

# PLANNING JUSTIFICATION REPORT

**100 STOKES TRAIL**

**TOWN OF MILTON, ONTARIO**

*Brutto Consulting*

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Toronto, Ontario, M6B 3W8

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2. Topographic Plan, Grading Plan and Erosion/Sediment Control (ESC) Plan, prepared by IBW Surveyors
3. Photometric Site Plan Analysis, prepared by E-Lumen International Inc.

## 1.0 Introduction

Brutto Consulting is pleased to provide this Planning Justification Statement regarding the Zoning By-law Amendment application for the Subject Property located at 100 Stokes Trail in the Hamlet of Campbellville within the Town of Milton. We are the authorized Planning consultant for the owners of the Subject Lands. On behalf of our client, we are submitting a Zoning By-law Amendment application to the Town of Milton, seeking relief from Rural Zoning By-law No. 144-2003.

The requested Zoning By-law Amendment is required to permit a slight increase in lot coverage for accessory structures for a small shed, to seek relief from the GB\*15 Zone to permit an existing recreational concrete pad, drainage infrastructure (french drains and infiltration galleries) and part of an interlock patio within a portion of the Subject Property, and to seek a reduced rear yard setback for the concrete pad and a reduced side yard setback for the accessory shed.

## 2.0 Site Context and Proposed Development

The Subject Property is located at 100 Stokes Trail, and the nearest intersection is Reid Sideroad and Stokes Trail. The Subject Lands have a frontage of 40.5 metres and a depth of 80.70 metres and a lot area of about 0.35 hectares. The property has direct frontage onto Stokes Trail. Situated within the Subject Property is an existing two-storey residential home with associated amenities including manicured gardens, a pool, a patio, a small storage shed and the recreational concrete pad.

The land use context surrounding the Subject Lands is described as follows (*See Figure 1: Site Context*):

**North:** Single family detached dwellings of the Stokes Subdivision.

**East:** Single family detached dwellings of the Stokes Subdivision.

**South:** Single family detached dwellings of the Stokes Subdivision.

**West:** To the west of the subject property there is an existing forested feature.



Figure 1: Site Context (Source: Milton Interactive Maps, 2022)

## 2.1 Proposed Outdoor Amenities, Accessory Structure and Zoning By-law Amendment

The purpose of the proposed Zoning By-law Amendment on the Subject Property is to permit that a portion of an existing recreational concrete pad, drainage infrastructure and interlock patio be located within the GB\*15 Zone, and to permit an existing accessory storage shed on the rear yard which requires a slight increase to the total aggregate gross floor area for accessory buildings on the property. The existing recreational pad will also require a reduced rear yard setback, while the existing accessory shed will require a reduced side yard setback. The aggregate gross floor area and side yard setback associated with the accessory shed do not encroach onto the portion of the Subject Property zoned GB\*15.

The existing recreational concrete pad (*See Figure 2 – Detailed Concept Plan*) has an area of 324.11 m<sup>2</sup>, and has a side yard setback of 3.0m to the neighbouring property and a rear yard setback of 0.48 metres. The existing pad is a permitted use within the Village Residential (RV\*14) Zone and is not permitted within the Greenlands (GB\*15) Zone. A portion of the existing pad as well as the drainage galleries and a small portion of the interlock patio surface are partially located within the GB\*15 Zone which only permits naturalized vegetation. As such, a Zoning By-law Amendment is required to permit the current encroachments on this zone, which also includes a reduced rear yard setback.

The recreational concrete pad will be contained with 36 inch (0.91 m) tall boards and will also include a smaller pad on the southwest corner where a small ice rink chiller will be installed to allow for the pad to be used as an ice rink in the winter season. The chiller will cover an area of 1.85 m<sup>2</sup>, have a height of 1.2 metres, and made of galvanized steel.

The existing storage shed has an area of 9.85 m<sup>2</sup> and a height of 2.68 m and is setback 1.07m from the north side yard, which will require relief from the minimum interior side yard setback required by the Zoning By-law.

The proposed Zoning By-law Amendments are discussed further in Section 4.0 of this Report and in our opinion is appropriate for the Subject Property and will be properly mitigated with enhanced landscaping and tree planting.

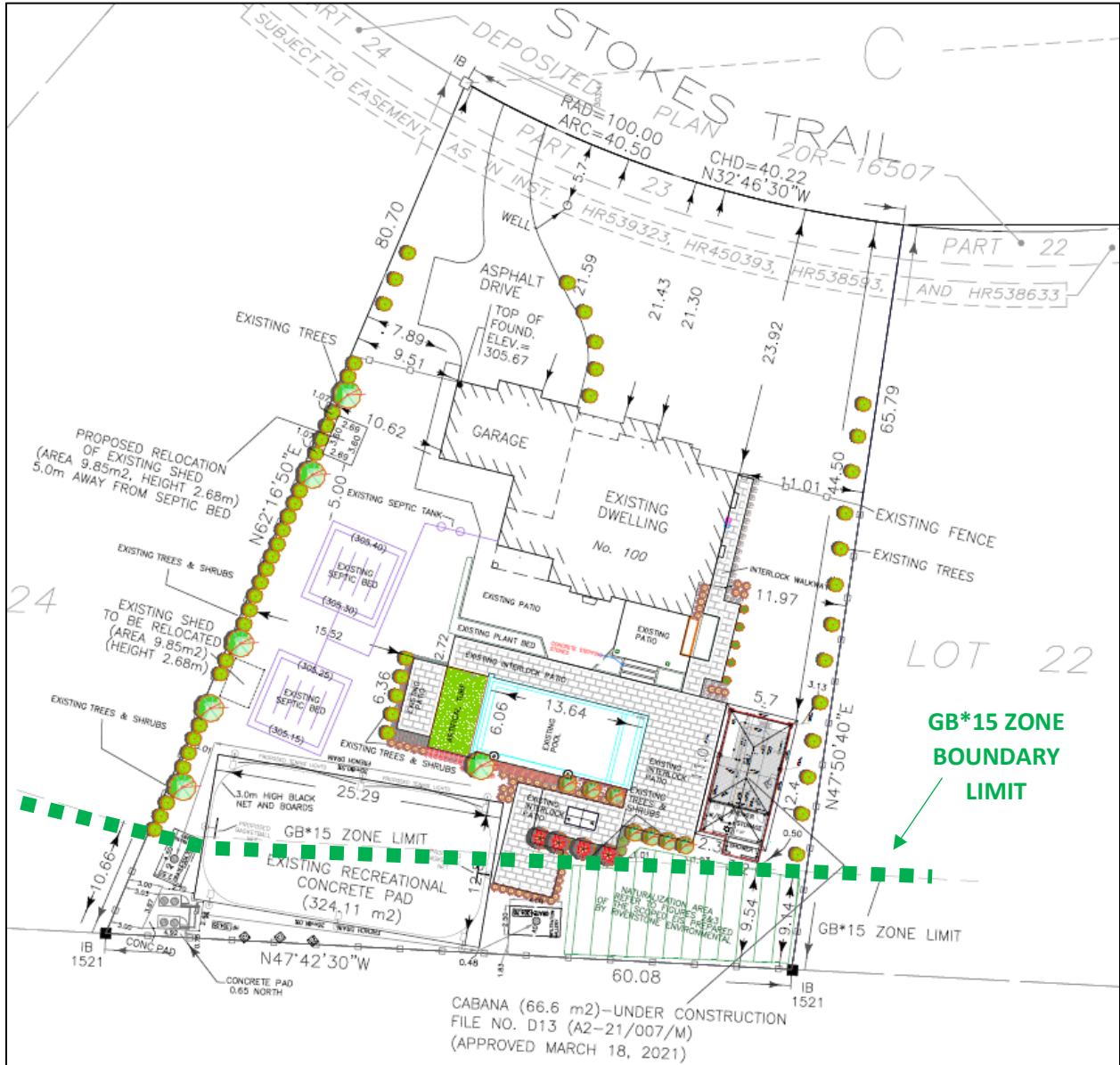


Figure 2: Detailed Concept Plan

### 3.0 Policy Context – Official Plan and Zoning By-law

This section of the Report outlines relevant planning policies and provides comments as to how the proposed rezoning meets the overall intent of the Greenbelt Plan (2017), Halton Region Official Plan (November 4, 2022 Office Consolidation), Town of Milton Official Plan (2018 – as amended by OPA 31), and the Town of Milton Rural Zoning By-law 144-2003.

#### 3.1 The Greenbelt Plan (2017)

The Subject Property is located within the planning policy area of the Greenbelt Plan (2017) and is situated within the boundary of a Hamlet Settlement Area. The site is also located within the “Protected Countryside” and “Natural Heritage System (NHS)” designations and is thus subject to Section 3.2.2 – Natural Heritage System Polices.

Policy 3.2.2.3.a) of the Greenbelt Plan states that any site alteration within the NHS shall demonstrate that no negative impacts will occur on key natural heritage features (KNHF), key hydrologic features (KHF) or their functions. As per the *Scoped Environmental Study* prepared by Riverstone Environmental, while the Subject Property does not contain any KNHF or KHF, it is adjacent to a significant woodland and potential significant wildlife habitat which do qualify as KNHF. As such, the *Scoped Environmental Study* has been prepared to demonstrate that no negative impacts will occur as a result of the existing sports pad and interlock patio partially encroaching into the NHS designation.

Policy 3.2.5 of the Greenbelt Plan states that site alteration can only occur outside KNHF and KHF and that an associated 30 metre vegetation protection zone be established from the limits of these features. While policy 3.2.5 of the Greenbelt Plan would preclude site alteration within the NHS portion of the Subject Property, policy 3.2.2.4 states that the Natural Heritage System (NHS), including section 3.2.5 polices, do not apply within existing settlement area boundaries. The Subject Property is located within an existing settlement area boundary and as such is not subject to policy 3.2.5 of the Greenbelt Plan.

Based on the findings of the *Scoped Environmental Study* prepared by Riverstone Environmental, it is our opinion that the existing concrete sports pad and interlock patio are consistent with the NHS provisions of the Greenbelt Plan and will have no negative impacts within the Subject Property or adjacent areas.

### 3.2 Halton Region Official Plan – ROP (November 4, 2022 Office Consolidation)

The Subject Property is situated within the “Hamlet” designation of the Regional Official Plan which permits the existing recreational concrete sports pad, drainage infrastructure, interlock patio and accessory shed. The rear portion of the property is also subject to the “Regional Natural Heritage System” designation and the “Greenbelt Natural Heritage System” overlay.

Policy 117.1(11) of the Region Official Plan permits “incidental uses” within lands under the “Regional Natural Heritage System” designation. This use is defined as “a use (e.g., swimming pool) normally accessory to but not an essential part of an existing use” under Part IV – Definitions of the ROP. As such, the existing concrete sports pad (and its drainage infrastructure), similar to the existing swimming pool, can be considered as an incidental use to the residential property being a recreational use that compliments the backyard of a residential property.

As per policy 139.3.7(3) of the ROP, non-intensive recreational uses are permitted within the “Greenbelt Natural Heritage System” overlay as long as it is demonstrated that negative impacts to natural heritage features are minimized. As per the *Scoped Environmental Study* prepared by Riverstone Environmental, the recreational concrete pad will have no impacts on the functions of the existing natural heritage features adjacent to the Subject Property, and the concrete pad is also outside the definable limits of any NHS Key Feature. Please refer to **Appendix 1** of this Report.

Although the ROP does not define “recreational use”, the Provincial Policy Statement (PPS) defines it as “leisure time activity undertaken in built or natural settings for purposes of physical activity, health benefits, sport participation and skill development, personal enjoyment, positive social interaction and the achievement of human potential.” The existing recreational sports pad and interlock patio would logically fall under this definition.

The proposed recreational sports pad, drainage galleries and interlock patio are both non-intensive uses as they will be exclusively used by the owner and their family residing in the Subject Property. The sports and activities played on the concrete pad will be undertaken in a casual setting between family members for leisurely recreational activity, which can be considered as a non-intensive form of recreation. The recreational concrete pad will provide this family with an opportunity to improve their mental and physical health, reduce stress, and improve their overall well-being within the comfort of their own home. The use will be solely accessory to the primary residential dwelling and any non-residential use (i.e. commercial) will not be permitted.



### 3.3 Town of Milton Official Plan (2018 – as amended by OPA 31)

The property is situated within the “Hamlet” designation under the Town Official Plan (“the Town OP”), while the rear portion of the backyard is situated within the “Natural Heritage System” designation and the “Greenbelt Natural Heritage System” overlay. Please see *Figure 3 - Schedule A – Rural Land Use Plan* for reference. The “Hamlet designation is intended to accommodate future residential growth within the rural area of the Town of Milton and permits the existing single detached residential use on the property and other accessory uses associated with the principal residence.

The site is also subject to the policies and objectives of the Hamlet of Campbellville Secondary Plan in Section C.3 of the Town Official Plan. Under *Schedule C.3.A – Campbellville Hamlet Land Use* the Subject Property is designated as “Hamlet Residential” and “Greenlands B”. The “Greenlands B” designation has been replaced by “Regional Natural Heritage System” by OPA 31. The “Hamlet Residential” designation permits the existing concrete sports pad, drainage infrastructure, storage shed, and interlock patio as complementary uses to the principal single detached dwelling. Please see to *Figure 4: Schedule C.3.A – Campbellville Hamlet Land Use* for reference.

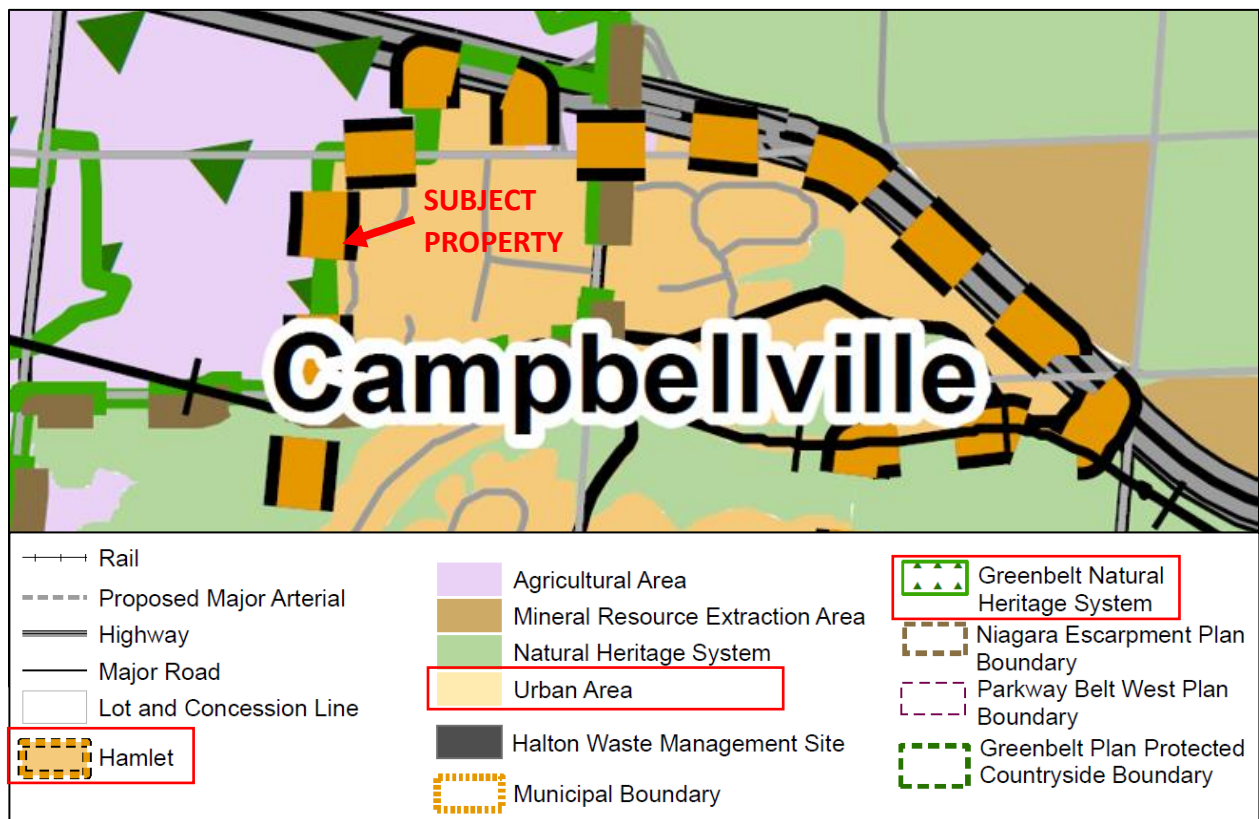


Figure 3: Schedule A – Rural Land Use Plan (Source: Town of Milton Official Plan, May 2018)

The criteria of the Regional Natural Heritage System (“Regional NHS”) designation and its permitted uses are outlined in section 4.9 of the Town Official Plan. Section 4.9.1.1 states that the Regional NHS consists of areas designated on Schedules A and B of the Town Official Plan and may also consist of significant habitats of endangered/threatened species which may not be included in the Town Official Plan schedules.

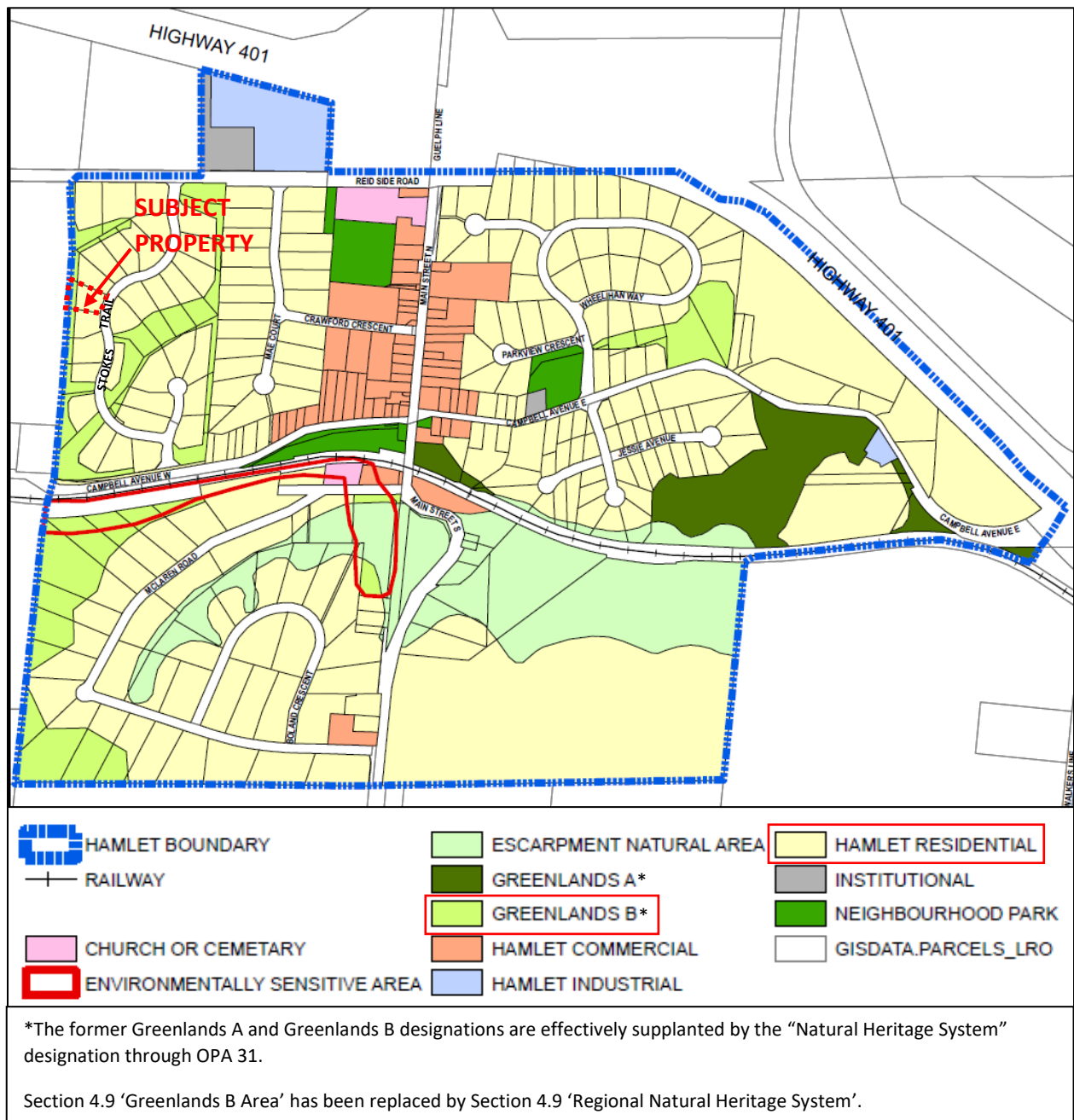


Figure 4: Schedule C.3.A – Campbellville Hamlet Land Use (Source: Milton Official Plan, 2018)

Section 4.9.2.1 of the Town OP permits a wide range of uses within the “Regional NHS” designation subject to the other policies of the Town Official Plan, the Greenbelt Plan, and applicable Conservation Authority regulations. Section 4.9.2.1.k) permits “incidental uses”, which is defined as “a use (i.e. swimming pool) normally accessory to but not an essential part of an existing use” in section 5.10.6 – Definitions of the Official Plan. As per this definition, the existing concrete sports pad, drainage infrastructure and interlock patio can be uses that play an accessory role to the residential property, similar to the existing swimming pool which is also located within the backyard of the Subject Site. These are recreational uses complimentary to the manicured lawn in the rear yard of a single detached residential property. It is also important to note that the use of the recreational concrete pad will only be accessory to the existing residential dwelling and any non-residential use of the pad will not be allowed.

Furthermore, Section 4.9.3 of the Town OP sets out development and site alteration policies within the “Regional NHS” to ensure any adverse impacts to the NHS will not occur. Section 4.9.3.2 states that the proponent of any site alteration is required to provide an Environmental Impact Assessment (EIA) to identify any *Key Features* on or near the site and demonstrate that no negative impacts will occur to the identified features as well as any other components of the Regional NHS and its associated ecological functions. Section 4.9.3.3.c) further notes that an EIA is required for proposed site alteration located wholly or partially inside or within 120 metres of the Regional NHS.

Section 4.10 - Greenbelt Natural Heritage System also applies to the Subject Property as per the “Greenbelt Natural Heritage System” overlay illustrated on *Figure 3*. The purpose of this overlay is to implement policies of the Greenbelt Plan (2017) as they apply to the Natural Heritage System. Policy 4.10.1.6.b) does not permit site alteration on lands adjacent to Key Features of the Greenbelt NHS unless demonstrated otherwise through an EIA.

In accordance with the above noted policies, our client has retained a qualified environmental consultant to prepare a *Scoped Environmental Impact Study* that demonstrates the existing concrete sport pad and interlock patio that partially encroach onto the Regional NHS designation will not have any negative impacts to the nearby functions of Key Natural Heritage Features, Key Heritage Features or to the associated Natural Heritage System and its ecological functions. The findings of this report are further detailed in Section 4.0 of this Report. The *Scoped Environmental Impact Study* prepared by Riverstone Environmental is attached within **Appendix 1** to this Report.

### 3.4 Town of Milton Rural Zoning By-law 144-2003

The Town of Milton Rural Zoning By-law No. 144-2003 contains provisions for regulating the zoning for the Subject Property. The purpose of this Zoning By-law is to implement the policies of the Town of Milton Official Plan, which affect the use of land throughout the Town of Milton. The Subject Property is also affected by By-law No. 131-2002 which was passed on September 2002.

The property is zoned Village Residential (RV\*14) and Greenlands B (GB\*15) under By-law No. 144-2003 which contain provisions for regulating the use on the property. The GB\*15 Zone applies to the first 10 metres measured from the rear lot line of the Subject Property. Please refer to *Figure 5 - Schedule A – Zoning Map (Rural)* for reference.

