Environmental Impact Study for proposed development at 2666 Tenth Line Road, Ottawa, Ontario
Report

Final Report

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Submitted to :
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1.0 INTRODUCTION

This Environmental Impact Study (EIS) was prepared by Kilgour & Associates Ltd. (KAL; Appendix A) on behalf of EXP Services in support of a proposed development at 2666 Tenth Line Road in Ottawa, Ontario ("the Site"; Figure 1). The proposed development would comprise a two-story elementary school and its associated infrastructure (i.e., parking lot, soccer field, sidewalks etc.). The Site is bisected by McKinnon's Creek. The development area within the Site ("Project Area") is located entirely on the eastern side of McKinnon's Creek, and as such this EIS addresses the potential impacts to natural heritage therein.

Within the Mer Bleue Urban Expansion Area Community Design Plan, the Project Area was proposed to be developed as High Density Residential; however, proposed construction of an elementary school in this area triggered a Zoning By-law Amendment, and as such, an EIS is required under this amendment (Appendix B). The purposes of an EIS are to:

- Identify natural heritage features on or adjacent to the project area;
- Assess potential impacts of the proposed development to existing features; and,
- Recommend mitigation measures to minimize or eliminate identified impacts.

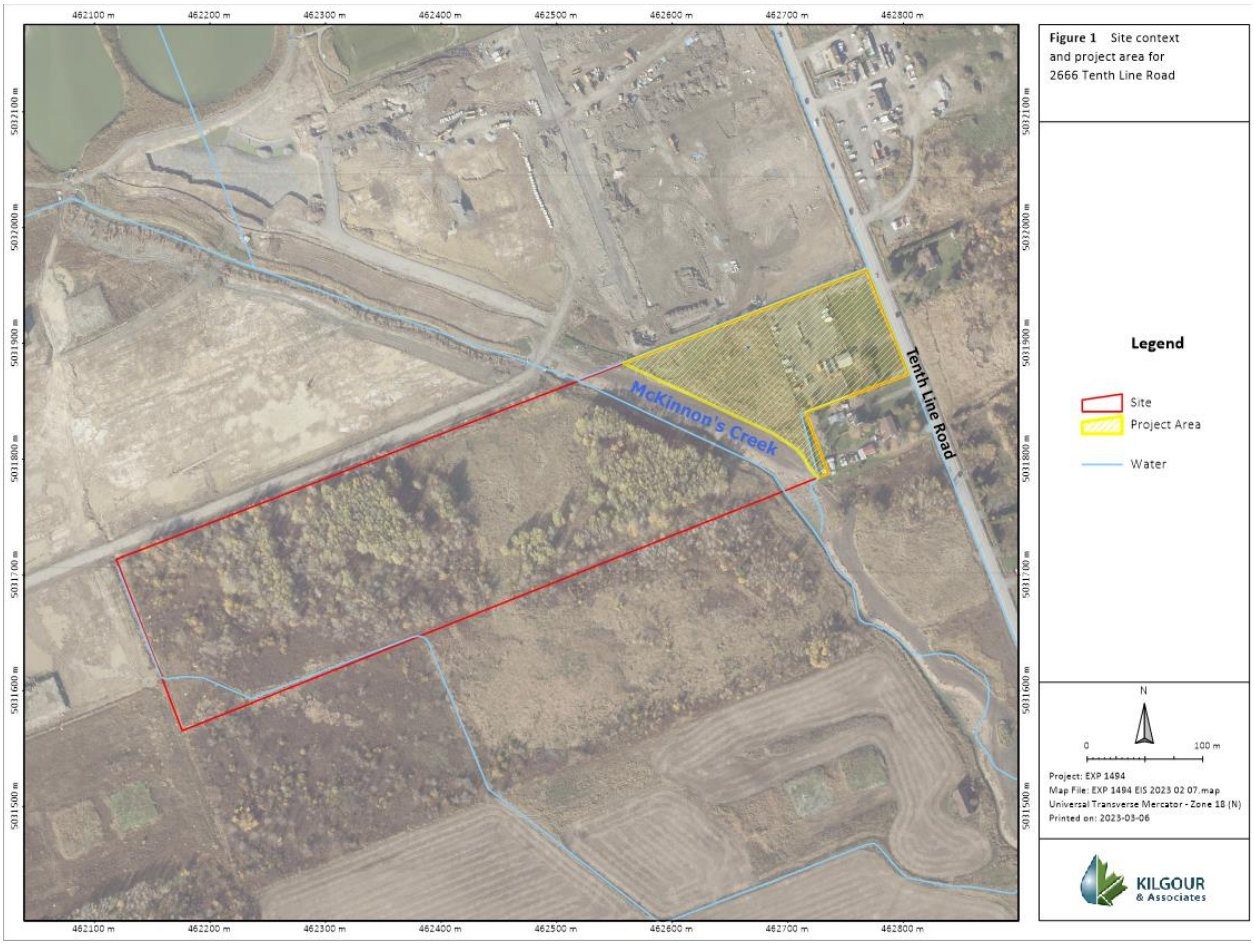


Figure 1 Site context for 2666 Tenth Line Road

2.0 ENVIRONMENTAL POLICY CONTEXT

Natural heritage policies and legislation relevant to this EIS are outlined below.

2.1 City of Ottawa Official Plan

The City of Ottawa Official Plan (2021) provides direction for future growth in the City and is a policy framework to guide physical development to 2031. The Official Plan was developed in accordance with the PPS (and relevant provincial legislation). The City of City of Ottawa reviews development applications within its boundaries in accordance with the Official Plan.

2.2 *Conservation Authorities Act*, 1990

Conservation Authorities were created to address erosion, flooding, and drought concerns regionally by managing at the watershed level. Conservation Authorities were given the ability to regulate under Section 28 of the *Conservation Authorities Act* (Government of Ontario, 1990b). The Act provides mechanisms to regulate works and site alterations that have potential to affect erosion, flooding, land conservation, and alterations to waterbodies within their jurisdiction. It is the obligation of all Conservation Authorities to implement Ontario Regulations 42/06 and 146/06 to 182/06 *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* under Section 28 of the Conservation Authorities Act for relevant works.

2.3 Ontario Regulation 174/06

Section 2(1)(b) states no person shall undertake development or permit another person to undertake development in or on areas within the jurisdiction of the Authority, that include river or stream valleys, the limits of which are determined in accordance with the following:

- Where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 meters, to a similar point on the opposite site; and,

- Where the river or stream valley is apparent and has unstable slopes, the valley extends from the predicted long term stable slope projected from the existing stable slope or, If the toe of the slope is unstable, from the predicted location of the toe of the slope as a result of stream erosion over a projected 100-year period, plus 15 meters, to a similar point on the opposite side.

2.4 The Provincial Policy Statement, 2020

The Provincial Policy Statement (PPS) was issued under Section 3 of the *Planning Act* (Government of Ontario, 1990a). The current PPS came into effect May 1, 2020 (Government of Ontario, 2020). Natural features are afforded protections under Section 2.1 of the PPS. Protections may include maintenance, restoration, and improved function of diversity, connectivity, ecological function, and biodiversity of natural heritage systems. These protections restrict development and site alteration in significant natural areas (e.g., woodlands, wetlands, wildlife habitat) unless it can be demonstrated that there will be no negative effects on the features and ecological functions of those natural areas. Technical guidance for implementing the natural heritage policies of the PPS is found within the second edition of the *Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005* (NHRM:

Ministry of Natural Resources (MNR), 2010). This manual recommends the approach and technical criteria for protecting natural heritage features and areas in Ontario.

2.5 *Species at Risk Act*, 2002

The federal *Species at Risk Act* (SARA; Government of Canada, 2002) is administered by Environment and Climate Change Canada (ECCC) and provides direction to protect and ensure the survival of wildlife species in Canada. The purpose of the SARA is to prevent populations of wildlife from becoming Extirpated, Endangered, or Threatened, provide recovery Endangered or Threatened species, and to manage other species to prevent them from becoming Endangered or Threatened.

All species listed on Schedule 1 of SARA are afforded protection on federal lands. Aquatic species and species of migratory birds protected by the *Migratory Birds Convention Act* (MBCA; 1994) and listed as Endangered, Threatened, or Extirpated under Schedule 1 of SARA are protected wherever they occur in Canada, regardless of land ownership.

2.6 *Endangered Species Act*, 2007

The provincial *Endangered Species Act* (ESA; Government of Ontario, 2007) is administered by the Ministry of Environment, Conservation, and Parks (MECP) and provides protection for species at risk (SAR) and their habitat. The ESA states that it is illegal to harm the habitat of species listed as Extirpated, Endangered, and Threatened. It is also illegal to kill, harm, harass, possess, transport, buy or sell Extirpated, Endangered, and Threatened species, whether it is living or dead. Species listed as Endangered, Threatened, or Extirpated and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation, and migration) are automatically afforded legal protection under the ESA.

2.7 *Fisheries Act*, 1985

The federal *Fisheries Act* (Government of Canada, 1985) is administered by Fisheries and Oceans Canada (DFO) and provides protections to fish, fish habitat, and fisheries. Specifically, the *Fisheries Act* in its current version provides:

- Protection for all fish and fish habitat
- Prohibition against the "harmful alteration, disruption or destruction of fish habitat"
- Prohibition against causing "the death of fish by means other than fishing"

Projects with a scope that does not fall within DFO's defined standards and codes of practice require submission of a request for review to DFO.

2.8 *Migratory Birds Convention Act*, 1994

Nesting migratory birds are protected under the MBCA (Government of Canada, 1994). No work is permitted that would result in the destruction of active nests (nests with eggs or young birds) or the wounding or killing of bird species protected under the MBCA and/or associated regulations (e.g., SARA). The "incidental take" of migratory birds and the disturbance, destruction, or taking of the nest of a

migratory bird is prohibited. “Incidental take” is the killing or harming of migratory birds due to actions that are not primarily focused on taking migratory birds (e.g., economic development) and no permits exist for the incidental take of migratory birds or their nest/eggs as a result of activities that are not focused on taking migratory birds. These prohibitions apply throughout the year. The Government of Canada has compiled nesting calendars that apply across Canada that can be used to greatly reduce the risk of harming/destroying active nests by ensuring works that may impact nests are performing outside of the nesting period.

Effective July 30, 2022, a list of 18 species of migratory birds identified on Schedule 1 of the MBCA are provided year-round nest protection until they can be deemed abandoned. The Schedule includes this list for birds that re-se their own nest from one year to the next. If the nest of a Schedule 1 species has not been occupied by a migratory bird for the entirety of the waiting time indicated in the MBCA, it is considered to be abandoned, and to no longer have high conservation value for migratory birds.

2.9 *Fish and Wildlife Conservation Act*, 1997

The provincial *Fish and Wildlife Conservation Act* (FWCA; Government of Ontario, 1997) governs the hunting and trapping of a variety of wildlife including mammals, birds, reptiles, amphibians, and fish in Ontario, thereby facilitating the protection of wildlife and their habitat. The FWCA outlines the prohibition of hunting or trapping specially protected species and the requirement for provincially issued licenses for the hunting or trapping of “furbearing” or “game” animals. Examples of specifically protected animals include, for example, Southern Flying Squirrel (*Glaucomys 5olans*), Northern Harrier (*Circus cyaneus*), American Kestrel (*Falco sparverius*), Blue Jay (*Cyanocitta cristata*), Midland Painted Turtle (*Chrysemus picta marginata*), Northern Watersnake (*Nerodia sipedon*) and Gray Treefrog (*Hyla versicolor*). In particular, raptors that are not protected under the MBCA (including Peregrine Falcon) are protected under the FWCA.

3.0 PROPERTY IDENTIFICATION

The Site is 10.31 ha in size and is located at 2666 Tenth Line Road in Orleans, Ontario (Latitude: 45.438708°, Longitude: -75.479207°; Figure 1). The Site is bisected by McKinnon’s Creek, and the Project Area on the eastern side of the creek consists of a meadow community, a gravel parking lot, and a single detached dwelling. The western side of the creek is dominated by forest and meadow communities. The Site is bordered by residential homes to the north, and forest and agriculture to the east, west, and south. The Project Area is approximately 1.85 ha with setbacks from McKinnon’s Creek. Per the Mer Blue Urban Expansion Area Community Design Plan (CDP), the Project Area) was proposed to be developed as High Density Residential. The proposed construction of an elementary school in this area, however, triggered a Zoning By-law Amendment, to rezone it as I1-Minor Institutional.

4.0 METHODOLOGY

4.1 Desktop and Background Data Review

4.1.1 Background Review

Background information was obtained from online databases and geographic information system mapping applications to review relevant information. Aerial imagery was used to identify existing features and confirm information found in the background review. Background information was obtained from available resources, which include:

- Species at Risk in Ontario (SARO; Ministry of Environment, Conservation, and Parks (MECP, 2022);
- Species at Risk Public Registry (Government of Canada, 2022);
- Natural Heritage Information Centre (NHIC; Ministry of Natural Resources, and Forestry (MNRF, 2022a);
- Land Information Ontario (MNRF, 2022b);
- Aquatic Species at Risk Map (DFO, 2022);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019);
- Ontario Breeding Birds Atlas (Birds Canada et al., 2009);
- Ontario Butterfly Atlas (Toronto Entomologists' Association, 2022);
- eBird (Cornell Lab of Ornithology, 2022a);
- iNaturalist (California Academy of Sciences and National Geographic Society, 2022);
- Bumble Bee Watch (Wildlife Preservation Canada et al., 2022);
- Recovery Strategy for the Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Ontario (Humphrey and Fotherby, 2019);
- Recovery Strategy for the Eastern Small-footed Myotis (*Myotis leibii*) in Ontario (Humphrey, 2017); and,
- Fish ON-Line (MNRF, 2022c).

4.1.2 Agency Consultation

The review of existing information included a preliminary SAR screening for species listed under the federal SARA and provincial ESA. The screening identified SAR having some potential to occur on or near the Site. The screening was completed following the *Draft Client's Guide to Preliminary Screening for*

Species at Risk (MECP, 2019a). The results of the screening were sent to MECP on January 16, 2022, to confirm the information collected (Appendix C). A response had not yet been received at the time of writing this report, though it is considered unlikely that MECP would indicate potential for SAR beyond those already considered in this EIS.

The Site is located within the jurisdictions of the South Nation Conservation Authority (SNC) and the City of Ottawa. Within their watershed, SNC regulates watercourses, Provincially Significant Wetlands and the 120 metre (m) radius surrounding them, unevaluated and locally significant wetlands associated with watercourses and the surrounding 30 m, and other natural hazards including floodplains and unstable slopes. The City of Ottawa Environmental Policy comments within the pre consultation meeting require that the EIS will address the following items:

- Explore the hazard lands and floodplain required for the stretch of McKinnon's Creek adjacent to the Site;
- Draw recommendations from the EMP (Mer Bleue Urban Expansion Study Area- Environmental Management Plan, Morrison-Hershfield Ltd, Dec2017);
- Draw recommendations for revegetation and enhancements to the riparian areas along McKinnon's Creek
- Identify potential significant habitat for threatened and endangered species;
- Provide recommendations to increase energy and water efficiency based on landscaping and layout, as per OP 4.9; and,
- If there is a substantial glass proposed on the design, recommend drawing design elements from the City's bird-safe design guidelines (Sept 2020; Appendix B).

4.1.3 Ecological Land Classification

Vegetation communities in the Project Area were identified and mapped in the field based on Ecological Land Classification (ELC) methods for Ontario (Lee et al., 1998). This method provides a consistent approach to identify, describe, and map vegetation communities or physiographic features on the landscape based on dominant plant species and soil composition. It results in a standardized description of each vegetation community to capture the natural diversity and variability of communities within a site, and to provide insight into available habitat and the type of species that may be present. More specifically, the classifications from ELC provide a basis for determining whether potential habitat for a given SAR or other ecological value may be present.

An Ecological Land Classification (ELC) for the broader area around the Site was initially completed by Muncaster Environmental Planning Inc. in 2014 (Morrison Hershfield Limited. 2017) identifying the Site as being part of an Agricultural/Cultural Ecosite. While Cultural Meadow is evident in that ELC mapping across the rear (west side) of the Site, the Muncaster study did not specifically delineate the more developed sections (i.e. industrial/parking and residential yard) adjacent to Tenth Line Road. A review of

available aerial and street view imagery, completed at that start of this current study, was used to initially re-delineate the Site into ecosite area based on visually apparent variation in land cover, topography, and vegetation structure. A brief site survey was completed by KAL Biologist Rob Hallett on February 10, 2023 to review the review the proposed ecosite delineation. While that survey was "out of season", the developed areas at the front of the site were clearly visible, and there was no evidence of vegetation changes (i.e. either tree growth with forest succession or vegetation losses due to land development) within areas previously defined as cultural meadow.

