance. Observations will be categorized according to disturbance type, extent and magnitude of effect.	Once to establish baseline condition	Once	Years 1, 3, 5	Timing of Monitoring: summer or fall.
			Condition of buffer plantings	The condition of buffer plantings will be assessed by the Landscape Contract Administrator.	Once annually for two year following planting			Timing of Monitoring: summer or fall.
	To assess the health and condition of trees along the woodland edge	Tree Protection	Tree health and condition	A certified arborist will inspect the trees along the edge of the signficant woodland where grading is proposed within the buffer.	Once to establish baseline	Once	Year 1 and 3	Timing of Monitoring: summer
Aquatic Resources	To assess impacts to fish habitat including Redside Dace from construction.	Site Conditions	Erosion and sediment control measures.	Regular monitoring of erosion and sediment control measures.	None	To be determined in consultation with CVC.	None	

12. Conclusion

This Scoped EIS was prepared in accordance with the Terms of Reference approved by the City and CVC. The information and materials provided in this report were based on a review of relevant background information, field assessments, analyses, and supporting studies provided by the study team.

Existing conditions of the subject property and surrounding area, where appropriate, were inventoried and documented. Currently, the site consists of a single residential building and an associated access way. The property is bounded by the valleylands associated with the main branch of Fletchers Creek and Fletchers Creek Tributary.

The development is proposed on Lot 21 and part of Lot 22 of Registered Plan 43M-1710. . The proposed redevelopment consists of 17 townhomes with access from Rothschild Trail via a private condominium road. The development also includes a single residential lot fronting Rothschild Trail. Proposed condominium lands and residential lot limits are identified on the Site Plan. These limits are not subject to any additional buffers; proposed greenbelt dedication lands are also identified on the draft R. Plan. The proposed limit of development was determined in consultation with the City of Mississauga and CVC.

The impact assessment examined the potential effects of the proposed development activities on physical and biological resources within the subject property and surrounding natural area. Based on the small-scale, low density development form, no long-term impacts to terrestrial and aquatic habitat are anticipated. Tree removals for site grading and stormwater management will be mitigated by providing replacement trees in accordance with City requirements. Potential indirect impacts associated with development will be mitigated through the implementation of erosion and sediment control best management practices, low impact development and stormwater management controls, and a comprehensive buffer planting plan.

In conclusion, it is the opinion of the report authors that the proposed redevelopment will comply with various applicable environmental legislation, policies and regulations provided the mitigation and enhancement recommendations are implemented.

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Appendix A

Scoped Environmental Impact Study
Approved Terms of Reference

March 10, 2017 BEL 215194

Lauren Eramo-Russo *Via email: Lauren.eramorusso@mississauga.ca*
Development Planner
City of Mississauga
Development and Design Division
Planning and Building Department
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Re: Terms of Reference for Scoped Environmental Impact Study (EIS) - revised
Block 21 Vintages Select
Lot #21 (Plan 43M-1710) - 6620 Rothschild Trail, Mississauga, Ontario
Fletcher's Creek Watershed

Dear Ms. Eramo-Russo:

Beacon Environmental Limited (Beacon) has been retained by DiBlasio Homes to prepare a Scoped Environmental Impact Study (EIS) for the re-development of 6620 Rothschild Trail (Lot #21, Plan 43M-1710), in the City of Mississauga (hereto referred as the subject property). The subject property is situated adjacent to two watercourses: the main branch of Fletcher's Creek and a small ravine tributary. Both of these features have been characterized as confined valley systems.

As background, the subject lands were designated for residential development in 1997 by the City of Mississauga. In 1998, the lands were included within an approved Draft Plan of Subdivision and were zoned to permit detached dwellings. Subsequent to the Draft Plan approval process, a proposal has been put forth to redesign Lots 1-10 to allow for condominium townhouses rather than detached dwellings.

During the July 9, 2015 EIS pre-consultation meeting with the City and Credit Valley Conservation (CVC), it was agreed that the Terms of Reference for an EIS could be scoped to reflect the relatively small size of the subject property, and in recognition of the numerous technical studies completed to date in support of the proposed development plan. This letter outlines the proposed Terms of Reference for the Block 21 Vintages Select Scoped EIS and addressed comments provided by CVC (dated November 24, 2015).

Planning Context

The majority of the subject property is identified within the City of Mississauga Land Use Schedule as Low Density Residential. Presently, land use within the subject property consists of an estate lot with a single residential dwelling. The development proposal for this property will intensify use of the current

development area. The proposal will not directly encroach on the adjacent Natural Area of the Fletchers Creek valley (part of the City of Mississauga Natural Heritage System).

The City's Official Plan requires that an EIS be completed for any proposed development within or adjacent to a Natural Area. Specifically, policy 6.3.1.13 of the Mississauga Official Plan (2011) states that:

> *Development and site alteration will not be permitted within or adjacent to Natural Areas, Linkages and Special Management Areas unless it has been demonstrated that there will be no negative impacts to the features and ecological functions of the Natural Areas System. An Environmental Impact Study (EIS) will be required and the Terms of Reference will be provided by the City. The EIS will be approved by the City, in consultation with the relevant conservation authority, at the early stages of a proposal's consideration. The EIS will delineate the area to be analysed, describe existing physical conditions, identify environmental opportunities and constraints, and evaluate the ecological sensitivity of the area in relation to a proposal. It will also outline measures to protect, enhance, and restore the natural features, area and linkages including their ecological functions.*

To date, the following tasks have been completed to date in support of the Scoped EIS:

- Site meeting with CVC and City staff to stake the limit of environmental features (drip line and physical top of slope) within the subject property (May 26, 2015);
- Pre-consultation meeting with CVC and City staff to discuss development opportunities and constraints (July 9, 2015); and
- Site meeting with CVC ecology staff and City staff to review existing site conditions and confirm the EIS scope of work (July 21, 2015).

The Study Area for this Scoped EIS will include the subject property, and the existing Natural Areas associated with main branch of Fletcher's Creek and Fletcher's Creek tributary system.

Background Review

The background review will focus on summarizing all technical studies previously completed to date in support of the proposed redevelopment plan, including but not limited to:

- Fletcher's Creek Geomorphic Stream Bank Assessment Study (Geomorphic Solutions, 2007);
- Slope Stability Study (Soil Engineers Ltd., 2017);
- DiBlasio West Environmental Impact Study (Dougan and Associates, 2008);
- Endangered Species Act (ESA, 2007) Screening Request response letter (MNRF, 2013);
- Redside Dace Regulated Habitat Limit Assessment (GHD, 2014);
- Physical Top of Slope and Drip Line Staked Limits (D.B. Searles Surveying Ltd., 2015);
- Geomorphic Assessment (Beacon Environmental, 2015);

- Vegetation Assessment (Beacon Environmental, 2015); and
- Wildlife Habitat Assessment (Beacon Environmental, 2015).

Additionally, the following background resources to be reviewed as part of this study will include:

- City of Mississauga Natural Areas Inventory data and associated Fact Sheets;
- MNRF Natural Heritage Information Centre (NHIC) database;
- Available Data on Fish Records and Habitat from CVC;
- Natural heritage species records from CVC;
- Ontario Breeding Bird Atlas data;
- Ontario Herpetofaunal Summary Atlas data;
- Historical and current aerial photography;
- Soils and topographic mapping, and
- Fletchers Creek Restoration Study - Characterization Report (DRAFT).

Field Studies

Amphibian Surveys

Amphibian breeding surveys have not been included in the EIS scope of work as there is limited habitat available. Any relevant background information will be summarized in the EIS.

Vegetation Assessment (October 2015)

As the existing property consists of a single dwelling residential home, with manicured grass and landscape plantings, the vegetation assessment was scoped to a single site visit in October 2015 to assess terrestrial vegetation. This was completed by applying Ecological Land Classification (ELC) and mapping to "Vegetation Type" (the highest level of detail) for the study area. All rare or uncommon vegetation communities will be mapped regardless of size. The EIS will describe the location and distribution of all rare or uncommon species found in the vegetation assessment based upon "Vascular Plant Flora of the Region of Peel and the Credit River Watershed (Kaiser, 2001 and amendments). Observations pertaining to other features, such as cliffs, seeps or bluffs will be documented.

Additionally, an inventory of trees greater than 15 cm in diameter at breast height (dbh) was also completed for the subject property. The number, species, size and condition of each tree was noted in order to delineate the minimum Tree Protection Zone (minimum distance at which the tree can be preserved as measured from the base of each tree). This delineation will feed into the determination of the development limit for the Subject Property. The assessed and tagged trees will be surveyed and placed on the topographic base map.

Wildlife Habitat (October 2015)

To document the relative significance and sensitivity of terrestrial habitat within the subject property, a wildlife habitat suitability study was undertaken to determine whether the site supports habitat for any species requiring conservation. Based on the wildlife habitat suitability study findings, and a background review of available information, all potential significant wildlife habitat within the Study Area will be evaluated and discussed within the context of Provincial SWH criteria for Ecoregion 7E4 and the Region of Peel SWH criteria.

Other Wildlife

Other wildlife species (e.g., mammals, reptiles and amphibians) observed on the site during other field investigations will be recorded as incidental observations. We note that the City of Mississauga Natural Areas Survey for this site (MV2) indicates that several wildlife species of special concern have been noted in the area (snapping turtle, bobolink, eastern meadowlark, barn swallow, eastern wood pewee, wood thrush). Based on the wildlife habitat suitability study findings, and a background review of available information (including MNRF ESA information request data), the EIS will consider relevant species of special concern in relation to the proposed constraints, potential impacts and proposed mitigation measures for this project.

Breeding Bird Surveys

Based on pre-consultation discussions with CVC, it is our understanding that breeding bird surveys will not be required as part of the Scoped EIS.

Geomorphic Assessment (October 2015)

Geomorphic field work was originally completed along Fletcher's Creek by Geomorphic Solutions in 2007. In order to ensure that the Scoped EIS accurately depicts existing geomorphic conditions, a rapid field assessment of the main branch of Fletcher's Creek and the tributary will be undertaken. Field observations will be summarized in the EIS.

While the geotechnical study determines the erosion hazard limit for both the main branch of Fletchers Creek and the tributary due to the confined nature of the valley settings, technical support to the geotechnical study will be provided from a geomorphic perspective through the recommendation of a toe erosion allowance. In accordance with Provincial Policy (MMAH, 2014), and CVC policies and guidelines (i.e., 2014 Slope Stability Definition and Determination Guideline), a toe erosion allowance recommendation will be provided for both valley systems, referencing available information (including the 2007 Geomorphic Solutions report) and field observations regarding soil composition and watercourse stability.

Ontario Regulation 242/08 does not distinguish between confined and unconfined landform systems. For the purposes of this study, the meander belt width was delineated on a reach basis for the main branch of Fletchers Creek in order to establish the limit of occupied regulated Redside dace habitat.

Aquatic Assessment

No specific surveys for aquatic species will be completed within Fletchers Creek or the tributary. Fisheries information will be compiled from CVC and MNRF through the background review. It is understood that the main branch of Fletcher's Creek is classified as occupied Redside Dace habitat. The tributary has been identified as contributing to downstream occupied habitat.

Geotechnical Assessment

A slope stability study to determine the long-term stable top of slope was completed for the subject property (Soil Engineers Ltd., 2017). The EIS will summarize the findings of this study, and include relevant updates to reflect CVC policies and guidelines (i.e., 2014 Slope Stability Definition and Determination Guideline).

Species at Risk (SAR)

Consultation with MNRF Aurora District Office in support of the proposed development plan has been on-going since 2013. While the ESA (2007) review and approvals process does not stipulate or support review and sign-off on mapped regulated habitat limits, the scoped EIS will clearly demonstrate how the mapped limits of regulated habitat are in conformance with the ESA (2007) habitat regulation (O. Reg. 242/08). Additionally, the EIS will include record of correspondence with MNRF Aurora District Office confirming that efforts have been made at this level of the planning process to consult with MNRF Aurora District Office, and clarify authorization requirements.

