Scoped Environmental Impact Assessment

150 Steeles Avenue East, 248, 250 & 314 Martin Street, Town of Milton

Prepared For:

Neatt Communities

Prepared By:

Beacon Environmental Ltd.
&
Jennifer Lawrence and Associates Inc.

Date:	*Project:*
2026-02-20	**221265**

BEACON ENVIRONMENTAL

GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT

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Report Versions Issued

Version	Date	Revisions
1.	April 2025	
2.	February 2026	Revised per agency comments and stormwater pond

1. Introduction

Beacon Environmental Ltd. (Beacon) and Jennifer Lawrence and Associates Inc. were retained by Neatt Communities (Neatt) to prepare a Scoped Environmental Impact Assessment (EIA) in support of an application for an Official Plan Amendment (OPA), Zoning By-Law Amendment (ZBLA) and Draft Plan of Subdivision (DPOS) for adjoining properties located at 150 Steeles Avenue East, 248 Martin Street, 250 Martin Street, and 314 Martin Street in the Town of Milton (hereafter referred to as the "subject property"). The location of the subject property is illustrated in **Figure 1**. The proposed planning applications are as follows:

- A site-wide OPA to establish new land use designations;
- A ZBLA for Phase 1 lands to implement a shift from industrial uses to a new mixed-use community; and
- A DPOS to establish five (5) new public streets, 15 development blocks across two phases of development, 1.29 ha of park blocks, a 0.9 ha stormwater management (SWM) facility and 5.35 ha of land within the Natural Heritage System (NHS) including associated buffers.

The subject property has undergone extensive site remediation following the decommissioning of former industrial facilities and a landfill, as documented in the Comprehensive Environmental Management Study (CEMS; Beacon *et al.* 2023). The CEMS was prepared in response to a request by the Town of Milton (Town), Region of Halton (Region) and Conservation Halton (CH) to demonstrate how natural heritage features and natural hazards associated with the subject property may be affected and managed during contamination remediation works. The CEMS was approved by the Town, Region, and CH in late 2023. Comprehensive field investigations were conducted as part of the CEMS to identify, characterize, and evaluate the natural heritage features associated with subject property and to delineate the extent of the natural heritage system, post-remediation. This Scoped EIA draws extensively from the accepted CEMS as it relates to the characterization of the site pre-remediation. To assist with agency review, the previously submitted version of this Scoped EIA included text that was highlighted in grey. The purpose of the highlighting was to assist agency staff in quickly identifying information that had been previously reviewed and approved through the CEMS process. For this second submission, the grey shading has been removed.

In addition to assessing impacts of the soil remediation works, the CEMS was prepared based on the anticipation of re-developing the property to high density residential development in the future and the need to mitigate associated impacts related to the future change in land use to ensure no negative impacts to the Regional Natural Heritage System (RNHS). The RNHS developed through the CEMS took the future land use into account when recommending appropriate buffers. It was noted in the CEMS that additional reports may be required at subsequent planning stages that detail how the management recommendations of the CEMS (i.e., development limits, buffers, water supply to natural features, if necessary, etc.) are incorporated into the site design.

The terms "remediation" and "restoration" were used extensively in the CEMS and are continued to be used in this Scoped EIA; however, they are not intended to be synonyms. As outlined in the CEMS, and for the purpose of this report, these terms are defined as per the International Restoration Standards (2nd ed.) by the Society for Ecological Restoration (Gann *et al.* 2019):

Remediation means "*a management activity, such as the removal or detoxification of contaminates or excess nutrients from soil and water, that aims to remove sources of degradation*".

Restoration means "*the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed" which "addresses biodiversity conservation and ecological integrity*".

The CEMS included a detailed characterization of the biophysical site conditions, including natural heritage features, natural hazards and the then anticipated extent of site contamination. The limits of the RNHS were also refined by evaluating the significance of natural heritage features, verifying and staking feature limits with agencies, and undertaking technical assessments of natural hazards. The status, as of 2023, and anticipated extent of remediation works and the potential impacts to Key Features were described, and RNHS components and functions were assessed, and mitigation measures prescribed. Additionally, the CEMS identified opportunities for enhancing the condition and quality of Key Features to increase biological diversity and improve ecological resiliency over the long-term.

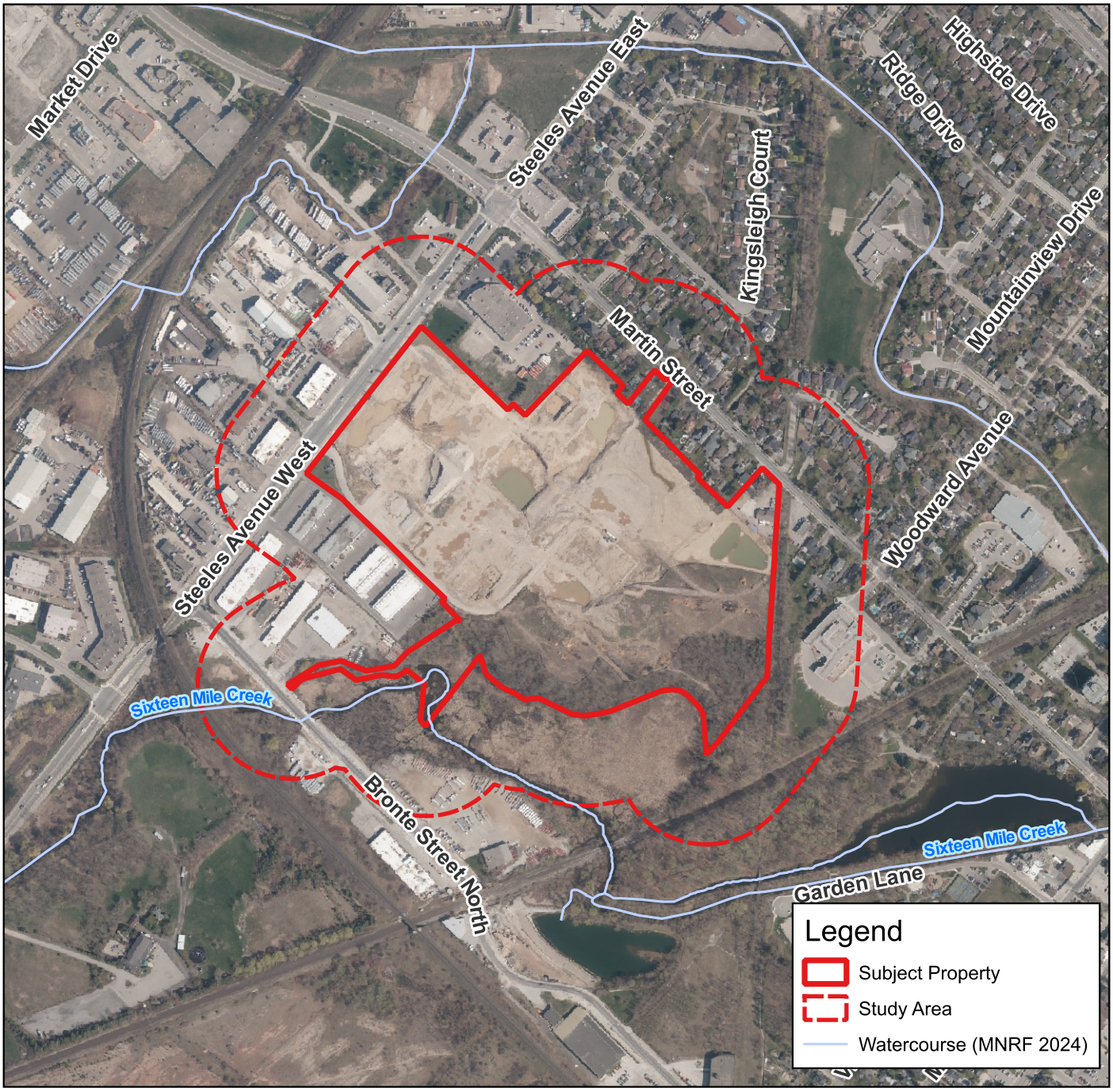
This Scoped EIA reflects the biophysical characterization of the CEMS, while providing the final limit of remediation works, and the status of the enhancements to the RNHS and restoration of Key Features. It also evaluates impacts of the proposed redevelopment on the RNHS and recommends mitigation measures to avoid or minimize impacts. The Scoped EIA has been prepared to follow the recommendations of the CEMS and a Table of Contents that were agreed to with the Town and their peer reviewer on October 28, 2024 (**Appendix A**).

This revision of the Scoped EIA addresses comments received from the Town and CH and reflects the outcomes of further discussions with these agencies. Through the review process, it was determined that the previously proposed 1.52-ha stormwater facility exceeded stormwater control requirements (see Urbantech 2026); consequently, the facility has been reduced to 0.9 ha.

Additionally, based on agency preferences confirmed through discussions and site meetings, the stormwater outlet infrastructure is now proposed to be located within the former rail spur line (Town-owned), a portion of which is in the NHS rather than a stormwater outlet within the Sixteen Mile Creek valley. At the time the CEMS was prepared, the intention was for the SWM pond to outlet to an existing swale in the former rail spur line, thereby negating the need for a new outlet to the creek. However, as part of the previous submission, it was determined that the SWM pond could not outlet to the existing swale without changing the grades within that swale. Given that the swale was not on lands owned by the applicant, an alternative outlet location in the valley was explored. Following the first submission of the Scoped EIA, the Town's peer reviewer raised concerns with the proposed outlet to the valley and requested alternative options be considered that involved piping or re-grading along the swale on lands owned by the Town. As such, this revision to the Scoped EIA assesses the impact of outletting to the former rail spur line and demonstrates this qualifies as essential infrastructure as per the Halton Region Official Plan (ROP).

1.1 Site Location and Study Area

The subject property is 20.8 hectares (ha) in area and is located southeast of Steeles Avenue East, north of the Canadian Pacific Railway (CPR), and northeast of the Sixteen Mile Creek valleylands (**Figure 1**).



Site Location and Study Area	Figure 1
150 Steeles Avenue Milton Scoped EIA	
BEACON ENVIRONMENTAL	Project: 221265 Last Revised: February 2026
Client: Neatt Communities	Prepared by: BD Checked by: SG
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The study area for this Scoped EIA matches the CEMS and includes the subject property and adjacent lands within 120 metres (m) as shown on **Figure 1.** While the CEMS did not include 248, 250, and 314 Martin Street as part of the subject property at that time, these small residential lots were part of the overall CEMS study area.

Following approval of the CEMS by the Region, CH and Town, the Sixteen Mile Creek valleylands, tableland woodland, re-created wetland and 15 m buffer, were re-zoned as NHS by the Town (**Figure 2**) to reflect the approved RNHS limits as shown in the CEMS. The wetland and woodland that were re-created after removal of contaminated soil are shown on **Figure 2** as blue and green fill, respectively.

1.2 Site History

Prior to the more recent industrial uses on the site, the entire tableland portion of the subject property was used for agriculture for well over a century. In 1954, an industrial manufacturing facility was constructed on the subject property. Over the life span of the manufacturing facility there were several additions completed in 1957, 1965, 1973, 1988, 1994, 1998 and 1999. The building was originally tooled to manufacture automobile bumpers, which included a chrome plating process. In the 1970's, the manufacturing facility was re-tooled and continually expanded to manufacture suspension springs for major car manufacturers. At full operational status, the manufacturing facility had eight operational lines. Historic air photos of the subject property between 1984 and 1994 are provided in **Appendix B**.

In conjunction with the manufacturing facility, an unregulated landfill was created on the subject property in the early 1970s. The landfill was situated south of the former industrial building and was used to dump waste material from the manufacturing process including mill scale, steel shot, brick and construction debris. The landfill was eventually capped in the late 1980s/early 1990s.

The manufacturing facility uses and landfill resulted in various areas and types of contamination on the subject property, as described later in this report.

Major manufacturing operations on the subject property were discontinued in 2009 at which point, the factory was transitioned to general warehousing and storage, utilizing about 30% of the 300,000 sq. ft. building. The remainder of the building and subject property remained vacant / un-used.

The subject property was purchased by 150 Steeles Milton Inc. on April 7, 2021, from the Meritor Suspension Systems Company, Canada (MSSC). As part of the purchase process, environmental testing was completed which identified significant plumes/areas of contamination on the subject property related to the previous manufacturing uses in the factory.

The manufacturing facility was demolished in late 2021 and remediation activities commenced in 2022 following the building demolition. For the purposes of completing a Record of Site Condition (RSC) in phases, the subject property was subdivided into six RSC areas / properties, as documented in the CEMS and the Ministry of Environment, Conservation and Parks (MECP) Environmental Site Registry for RSC.

As of the date of this report, remediation of soil contamination on the subject property is complete (P. Fioravanti, pers. comm., 20 Nov. 2025). The final extent of soil remedial excavation into the NHS is shown on **Figure 2**. Remediation of groundwater contamination has progressed such that only one

small plume remains outside of the NHS. As such, the subject property is still undergoing remediation as of the date of this report to address the remaining small area of groundwater contamination with conclusion anticipated in Q1 2027 at the earliest (P. Fioravanti, pers. comm., 20 Nov. 2025).

1.3 Study Team

The Study Team relevant to this Scoped EIA includes:

- Beacon – natural heritage and landscape architecture;
- Jennifer Lawrence and Associates Inc. – environmental planning and project coordination;
- Urbantech Consulting – water resources engineering; and
- DS Consultants – hydrogeology, geology, slope stability and site contamination.

1.4 Environmental Regulatory Framework

The following subsections provide a framework of key legislation, regulations and policies that apply to the subject property.

1.4.1 Fisheries Act

The purpose of the federal *Fisheries Act* and the Ontario Fishery Regulations (SOR/2007-237) is to ensure the conservation and protection of fish and fish habitat. Sixteen Mile Creek, that traverses a portion of the subject property, is frequented by fish. Activities taking place in or near water may adversely affect fish or fish habitat. The *Fisheries* Act is administered by Fisheries and Oceans Canada (DFO), who recommends that proponents of these activities should undergo the following:

- Understand the types of impacts their projects are likely to cause;
- Take measures to avoid and mitigate impacts to the extent possible; and
- Request authorization from the Minister and abide by the conditions of any such authorization, when it is not possible to avoid and mitigate impacts of projects that are likely to cause serious harm to fish.

It should also be noted that terrestrial crayfish species are regulated under the *Fisheries Act* and Ontario Fishery Regulations. The following sections of the *Fisheries Act* and Ontario Fisheries Regulations may apply:

> *29(4) no person shall transport crayfish overland except under a licence to collect fish for scientific purposes issued under the Fish and Wildlife Conservation Act, 1997*
>
> *34.4(1) No person shall carry on any work, undertaking or activity, other than fishing, that results in the death of fish.*

Natural Heritage Features and Context

Figure 2

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Study Area
- Watercourse (MNRF 2024)
- Milton Natural Heritage System (Zoning By-law 016-2024, Schedule A)
- Evaluated Wetland - Not Provincially Significant (September 4, 1998)
- Greenbelt Urban River Valley layer (MMAH 2017)
- Final Limit of Soil Contamination Remediation in Natural Heritage System (Approximate)
- Approximate Eroded Slope at Former Storm Sewer
- Milton Wetland Complex Limit (Staked by CH - July 16, 2021)
- Pre-remediation Wetland Limit (Staked by CH - July 16, 2021)

Restoration Areas

- Wetland
- Woodland
- Buffer

Note: 150 Steeles Avenue has been subject to remediation of contaminated soil and groundwater, as described in the Comprehensive Environmental Management Study (Beacon et al. 2023).

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Checked by: JS

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Such licences are administered provincially, by the Ministry of Natural Resources (MNR). A license was obtained to rescue a terrestrial crayfish species, Digger Crayfish (*Creaserinus fodiens*), from a contaminated wetland on the tableland, as described in **Section 2.2.3.8** below.

1.4.2 Migratory Birds Convention Act

The federal *Migratory Birds Convention Act* (MBCA; 1994) protects the nests, eggs, and young of most bird species from harassment, harm, or destruction. Generally, this means that clearing of vegetation or removal of other nesting habitats should be avoided during the breeding bird season. Environment Canada considers the 'general nesting period' of breeding birds in nesting zone C2 to be between early April and the end of August; therefore, vegetation clearing should generally be undertaken between September 1 and March 31. The protection provisions are applied in conjunction with other applicable federal laws and regulations, including the *Species at Risk Act* (SARA; 2002).