A follow-up field survey was completed on May 19, 2023 (i.e., "in season") by KAL Biologist Kurtis Westbury to identify vegetation communities present within the delineated ecosites. Representative photos of each ELC unit in the Project Area were taken and are included with the community descriptions in this report.

5.0 EXISTING CONDITIONS

5.1 Landform, Soils, and Geology

The Site was characterized as relatively flat, with a gentle slope towards McKinnon's Creek. Soils in the broader area of the Site are classified as part of Bearbrook and Rideau – a heavy clay marine material with poor drainage and silty clay (Schut and Wilson, 1987). The Site was previously re-graded for agricultural purposes, so slope has been altered.

5.2 Surface Water

Existing data show that there are four surface water features on or adjacent to the Project Area (Figure 2). The largest watercourse is McKinnon's Creek, an approximate 4 m wide drainage feature that bisects the property and flows from northwest to southeast crossing Tenth Line Road north of Wall Road. The creek conveys overflow surface water from Avalon Pond, a stormwater management facility ~500 m north of the Site. The watercourse is located within the McKinnon's Creek Watershed and drains to Bear Brook Municipal Drain, and ultimately to South Nation River. Subwatershed Studies conducted on McKinnon's Creek by South Nation Conservation (Clean Water Committee, 2018), LIO, and consultant reports (Morrison Hershfield Limited, 2017; Bowfin Environmental/ CIMA+, 2022) show that the fish community present in this section of the creek is representative of a cool-warm to warm community (SNC, 2018).

The Mer Bleue Environmental Management Plan (Morrison-Hershfield Ltd., 2017) described the applicable setbacks relevant to McKinnon's Creek as guided by the City of Ottawa's Official Plan.

Per the City's current OP Policy 4.9.3:

> *1) The minimum setback from surface water features shall be the development limits as established by a Council-approved watershed, subwatershed or environmental management plan.*

However,

2) Where a Council-approved watershed, subwatershed or environmental management plan does not exist, or provides incomplete recommendations, the minimum setback from surface water features shall be the greater of the following:

a) Development limits as established by the conservation authority's hazard limit, which includes the regulatory flood line, geotechnical hazard limit and meander belt;

b) Development limits as established by the geotechnical hazard limit in keeping with Council-approved Slope Stability Guidelines for Development Applications;

c) 30 metres from the top of bank, or the maximum point to which water can rise within the channel before spilling across the adjacent land; and

d) 15 metres from the existing stable top of slope, where there is a defined valley slope or ravine

For this project, both the Mer Bleue Environmental Management Plan (herein, "MBEMP"; Morrison-Hershfield Ltd., 2017), and the City's current OP are thus both considered as follows:

- Considering point c) above, the MBEMP calls for a 30 m setback from the normal high-water mark ("NMHM"). For the reach of the creek adjacent to the Site, the normal high-water mark is effectively the same as the maximum point to which water would before spilling rises within the channel across the adjacent land, i.e. it is equivalent the top of the bank of the channel as defined in the OP, which also requires a 30 m setback.
- The 100 – year floodplain [i.e. per point a) above] is regulated by South Nation Conservation. The MBEMP notes that that regulatory floodplain in effect that the time of its writing (i.e. 2017) was out date, and so provided special considerations to be applied until such time as the floodplain was properly updates. The floodplain remapping has since been completed (Appendix D); setbacks as discussed in this report thus consider the current (i.e. as of 2023) regulatory floodplain.
- Several considerations are associated with the top-of-valley slope. This line was surveyed by Annis O'Sullivan Vollebekk Ltd. (Edward J, 2022).
- In consideration of the geotechnical limits of hazard [i.e. in both point a) and b) above]:
  - The limit of hazard lands for the adjacent reach as established by Paterson Group (2018) consists of an 8 m setback from top-of valley slope.
  - However, per point d) above, both the MBEMP and the OP call for a 15 m setback from top-of-valley slope regardless.
- Points a) and b) above combine consideration of the regulatory flood line, geotechnical hazard limit and meander belt. Of greatest of these measures, is the 30 m from the normal high-water mark, as well as the 60.9 m wide meander established in MBEMP.

Following the above review, the required setback for this project is thus the greatest of:

- A 30 m from NMHM/top-of-bank for the channel;
- A 15 m from the top-of-slope for the valley;
- The regulatory floodplain; and
- The meander belt.

The composite setback, and the four constituent components upon which is based, are indicated in Figure 2.

Several headwater features were investigated during the CDP phase and from these studies it was determined that none were direct fish habitat. The second watercourse on the project area is mentioned throughout the Mer Bleue Expansion Environmental Management Plan (MBEEMP) as "Drain 14" (Morrison Hershfield Limited, 2017). This feature was a 266 m straight, dug channel directing water from east to west from Tenth Line Road into McKinnon's Creek along the northern boundary of the project area. Initial MBEEMP conducted in 2015 did not capture any fish, and as such, it was concluded that the drain does not provide direct fish habitat (Morrison Hershfield Limited, 2017). As part Summerside South construction (lands adjacent to the northern border of the project area), this drain was filled in. The removal of the headwater features within the project area were reviewed by DFO in 2016 and a Letter of Advice (LoA) was obtained (DFO File 16-HCAA-00053). Compensation habitat was constructed on the southern bay of Avalon Pond (stormwater management facility) and approved by SNC as an adequate compensation for the infill of the feature. Following this study, an HDFA conducted by Bowfin Environmental (2020) approved by SNC confirmed that Drain 14 had been removed.

The third watercourse on the project area is an ~200 m unnamed drainage feature along the southern border of the property. No surface water was observed during the project area visit. However, Phragmites were observed on both the February 10th and May 19th surveys throughout the feature indicating an ephemeral or intermittent feature. This watercourse is mapped by GeoOttawa; however, it was not addressed in the SNC approved Environmental Management Plan and Community Development Plan, as well as the HDFA conducted by Bowfin Environmental (2020) for this area and as such is not addressed further in this EIS.

The fourth watercourse on the project area is a drainage feature on Tenth Line Road and runs alongside the eastern property boundary. This straight dug channel directs water from north to south along Tenth Line Road until it reaches McKinnon's Creek ~430m south of the project area. Similarly to the third watercourse, this watercourse is mapped by GeoOttawa; however, it was not addressed in the SNC approved Environmental Management Plan and Community Development Plan, as well as the HDFA conducted by Bowfin Environmental (2020) for this area and as such is not addressed further in this EIS.

5.3 Vegetation Cover (Ecological Land Classification)

Three distinct terrestrial ELC units were delineated within the project area (Figure 2) a meadow community, manicured lawn, as well as a parking lot. Aerial imagery was used to determine a forest community located on the west side of McKinnon's Creek. Previous studies have listed that forested area to be representative of a dry-fresh poplar deciduous forest (Morrison Hershfield Limited, 2017); however, the proposed development will occur on the east side of the creek, and as such, is not considered throughout this EIS. The ELC designation below is used in subsequent analyses to identify potential habitats that may be used by species of interest (i.e., SAR) occurring or potentially occurring on the project area.

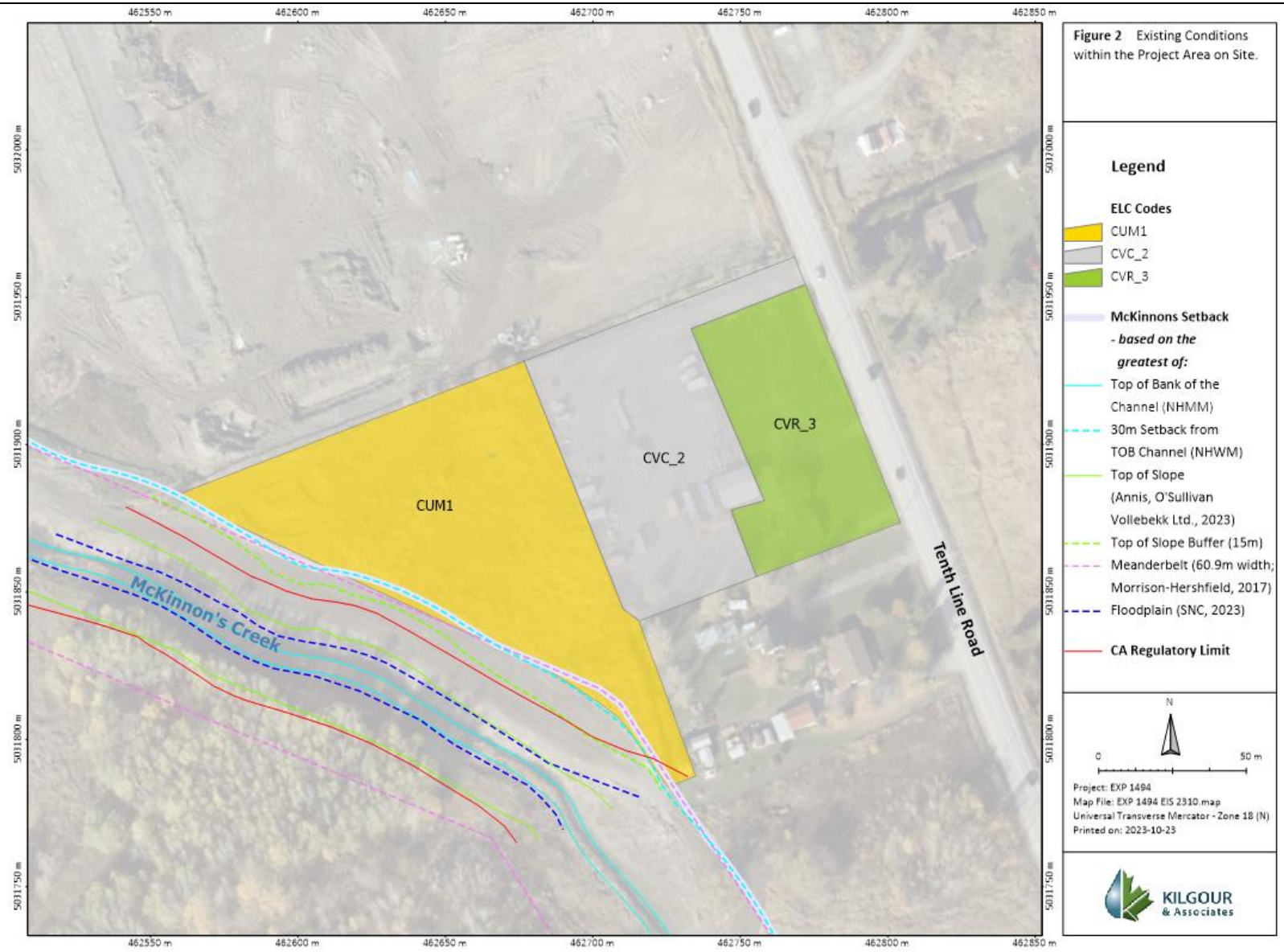


Figure 2 Existing Conditions within the Project Area on Site

5.4 Cultural Meadow (CUM1)

A Cultural Meadow ecosite (CUM1) is located on the western portion of the east side of the lot abutting the parking lot as well as McKinnon's Creek (Figure 3). A Manitoba Maple (*Acer negundo*), American Elm (*Ulmus americana*), and Black Locust (*Robinia pseudoacacia*) are located in the northern edge of the property and discussed further in the Tree Conservation Report for this property (Appendix E).

Figure 3 Cultural Meadow (CUM1) ecosite within the project area adjacent to McKinnon's Creek. Photo taken May 19, 2023

5.5 Light Industry (CVC_2)

Within the eastern side of the property, a parking lot with few temporary buildings are representative of the ELC code Light Industry (CVC_2). There is no vegetation within this ecosite.

5.6 Single Family Residential (CVR_3)

A Single Family Residential (CVR_3) is located on the eastern extent of the property adjacent to Tenth Line Road. This ecosite has a manicured lawn left to grow fallow with three trees on the southern property boundary.

5.7 Species at Risk

An assessment of species listed under SARA and ESA was completed to identify species having some potential to occur on or near the project area, including Extirpated, Endangered, Threatened, and Special Concern species. Species listed as Extirpated, Endangered, and Threatened are afforded species and habitat protection under the ESA. Federal protections under SARA are always in force for listed species of fish and migratory birds. For species of other groups, SARA normally only applies on federal lands or on projects having some level of participation with or oversight by the federal government. However, SARA-based protections can be imposed by ministerial order on a case-by-case basis in situations where provincial-level protections are deemed inadequate to otherwise protect a species. Such protections are not expected to apply to the project area.

The SAR assessment evaluated whether the project area would or could provide suitable habitat for SAR and whether they have potential to interact with future development of the project area. An assessment of the potential for SAR and their potential habitat was completed based on the results of the field surveys, ELC (i.e., habitat availability), and a desktop review that considered known species ranges, historic observation records, and preferred habitat requirements of these species (Appendix F). A total of 12 SAR were identified with some potential (low/moderate/high) to occur on or within 120 m of the project area. Of those, five SAR had a moderate to high potential to occur on the project area and/or interact with the project (Table 1). Those with a moderate potential are known to occur within 10 kilometres (km) of the project area, and suitable habitat for the species occurs on the project area. SAR with a high potential are those that are known to occur on or adjacent to the project area (i.e., were observed by KAL during field surveys), with suitable habitat for the species on the project area. All other SAR with potential to occur in the region based on their documented ranges, occurrence records, and/or suitable habitat availability were assessed as having a low, negligible, or no potential to occur on the project area due to lack of occurrence records and/or suitable habitat (Appendix F).

Table 1 Species at Risk with a moderate or high potential to interact with the project

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Potential to Interact with Development of the project area
Birds			
Bobolink (*Dolichonyx oryzivorus*)	**Threatened**	**Threatened**	Moderate
Eastern Meadowlark (*Sturnella magna*)	**Threatened**	**Threatened**	Moderate
Reptiles			
Eastern Milksnake (*Lampropeltis triangulum*)	**Not Listed**	**Special Concern**	Moderate
Arthropods			
Monarch (*Danaus plexippus*)	**Special Concern**	**Special Concern**	Moderate

Yellow-banded Bumble Bee (*Bombus terricola*)	**Special Concern**	**Special Concern**	Moderate

[1] Rows highlighted in yellow indicated species ranked as Threatened or Endangered under the ESA that have a moderate to high likelihood of occurring on the project area.

SAR presented in Table 1 that are not listed or are listed as Special Concern under the ESA are not considered further as SAR in this report because they do not receive individual or habitat protection under the ESA (whereas Threatened and Endangered species do). However, individuals of these species are protected under other regulations addressing wildlife conservation generally, such as the FWCA, MBCA, and the PPS. In addition, species listed as Special Concern under the ESA may receive habitat protection if they are observed in habitats that meet the criteria for designation as SWH for Special Concern Species (MNRF, 2015a). Species of Species Concern will be discussed with SWH in Section 7.4. The remainder of this EIS focuses on species ranked as Threatened or Endangered under the ESA with a moderate to high likelihood of occurring on the project area (i.e., species highlighted in yellow in Table 1 above).

5.8 Significant Natural Heritage Features

The Site does not contain Significant Woodlands, Significant Valleylands, Earth/Life Science areas of Natural and Scientific Interest, or potentially significant wildlife corridors or greenspace linkages.

The Site is within a general Urban Area and is part of the Mer Bleue Urban Expansion Area 10 Community Design Plan. This document established the Natural Heritage System along McKinnon's Creek to maintain a corridor (Morrison Hershfield Limited, 2017). Additionally, within Schedule B8 and C11-C of the City of Ottawa Official Plan, McKinnon's Creek is identified as an Urban Natural feature and is protected as greenspace (City of Ottawa, 2012, 2022).

Significant Wildlife Habitat (SWH) was assessed based on the MNRF's guidelines and criteria for the identification of SWH in ecoregion 6E (MNRF, 2015a). SWH are identified based on the presence of certain habitat types (identified through ELC codes) and the presence and/or groupings of certain species (Appendix F).