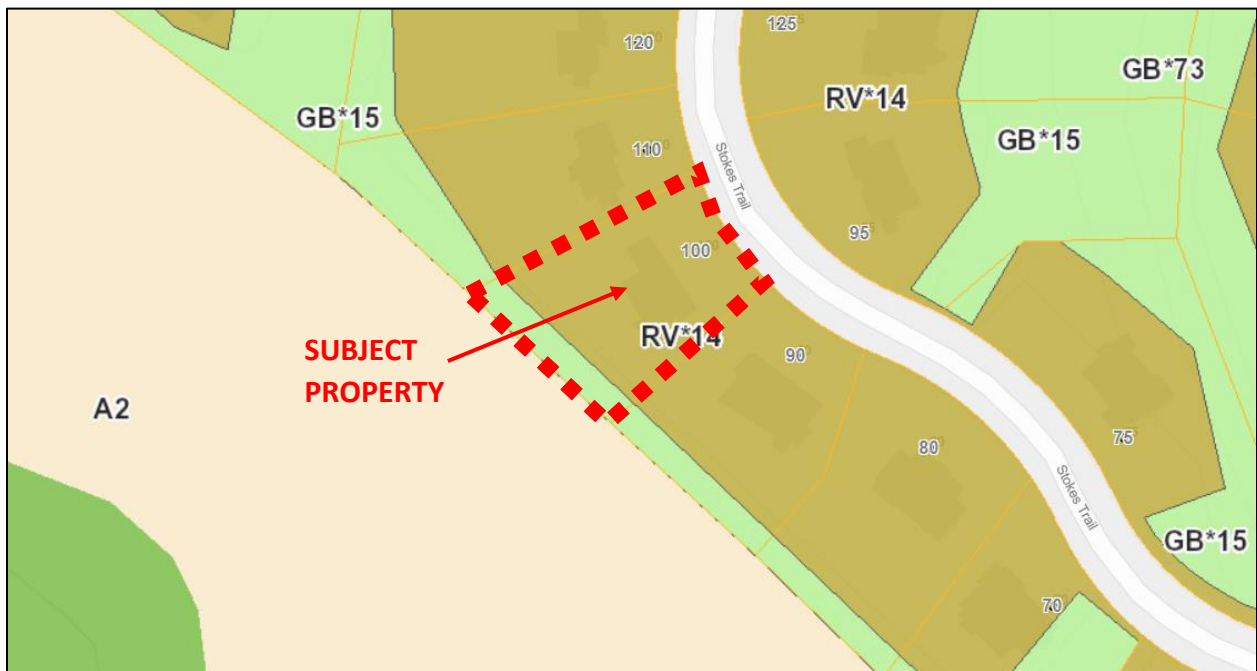


Figure 5: Schedule A – Rural Zoning Map  
(Source: Town of Milton Rural Zoning By-law 144-2003, 2018)

The Village Residential (RV) portion of the site is subject to site-specific exception 13.1.1.14 which includes a minimum lot frontage provision of 30 metres and a minimum lot area provision of 0.35 ha for the Subject Property. The Subject Property meets both provisions as it has a minimum lot frontage of 40.50 metres and a lot area of 3,528.17 sq. metres (0.35 ha).

As per *Section 6 – Residential Zones* the Village Residential (RV\*14) Zone also permits single detached dwelling, cottage industries, home day cares, home occupations, and shared housing. In addition, *Section 4 - General Provisions* also permits accessory buildings, structures and uses in the Village Residential Zone subject to the following provisions under section 4.1:

- i. The principal use, building or structure is specifically permitted by this by-law and is already established on the same lot;*
- ii. The detached accessory building or structure is not used for human habitation or an occupation for gain, unless specifically permitted by this By-law;*
- iii. The detached accessory building or structure shall not be situated on or over an easement;*
- iv. Notwithstanding the foregoing, a garden suite is not permitted as of right within any zone.*

The concrete sports pad, drainage infrastructure, and accessory shed meet the above noted provisions as they are not used for human habitation, are not garden suites, are not situated over an easement, and the existing single detached dwelling is a permitted use under section 6.1 of By-law 144-2003.

Furthermore, Table 4A under section 4.1.1.1 of Rural By-law 144-2003 permits accessory buildings and structures on all yards of the Subject Property. As such, the existing concrete sports pad and accessory shed are permitted uses in the RV\*14 Zone.

Table 4A also contains yard setback, height and gross floor area provisions for accessory structures which include the following:

- Setbacks (Minimum):
  - Front Lot Line = 6.0 metres
  - Side Lot Line = 3.0 metres
  - Rear Lot Line = 3.0 metres
- Total Gross Floor Area = 40 m<sup>2</sup> (66.6 m<sup>2</sup> permitted on Subject Property as per File No. D13(A2-21/007/M) approved March 18, 2021)
- Maximum Building Height = 3.7 metres

The existing shed meets the provisions noted above except for the total gross floor area and side lot line setback. The shed has a height of 2.68 metres and front, rear, and south side yard setbacks that meet the required setback provisions noted above. However, the 9.85 m<sup>2</sup> area of the shed and its north side yard setback trigger two zoning deficiencies by increasing the total gross floor

area for accessory structures from 66.6 m<sup>2</sup> to 76.45 m<sup>2</sup> and by having a side lot line setback of 1.07 metres whereas a minimum of 3.0 metres is required. As such, site-specific zoning exceptions for increased gross floor area and reduced side lot line setback are required in order to bring the existing shed into compliance with the Zoning By-law.

The concrete sports pad, drainage infrastructure and interlock patio are permitted within the RV\*14 Zone but are not permitted under the Greenlands B (GB\*15) Zone due to the site-specific exception for the Stokes Subdivision (By-law 131-2002) which states the following:

***i) Prohibited Uses:***

*a) Buildings, structures, swimming pools or other uses and/or facilities accessory to permitted residential uses on the same lot.*

***ii) Only Uses Permitted***

*a) a naturalized revegetation area*

As stated above, site-specific exception 13.1.1.15 does not permit any use other than naturalized vegetation, which means an amendment to the Zoning By-law is required to permit the existing concrete sports pad, drainage infrastructure and interlock patio encroachments as well as the reduced rear yard setback of 0.48 metres. As such, we are seeking site-specific zoning exceptions to permit the existing encroachment of the concrete sports pad, drainage infrastructure, and the interlock patio on the GB\*15 Zone and to permit a reduced rear yard setback of 0.48 metres to the rear property line.

In our opinion, the proposed site-specific exceptions being sought will not adversely affect the existing physical character of the property or the neighbourhood, and the general intent and purpose of the Official Plan and Zoning By-law. The exceptions are desirable for the appropriate development of the land and will not have any negative impacts on the adjacent woodlot or the GB\*15 Zone within the Subject Property which currently consists of a manicured lawn.

## 4.0 Planning Justification Analysis

To assist in justifying the merit of the proposed amendment to the Town of Milton Rural Zoning By-law 144-2003, we reviewed all planning policies relevant to the site. It is our professional Planning opinion that the proposed amendment as currently constituted and filed with the Town of Milton is appropriate.

### 4.1.1 Conformity with the Town of Milton Official Plan

The Town of Milton Official Plan designates the lands located at 100 Stokes Trail as “Hamlet”, and a small sliver of the rear yard as “Natural Heritage System” with a “Greenbelt Natural Heritage System” overlay illustrated within Schedule A – Rural Land Use Plan (See *Figure 3*). The Subject Property is also designated “Hamlet Residential” and “Regional Natural Heritage System” under Schedule C.3.A of the Campbellville Secondary Plan.

As previously mentioned, the Official Plan considers “Hamlet” areas to be stable areas where development for rural areas should be accommodated in accordance with the relevant approved Hamlet Secondary Plan. The “Hamlet Residential” designation under the Campbellville Secondary Plan permits residential development including the existing single detached dwelling and its associated accessory uses and outdoor amenities including the existing concrete sports pad, drainage infrastructure, interlock patio and shed. It is our opinion that the site-specific zoning amendment being sought is in keeping with the intent of the Hamlet Residential policies of the Town Official Plan as the existing concrete sports pad, interlock patio and shed, and the proposed drainage infrastructure are permitted under this designation.

The rear sliver of the backyard designated “Regional Natural Heritage System” permits incidental uses as per section 4.9.2.1.k) of the Town Official Plan, which includes but is not limited to uses such as swimming pools, tennis courts, and other outdoor facilities that are accessory to but not essential to the principal existing use on a site. As per the definition of incidental uses on Section 5.10.6 – Definitions of the Town Official Plan (See Section 3.0 of this Report) it is our opinion that the portions of the existing concrete sports pad, drainage infrastructure and interlock patio located within the “Regional Natural Heritage System” designation on the property are both permitted uses and meet the intent of this land use designation.

As previously noted in Section 3.0 of this Report the incidental uses permitted under the Regional NHS designation are subject to site alteration criteria of section 4.9.3 of the Town Official Plan, including the preparation of an Environmental Impact Assessment (EIA), in order to identify if any key features exist and to ensure they are preserved and protected from any adverse impacts. To further enhance the preservation and protection of key existing features, trees have been planted along the side and rear yards of the Subject Site. The “Greenbelt Natural Heritage System” overlay policies under section 4.10 of the Town Official Plan further state that site alteration is not permitted adjacent to Key Features within the Greenbelt Plan unless an EIA demonstrates otherwise.

Following these applicable Region NHS and Greenbelt NHS policies, Riverstone Environmental Ltd. prepared a Scoped Environmental Study (EIS) to determine the impacts of the proposed concrete sports pad and interlock patio on the portion of the property designated under the Regional and Greenbelt NHS.

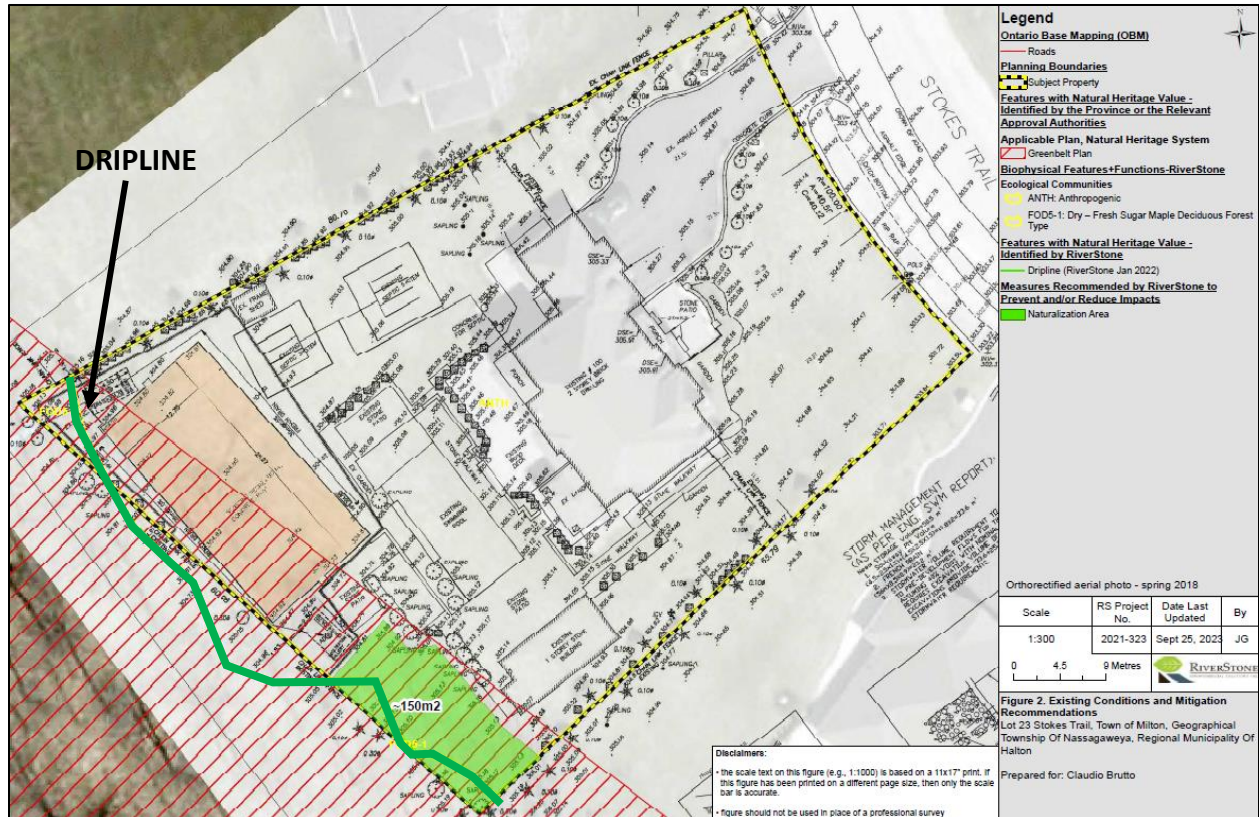
The Scoped EIS found that the following KNHFs have the potential to be present within the property or within 120 metres of the property:

- Candidate Significant Woodlands;
- Potential Habitat of Endangered and/or Threatened Species; and,
- Candidate Significant Wildlife Habitat.

As per Riverstone’s report the above noted KNHF were identified as the subject property is adjacent to a woodland feature to the west. Most importantly, Riverstone identified that the area designated under the Region and Greenbelt NHS on the Subject property and adjacent lots is “largely composed of manicured amenity space, and not natural features.” As such, this key finding confirms that the area where a portion of the concrete sport pad and interlock patio are located are not natural heritage features or key hydrologic features.

The EIS also found that the dripline of the woodland canopy and the stems of individual trees adjacent to the subject property are largely located outside of the property and with no overlap on the existing concrete sports pad or the interlock patio. Please refer to *Figure 6 - Existing Conditions and Mitigation Recommendations* for reference.





**Figure 6: Existing Conditions and Mitigation Recommendations  
(Source: Riverstone Environmental, 2024)**

In addition, the Scoped EIS found that the rear portion of the backyard on the subject property does not contain any trees and that the construction of the sports pad, drainage infrastructure and patio would not compromise or negatively impact the function and ecological integrity of the adjacent woodland feature.

Given the findings of the Scoped EIS prepared by Riverstone Environmental it is our opinion that the concrete sports pad, drainage infrastructure and interlock patio partially encroaching on the Regional and Greenbelt NHS designations of the Subject Property do not cause any negative impacts to the adjacent woodlot or its associated dripline, are in conformity with the section 4.9 and 4.10 policies of the Official Plan.

As such, an amendment to the Town of Milton Official Plan is not required and the proposed site-specific exceptions being sought meet the general intent and purpose of the Town of Milton Official Plan.

#### 4.1.2 Proposed Amendment to the Town of Milton Rural Zoning By-law 144-2003

The purpose of the proposed amendment is to seek relief from Rural Zoning By-law No. 144-2003 to permit a recreational concrete sports pad with a reduced rear yard setback, drainage infrastructure, and an accessory shed with a reduced side lot line setback and increased total gross floor area for accessory structures in compliance with the Zoning By-law.

The following site-specific exceptions are being sought (See *Figure 7 – Proposed Rezoning Schedule* for reference):

1. To permit a recreational concrete pad, lighting, interlock patio, and drainage infrastructure on a site-specific GB Zone; whereas the only permitted use in the GB\*15 Zone is a naturalized vegetation area.
2. To reduce the rear yard setback between the concrete sports pad and rear property line to 0.48 metres; whereas the minimum required rear yard setback is 6.0 metres.
3. To reduce the interior side yard for an accessory structure (shed) to 1.07 metres; whereas the minimum required side yard setback is 3.0 metres.
4. To increase the total aggregate gross floor area for accessory buildings to 76.45 sq. metres; whereas the maximum permitted total aggregate gross floor area is 66.6 sq. metres.

The Subject Property is zoned RV\*14 and GB\*15 under the Town of Milton Rural By-law No. 144-2003. The RV\*14 Zone permits single detached dwellings as well as the existing accessory shed, concrete sports pad, drainage infrastructure, and interlock patio as complementary uses to the principal residential dwelling. The GB\*15 Zone as per section 13.1.1.15 of By-law 144-2003 only permits naturalized revegetation.

In our opinion, the proposed amendment to the Zoning By-law to permit the four previously noted site-specific exceptions are desirable and are an appropriate use of land.

The site has a swimming pool, an interlock patio, and a sports pad located in the backyard. During the summer season, the pool will be the primary recreational activity used by our client due to the weather during this season. The interlock patio will also be used during the summer. However, during the winter months the pool will be closed due to the cold temperatures. As such, the concrete sports pad is intended to be used as an alternative recreational activity during the winter season, where it will be appropriately fenced to avoid affecting the adjacent woodlot as well as the abutting properties.

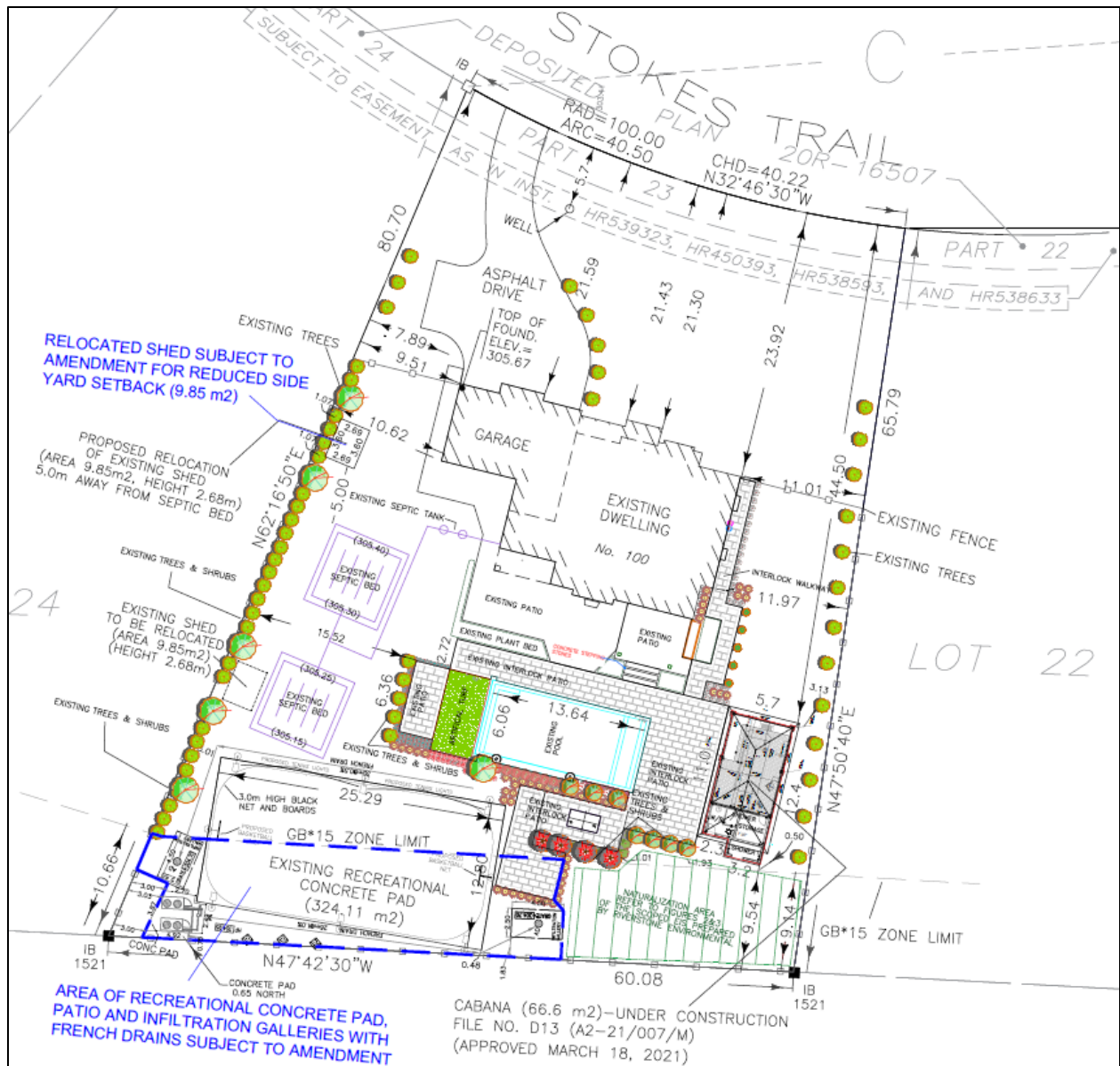


Figure 7 – Proposed Rezoning Schedule

Accessory Trees Shed and Reduced Side Yard Setback

The proposed site-specific exception to increase the total ground floor area permitted for accessory buildings from 66.6 sq. metres to 76.45 sq. metres and to reduce the side yard setback from 3.0 metres to 1.07 metres from the side yard to permit the accessory shed meets the general intent and purpose of the Zoning By-law. The existing shed is a permitted use under the RV\*14 Zone and is only 9.85 sq. metres in size and 2.68 metres in height, which makes it a small-scale structure in relation to the other covered structures on the property. The height of the shed also complies with the maximum 3.7 metre height for accessory structures included in the provision of

Table 4A of By-law 144-2003. As requested by the Town, the shed is now proposed to be relocated to be at least 5.0m from the septic beds. As such, it is our opinion that increasing the total gross floor area for accessory structures by 9.85 sq. metres and up to a total of 76.45 sq. metres does not detract from the intent of the Zoning By-law and should be approved.

In addition, in our opinion the requested side yard setback reduction from 3.0 metres to 1.07 metres is appropriate and meets the general intent of the Zoning By-law as the existing shed is a small structure that will not disturb the adjacent neighbouring properties. Sheds are typical accessory structures installed along the edges of backyards. In this case, the existing shed would be used for storage of materials directly related to the backyard of the Subject Property and will not have any adverse impacts on the abutting property.

Reducing the side yard setback to 1.07 metres as well as increasing the size of the gross floor area of the accessory structure to 76.45 m<sup>2</sup> are appropriate for the property as it provides storage space for residents to store equipment that they would most likely use for recreational purposes, such as gardening and sporting activities. Many of the backyard equipment are large, thus requiring more storage space to store equipment for the backyard during the winter, where the equipment is not needed during that season. Some large backyard equipment includes a lawnmower, cleaning supplies for the pool, and other recreational equipment. The provision of another option for storage will be desirable by the residents and is an appropriate development of use of land.

It is also important to note that trees have been planted on the side yards to mitigate any visual disturbances to the immediate neighbours. A row of trees has been planted along the neighbouring side yard north of the Subject Site which further increases the privacy buffer. See *Figure 8: View of Sideyard Trees Looking North Towards the Accessory Shed* and *Figure 9: View of Trees Planted in between the Accessory Shed and North Side Yard Fence* for reference.

The proposed increase in the ground floor area of the shed is very minor to the overall character of the property. Due to the location and small scale of the accessory structure, the shed will not be the primary structure of the property due to the residential single detached structure being the primary development of the site. In addition, the proposed reduction of the side yard setback is also minor as the structure is not invasive to the backyard as it is more desirable to the property as it better equips the backyard.

As such, it is our opinion that this structure is minor, fits well within the existing physical character of the Subject Property, and will not have any negative impacts on the adjacent woodlot feature or the surrounding neighbourhood.



Figure 8: View of Sideyard Trees Looking Southwest Towards the Accessory Shed



Figure 9: View of Trees Planted in between the Accessory Shed and North Side Yard Fence

## Recreational Concrete Sports Pad, Drainage Infrastructure, Patio and Reduced Rear Yard Setback

The existing recreational concrete sports pad and interlock patio, and the proposed drainage infrastructure are located within both the RV\*14 and GB\*15 Zones as illustrated on *Figure 2 – Detailed Concept Plan*. As previously noted in this Report, the RV\*14 Zone permits the proposed concrete sports pad as well as other uses including but not limited to swimming pools, tennis courts, and other accessory structures or facilities for outdoor recreational uses tied to the main single detached use. The concrete sports pad, patio, and drainage galleries are complimentary non-intensive use to the principal residence. The purpose of the requested amendment to the Zoning By-law is to rezone the GB\*15 Zone to a site-specific GB Zone that permits the above noted uses.

As an accessory use to the principal residential use of the property, the existing pad conforms to the general provisions of section 4.1 of By-law 144-2003 which as per section 4.1.a) states that accessory uses are permitted as long as the “*principal use, building or structure is specifically permitted by this by-law and is already established on the same lot*”, which is the case as the principal use on the subject property is a single detached dwelling. In addition, the existing concrete sports pad has been setback further to respect the minimum side yard requirements to help mitigate the reduced rear yard setback as much as possible. As such, it is our opinion that the recreational concrete sports pad is a permitted use accessory to the established primary single detached dwelling.

While the concrete sport pad and interlock patio are not permitted to encroach on the GB\*15 Zone as per site-specific exception 13.1.1.15 of the By-law, it is our opinion that this site-specific provision does not implement the policies of the Town Official Plan (2018) or the Greenbelt Plan (2017). It is important to note that this site-specific exception was passed on September of 2002, which predates the latest revisions of the aforementioned provincial and municipal land use documents.

As per the preamble of Zoning By-law 144-2003 the purpose of the Zoning By-law is to “*implement the policies of the Town of Milton Official Plan*” as it is the municipal land use document containing general policies that “*specify where certain land uses are permitted and, in some instances, specify what regulations should apply to the development of certain lands*”. Thus, it is our opinion that the requested site-specific zoning exception to permit a portion of the concrete sports pad, drainage infrastructure and interlock patio within the proposed site-specific GB Zone brings the site-specific exception into conformity with the latest iterations of the Official Plan and applicable portions of the Greenbelt Plan.

The site-specific exceptions being sought to permit the recreational concrete pad, drainage galleries and interlock patio within the site-specific GB Zone should be considered in the context that these meet the intent of the Official Plan and applicable policies of the Greenbelt Plan as demonstrated by the Scoped EIS prepared by Riverstone Environmental.

As previously noted in this Report, the Town Official Plan permits “incidental uses” subject to meeting the criteria of section 4.9 and 4.10 of the Official Plan, which states that any development or site alteration must demonstrate, through an Environmental Impact Assessment, that no negative impacts will occur on the Regional Natural Heritage System and any identified Key Features and their functions. In addition, the Greenbelt Plan as per section 3.2.2.3.a) states that site alteration or development within lands under the “Greenbelt Natural Heritage System” overlay must demonstrate that there will be no adverse impacts on key natural heritage features or their functions. The Scoped EIS demonstrates in detail that the existing concrete pad, drainage infrastructure and interlock patio in their current location do not adversely affect the adjacent woodlot nor any potential features.