Although not required under provincial planning policy, the CEMS included mitigation related to migratory birds.

1.4.3 Species at Risk Act

The purpose of the federal SARA is to ensure the conservation and protection of federally listed species at risk. SARA is also intended to help prevent species listed as special concern from becoming endangered or threatened. To ensure the protection of endangered or threatened species, SARA contains prohibitions that make it an offence to kill, harm, harass, capture, take, possess, collect, buy, sell, or trade an individual of a species listed in Schedule 1 of SARA as endangered, threatened or extirpated.

SARA primarily applies where lands are under federal jurisdiction. SARA applies to private lands only in so far as the *Fisheries Act* or the MBCA apply. As such, this legislation may only apply to Sixteen Mile Creek and to the extent that the MBCA applies.

The CEMS included an assessment of impact to species at risk regulated under the *Fisheries Act*.

1.4.4 Fish and Wildlife Conservation Act

The *Fish and Wildlife Conservation Act* enables the MNR to provide sound management of the province's fish and wildlife. The *Act* provides general prohibitions on the capture or harassment of game wildlife and specially protected wildlife, including mammals, birds, bird nests, reptiles, invertebrates, and amphibians. Section 39 of the *Act* allows MNR to issue an authorization to capture, kill or possess wildlife for scientific purposes, including rescue of wildlife.

An authorization under section 39 of the *Act* was obtained to rescue amphibians and Digger Crayfish from a contaminated wetland on the tableland, as described in **Sections 2.2.3.3** and **2.2.3.8** below.

1.4.5 Endangered Species Act

Clause 9(1)(a) of the *Endangered Species Act* (ESA) prohibits the killing, harming, capture, or take of an extirpated, endangered or threatened species, except where regulations allow. Subsection 10(1) of the ESA prohibits the damage or destruction of the habitat of extirpated, endangered, or threatened species.

Section 23.18 of the general regulation of the ESA (Ontario Regulation 242/08) provides an exemption to clause 9(1)(a) and subsection 10(1) of the ESA for "*work undertaken*" … "*to remove or clean an area that has been contaminated or polluted*". Subsection 23.18(5) provides requirements to meet this exemption, such as:

- Giving the Minister of the MECP notice of activity;
- Preparation of a mitigation plan and carrying out the work in accordance with this mitigation plan;
- Take reasonable steps to minimize adverse effects to the endangered or threatened species and habitat; and
- If a person observes a species identified in the notice of activity during the works, the person must complete a Species at Risk Observation Reporting Form within three months of the observation.

The CEMS included an assessment of endangered species and threatened species.

As a result of *Bill 5, Protect Ontario by Unleashing our Economy Act* (2025), the ESA will be repealed on a day named by order of the Lieutenant Governor in Council and replaced with the *Species Conservation Act* (SCA).

Until the new SCA is in force, the ESA is the applicable legislation.

1.4.6 Provincial Planning Statement (2024)

Subsequent to the approval of the CEMS, an update to the 2020 Provincial Policy Statement under section 3 of the *Planning Act* (1990) has occurred. The Provincial Planning Statement (PPS; MMAH 2024) took effect in October 2024 and supersedes the 2020 Provincial Policy Statement. While the numbering system has changed, the natural heritage and natural hazard PPS policies addressed by the CEMS have not changed substantively since the 2020 Provincial Policy Statement. An overview of the applicable policies is provided below.

Section 4.0 of the PPS (Wise Use and Management of Resources) provides policy direction related to natural heritage and water, that are applicable to the subject property. Specifically, Section 4.1 (Natural Heritage) provides for the following:

> *4.1.1 Natural features and areas shall be protected for the long term.*

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

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

4.1.4. Development *and* site alteration *shall not be permitted in:*

a) significant wetlands *in Ecoregions 5E, 6E and 7E; and*

b) significant coastal wetlands*.*

4.1.5 Development and site alteration shall not be permitted in:

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

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

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

d) significant wildlife habitat;

e) significant areas of natural and scientific interest*; and*

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

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

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

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

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

4.1.9 Nothing in policy 4.1 is intended to limit the ability of agricultural uses *to continue*.

Section 4.2.1 of the PPS addresses policies related to water. Specifically, this section requires that planning authorities shall protect, improve or restore the quality and quantity of water by:

a) using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;

b) minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;
c) identifying water resource systems;
d) maintaining linkages and functions of water resource systems;
e) implementing necessary restrictions on development and site alteration to:
    1. protect all municipal drinking water supplies and designated vulnerable areas; and
    2. protect, improve or restore vulnerable surface and ground water and their hydrologic functions;
f) planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality; and
g) ensuring consideration of environmental lake capacity, where applicable

Section 4.2.2 of the PPS notes that:

> *Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches.*

In addition to the above, Section 5.0 of the PPS (Protecting Public Health and Safety) also contains policies that are applicable to the subject property. The relevant portions of these policies, to this study, are provided below.

Subsection 5.1.1 states the following:

> *Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.*

Subsection 5.2.2 states the following:

> *Development shall generally be directed to areas outside of:*
> a) *hazardous lands adjacent to the shorelines of the Great Lakes-St. Lawrence River System and large inland lakes which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards;*
> b) *hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards; and,*
> *c) hazardous sites.*

Subsection 5.2.3 states the following:

> *Development and site alteration shall not be permitted within:*
> *a) the dynamic beach hazard;*
> *b) defined portions of the flooding hazard along connecting channels (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);*

c) areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and

d) a floodway regardless of whether the area of inundation contains high points of land not subject to flooding.

Subsection 5.2.4 states the following:

Planning authorities shall prepare for the impacts of a changing climate that may increase the risk associated with natural hazards.

Subsection 5.2.5 states the following:

Despite policy 5.2.3, development and site alteration may be permitted in certain areas associated with the flooding hazard along river, stream and small inland lake systems:

a) in those exceptional situations where a Special Policy Area has been approved. The designation of a Special Policy Area, and any change or modification to the official plan policies, land use designations or boundaries applying to Special Policy Area lands, must be approved by the Ministers of Municipal Affairs and Housing and Natural Resources and Forestry prior to the approval authority approving such changes or modifications; or

b) where the development is limited to uses which by their nature must locate within the floodway, including flood and/or erosion control works or minor additions or passive non-structural uses which do not affect flood flows.

Subsection 5.3.2 states the following:

Sites with contaminants in land or water shall be assessed and remediated as necessary prior to any activity on the site associated with the proposed use such that there will be no adverse effects.

Subsection 2.9.1 of the 2024 PPS also contains the following policies pertaining to climate change that are applicable to this EIA:

Planning authorities shall plan to reduce greenhouse gas emissions and prepare for the impacts of a changing climate through approaches that:

…

b) incorporate climate change considerations in planning for and the development of infrastructure, including stormwater management systems, and public service facilities;

…

d) promote green infrastructure, low impact development and active transportation, protect the environment and improve air quality; and

e) take into consideration any additional approaches that help reduce greenhouse gas emissions and build community resilience to the impacts of a changing climate.

The CEMS included an assessment for all provincially significant natural heritage features/functions and natural hazards then recommended a refined RNHS in keeping with the above noted policies.

1.4.7 Greenbelt Plan

The Greenbelt Plan identifies the Sixteen Mile Creek valley as an Urban River Valley, as shown in **Figure 2**; however, the policies only apply to those portions of a valley that are in public ownership. A portion of the valley, immediately to the west of the subject property, is owned by the Town. As such, the following Urban River Valley policies are applicable to the Town-owned portion of the valley:

> *6.2.1 Only publicly owned lands are subject to the policies of the Urban River Valley designation. Any privately owned lands within the boundary of the Urban River Valley area are not subject to the policies of this designation. For the purposes of this section, publicly owned lands means lands in the ownership of the Province, a municipality or a local board, including a conservation authority.*
> *6.2.2 The lands are governed by the applicable official plan policies provided they have regard to the objectives of the Greenbelt Plan.*
> *6.2.4 The Protected Countryside policies to not apply except for:*
> *a) The policies of section 3.2.6; and*
> *b) The policies of section 3.3.*

The relevant policies of Section 3.2.6 are as follows:

> *3.2.6.1 To support the connections between the Greenbelt's Natural System and the local, regional and broader scale natural heritage systems of southern Ontario … the federal government, municipalities, conservation authorities, other agencies and stakeholders should:*
> *a) Consider how activities and land use change both within and abutting the Greenbelt relate to the areas of external connections and Urban River Valley areas identified in this Plan;*
> *b) Promote and undertake appropriate planning and design to ensure that external connections and Urban River Valley areas are maintained and/or enhanced*
> *3.2.6.2 The river valleys that run through existing or approved urban areas and connect the Greenbelt to inland lakes and the Great Lakes, including areas designated as Urban River Valley, are a key component of the long-term health of the Natural System. In recognition of the function of the urban river valleys, municipalities and conservation authorities should:*
> *(1) In considering land conversions or redevelopments in or abutting an urban river valley, strive for planning approaches that:*
> *i. Establish or increase the extent or width of vegetation protection zones in natural self-sustaining vegetation, especially in the most ecologically sensitive areas (i.e., near the stream and below the stable top of bank);*
> *ii. Increase or improve fish habitat in streams and in the adjacent riparian lands;*
> *iii. Include landscaping and habitat restoration that increase the ability of native plants and animals to use valley systems as both wildlife habitat and movement corridors; and*

iv. Seek to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts associated with the quality and quantity of urban runoff into the valley systems

Policies within Section 3.3 (Parkland, Open Space and Trails), which is also mentioned in Policy 6.2.4, are related to encouraging the creation of trails and trail planning to provide for accessible recreation opportunities.

The intent of this application is to dedicate the NHS lands to the Town, at which point the Greenbelt Plan Urban River Valley policies will be applicable to the Town-owned valleylands.

1.4.8 Halton Region Official Plan (2024)

As of July 2024, the ROP has become a local plan that is the Town of Milton's responsibility to implement until the ROP is revoked. The ROP contains policies related to the protection, conservation and enhancement of the natural heritage system, management of natural hazards and requirements related to redevelopment and soil contamination. The final iteration of the ROP is the May 16, 2024, office consolidation and is reflected in this EIA. Relevant policies of the ROP are outlined below.

Natural Heritage System

115.3 The Regional Natural Heritage System is a systems approach to protecting and enhancing natural features and functions and is scientifically structured on the basis of the following components:

(1) Key Features, which include:
- *a) significant habitat of endangered and threatened species,*
- *b) significant wetlands,*
- *c) significant coastal wetlands,*
- *d) significant woodlands,*
- *e) significant valleylands,*
- *f) significant wildlife habitat,*
- *g) significant areas of natural and scientific interest,*
- *h) fish habitat,*

(2) Key Features that have been identified are shown on Map 1G.
(3) enhancements to the Key Features including Centres for Biodiversity,
(4) linkages,
(5) buffers,
(6) watercourses that are within a Conservation Authority Regulation Limit or that provide a linkage to a wetland or a significant woodland, and
(7) wetlands other than those considered significant under Section 115.3(1)b).

115.4. Included within the Regional Natural Heritage System are:

(2) Regulated Flood Plains as determined, mapped and refined from time to time by the appropriate Conservation Authority.

116.1 The boundaries of the Regional Natural Heritage System may be refined, with additions, deletions and/or boundary adjustments, through:

a) a Sub-watershed Study accepted by the Region and undertaken in the context of an Area-Specific Plan;
b) an individual Environmental Impact Assessment accepted by the Region, as required by this Plan; or
c) similar studies based on terms of reference accepted by the Region.

Once approved through an approval process under the Planning Act, these refinements are in effect on the date of such approval. The Region will maintain mapping showing such refinements and incorporate them as part of the Region's statutory review of its Official Plan.

117.1 Subject to other policies of this Plan, applicable policies of the Greenbelt Plan and Niagara Escarpment Plan, and applicable Local Official Plan policies and Zoning By-laws, the following uses may be permitted:

…

(9) essential transportation and utility facilities.

118 It is the policy of the Region to:

(2) Apply a systems based approach to implementing the Regional Natural Heritage System by:

a) Prohibiting development and site alteration within significant wetlands, significant coastal wetlands, significant habitat of endangered and threatened species and fish habitat except in accordance with Provincial and Federal legislation or regulations;
b) Not permitting the alteration of any components of the Regional Natural Heritage System unless it has been demonstrated that there will be no negative impacts on the natural features and areas or their ecological functions; in applying this policy, agricultural operations are considered as compatible and complementary uses in those parts of the Regional Natural Heritage System under the Agricultural System and are supported and promoted in accordance with policies of this Plan
c) Refining the boundaries of the Regional Natural Heritage System in accordance with Section 116.1; and
d) Introducing such refinements at an early stage of the development or site alteration application process and in the broadest available context so that there is greater flexibility to enhance the ecological functions of all components of the system and hence improve the long-term sustainability of the system as a whole.

(3) Require the proponent of any development or site alteration that meets the criteria set out in Section 118(3.1) to carry out an Environmental Impact Assessment (EIA). The purpose of an EIA is to demonstrate that the proposed development or site alteration will result in no negative impacts to that portion of the Regional Natural Heritage System or unmapped Key Features affected by the development or site alteration by identifying components of the Regional Natural Heritage System as listed in Section 115.3 and their associated ecological functions and assessing the potential environmental impacts, requirements for impact avoidance and mitigation measures, and opportunities for enhancement. The EIA, shall, as a first step,

> *identify Key Features on or near the subject site that are not mapped on Map 1G.*

The CEMS included an assessment for all provincially significant natural heritage features/functions and Regional Key Features and recommended a refinement to the RNHS as permitted in Policy 116.1. This Scoped EIA is intended to update the findings of the CEMS in so much as it relates to the newly restored areas within the RNHS as a result of the post-remediation restoration efforts. This Scoped EIA is also intended to address Policy 118(3), which is to demonstrate that the proposed development will result in no negative impacts to the RNHS.

As it relates to Policy 117.1(9), "essential" is defined in the ROP as:

> *That which is deemed necessary to the public interest after all alternatives have been considered and, where applicable, as determined through an Environmental Assessment process.*

As a result, any utility facility, such as a stormwater outlet, within the RNHS must be deemed necessary in the public interest and alternatives considered. An Environmental Assessment process is not applicable in this situation.

Natural Hazards

There are several policies within the ROP related to the management of natural hazards and the protection of life and property including:

> *118 It is the policy of the Region to:*
>
> *…*
>
> *(11) Require that Local Zoning By-laws prohibit new construction and the expansion or replacement of existing non-conforming uses within hazard lands…*
>
> *(12) Require that Local Zoning By-laws impose for development appropriate setbacks from Regulated Flood Plains, based on the kind, extent and severity of existing and potential hazard to public safety…*
>
> *(13) Encourage the Local Municipalities to adopt a One-Zone Concept whereby new development in the Flood Plains, defined by the regulatory flood standard, is to be prohibited or restricted.*
>
> *(14) Encourage the Local Municipalities to:*
>
> *a) acquire public open space on tableland adjacent to watercourses and along the waterfront within the Urban Area.*

The CEMS included an assessment of the Regional Storm flood plain limits as well as a long-term stable top of slope (LTSTOS) assessment, to delineate the natural hazards on the subject property. All natural hazards, plus a 15 m setback from the greater of the flooding and erosion hazards was included in the refined RNHS limit.

Although the Region no longer maintains the mapping of RNHS refinements, the Town of Milton zoning map reflects the revised RNHS limit based on the refinement that was approved by Town Council on December 18, 2023, as shown in **Figure 2**.

Contaminated Sites

Section 146 (Land) outlines the Region's objectives, including those related to contaminated sites. Specifically, Policy 146.11 states that it is the Region's objective "To ensure that development takes place on sites that are safe from soil contamination."

Section 147 outlines the Region's policies related to contaminated sites including:

> *(17) Require that, prior to the Region or Local Municipality considering any development proposals, the proponent undertake a process in accordance with the Region's Guidelines (Protocol) for Reviewing Development Applications with Respect to Contaminated or Potentially Contaminated Sites and any applicable Provincial legislation, regulations and guidelines to determine whether there is any potential contamination on the site and the steps necessary to bring the site to a condition suitable for its intended use.*
>
> (18) *Consider approval for development proposals only when the development site complies with Provincial guidelines, Regional standards and other requirements regarding soil and groundwater quality.*

Section 2.2.5 below describes how contamination on the subject property has been addressed in accordance with ROP policy.