Table 2 Summary of the types of Significant Wildlife Habitat associated with the Site

Type of Significant Wildlife Habitat (candidate/ confirmed)	Rationale
Special Concern and Rare Wildlife Species (candidate)	The Site contains suitable habitat for three species listed as Special Concern under the ESA (Table 1). The presence of any of these species in suitable habitat would indicate SWH for Special Concern and Rare Wildlife Species. The species include Eastern Milksnake, Monarch, and Yellow-banded Bumble Bee.
	The forest and meadow habitat occurring on the western side of the property could potentially provide suitable habitat for the Eastern Milksnake. The meadow community on Site could provide habitat for Monarch. There was no Milkweed observed during the Site visit; however, Milkweed is present in the area and if it is present in the summer could provide habitat on Site. Additionally, the meadow community adjacent to off Site farmlands could provide suitable habitat for the Yellow-banded Bumble Bee

[1] MNRF identifies candidate SWH based on ELC ecosite codes and habitat criteria (MNRF, 2015a). Confirmed SWH is identified by MNRF as meeting defining criteria (e.g., obtained through specific studies). Note that protection of either candidate or confirmed SWH is the decision of the municipality.

6.0 DESCRIPTION OF THE PROJECT

The proposed project is an elementary school that will encompass the majority of the Site east of McKinnon's Creek (the project area; Figure 4). The Site plan includes the construction of a two-story elementary school with associated infrastructure such as a parking lot, sidewalks, and a soccer field within the development envelope (Appendix G).

The proposed project respects the largest of the four setbacks including the 30m from NMHM/ top-of-bank for the channel, 15 m from the top-of-slope for the valley, the 1-100 year regulatory floodplain, and the 60.9m meander belt as required under the Mer Blue Urban Expansion Area 10 Community Design Plan (Morrison Hershfield Limited, 2017).

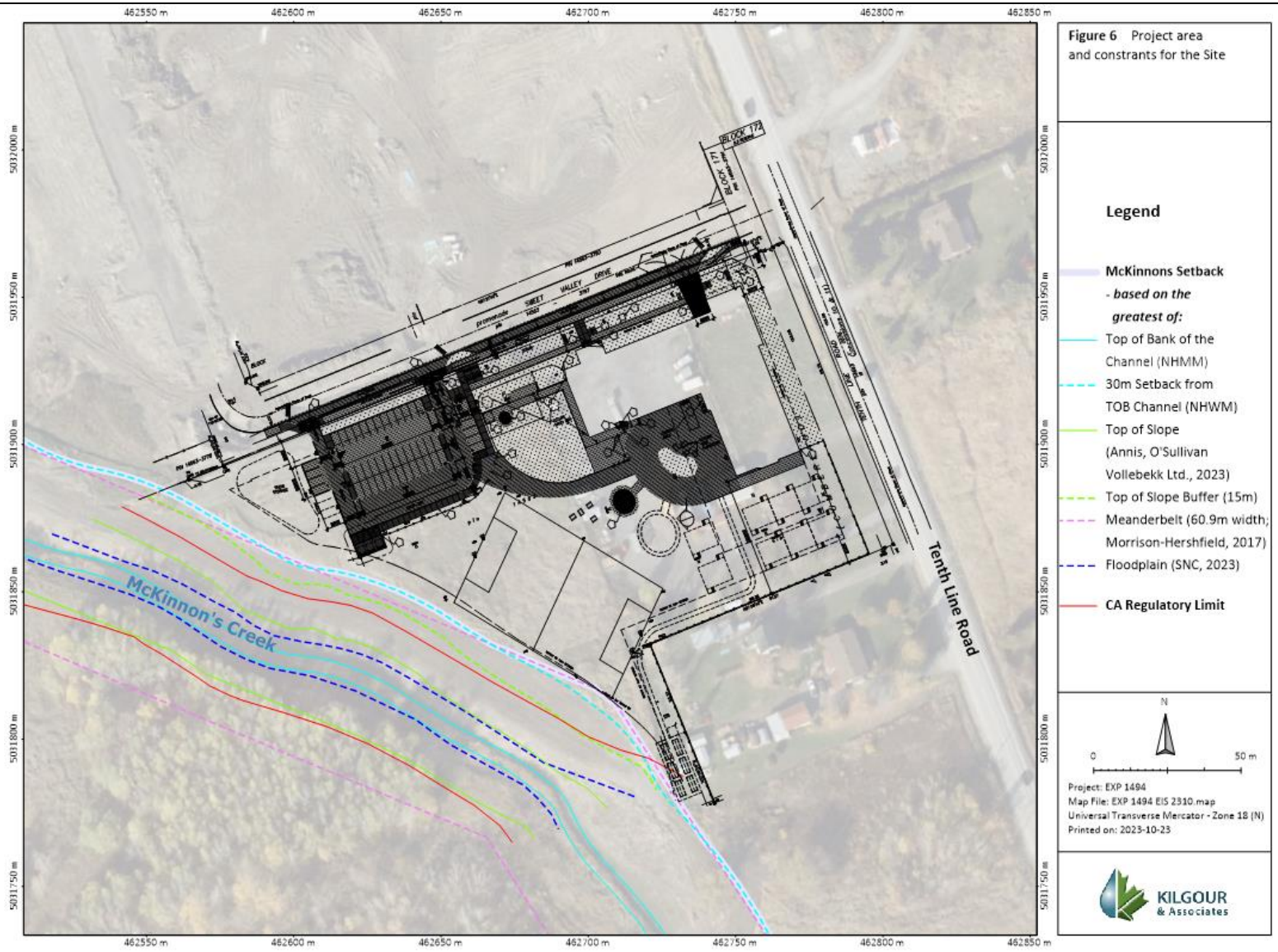


Figure 4 Project area and constraints for the Site

7.0 IMPACT ASSESSMENT AND MITIGATION

7.1 Surface Water

No impact to McKinnon's Creek is anticipated. There are four setback requirements from McKinnon's Creek and the largest of the composite setback is respected in the Site plan (Figure 4). The setbacks are: (1) 30 meters from the normal high-water mark, (2) 15m from top-of-valley slope for McKinnon's Creek is required as per the CDP and Policy 4.7.3.2 and 4.7.3.6 of the City of Ottawa Official Plan (2021), (3) a 60.9m meander belt width (30.45 m as measured from the watercourse centreline) within the MB-R3 reach as identified within the Mer Bleue EMP (KAL personal communication with J. Holland, September 26, 2023; Appendix H), and (4) the 100-year floodplain as identified by South Nation Conservation (Appendix D).

As outlined within the Environmental Management Plan, a Special Study Area (15 m offset from regulatory flood line – subject to Ontario Regulation 170/06) was to be addressed before development could occur to assess stormwater management facility limits within the broader and a permit was required for development or Site alteration. The Special Study Area within the Environmental Management Plan was lifted from this Site (KAL personal communication with J. Holland, September 26, 2023; Appendix H), and an updated floodplain has been mapped by SNC to capture any potential changes due to community development (Appendix D). While the revised floodplain is not yet reflected in within the geoOttawa system, it is not noticeably different adjacent to the Project Area from the current regulatory floodplain (as posted) regardless. Both floodplain limits are situated will within the composite setbacks as listed above; the 30 m buffer as well as the meanderbelt (30.45 m measured from the watercourse centreline) thus defines the maximum required setback for development from McKinnon's Creek.

The development will be provided with typical urban stormwater management system consisting of capture and conveyance of stormwater runoff via catch basins and storm sewers to a stormwater management facility. The SWM facility for the broader community will provide water quality control in accordance with Ministry of Environment, Conservation and Parks (MECP) requirements and water quality control to target pre-development levels and will discharge into McKinnon's Creek. If future detailed designs necessitate another option - such as another outlet into the Avalon Pond (not anticipated) – the revised SWM plan would be required to demonstrate no negative impacts on flooding and erosion, upstream and downstream of the outlet. If such an option were to be pursued, it could necessitate a revision to the McKinnon's Creek 100-year floodplain study, which will require approval from SNC (Appendix B).

Site grading within the project area should allow for surface flows to drain away from McKinnon's Creek and into the City's stormwater sewer system to be treated appropriately. Within the parking lot, snow should be piled in a location that does not allow for melt to discharge into the creek.

The recreational pathway is to be included between the 15m and 30m setback from the high-water mark on McKinnon's Creek as per the Mer Bleue EMP. Additionally it is a requirement of the City of Ottawa that pathways are to be constructed outside of the 25-year floodplain. Given that the 100-year floodplain is approximately 2-5m from the high-water mark, the pathway will be well beyond the floodplain once it is

constructed between the 15m and 30m setback requirement as per the Mer Bleue EMP. The clarification of the location of the pathway relative to the creek and the setback is now included in the EIS.

Some general recommendations to mitigate potential impacts from the construction of and maintenance on watercourses are listed below as well as specific mitigation measures when constructing and maintaining the pathway along McKinnon's Creek.

The potential for sediment to be released into surface water features during site preparation and construction should be mitigated using standard erosion and sediment control measures. To minimize impact to McKinnon's Creek adjacent to the Site, and the broader catchment during construction, an erosion and sediment control (ESC) plan will be required and must be developed to the satisfaction of SNC. The ESC plan should include a multi faceted approach to provide ESC including but not limited to:

- Silt fence paired with sturdy construction fence along the project perimeter (around the development envelope). This fencing can also act as a wildlife exclusion measure for smaller and less mobile animals that may occupy or traverse across the Site, such as amphibians, turtles, and snakes;
    - Fencing (could be the silt fence) around the development envelope should be installed before the turtle nesting period (mid-May to early July) (MNRF, 2015c);
- Regularly inspecting and maintaining the ESC measures after each precipitation event during all phases of the project;
- Retention of existing vegetation and stabilization of exposed soils with native vegetation where possible;
- Keeping the ESC measures in place until all disturbed ground has been permanently stabilized;
- Using biodegradable ESC materials where possible and removing all exposed non-biodegradable ESC materials once the Site is stabilized;
- Limiting the duration of soil exposure and phasing project works;
- Limiting the size of disturbed areas by minimizing nonessential clearing and grading;
- Minimizing the total slope length and the gradient of disturbed areas;
- Refueling of machinery should occur >30 m from surface water features and all machinery will remain on the project-side of silt and construction fence;
- Maintaining overland sheet flow and avoiding concentrated flows;
- Storing/stockpiling materials >15 m away from the wetland and other surface water features (if possible);

- Developing a response plan to be implemented immediately in the event of a spill of a deleterious substance;
    - Keeping an emergency spill kit on the Site;
    - the event of a spill, stopping work and containing deleterious substances to prevent dispersal; and,
- Reporting any spills of sewage, oil, fuel, or other deleterious material whether near or directly into a surface water feature.

7.2 Vegetation

No rare or unique vegetation communities or at-risk vegetation species were observed within the project area. Tree clearing is anticipated to accommodate future development and discussed further in the TCR. The trees within the project area have already been approved to be cut by the city and are addressed in Permit D06-01-18-0010 (Appendix E).

As per the City of Ottawa's requirement to address within the EIS and per recommendations within the Mer Bleue Urban Expansion Study Area Environmental Management Plan, plantings should occur along the McKinnon's Creek corridor to maximize tree cover on the Site. Only native trees and plants are to be incorporated into Site landscaping for the benefit of local wildlife and pollinators (e.g., milkweed species for Monarch). It is recommended that plantings encompass a variety of native flowering species with different blooming periods to provide varied food sources for native pollinators. Further, limit the use of herbicides within and surrounding the planted habitat. Plant locally appropriate native species along the southern and western boundaries of the property and along the parking lots. This will offer shaded parking spots and reduce the urban heat island effect.

The following general protection measures are recommended during construction to limit impacts to trees:

- Woody vegetation removal should occur before April 15 or after August 15 for the protection of breeding birds and bats, unless a survey conducted by a qualified biologist within five days of the vegetation removal identifies no breeding activity. Note that it is very difficult to effectively complete bird nesting surveys in the upper canopies of forest habitats during the leaf-on period;
- To minimize impacts to retained trees during development:
    - Sturdy construction fencing is recommended around the perimeter of the work areas to ensure the adjacent vegetation to be retained is not impacted by the construction and to isolate the work area from sensitive wildlife. Construction fencing should be combined with sediment fencing, which provides ESC and improved wildlife control over construction fencing alone. The protective fencing is to be installed at the outer limits of the critical root zone (CRZ; i.e., 10x the diameter at breast height);
    - Do not place any material or equipment within the CRZ of trees;

- Do not attach any signs, notices, or posters to any trees;
- Do not raise or lower the existing grade within the CRZ of trees without approval;
- Tunnel or bore when digging within the CRZ of a tree;
- Do not damage the root system, trunk, or branches of any remaining trees; and
- Ensure that exhaust fumes from all equipment are not directed toward any tree's canopy.

- Ensure equipment is clean prior to vegetation removal to avoid introducing invasive species to the Site, and clean equipment prior to leaving Site to avoid spreading invasives (e.g., Common Reed - *Phragmites australis*) elsewhere.

7.3 Species at Risk

Two SAR ranked as Threatened under the ESA were considered to a moderate potential to interact with future development on the Site (i.e., may be present during development), based on previous observation records and the presence of potentially suitable habitat. The purpose of the site visits was to confirm the presence of potential habitat for SAR.

The general wildlife mitigation measures provided in Section 7.4, while not species-specific, are anticipated to protect the SAR that may potentially occur on the Site. Additional species-specific mitigation measures, however, are provided below.

7.3.1 Bobolink and Eastern Meadowlark

Bobolink and Eastern Meadowlark are obligate grassland species that nest on the ground. They breed and forage in tall grasslands and open areas including hayfields, pastures, agricultural fields, abandoned fields, and cultural meadows that are ≥ 5 ha in size. Ideal nesting habitat contains tall grass with abundant litter and grass cover, low shrub and woody vegetation cover, and very little bare ground (McCracken et al., 2013; MECP, 2021b; MECP, 2021c).

While meadow habitat on Site may be marginally suitable due to its connection to >100 ha of meadow community. The remaining wedge of meadow community within the project area, however, is much smaller than their preferred habitat size (~1.6 ha), and is considered to provide negligible suitability due to its proximity of adjacent construction north of Sweet Valley, and busy parking lot within the project area. The Site was historically used for agriculture, so the land has been regraded, and as such, is less desirable for these species. Additionally, previous consultant studies in 2020 ruled out through grassland breeding bird surveys throughout the area that were conducted as per the province's guidelines. In an effort to reduce potential impacts, tree, vegetation, and general site clearing should take place during the late fall and winter (September 1 to March 31).

7.4 Significant Wildlife Habitat

General habitat conditions within the project area do correspond with minimum conditions of candidate SWH (Table 2). The small, highly disturbed area, however, is unlikely to support significant wildlife

generally. The proposed zoning change to support an elementary school rather than high density residential housing is not anticipated to reduce the existing negligible utility of this area a SWH.

7.5 Wildlife Mitigation

The following mitigation measures shall be implemented during future construction to generally protect wildlife and potential SWH areas:

- As per the City of Ottawa's Bird-Safe Design Guidelines (2020) proposed development should:
    - Consideration should be made to orientation of buildings to reduce reflection of attractive elements in glazing, to the extent possible;
    - Minimize the transparency and reflectivity of glazing;
    - Avoid or mitigate design traps (i.e., where courtyards or open-topped atria can entrap birds);
    - Consider other structural features (i.e., ventilation, antennas, and guy wires can be an issue);
    - Create safe bird-friendly landscaping to minimize reflections of trees and shrubs in nearby reflective buildings; and,
    - Design exterior and interior lighting to minimize light trespass at night.
- Areas shall not be altered or cleared during sensitive times of year for wildlife (breeding season; early spring to early summer) unless mitigation measures are implemented and/or the habitat has been inspected by a qualified Biologist.
- To limit the potential for interactions with turtle nests it is recommended that initial site clearing take place between October and May. A mitigation measure for turtle nesting areas is to ensure the project footprint is fenced off (i.e., silt fence) during the turtle nesting period (late May to early July) (MNRF, 2015c). This should be done to ensure turtles are not nesting in areas that may be disturbed or destroyed due to construction activities if clearing occurs within the turtle nesting period.
    - Clearing of trees and/or vegetation should not take place April 1 to September 30 inclusive unless a qualified Biologist has determined that no birds are nesting or suitable bat roosting trees are present. The bird nest sweep would be valid for five days.
        - The MBCA protects the nests and young of migratory breeding birds in Canada. The timing of nesting for birds in the area spans April 1 to August 31 (Government of Canada, 2018).
        - The breeding and roosting period for bats is recognized as April 1 to September 30 (MNRF, 2015b).

    - Initial earthworks should not take place early September to early May while snakes are hibernating (MNRF 2016; MNRF 2018).