As noted in section 4.1 of this Report, Riverstone identified candidate significant woodlands, potential habitat of endangered/threatened species, and candidate significant wildlife habitat. The Scoped EIS under *Section 5 – Impact Assessment & Mitigation Planning* determined that the retention of the existing concrete sports pad and interlock patio, and the installation of drainage infrastructure including French drains and infiltration galleries would not result in any negative impacts to the integrity and function of the above noted features as a whole.

As such, while natural revegetation is currently the only permission allowed on the GB\*15 section of the property, the Environmental Study indicates that no negative impacts will occur on the adjacent woodlot, and that there is no expectation that retaining the sports pad and patio and installing drainage infrastructure on the Subject Property will negatively impact the continued appropriateness of the woodland as a potential habitat for wildlife species. The retention of the accessory pad and patio and the installation of the proposed drainage system would not result in loss of interior habitat, linkages, or harm to endangered or threatened species, and other associated aspects of the natural heritage system. As a result, the potential of harm on local wildlife resulting from the usage of the sports pad would not be any different than if this portion of the yard was a manicured lawn.



Furthermore, while the dripline from the existing trees west of the site partially overhangs into the Subject Property, it is mostly limited to the outside of the property boundary and does not overlap with the existing concrete sports pad or the interlock patio. The proposed interlock patio and concrete pad are setback at an appropriate distance to not interfere with the dripline of the existing trees on the adjacent woodlot.

Nonetheless, Riverstone further recommends mitigation measures through sections 5.1-5.3 of their Scoped EIS, including that the unaltered portion of the GB\*15 Zone within the Subject Property be vegetated, that any trees showing signs of decline be retained as potential wildlife cavity trees, that any lighting for the sports pad be directed away from the woodlot, and that bat roosting structures be installed along the edge of the woodlot to support bat populations and their roosting habitat. Most importantly, the EIS determined that based on the existing site conditions, no trees require removal to retain the existing sports pad or interlock patio. It is our opinion that, through Riverstone's expert environmental analysis and mitigation measures, the proposed rezoning seeking to permit the concrete sports pad and patio within the proposed site-specific GB Zone and with a reduced rear yard setback of 0.48 metres would be appropriate.

It is also our opinion that the above noted mitigation measures recommended by Riverstone would be appropriate conditions of approval for the proposed rezoning as they would ensure all natural heritage features and their ecological functions would be adequately preserved and protected.

The concrete sports pad will not have any negative impacts on the surrounding neighbourhood as it will be used for private use in comparison to a public sports pad that would be used by the public. The use of the pad will be non-intensive in nature and will be privately used by our client and their family who live on the existing single detached dwelling. The concrete pad will be used for small-scale and casual recreational activities and will provide the owner's family with an opportunity to improve their health and well-being in privacy. It is also key to note that the site-specific zoning exception will include a provision that does not permit the use of the recreational pad for any non-residential uses, which ensures the use of the pad will be exclusively for the enjoyment of the owners of the existing residential dwelling.

In addition, trees have been strategically planted on the side yards of the property to mitigate any disturbance to the immediate neighbours (See *Figures 8 and 9*). This will provide an additional privacy buffer for the concrete sports pad from adjacent neighbours. Additional trees will also be planted in the rear of the property, on the remainder of the GB\*15 zone, to increase natural

vegetation and mitigate any potential impacts to the surrounding natural environment along the property line.

It is noteworthy to mention that the general “Greenlands B” Zone permits single detached dwellings on existing lots as per Table 11A subject to the Regional Tree Cutting By-law, where applicable, and with a lot coverage of up to 15% of the lot area as per Table 11B of By-law 144-2003.

Overall, it is our opinion that the proposed size, configuration, and scale of the concrete sports pad, accessory shed, interlock patio, drainage infrastructure and the associated site-specific exceptions to reduce the side and rear yard setbacks and slightly increase the maximum total gross floor area for accessory structures would fit well within the existing physical character of the Subject Property. These zoning exceptions will not have any negative impacts on the adjacent woodlot feature or the surrounding neighbourhood.

## 5.0 Supporting Materials

This section provides a summary of the supporting materials that have been prepared for 100 Stokes Trail. The following study will be discussed in this section of the Planning Justification Report:

1. Scoped Environmental Impact Study (EIS), prepared by Riverstone Environmental Ltd;
2. Topographic Plan, Grading Plan and Erosion/Sediment Control (ESC) Plan, prepared by IBW Surveyors; and,
3. Photometric Site Plan Analysis, prepared by E-Lumen International Inc.

### 5.1 Scoped Environmental Impact Study (EIS)

Riverstone Environmental Ltd. has prepared a Scoped Environmental Impact Study (EIS) to determine the impacts of the proposed concrete sports pad and interlock patio on the portion of the property designated under the Regional and Greenbelt NHS.

The Scoped EIS found that the following key natural heritage features may have the potential to be present within 120 metres of the property:

- Candidate Significant Woodlands;
- Potential Habitat of Endangered and/or Threatened Species; and,
- Candidate Significant Wildlife Habitat.

Riverstone identified that the above noted natural heritage features within the Subject Property are “largely composed of manicured amenity space, and not natural features.” As such, this key finding confirms that the area where a portion of the concrete sports pad and interlock patio are located are not natural heritage features or key hydrologic features, which means there will not be any negative impacts to the NHS.

The Scoped EIS further found that the dripline of the woodland canopy and the stems of individual trees adjacent to the Subject Property are largely located outside of the property. No overlap on the existing concrete sports pad or the interlock patio is found from the dripline of the adjacent woodlands. Refer to *Figure 6 – Existing Conditions and Mitigation Recommendations* for reference.

The EIS also found that the rear portion of the backyard on the Subject Property does not contain any trees. The construction of the sports pad, drainage infrastructure and interlock patio would not compromise or negatively impact the function and ecological integrity of the adjacent woodland feature to the Subject Property. The retention of the recreational sports pad and interlock patio would not result in the loss of interior habitat or linkages. The installation of the proposed drainage infrastructure, including two infiltration gallery and two french drains, will support on-site infiltration and runoff from the impervious surface of the concrete pad without causing any negative impacts to the adjacent NHS. Further, the retention of the two accessory uses on the Subject Property would not exhibit harm to the endangered or threatened species nor other associated aspects of the NHS of the Town of Milton.

Based on the existing site conditions determined in the Scoped EIS, no trees require removal to retain the existing recreation sports pad or interlock patio. As part of the recommendation of the EIS, additional trees will be placed in the rear of the property to mitigate any potential impacts to the surrounding natural environment.

In addition, the EIS recommends that the unaltered portion of the GB\*15 Zone within the Subject Property be vegetated. Any trees showing signs of decline should be retained as potential wildlife cavity trees and any lighting for the sports pad should be directed away from the woodlot. Bat roosting structures should be installed along the edge of the woodlot to support the bat populations and their roosting habitat.

It is our opinion that the noted mitigation measures by Riverstone Environmental Ltd. to place additional trees at the rear of the Subject Property would be appropriate conditions of approval for the proposed Zoning By-law Amendment application. The placement of additional trees at the rear of the property would ensure all natural heritage features and their ecological functions would be adequately preserved and protected.

As such, the Scope EIS prepared by Riverstone Environmental demonstrates in detail that the existing concrete pad, drainage infrastructure and interlock patio in their current location do not adversely affect the adjacent woodlot nor any potential key natural heritage features.

## 5.2 Topographic Plan, Grading Plan and Erosion/Sediment Control (ESC) Plan

IBW Surveyors has prepared a Topographic Plan for the Subject Property based on its existing conditions, and a Grading Plan with Erosion and Sediment Control Fencing to demonstrate how the completion of the concrete sports pad will be managed moving forward. Please refer to **Appendix 2** of this Report to see the Topographic Plan and the Grading and ESC Plan.

The Grading Plan does not propose to modify the existing topographic conditions on site and does not propose the removal of any trees or existing vegetation. The grading design proposes to add two french drains and two infiltration galleries adjacent to the concrete sports pad in order to accommodate additional stormwater flow volumes from the pad's surface. The additional flow volumes generated by the concrete pad are considered minor and will not cause any negative impacts on the Subject Property or on adjacent properties. The proposed french drains and infiltration galleries will help retain stormwater on the property by redirecting it away from paved surfaces and allowing it to slowly infiltrate into the soil. The flow volumes generated by the concrete pad will be contained in-situ.

In addition, an erosion and sediment control fence is proposed around the perimeter of the concrete sports pad to prevent soil erosion and sediment runoff from the remaining construction of the concrete sports pad. It has been specifically designed to prevent affecting existing trees and vegetation, and is setback away from neighbouring private properties and from the adjacent woodlot. The propose ESC fence will help protect the Subject Property and its surrounding area from construction activity on the pad.

### 5.3 Photometric Site Plan Analysis

A Photometric Plan has been prepared for the Subject Property by E-Lumen International Inc. to illustrate the proposed lighting layout on the recreational concrete sports pad. The proposed lighting fixtures will provide nocturnal illumination for the concrete pad. As illustrated in the Photometric Plan, the concrete sports pad will include 6 illumination poles. Please refer to **Appendix 3** of this Report to see the Photometric Plan.

The proposed illumination poles have been designed in conformity with Section 5.8 – Illumination of the Town of Milton Zoning By-law 144-2003, which requires lighting fixtures to meet the following provisions:

- i. No part of any free-standing or wall-mounted lighting fixture shall exceed a maximum height of 9.5 m above grade;
- ii. Lighting fixtures shall be installed in such a manner that all light emitted shall be projected below the lamp or diffusing element;
- iii. No light dispersion shall project above the horizontal plane from the base of the lighting fixture; and,
- iv. For lots abutting a Residential Zone, illumination along the abutting and mutual lot line(s) shall not exceed 5 lux (0.5 foot candles).

The proposed lighting fixtures will have a total height of 5.18 metres (17 feet) and will be much lower than the maximum permitted height of 9.5 metres for lighting fixtures. The poles will also be installed to emit light below the lamp, and to have no dispersion above the horizontal plane. Most importantly, the lighting fixtures will contain lower wattage bulbs which will reduce light spillage towards the adjacent residential property and will have negligible lighting impacts.

The photometric analysis undertaken by E-Lumen has determined that the lower wattage and the existing trees and vegetation along the property fence will cause the illumination along the property line to the adjacent residential property to be 0.1-2.5 LUX, which does not exceed the maximum LUX stipulated by the By-law. Also, the LUX values along the bottom boundary abutting the woodlot ranges from 0.1-6.9 LUX, which does not disturb the natural habitat within the NHS area. Overall, there will be no lighting impacts to the adjacent residential property to the north and to the woodlot to the west.

## 6.0 Concluding Statement and Recommendation

In our professional planning opinion, the Zoning By-law Amendment application being sought to permit the existing recreational sports pad, interlock patio, and accessory shed is appropriate. The proposed rezoning meets the Greenbelt Plan, Halton Region, and Town of Milton land use policies as stipulated by our supporting studies. The Zoning By-law Amendment application for 100 Stokes Trail should be approved to permit the existing recreational sports pad and interlock patio, and accessory shed as well as the reduced rear yard setback on the Subject Site.

Submitted by:



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## APPENDIX 1

Scoped Environmental Impact Study  
prepared by  
Riverstone Environmental Solutions Inc.





# Scoped Environmental Impact Study

100 Stokes Trail  
Town of Milton (Campbellville)  
Amended February 2024





# RIVERSTONE

ENVIRONMENTAL SOLUTIONS INC.

February 24, 2024  
RS#2021-323

Claudio Brutto  
Brutto Consulting  
113 Miranda Avenue  
Toronto Ontario  
M6B 3W8

Via email: [cbrutto@bruttoconsulting.ca](mailto:cbrutto@bruttoconsulting.ca)

**SUBJECT: Environmental Impact Study-Screening, Stokes Trail, Milton, ON**

Dear Mr. Brutto,

RiverStone Environmental Solutions Inc. is pleased to provide you with the attached report.

Please contact us if there are any questions regarding the report, or if further information is required.

Best regards,

RiverStone Environmental Solutions Inc.

---

Bev Wicks, Ph.D.

Senior Ecologist / Principal

---

Mike Francis, M.E.S., H.B.Sc., E.P.

Ecologist



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## **1 BACKGROUND**

RiverStone Environmental Solutions Inc. (hereafter, “RiverStone”) was retained to complete a scoped Environmental Impact Study (EIS) as part of an application to allow an existing recreational amenity feature (concrete sport pad) on a property described as 100 Stokes Trail, Town of Milton (hereafter, “subject property”; **Figure 1**). The subject property measures approximately 0.35 ha and contains an existing dwelling structure and associated amenities, including a pool, storage areas, gardens, general manicured space (*i.e.*, grass lawn), and the aforementioned sport pad. It is our understanding that the owner of the subject property (the ‘proponent’) is seeking permission to allow for retention of the sports pad in its existing location.

The subject property is located within the planning area of the Greenbelt Plan, with applicable designations including the Protected Countryside and Natural Heritage System (NHS). Interactive mapping for the Town’s Comprehensive Zoning By-law 144-2003 (consolidated to 2019) shows that zoning on the subject property is a combination of Village Residential (RV) and Greenlands ‘B’ (GB). The GB zone appears to have been delineated to reflect the limit of the Greenbelt NHS designation discussed above (see **Figure 1**). As per Schedule A to the Town of Milton Official Plan (OP; 2018), the subject property is located within the Hamlet designation associated with the settlement area of Campbellville. Portions of the Campbellville settlement area contain areas identified as Natural Heritage System (NHS), while Schedule M further identifies the subject property and/or adjacent lands as containing ‘NHS Key Features’. The subject property is also located within the watershed-based regulatory jurisdiction of the Halton Region Conservation Authority (HRCA); however, it is not contained within an area regulated under Ontario Regulation 162/06 of the *Conservation Authorities Act*.

As noted, the subject of this EIS is the sport pad that was previously constructed within the amenity space associated with the backyard of the subject property. The location in which the feature was constructed is within the area of the property that is zoned GB, and contained within the Greenbelt NHS. It is our understanding that the feature was constructed without necessary approvals from the Town. It is our further understanding that the proponent is seeking a Zoning Bylaw Amendment to permit retention of the feature in its existing built location. This EIS has been prepared to inform the Town’s review of the application, with consideration for potential impacts to specific natural heritage features and the broader NHS. Given the context of the application, some aspects of our impact assessment are retroactive in nature, providing an assessment of ecological impacts that may have occurred or may be expected to occur as a result of constructing and retaining the sports pad. Where relevant, and based on our review of potential ecological impacts, RiverStone provides recommendations for mitigation to support the goals of both the applicant and the Town.

## **2 APPROACH AND METHODS**

The approach and methods used to carry out this study are detailed in this section and include the following:

1. Gathering background biophysical information for the subject property to become familiar with existing natural heritage feature mapping and records of features and species of conservation interest prior to the site investigation.



2. Conducting an on-site investigation to field-verify the presence or absence of natural heritage features (as feasible) identified during background information gathering, and to identify any additional significant features (if present).
3. Determining whether the development plan has resulted in adverse impacts to natural heritage features, and to identify ways in which such impacts can be mitigated via avoidance, minimization, and/or compensation measures.
4. Providing an assessment of consistency and conformity of the proposed development plan with applicable municipal, provincial, and federal environmental policies.

## **2.1 Background Information Review**

Background biophysical information pertaining to the study area was collected from a variety of sources. These include:

- **Halton Region Official Plan (2022 Consolidation)**
- **Town of Milton Official Plan (2018)**
- **Greenbelt Plan (2017) & Technical Guidance Documents**
- **Ministry of Natural Resources and Forestry (MNR) Natural Heritage Areas and Natural Heritage Information Centre (NHIC)** database regarding information on occurrences of SAR and provincially tracked species (squares: 17NJ8114, 17NJ8115); accessed Jan 17, 2022, at:  
[http://www.gisoeapp.lrc.gov.on.ca/Mamnh/Index.html?site=MNR\\_NHLUPS\\_NaturalHeritage&viewer=NaturalHeritage&locale=en-US](http://www.gisoeapp.lrc.gov.on.ca/Mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US).
- **Species at Risk (SAR) range maps** (accessed Jan 2022 at: <http://www.ontario.ca/environment-and-energy/species-risk-ontario-list>).
- **Ontario Breeding Bird Atlas (OBBA) database and the Atlas of the Breeding Birds of Ontario, 2001–2005** (Cadman et al. 2007) (accessed at: <http://www.birdsontario.org/atlas/squareinfo.jsp>).
- **Ontario Reptile and Amphibian Atlas** (accessed at: [http://www.ontarioinsects.org/herpatlas/herp\\_online.html](http://www.ontarioinsects.org/herpatlas/herp_online.html)).
- **Atlas of the Mammals of Ontario** (Dobbyn 1994).
- **Current and historical aerial photographs.**

## **2.2 Site Investigation**

The results of the background review outlined in **Section 2.1** informed the scoping of a single on-site investigation carried out by a RiverStone Ecologist (Jan 12, 2022). The site investigation was focused on characterizing and delineating natural heritage features that are considered relevant under the policy context, including significant woodlands, significant wildlife habitat, and potential habitat for threatened or endangered species. Overall, the on-site data collection effort was considered appropriate given the location and scale of the proposed development plan. In general, discrete feature boundaries were delineated with a high-accuracy GPS receiver capable of 2 m accuracy, and all relevant features were photographed and catalogued for inclusion in this report (**Appendix 1**). Existing conditions, as characterized through our on-site assessment, are described in **Section 3**.

### **2.2.1 *Habitat-based Wildlife Assessment***

RiverStone's primary approach to site assessment is habitat-based. We first focus on evaluating the potential for significant features and species within an area of interest, prior to undertaking any targeted assessments or surveys. An area is considered potential habitat if it satisfies several criteria, usually specific to a species, but occasionally characteristic of a broader group (*e.g.*, several species of turtles use sandy shorelines for nesting, several species of bats use cavity trees as day roosts and maternity sites, etc.).

Physical attributes of a site that can be used to assess habitat function include structural characteristics (*e.g.*, age and composition of forest canopy, water depth), ecological community (*e.g.*, meadow marsh, rock barren, coldwater stream), and structural connectivity to other habitat features required by a species of interest or indicator species. Species-specific habitat preferences and/or affinities are determined from status reports produced by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), Cadman et al. (2007), unpublished documents, and direct experience.

Where appropriate, RiverStone explores further species-specific assessments in accordance with applicable standard methods and protocols. Targeted survey efforts may be undertaken due to one or more triggers, such as a specific request from an approval authority, an existing record for a species of interest, or a limitation to a habitat-based assessment. In consideration of the scale and context of this development application, targeted survey methodologies were not considered necessary to appropriately characterize habitat features on and adjacent to the subject property.

### **2.2.2 *Topography, Surficial Geology, & Drainage***

The geophysical setting of the subject property was determined using topographic mapping, soils mapping, aerial photography, and descriptions gathered through on-site investigations. Drainage features (where present) are identified through the review of background mapping resources and/or delineated in the field.

### **2.2.3 *Vegetation Communities***

Vegetation communities on the subject property were delineated according to Ecological Land Classification (ELC) community tables (Lee et al. 1998). Vegetation communities were delineated via aerial photo interpretation and subsequently confirmed and refined in the field. Wetland boundaries (where present) were delineated in accordance with the "50% wetland vegetation rule" as directed by the Ontario Wetland Evaluation System (OWES).

## **2.3 Key Natural Heritage Feature Assessment**

Provincial and local planning policies employ varying terms for natural heritage features and designations that have recognized 'statuses' within the relevant planning jurisdiction. Being within the planning area for Ontario's Greenbelt Plan, the terminology used in this report is consistent with the Greenbelt Plan, including reference to relevant features as 'key natural heritage features' (KNHF) and 'key hydrologic features' (KHF). RiverStone conducted a review of the background information sources identified in **Section 2.1** to determine if KNHF/KHF have been identified in association with the subject property by the province and/or local planning authority. KNHF/KHF recognized under the Greenbelt include the following:

- Permanent & intermittent streams

- Lakes (and their littoral zones)
- Seepage areas and springs
- Wetlands (including provincially significant wetlands)
- Fish habitat
- Sand barrens, savannahs, tallgrass prairies, and alvars.
- Areas of natural and scientific interest (life science)
- Significant valleylands
- Significant woodlands
- Habitat of endangered and threatened species
- Significant wildlife habitat (includes habitat for rare and special concern species)

RiverStone assesses the potential presence of each of the above KNHF/KHF in accordance with applicable technical guidance documents, including the following:

- *Halton Region Official Plan (2022 Consolidation)*
- *Greenbelt Technical Paper 1 – Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside (2005; updated by NDMNRF as of 2012)*
- *Natural Heritage Reference Manual (NHRM) for the Natural Heritage Policies of the Provincial Policy Statement (NDMNRF 2010)*
- *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (NDMNRF 2015).*

The potential presence/absence of relevant species of conservation interest, such as endangered and threatened species, are assessed using a combination of the background information review outlined in **Section 2.1** and the habitat-based approach outlined in **Section 2.2.1**. Our assessment of KNHF/KHF is provided in **Section 4** of this report.

## **2.4 Impact and Mitigation Assessment**

To carry out a defensible assessment of potential development impacts, RiverStone employs the following approach:

1. *Predict* impacts to identified natural heritage features within the study area based on the proposed development plan (from construction to post-completion), including both direct (*e.g.*, vegetation clearance) and indirect (*e.g.*, light pollution, encroachment post-development) impacts.
2. *Evaluate the significance* of predicted impacts to identified natural heritage features based on their spatial extent, magnitude, timing, frequency, and duration.
3. *Assess the probability or likelihood* that the predicted impacts will occur at the level of significance expected (*e.g.*, high, medium, low probability).

In instances where the potential for negative impacts to natural heritage features exists, mitigation measures are offered to avoid, minimize, and/or compensate for such impacts. RiverStone’s natural heritage impact assessment and recommended mitigation measures are provided in **Section 5**.

## **2.5 Assessment of Conformance with Applicable Environmental Policies**

There are several environmental policies (*e.g.*, statutes, regulations, plans, guidance documents, etc.) that may apply to the study area and proposed development, which are listed below. A general assessment of the proposed development’s consistency and conformity with these environmental policies is offered in **Section 6**.

- Halton Region Official Plan (2022)
- Town of Milton Official Plan (2018)
- Greenbelt Plan (2017)
- Provincial Policy Statement, 2020, pursuant to the *Planning Act*, R.S.O. 1990, c. P.13
- Provincial *Endangered Species Act*, S.O. 2007, c. 6
- Federal *Migratory Birds Convention Act*, S.C. 1994, c. 22

## **3 EXISTING CONDITIONS**

### **3.1 General Site Conditions and Land-uses**

The subject property is part of a collection of ‘estate’ lots located within a typical residential subdivision in the settlement area of Campbellville. The property contains an existing dwelling, accessed by a private driveway fronting onto Stokes Trail. Surrounding the dwelling is a typical mix of amenity space, including low landscaping trees, grassed lawn, a pool/patio, and chain-link fencing along the sides and rear of the lot. Natural vegetation cover is absent within the subject property; however, a woodland community is present immediately adjacent to the rear lot boundary. Representative photos of existing site conditions are contained in **Appendix 1**.

### **3.2 Topography, Physiography, & Drainage**

Being proximate to the Niagara Escarpment corridor, the broader landscape contains substantial variation in topography; however, the subject property contains no major slopes, valleys, or landform features. On the contrary, topography across the subject property is relatively flat, being located on a small plateau within the local landscape. The Ontario Soil Survey classifies soils within the area of the subject property as a loam, part of the Burford series. Burford loams are described as deep and well draining and are prevalent on the local landscape. No surface drainage features were identified on the subject property through our background review or on-site investigation.

### **3.3 Vegetation Communities**

Existing vegetation cover within and adjacent to the subject property was assessed during the on-site investigation. A desktop exercise was undertaken to map vegetation community boundaries using background information sources and current aerial photographs; the mapped vegetation communities were then ground-truthed to a high level and refined where necessary during the site investigation. Vegetation community mapping in accordance with Lee et al (1998) is provided on **Figure 2**. The entirety of the subject property is described as Anthropogenic (ANTH), being composed of

manicured/landscaped (anthropogenic) areas and features only. A single vegetation community was identified on adjacent lands, described below.