1.4.9 Town of Milton Official Plan

The Town of Milton Official Plan (MOP) contains policies related to the protection, conservation and enhancement of the NHS, management of natural hazards and requirements related to redevelopment. The subject property is within the Milton 401 Industrial / Business Park Secondary Plan Area (Schedule D1) and the valleylands are generally designated as Natural Heritage System (Zoning By-law 016-2024, Schedule A). This Natural Heritage System designation is intended to encourage the protection, maintenance and enhancement of significant natural features and areas and, according to Policy 4.8.1.2 of the MOP, includes flood plains, provincially significant wetlands (PSW), significant valleylands and significant habitat of endangered and threatened species. Note that the NHS mapping in the MOP has not been updated; however, the refinement to the RNHS was accepted as part of the CEMS as shown on Schedule A of the Zoning By-law 016-2024.

Relevant MOP policies related to natural heritage and natural hazards are outlined below:

Natural Heritage

Policy 4.9.1.3 defines the components of the RNHS and reflects ROP policy 115.3.

Policy 4.9.3.1 provides mechanisms for application of the RNHS and reflects ROP policy 118(2). Policy 4.9.3.1(a) prohibits development and site alteration within significant wetlands, significant habitat of endangered and threatened species, and fish habitat except in accordance with Provincial or Federal legislation or regulations.

Policy 4.9.3.2 states the following:

> *The purpose of an EIA is to demonstrate that the proposed development or site alteration will result in no negative impacts to that portion of the Natural Heritage System or unmapped Key Features affected by the development or site alteration by identifying components of the Regional Natural Heritage System as listed in Section 4.9.1.3 and their associated ecological functions and assessing the potential environmental impacts, requirements for impact avoidance and mitigation measures, and opportunities for enhancement. The EIA, shall, as a first step, identify Key Features on or near the subject site that are not mapped on Schedule "M".*

Policy 4.9.3.3 requires that site alteration that is located wholly or partially inside or within 120 m of the RNHS requires an EIA.

Policy 4.3.2.12 provides additional requirements for boundary refinement of the RNHS, including consultation with the Town, and reflects the requirements of ROP Policy 116.1.

Natural Hazards

Policy C.11.6.4.4 addresses refinements to natural hazards and that any proposed development within hazards shall be to the satisfaction of the Town and relevant conservation authority.

As outlined in **Sections 1.4.6** and **1.4.8**, the NHS and natural hazard limits were refined through the CEMS.

1.4.10 Conservation Authorities Act and Conservation Halton Policies

Ontario Regulation (O. Reg.) 41/24 of the *Conservation Authorities Act* (1990) came into effect on April 1, 2024. Under this new regulation, CH is responsible for reviewing development proposals and approving works within and adjacent to natural hazards (i.e., areas subject to flooding and erosion) such as watercourses, wetlands, floodplains, steep slopes, and shorelines. Following the new regulation coming into effect, CH amended its policies to be in conformance with the new regulation. Such policies are found in CH's *Policies and Guidelines for the Administration of Part VI of the Conservation Authorities Act and Ontario Regulation 41/24 and Land Use Planning Policy Document* (CH 2025)

When the CEMS was approved in 2023, CH's previous regulation (O. Reg. 162/06) and associated policies were in effect. At that time, CH policies recommended lot line setbacks of 15 m from the limit of wetlands less than 2 ha in size, which was reflected in the refined NHS limit presented in the approved CEMS. CH policy now, following the 2024 update, recommends a 30 m lot line setback for wetlands less than 2 ha in size. To be consistent with past recommendations on the previous ZBA application and CEMS, CH staff have confirmed that the previously agreed to 15 m lot line setback can continue to be applied to the DPOS. This is consistent with the NHS zone limit, which was approved as a result of the CEMS, as it incorporates the recommended 15 m setback to the re-created wetland.

The change in CH's regulation results in CH's regulatory limit extending 15 m beyond the NHS limit in the southern corner of the subject property and into Blocks 6 (Residential Apartments) and 7 (Stormwater Pond Block) as well as onto the Town-owned lands to the east (former rail spur line).

Development in CH's regulated area will require a permit under Part VI of the *Conservation Authorities Act*, as discussed in **Section 6.1**.

In addition to CH's regulatory responsibilities described above, CH also has provincially delegated responsibilities under O. Reg. 686/21, including acting on behalf of the province to ensure that decisions under the *Planning Act* are consistent with the Natural Hazards sections (5.1 and 5.2) of the PPS.

Relevant regulatory policies in CH's *Policies and Guidelines for the Administration of Part VI of the Conservation Authorities Act and Ontario Regulation 41/24 and Land Use Planning Policy Document* (CH 2025) include:

> *2.1 Activities to straighten, change, divert, or interfere with a watercourse, activities to change or interfere with a wetland, and development activities within river or stream valleys, hazardous lands, wetlands and lands adjacent or close to the shoreline of Lake Ontario and Hamilton Harbour or to inland lakes that may be affected by flooding, erosion or dynamic beaches, are prohibited except where allowed under Policies 2.4-2.46 (inclusive) and where:*
>
> *a) The activity is not likely to affect the control of flooding, erosion, dynamic beaches, unstable soil or bedrock;*
> *b) The activity is not likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; and,*
> *c) Any other requirements that may be prescribed by the regulations are met.*
>
> *2.2 Development activities are prohibited within 15 metres of the stable top of bank where a valley is apparent, within 15 metres from the greater of the limit of the flood plain or the predicted meander belt width of a watercourse where a valley is not apparent, within 15 metres of the furthest landward extent of the aggregate of the flooding, erosion and dynamic beach hazards along the Lake Ontario and Hamilton Harbour shorelines, as well as within 30 metres from a wetland, except where allowed under Policies 2.4-2.46 (inclusive) and where:*
>
> *a) The activity is not likely to affect the control of flooding, erosion, dynamic beaches, unstable soil or bedrock;*
> *b) The activity is not likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; and,*
> *c) Any other requirements that may be prescribed by the regulations are met.*

Policy 2.4.1.1 requires that CH stake the top of bank of valleys greater than 2 m in height, while Policy 2.4.2.1 states that CH may request a stable slope assessment to determine the long-term stable top of slope. Policy 2.5 requires that CH attend on-site to stake the limit of wetlands. Policy 2.8 is relevant as it relates to construction access and site controls, given that some of the remediation and restoration works as well as stormwater infrastructure will take place within CH's regulated area:

> *2.8 Any application for development, permitted in accordance with Policies 2.4 – 2.46, must demonstrate that access to the work area and completion of the works can be carried out in an acceptable manner in accordance with guidance documents in Section 4. Consideration must be given to the impacts on flooding, erosion, valley slope and channel stability. Information required for review and approval includes, but is not limited to: limit of work area delineation; sediment and erosion controls; vegetation protection; staging/phasing, etc.*

Policy 2.36.3 generally does not permit new development within 15 m of wetlands less than 2 ha in size.

Policy 2.6 states that "Flood hazard mapping (possibly including modeling) and/or an elevation survey may need to be prepared by the applicant to verify the limit of the flooding hazard."

Policy 2.7 provides guidance on vegetation protection in the regulatory allowance and other areas adjacent to wetlands:

> *An area of permanent self-sustaining vegetation should be established within the regulatory allowance and within other areas adjacent to wetlands to mitigate flooding and erosion impacts by stabilizing soils, maintaining hydrologic conditions, and supporting the hydrologic function of wetlands. While the establishment of natural self-sustaining vegetation is preferred, it is not required, if the land is, and will continue to be, used for agricultural purposes, where policies permit development activity within the allowance, or where an unobstructed shoreline or erosion access allowance is required.*

Land use planning Policy 3.1.4 mentions that on-going monitoring of SWM facilities or natural hazards may be required as a condition of approval for planning applications.

Regarding flooding and erosion hazard limits, land use planning policy 3.2.2 recommends:

> *… a lot line setback of 15 metres from the greater of the limit of the floodplain, stable top of bank and meander belt allowance limit, or lot line setbacks in keeping with approved Secondary Plans…*

Finally, regarding valleylands, land use planning policy 3.3.1 recommends:

> *…a lot line setback of 15 metres from the greater of the physical or stable top of bank, or lot line setbacks in keeping with approved Secondary Plans…*

The subject property contains the following areas that are regulated by CH pursuant to O. Reg. 41/24:

- Erosion hazards – LTSTOS of Sixteen Mile Creek valley (DS Consultants 2023);
- Flooding hazards – Regional storm flood plain associated with Sixteen Mile Creek (Beacon *et al.* 2023);
- Wetlands – within the valley and on the tablelands (Beacon *et al.* 2023); and
- Regulated Allowances – 15 m adjacent to the greater of the Regional Storm flood plain or stable top of bank; and 30 m adjacent to wetlands.

Through the CEMS, the physical top of bank and wetland limits were staked by CH and a LTSTOS assessment was prepared by DS Consultants (2023).

The wetland (tailings pond) was removed and replicated within the RNHS with a permit from CH (Permit #8705). The flood plain was delineated by Urbantech, utilizing CH mapping, within the CEMS and is fully contained within Sixteen Mile Creek valley.

The NHS zoning limit, approved as part of the previous planning application, contained all of CH's regulated areas at the time of approval (15 m from stable top of bank and 15 m from re-created wetland). As a result of the changes to CH's regulation, there is an additional 15 m of regulated area, beyond the NHS zone, that is associated with the re-created wetland.

2. Context & Existing Conditions

2.1 Physical Environment

This section characterizes the physical environment of the study area and environs. It provides an overview of the bedrock and surficial geology resources, topography, soils, surface water and groundwater resources, including drainage catchments, hydrostratigraphy, groundwater levels and groundwater quality.

2.1.1 Background

The subject property is situated within a mixed residential and industrial neighbourhood and is located approximately 220 m east of the intersection of Steeles Avenue East and Bronte Street North. The portion of the subject property at 150 Steeles was vacant at the time that this report was prepared while 248 and 314 Martin Street contain residential houses.

The tableland portion of the subject property is at an elevation of 205 m above sea level (masl) except for one area toward the centre of the subject property (where the former unregulated landfill was located) where the pre-remediation surface elevation is 211 masl (Beacon *et al.* 2023). The subject property is located adjacent to, and contains a small portion of, the Sixteen Mile Creek valley. The southwestern portion of the subject property contains a portion of the valley slopes, Regional storm flood plain and a short segment of the creek. The valley floor, associated with the creek, is at an elevation of approximately 198 masl (Beacon *et al.* 2023).

2.1.2 Bedrock Geology

Based on borehole data logs, shale bedrock belonging to the Queenston Formation was found at approximate depths varying from 15.3 to 18.3 m below the existing ground surface (mbgs), corresponding to elevations varying from 188.0 to 190.2 masl (Beacon *et al.* 2023).

2.1.3 Surficial Geology and Soils

The subject property is located within the Peel Plain physiographic region (Chapman and Putman 1984).

This plain corresponds with the bottom of glacial Lake Peel which formed between an ice front and the Niagara Escarpment. It slopes south to Lake Ontario and follows the topography of the Halton Till. According to the *Physiography of Southern Ontario* (Chapman and Putman 1984), the surficial geology is described as till, clay to silty-textured till (derived from glaciolacustrine deposit of shale). Soils on the tablelands are mapped as Chinguacousy Clay Loams and the valley floor is described as consisting of alluvial soils (Gillespie, Wicklund, and Miller 1971).

2.1.4 Hydrology

The majority of the subject property (11.56 ha) drains from the north to southwest, towards the Sixteen Mile Creek via an overland flow route and existing outlet in the valley. A portion of the site (8.70 ha) drains to the southeast towards an existing drainage swale that outlets to Sixteen Mile Creek. Prior to site remediation works, the property was developed and included approximately 75% impervious coverage in the north portion with site, approximately 30% impervious coverage in the south-east portion of the site and no impervious areas in the south-west portion of the site (Urbantech 2026). Drainage plans are provided in the *Functional Servicing and Stormwater Management Report* (FSR; Urbantech 2026).

There is one historic stormwater outfall from the previously developed portion of the subject property that drained into the Sixteen Mile Creek valley, and an overflow spillway from the previous tailings pond which discharged / spilled to the railway ditch with no formal outfall. The line to the stormwater outfall was decommissioned as part of the demolition works and the tailings pond was removed, and a restored wetland was created in the RNHS. In addition, as part of the site remediation works, the grades were altered such that overland flow is now directed to an erosion and sediment control (ESC) pond in the southeast corner of the subject property. As a result, the storm sewer and tailings pond area no longer convey any flows from the surface to Sixteen Mile Creek (Urbantech 2026).

2.1.5 Hydrogeology

The hydrogeology at the subject property was evaluated using six (6) on-site monitoring wells installed by DS Consultants and nine (9) additional existing monitoring wells installed by other consultants, as well as from local domestic wells and existing environmental reports for the area (Beacon *et al.* 2023).

DS Consultants measured groundwater levels in all available monitoring wells on May 9, 2023 (DS Consultants 2026a). Based on groundwater level measurements, the groundwater table at the site was found at a range between 197.57 masl and 200.49 masl (DS Consultants 2026a). Based on groundwater elevations, the flow direction within the Site is inferred to be southwest towards the Sixteen Mile creek. DS also conducted long-term groundwater monitoring between May 2023 and December 2024 including four selected monitoring wells. The groundwater levels were found at the elevations ranging from 197.26 to 199.66 masl (DS Consultants 2026a).

Based on the groundwater pumping test, a significant aquifer is present on the western portion of the subject property (DS Consultants 2026a). Well and groundwater information are provided in the *Preliminary Hydrogeological Investigation* (DS Consultants 2026a).

A comparison of groundwater levels between the tableland and the adjacent Sixteen Mile Creek wetland suggests there may be some potential for groundwater movement from the tableland into the wetland (DS Consultants 2026a). While this evidence is not definitive, it suggests the possibility that the surrounding aquifer contributes to the wetland's groundwater system under certain conditions.

However, continuous measurements collected between August 2023 and October 2024 also show that shallow groundwater within the wetland responds significantly to precipitation events. Following a major rainfall event in July 2024, for example, shallow groundwater levels rose by approximately 0.6 to 0.8 m at two monitoring stations (SG1 and SG2) in the wetland (DS Consultants 2026a). Because groundwater in the tableland aquifer moves relatively slowly, the rapid timing of these increases suggests that this response is due to local infiltration within the wetland rather than recharge arriving from the tableland. These event-driven rises suggests that precipitation directly influences shallow groundwater levels through local infiltration.

2.1.6 Local Groundwater Use

Based on the MECP water well records search, there were seventy-four (74) water wells within a 500 m radius of the subject property (Beacon *et al.* 2023). All wells were noted as monitoring/test holes or not in use except for five (5) records for domestic, three (3) records for industrial and three (3) records for commercial purposes. The results of the door-to-door survey concluded that there are no wells within a 500 m radius that are used for potable purposes. Figure 2.1 of the CEMS shows the study area (500 m radius of the subject property) is fully serviced with municipal water.

2.1.7 Hydraulic Conductivity

A total of fifteen (15) single well response tests were completed by DS Consultants in monitoring wells on May 5 to 7, 2021 to estimate hydraulic conductivity (k) for the representative geological units in which the wells were completed (Beacon *et al.* 2023). The values of calculated hydraulic conductivity (k) range from 1.65×10^{-7} to 4.81×10^{-4} m/s (DS Consultants 2026a). Due to the heterogeneous nature of soils and the hydrogeological setting of the site, the geo-mean K-value 6.27×10^{-6} m/s was considered in the dewatering assessment (DS Consultants 2026a). Further details are provided in the *Preliminary Hydrogeological Investigation* (DS Consultants 2026a).

2.2 Natural Environment

This section characterizes the natural environment by identifying all components of the RNHS as required by the PPS and the ROP, including Key Features and other components of the RNHS as described in Section 115 of the ROP as well as areas regulated by CH pursuant to O. Reg. 41/24.