- Ensure that a wildlife management plan for the construction process and delivers environmental compliance and biodiversity training to all site workers to implement the plan. The plan should include (but not be limited to) requirements to:

    - Utilize silt fence paired with sturdy construction fence around soil stockpiles to serve as a wildlife exclusion measure to prevent smaller animals from accessing/utilizing temporary habitats on the Site (e.g., prevent turtles from nesting in stockpiles on the Site);

    - Any turtles or snakes observed in the vicinity of the work areas or that may otherwise be in danger should be encouraged to relocate outside of the development envelope. Animals should be moved only far enough to ensure their immediate safety and not off of the property. Any handling of SAR during construction for safe relocation purposes should be done by individuals who are properly trained to do so. The area should be monitored to prevent re-entry;

    - Check the entire work site for wildlife prior to beginning work each day;

    - Do not harm, feed, or unnecessarily harass wildlife;

    - Manage waste to prevent attracting wildlife to the work site. Effective mitigation measures include litter prevention and keeping all trash secured in wildlife-proof containers and promptly removing it from the work site, especially during warm weather;

    - Enforce a speed limit of 20 km/h during the active season (April 1 to September 30) to reduce wildlife mortality;

    - Manage stockpiles and equipment at the work site to prevent wildlife from being attracted to artificial habitat. Cover and contain any piles of soil, fill, brush, rocks, and other loose materials and cap ends of pipes where necessary to keep wildlife out. Ensure that trailers, bins, boxes, and vacant buildings are secured at the end of each workday to prevent access by wildlife; and,

8.0 CONCLUSION

This report provides a set of mitigation measures for employment in the design and construction of the proposed development. Our assessment within this report of the potential for impacts to the natural heritage system is based on the implementation of these mitigation measures. It is our professional opinion that the proposed development will have no significant negative impacts on natural heritage features or their ecological functions if all mitigation measures provided within this report are followed.

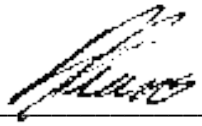
9.0 CLOSURE

This report was prepared for exclusive use by EXP Services Inc. and may be distributed only by EXP Services Inc. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

Nick Moore, BSc
Project Manager



Anthony Francis, PhD
Senior Review

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10.1 Personal Communication

Crites, Laura. Planning Technician. South Nation Conservation Authority. Communication with N. Moore. February 14, 2023

Appendix A Qualification of Report Authors

Nick Moore, BSc (Project Manager, Biologist)

Nick is a Field Ecologist with a background in Aquatic Biology. He graduated from Sir Sandford Fleming in 2018 with two Technical Diplomas for Environmental Technician and Environmental Technologist, as well as completing his Bachelor of Science with Honors in Biology and Environmental and Resource Studies at Trent University. He has worked with Kilgour & Associates Ltd. for two years. With us, he has been involved in dozens of land-development projects where he has written several Environmental Impact Studies and has used his academic training to characterize the flora and fauna of natural environments. Nick is a certified wetland evaluator under Ontario's Wetland Evaluation System (OWES) process.

Anthony Francis, PhD (Senior Ecologist)

Dr. Francis is a Senior Ecologist with 20 years' consulting experience to both government agencies and private industry. He has worked on a diversity of projects relating to species at risk, invasive species, terrestrial and aquatic habitat, environmental effects monitoring and mitigation, and fate/effects of contaminants. Within each of these subject areas, Dr. Francis has completed projects addressing specific site concerns and broader policy initiatives.

In the Ottawa area he helps clients work their way through the land development process by producing key supporting studies such Environmental Impact Statements, Integrated Environmental Reviews, and by obtaining various permits and approvals from local regulatory agencies including the conservation authorities and Ministries of Environment and Natural Resources. Dr. Francis is our local in-house geomatics specialist, capable of carrying out detailed and complex analyses of geospatial data of plant and animal distribution. He often utilizes his skills to carry out constraint studies prior to a client purchasing or planning a development for a property.

Appendix B Pre-Consultation Meeting Minutes

Conseil Écoles catholiques Centre-Est

Denis Chabot <chabod@ecolecatholique.ca>

DRAFT - 2666 Tenth Line Road - CECCE Elementary School on Claridge Lands in Mer Bleue Expansion Urban Expansion Area 10

Murshid, Shoma <Shoma.Murshid@ottawa.ca> 6 septembre 2022 à 10 h 50
À : Zofia Jurewicz <zofiaj@cuhaci.com>, "Paquette Planning Associates Ltd." <paquetteplanning@sympatico.ca>
Cc : "Rasool, Rubina" <Rubina.Rasool@ottawa.ca>, "Giampa, Mike" <Mike.Giampa@ottawa.ca>, "McAlpine, Anissa" <anissa.mcalpine@ottawa.ca>, "Ippersiel, Matthew" <Matthew.Ippersiel@ottawa.ca>, "Richardson, Mark" <Mark.Richardson@ottawa.ca>, James Holland <jholland@nation.on.ca>, "Rehman, Sami" <Sami.Rehman@ottawa.ca>, Luc Poulin <Poulil@ecolecatholique.ca>, Denis Chabot <chabod@ecolecatholique.ca>, "Sclauzero, Cass" <cass.sclauzero@ottawa.ca>

Good morning Dan and Zofia,

Thank you for meeting with us on August 23, 2022 to review your concept plan (2 attachments) for a one-storey elementary school for CECCE.

This proposal triggers a Zoning By-law Amendment (Major) and a New, Complex Site Plan Control development review applications.

If you do end up submitting both development applications concurrently, there will be a 10% deduction in the planning fee component for both applications.

The **Zoning By-law Amendment** category being triggered is Major and is public-consultation based. The submission fee for this application is $22,472.80 + an initial Conservation Authority Fee of $400.00. For the Zoning By-law Amendment to be deemed complete at the time of submission, a complete application form, fees and the following plans, studies and documentation will be required (all in PDF format):

Concept Plan, showing proposed uses and landscaping and/or Site Plan

Planning Rationale, including Design Statement

Survey Plan

Topographical Survey Plan

Elevations

Geotechnical Report

Servicing & Stormwater Management Reports

Phase 1 ESA (Phase 2 ESA if required)
Tree Conservation Report
EIS

Transportation Impact Assessment

Noise Study

For the **Site Plan Control application**, the category being triggered is 'Complex (Manager Approval, Public Consultation) and the submission fee for this is $49,964.88 + Initial Engineering Design Review and Inspection Fee (based on a sliding scale for the value of the Infrastructure and Landscaping) and an initial Conservation Authority Fee of $1,065.00. For the Site Plan Control application to be deemed complete at the time of submission, a complete application form, fees and the following plans and studies will be required (all in PDF format):

Site Plan

Landscape Plan/Tree Conservation Report (can be combined)

Site Servicing Plan

Survey Plan

Topographical Survey Plan

Planning Rationale, including design statement

Erosion and Sediment Control Plan (can be combined with the Grade Control and Drainage Plan

Stormwater Management Report (can be combined with the Site Servicing Report)

Grade Control and Drainage Plan

Site Servicing Report

Stormwater Management Report

Geotechnical Report

Phase 1 ESA (Phase 2 if required)

TIA

Noise Study

EIS

Floor Plans

Elevations

City's General Urban Planning Comments:

There is a Landowner's Agreement and Cost-Sharing Agreement in place, "Area 10 Funding Agreement & CSA". The trustee is Soloway Wright's Ursula Melinz. The landowners within this agreement must provide a clearance letter for this zoning by-law amendment application and site

plan control application prior to their approvals.

Zoning By-law Amendments

If a complete application is received by no later than the day before the new Official Plan is adopted (October 27, 2021), it will be processed on the basis of existing Official Plan policy provided it is consistent with the 2020 Provincial Policy Statement.

For complete applications received after the day before the new Official Plan is adopted on October 27, 2021), but before Ministry approval of the Official Plan, any reports going forward to Committee and Council under this circumstance must be evaluated against the existing Official Plan and must also include an evaluation of the application against the Council approved new Official Plan (and the new Secondary Plan, where applicable). In the period between Council approval of the New OP and the Minister's approval of the New OP, City staff will apply whichever provision, as between the Current and New OP, is more restrictive.

Zoning By-law amendments that conform to the new Official Plan but not the current Official Plan

Council can pass the by-law after the new Official Plan is adopted but it only comes into force if the relevant policies authorizing it are approved by the Minister. Pursuant to the Planning Act, section 24, subsections (2) and (2.1) Council may pass a by-law that does not conform with the official plan but will conform to the new Official Plan once it comes into effect. If the new Official Plan does not come into effect the by-law has no force and effect.

Please note there is an approved Mer Bleue Urban Expansion Area 10 Community Design Plan (CDP). The Mer Bleue Urban Expansion Area 10 Community Design Plan (CDP) has been prepared by the Mer Bleue Land Owners Group (MBLOG), in collaboration with the City of Ottawa. The CDP is intended to demonstrate how development of the Mer Bleue Urban Expansion Area 10 (MBUEA) will achieve the requirements of the Official Plan. The CDP also provides a planning framework for the implementation of Official Plan policy through the subsequent development approvals process and will therefore be used as a guide for the preparation and review of future applications for development. N.B. There is also an EMP and MSS for this same area.

City Urban Design Comments:

- PRUD Staff support the decision to highlight the corner of the site with a prominent architectural feature.
- Explore the possibility of eliminating the need for the small parking lot on Sweet Valley Drive. This would reduce the amount of paving along the public frontage and would free up more space for landscaping adjacent to the main entrance.

- Please line the two public frontages with trees.
- Ensure that sidewalks are continuous and uninterrupted across vehicular apertures.

- If possible, please narrow the widths of the vehicular apertures and reduce the turning radii as much and possible. As designed, they may encourage higher speeds.
- If possible, please look to move the bicycle parking (4) closer to an entrance.
- Include a bicycle parking rack near the main entrance on Sweet Valley Drive.
- Please continue to study what the best approach for the interface between the schoolyard and McKinnon's Creek would be. Should the edge be fenced or not? Please be mindful of linking in to the community active transportation network and impacts on adjacencies to the soccer field.
- The full-size soccer field appears very tight where it is located. Consider that part of the game is played outside the boundaries (corner kicks, throw-ins), balls are often kicked out of bounds, and there is space needed for team benches and spectators. Whether fenced or not, consider a landscape buffer where the property abuts the creek to prevent balls from rolling away.
- Consider a formal pathway connecting to the gardens. Otherwise a goat trail will likely form, cutting across the soccer field.
- PRUD staff support the on-street laybys from an urban design perspective.
- An Urban Design Brief is required as a part of your submission. This may be combined with your Planning Rationale report. Please refer to the attached Urban Design Brief Terms of Reference to inform the content of the brief.
- Please reference any design direction in the CDP in the brief and demonstrate how the proposal conforms to its policies.
- This application is not subject to review by the Urban Design Review Panel.

City Engineering Comments:

As mentioned, the applicant may be required to pay into the N5 Pond separately as there are no SWM DC charges. Gary Baker has confirmed the site is not subject to SWM DC charges.

Otherwise, please see attached for engineering comments.

Note, there is a moratorium on newly paved roads. Check attached engineering comments for further information.

City Transportation and Noise Comments:

*A 0.5 metre conveyance from the northern perimeter of the lot line is required in order to add it to the already conveyed 2.5 metre MUP land obtained directly north from Mattamy.

A TIA is warranted- please proceed to scoping.

The application will not be deemed complete until the submission of the draft step 2-4, including the functional draft RMA package (if applicable) and/or monitoring report (if applicable).

Although a full review of the TIA Strategy report (Step 4) is not required prior to an application, it is strongly recommended.

Synchro files are required at Step 4.

ROW protection on Tenth Line Road is 37.5 m.

A Noise Impact Study is required

Clear throat requirements as per TAC guidelines.

Please note that all new applications (pre-consultation meetings dated after March 3, 2021) must use the NEW TRANS Trip Generation Manual when forecasting site generated trips using this manual.

The TRANS committee (a joint transportation planning committee serving the National Capital region) finalized a new manual early in March 2021. The document will be available in French and English on the TRANS website http://www.ncr-trans-rcn.ca/surveys/2009-trip-generation.

The new manual has simplified the conversion from vehicle trips to person trips and then trips by modal share. The City has also developed a spreadsheet that will apply the factors of location and building type to quickly provide the existing trip numbers by mode share. This spreadsheet has been attached.

*Latest construction plans for ROW of Tenth Line Road and ROW of Sweet Valley Drive - Please contact Bill Harper, Program Manager (SAM) / City Surveyor at bill.harper@ottawa.ca, or call 613-580-2424, ext. 21083.

A layby on Sweet Valley is possible but I'll need a design (RMA report, design submission, municipal consent). A layby on Tenth Line will not be supported.

A MUP should be at least 3m will be required along Sweet Valley Drive.

City Forestry Comments:

Planning Forester - TCR requirements:

1. A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City
    a. an approved TCR is a requirement of Site Plan approval.
    b. The TCR may be combined with the EIS provided all information is supplied
2. Any removal of privately-owned trees 10cm or larger in diameter, or city-owned trees of any diameter requires a tree permit issued under the Tree Protection Bylaw (Bylaw 2020 – 340); the permit will be based on an approved TCR and made available at or near plan

340), the permit will be based on an approved TCR and made available at or near plan approval.

3. The TCR must contain 2 separate plans:
    a. Plan/Map 1 - show existing conditions with tree cover information
    b. Plan/Map 2 - show proposed development with tree cover information
    c. Please ensure retained trees are shown on the landscape plan
4. the TCR must list all trees on site, as well as off-site trees if the CRZ extends into the developed area, by species, diameter and health condition
5. please identify trees by ownership – private onsite, private on adjoining site, city owned, co-owned (trees on a property line)
6. If trees are to be removed, the TCR must clearly show where they are, and document the reason they cannot be retained
7. All retained trees must be shown, and all retained trees within the area impacted by the development process must be protected as per City guidelines available at Tree Protection Specification or by searching Ottawa.ca
    a. the location of tree protection fencing must be shown on the plan
    b. show the critical root zone of the retained trees
8. the City encourages the retention of healthy trees; if possible, please seek opportunities for retention of trees that will contribute to the design/function of the site.
9. For more information on the process or help with tree retention options, contact Mark Richardson mark.richardson@ottawa.ca or on City of Ottawa

LP tree planting requirements:

For additional information on the following please contact tracy.smith@Ottawa.ca

Minimum Setbacks

- Maintain 1.5m from sidewalk or MUP/cycle track or water service laterals.
- Maintain 2.5m from curb
- Coniferous species require a minimum 4.5m setback from curb, sidewalk or MUP/cycle track/pathway.
- Maintain 7.5m between large growing trees, and 4m between small growing trees. Park or open space planting should consider 10m spacing, except where otherwise approved in naturalization / afforestation areas. Adhere to Ottawa Hydro's planting guidelines (species and setbacks) when planting around overhead primary conductors.

Tree specifications

- Minimum stock size: 50mm tree caliper for deciduous, 200cm height for coniferous.
- Maximize the use of large deciduous species wherever possible to maximize future canopy coverage

coverage

- Tree planting on city property shall be in accordance with the City of Ottawa's Tree Planting Specification; and include watering and warranty as described in the specification (can be provided by Forestry Services).
- Plant native trees whenever possible
- No root barriers, dead-man anchor systems, or planters are permitted.
- No tree stakes unless necessary (and only 1 on the prevailing winds side of the tree)

Hard surface planting

- Curb style planter is highly recommended
- No grates are to be used and if guards are required, City of Ottawa standard (which can be provided) shall be used.
- Trees are to be planted at grade

Soil Volume

- Please document on the LP that adequate soil volumes can be met:

Tree Type/Size	Single Tree Soil Volume (m3)	Multiple Tree Soil Volume (m3/tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

Please note that these soil volumes are not applicable in cases with Sensitive Marine Clay.

Sensitive Marine Clay

- Please follow the City's 2017 Tree Planting in Sensitive Marine Clay guidelines

Tree Canopy Cover

- The landscape plan shall show how the proposed tree planting will replace and increase canopy cover on the site over time, to support the City's 40% urban forest canopy cover target.
- At a site level, efforts shall be made to provide as much canopy cover as possible, through tree planting and tree retention, with an aim of 40% canopy cover at 40 years, as appropriate.
- Indicate on the plan the projected future canopy cover at 40 years for the site.

City Environmental Policy Comments (these comments have not been updated since October 2021):

The proposed development should confirm the servicing requirements and development approvals established as part of the subdivision approval and the master servicing study to the north.

If the proposal is permitted to proceed (as part of the subdivision to the north), then an EIS will be required for either a zoning amendment or a site plan control application. This stretch of McKinnon's creek is identified as part of the NHS, as per OP Schedule L.

The EIS will address the following items:

-explore the hazard lands and floodplain required for that stretch of the McKinnon's Creek.