A single Butternut has been documented from the subject property. Butternut is a provincially endangered tree species and its habitat is regulated under the provisions of the Ontario Endangered Species Act (ESA) (2007). The EIS will address this species to demonstrate compliance with the ESA.

Water Balance Analysis

Based on information presented in the Functional Servicing Report and geotechnical report, a water budget assessment will be completed to ensure that proposed stormwater measures achieve a water balance across the site, as well as feature-based water balance to the tributary.

Assessment and Reporting

The Scoped EIS submission will be prepared in accordance with City of Mississauga standards, with report sections as follows:

1. Introduction

   This section of the report will include the purpose, objectives, and scope of the study, as well as a general description of the site and the site location.

2. Description of the Proposal

   A concise overview of the development proposal with a conceptual site plan, historic and existing land uses of the subject property and adjacent lands, zoning, and general areas of filling and/or grading and/or drainage modifications.

3. Site Description and Landscape Context

   This section will include: a list of background information sources consulted, a description of the methods used and timing of field surveys to characterize the site's natural heritage features and functions. Targeted inventories completed for this Scoped EIS will provide current information about the aquatic and terrestrial resources within and adjacent to the natural area, applicable environmental designations, and mapping of both existing conditions and environmental constraints. Other natural and cultural features (e.g. corridors, linkages, hedgerows, swales, meadow-feeding areas, etc.) that may contribute to functions of the designated natural area's features and functions, both onsite and related to the immediate adjacent lands will be listed and described.

   The site description will include an assessment of surficial soils, topography, surface drainage patterns, flora, fauna, fish habitat and natural features using available information from background resources and field work. Information will be presented using summary text descriptions, photos, tables, figures, and appendices.

4. Identification of Constraints and Opportunities

   Based on the findings of the background review and field inventories, a constraint analysis will be undertaken to identify areas of the subject property that are environmentally constrained and require protection. This analysis will include consideration of setbacks and buffers that are most appropriate to ensure the long-term function of environmental features. The analysis will be used to establish a preliminary limit of development to inform development design and servicing. Additionally, the EIS will identify opportunities for enhancement of the natural area and its ecological functions that can be implemented to improve the ecological integrity of the valleylands

5. Description of the Proposed Development

   This section will describe all components of the proposed development, including tree preservation, grading, servicing, stormwater management (i.e. LID), design and landscaping.

6. Evaluation of the Effects on the Environment

Based on the findings of the Scoped EIS, we will describe the sensitivity of the features and functions, and describe the anticipated impacts of the development of these features and functions in terms of potential direct, indirect, and cumulative effects both during construction and upon occupancy. This evaluation of potential effects will conform to Appendix A of CVC's EIS Guidelines. A figure detailing all features, constraints, buffers and setbacks that are recommended and/or required will also be included in the EIS. This includes the delineation of habitat of endangered and threatened species.

7. Description of Mitigation Measures

For this section we will prepare recommendations for development on the property, including any best management practices to protect and enhance the natural heritage features and functions, and appropriate mitigation to prevent or minimize any anticipated impacts (e.g. buffers/setbacks, restrictions on timing of works, and the rehabilitation of disturbed areas).

8. Policy Conformity

The proposed development will be reviewed in context of applicable federal, provincial, regional, municipal and conservation authority plans, policies and regulations with respect to natural heritage features. An opinion will be provided regarding compliance.

9. Recommendations

The concluding section will summarize our recommendations related to the appropriateness of the proposal in relation to applicable natural heritage policies and guidelines, as well as any recommendations related to appropriate mitigation and enhancement measures. Literature and sources cited (including experts contacted) will also be appended at the end of the Scoped EIS. This section include a summary statement regarding the impacts on significant natural heritage features or their ecological functions and describe how any negative impacts can be mitigated. Recommendations will also be provided for restoration and enhancement of the natural heritage system and associated ecological functions.

10. Appendices

These will include any relevant correspondence, and natural heritage data collected (including relevant data from background sources supplemented by site-specific field work).

Should you have any questions, please do not hesitate to contact the undersigned at (519) 826-0419 x30.

Prepared by:
Beacon Environmental

Shelley Gorenc, M.Sc., P.Geo.
Senior Fluvial Geomorphologist

Reviewed by:
Beacon Environmental

Ken Ursic
Senior Ecologist

cc: Maricris Marinas, CVC (mmarinas@creditvalleyca.ca)
Dorothy DiBerto, CVC (DDiBerto@creditvalleyca.ca)
Alvaro DiBlasio, Landowner (alvaro@diblasiocorp.com)
Jim Levac, Glen Schnarr & Associates Inc. (jiml@gsai.ca)

Appendix B

MNRF ESA Screening Response

Minutes

4 June 2014

Project	Di Blasio Estates - Phase 2 West Rothschild Trail	From	Shelley Gorenc, M.Sc., P.Geo.
Subject	MNR ESA Permitting	Tel	905-814-4387
Date (Time): Location:	May 21, 2014 (1-2 pm) On Site	Job No	28/21135/ [Previously 12225]
Attendees	Emily Funnell (MNR) Alvaro Di Blasio (Di Blasio Estates) Orjan Carlson (Urban Ecosystems) Imran Khan (GHD) Shelley Gorenc (GHD)	Copy	All attendees

Minutes

1. Introductions

2. Site Plan

OC – Provided an overview of preliminary engineering details that have been prepared for the site.

EF – Questioned whether the preliminary site plan was different than the previous GHD submission to MNR.

SG – Indicated that the site plan had been revised:

- Access road into additional lots had been shifted north to provide additional buffer to top of slope and valley and has been shortened to reduce extension of road into open space area;
- Permeable pavers have been incorporated into access road as an LID feature;
- Development limit has not changed but minor revisions to lot limits have been made (subdivision of lots 9 and 10; narrowing of lot 1 to optimize open space area);
- Designated open space lot remains as previously discussed, but now includes a proposed infiltration basin to provide additional water quality benefits;

GHD Inc.
6705 Millcreek Drive Unit 1 Mississauga ON L5N 5M4 Canada
T 1 905 213 7121 **F** 1 905 890 8499 **E** mississauga@ghd.com **W** www.ghd.com

- Site plan does not require any formal stormwater release to Fletcher's Creek or tributary – all stormwater requirements can be addressed through LIDs and rear lot conveyance; and
- Changes to the site plan have further reduced encroachment into mapped Redside Dace regulated habitat limit; formerly 142 m^2 of encroachment – now 90 m^2 (refer to enclosed **Attachment A**).

EF – Requested clarification on how stormwater requirements are serviced through existing subdivision.

AD – Indicated that stormwater is currently split between an existing outfall to Fletcher's Creek tributary and a storm sewer system – servicing has not yet been assumed by the City.

3. Vegetation Removal Timing

EF – Indicated that MNR's remaining concern regarding the site was related to the timing of vegetation removal in vicinity of lots 8-11 (refer to **Attachment A**), where the regulated habitat limit is being driven by the limit of vegetation. Inquired whether the disturbance of this area pre-dates the 2007 up-listing of Redside Dace?

AD – Indicated that the vegetation removal pre-dates 2007.

SG – Noted the date associated with aerial imagery provided through the previous MNR submission was 2007 (Google Earth), but noted that formal confirmation of the disturbance timeline would be provided to MNR. Please refer to **Attachment B**, which indicates that vegetation removal occurred sometime between 2005 and 2006.

EF – Indicated that the development plan could likely be dealt with through a Letter of Advice (LOA), but that additional details regarding stormwater management, erosion and sediment control, confirmation that groundwater recharge/discharge is not an issue on site and water balance (geotechnical) details would be required.

4. Site Walk

ALL – Completed site walk of development limit to evaluate existing conditions.

EF – Was generally in agreement with the location of the infiltration basin – noted MNR's preference for large mature trees along the edge of the development limit to be retained.

EF – Inquired whether the City or CVC have been consulted for the Phase 2 development plan.

SG – Indicated that consultation with the City and CVC had been put on hold until preliminary engineering details could be developed, and agreement in principle with MNR regarding the ESA permitting process and timelines could be achieved.

5. Timeline

IK – Discussed overall timing for next steps and approvals. Ideally, looking towards issuance of an LOA by end of year, with construction to follow in 2015.

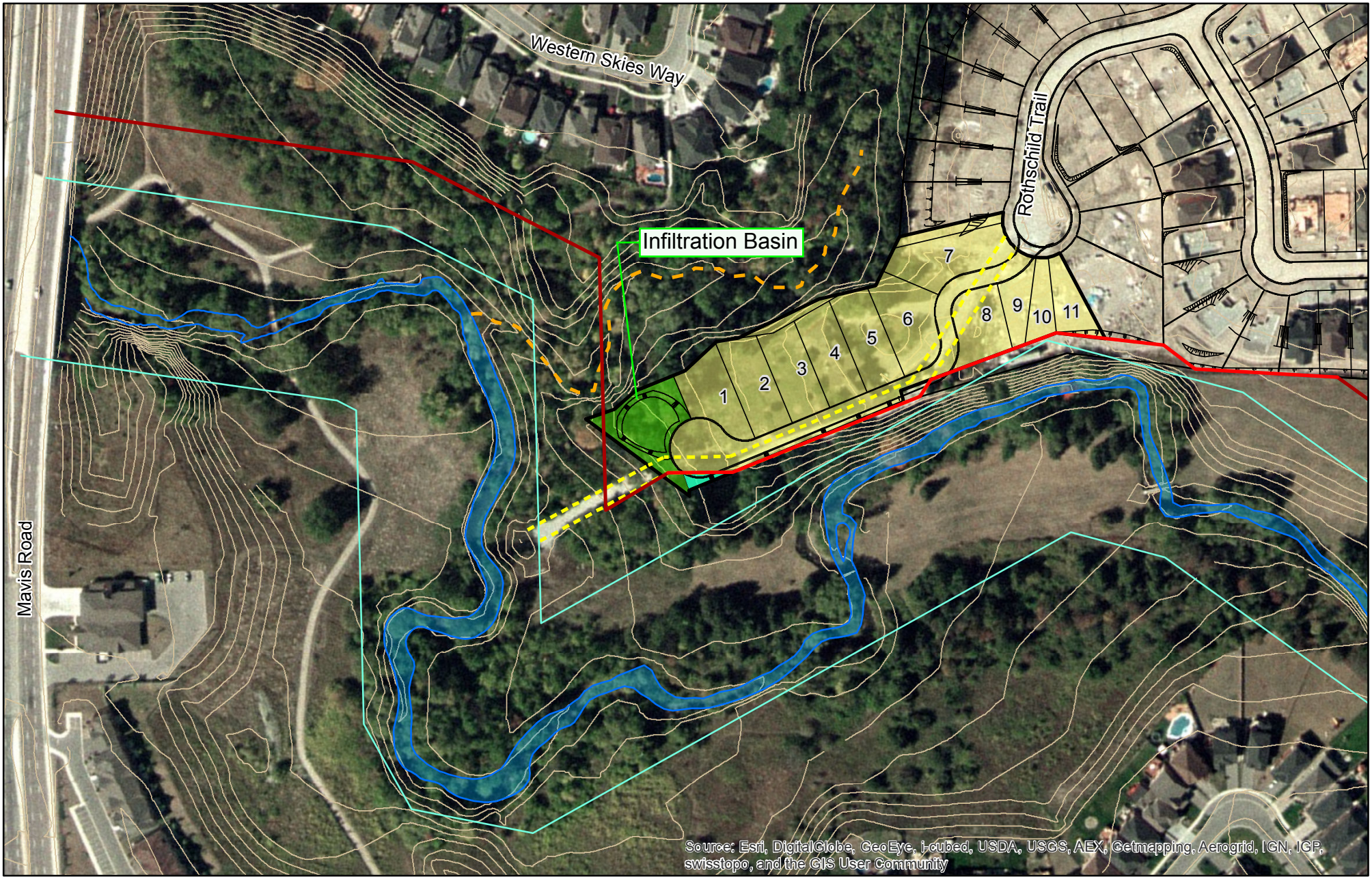
EF – Indicated that this timeline was likely achievable. Once the relevant background studies are completed, it is anticipated that a technical memo could be submitted to MNR and that the review process would be more expedient for an LOA than the formal ESA permitting process.