2.2.1 Background

To identify and characterize the various components of the RNHS, information from the following sources was collected, compiled and mapped:

- MNR Natural Heritage Information Centre (NHIC) rare species database (accessed February 2025);
- Fisheries and Oceans Canada Aquatic Species at Risk Map (accessed February 2025);
- Slope Stability Assessment; 150 Steeles Avenue East, Milton, Ontario (DS Consultants, January 17, 2023);
- Aerial photographs and topographic mapping;
- CH digital data;
- Provincially Tracked Species Layer from Geospatial Ontario (GEO);
- Ontario Breeding Bird Atlas;
- Ontario Reptile and Amphibian Atlas;
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;
- Species at risk range maps https://www.ontario.ca/environment-and-energy/species-risk-ontario-list; and
- Natural and physical feature layers from GEO—these geospatial layers include wetlands (provincially significant and un-evaluated wetlands), and watercourses with thermal regime.

2.2.2 Feature Staking

On July 16, 2021, CH staff staked the top of the bank along the Sixteen Mile Creek valley and the limits of two small wetlands associated with a former tailings pond and a segment of the Milton Wetland Complex. On November 22, 2021, Halton Region staff staked the limits of the woodland feature. These staked limits were surveyed by an Ontario Land Surveyor (OLS), as shown in **Figure 2** and reflected in **Figure 3**, and used to prepare the constraint mapping for refining the RNHS boundaries as part of the CEMS.

Following remediation in portions of the RNHS, the features in these areas were restored in accordance with the CEMS and the landscape designs in **Appendices C1** and **C2**.

2.2.3 Ecological Surveys and Rescues

This section includes ecological surveys undertaken to identify the components of the RNHS and their respective sensitivities. Surveys included Ecological Land Classification (ELC), flora inventories, tree inventories, amphibian surveys, breeding bird surveys, bat habitat assessments, terrestrial crayfish surveys, and dragonfly and butterfly surveys. The methods and results of these surveys are described in the following sections.

2.2.3.1 Ecological Land Classification and Flora

Beacon conducted field surveys in 2021 and 2022 to classify and map the ecological communities in the Study Area in accordance with the *Ecological Land Classification for Southern Ontario* (Lee *et al*. 1998). Ecological communities were mapped and described following the protocols of the ELC system for Southern Ontario (Lee *et al.* 1998). This involved delineating vegetation communities on aerial photos of the subject property (except for staked boundaries) and recording pertinent information on the vegetation structure and composition. Flora surveys were conducted in conjunction with the ELC surveys. A list of vascular plant species observed in the study area was compiled.

Through the CEMS, ten (10) ELC community classes and associated anthropogenic areas were identified within the study area**.** As part of the site remediation, mineral cultural meadow (CUM1), mineral cultural savannah (CUS1), Red-osier Dogwood Thicket Swamp (SWT2-5), Cattail Mineral Shallow Marsh (MAS2-1), and a portion of cultural woodland (CUW1) were removed. Following remediation, nine ELC community classes remain (CUW1, CUM1, CUS1, FOD4, FOD5, MAM2, SA, MAS2-1 and CUT) and the equivalent wetland area and woodland area were restored in the NHS, as shown in **Figure 3**.

As it relates the stormwater outlet that was explored as part of the first submission, the vegetation community in this area is a Cattail Mineral Marsh (MAS2-1), that is dominated by Hybrid Cattail (*Typha x glauca*), with associates of Purple Loosestrife (*Lythrum salicaria*), Swamp Red Currant (*Ribes triste*), and Spotted Joe-Pye Weed (*Eutrochium maculatum*), along with some localized inclusions of European Reed (*Phragmites australis ssp. australis*).

Following the first submission of the Scoped EIA, an additional potential stormwater outlet was considered in the swale of a former rail spur line to the east of the subject property. The swale is an inclusion within offsite ELC Units 2.2 (CUW1) and 10.0 (FOD5) to the southeast of the subject property. The understorey of this inclusion is patchy but dominated by invasive European Buckthorn (*Rhamnus cathartica*). The canopy is dominated by young Black Walnut (*Juglans nigra*), followed by Norway Maple (*Acer platanoides*), Basswood (*Tilia americana*), and Green Ash (*Fraxinus pennsylvanica*), with some canopy decline and regeneration due to Emerald Ash Borer (*Agrillus planipennis*). Where the swale intersects the ELC Unit 10.0, the canopy is dominated by mature Sugar Maple (*Acer saccharum*), with some canopy decline and regeneration due to Beech Bark Disease (*Cryptococcus fagisuga/Neonectria* spp. complex).

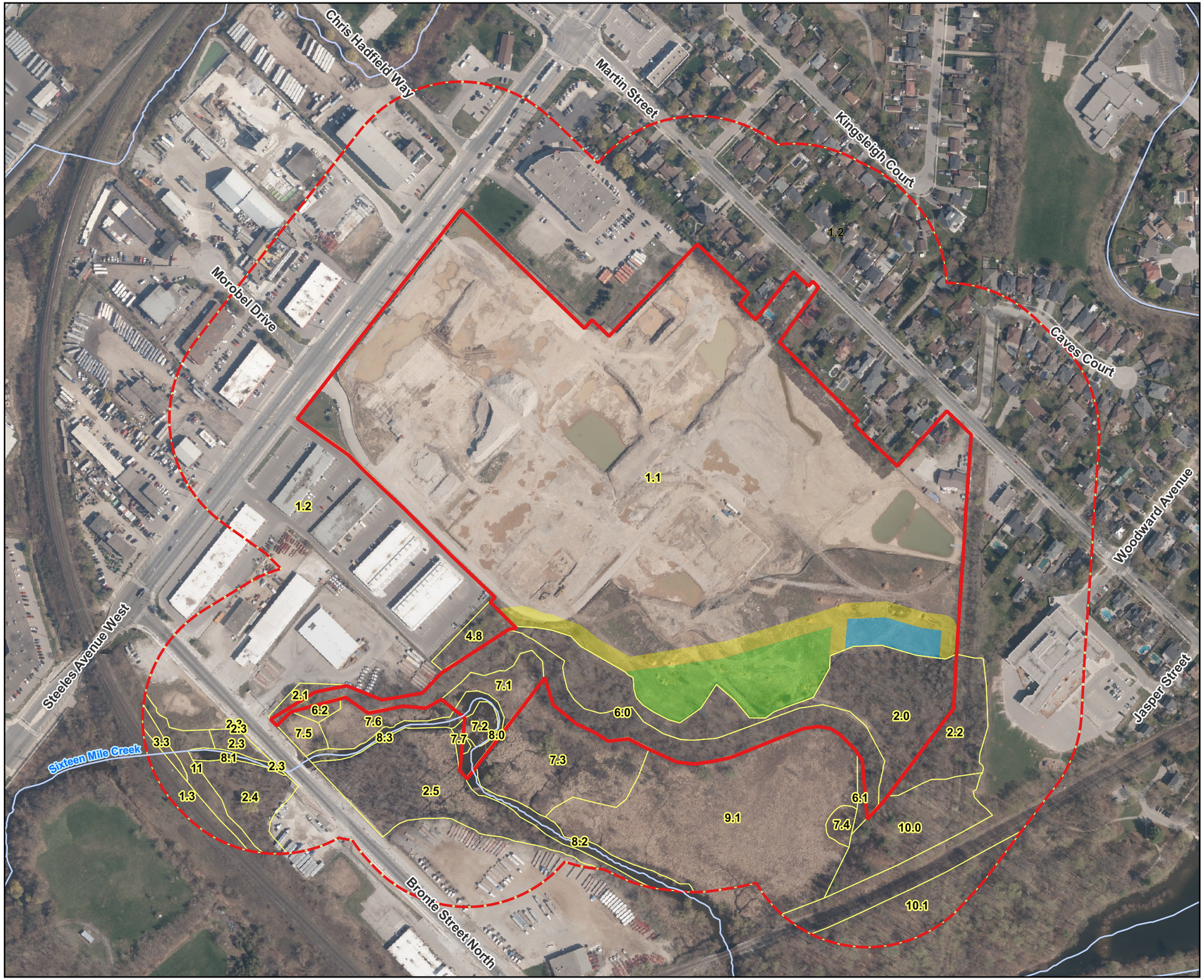
Prior to site remediation, a total of 108 vascular plant species were recorded, with 54% being non-native. One species, Honey Locust (*Gleditsia triacanthos*), is provincially imperilled but not endangered or threatened. Additionally, three species are considered uncommon in the Halton Region. The surveys helped adjust the boundaries of wetland and woodland communities consistent with agency feature staking. Subsequent to site remediation, and as a result of landscape plantings and seeding, an additional 52 native vascular plant species have been added to the site to date.

2.2.3.2 Tree Inventory

Prior to remediation works, trees on the tableland portion of the subject property with potential to be impacted by the remediation works were inventoried. This inventory was conducted in 2021 and limited to trees with a diameter at breast height (DBH) of at least 15 centimetres (cm), which were marked with numbered metal forestry tags and inventoried.

Prior to remediation works, a total of 402 individual trees were inventoried, primarily within the cultural woodland feature (ELC Unit 2.0). Of these, approximately 66% were Black Walnut (Beacon *et al*. 2023). Following remediation works, the remediated area of ELC Unit 2.0 was restored with 418 replacement tree plantings, primarily consisting of Red Oak (*Quercus rubra*), Basswood, and Sugar Maple, with an understory composed of Grey Dogwood (*Cornus racemosa*), Nannyberry (*Viburnum lentago*), and Maple-leaved Viburnum (*V. acerifolium*), as shown in landscaping drawings provided in **Appendix C**.

Additional tree inventory work was conducted in 2025 and 2026 in several locations where stormwater outlets were being considered.



Ecological Land Classification

Figure 3

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Study Area
- Ecological Communities
- Watercourse (MNRF 2024)

Restoration Areas

- Wetland
- Woodland
- Buffer

Note: Enhancement areas not shown; See landscape drawings

Unit Number	ELC Code	Ecological Communities
1	ANT	Anthropogenic (units 1.1 - 1.25)
2	CUW1	Mineral Cultural Woodland (units 2.0 - 2.5)
3	CUM1	Mineral Cultural Meadow (units 3.1 - 3.3)
4	CUS1	Mineral Cultural Savanah (units 4.1 - 4.8)
6	FOD4	Dry - Fresh Deciduous Forest (unit 6.0 - 6.2)
7	MAM2	Mineral Meadow Marsh (units 7.1 - 7.7)
8	SA	Shallow Water (unit 8.0 - 8.3)
9	MAS2-1	Cattail Mineral Shallow Marsh (units 9.0 - 9.1)
10	FOD5	Dry - Fresh Sugar Maple Deciduous Forests (units 10.0 - 10.1)
11	CUT	Cultural Thicket (unit 11)

Note: Prior to remediation ELC Unit 5 (SWT2-5) was associated with a contaminated tailings pond, and the equivalent wetland area has been reproduced in the wetland restoration area.

BEACON ENVIRONMENTAL

Project: 221265
Last Revised: February 2026

Client: Neatt Communities

Prepared by: BD
Checked by: DW

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Within the area of the previously assessed SWM outlet locations in the valley (ELC Unit 6.0; **Figure 4**), a total of 89 trees with a DBH of at least 15 cm were recorded. No trees were located within the adjacent marsh at the valley bottom. Honey Locust accounted for approximately 58% of the tree population, followed by Black Cherry (*Prunus serotina*) at 15% and White Elm (*Ulmus americana*) at 10%. The remaining 17% comprised individual to several occurrences of Black Walnut, Bitternut Hickory (*Carya cordiformis*), Manitoba Maple (*Acer negundo*), Common Pear (*Pyrus communis*), and Green Ash. The median DBH of the inventoried trees is 26 cm. Of the 89 trees assessed, 65 were determined to be in at least fair condition. Further evaluation is provided in **Section 5.**

Within the area of the currently proposed SWM outlet (former rail spur line), a total of 228 trees with a DBH of at least 15 cm were documented within a hedgerow, ELC Unit 2.2, and ELC Unit 10.0. Black Walnut accounted for approximately 36% of the inventoried trees, followed by Norway Maple at ~13%, Sugar Maple at ~11%, and Green and White Ash at 7% and 5%. The remaining 28% comprised individual to several occurrences of Basswood, Amur Maple (*Acer ginnala*), Scot's Pine (*Pinus sylvestris*), Balsam Poplar (*Populus balsamifera*), Manitoba Maple, White Elm, Common Apple (*Malus pumila*), Sweet Cherry (*Prunus avium*), Crack Willow (*Salix euxina*), Eastern Cottonwood (*Populus deltoides*), Siberian Elm (*Ulmus pumila*), Red Pine (*Pinus resinosa*), Hawthorn (*Crataegus monogyna*), Silver Maple (*Acer saccharinum*) and Northern Catalpa (*Catalpa speciosa*).

2.2.3.3 Amphibian Surveys and Rescue

In 2022, Beacon conducted amphibian call surveys at six stations (**Figure 4**) around wetland features to confirm the presence/absence of breeding frogs and toads in accordance with the standard survey protocols of the Marsh Monitoring Program (Bird Studies Canada 2008). Three frog species, Green Frog (*Lithobates clamitans*), Gray Treefrog (*Hyla versicolor*), and Spring Peeper (*Pseudacris crucifer*) were recorded, with Spring Peepers observed in high abundance at station 1 and 3. No salamanders or other amphibians were observed.

Prior to remediation of the wetlands associated with the tailings ponds, amphibians were relocated in accordance with a Wildlife Scientific Collector's Authorization (No. 1103736), issued by the MNR, for the rescue of Spring Peepers observed in 2022, as this species is regulated under the *Fish and Wildlife Conservation Act*. At the time of the rescue, the tailings pond was inundated with approximately 1 m of water and no Spring Peepers or tadpoles were observed in the tailings pond. Green Frog, although unanticipated in the tailings pond based on 2022 observations, were captured in the tailings pond and released to an appropriate area, where they had been observed in 2022, as shown in **Figure 4**.

The re-created wetland area was completed in 2024 and monitoring of this feature began in spring 2025. The wetland was designed through the CEMS to provide sufficient hydroperiod for amphibian breeding habitat. Amphibian breeding in the wetland will be documented in the upcoming monitoring report.

2.2.3.4 Avifaunal Surveys

To document the composition of the resident avian community, breeding bird surveys were completed during the mornings of May 26 and June 5, 2021. The surveys were completed during periods with low to moderate winds (0–2 Beaufort Scale), no precipitation and temperatures within 5°C of normal average temperatures.

The breeding bird community was surveyed using a roving-type survey, in which all parts of the subject property were walked (**Figure 4**). All birds observed and exhibiting evidence of breeding were documented and their locations noted on an aerial photograph. This survey method is superior to the point count methods as it more comprehensively documents the avian communities present. Details of these surveys are provided in the approved CEMS.

Thirty-six (36) bird species were observed, with the avian community reflecting the site's open anthropogenic and riparian habitats. The most abundant species included Song Sparrow (*Melospiza melodia*), while Red-winged Blackbird (*Agelaius phoeniceus*), Common Yellowthroat (*Geothlyphis trichas*), House Wren (*Troglodytes aedon*), European Starling (*Sturnus vulgaris*), Baltimore Oriole (*Icterus galbula*), American Robin (*Turdus migratorius*), Gray Catbird (*Dumetella carolinensis*), and Northern Cardinal (*Cardinalis cardinalis*) all had more than two (2) territories present.

During other ecological surveys in 2022 and 2023, three additional bird species were recorded: American Woodcock (*Scolopax minor*), Green Heron (*Butorides virescens*), and Red-Tailed Hawk (*Buteo jamaicensis*).

No critically imperiled species were found, but the Eastern Wood-Pewee, listed as Special Concern, was observed. Two regionally uncommon bird species—Black-and-white Warbler (*Mniotilta varia*) and Green Heron—were identified. No regionally rare avian species or nesting by Barn Swallow and Chimney Swift were recorded.

2.2.3.5 Reptile Surveys

Habitats with potential to support turtle populations such as the former tailings pond / wetland and Sixteen Mile Creek were surveyed for basking turtles by slowly walking along the outer edge of the features and surveying the outer edge using binoculars. Surveys were conducted when the air temperature was greater than water temperature and not during inclement weather. Potential snake hibernaculum areas were also surveyed on the same dates by scanning the edges of vegetation and exposed rubble / rocks and by flipping cover objects in the vicinity of the old rail bed. Details of these surveys are provided in the approved CEMS.