### **3.3.1 FOD5-1: Dry – Fresh Sugar Maple Deciduous Forest Type**

This community occurs immediately adjacent to the rear lot line of the subject property. The canopy is composed almost entirely of Sugar Maple (*Acer saccharum*), with minor noted associates of Eastern Hop-hornbeam (*Ostrya virginiana*) and Bitternut Hickory (*Carya cordiformis*). Sugar Maple remains dominant in lower strata as well, with Eastern Hop-hornbeam and American Beech (*Fagus grandifolia*) being common associates. A thorough groundcover assessment was not feasible due to seasonal limitations at the time of survey (*i.e.*, snow cover). No prominent cavity trees were observed through our scoped survey (undertaken from the property line) that may indicate the presence of associated significant wildlife habitat functions. Similarly, the floor of the woodland appeared to contain minimal deadfall or depressions that may support unique microhabitats, such as salamander cover or breeding pools. It was noted that several trees within the woodland are equipped with a network of plastic tubing, presumably for the purpose of maple syrup production. Given the prevalence of Sugar Maple and the presence of this equipment, it is possible that the woodland is actively groomed to facilitate use as a ‘sugarbush. These activities typically cause disturbance to forest floor and may decrease the likelihood that rare or otherwise conservative plant species occur within the woodland.

## **4 KEY NATURAL HERITAGE/HYDROLOGIC FEATURE ASSESSMENT**

Based on the biophysical information collected during background information gathering and the results of RiverStone’s on-site investigation, the following sections discuss the KNHF/KHF that are present (or potentially present) within the subject properties or adjacent lands, and which are considered applicable under the policy context. RiverStone’s rationale for identifying such features is provided accordingly. Mapping of identified feature limits is depicted on **Figure 2**.

### **4.1 Permanent & Intermittent Streams**

No drainage features were identified on the subject property or adjacent lands during RiverStone’s on-site assessment. As per our review of background information sources, the nearest mapped drainage feature occurs >120 m from the subject property. No further assessment undertaken.

### **4.2 Lakes (and Littoral Zones)**

No lakes were identified on the subject property or adjacent lands during RiverStone’s on-site assessment or background information review. No further assessment undertaken.

### **4.3 Seepage Areas and Springs**

No seeps or springs were identified on the subject property or adjacent lands during RiverStone’s on-site assessment or background information review. Conditions on the subject property and immediately adjacent lands are not conducive to supporting groundwater emergence features. No further assessment undertaken.

#### **4.4 Wetlands**

No wetlands were identified on the subject property or adjacent lands during RiverStone's on-site assessment. RiverStone recognizes that the timing of the site visit would not be supportive of a proper wetland assessment; however, it is noted that tree cover and soil conditions on the subject property and directly adjacent lands are clearly not supportive of wetland conditions. According to our background review, the nearest mapped wetland occurs >180 m southwest of the subject property. No further assessment undertaken.

#### **4.5 Fish Habitat**

No features with the potential to support fish habitat were identified on the subject property or adjacent lands during RiverStone's on-site assessment or background information review. No further assessment undertaken.

#### **4.6 Sand Barrens, Savannahs, Tallgrass Prairies, and Alvars**

No vegetation communities representing sand barrens, savannahs, tallgrass prairies, or alvars were identified on the subject property or adjacent lands during RiverStone's on-site assessment or background information review. No further assessment undertaken.

#### **4.7 Areas of Natural and Scientific Interest (Life Science)**

It is the responsibility of the Ministry of Northern Development, Mines, Natural Resources, and Forestry (NDMNR) to designate and administer mapping for areas of natural and scientific interest (ANSIs). Based on available background mapping, the nearest ANSI occurs approximately 2 km north of the subject property. No further assessment undertaken.

#### **4.8 Significant Valleylands**

Significant valleylands represent valleys or other landform depressions with recognized significant attributes, such as supporting natural vegetation cover with associated ecological linkages and corridors. Valleylands are typically associated with a watercourse feature. Designation of significant valleylands is ultimately the responsibility of the relevant planning authority; however, site-specific designation of these feature can be undertaken using standardized criteria endorsed by the province and/or the planning authority. In this case, the Town OP does not appear to designate the subject property or adjacent lands as significant valleylands. RiverStone's on-site investigation identified no landform features that may be representative of significant valleylands. No further assessment undertaken.

#### **4.9 Significant Woodlands**

Significant woodlands represent areas of forested cover with recognized significant attributes, such as large contiguous blocks of woodland, woodlands with unique characteristics, and/or woodlands that support economic values, cultural values, or other ecosystem services. It is generally the responsibility of the relevant planning authority to designate significant woodland on a comprehensive basis; however, where appropriate, site-specific designation of these features can also be undertaken using standardized criteria endorsed by the province and/or the planning authority.

The following technical guidelines provide support to practitioners in the identification of significant woodland features within the jurisdiction:

- *Policy 277 of the Halton Region Official Plan (2022 Consolidation)*
- *Greenbelt Technical Paper 1 – Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside (2005; updated by NDMNRF as of 2012)*
- *Natural Heritage Reference Manual (NHRM) for the Natural Heritage Policies of the Provincial Policy Statement (NDMNRF 2010)*

Based on our review, the size of the contiguous woodland feature (~10 ha) exceeds relevant minimum area thresholds prescribed in the above-cited Greenbelt Technical Paper. Likewise, the feature is composed of native, site-appropriate vegetation and has the potential to support habitat functions for native plants and wildlife, potentially including one or more sensitive species. In reference to the criteria outlined in Policy 277 of the Regional OP, the woodland meets at least one of the criteria applied, including minimum size (10 ha) and proximity to a watercourse regulated by the Halton Region Conservation Authority. On this basis, it is assumed that the woodland feature adjacent to the subject property is representative of a significant woodland. The existing limit of this feature, as defined by the outer canopy dripline, was delineated during RiverStone’s on-site investigation (**Figure 2**).

Additional review of aerial imagery suggests that the woodland dripline may have previously extended further onto the subject property; however, aerial interpretation of driplines can be unreliable for several reasons (*e.g.*, shadows, skewed parcel mapping, natural changes in canopies). Therefore, it is unknown if construction of the sport pad involved removal of any trees from within the boundary of the subject property. In general, RiverStone’s review is based on existing conditions at the time of survey; however, our impact assessment includes regard for what impacts may have occurred if trees were previously removed from within the property boundary. Further discussion, including an assessment of potential impacts to this feature resulting from implementation of the development plan, is provided in **Section 5.1**.

#### **4.10 Habitat of Endangered and Threatened Species**

To assess the potential presence of individuals and/or habitat for endangered and threatened species within the study area, RiverStone staff conducted a review of the list of species designated as endangered and threatened in Ontario, as per Schedules 2 and 3 of Ontario Regulation 230/08 [(Species at Risk in Ontario List (SARO List)], located here: <https://www.ontario.ca/laws/regulation/080230>. In our experience, the potential presence of most provincially endangered and/or threatened species can be ruled out based on their limited geographical ranges in the province and/or a lack of specific habitat conditions which they require to carry out key life processes. RiverStone further reviews the NHIC database for existing records of element occurrences for endangered or threatened species (data squares 17NJ8114, 17NJ8115). Databases of the OBBA and ORAA are also reviewed. Background information review is followed by on-site investigation, during which vegetation conditions are characterized for further habitat-based assessment.

The species contained within the list below were either identified through our background review or otherwise identified by staff as having the potential to being present within the subject property or adjacent lands. Where the likely or confirmed presence of an individual species and/or its habitat was supported by our field assessment and background review, these species are discussed further in the impact assessment in **Section 5**.

#### **4.10.1 Black Ash (*Fraxinus nigra*)**

Black Ash is to be added to the SARO List as of January 27, 2022; however, a minimum two-year moratorium has been established before any species- or habitat-level protections are provided under Regulation 242/08 of the ESA. NHIC's database contains a record of element occurrence for Black Ash for one of the 1 km grid squares associated with the subject property. In general, this species requires wetland habitat conditions to carry out key life processes, and such conditions are absent within the subject property or adjacent lands. No further assessment undertaken.

#### **4.10.2 Bobolink (*Dolichonyx oryzivorus*)**

NHIC's database contains a record of element occurrence for Bobolink for one of the 1 km grid squares associated with the subject property. In general, this species requires open grassland-type habitat conditions to carry out key life processes, and such conditions are absent within the subject property or adjacent lands. No further assessment undertaken.

#### **4.10.3 Butternut (*Juglans cinerea*)**

Butternut is known to be widespread and frequently encountered on the local landscape, and conditions on the subject property are theoretically suitable to support this tree species. RiverStone staff conducted a review of the subject property, and closely surveyed the edge of the adjacent woodland community; no individual Butternut were documented. No further assessment undertaken.

#### **4.10.4 Eastern Meadowlark (*Sturnella magna*)**

NHIC's database contains a record of element occurrence for Eastern Meadowlark for one of the 1 km grid squares associated with the subject property. In general, this species requires open grassland-type habitat conditions to carry out key life processes, and such conditions are absent within the subject property or adjacent lands. No further assessment undertaken.

#### **4.10.5 Endangered Bat Species (*Myotis lucifugus*, *Myotis septentrionalis*, *Perimyotis subflavus*)**

These species, assessed as a species guild (related species with similar habitat characteristics), include several bat species listed as endangered in Ontario. Bats are highly mobile; however, individuals and groups of the noted bat species are also recognized as having some degree of fidelity to suitable local sites for daily and seasonal 'roosting' activities. While some species (*i.e.*, *Myotis lucifugus*) exhibit a preference for roosting in anthropogenic structures, natural roosting sites are also important. Natural roosting sites are generally associated with mature forests containing a sufficient density of large trees in various stages of decay, otherwise known as 'snags'. Snags provide features such as cavities and/or loose bark, on which bats rely for shelter and thermoregulation throughout the active season.

Current direction from MECP prescribes that targeted surveys of treed habitats/snags for endangered bat species are not necessary if a project would involve removal of only a small number of potential maternity or day roost trees in treed habitats (or none at all). This approach assumes that other appropriate mitigation measures (*i.e.*, timing windows) are employed to avoid impacts to individuals of endangered bat species (MECP 2021). Notwithstanding, during our on-site investigation, RiverStone staff conducted a general qualitative assessment of potential bat habitat. Trees within the area of woodland directly adjacent to the subject property appeared to be in generally good health, with no prominent concentrations or clusters of dead trees or trees with obvious cavity features. Regardless of this assessment, it is not possible to rule out the potential for individuals of endangered bat species (or



other bat species) to be present during the active season. Further discussion, including an assessment of potential impacts to individuals of endangered bat species resulting from implementation of the proposed development plan, is provided in **Section 5.2**

#### **4.10.6 Unisexual *Ambystoma* (Jefferson Salamander dependent population; *Ambystoma* pop. 1)**

NHIC's database contains a record of element occurrence of Unisexual *Ambystoma* for the 1 km grid squares associated with the subject property. This is a hybrid containing substantial genetic material derived from the endangered species, Jefferson Salamander (*Ambystoma jeffersonianum*). Jefferson's Salamander (and associated hybrids) are generally dependent on moist deciduous forests and wetlands with vernal pools to carry out their lifecycles. The developed and manicured conditions within the subject property and associated residential subdivision are not suitable as direct habitat for Jefferson's Salamander (or hybrids); however, the woodland feature (FOD5-1) on adjacent lands requires assessment to determine habitat suitability. RiverStone's site visit was not undertaken at a time of year when this species would not be detectable. Therefore, a habitat-based assessment is provided based on available information.

Based on RiverStone's on-site assessment, the area of FOD5-1 directly adjacent to the subject property appears to lack the micro-topographical conditions that would be required to support vernal pooling. Our review of background soil information also indicates that soils within the FOD5-1 community are well-draining and not conducive to supporting seasonal standing water. These assessments are further supported by review of spring-shot aerial photos, which show no indication or visual signatures of vernal pooling features within the forested area adjacent to the subject property. It is also noted that Stokes Trail and the associated subdivision represent a major barrier to seasonal movements and migrations of Jefferson's Salamander. Based on the above, there is no expectation that the area of FOD5-1 adjacent to the subject property is supporting functional habitat for this species. Additionally, there is no expectation that the subject property would be situated in a location where Jefferson's Salamander would undertake seasonal migrations. Jefferson's Salamander are undoubtedly present on the local landscape; however, the subject property does not represent suitable habitat and directly adjacent lands are also unlikely to support functional habitat for this species. No further assessment undertaken.

#### **4.11 Significant Wildlife Habitat**

SWH represents a range of habitat features that are recognized as providing specialized or otherwise important functions for various forms of wildlife. Designation of confirmed SWH is ultimately the responsibility of the relevant planning authority, and it is our understanding that no specific SWH designations have been applied to the subject property or adjacent lands. Notwithstanding, it is recognized that SWH features and functions are generally impractical to identify and designate on a broad scale and can require review on a site-specific basis. Therefore, RiverStone has reviewed applicable technical guidance on the identification of specific SWH features and functions as contained in the SWH Criteria Schedules for Ecoregion 6E (MNRF 2015). A preliminary assessment of the criteria schedules is provided in **Appendix 2**, and SWH features that have been confirmed or have the potential to occur within the subject property were identified as follows:

##### **4.11.1 *Raptor Wintering Area***

As outlined in the SWH Criteria Schedules for Ecoregion 6E (MNRF 2015), raptor wintering areas depend on the following characteristics:

- The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors.
- Raptor wintering sites (hawk/owl) need to be >20 ha with a combination of forest and upland.
- Least disturbed sites are preferred, including idle/fallow or lightly grazed field/meadows (>15ha) with adjacent woodlands.
- Field area of the habitat is to be wind swept with limited snow depth or accumulation.

The woodland feature adjacent to the subject property may contribute to a broader area that supports the above-listed characteristics. However, the key element of this habitat function is the combination/adjacency of woodlands and open areas (fields, meadows, etc.), with emphasis on the woodland edge adjacent to the open area. While it is possible that the woodland feature adjacent to the subject property contributes to this habitat function, it is expected that this is limited to the south edge of woodland which borders a field, and not the woodland edge adjacent to a residential subdivision. There is no expectation that the subject property, or the woodland edge adjacent to the subject property, is supporting this habitat function. No further assessment undertaken.

#### **4.11.2 *Bat Maternity Colonies***

Refer to **Section 4.10.5** pertaining to endangered bat species for applicable discussion.

#### **4.11.3 *Special Concern and Rare Wildlife Species***

RiverStone staff have conducted a review of the list of species designated as special concern in Ontario, as per Schedule 4 of Ontario Regulation 230/08, located here: <https://www.ontario.ca/laws/regulation/080230>. Through a review of background and on-site information, as well as application of staff knowledge and experience, RiverStone noted the following special concern and/or rare wildlife species as being potentially present within the subject property:

##### **4.11.3.1 Eastern Green Violet (*Hybanthus concolor*; S2)**

NHIC's database contains a record of element occurrence for Eastern Green Violet for one of the 1 km grid squares that overlap the subject property (data square 17NJ8115). This species is abundant in rich deciduous forests within Halton Region, and particularly in moist, calcareous soils associated within the Niagara Escarpment corridor. The woodland feature adjacent to the subject property may support populations of Eastern Green Violet. Based on staff experience, conditions within this community are assumed to be sub-optimal for this species; however, timing of RiverStone's survey was not suitable to firmly conclude its absence. An assessment of potential impacts to this species associated with implementation of the proposed development plan (should it be present) is provided in **Section 5.3**.

##### **4.11.3.2 Eastern Wood-pewee (*Contopus virens*; Special Concern)**

Conditions within the woodland feature adjacent to the subject property offer potentially suitable habitat for this species. An assessment of potential impacts to this species associated with implementation of the proposed development plan is provided in **Section 5.3**.

##### **4.11.3.3 Golden-winged Warbler (*Vermivora chrysoptera*; Special Concern)**

NHIC's database contains a record of element occurrence for Golden-winged Warbler for one of the 1 km grid squares that overlap the subject property (data square 17NJ8115). In general, this species

prefers edge habitat or semi-open areas associated with communities such as swamp thickets, cultural thickets, or successional woodlands to carry out key life processes. Such conditions are absent within the subject property or adjacent lands. No further assessment undertaken.

#### 4.11.3.4 Midland Painted Turtle (*Chrysemys picta marginata*; Special Concern)

NHIC's database contains a record of element occurrence for Midland Painted Turtle for one of the 1 km grid squares that overlap the subject property (data square 17NJ8115). In general, this species requires wetland or open water habitat conditions to carry out key life processes, and such conditions are absent within the subject property or adjacent lands. No further assessment undertaken.

#### 4.11.3.5 Snapping Turtle (*Chelydra serpentina*; Special Concern)

NHIC's database contains a record of element occurrence for Snapping Turtle for the 1 km grid square which overlaps the subject property (data square 17NJ8115). In general, this species requires wetland or open water habitat conditions to carry out key life processes, and such conditions are absent within the subject property or adjacent lands. No further assessment undertaken.

#### 4.11.3.6 West Virginia White (*Pieris virginiensis*; Special Concern)

NHIC's database contains a record of element occurrence for West Virginia White (a species of butterfly) for the 1 km grid squares that overlap the subject property. This species may occur in locations that support habitat for its host plant, Toothwort (*Cardamine spp.*). Toothwort species are generally ubiquitous in deciduous and mixed forests in a variety of settings. The woodland feature adjacent to the subject property may support populations of Toothwort and, therefore, may support West Virginia White. Timing of RiverStone's survey was not suitable to conclude presence or absence in this regard. An assessment of potential impacts to this species associated with implementation of the proposed development plan (should it be present) is provided in **Section 5.3**.

#### 4.11.3.7 Wood Thrush (*Hylocichla mustelina*; Special Concern)

Conditions within the woodland feature adjacent to the subject property offer potentially suitable habitat for this species. An assessment of potential impacts to this species associated with implementation of the proposed development plan is provided in **Section 5.3**.

### 4.12 Key Natural Heritage/Hydrologic Feature Summary

Based on our review of background materials and assessment of natural heritage information collected on site, RiverStone has determined that the KNHFs listed below have the potential to be present within lands adjacent to the subject property (*i.e.*, within 120 m of proposed development):

- Candidate Significant Woodlands
- Potential Habitat of Endangered and/or Threatened Species
- Candidate Significant Wildlife Habitat

## 5 IMPACT ASSESSMENT & MITIGATION PLANNING

As previously discussed, the subject property contains an existing residence and mixed manicured amenity space. It also contains a sport pad and interlock stone patio that was previously constructed

within amenity space associated with the backyard. The footprint of the sports pad and a portion of the patio is, in part, within the area of the property that is zoned as GB and designated as both NHS Key Features and Greenbelt NHS. These cumulative representations of the NHS layer extend approximately 10 m into the subject property from the rear lot line, similar to adjacent properties that back onto the woodland feature discussed in the sections above.

Within the subject property and adjacent properties, the areas that encompass the GB zone and NHS designations appear to be largely composed of manicured amenity space, and not natural features. In some locations on adjacent properties, the dripline of the woodland canopy extends over the rear lot lines and onto the residential properties; however, the stems of individual trees appear to be largely limited to outside of the residential properties. In the case of the subject property, the dripline is primarily located outside of the rear lot line, with minimal overlap with the constructed sports pad, associated drainage infrastructure, or interlocking stone patio (see **Figure 2, Appendix 1, and Appendix 3**).

All KNHF discussed in **Section 4** have been identified due to the presence of the above-noted woodland feature and include the woodland itself. The impact assessment below is intended to review how construction of the sport pad/patio may have impacted (or may continue to impact) the integrity and function of identified KNHF. We provide feature-specific mitigation measures to avoid or minimize the potential for impacts where appropriate and feasible.

### **5.1 Significant Woodland**

As discussed in **Section 4.9**, the woodland feature adjacent to the subject property would be expected to meet applicable technical criteria to be considered significant for one or more reasons, including:

- The woodland satisfies minimum area thresholds based on relevant provincial technical criteria; and,
- The woodland contains native plant species assemblages and habitat for local wildlife.

RiverStone conducted an on-site delineation of the existing woodland limit, as depicted in **Figure 2**. As previously noted, aerial imagery depicts a woodland limit that may previously have extended further into the subject property; however, interpretation of aerial imagery is not always reliable in this regard. It is unknown if any individual trees were removed from within the boundary of the subject property prior to construction of the sport pad. If this were the case, it is further unknown if tree removal/management was related to the sports pad project or if it occurred for other reasons (*e.g.*, fence construction, hazard tree removal, etc.). In any case, if trees were previously removed along the rear lot line of the subject property, it is assumed that the number of individual trees would have been minimal and would not have compromised or otherwise negatively impacted the integrity and function of the broader woodland feature.

In the absence of a site visit prior to construction of the sports pad, RiverStone provides an impact assessment that is based on existing conditions at the time of our on-site investigation. As noted, the footprint of the constructed sport pad is largely located outside of the existing woodland dripline. Along the length of the pad, RiverStone observed six individual mature Sugar Maple trees (average ~25 cm DBH) proximate to the rear lot line, *i.e.*, within 10 m. The closest of these trees, located approximately 4 m from the limit of the pad, may be susceptible to root damage from construction of the pad. It was noted on site that this tree is already in a state of decline, but it is unknown if this is related to construction of the sport pad or other factors. In general, it is possible that the sport pad will

result in or contribute to further long-term decline of this single tree; however, other proximate trees are unlikely to be negatively impacted by the location of the pad.

Notwithstanding potential impacts to individual trees, it is RiverStone's opinion that construction/retention of the sports pad will not result in a negative impact to the integrity and function of the significant woodland feature as a whole. A few key considerations are provided in this regard:

- The size and configuration of the woodland feature do not support interior habitat functions (*i.e.*, areas at least 100 m from an edge). Therefore, minor tree impacts along the woodland edge would not result in any loss of interior habitat.
- The subject property is not situated within a wildlife movement corridor. Therefore, minor tree impacts along the woodland edge will not result in any loss or disruption of local habitat linkages.
- The woodland feature is unlikely to support habitat for species protected under the ESA (see discussion in **Section 4.10**), and there is no expectation that retention of the pad will result in harm to any individuals of endangered or threatened species.
- Habitat for sensitive woodland plants (including special concern and/or rare species) is documented in the local area; however, such species are unlikely to be present along an exposed woodland edge adjacent to a residential subdivision.
- The activity would not be expected to result in the loss of available breeding territories for sensitive woodland birds (*i.e.*, Eastern Wood-pewee or Wood Thrush), or impact the functionality of such habitat (if these species are present).
- Lighting assessment by others (e-Lumen Inc. 2023) estimates approximate night-lighting illumination of 0.1-0.9 at a distance of ~3 m into the woodland edge (when pad lighting is on). By comparison, typical illumination of overcast or sunrise/sunset conditions is several hundred LUX. The measured LUX adjacent to the sporting pad is considered negligible, rapidly dissipating to 0.0-0.1 a short distance from the pad. This is not expected to result in a negative impact to nocturnal wildlife habitat functions associated with the woodland.

Based on the above assessment, it is RiverStone's opinion that there is no potential for functional impacts to the woodland feature. Instead, impacts associated with construction of the sports pad can be measured in potential impacts to one or more individual trees. This includes the potential long-term loss of a single Sugar Maple, and the potential for disturbance to the root zone of a small number (~ five) of other proximate trees. The following mitigation measures are recommended in this regard:

- **Identify a portion of the subject property for naturalization/enhancement to offset any potential impacts to individual trees along the woodland edge, as delineated in Figure 2.**
- **Implement a naturalization/enhancement plan for an area identified in Figure 3. All recommended specifications are contained in Figure 3.**
- **If any individual trees on the adjacent property show signs of decline, avoid removal as hazard trees; retain these as potential wildlife cavity trees.**

- **Ensure that any lighting associated with the sport pad is directed toward the dwelling and away from the woodland to avoid additional night-lighting stress on wildlife.**

## **5.2 Habitat of Endangered and Threatened Species**

Areas of identified habitat for any endangered or threatened species are protected from destruction as per Section 10 of the ESA. Additionally, individuals of endangered or threatened species cannot legally be killed, harmed, or harassed as per Section 9 of the ESA. In many cases, mitigation planning is sufficient to ensure that development can occur in a manner that is consistent with the above provisions.

Based on the assessment provided in **Section 4.10**, it is RiverStone’s opinion that the area of woodland directly adjacent to the subject property is unlikely to support habitat for any threatened or endangered species. Notwithstanding, it is possible that individuals of endangered bat species may be present within any portion of a woodland during the active season. It is our understanding that no tree removals are required to accommodate retention of the sports pad, meaning that there is no potential for direct impacts to individual bats during the active season.

As noted above with respect to significant woodlands, there is potential for the sport pad to result in long-term decline of one or more trees as a result of encroachment into individual tree rooting zones. With respect to bats, this has the potential to represent a positive change in local habitat conditions, as dead or declining trees can provide critical roosting habitat for bats. In general, it is our opinion that the proposed development will not result in any harm to endangered or threatened species. While no specific mitigation measures are required, a discretionary stewardship recommendation is provided below for consideration in the applicant’s discussion with the Town.

- **Install one or more bat roosting structures (‘bat boxes’) along the edge of the woodland to support creation of roosting habitat for local bat populations.**

## **5.3 Significant Wildlife Habitat**

**Section 4.11** identified a list of SWH features that have the potential to occur within or adjacent to the subject property, based on our assessment of the SWH Criteria Schedules for Ecoregion 6E (**Appendix 2**). Our assessment concluded that conditions on the subject property are not suitable to support SWH; however, the FOD5-1 woodland community immediately adjacent to the subject property has the potential to support one or more SWH features or functions.