IK – Indicated that meeting minutes, a revised constraint map with updated site plan, and formal record of

vegetation disturbance pre-2007 would be submitted to MNR for review. If MNR is in agreement, AD will move forward with additional work and other agency approvals.

Note: The above is the writer's interpretation of the meeting minutes. Any errors or omissions should be reported to Shelley Gorenc immediately.

Shelley Gorenc, M.Sc., P.Geo.
Fluvial Geomorphologist



Legend

- 1 m Contour
- Existing Sanitary Sewer Easement
- Ravine tributary (Contributing to RSD habitat)
- Redside Dace (RSD) Regulated Habitat (30 m Riparian Area from Meander Belt Width)
- Redside Dace (RSD) Regulated Habitat (Limit of Disturbed Area)
- Area of Permanent Habitat Loss (90 m^2)
- Designated Open Space
- Limit of Development
- Meander Belt Width (80 m)
- Property Limit
- Watercourse

Meander Belt Width, Area of Permanent Habitat Loss, Designated Open Space, Limit of Development, and Redside Dace Regulated Habitat: GHD, 2014: 1 m Contour, Ravine Tributary, and Watercourse: Dougan & Associates, 2008; Imagery: ESRI World Imagery, 2007; Existing Sanitary Sewer Easement, Development Fabric, and Property Limit: Glenn Schnarr & Associates, 2014.

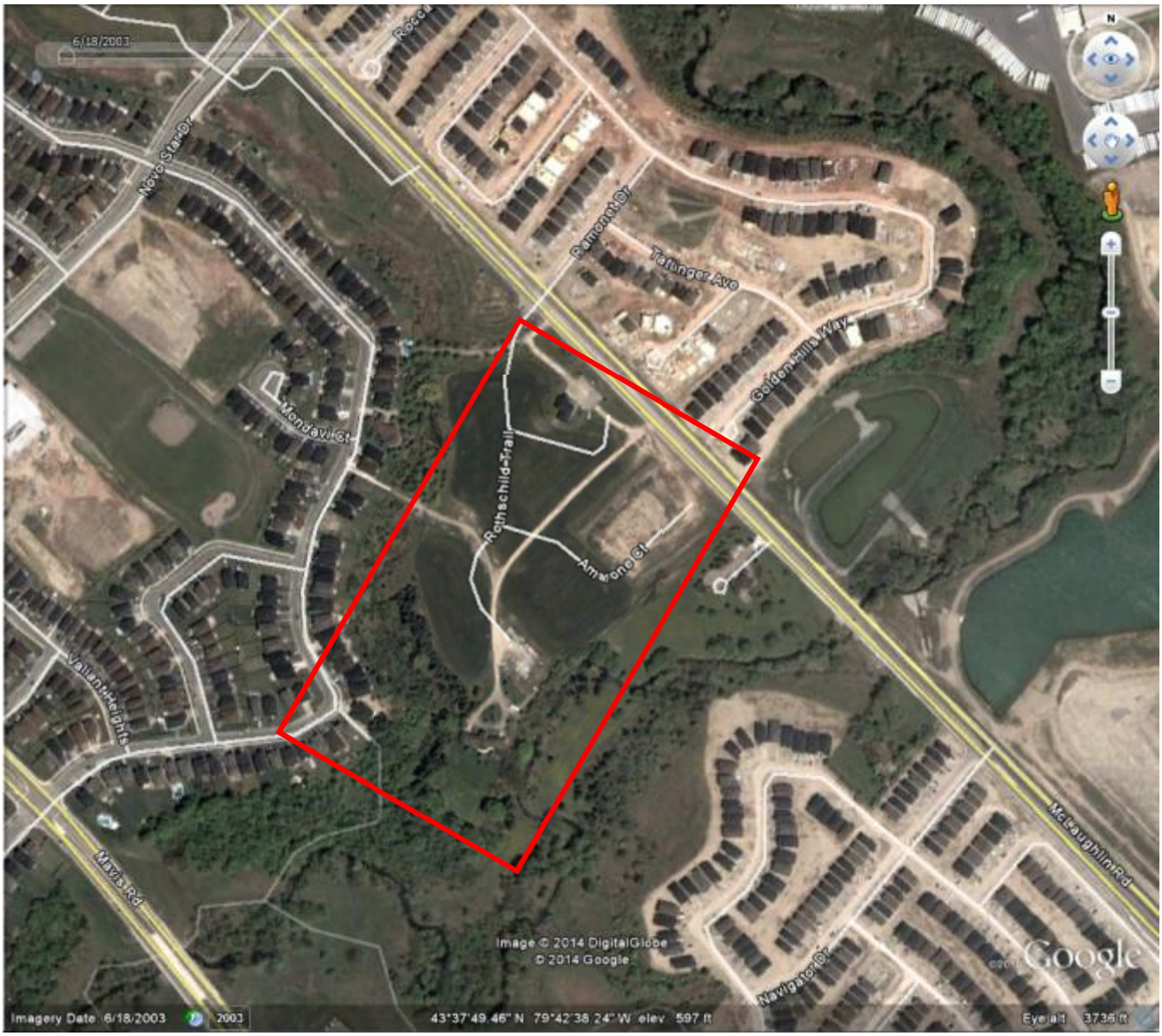
Fletcher's Creek
DiBlasio Property
Redside Dace Regulated Habitat Limit

DRAFT

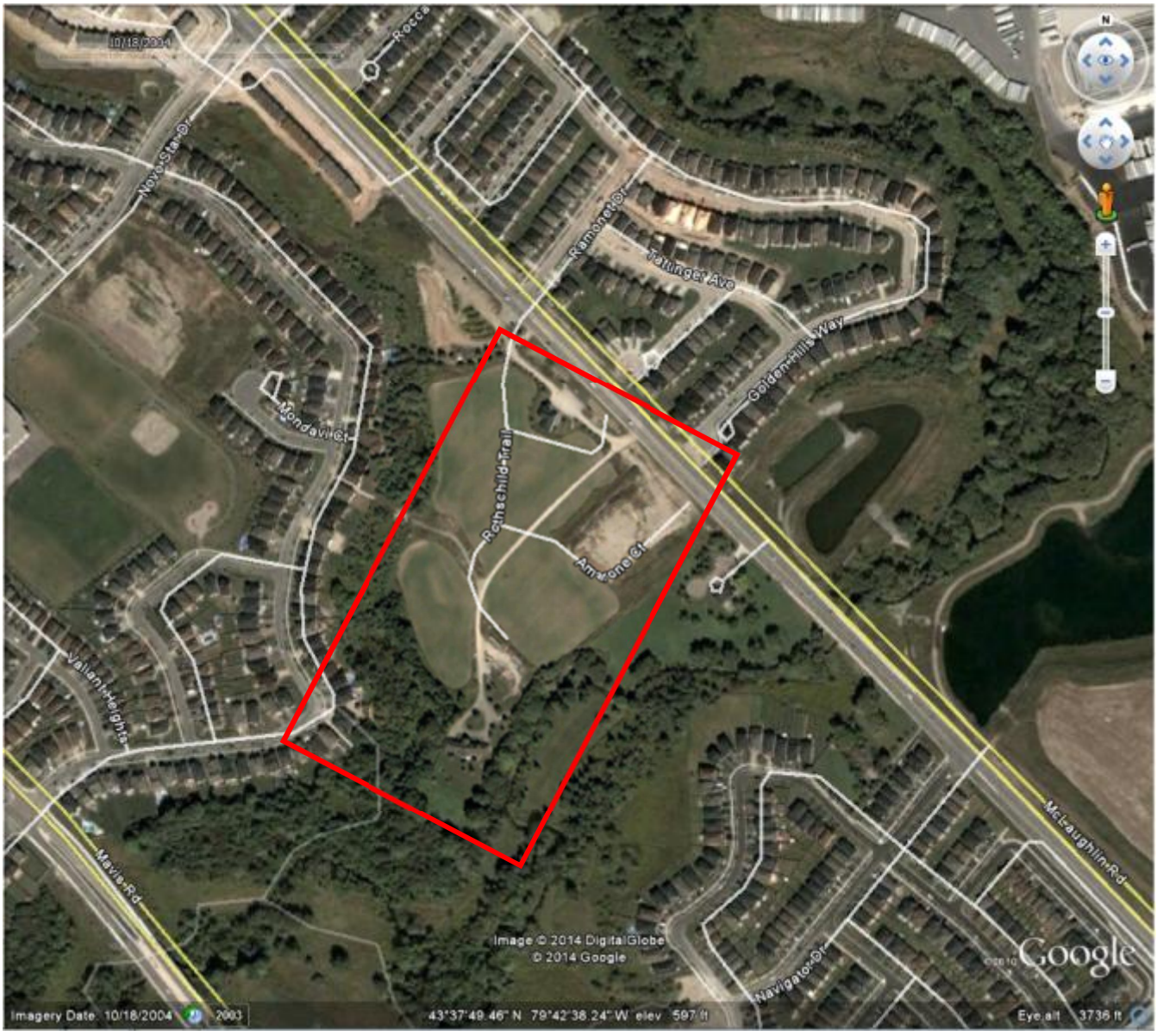
0 10 20
Metres

ATTACHMENT A	
DATE: MAY 2014	
PROJECT: 12225.450	
DRAWN BY: S.G., R.G.	

GHD

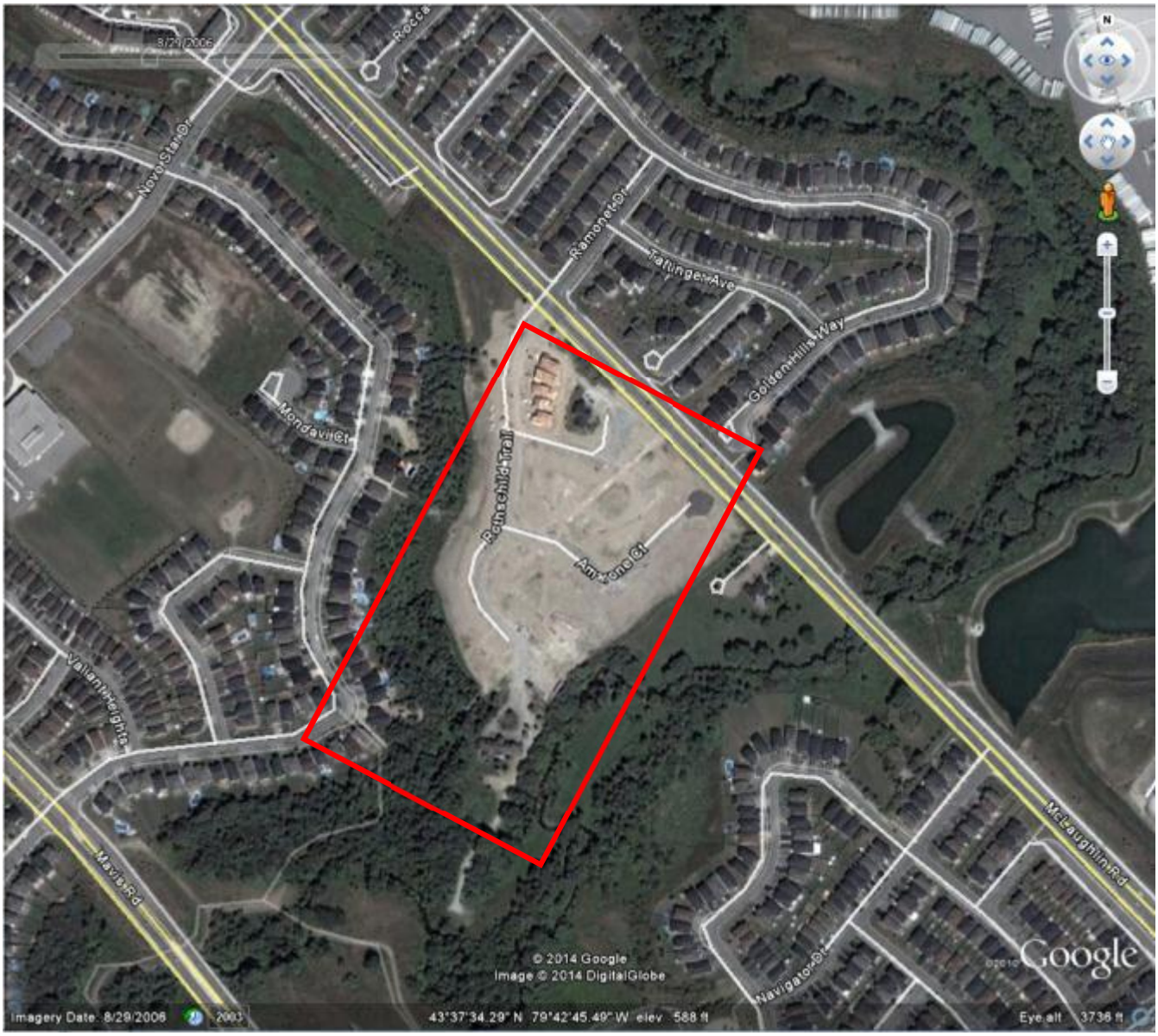


Year: 2003 Location: Mississauga, Ontario Easting: Northing:	Aerial ID: N/A Scale: N/A Source: Google Earth Pro ®