No turtles or snakes were noted by Beacon during targeted surveys in 2022 in the areas shown on **Figure 4** or any other field visits on the subject property. The observations are as follows:

- The tailings pond / wetland was dry during these surveys and therefore are unlikely to support basking or overwintering habitats for turtles;
- Sixteen Mile Creek water temperature relative to air temperature was conducive to basking behaviour on both dates; however, no turtles were observed; and
- No snakes were observed on the tablelands or in the valleylands.

The artificial snake hibernaculum located in the buffer to the wetland creation area is proposed to be monitored in the fifth year following restoration to allow snakes and other animals time to discover the structure. Additionally, it is possible that the re-created wetland may facilitate basking turtles in future. Should the wetland be conducive to turtle basking in the fifth year following restoration it will be surveyed at that time.

Biological Sampling and Relocation

Figure 4

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Watercourse (MNRF 2024)
- Breeding Bird Survey Area
- Amphibian Call Monitoring Stations
- Reptile Monitoring Areas
- Insect Survey Areas
- Chimney Crayfish Survey Areas
- Terrestrial Crayfish Relocation Site - Vernal Pool (2023)
- Bat Snag Survey Area (2022)
- Bat Detector Locations
- Tree Inventory and Bat Snag Survey Area (2025, 2026)
- Frog Relocation Site (2023)

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Checked by: SG

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2.2.3.6 Bat Surveys – Snag Trees and Acoustic Monitoring

During the initial tree inventory, trees with at least 10 cm DBH were also assessed for various bat habitat criteria, as per the MECP updated *"Bat Survey Standards Note 2021"* guideline (undated). This assessment took place on January 26 and 27, 2022.

Potential roosting habitat (tree cavities) for endangered bat species were identified in the Cultural Woodland community on the subject property (ELC Unit 2.0).

To confirm the presence/absence of bat species that may be utilizing the woodland, acoustic monitors were deployed in the vicinity of the identified bat habitat trees (i.e., snags) and call data was recorded between June 1 and June 13, 2022 (**Figure 4**) in accordance with methods described within *Phase III: Acoustic Surveys of the Survey Protocol for Species at Risk Bats within Treed Habitats Little Brown Myotis, Northern Myotis & Tri-Colored Bat* (MNRF 2017) which was the protocol at the time of the surveys. A 2022 analysis of the acoustic monitoring data confirmed the occurrence of *Myotis* and *Perimyotis* bat species that are regulated under the ESA, and auto-identification indicates the presence of the three endangered migratory bat species: Eastern Red Bat (*Lasiurus borealis*), Hoary Bat (*L. cinereus*), and Silver-haired Bat (*Lasionycteris noctivagans*).

Although roosting habitat on the subject property did not meet the criteria for provincial significance for Big Brown Bat (*Eptesicus fuscus*) some calls from this species were also detected during acoustic monitoring.

Additional snag surveys were conducted in 2025 (January 29 and November 5) and 2026 (January 14) in several locations where a stormwater outlet was being considered (**Figure 4**). Such surveys were in accordance with the MECP protocols noted above, as updated guidance has not been provided by MECP as of the date of this report.

Within ELC Unit 6.0, a total of 13 potential bat habitat trees were recorded within the bat snag survey area. All 13 snag trees demonstrated characteristics favourable to *Myotis* species. Since the area studied for the previously proposed SWM outlet locations is 0.1 ha (100 m x 10 m), the area has a snag density of approximately 130 snags/ha.

Twenty-nine (29) snags were identified along the former rail spur line (Town owned) within a hedgerow (0.2 ha), ELC Unit 2.2 (0.25 ha), and ELC Unit 10.0 (0.15 ha). Twenty (20) snag trees demonstrated characteristics favourable to *Myotis* species only, three snags appeared favourable to *Perimyotis* alone, while five snags appeared favourable to both taxa. Since the area studied is approximately 0.6 ha (i.e., approximately 250 m x 25 m), the area has a snag density of approximately 48 snags/ha.

2.2.3.7 Raptor Habitat Survey

To detect potential woodland raptor nest sites and assess their winter habitat, a survey was conducted on January 22, 2023. The wooded portions of the subject property were walked to within 50 m to search suitable trees for potential raptor nests. Adjacent woodlands to the southeast of the subject property and treed areas to the west, in association with the Milton Wetland Complex, were also scanned for potential stick nests.

Three stick nests potentially suitable for Cooper's Hawk (*Astur cooperii*) were located in the woodland, with no nest-building activity observed.

No raptor overwintering habitat was found in 2023; however, one Red-tailed Hawk was observed in the Milton Wetland Complex.

2.2.3.8 Terrestrial Crayfish Surveys and Rescue

Beacon conducted surveys for terrestrial crayfish in depressions, swales, and wet areas on the subject property in 2022, primarily around the former tailings pond/wetland, as shown in **Figure 4**. An additional survey in 2023 on the adjacent Town property identified a suitable relocation site. A total of 56 crayfish burrows were found, mainly around the tailings pond/wetland. These burrows, often capped with mud to prevent water loss, indicated the presence of groundwater-dependent crayfish.

Prior to remediation of the wetlands associated with the tailings ponds, terrestrial crayfish were relocated in accordance with the Authorization noted above (No. 1103736) and a Licence to Collect Fish for Scientific Purposes (No. 1103737) from MNR. The rescues were conducted at night, on June 29 and July 3, 2023, when the tailings pond was inundated and Terrestrial Crayfish were found near the ground surface. Terrestrial Crayfish were captured in the tailings pond and released to a nearby appropriate area, as specified in the application to MNR and shown in **Figure 4**.

2.2.3.9 Dragonfly, Damselfly and Butterfly Surveys

Field investigations for species of Odonata (dragonflies and damselflies) and Lepidoptera (butterflies, skippers and moths) were conducted by Beacon during warm, sunny days with minimal winds on August 5 and 12, 2022, in locations shown in **Figure 4**. Binoculars were used to observe insect species. If required, individuals were captured using a net and examined using a hand lens before being released. Species locations are typically noted if they had a ranking of S4 or lower (more sensitive) or if a species generally occurs in densities low enough as to warrant mention. Details of these surveys are provided in the approved CEMS.

Thirteen (13) species of Odonata and Lepidoptera, with a ranking of S4 or lower, were found on the subject property. Monarch was observed in the vicinity of the former tailings pond / wetland; however, there was no significant habitat on site as milkweed was not abundant.

It is possible that the re-created wetland may provide habitat for Odonata and Lepidoptera in future. Should the wetland continue to hold water for the duration of the monitoring, Odonata and Lepidoptera surveys will be conducted in the fifth year following restoration.

2.2.4 Natural Hazards

As discussed in **Section 1.4.6** above, Section 5.2.2 of the PPS states that *"*development shall generally be directed to areas outside of … hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards*".* The following subsections provide an overview of the components of this policy that are applicable to the subject property.

2.2.4.1 Regional Storm Flood Plain

Sixteen Mile Creek crosses a small part of the subject property's western edge, with most of the watercourse off-site (Beacon *et al.* 2023). Through the CEMS, the HEC-RAS model and digital elevation model (DEM) files were obtained from CH to confirm model geometry and assist in floodplain mapping (Beacon *et al.* 2023). The model parameters were found to be consistent with acceptable values (Beacon *et al.* 2023). This Scoped EIA includes the results of the *Urban Milton Flood Hazard Mapping Study* which was completed by CH in 2023. Flood mapping showed that the Regional Storm flood plain is contained within the creek valley and does not affect the tablelands of the subject property, as illustrated on **Figure 5**.

2.2.4.2 Long Term Stable Top of Slope

CH staked the limit of the physical top of bank in 2021. A Slope Stability Assessment (DS Consultants 2023) was conducted to determine the LTSTOS. The LTSTOS was identified based on whether the stable top of slope from the analysis was further away or closer to the creek than the staked top of slope. An area of slope erosion near a storm sewer outfall was noted (**Figure 2, Photographs 1** and **2**), and the LTSTOS was determined, as shown in **Figure 5**. The LTSTOS points at the west part of the subject property were designated as S1-S2a-S3a-S4.

Photograph 1. Mid- and Upper-Slope of Eroded Slope. Upper eroded slope is indicated with yellow dashed line. Note the side slopes of this area are approximately ¾ h:1 v. Photo facing north, taken July 18, 2023.

Photograph 2. Lower Slope of Eroded Slope. Boundary between mid- and lower-slope indicated with orange dashed line. Note the side slopes of this area are approximately ¾ h:1 v. Photo facing north, taken July 18, 2023.

Opportunities to address the erosion as identified above were explored in the CEMS. It was determined that vegetating the area, to mitigate the erosion of soils was the best option that minimized impacts to the valleyland. This recommendation continues to be applicable, and a CH permit will be required for this work pursuant to O. Reg. 41/24.

2.2.5 Human-Made Hazards

As discussed in **Section 1.4.6** above, Section 5.3 of the PPS states that:

> *Sites with contaminants in land or water shall be assessed and remediated as necessary prior to any activity on the site associated with the proposed use such that there will be no adverse effects.*

Soil and groundwater quality assessments prior to remediation identified petroleum hydrocarbons (PHCs), metals (mainly hexavalent chromium), cadmium, lead, and inorganics (electrical conductivity [EC] and sodium adsorption ratio [SAR]) as primary contaminants. The site also contained a landfill with construction debris, oily mill scale, and soil.

Environmental Constraints and RNHS

Figure 5

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Watercourse (MNRF 2024)
- Regulatory Floodplain (CH 2023)
- Top of Slope (Staked by CH - July 16, 2021) confirmed to be stable by DS Consultants
- Predicted Long Term Stable Top of Slope (DS Consultants - Jan 2023)
- Stable Top of Slope + 15 m
- Woodland Limit (Staked by Region of Halton - Nov 22, 2021) and Restoration Planting Limit
- Post-Remediation Woodland Buffer (15 m)
- Offsite Woodland Limit (Orthoimagery)
- Offsite Woodland Preliminary Buffer (15 m)
- Milton Wetland Complex Limit (Staked by CH - July 16, 2021)
- Milton Wetland Complex Limit + 30 m Regulated Area
- Wetland Restoration Area
- Wetland + 15 m Setback and Buffer
- RNHS Limit
- CH Regulated Allowance

The RNHS contains the following components:
- Key Features, such as:
  - Habitat for Endangered and Threatened Species
  - Significant Wetlands
  - Significant Woodlands (Existing and Restored)
  - Significant Valleylands
  - Significant Wildlife Habitat (Existing and Restored)
  - Fish Habitat
- Linkages
- Regulated Watercourse
- Non-Significant Wetlands (Restored)
- Buffers
- Regulated Floodplains

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Remediation involved excavation and off-site disposal of contaminated soil, followed by chemical testing to ensure remaining soil met standards. Groundwater contamination, though not a hazard to human health, was treated using a pump and treat system.

The final limits of remedial excavation within the RNHS are shown in **Figure 2**.

Past environmental investigations revealed metal-based contaminants exceeding standards in Sixteen Mile Creek's sediment. A Risk Assessment, in accordance with O. Reg. 153/04 (as amended), identified potential exposure pathways for aquatic life, with nickel and zinc posing risks. However, DS Consultants recommended against dredging due to potential environmental harm. Alternatives considered included physical capping, direct removal, and a no-action approach. DS Consultants recommended the no-action alternative to avoid significant disruption to the ecosystem. The province approved the Risk Assessment in 2025 (P. Fioravanti, pers. comm., 4 Feb. 2026).

Subsequent to the CEMS, the RSC and Risk Assessment processes have been implemented to address contamination on the subject property in compliance with provincial standards. To date, all soil and groundwater contamination has been remediated on the subject property within the tableland RNHS (as per RSC No. B-403-6303613911). Outside of the NHS, small areas of contaminated soil were remediated in spring 2025 (R. Fioravanti, pers. comm., 20 Nov. 2025), while the remediation of small plumes of contaminated groundwater is anticipated to be complete by Q1 2027. Although groundwater treatment will continue, the human risk of contaminated groundwater is mitigated by the implementation of risk management measures, which are limited to a restriction on the installation of drinking water wells on the property (P. Fioravanti, pers. comm., 26 Feb. 2025).

2.2.6 Surface and Groundwater Features

Section 4.2.2 of the PPS notes that:

> *Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches*.

Sensitive surface water features and groundwater features are defined by the PPS as “features that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants”. The Halton-Hamilton Source Protection Plan (2022) does not identify this reach of Sixteen Mile Creek as a sensitive water feature nor is it within an area of sensitive groundwater features.

The subject property was within the study area for the Sixteen Mile Creek Areas 2 and 7 Subwatershed Study (SWS), prepared by Philips Planning and Engineering Limited (2000). There are a few characterizations that were made with respect to water resources on the subject property:

- The Sixteen Mile Creek, flowing to the west of the subject property, was identified as a Perennial Stream with Natural Channel Form in Figure 10 of the SWS; and
- Fish sampling stations 2A8 (described as from Bronte Road bridge to 50m downstream) and 2A7 (immediately downstream of footbridge adjacent to Mill Pond) are shown in Figure 11 of the SWS. The fish species recorded in the SWS are consistent with recent CH records.

2.2.6.1 Surface Water Features

The surface water features in the valley system (i.e., riparian wetland) are assumed to be maintained primarily by flows from the creek and upstream catchment area. As noted in the CEMS, the upstream catchment area to the riparian wetland is 7,969 ha at Bronte Street North.

As a result of the remediation works, overland flow from the portion of the subject property outside the NHS is now directed to an ESC pond (Urbantech 2026). As discussed in **Section 2.1.4**, a stormwater outlet was decommissioned as part of the demolition works and no longer contributes stormwater into the valley of Sixteen Mile Creek. No indicators of groundwater discharge were observed along the slope at the west limit of the subject property, suggesting little to no groundwater input. As the remediation works were not anticipated to impact surface flows in the long-term and will address the presence of pollutants, Sixteen Mile Creek and the riparian wetland are expected to benefit from the site remediation works through the removal of contaminants in nearby soils and groundwater and no negative impacts are anticipated.

2.2.6.2 Groundwater Features

The study area is fully serviced by municipal water supply. No short-term or long-term impacts on private water wells are anticipated from the proposed dewatering activities to treat the contaminated groundwater.

The Region has previously confirmed that the subject property is not located within a wellhead protection area, nor is it located within a highly vulnerable aquifer.

No seeps or springs were identified within the study area.

2.2.7 Anthropogenic Features

Near the toe of the localized area of slope erosion (see **Photograph 2** above) there is a concrete enclosure, that is not a well, which houses a small compression chamber with a gas pressure valve. The structure does not appear to be connected in any apparent way (Beacon *et al*. 2023).

Other anthropogenic surface debris, including old tents, garbage and rubble, were observed in the Cultural Woodland community (ELC 2.0). Such debris was removed as part of restoration and enhancement works in the NHS.

2.3 Evaluation of Significant Natural Features

2.3.1 Significant Habitat of Endangered or Threatened Species

Significant habitat for endangered and threatened species is recognized as a Key Feature within the RNHS. ROP Policy 118(2)(a) allows development or site alteration within such habitats in accordance with Provincial and Federal regulations. Ecological surveys confirmed that the woodland on the subject property supports habitat for endangered bat species. The pre-remediation limit of this habitat corresponded with the staked woodland dripline.

As documented in the CEMS, prior to remediation activities in habitat of endangered species, Neatt qualified for an exemption of the ESA. As soil contamination was identified within the habitat, it met the definition of a "Threat to Health and Safety, Not Imminent" under section 23.18 of O. Reg. 242/08. As such, qualification for this exemption involved providing notice to MECP prior to tree removal, implementing a mitigation plan that included reasonable steps to minimize adverse effects on bat species and an appropriate process for reporting observations of endangered species, along with training to contractors undertaking the works in the habitat area.

Although the equivalent woodland area was restored as described in **Section 5.4.2**, section 23.18 of O. Reg. 242/08 does not require restoration of endangered species habitat; therefore, until the tree plantings grow large enough, the remaining bat habitat is in the woodland communities outside the limits of remedial excavation.

Work within bat habitat related to the proposed SWM outlet and pipe is anticipated to require consultation with MECP or a registration to be in conformance with the ESA or SCA, whichever is in force at the time of the work.