-draw recommendations from the EMP (Mer Bleue Urban Expansion Study Area – Environmental Management Plan, Morrison-Hershfield Ltd, Dec2017)

-draw recommendations from the CDP (Mer Bleue Expansion Area – Community Design Plan, IBI Group, Jun 2017)

-provide recommendations for revegetation and enhancements to the riparian areas along McKinnon's Creek

-potential significant habitat for threatened or endangered species

-provide recommendations to increase energy and water efficiency based on landscaping and layout, as per OP 4.9

-if there is substantial glass proposed on the design, recommend drawing design elements from the City's bird-safe design guidelines (Sept 2020)

I would encourage the applicant to consult with South Nation Conservation Authority to determine if any permits or approvals are required under their regulations.

I would also recommend consulting with the engineer's report for the municipal drain because there are concerns about how the stormwater management for this area will impact and potentially contribute to flooding downstream.

City Parks Comments:

- The applicant and land owners should be aware that parkland dedication will continue to be tracked through the development application process. Parkland dedication requirements remain unchanged from that detailed in the Community Design Plan.
- Please note, a school is exempted from parkland dedication as per our Parkland dedication by-law (as approved by Council Aug 31, 2022) "where the school provides for the students' outdoor recreational needs on-site at the time of development and maintains sufficient outdoor recreational space on-site at the time of redevelopment"

- The Demonstration Plan in the Secondary plan, and the CDP show the Ecole Catholique being co-located with a neighbourhood park, south of Wall Road. It is unknow at this time, if there would be further opportunities to co-locate a school with the park block south of Wall Road. Please keep Park staff informed as development

  applications proceed in order for staff to comment on the location of the neighbourhood park block south of Wall Road.
- The opportunity to co-location school blocks and park blocks should continue to be sought by development applications within the Mer Bleue community expansion.

South Nation Conservation Authority Comments:

Here are my comments for the August 23rd meeting concerning the French Catholic school proposal. They should be read in conjunction with our previous comments from October 2021 (FOUND below this section).

Natural Heritage

- The Environmental Management Plan (EMP) indicates (8.1.2) that : For the protection of the common aquatic habitat observed in McKinnon's Creek, a setback consisting of the greater of 15 m from the top-of-slope or 30 m from the normal high water mark in the urban area (which may be refined through further study during preparation and review of the draft plan of subdivision), as recommended in the Official Plan, Section 4.7.3.2 and 4.7.3.6, and is identified on Figure 4.4.
- It is our understanding that this area will become a separate parcel (ie., separated from the school parcel) and placed in a restrictive Zone, as done for the subdivision to the north of this property. It is our understanding that the setback will include a Mixed Use Path (MUP) but that access to the creek will be limited to allow the riparian buffer to function.
- A landscaping plan for the full McKinnon's Creek corridor is required by the EMP; however, should this development proceed prior to the completion of this plan, a landscaping plan that meets the objectives of the EMP will be required for this property.
- An Environmental Impact Assessment is required for development adjacent to fish habitat. In addition, a headwater feature has been identified (Drain 14) along the north property boundary. The management recommendations for the headwater feature (outlined as an appendix to the EMP) should be addressed in the EIS. The Conservation Partners will provide a review of the EIS.
- The Conservation Partners support the development of a resource (similar to a Homeowner's Guide) that outlines the ecological significance, restoration and enhancement works and best management practices for the McKinnon's Creek Corridor. This could help to use raise awareness amongst school studies/staff in the future. The Conservation Partners can provide similar resources and background studies and can assist in the review of the resource.

Stormwater Management

- The Conservation Partners do not object to an additional outlet to McKinnon's Creek in place of directing stormwater into existing infrastructure and ultimately to the existing stormwater pond if it can be shown to not have negative impacts on flooding and erosion, upstream and downstream of the outlet.
- Should the option for a new outlet be pursued, it may necessitate a revision to the McKinnon's Creek 100-year floodplain study, which will require review and approval from South Nation Conservation. The applicant may submit a scaled site plan and request a preliminary review to assess whether the change in land use differs from the SNC model, requiring further analyses.
- Should the option for a new outlet be pursued, the applicant will be responsible for stormwater treatment of runoff quality and quantity. The design must demonstrate a 80% TSS removal. The quantity must meet City of Ottawa requirements. The design package should include at a minimum, a report demonstrating how the quality/quantity targets will be achieved, a grading and drainage plan, and a sediment and erosion control plan. The Conservation Partners will provide a technical review.

Conservation Authority Regulation 170/06

- Any interference with a watercourse/headwater feature, including an outlet to McKinnon's Creek, will require a permit and restrictions may apply

permit and restrictions may apply.

- There is a 100-year floodplain contained within the banks of McKinnon's Creek. The elevation of the floodplain at the north end of the property is 84.38 meters above sea level. Any development within or 15m adjacent to this

  elevation will require a permit and restrictions may apply. It is anticipated that this area will fall within the McKinnon's Creek Corridor and a restrictive Zone.

SNCA – October 2021 follow-up notes:

- The development should implement the direction approved though the Council-approved Master Servicing Study (MSS) and Environmental Impact Statement, prepared for the Mer Bleue Expansion Lands.

Environmental

- The EMP Section 8.1.1 requires a Planting Plan at the subdivision stage to enhance the woody vegetation cover in McKinnon's Creek corridor where needed. Section 8.1.1 (final point, pg98) also indicates that a detailed design of the McKinnon's Creek will be undertaken as a single integrated design from the Avalon South pond outlet to the downstream extent of the proposed lowering just upstream of Navan Road. The planting plan for the subject property should be integrated with the detail design for the corridor.
- For the protection of aquatic habitat in McKinnon's Creek, the EMP Section 8.1.2 recommends a setback consisting of 15m from the top-of-slope or 30m from the normal high water mark, as identified on Figure 4.4 of the EMP. This setback should be clearly delineated on all plans.
- Figure 3-6 and Table 3.3 identify the drainage features along the north boundary of the parcel as Drain 14, and provides a management recommendation of 'mitigation'. The feature should be discussed within the Environmental Impact statement, including how the management recommendation will be implemented.
- An Environmental Impact Statement and Landscaping Plan are recommended for the subject property to demonstrate how the recommendations of the EMP will be satisfied.

Stormwater Management

- Should stormwater be directed towards the Neighbourhood 5 stormwater pond, it must be demonstrated that the pond has capacity.
- The stormwater design should include at a minimum, a report demonstrating how water quality and quantity treatment standards will be achieved, a grading and drainage plan, and a sediment and erosion control plan.
- Note that when stormwater outlets to approved municipal infrastructure, the Conservation Partners do not undertake a technical review; however, we request to be included in the circulation of the stormwater design to confirm.
- Any modifications to the stormwater pond, including an alteration to the outlet or a change in outflows, will require a technical review by South Nation Conservation.
- Any changes to the outflow may require a revision to the McKinnon's Creek 100-year floodplain analysis, along with a technical review of the revision by South Nation Conservation.
- Likewise, should drainage be directed towards McKinnon's Creek directly via uncontrolled flow, a revision to the McKinnon's Creek 100-year analysis and a technical review by South Nation Conservation may be necessary.
- Any drainage from the subject site must demonstrate that there is legal and sufficient outlet for the additional flows. A Municipal Drain petition is currently underway to designate McKinnon's Creek a municipal drain.

Conservation Authority Regulations

- Any interference with a watercourse, including a headwater drainage feature (Drain 14, noted above) and an alteration to a stormwater outlet, may require a permit under O. Reg. 170/06 and restrictions may apply.

Further items to consider for both site plan control and zoning amendment are:

- Bird-safe safety design guidelines are now in effect.

https://ottawa.ca/en/city-hall/public-engagement/projects/bird-friendly-design-guidelines

https://ottawa.ca/en/city-hall/public-engagement/projects/bird-friendly-design-guidelines#bird-friendly-design-guidelines

- Consider the reduction of energy and water demands within your development proposal through lot layout and landscaping, as outlined in the OP Section 4.9.

- Plant locally appropriate native species along the southern and western boundaries of the property and along the parking lots. This will offer shaded parking spots and reduce the urban heat island effect.

- Staff would caution a reduction in the setbacks abutting the public realm. It still needs to be demonstrated that street tree planting **of canopy shade trees** can be accommodated through the site and particularly and along the public RoWs (Sweetvalley Drive and Tenth Line Road).

Minimum Drawing and File Requirements - All Plans:

Plans are to be submitted on standard **A1 size** (594mm x 841mm) sheets, utilizing an appropriate Metric scale (1:200, 1:250, 1:300, 1:400, or 1:500).

With all submitted hard copies provide **individual** PDF of the DWGs and for reports please provide one PDF file of each report. **All PDF documents are to be unlocked and flattened.**

Closing comments:

In order to sever the lands, please seek a pre-consultation with a Committee of Adjustment Planner, Cass Sclauzero at cass.slauzero@ottawa.ca or at 613-580-2424-27597.

Best wishes,

Shoma Murshid, MCIP, RPP

(she/ her/ elle)
File Lead, Planner II

Responsable de dossier, urbaniste II
City of Ottawa/ Ville d'Ottawa
Development Review (Suburban Services, East)/ Examen des projets d'aménagement (Services suburbains Est)
Planning, Real Estate and Economic Development Department / Direction générale de la planification, des biens immobiliers et du développement économique

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www.ottawa.ca

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9 pièces jointes

TRANS Trip Calculator-PM.xlsx
50K

CECCE New Elementary School - Site Update - Site Only 19 August 22.pdf
2697K

CECCE New Elementary School - Site Update - Full Package 19 August 22.pdf
1013K

Tenth Line, 2666_Design Brief TOR.pdf
311K

OC2279574-TC-Mattamy (consol).pdf
164K

4m1668.pdf
2312K

OC2273659-TC-Mattamy (suba).pdf
6091K

Tenth Line 2666 Preconsult.docx
47K

R-5445.pdf
22237K

Appendix C MECP Species at Risk Correspondance

February 07, 2023 **Our File: EXP 1494**

Management Biologist
Permissions and Compliance Section
Ontario Ministry of Environment, Conservation, and Parks
10-1 Campus Drive
Kemptville, ON
K0G 1J0

Reference: Species at risk information request for proposed development at 2666 Tenth Line Road in Orleans, Ontario

1.0 INTRODUCTION

This letter is a request for information relating to the potential presence of species at risk (SAR) for proposed development at 2666 Tenth Line Road in Orleans, Ontario. This letter includes a desktop review of SAR occurrence records using the resources and guidelines outlined in the draft document, *Client's Guide to Preliminary Screening for Species at Risk* (Ministry of the Environment, Conservation and Parks (MECP), 2019). We (Kilgour & Associates Ltd.; KAL) are seeking confirmation from MECP regarding the list of SAR that may occur on or near the project site. Potential impacts to SAR will be assessed via an Environmental Impact Study (EIS) that we will be preparing for our client. If impacts to SAR are anticipated, we will recommend that our client notifies MECP and engages in consultation to further consider potential impacts, avoidance and/or mitigation measures, and whether the project may require authorization under the *Endangered Species Act* (ESA).

1.1 Site Overview

The site is 10.31 ha in size and is located at 2666 Tenth Line Road in Orleans, Ontario (Figure 1). The zoning of the property is Rural (RU), and it is currently used as a residential home and parking lot. The Site is bisected by McKinnon's Creek, and the eastern side of the creek is dominated by a meadow community, a gravel parking lot, and a single detached dwelling. The eastern side of the creek is dominated by forest and meadow communities. The site is bordered by residential homes to the north, and forest and agriculture to the east, west, and south.

The centroid coordinates of the subject project area are:

Latitude: 45.438708°, Longitude: -75.479207°

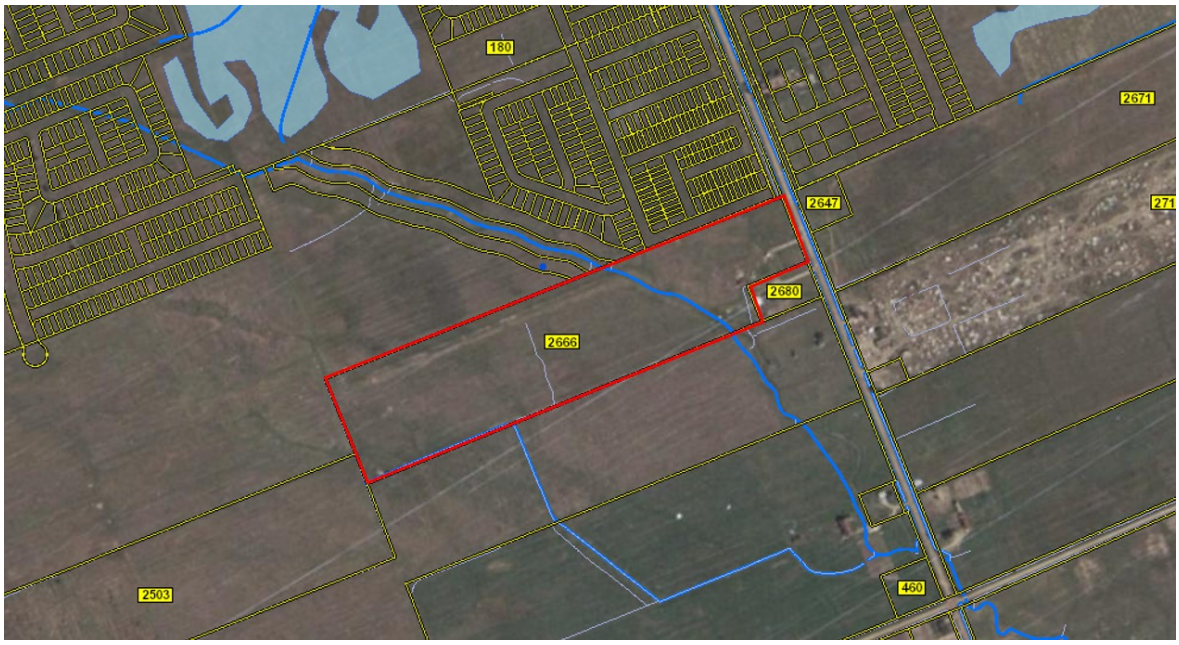

Figure 1 Location and existing conditions of the site (outlined in red)

2.0 SPECIES AT RISK RESOURCES REVIEW AND RESULTS

We reviewed the following online resources to determine SAR occurrences on and/or nearby the site.

- Aquatic Species at Risk Map (DFO, 2022);
- Natural Heritage Information Centre (MNRF, 2022a);
- Land Information Ontario Provincially Tracked Species Grid Detail (MNRF, 2022b);
- Recovery Strategy for the Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Ontario (Humphrey and Fotherby, 2019);
- Recovery Strategy for the Eastern Small-footed Myotis (*Myotis leibii*) in Ontario (Humphrey, 2017);
- Species at Risk in Ontario (MECP, 2022);
- Species at Risk Public Registry (Government of Canada, 2022);

- Ontario Breeding Birds Atlas (Birds Canada et al., 2009);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019);
- iNaturalist (California Academy of Sciences and National Geographic Society, 2022);
- eBird (Cornell Lab of Ornithology, 2022);
- Bumble Bee Watch (Wildlife Preservation Canada et al., 2022); and
- Ontario Butterfly Atlas (Toronto Entomologists' Association, 2022).

The results of the SAR desktop review are indicated in Table 1. Note that occurrence data in Table 1 from the Natural Heritage Information Centre (MNRF, 2022a), Land Information Ontario (MNRF, 2022b), eBird (Cornell Lab of Ornithology, 2022), and iNaturalist (California Academy of Sciences and National Geographic Society, 2022) are occurrences within ~5 km of the site. SAR occurrence data from the Ontario Breeding Birds Atlas (Birds Canada et al., 2009), the Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019), and the Ontario Butterfly Atlas (Toronto Entomologists' Association, 2022) are based on the 10 x 10 km Atlas square in which the site falls (18VR63).