### **5.3.1 *Bat Maternity Colonies***

As discussed with respect to endangered bat species (**Section 5.2**), staff did not observe any prominent cavity trees within the portion of woodland adjacent to the subject property. If bats are actively utilizing the woodland to carry out life processes, there is no expectation that retention of the sport pad would prevent this function from continuing. Incidentally, if the sport pad has resulted in disturbance to the root zones of any mature Sugar Maple within the adjacent tree line, the impact to such trees may result in long-term creation of valuable cavity trees as the trees decline in health.

As discussed in **Section 5.2**, current guidance from MECP states that primary bat-related mitigation for small-scale tree removals is to implement timing window restrictions. It is unknown if creation of the sport pad required the removal of any trees from within the boundaries of the subject property; however, based on existing conditions, no trees require removal to accommodate retention of the sport

pad. In general, there is no expectation that construction of the sport pad resulted in any negative impacts to bat maternity habitat functions.

### **5.3.2 *Habitat for Special Concern and Rare Wildlife Species***

Based on our assessment of background information and on-site conditions, the following special concern and/or rare wildlife species have the potential to be present within the woodland feature adjacent to the subject property:

- Eastern Green Violet
- Eastern Wood-pewee
- West Virginia White
- Wood Thrush

The subject property itself does not represent potential habitat for any of these species, as all identified species are dependent on woodland environments. The impact assessment provided in **Section 5.1** pertaining to the significant woodland feature is considered directly relevant herein. It is unknown if creation of the sport pad required the removal of any trees from within the boundaries of the subject property; however, based on existing conditions, there is no expectation that retention of the sports pad will negatively impact the continued suitability of the woodland as habitat for these species (should they be present). Importantly, any potential for stress on local wildlife resulting from use of the sports pad would be no different than use of a typical residential backyard for recreational purposes.

## **5.4 General Impact Discussion**

In addition to the feature-specific impact discussion provided in the above sections, discussion is provided herein with respect to potential impacts to the NHS as a whole. Based on our review, there are no natural features on the subject property not encompassed in the above discussion on KNHFs. The portion of the Greenbelt NHS that overlaps the subject property is not associated with any specific feature and may have been delineated in this location to promote a development setback to the limits of defined features (*i.e.*, woodlands). While development will encroach within the delineated Greenbelt NHS, there is no expectation that the proposal will result in a negative impact to the functions of the Greenbelt (or Regional) NHS. In our opinion, there is no potential for the proposal to alter the areal extent or disrupt existing wildlife habitat or the connectivity within or amongst areas identified as NHS.

From a hydrologic perspective, a Stormwater Brief prepared by Phoenix Engineering Services (June 2023) discusses a post-development drainage solution involving installation of infiltration galleries to the north and south of the existing sports pad. These installed features are intended to support on-site infiltration of runoff from the impervious surface of the pad, conveyed to the basins through a perimeter French drain system. A topographic survey by ERTL-Hunt Surveyors (July 2023) suggests that the subject property supports minimal grade change, with a very subtle west to east slope toward the road frontage. The overall grade change from the rear of the lot to the ditch on Stokes Trail averages 0.5-1.0 m, with most of this occurring in the eastern 1/3 of the parcel. From this, we interpret that the pre-disturbance condition was likely supportive of on-site infiltration and potentially some minor runoff eastward toward Stokes Trail. As the installed infiltration galleries achieve the same end result, there is no expectation that the development results in any functional hydrologic change to adjacent areas of NHS.

## **6 CONFORMANCE WITH APPLICABLE ENVIRONMENTAL POLICIES**

The following sections summarize the relevant federal, provincial, and municipal environmental policies that are applicable to the proposed development application.

### **6.1 Federal *Migratory Birds Convention Act, S.C. 1994, c. 22***

Section 6 of the Migratory Birds Regulations under the *Migratory Birds Convention Act, 1994* (MBCA) prohibits the disturbance or destruction of nests, eggs, or nest shelters of a migratory bird. The provincial *Fish and Wildlife Conservation Act, 1997* (FWCA) extends the protection of bird nests and eggs to species that are not listed under the Migratory Birds Regulations (e.g., Corvids).

To our knowledge, no tree removals are required to facilitate retention of the sports pad. If this changes, restricting clearing of vegetation for any current or future proposed development to times outside of the period of April 1 to August 31 inclusive, will prevent contravention of Section 6 of the regulations.

### **6.2 Provincial Policy Statement, pursuant to the *Planning Act, R.S.O. 1990, c. P. 13***

The Provincial Policy Statement (PPS) is promulgated under the *Planning Act* and provides direction to municipalities on matters of provincial interest related to land-use planning. The PPS was updated in 2020. Municipal OP's must be consistent with the PPS. Key natural heritage-related provisions of the PPS, as assessed in this report, are listed below:

**2.1.4** Development and site alteration shall not be permitted in:

- a) significant wetlands in Ecoregions 5E, 6E, and 7E1; and
- b) significant coastal wetlands.

**2.1.5** Development and site alteration shall not be permitted in:

- a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E<sup>1</sup>;
- b) significant woodlands in Ecoregions 6E and 7E;
- c) significant valleylands in Ecoregions 6E and 7E;
- d) significant wildlife habitat;
- e) significant areas of natural and scientific interest; and
- f) coastal wetlands in Ecoregions 5E, 6E and 7E<sup>1</sup> that are not subject to policy 2.1.4(b)

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

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

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

**2.1.8** Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological



function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

Based on the results of RiverStone's impact assessment, and contingent on the implementation of the recommendations outlined in **Section 5** of this report, it is RiverStone's opinion that the development as proposed is consistent with Sections 2.1.4 to 2.1.8 of the PPS.

### **6.3 Provincial Endangered Species Act, S.O. 2007, c. 6**

The ESA protects designated endangered and threatened species in Ontario from being killed, harmed, or harassed (s. 9) or having their habitat damaged or destroyed (s. 10). **Section 4.10** identified one or more species or its habitat having the potential to occur within or adjacent to the subject property. **Section 5.2** provided a subsequent discussion of potential impacts to such species and associated habitat features, should those species be present within or adjacent to the subject property. Based on this assessment, and assuming full implementation of mitigation measures (where recommended), it is RiverStone's opinion that no endangered or threatened species or their habitat are expected to be negatively impacted by implementation of the proposed development. On this basis, there is no expectation that the proposed development will result in a contravention of the ESA. It is noted that this assessment does not represent 'clearance' with respect to ESA compliance. It remains a proponent's continued and sole responsibility to ensure that a project does not result in a contravention to the ESA.

### **6.4 Greenbelt Plan (2017)**

The subject properties are located within the planning area of the Greenbelt Plan and further located in the Protected Countryside and NHS designations. The following interpretation of relevant Greenbelt Plan policies is provided:

- Section 3.2.2 prescribes that all development within the Natural Heritage System demonstrate no impacts to KNHF/KHF. Section 3.2.5 further prescribes that development occur outside of KNHF/KHF and a minimum vegetation protection zone of 30 m from the limits of identified KNHF/KHF.
- Section 3.2.2(4) further specifies that "*the Natural Heritage System, including the policies of section 3.2.5, does not apply within the existing boundaries of settlement areas...*". As the subject property is located within an established settlement area, it is our interpretation that Greenbelt Plan policies that preclude development in KNHF/KHF and within 30 m of KNHF/KHF are not applicable.

Based on our interpretation of Greenbelt Plan policies as they pertain to settlement areas, it is RiverStone's opinion that the proposal is consistent with natural heritage-related provisions of the Greenbelt Plan.

### **6.5 Town of Milton Official Plan (2018)**

The subject property is located within a settlement area and contains a mix of land use designations, including Hamlet and NHS Key Features. The criteria for designation of NHS Key Features, and permitted land uses within this designation, are outlined in Section 4.9 of the Town OP. One or more relevant OP policies are interpreted as follows:

- Section 4.9.1.3 outlines the list of natural features and areas that support designation of NHS Key Features. The extent of the NHS Key Features designation as it applies to the subject property is not presently supported by existing conditions. Of the features which represent criteria for this designation, significant woodland and SWH are considered applicable; however, these features are primarily limited to lands adjacent to the subject property. On this basis, a refinement in the designation limits may be warranted.
- Section 4.9.2 outlines permitted uses within the NHS Key Features designation, including *recreation uses*. Permitted uses also include *accessory buildings or structures*, and *incidental uses*. The constructed sport pad would logically fall under any of the above categories. It is noted that the previous version of the Town's OP clearly identified recreational uses such as swimming pools or sporting pads as being included under the above-noted permitted uses. RiverStone's assessment has determined that the use represents no impact on the functions of existing natural heritages features.
- Section 4.9.3 outlines the Town's approach to implementing the Regional NHS, including development policies related to permitted uses and requirements for review and assessment. Section 4.9.3.2-4.9.3.4 discuss the various triggers and requirements related to preparation of an Environmental Impact Assessment (EIA), which this EIS is intended to satisfy. Section 4.9.3.12 discusses the determination of the boundaries of the Regional NHS and outlines the process for potential refinement, including through an EIA.
- Section 4.10 discusses the provincial Greenbelt NHS for implementation of the provincial Greenbelt Plan. A discussion of relevance and conformity with the Greenbelt Plan is provided in **Section 6.4** above.

The details contained in this EIS report, including discussion in the points above, are intended to support the approval authority in their review of general conformity and consistency with Town OP policies and zoning bylaw provisions as relevant. In general, it is our opinion that the constructed sport pad is located outside of the definable limits of any NHS Key Features. While the footprint of development is located adjacent to Key Features, there is no expectation that the functions of any Key Features will be negatively impacted.

## **6.6 Halton Region Official Plan (2022 Consolidation)**

Map 1G to the Halton Region Official Plan delineates the various land use designations and overlays that support application of natural heritage planning policies in the Regional OP. The subject property is clearly located within the Hamlet designation (Campbellville) and occurs adjacent to areas identified as both Regional Natural Heritage System (NHS) and Key Features. However, due to the scale of the OP schedules, it is unclear if these latter designations/overlays overlap with the property. Based on our interpretation, neither the Regional NHS or Key Features overlay overlap the limits of the subject property. In acknowledgement that this interpretation may be inaccurate AND that the subject property is at a minimum located directly adjacent to the Regional NHS, the following discussion of related policies is provided. Only policies considered directly applicable to the application are discussed (i.e., not general policies, definitions, etc.).

*139.3.7 It is the policy of the Region to:*

*(1) Prohibit development or site alteration within the Key Features of the Greenbelt Natural Heritage System, except in accordance with policies of this Plan.*

**Interpretation:** As discussed in this report, the Greenbelt NHS overlaps the rear portion of the subject property; however, the limits of associated Key Features (e.g., significant woodland) are primarily located on adjacent lands, outside of the footprint of the development subject to this assessment (*i.e.*, sport pad, patio).

*(2) Prohibit development or site alteration on lands adjacent to the Key Features of the Greenbelt Natural Heritage System unless the proponent has evaluated the ecological functions of these lands through an Environmental Impact Assessment in accordance with Section 139.3.7(4).*

**Interpretation:** This report has evaluated and discussed the development and site alteration that occurred adjacent to confirmed Key Features, concluding that the ecological functions of such features will not be negatively impacted by the development.

*(3) Notwithstanding Sections 139.3.7(1) and 139.3.7(2), permit the following uses within Key Features, subject to the applicable policies of this Plan: a) forest, fisheries and wildlife management that is carried out in a manner that maintains or, where possible, improves these features and their functions; b) conservation and flood or erosion control projects if they have been demonstrated to be necessary in the public interest and after all alternatives have been considered; c) archaeological activities; d) essential transportation and utility facilities; e) non-intensive recreation uses such as nature viewing, pedestrian trails and small-scale structures (such as boardwalks, footbridges, fences, docks, and picnic facilities), where negative impacts are minimized; f) existing uses, including existing agricultural uses; and, g) mineral aggregate resource extraction, subject to the policies of Section 110 of this Plan.*

**Interpretation:** similar to Section 4.9.2 of the Town OP, clause (e) above implies that recreational uses (including small-scale structures) may be permitted within (and also presumably adjacent to) Key Features, where negative impacts are minimized. As discussed in this report, it is our opinion that negative impacts to functions of Key Features are not expected as a result of the development.

*(4) Require the proponent of any development or site alteration, including public works, that is located wholly or partially within the Greenbelt Natural Heritage System or within 120m of a Key Feature to carry out an Environmental Impact Assessment (EIA). The EIA will identify a vegetation protection zone which: a) is of sufficient width to protect the Key Feature and its functions from the impacts of the proposed change and associated activities that may occur before, during, and after, construction, and where possible, restore or enhance the feature and/or its function; and b) is established to achieve, and be maintained as natural self-sustaining vegetation. (4.1) Notwithstanding Section 139.3.7(4) for agriculture-related development or site alteration, the requirement for an EIA is reduced to within 30m of a Key Feature.*

**Interpretation:** This report has been submitted to satisfy requirements for an EIA. Mitigation measures are outlined in this report to provide partial enhancement of the Greenbelt NHS as it occurs within the subject property, acknowledging that vegetation protection zones are not discussed due to the nature and context of the application.

*(5) Notwithstanding Section 139.3.7(4), require a minimum vegetation protection zone of 30m wide for wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes, and significant woodlands, measured from the outside boundary of the Key Feature.*

**Interpretation:** As noted above, the provision of a vegetation protection zone to identified significant woodland is not considered a practical or feasible measure in this scenario. It is noted that the existing dwelling and several existing permitted amenities (outside of the Greenbelt NHS) are located closer than 30 m from the limit of the significant woodland. Furthermore, assuming that subsection (3) discussed above is applicable to the application, it is not clear that a vegetation protection remains relevant in this scenario.

*(6) Notwithstanding Sections 139.3.7(4), 139.3.7(4.1) and 139.3.7(5), permit without the requirement of an EIA the expansion of existing agricultural buildings and structures, residential dwellings, and accessory uses to both, within Key Features, subject to the following being demonstrated to the satisfaction of the Region: [i] there is no alternative and the expansion, alteration or establishment is directed away from the Key Features to the maximum extent possible; [ii] the impact of the expansion or alteration on the Key Feature and its functions is minimized to the maximum extent possible; and, [iii] sewage and water services as described in Section 101(1.3).*

**Interpretation:** This subsection appears to be applicable to the application insofar as allowing for residential accessory uses within (and also presumably adjacent to) Key Features subject to several conditions. While we cannot speak formally to the availability of alternatives, it is clear that alternatives for an accessory use of this nature appear highly limited by the availability of space within a small suburban backyard. As discussed in this report, it is our opinion that negative impacts to functions of Key Features are not expected as a result of the development. Mitigation recommendations have been provided to demonstrate some ecological benefit on the property resulting from the application.

## **7 CONCLUSIONS**

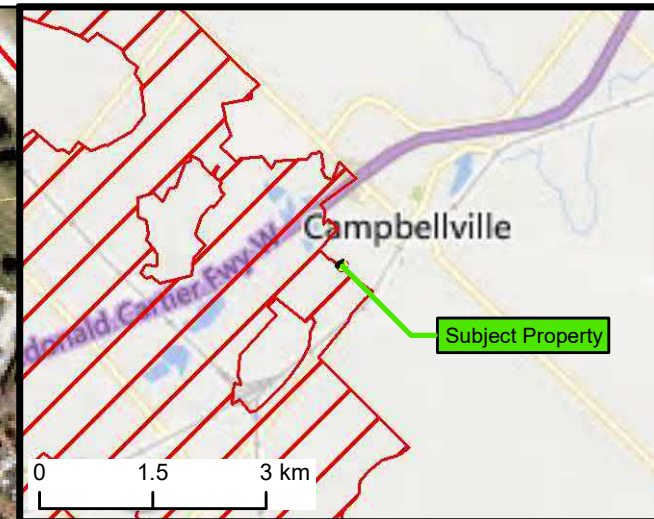
In accordance with the requirements of the Town OP, the preceding report provides the results of RiverStone's scoped EIS. This report includes details regarding existing physical and ecological conditions on the subject property, a description of the development plan, an assessment of potential impacts to identified features (if present), and a general assessment of consistency and conformity with relevant municipal, provincial, and federal environmental policies.

Based upon the findings presented in this report and contingent upon the implementation of and adherence to the recommendations made herein, it is our conclusion that proposed development can be accomplished without negative impacts to the functions of KNHF/KHF or the associated NHS. We advise that any recommended mitigation measures outlined in **Section 5** be implemented through planning and enforcement mechanisms deemed appropriate to the Town.

## **8 REFERENCES**

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- MECP.** 2021. Memo re: Bat survey standards note.
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- NDMNRF.** 2014. Significant Wildlife Habitat Mitigation Support Tool. Ontario Ministry of Natural Resources and Forestry. 533 pp.
- NDMNRF.** 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E.
- McCracken, J.D., R.A. Reid, R.B. Renfrew, B. Frei, J.V. Jalava, A. Cowie, and A.R. Couturier.** 2013. Recovery Strategy for the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. viii + 88 pp.



**Legend**

**Ontario Base Mapping (OBM)**

- Roads
- 5 m Contours

**Planning Boundaries**

- Subject Property

**Features with Natural Heritage Value - Identified by the Province or the Relevant Approval Authorities**

**Applicable Plan, Natural Heritage System**

- Greenbelt Plan,

Orthorectified aerial photo - spring 2018

Scale	RS Project No.	Date Last Updated	By
1:2,000	2021-323	Jan 18, 2022	JG

0 30 60 Metres

**Figure 1. Location Of Subject Property**  
 Lot 23 Stokes Trail, Town of Milton, Geographical Township Of Nassagaweya, Regional Municipality Of Halton

Prepared for: Claudio Brutto

Inset: General Location Of Subject Property

**Disclaimers:**

- the scale text on this figure (e.g., 1:1000) is based on a 11x17" print. If this figure has been printed on a different page size, then only the scale bar is accurate.
- figure should not be used in place of a professional survey



### Legend

**Ontario Base Mapping (OBM)**  
 — Roads

**Planning Boundaries**  
 [Yellow dashed line] Subject Property

**Features with Natural Heritage Value - Identified by the Province or the Relevant Approval Authorities**  
 [Red hatched area] Applicable Plan, Natural Heritage System  
 [Green hatched area] Greenbelt Plan

**Biophysical Features+Functions-RiverStone**  
**Ecological Communities**  
 [Yellow circle] ANTH: Anthropogenic  
 [Yellow circle] FOD5-1: Dry – Fresh Sugar Maple Deciduous Forest Type

**Features with Natural Heritage Value - Identified by RiverStone**  
 [Green dashed line] Dripline (RiverStone Jan 2022)

**Measures Recommended by RiverStone to Prevent and/or Reduce Impacts**  
 [Green shaded area] Naturalization Area

Orthorectified aerial photo - spring 2018

Scale	RS Project No.	Date Last Updated	By
1:300	2021-323	Sept 25, 2023	JG

0 4.5 9 Metres

**Figure 2. Existing Conditions and Mitigation Recommendations**  
 Lot 23 Stokes Trail, Town of Milton, Geographical Township Of Nassagaweya, Regional Municipality Of Halton

Prepared for: Claudio Brutto

**Disclaimers:**

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**STORM MANAGEMENT (AS PER ENG. SWM REPORT)**  
 Need STORAGE Volume=50.5 m<sup>3</sup>  
 1. SUDOWAY PH Volume=50.5 m<sup>3</sup>  
 4. 5x2.5x1.57x4.5x2.5x1.57=16.8x2=33.6 m<sup>3</sup>  
 FRENCH DRAIN  
 3. STORMWATER VOLUME REQUIREMENT TO PRE-DEVELOPMENT FLOWS FOR 75% AS SUMING 40% VOLUME WITH NOMINAL EXCAVATIONS PROVIDED C3&725 STORMWATER REQUIREMENTS.

~150m<sup>2</sup>

FOD5-1

**Groundcover Plantings (Examples of Suitable Species)**

Common Name	Scientific Name	Volume
Ostrich Fern	<i>Matteuccia struthiopteris</i>	(2-4 plants / m <sup>2</sup> )
Wood Fern	<i>Dryopteris sp.</i>	(2-4 plants / m <sup>2</sup> )
Bush Honeysuckle	<i>Diervilla lonicera</i>	(2-4 plants / m <sup>2</sup> )
Zig-Zag Goldenrod	<i>Solidago flexicaulis</i>	(2-4 plants / m <sup>2</sup> )
Wild Ginger	<i>Asarum canadense</i>	(4-6 plants / m <sup>2</sup> )

\*Groundcover pods should measure approximately 5 m<sup>2</sup>. A total of 30 groundcover plugs are recommended to be dispersed amongst two pods, using a mix of the above species or appropriate substitutes.

**Low Tree/Shrub Species Plantings**

Code	Common Name	Scientific Name	Amount
DS	Downy Serviceberry	<i>Amelanchier arborea</i>	5
AD	Alternate-Leaved Dogwood	<i>Cornus alternifolia</i>	5
CC	Chokecherry	<i>Prunus virginiana</i>	5

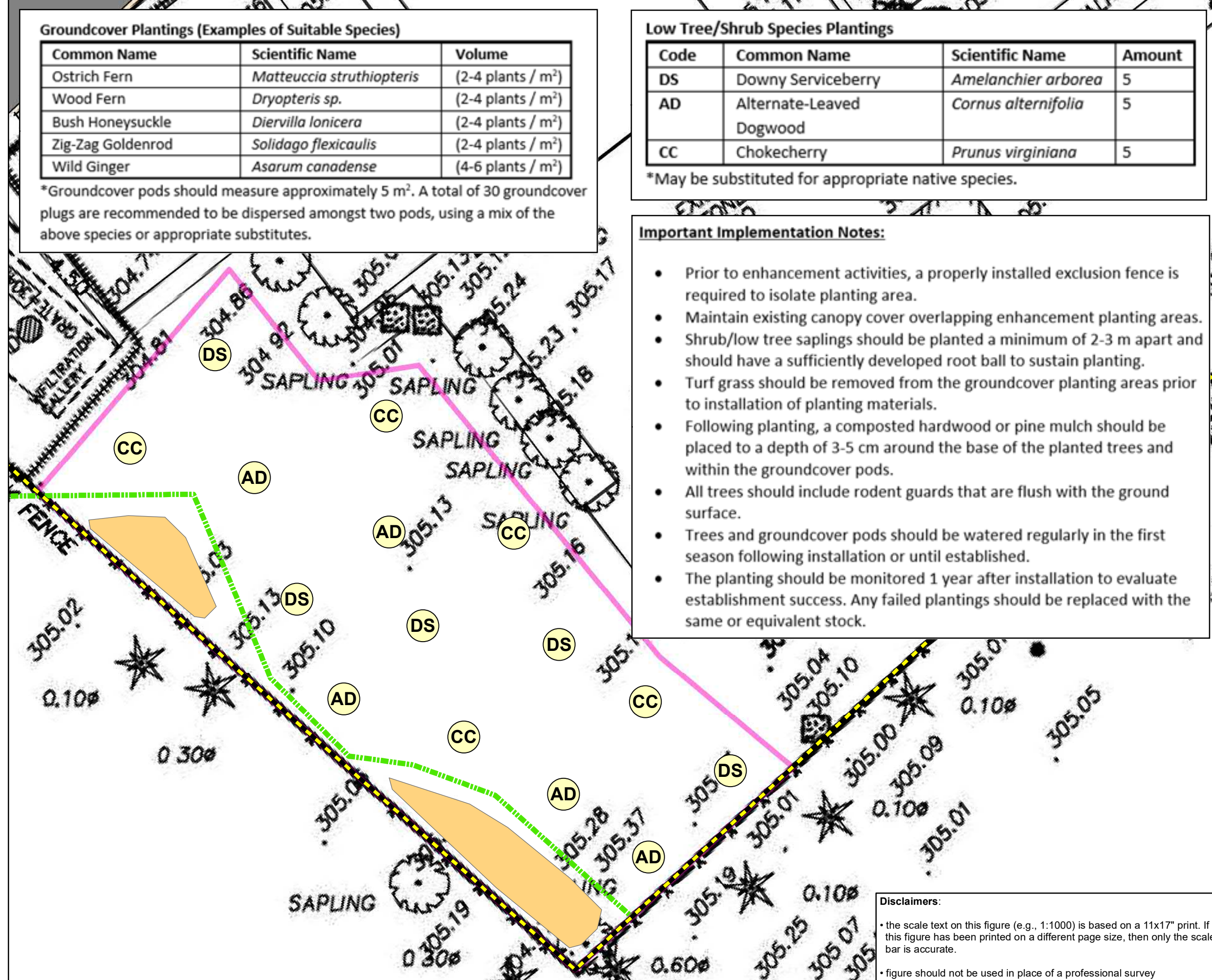
\*May be substituted for appropriate native species.