2.3.2 Significant and Non-Significant Wetlands

There are no PSWs on or adjacent to the subject property. The Milton Wetland Complex associated with the Sixteen Mile Creek floodplain has been evaluated by MNR; however, it is not provincially significant.

The following definition of significance, from the ROP also needs to be considered for this study:

1. *For lands within the Greenbelt Plan Area but outside the Niagara Escarpment Area, Provincially Significant Wetlands and wetlands as defined in the Greenbelt Plan;*
2. *For lands within the Regional Natural Heritage System but outside the Greenbelt Plan Area, Provincially Significant Wetlands and wetlands that make an important ecological contribution to the Regional Natural Heritage System; and*
3. *Outside the Regional Natural Heritage System, Provincially Significant Wetlands.*

Although the wetlands associated the with Milton Wetland Complex within the study area are not PSW, they do meet the ROP definition of significance and would be considered Regionally significant. Based on the definition above, these wetlands are significant because they are either within the Urban River Valley designation of the Greenbelt Plan and publicly-owned and/or they make an important ecological contribution to the RNHS. Regionally significant wetland units include ELC Units 7.3, 7.5, 7.6, 7.7, and 9.1 in **Figure 3.**

The small wetland that was associated with the former tailings pond (ELC Units 5.1, 5.2, and 9.0) did not provide an important ecological contribution to the RNHS, as it was a contaminated, anthropogenic feature, and very small in area; therefore, it would not meet the definition of a significant wetland under the ROP. This feature instead was considered a "wetland other than those considered significant under Section 115.3(1)b)" as per ROP Policy 115.3(6), which, rather than being a Key Feature, was a component of the RNHS.

As noted above, the small non-significant wetland was reconfigured and restored. The ecological contribution of the restored wetland to the RNHS is being evaluated through monitoring, as discussed in **Section 6.2**.

2.3.3 Significant Woodlands

The ROP and MOP include definitions of woodlands and significant woodlands. A significant woodland is considered a woodland that is 0.5 ha or larger determined through a Watershed Plan, a SWS or a site-specific Environmental Impact Assessment to meet one or more of the following criteria:

- The woodland contains forest patches over 99 years old;
- The patch size of the woodland is 2 ha or larger if it is located in the Urban Area, or 4 ha or larger if it located outside the Urban Area but below the Escarpment Brow, or 10 ha or larger if it located outside the Urban Area but above the Escarpment Brow;
- The woodland has an interior core area of 4 ha or larger, measured 100 m from the edge; or
- The woodland is wholly or partially within 50 m of a major creek or certain headwater creek or within 150 m of the Escarpment brow.

The following ELC units met the ROP and MOP definition of a significant woodland:

- ELC Unit 2.0 — The tableland-associated cultural woodland community that is 2.4 ha in area. Note that a portion of this community was removed and restored to remediate contaminated soils;
- ELC Unit 6.0 — The slope-associated deciduous forest community that is 1.2 ha in area and within 50 m of the regulated watercourse of Sixteen Mile Creek; and
- ELC Unit 10.0 — A Sugar Maple forest community outside of the subject property, divided by the CPR corridor, that is approximately 5.2 ha in area.

The limits of the significant woodland on the subject property were staked with Region staff in 2021 and the area was restored with a regularized limit as agreed to in the CEMS (**Figure 3**).

Areas of the woodland that were affected by soil remediation works and were restored through re-vegetation. The pre-remediation woodland (ELC Unit 2.0) is/was early successional and established following abandonment of farming in the 1960's. It is dominated by Black Walnut and Ash, which are not reflective of the original composition of forest communities in this area. There is however a small patch of remnant forest on the subject property to the south (ELC Unit 10) which has been classified as a Dry–Fresh Sugar Maple Forest (FOD5) and represents a more appropriate target community for restoration. The intention of the Restoration Plan is to direct the ecological trajectory of the woodland towards this target community.

Although the restoration plantings are recent, having been completed in November 2024, the intention through the CEMS was to treat the newly planted area as a future significant woodland by providing a 15 m buffer to the new woodland limit. A 15 m preliminary buffer was similarly applied to the portion of significant woodland on the Town-owned former rail spur line to be consistent with the approach applied to the woodland to the west (i.e., within the subject property).

2.3.4 Significant Valleylands

Significant valleylands are also Key Features of the RNHS. The ROP and the MOP do not identify significant valleylands and, as such, it is the responsibility of individual proponents to evaluate for significance. Table 8-1 in the *Natural Heritage Reference Manual* (MNR 2010) provides recommended criteria for evaluating significant valleylands, including criteria relating to landform functions and attributes, ecological features and restored ecological functions. The Sixteen Mile Creek valleyland adjacent to the subject property meets many of the criteria in this table and is therefore considered significant valleyland and a Key Feature of the RNHS.

For the purpose of defining the constraint limits, the greater of the staked top of slope or LTSTOS plus the 15 m setback has been used to define the limits of the significant valleyland (**Figure 5**).

2.3.5 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) is also a Key Feature of the RNHS (**Figure 5**)**.** Based on the *Significant Wildlife Habitat Criteria for Ecoregion 7E* (MNRF 2015), the woodland habitat and former tailings pond/wetland associated with the subject property potentially meet the criteria for several habitat types. The full SWH assessment is provided in the approved CEMS.

- **Cultural Woodland (ELC Unit 2.0)**:
  - Amphibian Breeding Habitat (Woodland); and
  - Possible Woodland Raptor Nesting (Cooper's Hawk);
- **Former Tailings Pond/Wetland (ELC Units 5.1, 5.2, 9.0)**:
  - Amphibian Breeding Habitat (Woodland);
  - Possible Special Concern and Rare Wildlife Species (Eastern Wood-Pewee); and
  - Terrestrial Crayfish;
- **Milton Wetland Complex (ELC Unit 7.3)**:
  - Amphibian Breeding Habitat (Woodland);
- **Sixteen Mile Creek Bankfull Width (ELC Unit 8):**
  - Possible Special Concern and Rare Wildlife Species (Northern Sunfish) (see **Section 2.3.7**).

Additionally, potential SWH identified on adjacent lands, which would require further investigation to confirm (not part of this study), include:

- **Milton Wetland Complex (ELC Unit 7.3)**:
  - Possible Colonially-Nesting Bird Breeding (Tree/Shrubs);
- **Deciduous Forest (ELC Unit 10.0)**:
  - Possible Bat Maternity Colonies.

As noted in **Sections 2.2.3.3** and **2.2.3.8** above, the former tailings pond / wetland and portion of the woodland (ELC Unit 2.0) was removed as a result of the site remediation and a rescue was conducted for Terrestrial Crayfish and amphibians under a license and authorization from MNRF prior to remediation. These animals were relocated to areas shown in **Figure 4**.

The potential for the restored wetland to serve as Amphibian Breeding Habitat (Woodland) or Terrestrial Crayfish SWH is being evaluated through monitoring, as discussed in **Section 6.2**.

It should be noted that the Milton Wetland Complex continues to qualify as SWH for Amphibian Breeding Habitat (Woodland) despite the remediation of the tailings pond. In 2022, amphibians were documented calling throughout the wetland within the valley, as far north as Bronte Street North, and as far south as the CPR rail line.

2.3.6 Significant Areas of Natural and Scientific Interest

There are no provincially significant ANSI proximal to the subject property. The closest ANSI is the Provincially Significant Milton Heights Earth Science ANSI which is located more than 2 km to the west.

2.3.7 Fish Habitat

Fish habitat is present in Sixteen Mile Creek and limited to the bankfull width of the watercourse.

Sixteen Mile Creek on and adjacent to the subject property is mapped as critical habitat of Northern Sunfish (*Lepomis peltastes*), which is designated Special Concern under SARA. Northern Sunfish is sensitive to declining water quality, especially due to increases in chloride concentration from de-icing salts and increased siltation (COSEWIC 2016). SARA does not impose prohibitions on habitat of Special Concern species, or identify the area of critical habitat, beyond such provisions of the *Fisheries Act*.

2.3.8 Flooding and Erosion Hazards

Flooding hazards are contained within the confined valley system associated with Sixteen Mile Creek and do not extend onto the tableland portion of the subject property, as shown in **Figure 5**. Erosion hazards have been determined through the completion of an LTSTOS assessment (DS Consultants 2023). This assessment determined that, for the majority of the subject property, the physical top of bank as staked by CH is equivalent to the LTSTOS. The one exception is in the area of localized erosion associated with the previous storm sewer outlet.

2.3.9 Surface and Groundwater Resources

The Sixteen Mile Creek and associated riparian wetland represent the surface water resources on, and immediately adjacent to, the subject property and are completely contained within the Sixteen Mile Creek valley. Neither the watercourse nor the groundwater in this area were identified as sensitive water resources within the Halton-Hamilton Source Protection Plan.

3. Natural Heritage System

The PPS describes natural heritage systems as follows:

> *A system made up of natural heritage features and areas, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems.*

The MOP states that the natural heritage system consists of the RNHS and the Greenbelt NHS.

The RNHS was refined through the approval of the CEMS. The RNHS includes Key Features and components (as per ROP policy 115.3) based on field studies that included delineating these areas in consultation with the agencies, as well as natural hazards and ecological buffers.

3.1 Key Features

Based on the evaluation of significance in the CEMS and **Section 2.3** above, the following Key Features have been identified within the study area:

- Habitat for Endangered or Threatened Species;
- Regionally Significant Wetlands;
- Significant Woodlands;
- Significant Valleylands;
- Significant Wildlife Habitat; and
- Fish Habitat.

3.2 Enhancement to Key Features

Enhancements to Key Features are another component of the RNHS as defined in ROP policy 115.3.

ROP policy 229.1.1 defines Enhancements to Key Features as follows:

> *Means ecologically supporting areas adjacent to Key Features and/or measures internal to the Key Features that increase the ecological resilience and function of individual Key Features or groups of Key Features.*

For the purpose of this report, this RNHS component is further addressed in **Section 5.**

3.3 Linkages

Linkages are another component of the RNHS as defined in ROP policy 115.3.

The Sixteen Mile Creek valleylands are considered to represent significant valleylands and recognized as a regional scale linkage. This linkage is defined by the valleyland corridor which has been included within the RNHS.

3.4 Regulated or Linkage Watercourses

Watercourses that are within a Conservation Authority Regulation Limit or that provide a linkage to a wetland, or a significant woodland are another component of the RNHS as defined in ROP policy 115.3.

The Sixteen Mile Creek is the only regulated watercourse within the study area and is contained within the RNHS.

3.5 Non-Significant Wetlands

The small wetland associated with the former tailings pond (ELC Units 5.1, 5.2, and 9.0) was considered non-significant under ROP Policy 115.3(6) because it did not provide an important ecological contribution to the RNHS as it was contaminated. The wetland was recreated to the same size as the staked wetland, slightly reconfigured and positioned closer to the woodland.

3.6 Buffers & Setbacks

ROP policies require that buffer widths be determined through site-specific study, taking into consideration the significance and sensitivity of the Key Features and NHS components, as well as the potential impact(s) of adjacent land use.

The CEMS demonstrated, to the satisfaction of the Region, Town, and CH, that a 15 m buffer combined —with fencing at the RNHS limit to prevent future encroachment and no trail within the RNHS—was sufficient to protect the RNHS from the future adjacent development. This approach was consistent with the *Framework for Regional Natural Heritage System Buffer Width Refinements for Area-Specific Planning* (Region of Halton, 2017) and CH's land use planning policies at that time. Any future trail will be required to be located outside of the buffer block, in accordance with the CEMS. As such, the buffer design principles for the proposed development—including the 15 m buffer width—were accepted as part of the approved CEMS.

3.7 Regional Natural Heritage System (RNHS)

Based on the above, the RNHS includes the following, as shown in **Figure 5**:

- Key Features:
    - Regionally Significant Wetland within the Sixteen Mile Creek valley based on limit staked by CH and property line;
    - Significant Woodland based on dripline staked by the Region and restored woodland limit;
    - Significant Valleyland based on limits of the LTSTOS which is equal to or greater than the physical top of bank as staked by CH;
    - Fish Habitat within the Sixteen Mile Creek;
    - Significant Habitat of Endangered and Threatened Species:

        - Habitat for Endangered Bat Species;
    - Significant Wildlife Habitat:
        - Terrestrial Crayfish;
- Other Components:
    - Wetland other than those considered significant — re-created wetland in area proximal to the former contaminated wetland plus a 15 m buffer, which was in-keeping with CH policy at the time of CEMS approval;
    - Buffers — 15 m buffer adjacent to the Key Features, which is coincident with 15 m LTSTOS setback pursuant to CH policy;
    - Linkages — Sixteen Mile Creek valleylands — corresponds with Significant Valleyland;
    - Watercourses — Sixteen Mile Creek; and
    - Regulatory flood plain — Regional Storm flood plain associated with Sixteen Mile Creek.

4. Proposed Development

In accordance with the CEMS, the proposed DPOS consists of blocks for high density residential development with public streets, parkland/open space, a SWM pond and a Natural Heritage Area and associated Buffer Block, as described in **Section 1** above, and shown in **Figure 6**. It establishes five new public streets, 15 residential blocks across two phases of development, 1.29 ha of park blocks, a 0.9 ha SWM facility and 5.35 ha of land within the NHS including associated buffers.

Site plans by Core Architects (2026) propose underground parking in mid-rise Blocks 01, 03, 05, and 06. Each parking level is 3 m in height, with the first underground level (P1) being less than 3 m below grade. Parking will extend as deep as P3 (i.e., three levels of underground parking). Where parking will extend to P3 or deeper, water-tight underground (i.e., bath tubbing) is recommended (DS Consultants 2026a). Parking levels in each block are as follows:

- Block 01 — P1, P2;
- Block 03 — P1, P2;
- Block 05 — P1, P2, P3; and
- Block 06 — P1, P2, P3.

The location of the proposed SWM facility follows from the CEMS, as this location was assumed in the buffer refinement of the CEMS. At the time of the CEMS, the outlet for this SWM facility was intended to be the existing swale within the former rail spur line at the eastern limit of the subject property. As such, no formal evaluation for the stormwater outlet was required as part of the CEMS. As noted earlier, detailed grading and discussions with agency staff have led to a hybrid approach to the SWM pond outlet through piping and modifications to the existing swale. **Section 5** provides an overview of the stormwater outlet locations that have been assessed and the preferred alternative**.**

The FSR (Urbantech 2026) summarizes the following SWM targets and design criteria:

- SWM pond with 3 m deep permanent pool with a bottom draw outlet and reverse outlet pipe;