Table 1 List of species at risk with potential to occur on or near the project site based on our desktop review

Species Name (*Scientific name*)	Information Source
Birds	
Bald Eagle (*Haliaeetus leucocephalus*)	Cornell Lab of Ornithology (2023)
Bank Swallow (*Riparia riparia*)	Birds Canada et al. (2009)
Barn Swallow (*Hirundo rustica*)	Birds Canada et al. (2009); MNRF (2023a); MNRF (2023b); California Academy of Sciences and National Geographic Society (2023); Cornell Lab of Ornithology (2023)
Black Tern (*Chlidonias niger*)	Birds Canada et al. (2009); Cornell Lab of Ornithology (2023)
Bobolink (*Dolichonyx oryzivorus*)	Birds Canada et al. (2009); MNRF (2023a); MNRF (2023b); Cornell Lab of Ornithology (2023)
Canada Warbler (*Cardellina canadensis*)	Birds Canada et al. (2009)
Chimney Swift (*Chaetura pelagica*)	Birds Canada et al. (2009); MNRF (2023a); Cornell Lab of Ornithology (2023)
Common Nighthawk (*Chordeiles minor*)	Cornell Lab of Ornithology (2023)
Eastern Meadowlark (*Sturnella magna*)	Birds Canada et al. (2009); MNRF (2023a); MNRF (2023b); Cornell Lab of Ornithology (2023)
Eastern Whip-poor-will (*Antrostomus vociferus*)	Cornell Lab of Ornithology (2023)
Eastern Wood-Pewee (*Contopus virens*)	Birds Canada et al. (2009); California Academy of Sciences and National Geographic Society (2023); Cornell Lab of Ornithology (2023)
Evening Grosbeak (*Coccothraustes vespertinus*)	California Academy of Sciences and National Geographic Society (2023); Cornell Lab of Ornithology (2023)
Grasshopper Sparrow (*Ammodramus savannarum*)	Cornell Lab of Ornithology (2023)

Species Name (*Scientific name*)	Information Source
Least Bittern (*Ixobrychus exilis*)	MNRF (2023a); California Academy of Sciences and National Geographic Society (2023)
Lesser Yellowlegs (*Tringa flavipes*)	California Academy of Sciences and National Geographic Society (2023)
Loggerhead Shrike (*Lanius ludovicianus*)	MNRF (2023a)
Northern Bobwhite (*Colinus virginianus*)	Cornell Lab of Ornithology (2023)
Peregrine Falcon (*Falco peregrinus*)	Cornell Lab of Ornithology (2023)
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	MNRF (2023a)
Short-eared Owl (*Asio flammeus*)	Birds Canada et al. (2009); MNRF (2023a); Cornell Lab of Ornithology (2023)
Wood Thrush (*Hylocichla mustelina*)	Birds Canada et al. (2009); MNRF (2023a)
Mammals	
Eastern Small-footed Myotis (*Myotis leibii*)	Humphrey (2017)
Little Brown Myotis (*Myotis lucifugus*)	Humphrey and Fotherby (2019)
Northern Myotis (*Myotis septentrionalis)*	Humphrey and Fotherby (2019)
Tri-colored Bat (*Perimyotis subflavus*)	Humphrey and Fotherby (2019)
Amphibians	
Western Chorus Frog (*Pseudacris triseriata*)	Ontario Nature (2019); MNRF (2023a)
Reptiles	
Blanding's Turtle (*Emydoidea blandingii*)	Ontario Nature (2019); MNRF (2023a); MNRF (2023b)
Eastern Milksnake (*Lampropeltis triangulum*)	Ontario Nature (2019); MNRF (2023a); California Academy of Sciences and National Geographic Society (2023)
Eastern Musk Turtle (*Sternotherus odoratus*)	Ontario Nature (2019)
Midland Painted Turtle (*Chrysemys picta marginata*)	Ontario Nature (2019); MNRF (2023a); California Academy of Sciences and National Geographic Society (2023)
Northern Map Turtle (*Graptemys geographica*)	Ontario Nature (2019); California Academy of Sciences and National Geographic Society (2023)
Snapping Turtle (*Chelydra serpentina*)	Ontario Nature (2019); MNRF (2023a); MNRF (2023b);California Academy of Sciences and National Geographic Society (2023)
Arthropods	
Monarch (*Danaus plexippus*)	California Academy of Sciences and National Geographic Society (2023); Toronto Entomologists' Association (2023)
Transverse Lady Beetle (*Coccinella transversoguttata*)	MNRF (2023a)
Yellow-banded Bumble Bee (*Bombus terricola*)	Wildlife Preservation Canada et al. (2023)
Fish	
Channel Darter (*Percina copelandi*)	MNRF (2023a)
Lake Sturgeon (Great Lakes - Upper St. Lawrence River population) (*Acipenser fulvescens pop. 3*)	MNRF (2023a)
Northern Brook Lamprey (*Ichthyomyzon fossor*)	MNRF (2023a)
Silver Lamprey (Great Lakes - Upper St. Lawrence populations) (*Ichthyomyzon unicuspis pop. 1*)	MNRF (2023a)

Species Name (*Scientific name*)	Information Source
Molluscs	
Hickorynut (*Obovaria olivaria*)	MNRF (2023a)
Vascular Plants	
Black Ash (*Fraxinus nigra*)	MNRF (2023a)
Butternut (*Juglans cinerea*)	MNRF (2023a); California Academy of Sciences and National Geographic Society (2023)

We note that observation records on eBird (Cornell Lab of Ornithology, 2022), iNaturalist (California Academy of Sciences and National Geographic Society, 2022), Bumble Bee Watch (Wildlife Preservation Canada et al, 2022), and the Ontario Butterfly Atlas (Toronto Entomologists' Association, 2022) are crowd-sourced and rely heavily on data submitted by volunteer citizen scientists that are not necessarily vetted by experts. As such, observation records from these sources are considered non-confirmed by KAL but are included in this preliminary SAR screening based on guidelines set forth by MECP (2019).

3.0 CLOSURE

Thank you for considering this SAR information request for 2666 Tenth Line Road in Orleans, Ontario. We look forward to any comments you may have. Questions relating to the contents of this letter can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

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Appendix D SNC Mapped Floodplain Layer

Kilgour & Associates - McKinnon's Creek Natural Hazard Delineation

1K - 18K
Roads
Regulation Line
Floodplain_Modeled_SpillArea

Floodplain Modeled

Symbology

Floodplain Approximation
Modeled Floodplain

Regulation Area
Cross Section

FloodplainStatus

STATUS

Under Review / DRAFT
Approved
<all other values>
Retrogressive Landslide UCPR

South Nation Conservation
de la Nation Sud

0 30 60 120
m

Appendix E Tree Conservation Report

City of Ottawa Tree Conservation Report for 2666 Tenth Line Road, Ottawa, ON
Tree Conservation Report
2666 Tenth Line Road, Ottawa, Ontario

2023-03-03

Submitted to: Ismail Taki

KILGOUR & ASSOCIATES LTD.
www.kilgourassociates.com

Project Number: EXP 1494

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1.0 INTRODUCTION

This Tree Conservation Report (TCR) was prepared by Kilgour & Associated Ltd. (KAL) on behalf of EXP Services Inc. in support of the proposed development of an elementary school at 2666 Tenth Line Road, Ottawa, Ontario within the Mer Bleue Urban Expansion Area. The client requires the removal of three trees from the proposed work area (the "Site") to allow for the construction of the sidewalks associated with the school. Development of the school will include planting new trees within the Site.

A TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on a site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending into the proposed work area. A "tree" is defined as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The removal of trees on the Site cannot occur until written approval of the TCR has been granted through a tree permit as per the City of Ottawa's Tree Protection By-law. The approval of the TCR will come in the form of a letter (the tree permit) from the General Manager[1] with conditions specific to the Site, tree retention, and associated tree protection and tree removal. The approved TCR is a requirement for the approval of the development applications listed above. A copy of the report must be available on the Site during tree removal, grading, construction, or any other site alteration activities, and for the duration of construction on the Site.

The three trees on the Site (Figure 1) that are to be removed have been reviewed by the city and have been addressed by the city. As it stands there is no need for a permit to cut trees, as they have already been considered within Permit D06-01-18-0010 issued in accordance with the Tree Protection By-law, 2020-340.

[1] General Manager of the Public Works & Environmental Services Department or the General Manager of the Planning, Infrastructure and Economic Development Department of the City of Ottawa, or their designate.

Figure 1 Trees to be removed at 2666 Tenth Line Road

2.0 PROPERTY INFORMATION

The area of proposed site alteration is on a portion of lands owned by Claridge, located off of Tenth Line Road and Sweetvalley Drive. The Site covers approximately 200 m along Sweetvalley Drive from the intersection with Tenth Line Road and will be used as institutional space in the proposed development.

The Site is surrounded by:

- Tenth Line Road to the east
- Mattamy homes and Sweetvalley Drive to the north
- McKinnon's Creek to the west
- Development reserve lands to the south.

Trees to be removed are on the northern border, as well as surrounding the single dwelling home on Site.

2.1 Property Owner/ Applicant and Arborist Contact Information

Organization	Role	Contact Person	Phone Number	Email Address
EXP Services Inc. 100-2650 Queensview Drive, Ottawa, Ontario K2B 8H6	Proponent	Ismail Taki Senior Manager, Earth & Environment, Eastern Region	613-688-1899, 63242	Ismail.taki@exp.com
Kilgour & Associates Ltd. 2285-C St. Laurent Blvd., Unit 16, Ottawa, ON, K1G 4Z6	Arborist	Rob Hallett, Biologist	(613) 260 5555	rhallett@kilgourassociates.com
Kilgour & Associates Ltd. 2285-C St. Laurent Blvd., Unit 16, Ottawa, ON, K1G 4Z6	Arborist	Anthony Francis, Senior Ecologist	(613) 277-4027 (613) 260-5555	afrancis@kilgourassociates.com

2.1.1 Qualifications of Arborist

Anthony Francis (Ph.D.) is a Senior Ecologist with 20 years of consulting experience to both government agencies and private industry. He has worked on a diversity of projects relating to species at risk (SAR), invasive species, terrestrial and aquatic habitat, environmental effects monitoring and mitigation, and fate/effects of contaminants. Within each of these subject areas, Dr. Francis has completed projects addressing specific site concerns and broader policy initiatives. Dr. Francis' academic background is in spatial ecology with a focus on tree species diversity. As a Senior Ecologist at KAL, he regularly completes TCRs, Environmental Impact Statements, and Integrated Environmental Reviews for land development projects throughout Ottawa and eastern Ontario. He is also a certified Butternut Health Assessor (BHA #104).

Robert Hallett (Dipl.T) is a Biologist with abroad background in monitoring terrestrial environments. Rob has worked on a wide range of projects relating to species at risk, invasive species, terrestrial and aquatic habitat assessments, and environmental effects monitoring. He has extensive experience completing collection and assessments in support of tree conservation reports. As a biologist at KAL, Rob regularly participates in the production of TCRs, Environmental Impact Statements, and Integrated Environmental Reviews for land development projects throughout the region. Rob is a certified Butternut Health Assessor (BHA #546).

2.2 Additional Applications

Not applicable.

3.0 EXISITING CONDITIONS

3.1 Tree Inventory

An inventory of trees on Site was performed on February 10, 2022, following guidelines set forth by the City of Ottawa (2020). All trees with a DBH ≥10 cm having potential to be removed under the proposed development were identified, enumerated, mapped, their DBH measured, and their general health and condition documented (Table 2, see Appendix A for detailed tree conditions).

3.2 Ecological Significance of Trees on Site

No federally or provincially significant tree species (i.e., those listed under the *Species at Risk Act* (SARA), the *Endangered Species Act* (ESA), or those tracked on the Natural Heritage Information Centre (MNRF, 2021) are present on or adjacent to the Site. None of the trees occurring near the Site are considered regionally rare or uncommon species by Brunton (2005).

Given their urban context, the trees on the Site likely play a role in the regulation of relative humidity, sequestration of carbon and removal of pollutants, wind-shielding, shading and reduction of urban heat island effects, and filtration of dust, noise, and light pollution. They also provide some habitat structure in the surrounding urban landscape. However, the trees on the Site likely only provide habitat for common bird and small mammal species in the Ottawa area and not species of significance (i.e., species that are at risk, rare, or provincially or federally significant).

3.3 Other Natural Environmental Elements

3.3.1 Surface Water Features

There are two drains on the eastern and southern perimeter of the property, as well as McKinnon's Creek on the western side of the proposed development. There is no anticipated impact to these features as a result of the proposed development or removal of trees.

3.3.2 Steep Slopes

No steep slopes occur on or near the Site.

3.3.3 Valued Woodlots

The Site does not contain any woodlots designated as Urban Natural Features or Natural Environment Areas, areas evaluated in the *City of Ottawa Urban Natural Areas Environmental Evaluation Study* (UNAEES; Muncaster Environmental Planning Inc. and Brunton Consulting Services, 2005), or other areas that meet the criteria used in the UNAEES.

3.3.4 Significant Woodlands

The Site does not contain any significant woodlands per *Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment* (City of Ottawa, 2018).

3.3.5 Greenspace Linkages

The Site does not contain any greenspace linkages are identified in the Greenspace Master Plan (City of Ottawa, 2016) or as may occur in the larger landscape.

Table 1 List of trees occuring on the Site

Tree ID	Species Common Name	Species Taxonomic Name	Number of Stems	DBH (cm)	Latitude	Longitude	Fate
1	Manitoba Maple	*Acer negundo*	1	23	462654	5031917	Removed
2	American Elm	*Ulmus americana*	1	25	462748	5031952	Removed
3	Black Locust	*Robinia pseudoacacia*	1	12	462759	5031958	Removed

3.3.6 Hazardous Trees

A formal risk assessment for hazardous trees (e.g., Tree Risk Assessment) was not completed for the Site, though all trees observed have been suggested for removal.

3.3.7 Unique Ecological Features

The Site does not contain any riparian woodlots, rare communities, or other ecological features not already addressed in this document

4.0 PROPOSED DEVELOPMENT

The proposed development is the construction of a two-story elementary school with associated infrastructure (e.g., sidewalks, soccer field). The construction of sidewalks along Sweet Valley Drive and the school will necessitate their removal. Construction of the school will include the planting of new trees throughout the Site where existing trees will be removed. The number, species and location of trees will be included in the detailed landscape plan before construction begins.

5.0 MITIGATION MEASURES

5.1 Site Preparation and Construction

The following mitigation measures should be applied during Site preparation and construction:

- Trees adjacent to the work area further south on the adjacent property will not be removed or damaged.
- To minimize impacts to the trees that are to be retained on the Site:
    - Erect a fence beyond the retained trees along the proposed area of project disturbance.
    - Prunin of branches is recommended in areas of potential conflict with construction equipment but must be completed by a certified arborist.
    - Do not place any materials or equipment within the areas protected by the construction fencing.
    - Do not attach any signs, notices, or posters to any trees.
    - Do not raise or lower the existing grade within areas protected by the construction fencing without approvals.
    - Tunnel or bore when digging within the CRZ of a tree.
    - Do not damage the root system, trunk, or branches of any remaining trees.
    - Ensure that exhaust fumes from all equipment are not directed towards any tree's canopy.
    - Ensure equipment is clean prior to vegetation removal to avoid introducing invasive species to the site, and clean equipment prior to leaving site to avoid spreading invasives elsewhere.
    - When clearing the forest chip Glossy Buckthorn and Green Ash on-site to avoid spreading invasives species (i.e., emerald ash borer).

5.2 Tree planting recommendations

Per Schedule B of the City of Ottawa Tree Protection By-Law (No. 2020-340), compensatory tree planting should be at a 1:1 replacement ratio for private properties in the urban area over 1 ha in size. Replacement tree planting should be on the same property within the vicinity of the work area if possible.

Tree species to be removed include Green Ash (*Fraxinus pennsylvanica*), Manitoba Maple (*Acer negundo*), Red Maple (*Acer rubrum*), Trembling Aspen (*Populus tremuloides*), species of Apple (*Malus* spp.), White Birch (*Betula paprifera*), Basswood (*Tilia americana*), American Elm (*Ulmus americana*), White Oak (*Quercus alba*), and Glossy Buckthorn (*Rhamnus frangula*; an invasive species). Trees planted for

compensation purposes should be native to the area and tolerant of the local site conditions. Appropriate species for compensation include Red Maple (*Acer rubrum*), Basswood (*Tilia americana*), Bur Oak (*Quercus macrocarpa*), White Spruce (*Picea glauca*), and species of Apple (*Malus* spp.).