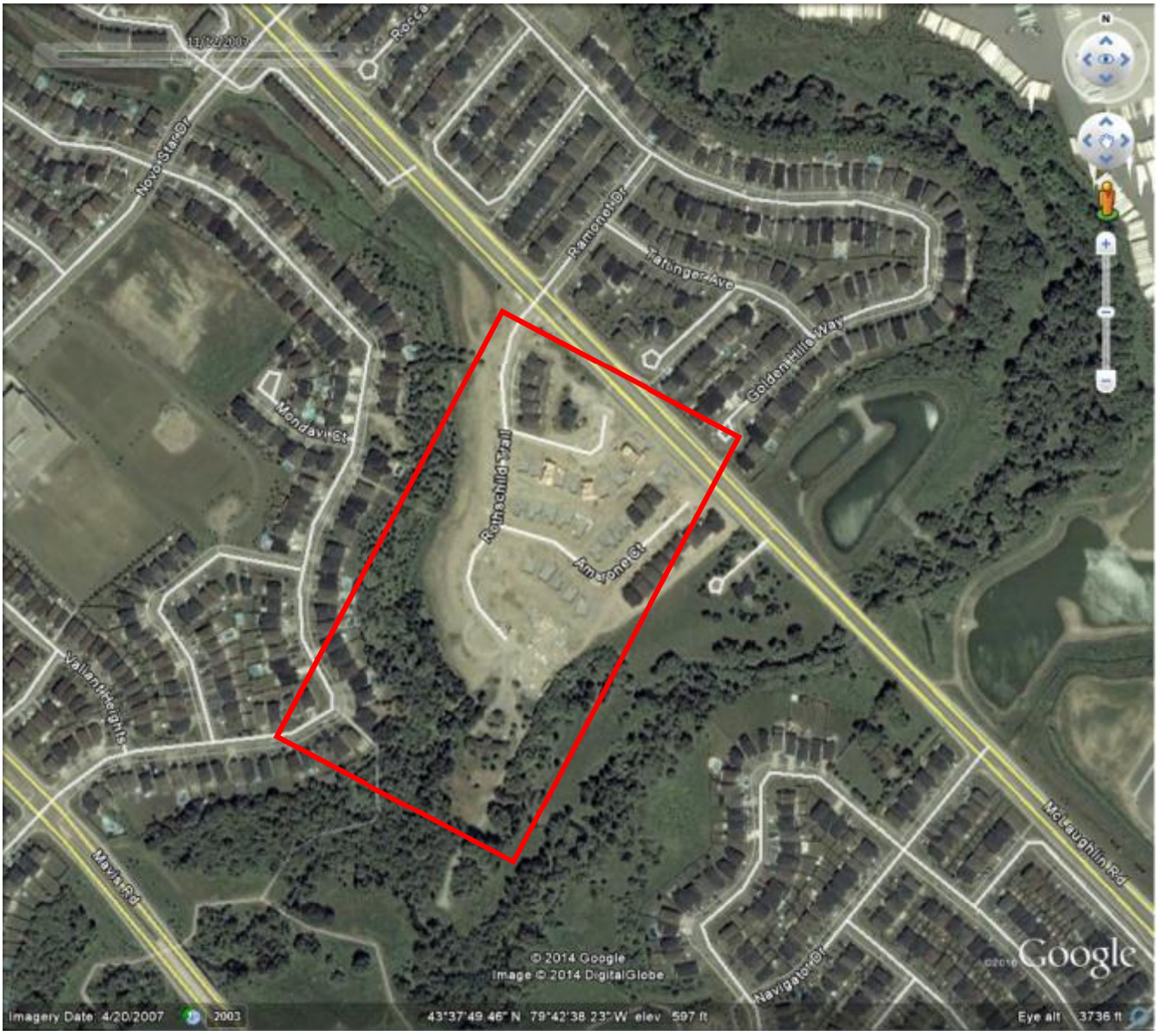


Year: 2004 Location: Mississauga, Ontario Easting: Northing:	Aerial ID: Scale: Source:

Year: 2005 Location: Mississauga, Ontario Easting: Northing:	Aerial ID: N/A Scale: N/A Source: Google Earth Pro ®



Year: 2006 Location: Mississauga, Ontario Easting: Northing:	Aerial ID: N/A Scale: N/A Source: Google Earth Pro ®



Year: 2007

Location: Mississauga, Ontario

Easting:
Northing:

Aerial ID: N/A

Scale: N/A

Source: Google Earth Pro ®

Year: 2009 Location: Mississauga, Ontario Easting: Northing:	Aerial ID: N/A Scale: N/A Source: Google Earth Pro ®

Ministry of
Natural Resources
and Forestry
Aurora District Office
50 Bloomington Road
Aurora, Ontario L4G 0L8

Ministère des
Richesses naturelles
et des Forets

Telephone: (905) 713-7400
Facsimile: (905) 713-7361

Ontario

April 26, 2017

Maureen Attard
Beacon Environmental
373 Woolwich Street
Guelph, ON N1H 3W4
519-826-0419 ext. 24
mattard@beaconenviro.com

Re: 6620 Rothschild Trail, Mississauga

Dear Maureen Attard,

In your email of February 13, 2017 you requested information regarding the above location. Apologies for the delay.

Species at risk recorded in the vicinity include Butternut (endangered) and Redside Dace (endangered, occupied habitat in Fletchers Creek). There is potential for endangered bats (i.e., Eastern Small-footed Myotis, Little Brown Myotis, Northern Myotis, Tri-colored Bat) in cavities.

Absence of information provided by MNRF for a given geographic area, or lack of current information for a given area or element, does not categorically mean the absence of sensitive species or features. Many areas in Ontario have never been surveyed and new plant and animal species records are still being discovered for many localities. Appropriate inventory work is needed depending on the undertakings proposed. Approval from MNRF may be required if work you are proposing could cause harm to any species that receive protection under the *Endangered Species Act 2007*.

Species at risk information is highly sensitive and is not intended for any person or project unrelated to this undertaking. Please do not include any specific sensitive information in reports that will be available for public record. As you complete your fieldwork in these areas, please report all information related to any species at risk to our office. This will assist with updating our database and facilitate early consultation regarding your project.

If you have any questions or comments, please do not hesitate to contact ESA.aurora@ontario.ca or Bohdan.Kowalyk@Ontario.ca.

Sincerely,

B. Kowalyk

Bohdan Kowalyk, R.P.F.
Technical Specialist, Aurora District, Ontario Ministry of Natural Resources and Forestry

Appendix C

Plant List

Appendix C

Plant List

Family Name	Scientific Name	Common Name	S-Rank
Apiaceae	*Daucus carota*	Queen Anne's Lace	SNA
Asclepiadaceae	*Asclepias syriaca*	Common Milkweed	S5
Asteraceae	*Bidens frondosa*	Devil's Beggar's Ticks	S5
Asteraceae	*Cichorium intybus*	Chicory	SNA
Asteraceae	*Erigeron canadensis*	Fleabane	S5
Asteraceae	*Euthamia graminifolia*	Grass-leaved Goldenrod	S5
Asteraceae	*Solidago altissima var. altissima*	Tall Goldenrod	S5
Asteraceae	*Solidago flexicaulis*	Broad-leaved Goldenrod	S5
Asteraceae	*Symphyotrichum lanceolatum* ssp. *lanceolatum*	Panicled Aster	S5
Asteraceae	*Symphyotrichum lateriflorum* var. *lateriflorum*	Calico Aster	S5
Asteraceae	*Symphyotrichum novae-angliae*	New England Aster	S5
Asteraceae	*Tussilago farfara*	Colt's Foot	SNA
Balsaminaceae	*Impatiens capensis*	Spotted Jewel-weed	S5
Betulaceae	*Ostrya virginiana*	Eastern Hop-hornbeam	S5
Boraginaceae	*Hackelia virginiana*	Virginia Stickseed	S5
Brassicaceae	*Alliaria petiolata*	Garlic Mustard	SNA
Brassicaceae	*Hesperis matronalis*	Dame's Rocket	SNA
Caprifoliaceae	*Lonicera tatarica*	Tartarian Honeysuckle	SNA
Cyperaceae	*Carex rosea*	Rosy Sedge	S5
Dryopteridaceae	*Dryopteris carthusiana*	Spinulose Wood Fern	S5
Fabaceae	*Gleditsia triacanthos*	Honey Locust	S2
Fabaceae	*Lotus corniculatus*	Bird's-foot Trefoil	SNA
Fabaceae	*Medicago lupulina*	Black Medic	SNA
Fabaceae	*Trifolium repens*	White Clover	SNA
Fabaceae	*Vicia cracca*	Tufted Vetch	SNA
Fagaceae	*Fagus grandifolia*	American Beech	S5
Fagaceae	*Quercus macrocarpa*	Bur Oak	S5
Fagaceae	*Quercus rubra*	Northern Red Oak	S5
Juglandaceae	*Carya cordiformis*	Bitternut Hickory	S5
Juglandaceae	*Carya ovata* var. *ovata*	Shagbark Hickory	S5
Juglandaceae	*Juglans cinerea*	Butternut	S2?
Liliaceae	*Hemerocallis fulva*	Orange Daylily	SNA
Oleaceae	*Fraxinus americana*	White Ash	S5
Oleaceae	*Fraxinus excelsior*	European Ash	SNA

Family Name	Scientific Name	Common Name	S-Rank
Oleaceae	*Fraxinus pennsylvanica*	Green Ash	S5
Pinaceae	*Picea glauca*	White Spruce	S5
Pinaceae	*Picea pungens*	Colorado Spruce	SNA
Pinaceae	*Pinus strobus*	Eastern White Pine	S5
Plantaginaceae	*Plantago major*	Nipple-seed Plantain	SNA
Poaceae	*Bromus inermis* ssp. *inermis*	Smooth Brome	SNA
Poaceae	*Phalaris arundinacea*	Reed Canary Grass	S5
Poaceae	*Poa pratensis* ssp. *pratensis*	Kentucky Bluegrass	SNA
Rhamnaceae	*Rhamnus cathartica*	Buckthorn	SNA
Rosaceae	*Crataegus* sp.	Hawthorn Species	
Rosaceae	*Fragaria virginiana*	Wild Stawberry	S5
Rosaceae	*Geum* sp.	Avens Species	
Rosaceae	*Malus* sp.	Apple Species	
Rosaceae	*Prunus virginiana* var. *virginiana*	Choke Cherry	S5
Rosaceae	*Rosa multiflora*	Multi-flora Rose	SNA
Rosaceae	*Rubus idaeus* ssp. *strigosus*	Wild Red Raspberry	S5
Salicaceae	*Populus deltoides* ssp. *deltoides*	Eastern Cottonwood	S5
Salicaceae	*Populus tremuloides*	Quaking Aspen	S5
Salicaceae	*Salix* x *fragilis*	Crack Willow	SNA
Sapindaceae	*Acer negundo*	Manitoba Maple	S5
Sapindaceae	*Acer platanoides*	Norway Maple	SNA
Sapindaceae	*Acer saccharum* var. *saccharum*	Sugar Maple	S5
Solanaceae	*Solanum dulcamara*	Climbing Nightshade	SNA
Tiliaceae	*Tilia americana*	American Basswood	S5
Ulmaceae	*Ulmus americana*	American Elm	S5
Verbenaceae	*Verbena urticifolia*	White Vervain	S5
Violaceae	*Viola sororia*	Woolly Blue Violet	S5
Vitaceae	*Parthenocissus vitacea*	Thicket Creeper	S5
Vitaceae	*Vitis riparia*	Riverbank Grape	S5