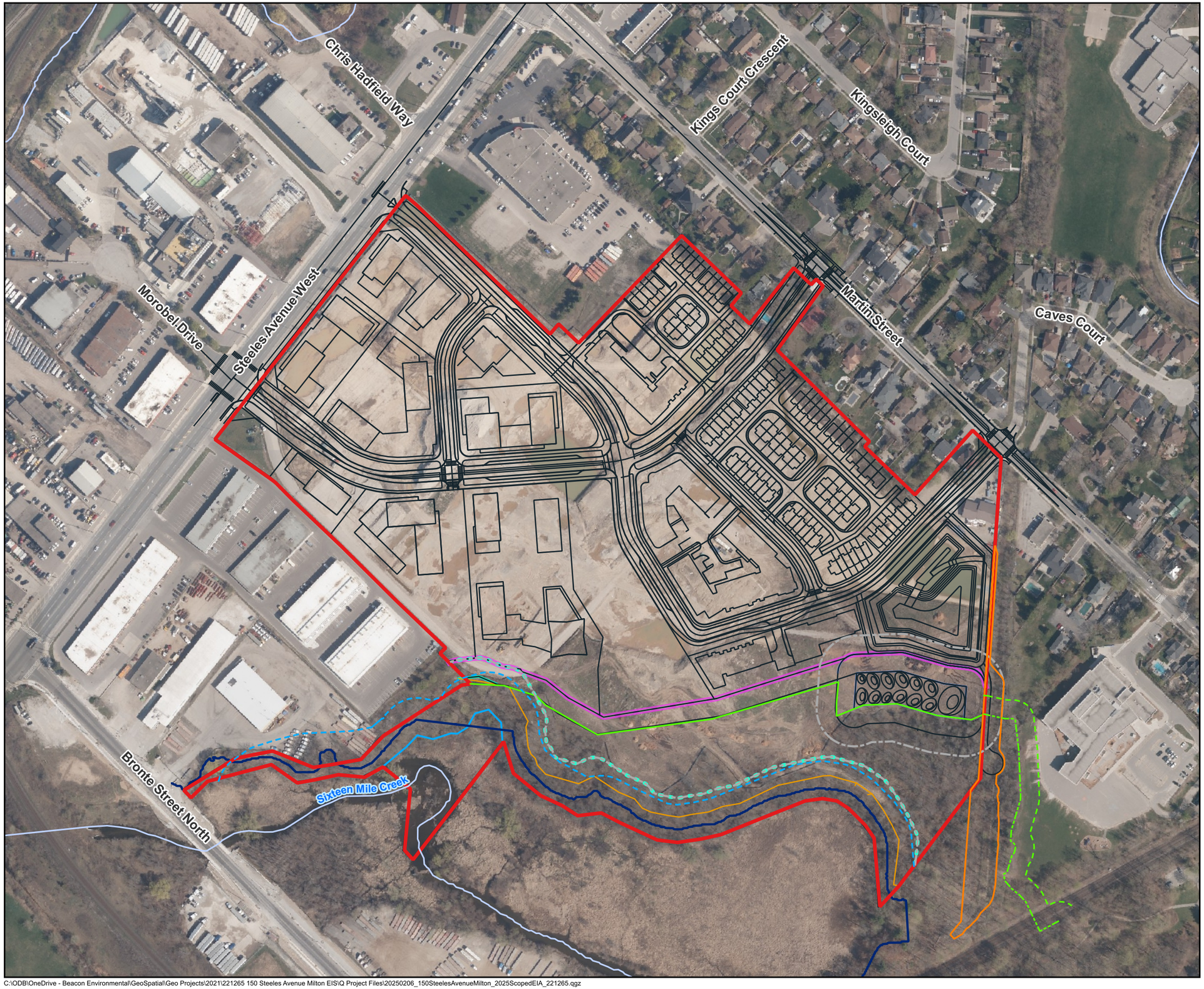
- Provide extended detention drawdown volume for the 25 mm rainfall event based on the erosion threshold target flow rate and a minimum drawdown time within the SWM facility within a range of 24–48 hours;
- Ensure adequate stormwater quality treatment of runoff is provided. Town requires Level 1 Protection (Enhanced – 80% Average Annual Removal of Total Suspended Solids [TSS]) for all developments;
- Maintain water balance to infiltrate the 90th percentile storm event (27 mm) as required by the Town's Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA);
- Provide safe overland flow conveyance of the 100-year event; and
- Target release rates for post-development are the pre-development controls for the 2-year to 100-year event. Control for the Regional Storm was determined to be not required (Urbantech 2026).

As described in the FSR (Urbantech 2026), the 90th percentile storm event (i.e., first 27 mm) runoff from the proposed development must be controlled (i.e., be retained onsite).

In accordance with CLI-ECA, a post- to pre-development water balance is required on site (Urbantech 2026). The *Site Water Balance Analysis* by DS Consultants (2026b) indicates that, without mitigation, development would result in an annual infiltration deficit of 10,372 m^3. The FSR proposes to mitigate and match (DS Consultants 2026b) this deficit through LIDs such as downspout disconnection, additional topsoil, rear-yard infiltration trenches, bioretention, permeable pavement, grassed swales, and/or water harvesting and re-use (Urbantech 2026). Further details on the type and placement of LIDs are provided in the FSR (Urbantech 2026).

Catchment areas contributing to the Milton Wetland Complex are proposed to remain generally consistent between pre- and post-development conditions, with drainage to the Sixteen Mile Creek valley being largely maintained (Urbantech 2026). As noted on Drawing STM-5 (Urbantech 2026), the Milton Wetland Complex currently receives 8,845 ha of upstream off-site drainage and 15 ha from the subject property (excluding the NHS). An additional 0.55 ha from the subject property is proposed to be added, with a further 2.56 ha if the Honda lands are developed in the future. Post-development, catchment areas contributing to the NHS will remain generally unchanged; however, those associated with the subject property will be controlled by the SWM pond before ultimately draining to the Sixteen Mile Creek valley (Urbantech 2026).

With respect to the proposed land uses adjacent to the NHS, the CEMS, when identifying the required buffer widths, assumed a SWM pond along the southern limit of the NHS and high density residential along the remaining length of the NHS. Based on the proposed DPOS (**Figure 6**), the SWM pond remains in the same location as assumed in the CEMS; however, the SWM block has been reduced in area and an additional high density residential block was added. The SWM outlet remains similar to that contemplated in the CEMS. There is no trail proposed within the NHS and a fence is still recommended along the NHS limit.



Proposed Development	Figure 6

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Watercourse (MNRF 2024)
- Regulatory Floodplain (CH 2023)
- Top of Slope (Staked by CH - July 16, 2021) confirmed to be stable by DS Consultants
- Predicted Long Term Stable Top of Slope (DS Consultants - Jan 2023)
- Stable Top of Slope + 15 m
- Woodland Limit (Staked by Region of Halton - Nov 22, 2021) and Restoration Planting Limit
- Post-Remediation Woodland Buffer (15 m)
- Offsite Woodland Limit (Orthoimagery)
- Offsite Woodland Preliminary Buffer (15 m)
- Milton Wetland Complex Limit (Staked by CH - July 16, 2021)
- Milton Wetland Complex Limit + 30 m Regulated Area
- Wetland Restoration Area
- Wetland + 15 m Setback and Buffer
- RNHS Limit
- CH Regulated Allowance
- Estimated Disturbance to Facilitate SWM (Urbantech 2026)
- Proposed Development (Core 2026, Urbantech 2026)

The RNHS contains the following components:
- Key Features, such as:
  - Habitat for Endangered and Threatened Species
  - Significant Wetlands
  - Significant Woodlands (Existing and Restored)
  - Significant Valleylands
  - Significant Wildlife Habitat (Existing and Restored)
  - Fish Habitat
- Linkages
- Regulated Watercourse
- Non-Significant Wetlands (Restored)
- Buffers
- Regulated Floodplains

BEACON ENVIRONMENTAL

Project: 221265
Last Revised: February 2026

Client: Neatt Communities

Prepared by: BD
Checked by: JS

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5. Impact Assessment and Recommended Mitigation

As noted throughout this EIA, the subject property has undergone extensive remediation to the benefit of human and environmental health. In order to assess the cumulative impact of the development on the NHS, a fulsome summary of potential impacts of the proposed development on the NHS and recommendations for mitigation as well as recent past impacts of soil remediation works are provided in **Section 5.2**. To inform the overall assessment of impacts, an alternatives assessment was undertaken for the proposed SWM outlet.

5.1 Stormwater Management Outlet Alternatives Assessment

The impact assessment presented **Section 5.2** was informed by an evaluation of alternative locations that were considered for the SWM outlet as required under ROP Policy 117.1(9) to permit infrastructure within the NHS. Two alternatives were considered:

1. Outlet along the bottom of the valley slope, via a drop structure, to Sixteen Mile Creek. Two potential outlet locations were considered under this alternative; and
2. Outlet to an existing swale within a former rail spur line now owned by the Town. Three potential options were considered under this alternative.

The alternative outlet locations and conceptual designs are illustrated in **Appendix D**.

The impact assessment for both alternatives is premised on the Town's requirement to undertake annual inspections of their SWM facilities which includes a visual inspection and, if the inspection identifies maintenance work is required, access for the work to be undertaken must be provided. The Town has advised (R. Ellerman, pers. comm., 7 Nov 2025) that it is their expectation that a 4-m wide stone dust access route is provided to the outlet with a turning circle to allow for vehicular movement.

5.1.1 Alternative 1 — Outlet along the Bottom of the Valley Slope to Sixteen Mile Creek

The alternative that was considered in the previous EIA (April 2025) involved out-letting to the wetland at the base of the Sixteen Mile Creek valley with a headwall constructed at the bottom of the valley slope. As a result of the valley depth, CH Policy 2.44(j) requires the use of a drop shaft and tunnel to construct the outlet. Based on this requirement, Alternative 1 was evaluated as an outlet to the valley utilizing horizontal boring (approximately 2 m in diameter). All equipment for the construction of the headwall would access the valley through the 2 m pipe; therefore, the construction impact would be limited to the footprint of the outlet and associated wing walls.

Two potential outlet location were considered under this alternative:

A. An outlet at the shortest distance between the proposed SWM pond and the toe of valley slope. This alternative results in the shortest length of pipe and lowest cost of horizontal boring. Construction of the headwall would require the removal of approximately seven (7) trees, one (1) of which meet the criteria to be considered a bat habitat tree (i.e., snag); and

B. An outlet at a longer distance between the SWM pond and the valley slope which would result in a longer length of pipe and a higher cost of horizontal boring, as compared to Outlet Location 1A, but would still provide sufficient grade differential to mitigate raising the existing grades on the tableland. With this outlet location, construction of the headwall would require no snags or trees greater than 15 cm DBH to be removed (**Photograph 3**).

Photograph 3. General area of proposed stormwater outlet (Alternative 1, Location B) January 29, 2025 (west-facing view)

Both outlet locations require a headwall with wingwalls and erosion protection at the edge of the wetland. Minor encroachment into the wetland would be required, resulting in a small loss of wetland soil and vegetation. The impact to the wetland for each outlet location is comparable.

With the impact to the wetland area being approximately equal, the previous scoped EIA (Beacon 2025) recommended that Alternative 1, Location B was preferred because the outlet would be located in an area that required less tree and snag removals compared to Location A. Alternative 1, Location B is illustrated in **Appendix D** (**Drawing OUT-0**).

Following submission of the previous EIA, the Town expressed an interest in exploring a stormwater outlet alternative that did not involve an outlet to the wetland in the valley. As previously noted, the Town also advised that a 4-m wide maintenance access road is required to be provided to the headwall, suitable for access by a truck, in order to undertake annual inspections. The requirement for this access route was not known at the time of the previous EIA submission and, as a result, the impact of this access route was not considered in the previous scoped EIA.

In order to access an outlet in the valley via a 4 m wide access road, there would be a much larger impact on the NHS than previously anticipated. To avoid construction of an access road along the steep portions of the valley slope, the access road would have to take a much longer route, extending south from the SWM Pond block along the former rail spur line, then down an existing draw feature, then through the wetland. This would pass through approximately 300 m of woodland — down the abandoned rail spur line and valley draw — and approximately 100 m of wetland to connect back to the headwall. Assuming disturbance along the width of the 4 m wide access route plus 3 m either side, approximately 0.34 ha of woodland and 0.11 ha of wetland would be impacted (**Drawing OUT-0, Appendix D**). This route would also require tree removals along the former rail spur line, as well as removals from the FOD5 community.

5.1.2 Alterative 2 — Outlet to an Existing Swale within Former Rail Spur Line

As noted earlier, the CEMS assumed that the future SWM pond would outlet to an existing swale along the former rail spur line at the eastern property limit (**Photograph 4**). However, through the detailed SWM pond design associated with the DPOS, it was determined that the grade differential to the existing swale was insufficient to accommodate the depth of the pond and associated gravity outlet. In order for the swale to be utilized for the SWM pond outlet, without changing the existing grades of the swale, the entire developed area would need to be raised by approximately 2 – 3 m. Although this option would result in no woodland or wetland removals, it was deemed to be unfeasible as the resultant grades would not be in-keeping with the adjacent, existing residential development along Martin Street.

Photograph 4. Former Rail Spur Line Populated with European Buckthorn (November 13, 2025)

During a meeting between the Study Team and the Town on November 5, 2025, Town staff indicated that they were willing to consider grading along the length of the swale in order to avoid a direct outlet to the valley and wetland. They also requested that the EIA be updated to include this option in the evaluation of alternatives. This alternative would involve stormwater being conveyed through the former rail spur line, with the necessary grading/deepening and infrastructure within the Town-owned lands to achieve positive drainage. Under this scenario, stormwater would be conveyed from the SWM pond south through an open, deepened swale and/or storm sewer along the former rail spur line, outletting to a natural draw in the valley wall near the CPR, approximately 200 m south of the SWM pond, before ultimately flowing towards Milton Wetland Complex. This alternative would require tree removal, which would be mitigated by ecological restoration (e.g., planting of native trees and shrubs). Three design options were considered:

A. Full piping: An outlet pipe extending from the SWM pond, down the former rail spur line and terminating at the natural draw (**Drawing OUT-1, Appendix D**). The headwall would be located approximately 60 m from the wetland edge, with the stormwater flowing through a natural valley draw within a forested area prior to reaching the wetland and creek. This overland flow could provide the opportunity for infiltration and additional polishing to improve water quality of treated stormwater and reduction in flow velocities prior to reaching the wetland. A 4-m wide access road for maintenance vehicles, with a turnaround, would be required to the headwall. This option would require grading/filling (to provide sufficient cover above the pipe) and permanent infrastructure (pipe and access road) within the significant woodland. To accommodate the infrastructure, a minimum of approximately 0.39 ha of significant woodland would be impacted by tree removals and grading along the length of the pipe and access road, assuming an additional disturbance of 3 m. This impact would be mitigated by compensatory ecological restoration in the adjacent woodland communities that have been impacted by Beech Bark Disease and Emerald Ash Borer;
B. Graded open swale: An open swale from a headwall near the subject property limit that follows the alignment of the existing swale within the former rail spur line (**Drawing OUT-2, Appendix D**). Compared with Option 2A, there would be greater opportunity for potential infiltration and additional polishing to improve water quality of treated stormwater and reduction in flow velocities prior to reaching the wetland. This option eliminates the need for an access road beyond the SWM pond block as maintenance vehicles could access the headwall from the SWM pond access road. The bottom of the existing swale will need to be lowered approximately one metre below existing grades with side slopes graded to 3H:1V. To accommodate grading of the swale, a minimum of approximately 0.40 ha of significant woodland would be impacted by tree removal and grading along the length of the deepened swale, assuming an additional disturbance of 3 m. This would be mitigated by ecological restoration along the length of the deepened swale and potentially in adjacent woodland communities impacted by Beech Bark Disease and Emerald Ash Borer; and
C. Hybrid pipe and graded open swale: An outlet pipe extending from the SWM pond approximately 100 m along the former rail spur line, then terminating mid-way along the spur line at a headwall, outletting to a deepened swale in the remainder of the spur line (**Drawing OUT-3, Appendix D**). Compared with Option 2A, there would be greater opportunity for potential infiltration and additional polishing to improve water quality of treated stormwater and reduction in flow velocities prior to reaching the wetland; however, this option has less of this opportunity than Option 2B. As with Option 2A, a 4-m wide access road for maintenance vehicles, with a turnaround, would be required to the headwall. This option would require a combination of grading described in Options 2A and 2B; however, there would be less permanent infrastructure (pipe and access road) within the significant woodland than Option 2A. To accommodate the infrastructure and grading of the swale, a minimum of approximately 0.35 ha of significant woodland would be impacted by tree removal and grading, assuming an additional disturbance of 3 m. An estimated 83 trees will require removal from the NHS (**Figure 7**). This would be mitigated by ecological restoration along the length of the deepened swale and potentially in adjacent woodland communities impacted by Beech Bark Disease and Emerald Ash Borer.

5.1.3 Summary Comparison of Alternatives 1 and 2

Options 1A and 1B under Alternative 1 outlet directly to the wetland and require a headwall at the base of the valley wall near the edge of the wetland.

A headwall in this location would necessitate, a lengthy maintenance access road, which would result in a similar number of tree removals from the former rail spur line as the Alternative 2 options outlined above, as well as additional tree removal from the FOD5 community. Alternative 1 would also require the removal of approximately 0.11 ha of wetland to construct the maintenance access to the headwall structure.

For each option under Alternative 2, the end of the swale or pipe is approximately 65 m from the wetland edge; therefore, no disturbance would be required within the wetland or the 30 m wetland buffer. Based on the environmental impacts, Alternative 2 is preferred over Alternative 1.

Both Options 2B and 2C under Alternative 2 mitigate infrastructure within the NHS and both options incorporate a naturalized swale, which offers potential water quality benefits (infiltration, slowing treated stormwater, and additional polishing, prior to reaching the wetland); therefore, these options are preferred over Option 2A. Environmental impacts between Options 2B and 2C are similar; however, the provision of a maintenance path to the headwall location in Option 2C facilitates a future trail connection between the development and to the adjacent school block. Therefore, Option 2C of Alternative 2 is the preferred alternative.