**Important Implementation Notes:**

- Prior to enhancement activities, a properly installed exclusion fence is required to isolate planting area.
- Maintain existing canopy cover overlapping enhancement planting areas.
- Shrub/low tree saplings should be planted a minimum of 2-3 m apart and should have a sufficiently developed root ball to sustain planting.
- Turf grass should be removed from the groundcover planting areas prior to installation of planting materials.
- Following planting, a composted hardwood or pine mulch should be placed to a depth of 3-5 cm around the base of the planted trees and within the groundcover pods.
- All trees should include rodent guards that are flush with the ground surface.
- Trees and groundcover pods should be watered regularly in the first season following installation or until established.
- The planting should be monitored 1 year after installation to evaluate establishment success. Any failed plantings should be replaced with the same or equivalent stock.

**Legend**

- Subject Property
- Dripline (RiverStone Jan 2022)
- Naturalization Area
- Tall Shrub/Low Tree Planting Location (Approximate - to be Field Fitted)
- Groundcover Planting Pod (Approximate - to be Field Fitted)



Orthorectified aerial photo - spring 2018

Scale	RS Project No.	Date Last Updated	By
1:100	2021-323	Feb 24, 2024	RS

0 1.5 3 Metres

**Figure 3. Enhancement Planting Concept.**  
 Lot 23 Stokes Trail, Town of Milton, Geographical Township Of Nassagaweya, Regional Municipality Of Halton

Prepared for: Claudio Brutto

**Disclaimers:**

- the scale text on this figure (e.g., 1:1000) is based on a 11x17" print. If this figure has been printed on a different page size, then only the scale bar is accurate.
- figure should not be used in place of a professional survey



**Appendix 1. Select Photos from the Site Investigation**





**Photo 1.** Facing northwest from rear lot line. Constructed sport pad in center of frame; dwelling on adjacent property to back right of frame.



**Photo 2.** Facing west from rear lot line. Constructed sport pad on right, woodland feature on left.



**Photo 3.** Woodland feature adjacent to rear lot line.



**Photo 4.** Facing south into woodland feature.



**Photo 5.** Facing southeast from western edge of sport pad.



**Photo 6.** Facing south from northwest corner of sport pad.



**Photo 7.** View of dripline facing west along rear lot line.



**Photo 8.** View of dripline facing east along rear lot line.



**Photo 9.** In-season view of concrete pad.



**Photo 10.** In-season view of concrete pad.



**Photo 11.** In-season view of concrete pad.

## **Appendix 2. Significant Wildlife Habitat Assessment**



Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Seasonal Concentration Areas of Animals</b>			
<b>Waterfowl Stopover and Staging Areas (Terrestrial)</b>	<p>Fields with sheet water during Spring (mid March to May)</p> <p>Fields flooding during spring melt and run-off provide important invertebrate foraging habitat for migrating waterfowl.</p> <p>Agricultural fields with waste grains are commonly used by waterfowl, these are not considered SWH unless they have spring sheet water available.</p>	<p>CUM1 , CUT1</p> <p>Plus evidence of annual spring flooding from melt water or run-off within these Ecosites.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Waterfowl Stopover and Staging Areas (Aquatic)</b>	<p>Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration.</p> <p>Sewage treatment Ponds and storm water Ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify.</p> <p>These habitats have an abundance food supply (mostly aquatic invertebrates and vegetation in shallow water)</p>	<p>MAS1 , MAS2, MAS3, SAS1, SAM1, SAF1 , SWD1 , SWD2, SWD3, SWD4, SWD5, SWD6, SWD7</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Shorebird Migratory Stopover Areas</b>	<p>Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats.</p> <p>Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October.</p> <p>Sewage treatment ponds and storm water ponds do not qualify as a SWH.</p>	<p>BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1 , MAM2, MAM3, MAM4, MAM5</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Raptor Wintering Areas</b>	<p>The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors.</p> <p>Raptor wintering sites (hawk/owl) need to be &gt;20 ha with a combination of forest and upland.</p> <p>Least disturbed sites, idle/fallow or lightly grazed field/meadow (&gt;15ha) with adjacent woodlands</p> <p>Field area of the habitat is to be wind swept with limited snow depth or accumulation.</p> <p>Eagle sites have open water, large trees and snags available for roosting.</p>	<p><u>Hawks/Owls:</u> Combination of ELC Community Series; need to have present one Community Series from each land class; Forest: FOD, FOM, FOC. Upland: CUM; CUT; CUS; CUW.</p> <p><u>Bald Eagle:</u> Forest community Series: FOD, FOM, FOC, SWD, SWM or SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area).</p>	<p><b>Woodlands adjacent to the subject property may contribute to raptor wintering habitat functions on the local landscape. See report for further discussion.</b></p>
<b>Bat Hibernacula</b>	<p>Hibernacula may be found in caves, mine shafts, underground foundations and Karsts.</p> <p>Active mine sites are not SWH.</p> <p>The locations of bat hibernacula are relatively poorly known.</p>	<p>Bat Hibernacula may be found in these ecosites: CCR1, CCR2, CCA1, CCA2.</p> <p>(Note: buildings are not considered to be SWH).</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Bat Maternity Colonies</b>	<p>Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH).</p> <p>Maternity roosts are not found in caves and mines in Ontario</p> <p>Maternity colonies located in Mature (dominant trees &gt; 80yrs old) deciduous or mixed forest stands with &gt;10/ha large diameter (&gt;25cm dbh) wildlife trees</p> <p>Female Bats prefer wildlife trees (snags) in early stages of decay, class 1-3 .</p> <p>Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred.</p>	<p>Maternity colonies considered SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: FOD, FOM, SWD, SWM.</p>	<p><b>Woodlands adjacent to the subject property have the potential to support bat maternity colonies. See report for further discussion.</b></p>
<b>Turtle Wintering Areas</b>	<p>For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates.</p> <p>Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen</p> <p>Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.</p>	<p>Snapping and Midland Painted Turtles; ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO.</p> <p>Northern Map Turtle; Open Water areas such as deeper rivers or streams and lakes with current can also be used as overwintering habitat.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Reptile Hibernaculum</b>	<p>For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying candidate SWH.</p> <p>Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost line</p> <p>Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover.</p> <p>Five-lined skink prefer mixed forests with rock outcrop openings providing cover rock overlaying granite bedrock with fissures.</p>	<p>For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Rock Barren, Crevice and Cave, and Alvar sites may be directly related to these habitats.</p> <p>Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator.</p> <p>For Five-lined Skink, ELC Community Series of FOD and FOM and Ecosites: FOC1, FOC3.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)</b>	<p>Any site or areas with exposed soil banks, sandy hills, borrow pits, steep slopes, and sand piles that are undisturbed or naturally eroding that is not a licensed/permitted aggregate area.</p> <p>Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles.</p> <p>Does not include a licensed/permitted Mineral Aggregate Operation.</p>	<p>Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles. Cliff faces, bridge abutments, silos, barns.</p> <p>Habitat found in the following ecosites: CUM1, CUT1, CUS1, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)</b>	<p>Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used.</p> <p>Most nests in trees are 11 to 15 m from ground, near the top of the tree.</p>	<p>SWM2, SWM3, SWM5, SWM6, SWD1, SWD2, SWD3, SWD4, SWD5, SWD6, SWD7, FET1.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Colonially - Nesting Bird Breeding Habitat (Ground)</b>	<p>Nesting colonies of gulls and terns are on islands or peninsulas (natural or artificial) associated with open water, marshy areas, lake or large river (two-lined on a 1:50,000 NTS map).</p> <p>Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands.</p>	<p>Any rocky island or peninsula (natural or artificial) within a lake or large river (two-lined on a 1:50,000 NTS map).</p> <p>Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6, MAS1 – 3, CUM, CUT, CUS</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Migratory Butterfly Stopover Areas</b>	<p>A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario.</p> <p>The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south.</p> <p>The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat.</p> <p>Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest distance to cross the Great Lakes.</p>	<p>Combination of ELC Community Series; need to have present one Community Series from each landclass:</p> <p><u>Field:</u> CUM, CUT, CUS</p> <p><u>Forest:</u> FOC, FOD, FOM, CUP</p> <p>Anecdotally, a candidate site for butterfly stopover will have a history of butterflies being observed.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Landbird Migratory Stopover Areas</b>	<p>Woodlots need to be &gt; 10 ha in size and within 5 km of Lake Ontario.</p> <p>If multiple woodlands are located along the shoreline of those woodlands &lt;2 km from Lake Ontario are more significant.</p> <p>Sites have a variety of habitats; forest, grassland and wetland complexes.</p> <p>The largest sites are more significant.</p> <p>Woodlots and forest fragments are important habitats to migrating birds, these features location along the shore and located within 5 km of Lake Ontario are Candidate SWH.</p>	<p>All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Deer Yarding Areas</b>	<p>Deer wintering areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. This is a behavioural response and deer will establish traditional use areas. The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food. Agricultural lands can also be included in this area. Deer move to these areas in early winter and generally, when snow depths reach 20 cm, most of the deer will have moved here. If the snow is light and fluffy, deer may continue to use this area until 30 cm snow depth. In mild winters, deer may remain in the Stratum II area the entire winter.</p> <p>The Core of a deer yard (Stratum I) is located within Stratum II and is critical for deer survival in areas where winters become severe. It is primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy cover of more than 60%.</p> <p>OMNRF determines deer yards following methods outlined in "Selected Wildlife and Habitat Features: Inventory Manual".</p> <p>-Woodlots with high densities of deer due to artificial feeding are not significant.</p>	<p>Note: OMNRF to determine this habitat.</p> <p>ELC Community Series providing a thermal cover component for a deer yard would include; FOM, FOC, SWM and SWC.</p> <p>Or these ELC Ecosites; CUP2, CUP3, FOD3, CUT</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>



Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Deer Winter Congregation Areas</b>	<p>Woodlots will typically be &gt;100 ha in size. Woodlots &lt;100 ha may be considered as significant based on MNRF studies or assessment.</p> <p>Deer movement during winter in the southern areas of Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands.</p> <p>If deer are constrained by snow depth refer to the Deer Yarding Area habitat within Table 1.1 of this Schedule.</p> <p>Large woodlots &gt; 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha.</p> <p>Woodlots with high densities of deer due to artificial feeding are not significant.</p>	<p>All Forested Ecosites with these ELC Community Series; FOC , FOM, FOD, SWC, SWM, SWD .</p> <p>Conifer plantations much smaller than 50 ha may also be used.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Rare Vegetation Communities</b>			
<b>Cliffs and Talus Slopes</b>	<p>A Cliff is vertical to near vertical bedrock &gt;3m in height. A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris</p>	<p>Any ELC Ecosite within Community Series: TAO, TAS, TAT, CLO, CLS, CLT</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Sand Barren</b>	<p>Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. They have little or no soil and the underlying rock protrudes through the surface. Usually located within other types of natural habitat such as forest or savannah. Vegetation can vary from patchy and barren to tree covered but less than 60%.</p>	<p>ELC Ecosites: SBO1, SBS1, SBT1</p> <p>Vegetation cover varies from patchy and barren to continuous meadow (SBO1), thicket-like (SBS1), or more closed and treed (SBT1). Tree cover always &lt; 60%.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Alvar</b>	<p>An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil. The hydrology of alvars may be complex, with alternating periods of inundation and drought. Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plant. Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animals species. Vegetation cover varies from patchy to barren with a less than 60% tree cover.</p>	<p>ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2</p> <p>Five Alvar Indicator Species: 1) Carex crawei, 2) Panicum philadelphicum, 3) Eleocharis compressa, 4) Scutellaria parvula, 5) Trichostema brachiatum</p> <p>These indicator species are very specific to Alvars within Ecoregion 6E</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Old Growth Forest</b>	<p>Old Growth forests are characterized by exhibiting the greatest number of old-growth characteristics, such as mature forest with large trees that has been undisturbed. Heavy mortality or turnover of overstorey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris.</p>	<p>Forest Community Series: FOD, FOC, FOM, SWD, SWC, SWM</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Savannah</b>	<p>A Savannah is a tallgrass prairie habitat that has tree cover between 25–60%.</p>	<p>TPS1, TPS2, TPW1, TPW2, CUS2</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Tallgrass Prairie</b>	<p>Tallgrass Prairie is an open vegetation with less than &lt; 25% tree cover, and dominated by prairie species, including grasses.</p>	<p>TPO1, TPO2</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Other Rare Vegetation Community</b>	<p>ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in Appendix M.</p> <p>The OMNRF/NHIC will have up to date listing for rare vegetation communities.</p>	<p>Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG.</p> <p>Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>

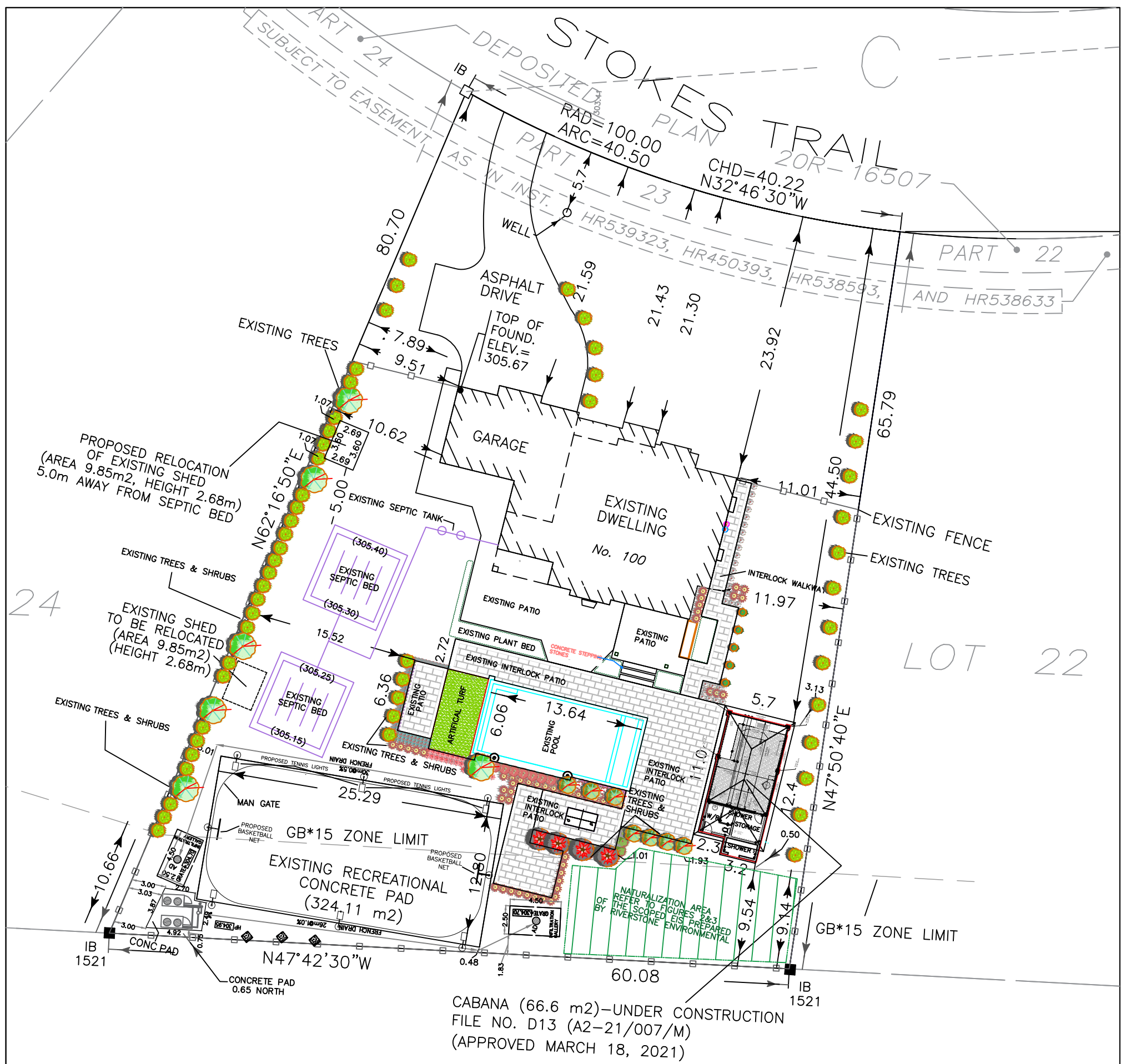
Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Specialized Habitats for Wildlife</b>			
<b>Waterfowl Nesting Area</b>	<p>A waterfowl nesting area extends 120 m from a wetland (&gt; 0.5 ha) or a cluster of 3 or more small (&lt;0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur.</p> <p>Upland areas should be at least 120 m wide so that predators such as raccoons, skunks, and foxes have difficulty finding nests.</p> <p>Wood Ducks, Bufflehead, Common Goldeneye and Hooded Mergansers utilize large diameter trees (&gt;40cm dbh) in woodlands for cavity nest sites.</p>	<p>All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1, MAS2, MAS3, SAS1, SAM1, SAF1, MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, SWT1, SWT2, SWD1, SWD2, SWD3, SWD4</p> <p>Note: includes adjacency to provincially Significant Wetlands</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Bald Eagle and Osprey Nesting, Foraging and Perching Habitat</b>	<p>Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water.</p> <p>Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy.</p> <p>Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).</p>	<p>ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Woodland Raptor Nesting Habitat</b>	<p>All natural or conifer plantation woodland/forest stands &gt;30ha with &gt;10ha of interior habitat. Interior habitat determined with a 200m buffer.</p> <p>In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest.</p>	<p>May be found in all forested ELC Ecosites.</p> <p>May also be found in SWC, SWM, SWD and CUP3.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. Minimum woodland area threshold not met. No further assessment undertaken.</p>
<b>Turtle Nesting Areas</b>	<p>Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals.</p> <p>For an area to function as a turtle nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH.</p> <p>Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used.</p>	<p>Exposed mineral soil (sand or gravel) areas adjacent (&lt;100m) or within the following ELC Ecosites: MAS1, MAS2, MAS3, SAS1, SAM1, SAF1, BOO1</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Seeps and Springs</b>	<p>Any forested area (with &lt;25% meadow/field/pasture) within the headwaters of a stream or river system.</p> <p>Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species.</p>	<p>Seeps/Springs are areas where groundwater comes to the surface. Often they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Amphibian Breeding Habitat (Woodland)</b>	<p>Presence of a wetland or pond &gt;500 m<sup>2</sup> (about 25 m diameter) within or adjacent (within 120m) to a woodland (no minimum size). The wetland, lake or pond and surrounding forest, would be the Candidate SWH. Some small wetlands may not be mapped and may be important breeding pools for amphibians.</p> <p>Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat.</p>	<p>All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD</p> <p>Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Amphibian Breeding Habitat (Wetlands)</b>	<p>Wetlands and pools (including vernal pools) &gt;500 m<sup>2</sup> (about 25 m diameter), supporting high species diversity are significant; some small or ephemeral habitats may not be identified on MNR mapping and could be important amphibian breeding habitats.</p> <p>Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators.</p> <p>Bullfrogs require permanent water bodies with abundant emergent vegetation.</p>	<p>ELC Community Classes SW, MA, FE, BO, OA and SA.</p> <p>Typically these wetland ecosites will be isolated (&gt;120m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bull Frog) may be adjacent to woodlands.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Area-Sensitive Bird Breeding Habitat</b>	<p>Habitats where interior forest breeding birds are breeding, typically large mature (&gt;60 yrs old) forest stands or woodlots &gt;30 ha. Interior forest habitat is at least 200 m from forest edge habitat.</p>	<p>All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. Minimum woodland area threshold not met. No further assessment undertaken.</p>
<b>Habitat for Species of Conservation Concern (not including Endangered or Threatened Species)</b>			
<b>Marsh Bird Breeding Habitat</b>	<p>Nesting occurs in wetlands.</p> <p>All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present.</p> <p>For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water.</p>	<p>MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, SAS1, SAM1, SAF1, FEO1, BOO1.</p> <p>For Green Heron: All SW, MA and CUM1 sites.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Open Country Bird Breeding Habitat</b>	<p>Large grassland areas (includes natural and cultural fields and meadows) &gt;30 ha Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e., no row cropping or intensive hay or livestock pasturing in the last 5 years).</p> <p>Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older.</p> <p>The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species.</p>	<p>CUM1, CUM2</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Shrub/Early Successional Bird Breeding Habitat</b>	<p>Large field areas succeeding to shrub and thicket habitats &gt;30 ha in size.</p> <p>Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e., no row-cropping, haying or livestock pasturing in the last 5 years).</p> <p>Shrub thicket habitats (&gt;10 ha) are most likely to support and sustain a diversity of these species.</p> <p>Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or lightly grazed pasturelands.</p>	<p>CUT1, CUT2, CUS1, CUS2, CUW1, CUW2.</p> <p>Patches of shrub ecosites can be complexed into a larger habitat for some bird species.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
<b>Terrestrial Crayfish</b>	<p>Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish.</p> <p>Constructs burrows in marshes, mudflats, meadows, the ground can't be too moist. Can often be found far from water.</p> <p>Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels. Usually the soil is not too moist so that the tunnel is well formed.</p>	<p>MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, MAS1, MAS2, MAS3, SWD, SWT, SWM, CUM1 with inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Special Concern and Rare Wildlife Species</b>	<p>When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or Provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites</p>	<p>All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species.</p> <p>All plant and animal element occurrences (EO) within a 1 or 10 km grid.</p> <p>Older element occurrences were recorded prior to GPS being available, therefore location information may lack accuracy</p>	<p><b>Areas of natural cover associated with the subject property and/or adjacent lands have the potential to support habitat for one or more special concern and rare wildlife species. See report for further discussion.</b></p>
<b>Animal Movement Corridors</b>			
<b>Amphibian Movement Corridors</b>	<p>Movement corridors between breeding habitat and summer habitat.</p> <p>Movement corridors must be determined when Amphibian breeding habitat is confirmed as SWH from Table 1.2.2 (Amphibian Breeding Habitat –Wetland) of this Schedule.</p>	<p>Corridors may be found in all ecosites associated with water.</p> <p>Corridors will be determined based on identifying the significant breeding habitat for these species (see above).</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>
<b>Deer Movement Corridors</b>	<p>Corridors may be found in all forested ecosites.</p> <p>A Project Proposal in Stratum II Deer Wintering Area has potential to contain corridors.</p>	<p>Movement corridor must be determined when Deer Wintering Habitat is confirmed as SWH (see above).</p> <p>A deer wintering habitat identified by the OMNRF as SWH will have corridors that the deer use during fall migration and spring dispersion.</p> <p>Corridors typically follow riparian areas, woodlots, areas of physical geography (ravines, or ridges).</p>	<p>Applicable criteria not met. Relevant features, biophysical parameters, and/or indicator species not identified through background review and/or site assessment. No further assessment undertaken.</p>

**Appendix 3. Site Plan and Survey.**





CABANA (66.6 m<sup>2</sup>)—UNDER CONSTRUCTION  
 FILE NO. D13 (A2-21/007/M)  
 (APPROVED MARCH 18, 2021)

# Brutto Consulting

113 Miranda Avenue, Toronto, ON M6B 3W8  
 Tel: (647) 274-8031 Email: fforani@bruttoconsulting.ca

## DETAILED CONCEPT PLAN

PLAN OF LOT 23, REGISTERED PLAN 20M-969  
 TOWN OF MILTON  
 REGIONAL MUNICIPALITY OF HALTON

### LIST OF SITE-SPECIFIC ZONING EXCEPTIONS:

- To permit a recreational concrete pad, lighting, and drainage infrastructure on a portion of the GB\*15 Zone; whereas the only permitted use in a GB\*15 Zone is naturalized vegetation.
- To permit a reduced Interior Side Yard for an Accessory Structure (Shed) of 1.07m; whereas the minimum required interior side yard setback is 3.0 m.
- To permit a reduced Rear Yard Setback between the Recreational Concrete Pad and the Rear Property Line of 0.48 m; whereas the minimum required rear yard setback is 6.0 m.
- To permit an increased total aggregate gross floor area for accessory buildings of 76.45 m<sup>2</sup>; whereas the maximum permitted is 66.6 m<sup>2</sup>.