Appendix D

Bird Habitat Assessment

Appendix D

Breeding Bird Habitat Assessment

Common Name	Scientific Name	Status					Species Recorded in OBBA Square 17PJ03[f]	Potential for Habitat on Subject Property[g]	Potential for Habitat within 120 m of Subject Property[g]
		National Species at Risk COSEWIC[a]	Species at Risk in Ontario [b]	Provincial breeding season SRANK[c]	TRCA Status[d]	Area-sensitive (OMNR)[e]			
Green Heron	*Butorides virescens*			S4	L4		x		L
Canada Goose	*Branta canadensis*			S5	L5		x		M
Wood Duck	*Aix sponsa*			S5	L4		x		
Mallard	*Anas platyrhynchos*			S5	L5		x		M
Gadwall	*Anas strepera*			S4	L4		x		
Hooded Merganser	*Lophodytes cucullatus*			S5	L3		x		
Common Merganser	*Mergus merganser*			S5	L3	A	x		
Turkey Vulture	*Cathartes aura*			S5	L4		x		
Northern Harrier	*Circus cyaneus*			S4	L3	A	x		
Sharp-shinned Hawk	*Accipiter striatus*			S5	L3	A	x		M
Cooper's Hawk	*Accipiter cooperi*			S4	L4	A	x		
Red-tailed Hawk	*Buteo jamaicensis*			S5	L5		x		L
American Kestrel	*Falco sparverius*			S4	L4		x		L
Ring-necked Pheasant	*Phasianus colchicus*			SE	L+		x		
Sora	*Porzana carolina*			S4	L3		x		
Killdeer	*Charadrius vociferus*			S5	L4		x	L	M
Spotted Sandpiper	*Actitis macularia*			S5	L4		x		M
American Woodcock	*Scolopax minor*			S4	L3		x		L
Rock Pigeon	*Columba livia*			SNA	L+		x	M	H
Black-billed Cuckoo	*Coccyzus erythropthalmus*			S5	L3		x		L
Yellow-billed Cuckoo	*Coccyzus americanus*			S4	L3		x		L
Great Horned Owl	*Bubo virginianus*			S4	L4		x		L
Eastern Screech-Owl	*Megascops asio*			S4	L4		x		M
Common Nighthawk	*Chordeiles minor*	THR	SC	S4	L3		x		
Chimney Swift	*Chaetura pelagica*	THR	THR	S4	L4		x		
Ruby-throated Hummingbird	*Archilochus colubris*			S5	L4		x	L	H
Belted Kingfisher	*Ceryle alcyon*			S4	L4		x		M
Yellow-bellied Sapsucker	*Sphyrapicus varius*			S5	L3	A	x		L
Downy Woodpecker	*Picoides pubescens*			S5	L5		x	H	H
Hairy Woodpecker	*Picoides villosus*			S5	L4	A	x		H
Northern Flicker	*Colaptes auratus*			S4	L4		x		H
Pileated Woodpecker	*Dryocopus pileatus*			S5	L3	A	x		M
Eastern Wood-Pewee	*Contopus virens*	SC	SC	S4	L4		x		H
Alder Flycatcher	*Empidonax alnorum*			S5	L3		x		M
Willow Flycatcher	*Empidonax traillii*			S5	L4		x		M
Least Flycatcher	*Empidonax minimus*			S4	L3	A	x		L

Common Name	Scientific Name	Status					Species Recorded in OBBA Square 17PJ03[f]	Potential for Habitat on Subject Property[g]	Potential for Habitat within 120 m of Subject Property[g]
		National Species at Risk COSEWIC[a]	Species at Risk in Ontario [b]	Provincial breeding season SRANK[c]	TRCA Status[d]	Area-sensitive (OMNR)[e]			
Eastern Phoebe	*Sayornis phoebe*			S5	L5		x	L	M
Great Crested Flycatcher	*Myiarchus crinitus*			S4	L4		x		L
Eastern Kingbird	*Tyrannus tyrannus*			S4	L4		x	L	H
Horned Lark	*Eremophila alpestris*			S5	L3		x		
Purple Martin	*Progne subis*			S4	L4		x		
Tree Swallow	*Tachycineta bicolor*			S4	L4		x		M
N. Rough-winged Swallow	*Stelgidopteryx serripennis*			S4	L4		x		
Bank Swallow	*Riparia riparia*	THR	THR	S4	L3		x		
Cliff Swallow	*Petrochelidon pyrrhonota*			S4	L5		x		
Barn Swallow	*Hirundo rustica*	THR	THR	S4	L4		x		M
Blue Jay	*Cyanocitta cristata*			S5	L5		x	H	H
American Crow	*Corvus brachyrhynchos*			S5	L5		x	H	H
Black-capped Chickadee	*Poecile atricapillus*			S5	L5		x	H	H
Red-breasted Nuthatch	*Sitta canadensis*			S5	L4	A	x		L
White-breasted Nuthatch	*Sitta carolinensis*			S5	L4	A	x	L	M
House Wren	*Troglodytes aedon*			S5	L5		x	M	M
Winter Wren	*Troglodytes hiemalis*			S5	L3	A	x		
Blue-gray Gnatcatcher	*Polioptila caerulea*			S4	L4	A	x		L
Veery	*Catharus fuscescens*			S4	L3	A	x		
Wood Thrush	*Hylocichla mustelina*	THR	SC	S4	L3		x		
American Robin	*Turdus migratorius*			S5	L5		x	H	H
Northern Mockingbird	*Mimus polyglottus*			S4	L5		x		L
Gray Catbird	*Dumetella carolinensis*			S4	L4		x	M	H
Brown Thrasher	*Toxostoma rufum*			S4	L3		x		H
Cedar Waxwing	*Bombycilla cedrorum*			S5	L5		x	H	H
European Starling	*Sturnus vulgaris*			SE	L+		x	H	H
Warbling Vireo	*Vireo gilvus*			S5	L5		x	M	H
Red-eyed Vireo	*Vireo olivaceus*			S5	L4		x	M	M
Yellow Warbler	*Setophaga petechia*			S5	L5		x	H	H
Chestnut-sided Warbler	*Setophaga pensylvanica*			S5	L3		x		L
American Redstart	*Setophaga ruticilla*			S5	L3	A	x	L	H
Mourning Warbler	*Geothlypis philadelphia*			S4	L3		x		M
Common Yellowthroat	*Geothlyphis trichas*			S5	L4		x	L	H
Northern Cardinal	*Cardinalis cardinalis*			S5	L5		x	H	H
Rose-breasted Grosbeak	*Pheucticus ludovicianus*			S4	L4		x	L	M
Indigo Bunting	*Passerina cyanea*			S4	L4		x		M
Chipping Sparrow	*Spizella passerina*			S5	L5		x	H	H
Field Sparrow	*Spizella pusilla*			S4	L4		x		
Vesper Sparrow	*Pooecetes gramineus*			S4	L3		x		

Common Name	Scientific Name	Status					Species Recorded in OBBA Square 17PJ03[f]	Potential for Habitat on Subject Property[g]	Potential for Habitat within 120 m of Subject Property[g]
		National Species at Risk COSEWIC[a]	Species at Risk in Ontario [b]	Provincial breeding season SRANK[c]	TRCA Status[d]	Area-sensitive (OMNR)[e]			
Savannah Sparrow	*Passerculus sandwichensis*			S4	L4	A	x		
Song Sparrow	*Melospiza melodia*			S5	L5		x	H	H
Swamp Sparrow	*Melospiza georgiana*			S5	L4		x		H
White-throated Sparrow	*Zonotrichia albicollis*			S5	L3		x		
Bobolink	*Dolichonyx oryzivorus*	THR	THR	S4	L2	A	x		
Red-winged Blackbird	*Agelaius phoeniceus*			S4	L5		x	H	H
Eastern Meadowlark	*Sturnella magna*	THR	THR	S4	L3	A	x		
Common Grackle	*Quiscalus quiscula*			S5	L5		x	H	H
Brown-headed Cowbird	*Molothrus ater*			S4	L5		x	H	H
Orchard Oriole	*Icterus spurius*			S4	L5		x		L
Baltimore Oriole	*Icterus galbula*			S4	L5		x		H
House Finch	*Haemorhous mexicanus*			SNA	L+		x	M	H
American Goldfinch	*Spinus tristis*			S5	L5		x	H	H
House Sparrow	*Passer domesticus*			SNA	L+		x	H	H

Key

a - COSEWIC = Committee on the Status of Endangered Wildlife in Canada: END = Endangered, THR = Threatened, SC = Special Concern

b - Species at Risk in Ontario List (as applies to ESA) as designated by COSSARO (Committee on the Status of Species at Risk in Ontario) END = Endangered, THR = Threatened, SC = Special Concern: END = Endangered, THR = Threatened, SC = Special Concern

c - SRANK (from Natural Heritage Information Centre) for breeding status if: S1 (Critically Imperiled), S2 (Imperiled),S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure) SNA (Not applicable 'because the species is not a suitable target for conservation activities'; includes non-native species)

d - Toronto and Region Conservation Authority L rank (Dec 2010): L1 to L3 Regional species of concern from highest to lowest; L4 Urban concern; L5 Secure through region; L+ Non-native

e - Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide (Appendix G). 151 p plus appendices.

f Ontario Breeding Bird Atlas (OBBA): x – species recorded as breeding within OBBA

g - Likelihood species would be encountered on or within 120 m of the Subject Property: H – High M – Moderate L – Low

Appendix E

Wildlife Habitat Assessment

Appendix E

Mammal Habitat Assessment

Common Name	Scientific Name	SRANK[a]	SARA Status[b]	SARO Stauts[c]	Potential for Habitat On Subject Property[d]	Potential for Habitat Within 120 m Of Subject Property[d]
Little Brown Myotis	*Myotis lucifugus*	S3	END	END	L	H
Northern Myotis	*Myotis septentrionalis*	S3	END	END	L	L
Silver-haired Bat	*Lasionycteris noctivagans*	S4			M	H
Tricolored Bat	*Perimyotis subflavus*	S3?	END	END	L	L
Big Brown Bat	*Eptesicus fuscus*	S4			M	H
Eastern Red Bat	*Lasiurus borealis*	S4			L	L
Hoary Bat	*Lasiurus cinereus*	S4			M	H
Eastern Cottontail	*Sylvilagus floridanus*	S5			H	H
European Hare	*Lepus europaeus*	SNA			M	H
Eastern Chipmunk	*Tamias striatus*	S5			H	H
Eastern Gray Squirrel	*Sciurus carolinensis*	S5			H	H
Red Squirrel	*Tamiasciurus hudsonicus*	S5			M	H
Beaver	*Castor canadensis*	S5				L
Deer Mouse	*Peromyscus maniculatus*	S5			H	H
White-footed Mouse	*Peromyscus leucopus*	S5			H	H
Meadow Vole	*Microtus pennsylvanicus*	S5			H	H
Muskrat	*Ondatra zibethicus*	S5				H
Coyote	*Canis latrans*	S5				H
Red Fox	*Vulpes vulpes*	S5				L
Northern Raccoon	*Procyon lotor*	S5			H	H
American Mink	*Neovison vison*	S4				L
Striped Skunk	*Mephitis mephitis*	S5			H	H