6.0 CLOSURE

This report was prepared for exclusive use by Exp Services Inc. and may be distributed only by EXP Services Inc. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

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Appendix A Tree inventory table for Summerside West site

Tree ID	Species Common Name	Species Taxonomic Name	Number of Stems	DBH (cm)	Trunk Health	Canopy Health	Decay class
1	Manitoba Maple	*Acer negundo*	1	23	Good: tree displays less than 15% deficiency/defect	Good: tree displays less than 15% deficiency/defect	1
2	American Elm	*Ulmus americana*	1	25	Poor: tree displays greater than 40% deficiency/defect	Poor: tree displays greater than 40% deficiency/defect	5
3	Black Locust	*Robinia pseudoacacia*	1	12	Fair: tree displays 15-40% deficiency/defect	Fair: tree displays 15-40% deficiency/defect	2

Appendix F Regional Species at Risk Screening

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
Birds								
Bald Eagle (*Haliaeetus leucocephalus*)	**Special Concern**	**Not at Risk**		Nest in mature forests near open water. In large trees such as pine and poplar.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Bank Swallow (*Riparia riparia*)	**Threatened**	**Threatened**		Colonial nester; burrows in eroding silt or sand banks, sand pit walls, and human-made sand piles. Often found on banks of rivers and lakes.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Barn Swallow (*Hirundo rustica*)	**Threatened (Special Concern as of Jan 25, 2023)**	**Threatened**		Nests on barns and other structures. Forages in open areas for flying insects. Lives in close association with humans and prefers to nest on structures such as open barns, under bridges, and in culverts.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Black Tern (*Chlidonias niger*)	**Special Concern**	**Not at Risk**		Build floating nests in loose colonies in shallow marshes with abundant emergent vegetation, especially in cattails.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Bobolink (*Dolichonyx oryzivorus*)	**Threatened**	**Threatened**	<1 km	Breeds in hayfields, pastures, agricultural fields, and abandoned fields with tall grass that are ≥5 ha, and preferably >30 ha.	There appears to be suitable habitat on Site; however, the meadow community on Site is not large enough for their habitat requirements	Moderate	Moderate	Moderate
Canada Warbler (*Cardellina canadensis*)	**Special Concern**	**Threatened**		Prefers moist forests with dense shrub layers. Nests located on or near the ground on mossy logs or roots, along stream banks or on hummocks. Area-sensitive species that usually require a minimum of 30 ha of continuous forest for breeding habitat (OMNR, 2000).	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Chimney Swift (*Chaetura pelagica*)	**Threatened**	**Threatened**		Nests in traditional-style open brick chimneys (and rarely in hollow trees). Tends to stay close to water.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Common Nighthawk (*Chordeiles minor*)	**Special Concern**	**Threatened**		Nests in a wide variety of open sites, including beaches, fields, and gravel rooftops with little to no ground vegetation. They also nest in cultivated fields, orchards, urban parks, mine tailings and along gravel roads/railways but tend to occupy more natural sites.	The open areas and gravel parking lot on Site could provide suitable habitat.	Moderate	Low	Negligible. There is some potential that the habitat on Site could be conisdered suitable; however, with constant movement, no individuals would occur on the east side of the site, and there is no proposed development to occur on the west side of the Site, so the potential to interact is negligible.

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
Eastern Meadowlark (*Sturnella magna*)	**Threatened**	**Threatened**	< 1km	Breeds in hayfields, pastures, agricultural fields, and abandoned fields with tall grass that are ≥5 ha, and preferably >30 ha.	There appears to be suitable habitat on Site; however, the meadow communty on Site is not large enough for their habitat requirements	Moderate	Moderate	Moderate
Eastern Whip-poor-will (*Antrostomus vociferus*)	**Threatened**	**Threatened**		Suitable breeding habitats generally include open and half treed areas and often exhibit a scattered distribution of treed and open space. Lays eggs directly on the forest floor. Roosts are typically located in forest habitat on a low branch or directly on the ground. Home range size varies from 20 to 500 ha (mean 136 ha) (ECCC, 2018a).	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Eastern Wood-Pewee (*Contopus virens*)	**Special Concern**	**Special Concern**	1.5 km	Woodland species often found in the mid-canopy layer near clearings and edges of intermediate age and mature deciduous and mixed forests with little understory.	The forest on the western portion of the site could provide habitat	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Evening Grosbeak (*Coccothraustes vespertinus*)	**Special Concern**	**Special Concern**	~2.4km	Nests in trees or large shrubs. Prefers mature coniferous forests (fir and/or spruce dominated), but will also use deciduous forests, parklands, and orchards. Its abundance is strongly linked to the cycle of Spruce Budworm.	The forest on the western portion of the site could provide habitat; however, due to age of the forest is unlikely	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Grasshopper Sparrow (*Ammodramus savannarum*)	**Special Concern**	**Special Concern**	~ 1km	Lives in open grassland areas with well-drained sandy soil. Will also nest in hayfields and pastures, as well as alvars, prairies, and occasionally grain crops such as barley. It prefers areas that are sparsely vegetated, and its nests are well hidden in the field, woven from grasses in a small cup-like shape.	The meadow communities on Site could provide suitable habitat.	Low	Low	Low. There is some potential that the agriculture fields adjacent to the Site could provide habitat and occasional observations of individuals could occur on Site, however, this is unlikely.
Least Bittern	**Threatened**	**Threatened**		Found in a variety of wetland habitats, but strongly prefers cattail marshes with a mix		Negligible	Negligible	Negligible

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
(*Ixobrychus exilis*)				of open pools and channels. They prefer larger marshes >5 ha in size and are intolerant of loss of habitat and human disturbance (OMNR, 2000).	The Site does not appear to contain suitable habitat			
Lesser Yellowlegs (*Tringa flavipes*)	**No Status (Threatened as of Jan 25, 2023)**	**No Status**		Breeds in boreal wetlands. Nests on dry ground or forest openings near peatlands, marshes, and ponds in the boreal forest and taiga (Government of Canada, 2021). Migrant only; nests in far north.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Loggerhead Shrike (*Lanius ludovicianus*)	**Endangered**	**Endangered**	~5km	Prefers grazed pastures or other grasslands with scattered low trees and shrubs, especially hawthorns. Lives in fields or alvars (areas of exposed bedrock) with short grass, which makes it easier to spot prey.	The meadow community on Site and low trees could provide suitable habitat	Moderate	Low	Low
Northern Bobwhite (*Colinus virginianus*)	**Endangered**	**Endangered**		Prefers savannahs, grasslands, around abandoned farm fields, along brushy fencerows and other similar sites. In Sever winter coniditons bobwhites sometimes need to move into small forest areas to find snow-free areas for foraging.	The meadow community and forest on Site could provide suitable habitat	Moderate	Low	Low
Peregrine Falcon (*Falco peregrinus*)	**Special Concern**	**Special Concern**		Nests on tall, steep cliff ledges close to large bodies of water. Urban peregrines raise their young on ledges of tall buildings, even in busy downtown areas.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	**Endangered**	**Endangered**		Lives in open woodland and woodland edges and is often found in parks, golf courses, and cemeteries. These areas typically have many dead trees, which the birds use for nesting and perching.	The forest on the western portion of the site could provide habitat	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, the forest is young, and proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Short-eared Owl (*Asio flammeus*)	**Threatened**	**Special Concern**		Prefer a mosaic of grasslands and wetlands. Lives in open areas such as grasslands, marshes, and tundra where it nests on the ground and hunts for small mammals (Environment Canada, 2016c).	The meadow communities on Site could provide suitable habitat.	Moderate	Low	Low. There is some potential that the meadow community on Site could provide suitable habitat; however the meadow communiy on the eastern side of the property is quite small, and as such is unlikely to be used as habitat.
Wood Thrush (*Hylocichla mustelina*)	**Special Concern**	**Threatened**		Lives in mature deciduous and mixed forests. They seek moist stands of trees with well-developed undergrowth and tall trees for singing and perching. Prefers nesting in large forest mosaics, but will also use fragmented forests. Usually build nests in Sugar Maple or American Beech.	The forest on the western portion of the Site could provide suitable habitat; however, due to age use of this habitat is unlikely	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.

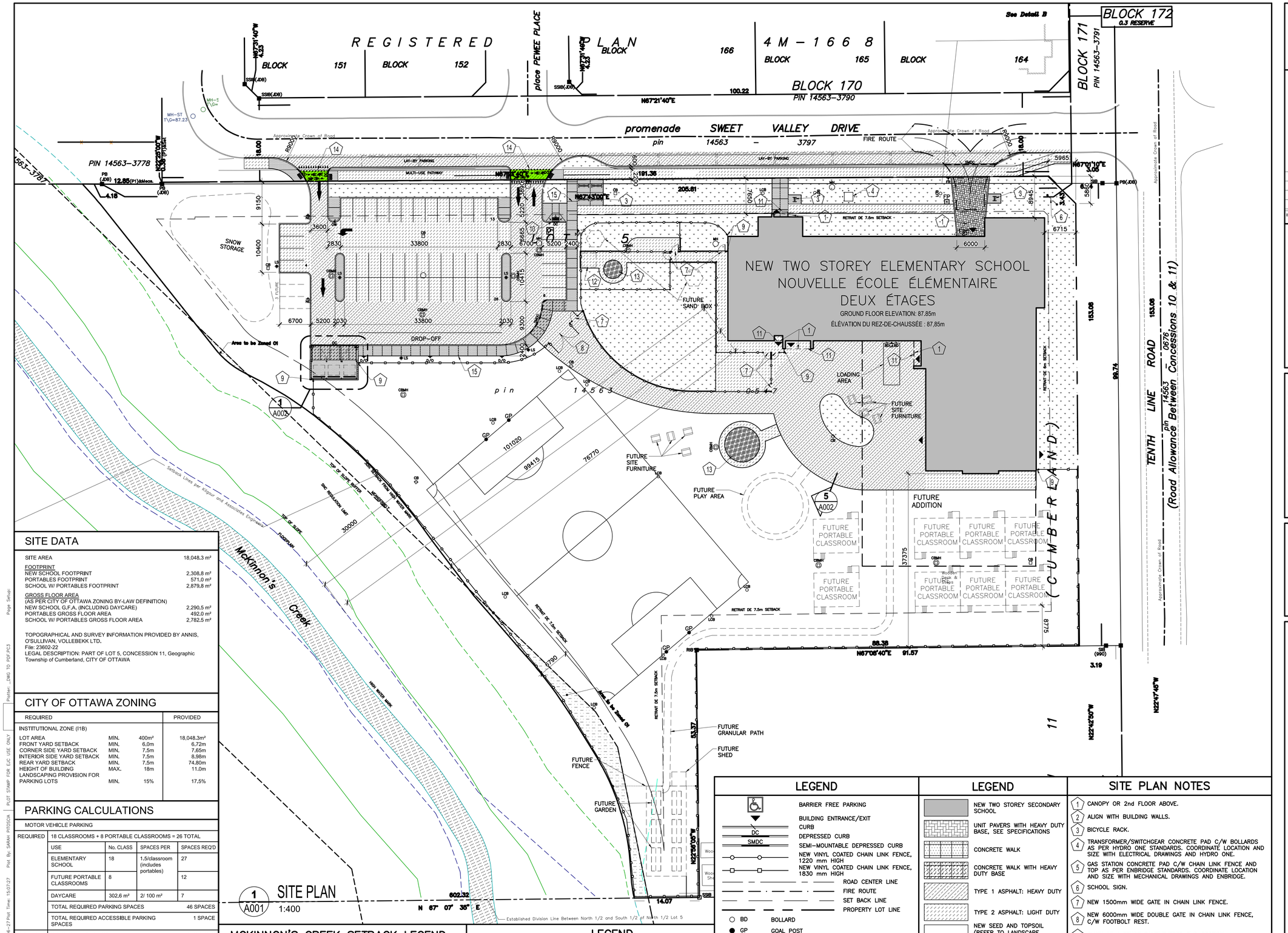
Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
Mammals								
Eastern Small-footed Myotis (*Myotis leibii*)	**Endangered**	**Not Listed**	Humphrey (2017) – in region	In the spring and summer, Eastern Small-footed Myotis will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. Overwinters in caves and abandoned mines.	The forest on the western portion of the site could provide habitat	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Little Brown Myotis (*Myotis lucifugus*)	**Endangered**	**Endangered**	Humphrey and Fotherby (2019) – in region	During the day they roost in trees and buildings. They often select attics, abandoned buildings, and barns for summer colonies where they can raise their young. They can squeeze through very tiny spaces (as small as six millimetres across) allowing them access to many different roosting areas.	The forest on the western portion of the site could provide habitat	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Northern Myotis / Northern Long-eared Bat (*Myotis septentrionalis*)	**Endangered**	**Endangered**	Humphrey and Fotherby (2019) – in region	Associated with deciduous and mixed forests, choosing to roost under loose bark and in the cavities of trees. They forage along and within forests as well as in hayfields and pastures adjacent to mixed forests.	The forest on the western portion of the site could provide habitat	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Tri-colored Bat / Eastern Pipistrelle (*Perimyotis subflavus*)	**Endangered**	**Endangered**	Humphrey and Fotherby (2019) – in region	Roosts mainly in trees during summer; overwinters in caves and mines along with other species, but often uses deeper parts of the hibernaculum. Foraging occurs in forested riparian areas, over water, and within gaps in forest canopies.	The forest on the western portion of the site could provide habitat	Low	Low	Negligible. There is some potentital that the forest on Site could provide suitable habitat; however, proposed work is to occur on the eastern side of the Site, and as such the forest will not be impacted.
Amphibians								
Western Chorus Frog (*Pseudacris triseriata*)	**Not Listed**	Great Lakes/ St. Lawrence population: **Threatened**		Inhabits forest openings around woodland ponds but can also be found in or near damp meadows, marshes, bottomland swamps, and temporary ponds in open country, or even urban areas.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
Reptiles								
Blanding's Turtle (*Emydoidea blandingii*)	**Threatened**	**Endangered**	8.2 km	Quiet lakes, streams, and wetlands with abundant emergent vegetation. Also frequently occurs in adjacent upland forests.	The drainage feature on Site could provide a transient corridor for Blanding's Turtle	Low	Negligible	Negligible. The watercourse on Site could provide a corrridor; but it does not connect two wetlands, and additionally, the creek will not be impacted by the work, so impact is negligible.
Eastern Milksnake (*Lampropeltis triangulum*)	**Not Listed**	**Special Concern**	~1.5km	Found in a variety of open and edge habitats, including meadows, rocky outcrops, and forest edges. They can also inhabit forests. Further, they are often associated with human-made structures such as barns (Environment Canada, 2015b).	The meadow, and forest edge could provide suitable habitat	Moderate	Moderate	Moderate
Eastern Musk Turtle / Stinkpot (*Sternotherus odoratus*)	**Special Concern**	**Special Concern**		Found in lakes, ponds, marshes, and rivers that are generally slow-moving, have abundant emergent vegetation, and muddy bottoms that they burrow into for winter hibernation.	The Site does not appear to contain suitable habitat	Negligible	Negligible	Negligible
Midland Painted Turtle (*Chrysemys picta marginata*)	**Not Listed**	**Special Concern**		Inhabits waterbodies, such as ponds, marshes, lakes, and slow-moving creeks that have a soft bottom and provide abundant basking sites and aquatic vegetation. Often bask on shorelines or on logs and rocks that protrude from the water.	The watercourse on Site could provide suitable habitat	Low	Low	Low
Northern Map Turtle (*Graptemys geographica*)	**Special Concern**	**Special Concern**		Lives in rivers and lakeshores where it basks on emergent rocks and fallen trees throughout the spring and summer. In winter, they hibernate on the bottom of deep, slow-moving sections of river.	The Site does not appear to contain suitable habitat	Low	Low	Low
Snapping Turtle (*Chelydra serpentina*)	**Special Concern**	**Special Concern**		Spend most of their lives in the water. Prefer shallow waters so they can hide under the soft mud and leaf litter with only their noses exposed to the surface to breathe.	The watercourse on Site and the gravel parking lot could provide suitable habitat	Low	Low	Low
Arthropods								
Monarch (*Danaus plexippus*)	**Special Concern**	**Special Concern**	1.4 km	Milkweeds are the sole food plant for Monarch caterpillars. These plants predominantly grow in open and periodically disturbed habitats such as roadsides, fields, wetlands, prairies, and open forests.	There is some potential if Milkweed is present on the Site that the Site could be considered suitable habitat.	Moderate	Low	Low. A transient occurance near the project is possibem but the constant ongoing disturbance of the Site will discourage individuals from coming onto the Site