SITE STATISTICS:		PERMITTED	PROPOSED	SITE STATISTICS:		PERMITTED	PROPOSED
CABANA (UNDER CONSTRUCTION)			EXISTING PATIO + POOL + WALKWAY				
AREA	66.6 m <sup>2</sup>	66.6 m <sup>2</sup>	AREA	N/A	530.61 m <sup>2</sup>		
HEIGHT	3.70 m	3.70 m	FRONT YARD	6.0 m	22.65 m		
FRONT YARD	6.0 m	44.50 m	SIDE YARD (E)	3.0 m	8.83 m		
SIDE YARD (E)	3.0 m	3.13 m	SIDE YARD (W)	3.0 m	7.89 m		
SIDE YARD (W)	3.0 m	42.93 m	REAR YARD	3.0 m	5.20 m		
REAR YARD	3.0 m	9.31 m					
EXISTING ACCESSORY SHED			EXISTING RECREATIONAL CONCRETE PAD				
AREA	66.6 m <sup>2</sup>	9.85 m <sup>2</sup>	AREA	N/A	324.11 m <sup>2</sup>		
HEIGHT	3.70 m	2.68 m	FRONT YARD	6.0 m	56.80 m		
FRONT YARD	6.0 m	54.03 m	SIDE YARD (E)	3.0 m	27.15 m		
SIDE YARD (E)	3.0 m	50.43 m	SIDE YARD (W)	3.0 m	3.01 m		
SIDE YARD (W)	3.0 m	1.07 m	REAR YARD	3.0 m	0.48 m		
REAR YARD	3.0 m	22.54 m					
SCALE:		DRAWING NO.:	BRUTTO PROJECT No.:	REVISION		DATE:	
1:500		A100 21-970		01 ZONING RESUBMISSION		JAN 2024	
ORIGINAL DRAWING DATE:		ORIGINAL DRAWING DATE:					
VER-01		22/08/2022					

### SITE STATISTICS:

PROPERTY AREA	3,528.16 m <sup>2</sup> (0.35 ha)
LOT FRONTAGE	40.50 m
FRONT YARD	21.30 m
SIDE YARD (E)	11.01 m
SIDE YARD (W)	9.51 m
REAR YARD	30.77 m
DWELLING HEIGHT	2—STOREYS



KEY PLAN - NOT TO SCALE

- GENERAL NOTES**
1. GENERALLY, DRIVEWAY TO BE LOCATED TO MAXIMIZE SHEET FLOW DRAINAGE FROM HOUSE, DRIVEWAY, ETC.
  2. GENERALLY, DRIVEWAYS TO BE GRADED WITH 2.0% MIN. CROSS FALL.
  3. WHERE DITCHING IS REQUIRED, 9.0M MINIMUM 450MM LO-HED EQUIV. CSP'S ARE TO BE INSTALLED UNDER PROPOSED DRIVEWAYS.
  4. GENERALLY, HOUSE TO BE CONSTRUCTED UPON A 300MM, (MIN. VERTICAL) APRON WITH THE TOE OF THE APRON MEETING EXISTING GRADE OF LOT.
  5. GRADING OF THE APRON (I.E. WITHIN 2-4 M OF THE BUILDING) SHOULD BE MAINTAINED AT STANDARD GRADE OF BETWEEN 2% AND 5%. (MIN.)
  6. AREAS DISTURBED BY LOT GRADING SHALL BE LIMITED TO THOSE AREAS NECESSARY TO CONSTRUCT HOME, DRIVEWAY & SEPTIC BED.
  7. DOWNSPOUTS TO BE CONSTRUCTED TO SPLASH BLOCKS.
  8. MAINTAIN MINIMUM 1.22M COVER FOR FOOTINGS.
  9. STEP FOOTINGS WHERE REQUIRED.
  10. DRIVEWAYS TO DRAIN TO STREET.

UNDERSIDE OF FOOTING MAY BE LOWER THAN ELEVATION NOTED DUE TO EXISTING CONDITIONS. EXACT DEPTH OF FOOTING TO BE DETERMINED ON SITE DURING EXCAVATION FOR FOOTING

**PLAN NOTES**

ELEVATIONS ARE GEODETIC AND REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD28) BY DIRECT MEASUREMENT TO A REAL TIME NETWORK. DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE METRIC AND CAN BE CONVERTED TO IMPERIAL BY DIVIDING BY 0.3048.

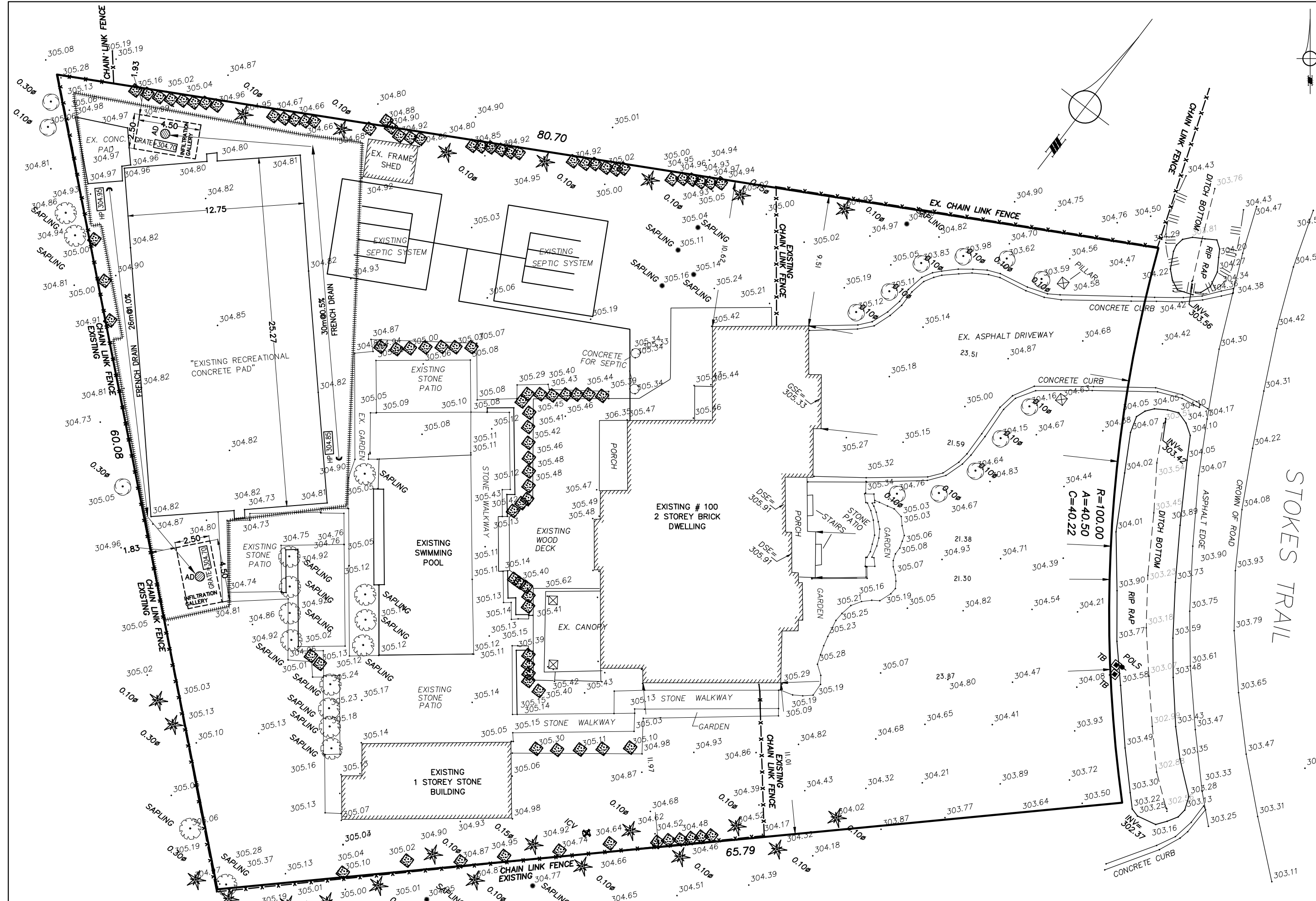
PROPERTY DIMENSIONS SHOWN HEREON ARE IN ACCORDANCE WITH IBW SURVEYORS RECORDS. (PROJECT NUMBER 39294)

**REVISIONS**

rev.	Date	COMMENTS
1	2023/FEB./14	ISSUED FOR REVIEW
2	2023/JULY/05	REVISED AS PER SWM REPORT
3	yyyy.mm.dd	

**LEGEND**

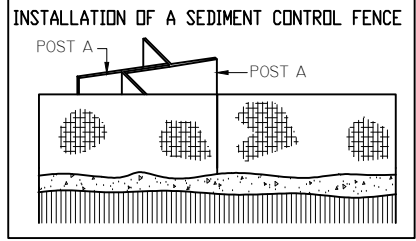
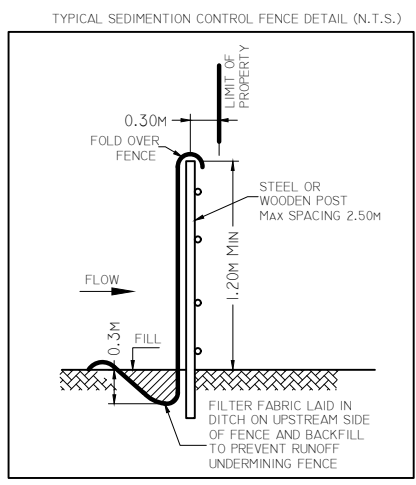
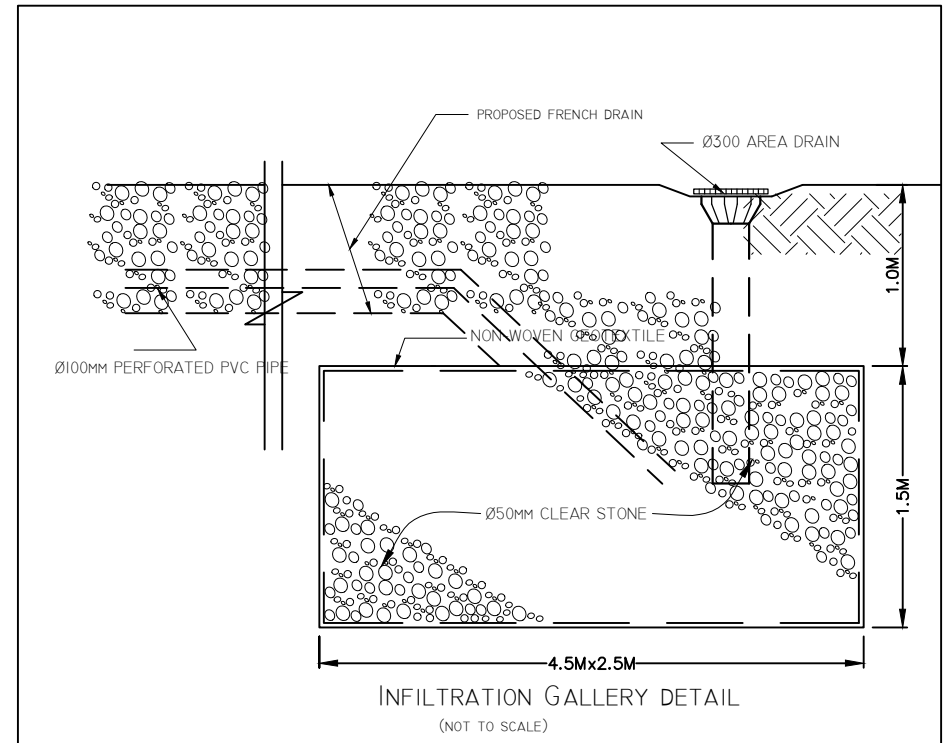
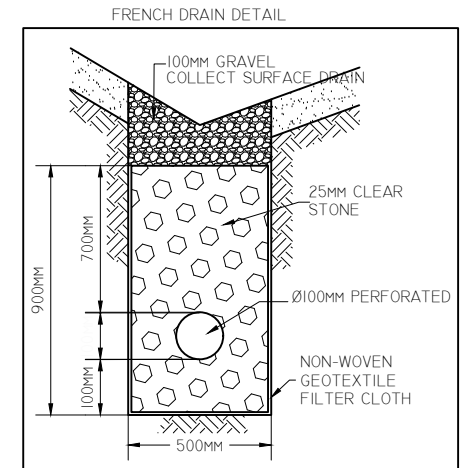
FFE	FIRST FLOOR ELEVATION	←	SWALE DRAINAGE
TFE	TOP OF FOUNDATION ELEVATION	←	SHEET DRAINAGE
BFE	BASEMENT FLOOR ELEVATION	●	ROOF LEADER
UFE	UNDERSIDE OF FOOTING ELEVATION	⊙	MH MAINTENANCE HOLE
123.45	EXISTING SPOT ELEVATION	⊙	CB CATCH BASIN
+100.00	PROPOSED ELEVATION	⊙	UP UTILITY POLE
DSE	DOOR SILL ELEVATION	⊙	WV WATER VALVE
WW	WINDOW WELL	⊙	FH FIRE HYDRANT
		⊙	AD AREA DRAIN
		⊙	DT DECIDUOUS TREE
		⊙	CT CONIFEROUS TREE
		⊙	SHRUB
		⊙	SILT FENCE



**STORM MANAGEMENT (AS PER ENG. SWM REPORT)**

Need STORAGE Volume=50.5 m<sup>3</sup>

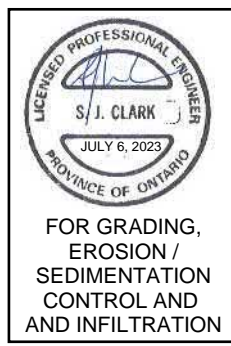
1. Soakaway Pit Volume (4.5x2.5x1.5)+(4.5x2.5x1.5)=16.8x2=33.6 m<sup>3</sup>
2. FRENCH DRAIN (56mX0.5X0.9)=25.2 m<sup>3</sup>
3. STORMWATER VOLUME REQUIREMENT TO CONTROL POST-DEVELOPMENT TO PRE-DEVELOPMENT FLOWS FOR THE RECREATIONAL PAD = 20.2 m<sup>3</sup>. ASSUMING 40% VOIDS WITH NOMINAL 50mm DIAMETER STONE BACKFILL REQUIRES EXCAVATION VOLUME OF 20.2 / 0.4 = 50.5 m<sup>3</sup>. PROPOSED EXCAVATIONS PROVIDE (33.6+25.2=58.8 m<sup>3</sup>) AND SATISFY THE STORMWATER REQUIREMENTS.



- NOTE**
1. 1.8M METAL POSTS & SNOW FENCE MUST BE USED.
  2. EXCAVATE TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
  3. UNROLL FILTER FABRIC AND POSITION (ACCORDING TO DIAGRAM ABOVE) WITH THE POST ON THE DOWNSTREAM SIDE OF THE TRENCH.
  4. DRIVE POST INTO GROUND UNTIL FILTER FABRIC REACHES TRENCH BOTTOM. CURB FABRIC TOWARDS CENTER OF TRENCH AND DRIVE POST FURTHER IF NEEDED.
  5. BACKFILL AND COMPACT SOIL AGAINST THE FENCE. DO NOT TRENCH COMPLETELY.
  6. FENCE TO BE PLACED 0.60M INSIDE PROPERTY LINE.
  7. FILTER FABRIC TO BE SECURED TO SNOW FENCE WITH WIRE TIES.
  8. T-BAR POST SPACING - 5.0M.
  9. FILTER FABRIC TO BE HAVE A NON-WOVEN DENSITY OF 270G OR EQUIVALENT.

**CAUTION**  
 THIS IS NOT A LEGAL LAND SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK. THE WORK AND DRAWINGS HEREIN WERE COMPLETED FOR THE EXCLUSIVE USE OF OUR CLIENT AND NO LIABILITY IS ASSUMED TO ANY THIRD PARTIES OR SUBSEQUENT OWNERS.

**NOTE**  
 WELL RECORD DATA INDICATES DEPTH TO BEDROCK = 22m AND DEPTH TO GROUNDWATER = 28m BELOW GROUND SURFACE.



## APPENDIX 2

Topographic Plan and Grading & Erosion/Sediment Control Plan

prepared by

IBW Surveyors





- GENERAL NOTES**
1. GENERALLY, DRIVEWAY TO BE LOCATED TO MAXIMIZE SHEET FLOW DRAINAGE FROM HOUSE, DRIVEWAY, ETC.
  2. GENERALLY, DRIVEWAYS TO BE GRADED WITH 2.0% MIN. CROSS FALL.
  3. WHERE DITCHING IS REQUIRED, 9.0M MINIMUM 450MM LO-HED EQUIV. CSP'S ARE TO BE INSTALLED UNDER PROPOSED DRIVEWAYS.
  4. GENERALLY, HOUSE TO BE CONSTRUCTED UPON A 300MM, (MIN. VERTICAL) APRON WITH THE TOE OF THE APRON MEETING EXISTING GRADE OF LOT.
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  10. DRIVEWAYS TO DRAIN TO STREET.

UNDERSIDE OF FOOTING MAY BE LOWER THAN ELEVATION NOTED DUE TO EXISTING CONDITIONS, EXACT DEPTH OF FOOTING TO BE DETERMINED ON SITE DURING EXCAVATION FOR FOOTING

**PLAN NOTES**

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PROPERTY DIMENSIONS SHOWN HEREON ARE IN ACCORDANCE WITH IBW SURVEYORS RECORDS. (PROJECT NUMBER 39294)

**REVISIONS**

rev.	Date	COMMENTS
1	2023/FEB/14	
2	2023/JULY/05	REVISED AS PER SWM REPORT
3	2023/OCT/20	RELOCATE THE EX. SHED

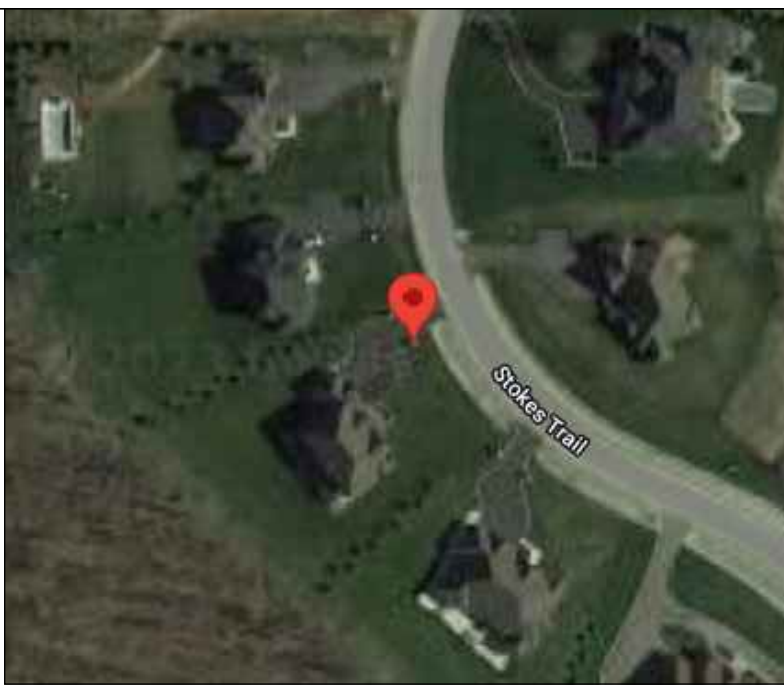
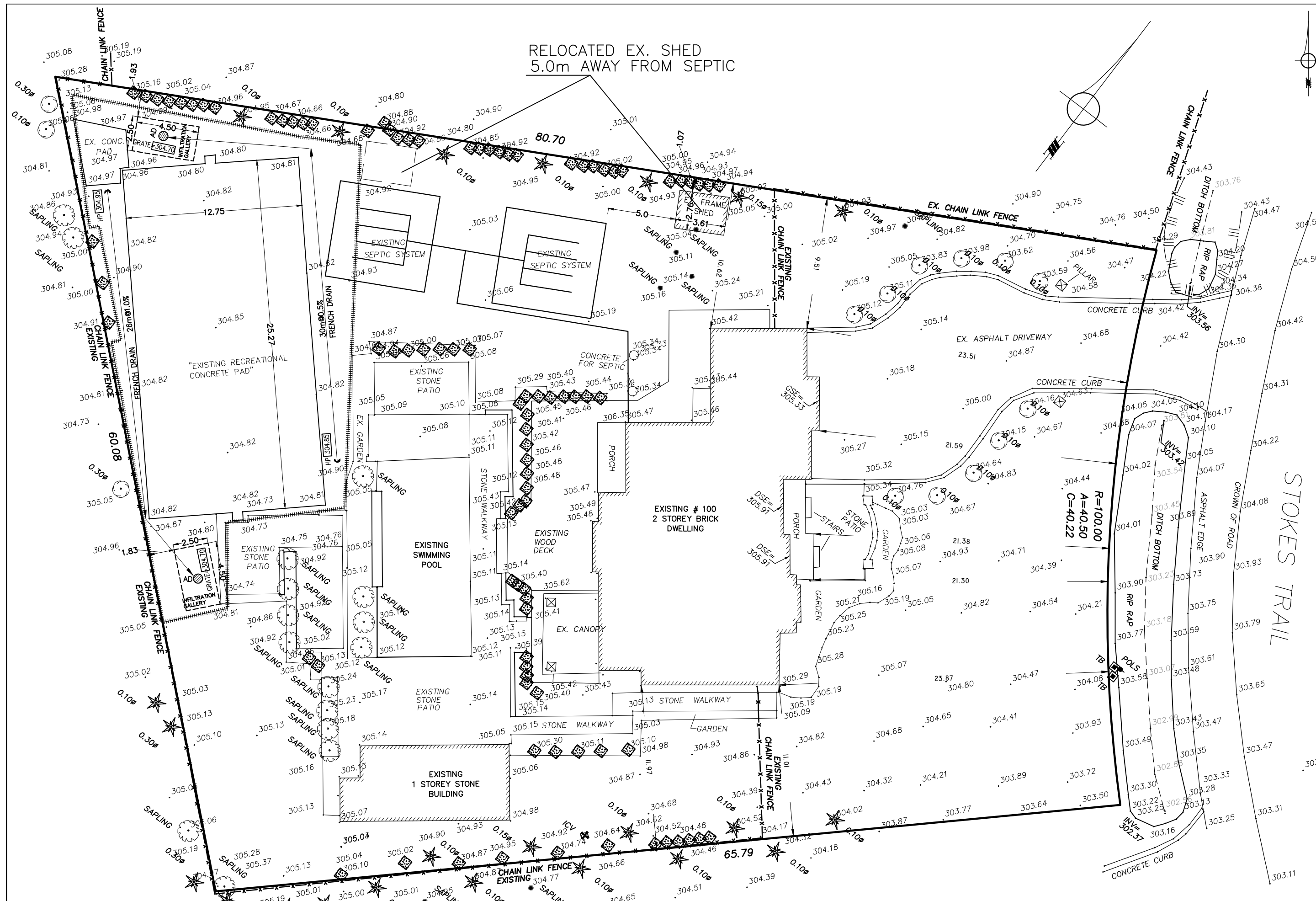
**LEGEND**

FFE	FIRST FLOOR ELEVATION	←	SWALE DRAINAGE
TFE	TOP OF FOUNDATION ELEVATION	←	SHEET DRAINAGE
BFE	BASEMENT FLOOR ELEVATION	●	ROOF LEADER
UFE	UNDERSIDE OF FOOTING ELEVATION	○	MH MAINTENANCE HOLE
123.45	EXISTING SPOT ELEVATION	□	CB CATCH BASIN
+100.00	PROPOSED ELEVATION	●	UP UTILITY POLE
DSE	DOOR SILL ELEVATION	●	WV WATER VALVE
WW	WINDOW WELL	○	FH FIRE HYDRANT
		○	AD AREA DRAIN
		○	DT DECIDUOUS TREE
		○	CT CONIFEROUS TREE
		○	SHRUB
		—	SILT FENCE

**SURVEYOR'S CERTIFICATE**

I HAVE REVIEWED THIS GRADING PLAN FOR THE DWELLING (#100 STOKES TRAIL). IT IS MY BELIEF THAT THE GRADES AS SHOWN WILL PRODUCE ADEQUATE SURFACE DRAINAGE WITHOUT DETRIMENTAL EFFECT ON ADJACENT PROPERTIES.