Key

a - SRANK (from Natural Heritage Information Centre) for breeding status if: S1 (Critically Imperiled), S2 (Imperiled),S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure) SNA (Not applicable 'because the species is not a suitable target for conservation activities'; includes non-native species)

b - SARA (SARA) as designated by COSEWIC (Committee on the Status of Endangered Wildlife in Canada): END = Endangered, THR = Threatened, SC = Special Concern

c - Species at Risk in Ontario List (as applies to ESA) as designated by COSSARO (Committee on the Status of Species at Risk in Ontario)

END = Endangered, THR = Threatened, SC = Special Concern: END = Endangered, THR = Threatened, SC = Special Concern

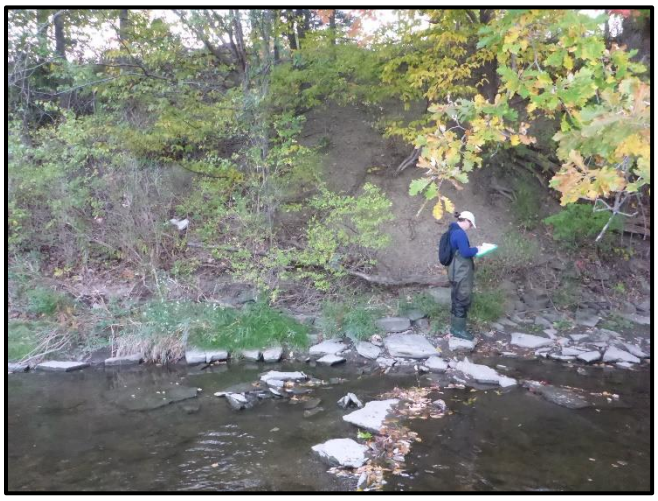
d - Likelihood species would be encountered on or within 120 m of the Subject Property: H – High M – Moderate L – Low

Appendix F

Fluvial Geomorphology Photographic Record

Photograph 1. **Photo Location 1**	**View: Downstream view of outflanked pedestrian crossing.**
Site: Reach FC-1	

Photograph 2. **Photo Location 2**	**View: Downstream view of point bar formation (left bank) and valley wall contact upstream of subject property (right bank).**
Site: Reach FC-1	



Photograph 3. **Photo Location 3**	**View: North-facing view of valley slope conditions at subject property.**
Site: Reach FC-1	

Photograph 4. **Photo Location 4**	**View: Downstream view of general conditions along reach at subject property.**
Site: Reach FC-1	

Photograph 5. Photo Location 5	View: Upstream view of lateral bar formation
Site: Reach FC-1	

Photograph 6. Photo Location 5	View: Downstream view of bank erosion and undercutting along outer meander bend.
Site: Reach FC-1	

Photograph 7. Photo Location 6	View: Evidence of basal scour (elevated tree roots) along outer bank.
Site: Reach FC-1	

Photograph 8. Photo Location 7	View: Upstream view of general conditions along riffle section. Note: evidence of basal scour observed along bank (photo left).
Site: Reach FC-1	

Photograph 9. **Photo Location 8**	**View: Upstream view of general conditions. Note: wood debris within channel**
Site: Reach FC-1	

Photograph 10. **Photo Location 9**	**View: Downstream view of point bar formation (left bank) and valley wall contact (right bank)**
Site: Reach FC-1	

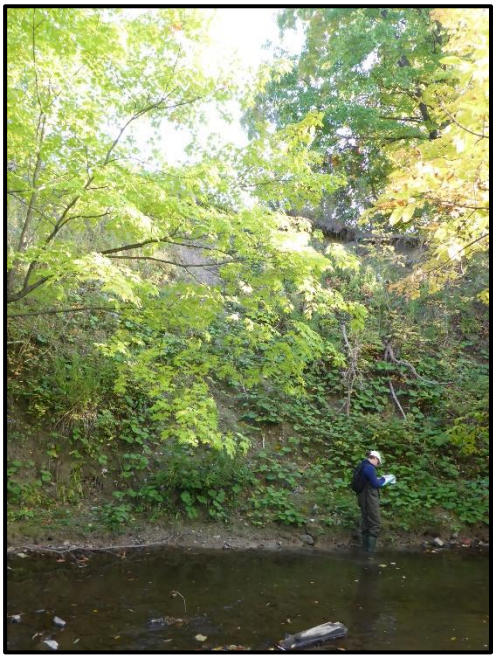
Photograph 11. **Photo Location 10**	**View: Upstream view general conditions from reach break (tributary confluence).**
Site: Reach FC-2	

Photograph 12. **Photo Location 10**	**View: Downstream view of lateral bar formation (left bank) and valley wall contact (right bank).**
Site: Reach FC-2	

Photograph 13. **Photo Location 11**	**View: Upstream view of lateral bar with chute formation (photo right).**
Site: Reach FC-2	

Photograph 14. **Photo Location 12**	**View: Downstream view of trail pedestrian crossing**
Site: Reach FC-2	

Photograph 15. **Photo Location 13**	**View: Upstream view of lateral bar formation.**
Site: Reach FC-2	



Photograph 16. **Photo Location 14**	**View: Valley wall contact point.**
Site: Reach FC-2	

Photograph 17. **Photo Location 15**	**View: Downstream view of Mavis Road crossing**
Site: Reach FC-2	

Photograph 18. **Photo Location 16**	**View: Upstream view of tributary near confluence with Fletchers Creek.**
Site: Reach FCT-1	

Photograph 19.	**View: Upstream view of general conditions.**
Site: Reach FCT-1	

Photograph 20. **Photo Location 17**	**View: Upstream view of tributary conditions adjacent to subject property. Note: channel is intermittently defined; presence of instream wood debris.**
Site: Reach FCT-1	

Photograph 21. Photo Location 18	View: Downstream view of general conditions
Site: Reach FCT-1	

Photograph 22. Photo Location 19	View: Downstream view of tributary near Amarone Court trail crossing.
Site: Reach FCT-1	

Appendix G

Draft R. Plan

PLAN OF SURVEY OF
LOT 21, 22, 23 AND 24
REGISTERED PLAN 43M–1710
BLOCK 2
REGISTERED PLAN 43M–1476
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

SCALE 1: 300

5 0 5 10 15 20 30 metres

David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS

METRIC

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

I require this plan to be deposited under the Land Titles Act

Date _____

ALISTER SANKEY
ONTARIO LAND SURVEYOR

PLAN 43R–

Received and deposited

Date _____

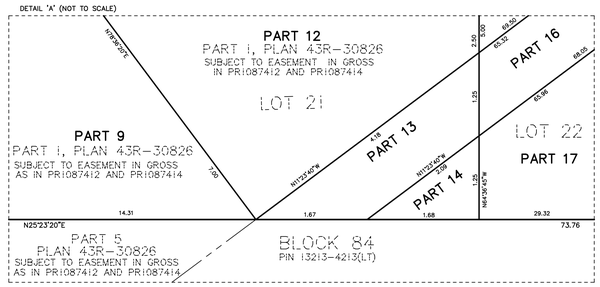
REPRESENTATIVE FOR THE LAND REGISTRAR FOR THE LAND TITLES DIVISION OF PEEL (No. 43)

SCHEDULE

PART	LOT/BLOCK	REGISTERED PLAN	PIN
1	PART OF LOT 21	43M–1710	ALL OF 13213–4238(LT)
2			
3			
4			
5	PART OF BLOCK 2	43M–1476	
6			
7	PART OF LOT 21	43M–1710	
8			
9			
10			
11			
12			
13			
14			
15	ALL OF LOT 22		ALL OF 13213–4151(LT)
16			
17			
18			
19	ALL OF LOT 23		ALL OF 13213–4152(LT)
20	ALL OF LOT 24		ALL OF 13213–4153(LT)
21			

PARTS 3, 8, 9, 12 AND 15 – SUBJECT TO EASEMENT IN GROSS AS IN PR1087412
PARTS 3, 8, 9 AND 12 – SUBJECT TO EASEMENT IN GROSS AS IN PR1087414
PART 6 – SUBJECT TO EASEMENT IN GROSS AS IN PR1087416
PARTS 1 AND 4 – SUBJECT TO EASEMENT IN GROSS AS IN PR1087410

DETAIL 'A' (NOT TO SCALE)



INTEGRATION DATA

SPECIFIED CONTROL POINTS (SCPs): UTM ZONE 17, NAD83 (ORIGINAL). COORDINATES ARE TO AN URBAN ACCURACY AS PER O. REG. 216/10, s. 14 (2).		
SPECIFIED CONTROL POINT No.	NORTHING	EASTING
SCP _____	48 ___ ___.___	___ ___.___
SCP _____	48 ___ ___.___	___ ___.___
SCP _____	48 ___ ___.___	___ ___.___
SCP _____	48 ___ ___.___	___ ___.___
COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE–ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.		

BEARING NOTE

BEARINGS SHOWN HEREON ARE GRID BEARINGS DERIVED FROM SPECIFIED CONTROL POINTS _____ AND _____ (SEE INTEGRATION DATA TABLE FOR COORDINATES), AND ARE REFERRED TO UTM ZONE 17, NAD83 (ORIGINAL).

BEARINGS ON REGISTERED PLAN 43M–1710 (P) AND 43M–1476 (P1) HAVE BEEN ROTATED 1°02'00" COUNTERCLOCKWISE TO MAKE COMPARISONS.

LEGEND

▲	DENOTES	SPECIFIED CONTROL POINT
■	DENOTES	MONUMENT FOUND
□	DENOTES	MONUMENT SET
IB	DENOTES	IRON BAR
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
OU	DENOTES	ORIGIN UNKNOWN
WIT	DENOTES	WITNESS
1225	DENOTES	DAVID B. SEARLES SURVEYING LTD.
M	DENOTES	MEASURED
P	DENOTES	REGISTERED PLAN 43M–1710
P1	DENOTES	REGISTERED PLAN 43M–1476

NOTE

PROPERTY LIMITS ARE NOT FENCED UNLESS OTHERWISE NOTED ON THE FACE OF THE PLAN.

DISTANCE NOTE

DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999709

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE *SURVEYS ACT*, THE *SURVEYORS ACT*, AND THE *LAND TITLES ACT* AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE DAY OF

DATE

PRELIMINARY

BONEY CHERIAN
ONTARIO LAND SURVEYOR

David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS
4255 Sherwoodtowne Blvd., Suite 206, Mississauga, Ontario L4Z 1Y5
Tel: (905) 273–8840 Fax: (905) 896–4410
Email: info@dbsearles.ca

Calculator	Draftsperson
KP/AV	KP
Editor	Plan Index No.
AV	B 16
Calculation File	Drawing File
75–15CALC.DWG	75–9–15.dwg
File No.	
75–9–15	

Appendix H

Grading Plan

APPLICANT'S RESPONSIBILITIES
PARKLAND PROTECTION

COMMUNITY SERVICES' NOTES:

1. THE APPLICANT IS RESPONSIBLE FOR THE INSTALLATION OF HOARDING TO PROTECT THE ADJACENT PARKLAND TO COMMUNITY SERVICES' STANDARDS.
2. THE APPPLICANT ACCEPTS RESPONSIBILITY FOR ARRANGING ALL NECESSARY PERMITS TO ENTER AND PERFORM THE REQUIRED WORKS ON PARKLAND, AS APPROVED THROUGH THE DEVELOPMENT APPLICATION.
3. THE APPLICANT WILL PROVIDE A MINIMUM OF ONE (1) WEEK WRITTEN NOTICE TO THE MANAGER OF PLANNING AND HERITAGE, AND THE MANAGER OF PARKS OPERATIONS, CITY OF MISSISSAUGA, PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES WITHIN THE ADJOINING PARKLAND, WHICH HAD BEEN APPROVED THROUGH THE DEVELOPMENT APPLICATION.
4. THE APPLICANT ACCEPTS THE RESPONSIBILITY FOR ARRANGING ALL NECESSARY REPAIRS TO AND THE REINSTATEMENT OF, THE ADJOINING PARKLAND, DUE TO DAMAGES INCURRED BY THE CONSTRUCTION WORKS ASSOCIATED WITH THIS APPLICATION. THESE WORKS WILL BE COMPLETED PRIOR TO SUBMITTING THE REQUEST FOR INSPECTION AND THE SUBSEQUENT REQUEST FOR THE RELEASE OF SECURITIES FROM THE COMMUNITY SERVICES DEPARTMENT. THE APPLICANT ACKNOWLEDGES THAT THE SECURITIES BEING HELD BY THE CITY WILL BE RELEASED ONLY UPON COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND THE REPAIRS/REINSTATEMENT WORKS FOR THE PARKLAND, TO THE SATISFACTION OF THE COMMUNITY SERVICES DEPARTMENT.