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
Transverse Lady Beetle (*Coccinella transversoguttata*)	**Endangered**	**Special Concern**		Able to live in a wide range of habitats, including agricultural areas, suburban gardens, parks, coniferous forests, deciduous forests, prairie grasslands, meadows, and riparian areas.	There have been no records of the species in Ontario since 1990 (MECP, 2020b).	None	None	None
Yellow-banded Bumble Bee (*Bombus terricola*)	**Special Concern**	**Special Concern**	~5km.	This species is a forage and habitat generalist, able to use a variety of nectaring plants and environmental conditions. Can be found in mixed woodlands, particularly for nesting and overwintering, as well as a variety of open habitat such as native grasslands, farmlands, and urban areas.	The meadow and forest community could provide suitable habitat; however, it is unlikely due to the size of meadow community	Moderate	Moderate	Moderate
Fish								
Channel Darter (*Percina copelandi*)	**Special Concern**	**Special Concern**		Prefers clean streams and lakes with moderate current over sandy or rocky substrate.	The Site does not appear to contain suitable habitat	None	None	None
Lake Sturgeon (*Acipenser fulvescens*)	**Endangered**	**No Status**		Only found in large lakes and rivers. Forages in cool water, 4-9 m deep over soft substrate; spawns in shallower, fast-flowing areas over rocks or gravel.	The Site does not appear to contain suitable habitat	None	None	None
Northern Brook Lamprey (*Ichthyomyzon fossor*)	**Special Concern**	**Special Concern**		Inhabits clear, coolwater streams. The larval stage requires soft substrates such as silt and sand for burrowing which are often found in the slow-moving portions of a stream. Adults are found in areas associated with spawning, including fast flowing riffles comprised of rock or gravel.	The Site does not appear to contain suitable habitat	None	None	None
Silver Lamprey (*Ichthyomyzon unicuspis*)	**Special Concern**	**Special Concern**		Requires clear water where they can find fish hosts, relatively clean stream beds of sand and organic debris for larvae to live in, and unrestricted migration routes for spawning. Larvae live 4-7 years in burrows (prefer soft substrates); filter-feed on plankton.	The Site does not appear to contain suitable habitat	None	None	None
Molluscs								
Hickorynut (*Obovaria olivaria*)	**Endangered**	**Endangered**		Live on the sandy beds in large, wide, deep rivers – usually more than two or three metres deep – with a moderate to strong current. Ottawa River.	The Site does not appear to contain suitable habitat	None	None	None
Vascular Plants								
Black Ash (*Fraxinus nigra*)	**Endangered**	**No Status**		Predominantly a wetland species found in swamps, floodplains, and fens.	The Site does not appear to contain suitable habitat	Low	None	None

Species Name (*Taxonomic Name*)	Status under *Endangered Species Act* (ESA)	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Closest Species Occurrence Record to the Site	General Habitat Requirements	Site Suitability	Potential for Protected Elements[1]		Assessed Potential for Negative Interactions with Protected Elements[2]
						Habitat	Individuals	
Butternut (*Juglans cinerea*)	**Endangered**	**Endangered**		Commonly found in riparian habitats but is also found on rich, moist, well-drained loams and well-drained gravels, especially those of limestone origin.	The Site does not appear to contain suitable habitat	Low	None	None

Appendix G Site Plan



SITE DATA

SITE AREA	18,048.3 m²
FOOTPRINT	
NEW SCHOOL FOOTPRINT	2,308.8 m²
PORTABLES FOOTPRINT	571.0 m²
SCHOOL W/ PORTABLES FOOTPRINT	2,879.8 m²
GROSS FLOOR AREA (AS PER CITY OF OTTAWA ZONING BY-LAW DEFINITION)	
NEW SCHOOL G.F.A. (INCLUDING DAYCARE)	2,290.5 m²
PORTABLES GROSS FLOOR AREA	492.0 m²
SCHOOL W/ PORTABLES GROSS FLOOR AREA	2,782.5 m²

TOPOGRAPHICAL AND SURVEY INFORMATION PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
File: 23602-22
LEGAL DESCRIPTION: PART OF LOT 5, CONCESSION 11, Geographic Township of Cumberland, CITY OF OTTAWA

CITY OF OTTAWA ZONING

REQUIRED			PROVIDED
INSTITUTIONAL ZONE (I1B)			
LOT AREA	MIN.	400m²	18,048.3m²
FRONT YARD SETBACK	MIN.	6.0m	6.72m
CORNER SIDE YARD SETBACK	MIN.	7.5m	7.65m
INTERIOR SIDE YARD SETBACK	MIN.	7.5m	8.98m
REAR YARD SETBACK	MIN.	7.5m	74.80m
HEIGHT OF BUILDING	MAX.	18m	11.0m
LANDSCAPING PROVISION FOR PARKING LOTS	MIN.	15%	17.5%

PARKING CALCULATIONS

MOTOR VEHICLE PARKING

REQUIRED	18 CLASSROOMS + 8 PORTABLE CLASSROOMS = 26 TOTAL			
	USE	No. CLASS	SPACES PER	SPACES REQ'D
	ELEMENTARY SCHOOL	18	1.5/classroom (includes portables)	27
	FUTURE PORTABLE CLASSROOMS	8		12
	DAYCARE	302.6 m²	2/ 100 m²	7
	TOTAL REQUIRED PARKING SPACES			46 SPACES
	TOTAL REQUIRED ACCESSIBLE PARKING SPACES			1 SPACE
PROVIDED	SPACES @ 5.2mD X 2.6mW			48 SPACES
	TYPE A ACCESSIBLE PARKING SPACES @ 5.2mD X 3.7mW			1 SPACE
	TOTAL SPACES PROVIDED			49 SPACES

BICYCLE PARKING

REQUIRED	USE	GROSS AREA	SPACES PER	SPACES REQ'D
	SCHOOL	2,560.2 m²	1 per 100 m² of gross floor area	26 SPACES
	DAYCARE	302.6 m²	1 per 250 m² of gross floor area	2 SPACES
	PORTABLES	492 m²	1 per 100 m² of gross floor area	5 SPACES
	TOTAL REQUIRED BICYCLE PARKING SPACES			33 SPACES
PROVIDED	TOTAL BICYCLE SPACES PROVIDED			40 SPACES

MCKINNON'S CREEK SETBACK LEGEND

*DATA PROVIDED BY KILGOUR & ASSOCIATES, FIGURE 6, EIS REPORT

- LIMIT OF AREA TO BE ZONE O1
- MCKINNONS SETBACK–BASED ON THE GREATEST OF:
- TOP OF BANK CHANNEL (NHWM)
- 30m SETBACK FROM TOB CHANNEL (NHWM)
- TOP OF SLOPE
- TOP OF SLOPE BUFFER (15m)
- MEANDERBELT (60.9m WIDTH; MORRISON–HERSHFIELD, 2017)
- FLOODPLAIN (SNC, 2023)

LEGEND

FP	FLAG POLE BASE
FR	FIRE ROUTE SIGN
H/C	DISABLED PARKING PERMIT (Rb–93)
D/O	DROP–OFF SIGN
NE	NO ENTRY SIGN
OW	ONE WAY SIGN
LA	LOADING AREA SIGN

LEGEND

	BARRIER FREE PARKING
	BUILDING ENTRANCE/EXIT
CURB	CURB
DC	DEPRESSED CURB
SMDC	SEMI–MOUNTABLE DEPRESSED CURB
	NEW VINYL COATED CHAIN LINK FENCE, 1220 mm HIGH
	NEW VINYL COATED CHAIN LINK FENCE, 1830 mm HIGH
	ROAD CENTER LINE
	FIRE ROUTE
	SET BACK LINE
	PROPERTY LOT LINE
BD	BOLLARD
GP	GOAL POST
LS	NEW LIGHT STANDARD, SEE ELECTRICAL DRAWINGS
EFH	EXISTING FIRE HYDRANT, SEE SURVEY
FDC	FIRE DEPARTMENT CONNECTION, REFER TO MECHANICAL DRAWINGS
MH	NEW MANHOLE, REFER TO CIVIL DRAWINGS
CBMH	NEW CATCH BASIN MANHOLE, REFER TO CIVIL DRAWINGS
LCB	NEW LANDSCAPE CATCH BASIN, REFER TO CIVIL DRAWINGS
CB	NEW CATCH BASIN
SIB	IRON BAR, REFER TO SURVEY

LEGEND

	NEW TWO STOREY SECONDARY SCHOOL
	UNIT PAVERS WITH HEAVY DUTY BASE, SEE SPECIFICATIONS
	CONCRETE WALK
	CONCRETE WALK WITH HEAVY DUTY BASE
	TYPE 1 ASPHALT: HEAVY DUTY
	TYPE 2 ASPHALT: LIGHT DUTY
	NEW SEED AND TOPSOIL (REFER TO LANDSCAPE DRAWING)
	NEW SOD AND TOPSOIL (REFER TO LANDSCAPE DRAWING)
	MULCH (REFER TO LANDSCAPE DRAWING)
	ENGINEERED WOOD FIBER
	EXISTING WATERCOURSE
	FUTURE O1 ZONING (MEANDERBELT)

SITE PLAN NOTES

1. CANOPY OR 2nd FLOOR ABOVE.
2. ALIGN WITH BUILDING WALLS.
3. BICYCLE RACK.
4. TRANSFORMER/SWITCHGEAR CONCRETE PAD C/W BOLLARDS AS PER HYDRO ONE STANDARDS. COORDINATE LOCATION AND SIZE WITH ELECTRICAL DRAWINGS AND HYDRO ONE.
5. GAS STATION CONCRETE PAD C/W CHAIN LINK FENCE AND TOP AS PER ENBRIDGE STANDARDS. COORDINATE LOCATION AND SIZE WITH MECHANICAL DRAWINGS AND ENBRIDGE.
6. SCHOOL SIGN.
7. NEW 1500mm WIDE GATE IN CHAIN LINK FENCE.
8. NEW 6000mm WIDE DOUBLE GATE IN CHAIN LINK FENCE, C/W FOOTBOLT REST.
9. CHAIN LINK FENCE CANTILEVERED END SECTION.
10. CURB RAMP WITH FLARED SIDES AND DETECTABLE HAZARD INDICATOR, CONSTRUCTED TO CITY OF OTTAWA STANDARDS.
11. EXTENT OF 100mm PAVING INSULATION, 1.22m FROM FACE OF FOUNDATION WALL, FLOOR PLAN AND SECTIONS.
12. FUTURE STORAGE SHED N.I.C.
13. ENGINEERED WOOD FIBER PLAY AREA.
14. MULTI–USE PATHWAY CROSSING GREEN PAVEMENT MARKING AS PER CITY OF OTTAWA STANDARD.
15. TYPICAL CONCRETE PAVING SAW–CUT JOINT AT MAXIMUM 2400mm OR AS SHOWN ON DRAWINGS.

Écoles catholiques Centre-Est

ISSUE NO.	REV. NO.	DATE YYMMDD	ISSUE
2	0	2023/09/15	ISSUED FOR ZONING
1	0	2023/06/21	ISSUED FOR SITE PLAN CONTROL

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EDWARD J. CUHACI
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171 Slater St, Suite 100, Ottawa, Ontario, K1P 5H7
Fax: (613) 236-1944 Telephone: (613) 236-7135 E-mail: info@cuhaci.com

PROJECT TITLE/TITRE DU PROJET
ÉCOLE ÉLÉMENTAIRE CATHOLIQUE
AVALON III
TENTH LINE ROAD
OTTAWA, ON

CONSEIL DES ÉCOLES CATHOLIQUES DU CENTRE-EST
4000, RUE LABELLE, OTTAWA, ON K1J 1A1

DRAWING TITLE/TITRE DU DESSIN
SITE PLAN

SCALE / ÉCHELLE	1:400	PROJ. No 2215	ISSUE No 1 / REV. No 0
DRAWN BY / DESSINÉ PAR	S.P.	DRAWING/DESSIN	A001
CHECKED BY / VÉRIFIÉ PAR	S.R./Z.O.J.		
DATE	SEPTEMBER 2022	FICHIER ACAD FILE: 2215-A001.dwg	

Appendix H Email Correspondence with James Holland (SNC)

Nick Moore

From: James Holland <jholland@nation.on.ca>
Sent: September 26, 2023 11:45 AM
To: Murshid, Shoma
Cc: Anthony Francis; paquetteplanning@sympatico.ca; Rehman, Sami; Nick Moore
Subject: RE: Setback considerations for an EIS for 2666 Tenth Line

Hi Shoma,

We've had some technical review of the comments below and SNC would accept a meander belt width measurement from the watercourse centerline. Note the highlighted change below. This should result in a very similar outcome as the greatest watercourse setback is 30m from the normal (or 2-year) high water mark. Please let me know if you have any concerns or questions.

1. The Special Study Area no longer exists and should not be considered in the determination of setbacks. This was the previous SNC Regulation Limit under Ontario Regulation 170/06, based on a previous 100-year floodplain analysis. That floodplain analysis has been updated and the Special Policy Area has been removed.
2. The natural hazard component of the watercourse setback should be based on the greatest natural hazard, which is the meander belt width of 60.9m established in the December 2017 Environmental Management Plan. This can be measured from the watercourse centerline. For the subject property, this represents a width of 30.45m.
3. The City is the approval authority for the Zoning Bylaw Amendment, including the final determination of the watercourse setback, to satisfy their Official Plan and Zoning Bylaw policies.
4. It is recommended that a survey by a qualified professional be submitted demonstrating that the proposed development respects the watercourse setback.

Kind regards,
James

From: James Holland <jholland@nation.on.ca>
Sent: Friday, September 22, 2023 10:54 AM
To: Anthony Francis <afrancis@kilgourassociates.com>; paquetteplanning@sympatico.ca <paquetteplanning@sympatico.ca>
Cc: Murshid, Shoma <Shoma.Murshid@ottawa.ca>; Rehman, Sami <Sami.Rehman@ottawa.ca>
Subject: RE: Setback considerations for an EIS for 2666 Tenth Line

Hi Anthony,

I can confirm the following for development at 2666 Tenth Line:

1. The Special Study Area no longer exists and should not be considered in the determination of setbacks. This was the previous SNC Regulation Limit under Ontario Regulation 170/06, based on a previous 100-year floodplain analysis. That floodplain analysis has been updated and the Special Policy Area has been removed.
2. The natural hazard component of the watercourse setback should be based on the greatest natural hazard, which is the meander belt width of 60.9m established in the December 2017 Environmental Management Plan, measured from the normal (or 2-year) high water mark. For the subject property, this represents a width of 30.45m.

3. The City is the approval authority for the Zoning Bylaw Amendment, including the final determination of the watercourse setback, to satisfy their Official Plan and Zoning Bylaw policies.
4. It is recommended that a survey by a qualified professional be submitted demonstrating that the proposed development respects the watercourse setback.

I trust this addresses your questions. Please feel free to contact me if there are any questions or concerns.
Kind regards,
James

From: Anthony Francis <afrancis@kilgourassociates.com>
Sent: Tuesday, September 19, 2023 5:23 PM
To: James Holland <jholland@nation.on.ca>
Subject: Setback considerations for an EIS for 2666 Tenth Line

Hi James,

Thanks for chatting with me last week about this project. Under City of Ottawa policy, our EIS reviewing a proposed school site at 2666 Tenth Line is required to identify the setback requirements for development adjacent to McKinnon's Creek, and then to confirm whether or not the proposed development respects those setbacks. The City of Ottawa OP provides "default" setback criteria but indicates that, if an approved Subwatershed Study OR Environmental Management Plan exists for the area, setbacks for development projects are to be imposed in accordance with that report.

The subject property is situated within lands addressed by the Mer Bleue Urban Expansion Study Area Environmental Management Plan. Under that EMP, aquatic setback considerations are as follows:

- *A setback consisting of the greater of 15 m from the top-of-valley slope for McKinnon's Creek or 30 m from the normal high water mark in the urban area, as corresponds with the recommendations of the Official Plan Section 4.7.3.*
    - Please note the EMP refers to the version of the City OP in effect at that time (i.e. 2017).

We have considered these setback requirements accordingly.

In addition to these setbacks, however, the EMP adds general consideration for Hazard Lands. Further, we recognize that development is precluded from within the regulatory floodplain. These two elements are the subjects of this email to you.

With respect to the floodplain consideration, the EMP notes, that:

- *SNC has indicated that until a floodplain study is completed and reviewed by SNC to allow formal update to the Regulatory Floodline, the lands within 15 m upland of the existing Regulatory Floodplain.*

In effect, there is (or was) a *Special Study Zone* that must be considered until such time as the regulatory floodplain for that portion of McKinnon's Creek is confirmed. It is my understanding that the SNCA has completed their floodplain review and that:

- the regulatory floodplain has been established,
- the regulatory floodplain is now part of the public record, and
- the *Special Study Zone* has been lifted.

Can you please confirm that the Special Study Zone has been lifted and that we may review the development footprint against the floodplain boundary as currently posted on the SNCA geoportal?

With respect to Hazard Lands, it is our understanding that the calculaton of the meander belt for McKinnon's Creek effectively considered issues stability and erosion potential (i.e. issues generally associated with the identification of "hazard lands"), and that SNCA does not have any other associated or relevant delineations.

Can you please confirm that SNCA concerns related to “hazard lands” are effectively captured by the delineated meander belt for the creek?

Thank you and kind regards

Tony

Anthony Francis, PhD
Senior Ecologist
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