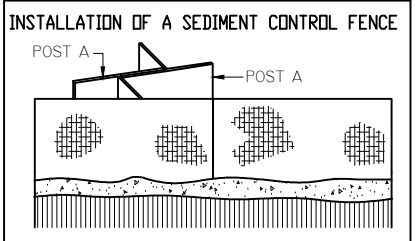
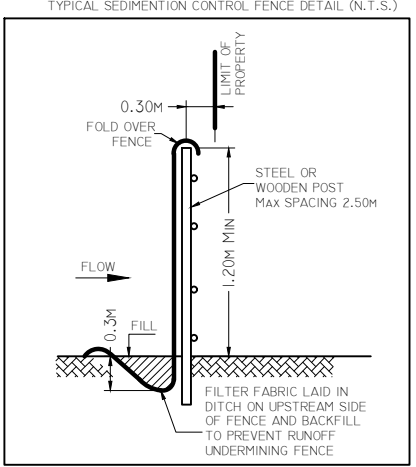
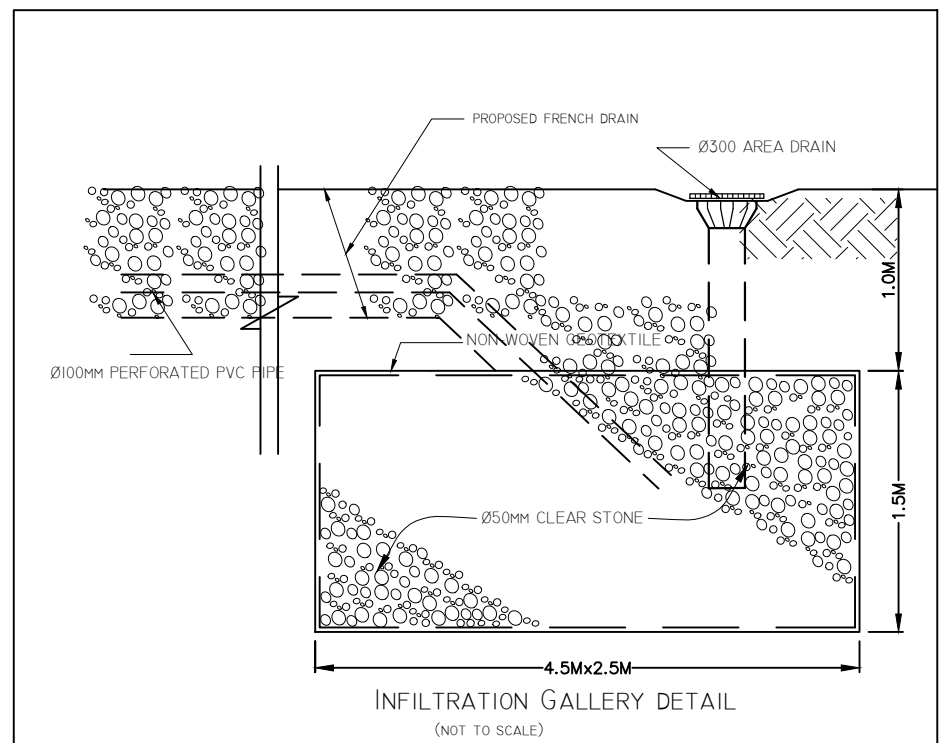
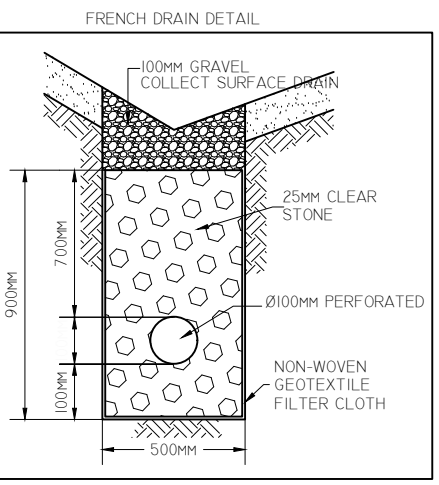
OCT. 20, 2023  
 Date  
 LAWRENCE O. ERTL  
 Ontario Land Surveyor



KEY PLAN - NOT TO SCALE

**STORM MANAGEMENT**  
 (AS PER ENG. SWM REPORT):

- Need STORAGE Volume = 50.5 m<sup>3</sup>
1. Soakaway Pit Volume (4.5x2.5x1.5)+(4.5x2.5x1.5)=16.8x2=33.6 m<sup>3</sup>
  2. FRENCH DRAIN (56m x 0.5x 0.9) = 25.2 m<sup>3</sup>
  3. STORMWATER VOLUME REQUIREMENT TO CONTROL POST-DEVELOPMENT TO PRE-DEVELOPMENT FLOWS FOR THE RECREATIONAL PAD = 20.2 m<sup>3</sup>. ASSUMING 40% VOIDS WITH NOMINAL 50mm DIAMETER STONE BACKFILL REQUIRES EXCAVATION VOLUME OF 20.2 / 0.4 = 50.5 m<sup>3</sup>. PROPOSED EXCAVATIONS PROVIDE (33.6+25.2=58.8 m<sup>3</sup>) AND SATISFY THE STORMWATER REQUIREMENTS.



- NOTE
1. T-BAR METAL POSTS & SNOW FENCE MUST BE USED.
  2. EXCAVATE TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
  3. UNROLL FILTER FABRIC AND POSITION ACCORDING TO DIAGRAM ABOVE WITH THE POST ON THE DOWNSTREAM SIDE OF THE TRENCH.
  4. DRIVE POST INTO GROUND UNTIL FILTER FABRIC REACHES TRENCH BOTTOM. CURL FABRIC TOWARDS CENTER OF TRENCH AND DRIVE POST FURTHER IF NEEDED.
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  6. FENCE TO BE PLACED 0.60M INSIDE PROPERTY LINE.
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  8. T-BAR POST SPACING - 3.0M.
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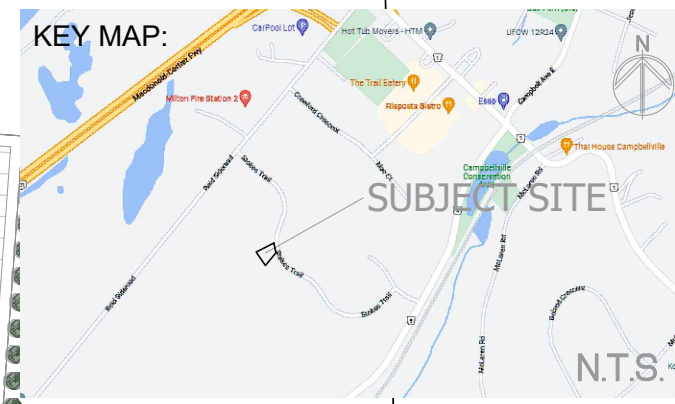
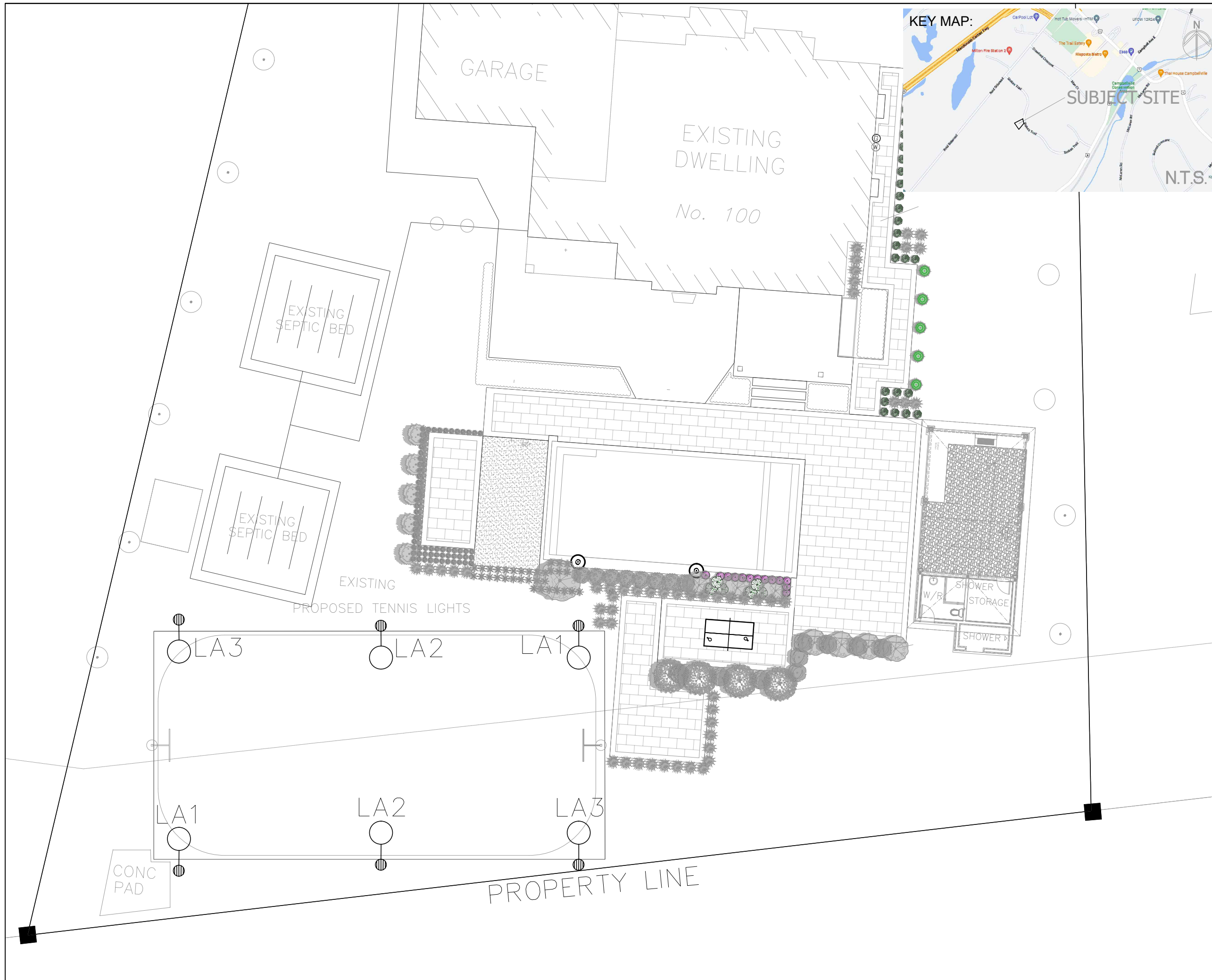
**NOTE**  
 WELL RECORD DATA INDICATES DEPTH TO BEDROCK = 22m AND DEPTH TO GROUNDWATER = 28m BELOW GROUND SURFACE.

APPENDIX 3

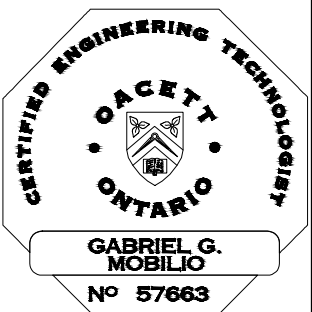
Photometric Site Plan Analysis

prepared by

E-Lumen International Inc.



**Lumen**  
International Inc.  
**CONSULTING ENGINEERS  
LIGHTING - ELECTRICAL**  
595 CITYVIEW BLVD, SUITE 204/205  
VAUGHAN, ON, CANADA L4H 3M7  
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(905)417-6882  
www.e-lumen.ca



*Brutto Consulting*  
113 Miranda Avenue, Toronto, ON M6B 3W8  
Tel: (647) 274-8031 Email: fforani@bruttoconsulting.ca

4.		
3.		
2.	2023/10/04	ISSUED FOR SPA
1.	2023/09/13	ISSUED FOR SPA
No.	DATE	ISSUE/REV.

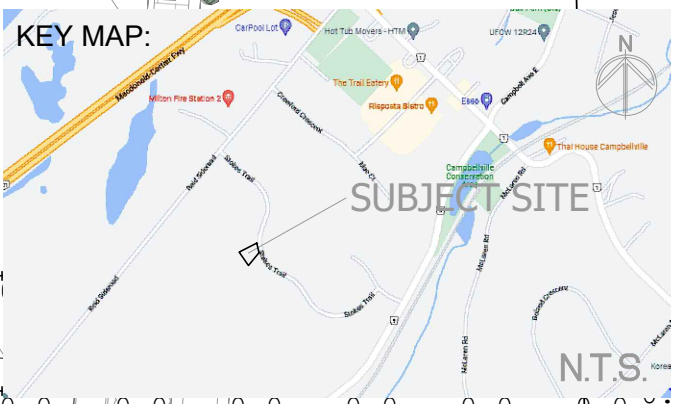
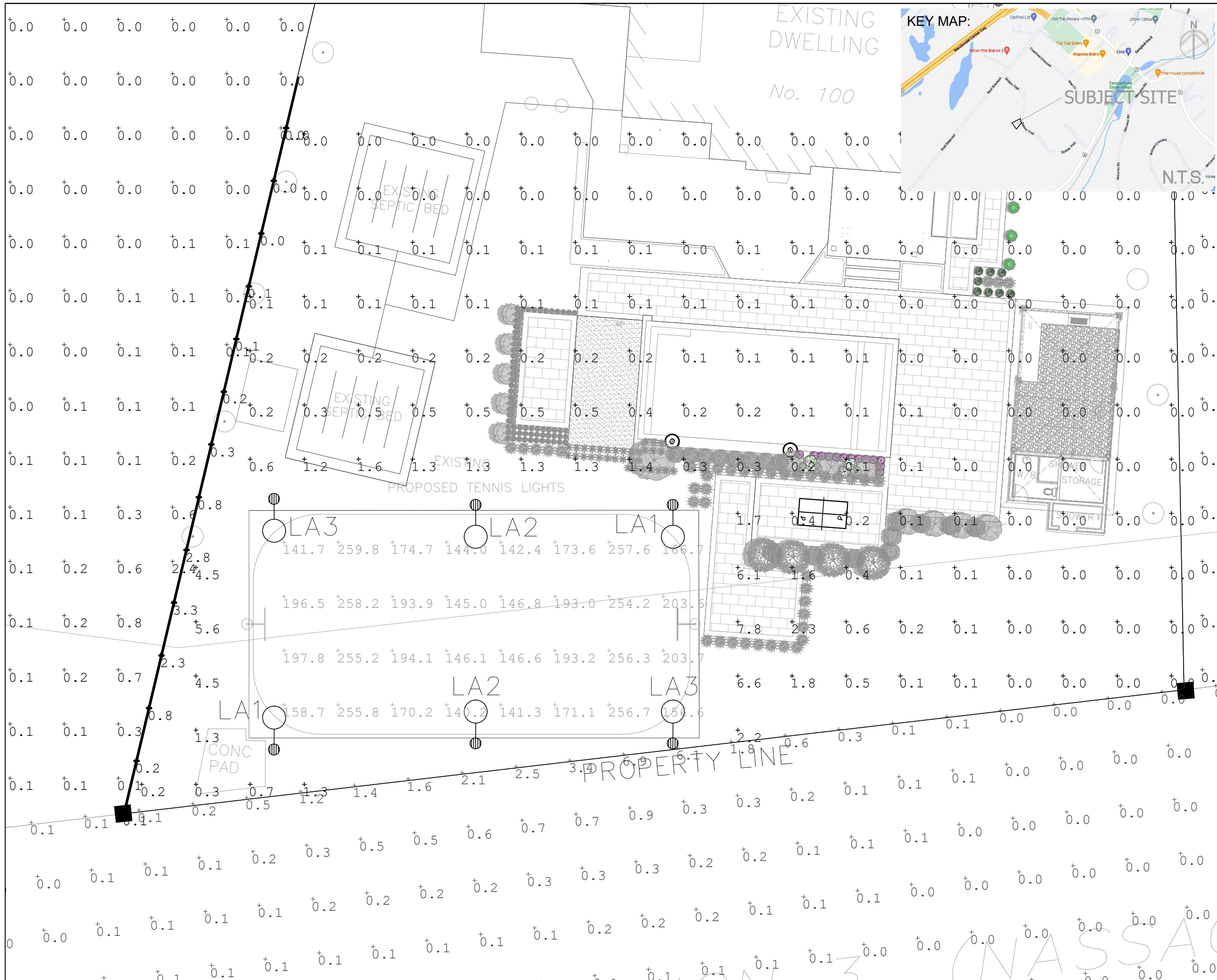
PROJECT  
**100 STOKES TRAIL**

TITLE:  
**ELECTRICAL SITE  
PLAN**

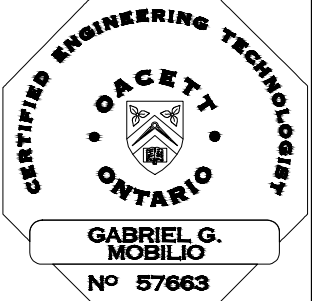
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22-298

SCALE:  
**1:500**

DRAWING No.  
**E101**



**CONSULTING ENGINEERS  
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 595 CITYVIEW BLVD, SUITE 204/205  
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 113 Miranda Avenue, Toronto, ON M6B 3W8  
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No.	DATE	ISSUE/REV.
4.		
3.		
2.	2023/10/04	ISSUED FOR SPA
1.	2023/09/13	ISSUED FOR SPA

PROJECT  
**100 STOKES TRAIL**

TITLE:  
**SITE PLAN ANALYSIS**

PROJECT No.  
 22-298

SCALE:  
**1:500**

DRAWING No.  
**E102**

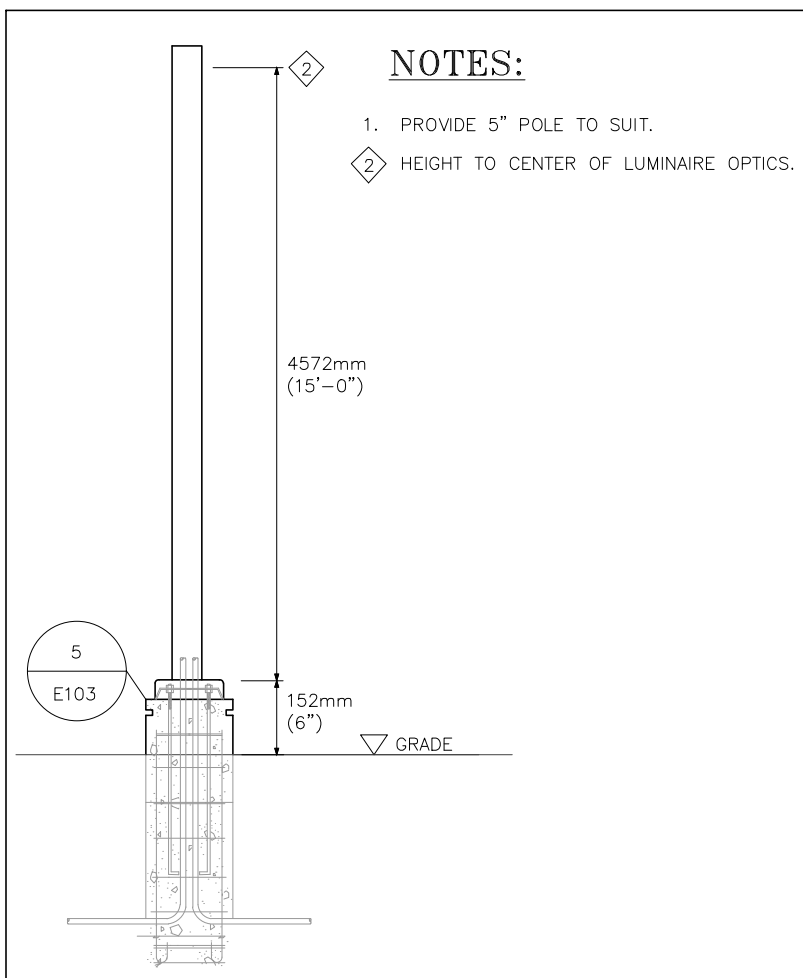
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SYMBOL	LABEL	ARRANGEMENT	LUMENS	LLF	MANUFACTURER	WATTAGE	MOUNTING
○	LA1	POLE MOUNTED	10851	0.90	SALEX: GARDCO ECF-S-64L-900-NW-G2-RCL C/W BACKLIGHT CONTROL AND REQUIRED POLE AND ACCESSORIES.	175	15'-6"
○	LA2	POLE MOUNTED	9756	0.90	SALEX: GARDCO ECF-S-32L-1A-NW-G2-BLC C/W REQUIRED POLE AND ACCESSORIES.	104	15'-6"
○	LA3	POLE MOUNTED	10853	0.90	SALEX: GARDCO ECF-S-64L-900-NW-G2-LCL C/W REQUIRED POLE AND ACCESSORIES.	175	15'-6"

STATISTICS						
DESCRIPTION	UNITS	AVG	MAX	MIN	MAX/MIN	AVG/MIN
LIGHT TRESSPASS	LUX	0.02	2.4	0.0	N/A	N/A
SITE	LUX	204.02	327.9	110.5	2.97	1.85
PROPERTY LINE WEST	LUX	0.79	3.3	0.0	N/A	N/A

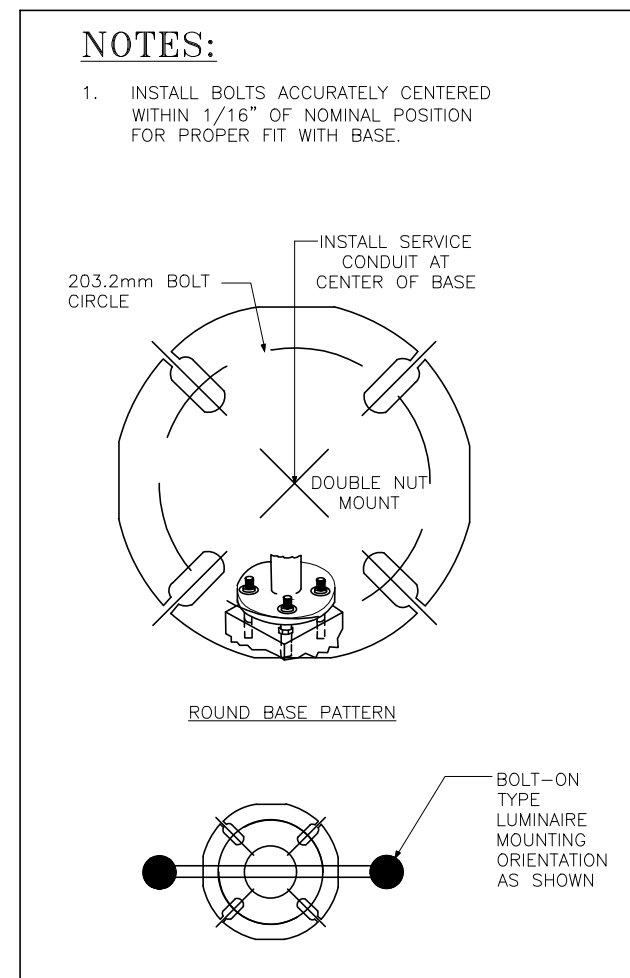


2 LUMINAIRE TYPE 'LA1', LA2 & 'LA3'  
E103 SCALE: N.T.S.

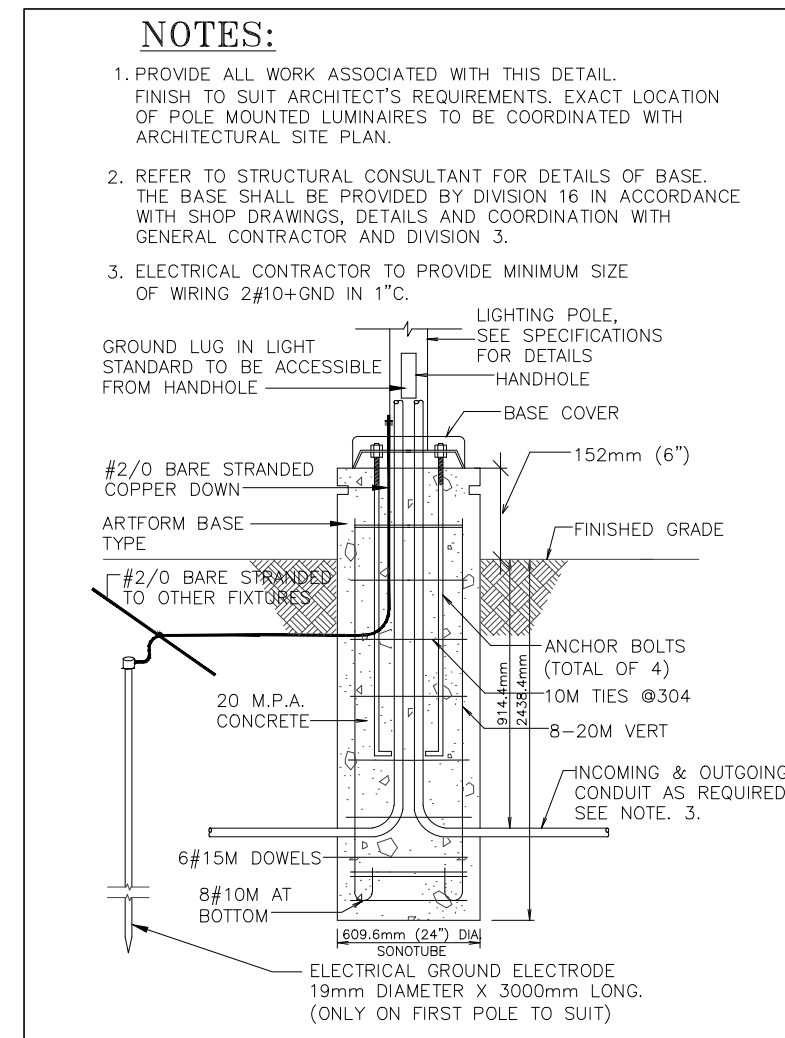
1 LUMINAIRE SCHEDULE & CALCULATION  
E103 SCALE: N.T.S.



3 POLE DETAIL  
E103 SCALE: N.T.S.

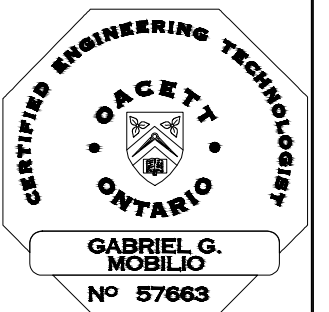


4 POLE ANCHOR DETAIL  
E103 SCALE: N.T.S.



5 POLE BASE DETAIL  
E103 SCALE: N.T.S.

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4.		
3.		
2.	2023/10/04	ISSUED FOR SPA
1.	2023/09/13	ISSUED FOR SPA
No.	DATE	ISSUE/REV.
PROJECT 100 STOKES TRAIL		
TITLE: SITE PLAN DETAILS		
PROJECT No. 22-298		
SCALE: AS SHOWN		
DRAWING No. E103		