SIGNATURE OF OWNER/APPLICANT: ____________________

NAME OF OWNER/APPLICANT: ______________________

DATE: ___________________________

NOTES TO THE CONTRACTOR:

COMMUNITY SERVICES:

A. NO GRADING, STRUCTURES, RETAINING WALLS, CONSTRUCTION OR SITE/CONSTRUCTION ACCESS ARE PERMITTED ON OR FROM THE ADJACENT MUNICIPAL GREENBELT (PARKLAND).

B. THE PLACEMENT OF UNAPPROVED MATERIALS OR STRUCTURES WITHIN MUNICIPAL PARKLAND/GREENBELT IS NOT PERMITTED BY COMMUNITY SERVICES AT ANY STAGE OF DEVELOPMENT. THIS INCLUDES, BUT IS NOT LIMITED TO, TOPSOIL STOCKPILING, CONSTRUCTION TRAILERS AND VEHICLES, CONSTRUCTION MATERIALS AND DEBRIS, SALES/PROMOTIONAL TRAILERS AND SIGNAGE.

C. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PARK AND TREE PRESERVATION HOARDING IN AN APPROVED AND FUNCTIONING CONDITION AS REQUIRED BY THE DEVELOPMENT AND DESIGN DIVISION THROUGH ALL PHASES OF CONSTRUCTION.

D. IT IS THE RESPONSIBILITY OF THE APPLICANT TO ARRANGE FOR COMMUNITY SERVICES - PLANNING AND HERITAGE SECTION INSPECTIONS AND APPROVALS AS REQUIRED.

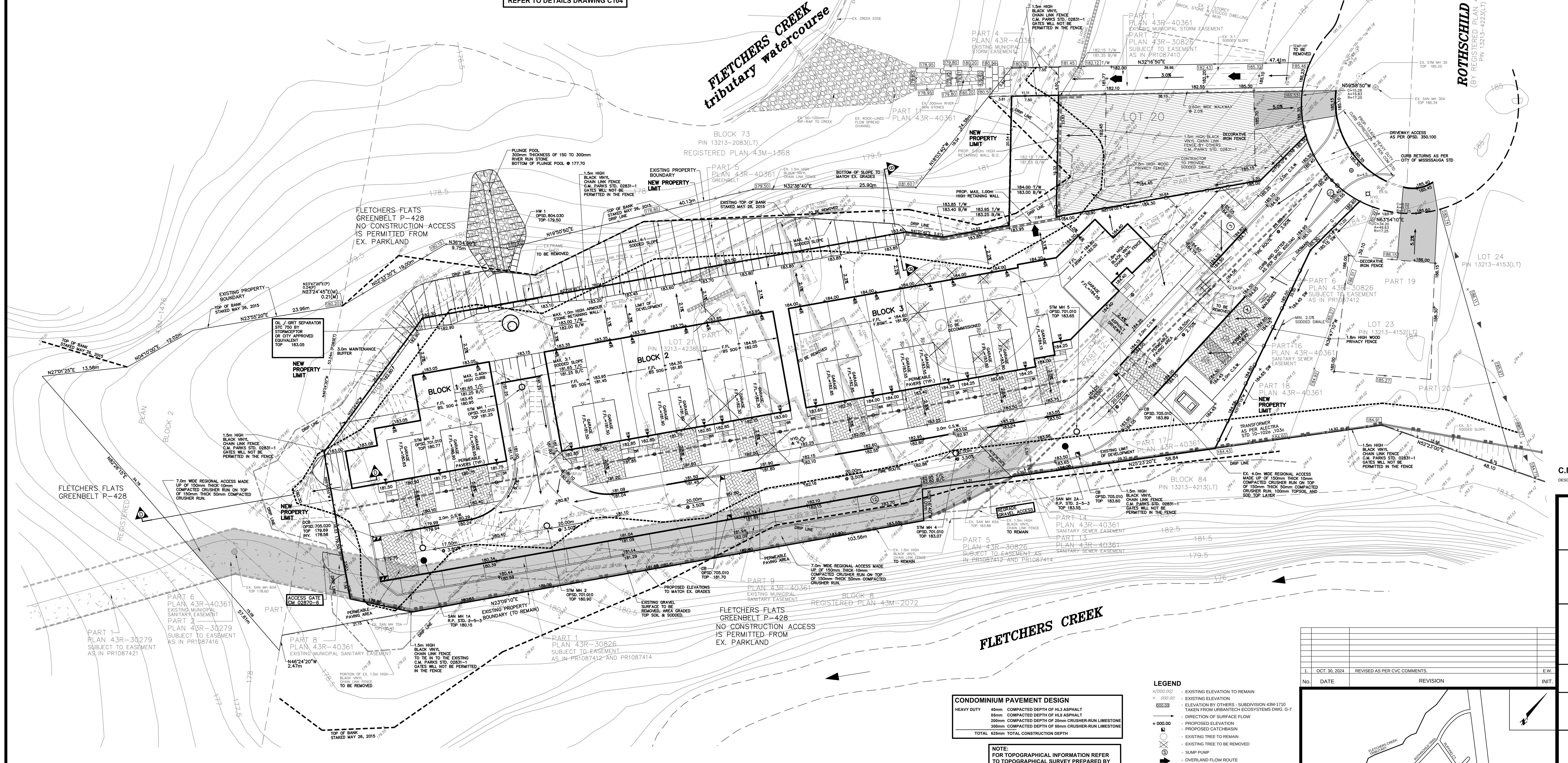
E. REMOVE CONSTRUCTION RELATED DEBRIS OR LITTER THAT HAS MIGRATED OR HAS THE POTENTIAL TO MIGRATE INTO THE ADJACENT MUNICIPALLY OWNED GREENBELT - TECUMSEH PARK. SHOULD THE CONTRACTOR/APPLICANT FAIL TO DO SO, ARRANGEMENTS WILL BE MADE TO DRAW ON THE SUBMITTED PARK PROTECTION AND REINSTATEMENT SECURITIES TO FUND PARK CLEAN-UP ACTIVITIES.

F. PRIOR TO THE RELEASE OF SECURITIES, THE COMMUNITY SERVICES DEPARTMENT IS TO INSPECT AND APPROVE ANY REQUIRED RESTORATION, REINSTATMENT AND/OR CLEAN-UP WORKS AND OFF-SITE DISPOSAL, CONDUCTED AT THE SHARED PROPERTY LINE WITH AND WITHIN TECUMSEH PARK.

NOTES

1. ALL ROOF DOWNSPOUTS FROM EAVESTROUGH TO DISCHARGE ONTO SURFACE AND THE RUNOFF DIRECTED TOWARDS THE REAR WHERE POSSIBLE AND TO THE ROAD.
2. ROOF DOWNSPOUT IS LOCATED IN SUCH A MANNER AS TO DIRECT DRAINAGE AWAY FROM WALKWAYS, DRIVEWAYS OR PATIO AREAS.
3. FOUNDATION DRAINS TO HAVE SUMP PUMP FITTED WITH BACKWATER VALVE AND DISCHARGE ONTO SURFACE AND DIRECTED TO THE ROAD.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS TO VERIFY IN THE FIELD, THE EXACT SIZE AND INVERTS OF THE EXISTING W/S, SANITARY CONNECTION AND TO REPORT THEM TO THE ENGINEER.
5. CONTRACTOR TO MATCH EXISTING GRADES ALONG PROPERTY LINE.
6. APPLICANT / BUILDER IS TO BE ADVISED THAT THE EDGE OF ALL DRIVEWAYS MUST HAVE **1.20m** CLEARANCE BETWEEN IT AND THE EDGE OF ANY ABOVEGROUND UTILITIES.
7. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR IS TO OBTAIN A ROAD CUT PERMIT FOR INSTALLATION OF ANY STORM, SANITARY AND/OR WATERSERVICE CONNECTIONS.
8. IF DURING CONSTRUCTION ANY SEPTIC SYSTEM IS DISCOVERED, THE SYSTEM MUST BE DECOMMISSIONED REMOVED IN ACCORDANCE WITH ALL APPLICABLE GUIDELINES.
9. PRIOR TO CONSTRUCTION TAKING PLACE, ALL REQUIRED HOARDING IN ACCORDANCE WITH ONTARIO OCCUPATIONAL HEALTH & SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS MUST BE ERECTED AND THEN MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.

FOR CROSS-SECTIONS A-A & B-B REFER TO DETAILS DRAWING C104



C.M. BENCHMARK No. 1050 ELEVATION: 194.056m

DESCRIPTION: A TABLET SET HORIZONTALLY AT THE BASE OF A 750mm DIAMETER CONCRETE TRAFIC POLE AT THE SOUTHEAST CORNER OF McLAUGHLIN ROAD AND ARROWSMITH DRIVE

GENERAL NOTES

1. THE CONTRACTOR IS TO CHECK AND VERIFY ALL DIMENSIONS. IF ANY DISCREPANCIES, THEY MUST BE REPORTED TO THE ENGINEER IMMEDIATELY PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. GAS, HYDRO, TELEPHONE OR ANY OTHER UTILITIES THAT MAY EXIST ON THE SITE OR WITHIN THE STREETLINES MUST BE LOCATED BY ITS OWN UTILITIES AND VERIFIED PRIOR TO CONSTRUCTION.
3. ALL CONNECTIONS SHALL BE INSTALLED AS PER MUNICIPAL STANDARDS AND SPECIFICATIONS.
4. BUILDER IS TO VERIFY TO THE ENGINEER THAT THE FINAL FOOTING ELEVATION AND TOP OF FOUNDATION WALL ELEVATION ARE IN CONFORMITY WITH THE BUILDING CODE AND THE CERTIFIED GRADING PLAN PRIOR TO PROCEEDING.
5. THE ELEVATION OF THE SIDE SWALE AT THE BUILDING LINE SHALL BE A MINIMUM OF **150mm** BELOW THE BUILDING LINE AT THE CENTRE OF THE SWALE.
6. OUTSIDE FINISHED GRADE TO BE A MINIMUM OF **150mm** BELOW BRICK VENEER ELEVATION.
7. PRIOR TO ANY SODDING, THE BUILDER IS TO ENSURE TO THE SOILS CONSULTANT AND/OR THE ENGINEER THAT THE LOT HAS BEEN GRADED AND TOPSOILED AND SODDED COMPLETELY WITH A MINIMUM DEPTH OF **100mm** OF TOPSOIL AND **NO 1**. NURSERY SOD AND A MINIMUM DEPTH OF **150mm** OF CRUSHED STONE TO BE PROVIDED ON THE ENTIRE LENGTH OF EACH DRIVEWAY ON A FIRM SUBGRADE AND THE DRIVEWAY TO BE PAVED WITH A MINIMUM COMPACTED DEPTH OF **75mm** OF ASPHALT BETWEEN THE CURB AND THE GARAGE.
8. NO SODDING ON ANY LOTS IS PERMITTED UNTIL PRELIMINARY INSPECTION IS DONE BY THE ENGINEER AND THE BUILDER.
9. AT ALL ENTRANCES TO THE SITE THE ROAD CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY, THE DRIVEWAY GRADE WILL BE COMPATIBLE WITH THE EXISTING OR FUTURE SIDEWALK AND CURB DEPRESSION WILL BE PROVIDED FOR EACH ENTRANCE.
10. DRIVEWAY GRADES SHOULD NOT BE LESS THAN **2.0%** AND NOT GREATER THAN **8%**.
11. LAWN AND SWALES SHALL HAVE A MINIMUM SLOPE OF **1.5%** (PREFERRED 2%) AND A MAXIMUM SLOPE OF **6%**.
12. WHERE GRADES IN EXCESS OF 6% ARE REQUIRED, THE MAXIMUM SLOPE SHALL BE 3:1. GRADE CHANGES IN EXCESS OF 1.0m ARE TO BE ACCOMPLISHED BY USE OF A RETAINING WALL. RETAINING WALLS HIGHER THAN 0.6m SHALL HAVE A FENCE INSTALLED ON THE HIGH SIDE.
13. THE SERVICE CONNECTION TRENCH WITHIN THE TRAVELLED PORTION OF THE ROAD ALLOWANCE SHALL BE BACKFILLED WITH UNSHRINKABLE BACKFILL MATERIAL AS PER **C.M. STDS. 2220.030, 2220.031 AND 2220.032** UNLESS OTHERWISE SPECIFIED PRIOR APPROVAL FOR OTHER BACKFILL MATERIAL HAS BEEN OBTAINED.
14. ALL WATERMAINS AND WATER SERVICE MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO CURRENT MUNICIPAL STANDARDS & SPECIFICATIONS.
15. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MIN. DEPTH OF **1.7m** WITH A MIN. HORIZONTAL SPACING OF **1.2m** FROM THEMSELVES AND OTHER UTILITIES.
16. SEDIMENT CONTROL FENCE TO BE INSTALLED AS PER **C.M. STD. 2940.010**.
17. ALL DAMAGED AND DISTURBED AREAS TO BE REINSTATED WITH TOPSOIL AND SOD.

FIRE DEPARTMENT

1. FIRE ROUTE WILL BE DESIGNATED AS PER CITY OF MISSISSAUGA **BYLAW (1036-81)** AS AMENDED PRIOR TO OCCUPANCY OF THE BUILDINGS.
2. FIRE ROUTES TO BE DESIGNED TO WITH STAND A LOAD NOT LESS THAN **11,363Kg**. PER AXLE AND HAVE A CHANGE IN GRADIENT OF NOT MORE THAN **1 IN 12.5** OVER A DISTANCE **15.0m** AS PER **BY LAW 1036-81**.
3. ALL **12.0m** TURNING RADII HAVE MIN. CLEARANCE OF **3.0m** BETWEEN THE CENTRE LINE OF TURNING RADII AND ANY CURB OR PART OF BUILDING.
4. PRIVATE FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOUR CODED IN CONFORMANCE WITH THE REGION OF PEEL "UNIFORM MARKING OF HYDRANTS".

ROADS

1. ALL FILL WITHIN ROAD ALLOWANCE AND EASEMENTS TO BE COMPACTED TO MIN **95%** STANDARD PROCTOR DENSITY. THE SUITABILITY AND COMPACTION OF ALL FILL MATERIALS TO BE CONFIRMED BY A RECOGNIZED SOIL CONSULTANT TO THE CITY ENGINEER AND THE SUBGRADE OF ALL ROADWAYS SHALL BE PROOF ROLLED UNDER THE SUPERVISION OF THE SOILS CONSULTANT PRIOR TO THE INSTALLATION OF ANY ROAD BASE MATERIALS.
2. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO AND DURING CONSTRUCTION. LOCATION OF EXISTING UTILITIES, WATERMAINS, SEWERS AND OTHER UNDERGROUND OR ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE DRAWINGS. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR MUST EXAMINE THE ACCURACY OF SUCH EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN OR NOT AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM. ANY DISCREPANCIES TO LOCATION OF EXISTING WATERMAINS AND SEWERS TO BE RECTIFIED AT DEVELOPER/ CONTRACTOR'S EXPENSE.
3. THE DEVELOPER/CONTRACTOR MUST ENSURE THAT A SUBGRADE CERTIFICATE IS ISSUED BY THE GEOTECHNICAL SOILS CONSULTANT TO THE ENGINEER. ONLY UPON VERIFICATION AND APPROVAL OF THE SUBGRADE BY THE LOCAL AUTHORITY INSPECTION DEPARTMENT WILL COMMENCEMENT OF ANY ROAD BASE MATERIALS BE PLACED. FAILURE TO FOLLOW THIS PROCEDURE WILL MEAN THE REMOVAL OF ROAD BASE MATERIALS AND/OR ADDITIONAL TESTING THAT PROPER COMPACTION HAS BEEN ACHIEVED AT THE SUBGRADE AT DEVELOPER/CONTRACTOR'S EXPENSE.
4. TRENCH BACKFILLING ON PROPOSED ROADS SHALL COMPLY WITH CITY OF MISSISSAUGA **SECTION 4.02.06** - (TRENCH BACKFILLING ON ROADS) AS PROVIDED IN THE CITY'S DEVELOPMENT REQUIREMENT MANUAL.
   a) THE TOP **1000mm** OF THE SUBGRADE IS TO BE COMPACTED TO A MINIMUM **98%** OF SPD WITHIN **2%** OF THE OPTIMUM MOISTURE CONTENT.
5. ALL CONNECTIONS WITHIN PAVED PORTION OF ANY EXISTING ROAD TO BE BACKFILLED WITH UNSHRINKABLE BACKFILL MATERIAL AS PER **C.M. STDS. 2220.030, 2220.031 AND 2220.032**, UNLESS OTHERWISE SPECIFIED PRIOR APPROVAL FOR OTHER BACKFILL MATERIAL HAS BEEN OBTAINED.
6. ALL OTHER EXCAVATIONS WITHIN EXISTING ROAD ALLOWANCE SHALL BE BACKFILLED TO SUBGRADE ELEVATION WITH GRANULAR 'C' MATERIAL AND COMPACTED TO A MINIMUM OF **95%** STANDARD PROCTOR DENSITY. SURFACE RESTORATION SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITION IN ACCORDANCE WITH **O.P.S.S. 507**
7. CURB TO BE AS PER **O.P.S.D. 600.110** UNLESS OTHERWISE NOTED.
8. SUBDRAIN UNDERNEATH ALL CURBS TO BE MINIMUM **100dia.** AS PER **C.M. STDS. 2220.040 AND 2220.05** AND ON EXISTING ROADS.
9. ALL DISTURBED AREAS WITHIN EXISTING ROAD ALLOWANCE TO BE REINSTATED WITH TOPSOIL AND SOD TO THE SATISFACTION OF CITY OF MISSISSAUGA.
10. SIDEWALKS TO BE AS PER **C.M. STD. 2240.010** AND PEDESTRIAN RAMPS TO BE PROVIDED AT ALL INTERSECTIONS AS PER **C.M. STDS. 2240.020 AND 2240.030.**

REGISTERED PROFESSIONAL ENGINEER
ROMAN T. KERKUSZ
OCT. 30/24
PROVINCE OF ONTARIO

CONDOMINIUM PAVEMENT DESIGN

HEAVY DUTY	40mm	COMPACTED DEPTH OF HL3 ASPHALT
	85mm	COMPACTED DEPTH OF HL8 ASPHALT
	200mm	COMPACTED DEPTH OF 20mm CRUSHER-RUN LIMESTONE
	300mm	COMPACTED DEPTH OF 50mm CRUSHER-RUN LIMESTONE
TOTAL	625mm	TOTAL CONSTRUCTION DEPTH

NOTE:
FOR TOPOGRAPHICAL INFORMATION REFER TO TOPOGRAPHICAL SURVEY PREPARED BY DAVID B. SEARLES SURVEYING LTD

NOTE:
FOR ADDITIONAL INFORMATION, DETAILS, DIMENSIONS AND CONFORMITY TO THE SITE PLAN, THE CONTRACTOR MUST REFER TO THE ARCHITECTURAL SITE PLAN PREPARED BY: RN DESIGN

NOTES

1. THE APPLICANT WILL BE REQUIRED TO CONTACT ALL UTILITY COMPANIES TO OBTAIN ALL REQUIRED LOCATES PRIOR TO THE INSTALLATION OF HOARDING WITHIN THE MUNICIPAL RIGHT OF-WAY.
2. SNOW FENCING / HOARDING ADJACENT TO ALL EXISTING PROPERTIES MUST BE ERECTED AND MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.

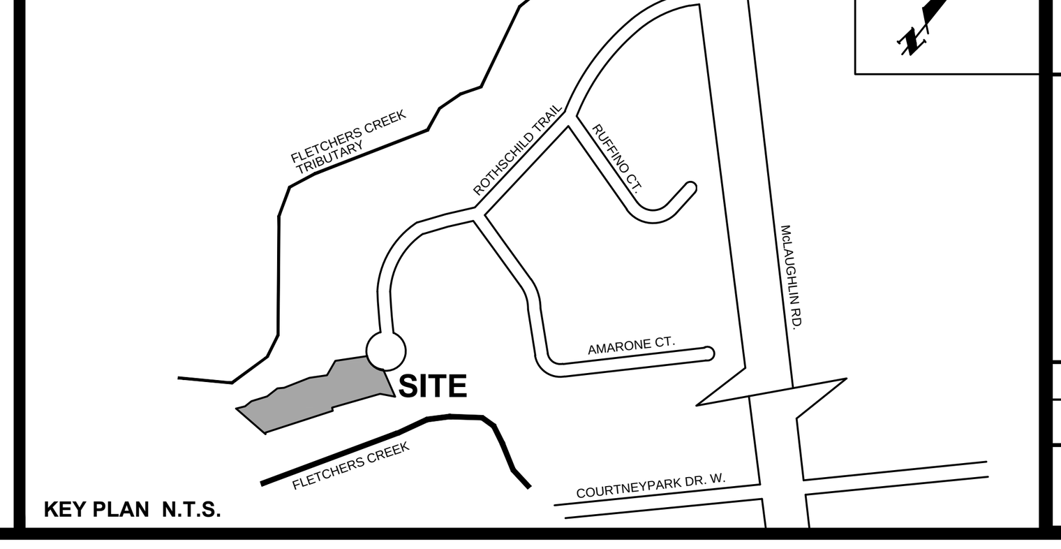
LEGEND

- ×(000.00) - EXISTING ELEVATION TO REMAIN
- × 000.00 - EXISTING ELEVATION
- 000.00 - ELEVATION BY OTHERS - SUBDIVISION 43M-1710 TAKEN FROM URBANTECH ECOSYSTEMS DWG. G-7
- → - DIRECTION OF SURFACE FLOW
- +000.00 - PROPOSED ELEVATION
- PROPOSED CATCHBASIN
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- S - SUMP PUMP
- OVERLAND FLOW ROUTE

SITE DATA

ZONING	RESIDENTIAL
SITE AREA	0.9287 ha
ROOF AREA	0.1939 ha
LANDSCAPE AREA	0.5868 ha
PAVED/CONCRETE AREA	0.1480 ha
LAND DEDICATION	0.2600 ha

No.	DATE	REVISION	INIT.
1.	OCT. 30, 2024	REVISED AS PER CVC COMMENTS.	E.W.



KEY PLAN N.T.S.

SKIRA & ASSOCIATES LTD.
CONSULTING ENGINEERS
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Tel. (905) 276-5100 Fax. (905) 270-1936 Email - info@skiraconsult.ca

RN DESIGN
WWW.RNDESIGN.COM
T:905-738-3177
WWW.THEPLUSGROUP.CA

PROPOSED TOWNHOUSES

LOT 21, 22 REG. PLAN 43M-1710

6620 ROTHSCHILD TRAIL

Di BLASIO HOMES

6620 ROTHSCHILD TRAIL, MISSISSAUGA, ON L5W 0A6 TEL:(905)890-2263

MISSISSAUGA

SITE GRADING PLAN

DATE: APRIL 2024	AREA: Z-44W	DWG.No. C102
SCALE: 1:300	DRAWN BY: E.W.	
CITY FILE: OZ 19/010	REGION FILE:	PROJECT No. 224-M15