Table 1 provides a comparison of the approximate impacts to the NHS resulting from the five options.

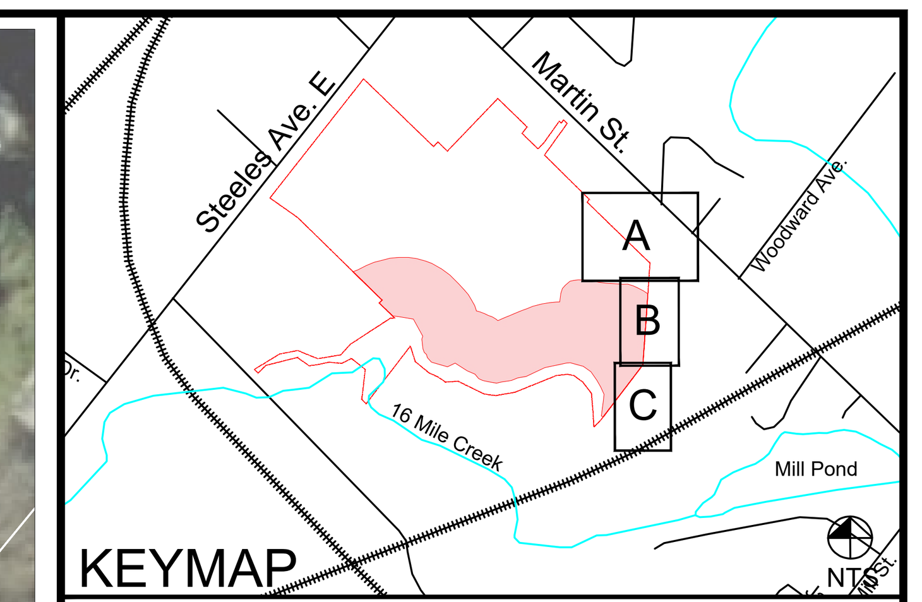
Table 1. Comparison of Stormwater Outlet Impacts to the NHS (Approximate)

Alternative/Option	Area of Key Features Impacted (ha)		No. of Tree Removals	No. of Snag Removals (incl. outside of NHS)	Infrastructure in the Key Feature
	Woodland	Wetland			
1A	0.34	0.11	87	18	Yes
1B	0.34	0.11	80	17	Yes
2A	0.39	0	97	17	Yes
2B	0.40	0	90	15	No
2C	0.35	0	83	15	Yes (mitigated)

Based on the above, Options 1A and 1B have the greatest impact to the NHS and are no longer considered the preferred approach for the stormwater outlet. Options 2A, 2B, and 2C all have similar impacts to the area of woodland that is impacted and the number of trees required for removal.

In addition to impacts to the NHS, consideration was given to which of the Options would provide access to the school property located south of the abandoned rail spur line. The Town has expressed interest in exploring the creation of a formal path from Martin Street to the school property. Options 2A and 2C provide an opportunity for this connection through the use of the access road as the trail connection. Option 2C provides the most viable connection opportunity as the turnaround location would provide a direct connection to the school property without the need for a pedestrian crossing structure over the existing swale.

As a result, Option 2C is recommended as the preferred alternative for the SWM outlet. Option 2C has been carried through into **Table 2** for the Impact Assessment and Mitigation.



LEGEND

- Tree Protection Fencing
- 1678 Tree Tag
- Tree Crown
- Tree Protection Zone
- Tree Location
- Potential Bat Habitat Tree (Snag) 1678
- Tree to be Removed

Note:
The grading limit on these plans is preliminary and is based on elevations derived from LIDAR data on lands owned by the Town of Milton. For the purpose of this impact assessment, the preliminary grading limit is assumed to represent the true grading limit. Such grading and tree impacts will be refined in detailed design. At that time, tree protection will be refined, including pruning prescriptions, to maximize preservation of trees.

Note: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
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5			
4			
3			
2			
1	SUBMISSION TO TOWN	2026/02/10	JS

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NORTH ARROW
NORTH

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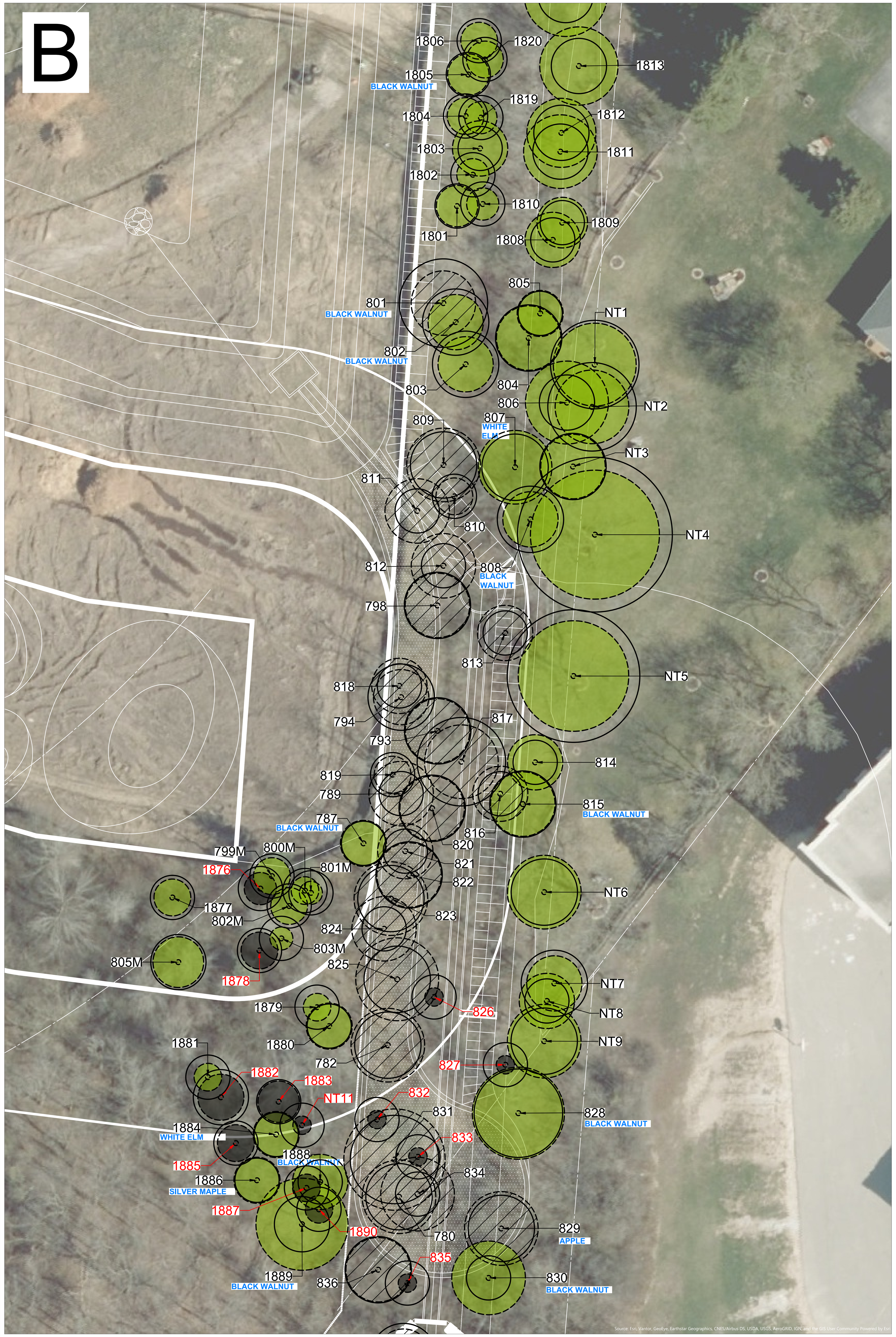
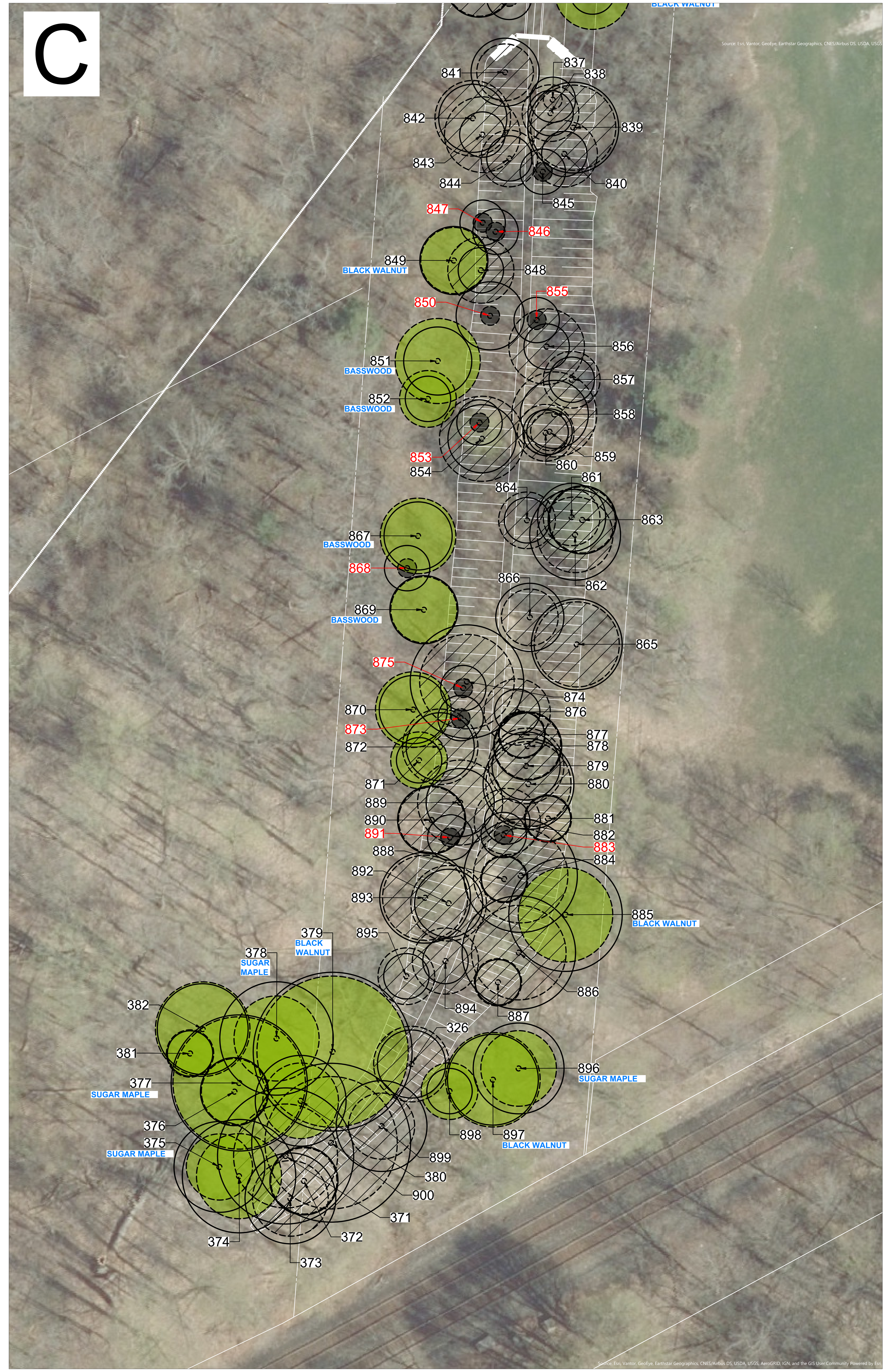
CLIENT
NEATT COMMUNITIES

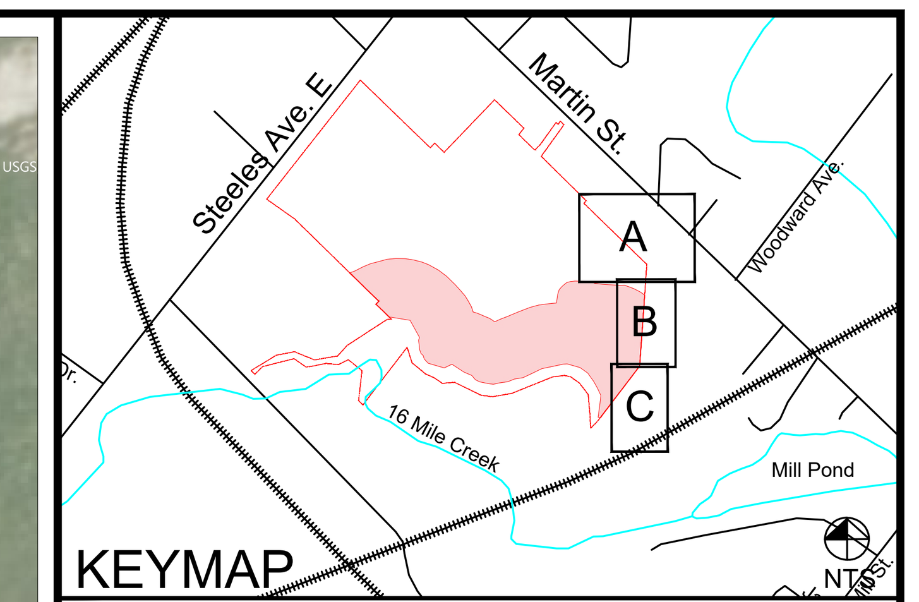
PROJECT
150 STEELES AVENUE EAST, MILTON

SHEET TITLE
PRELIMINARY TREE IMPACT ASSESSMENT STORMWATER INFRASTRUCTURE

DESIGN BY:	--	PROJECT Nº:	221265
DRAWN BY:	JA	FIGURE Nº:	7A
CHECKED BY:	JS		
DATE:	10 February 2026		







LEGEND

1678 Tree Tag

Tree Crown

Tree Protection Zone

Tree Location

Potential Bat Habitat Tree (Snag)

1678

Tree to be Removed

Note:
The grading limit on these plans is preliminary and is based on elevations derived from LIDAR data on lands owned by the Town of Milton. For the purpose of this impact assessment, the preliminary grading limit is assumed to represent the true grading limit. Such grading and tree impacts will be refined in detailed design. At that time, tree protection will be refined, including pruning prescriptions, to maximize preservation of trees.

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Nº	REVISIONS	DATE:	BY:
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1	SUBMISSION TO TOWN	2026/02/10	JS

SCALE

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NORTH ARROW

NORTH

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CLIENT

NEATT COMMUNITIES

PROJECT

150 STEELES AVENUE EAST, MILTON

SHEET TITLE

PRELIMINARY TREE IMPACT ASSESSMENT
STORMWATER INFRASTRUCTURE

DESIGN BY:	--	PROJECT Nº:	221265
DRAWN BY:	JA	FIGURE Nº:	7B
CHECKED BY:	JS		
DATE:	10 February 2026		

Tree No.	Scientific Name	Common Name	DBH (cm)	Crown Diameter (m)	Condition1	Comment	Ownership	TPZ Radius 2 (m)	Tree Preservation Recommendation
326	*Tilia americana*	Basswood	28	8	Good	Good vigour; Stem leaning towards the study area.	Subject Property	N/A	Remove Due to Development
371	*Acer saccharum*	Sugar Maple	57	11	Fair-Good	Vigorous growth in canopy; Calloused and partially opened wounds along stem; Good root flare; Large mature tree recommended for preservation.	Subject Property	N/A	Remove Due to Development
372	*Acer saccharum*	Sugar Maple	22	7	Good	Good vigour; Narrow crown.	Subject Property	N/A	Remove Due to Development
373	*Acer saccharum*	Sugar Maple	38	8	Fair-Good	Minor dieback and thinning; Narrow crown.	Subject Property	N/A	Remove Due to Development
374	*Acer saccharum*	Sugar Maple	45	9	Good	Good form and vigour; Good root flare.	Subject Property	N/A	Preserve
375	*Acer saccharum*	Sugar Maple	31	7	Good	Good form and vigour; Narrow crown.	Subject Property	N/A	Preserve
376	*Acer saccharum*	Sugar Maple	23	7	Good	Good form and vigour.	Subject Property	2.4	Preserve
377	*Acer saccharum*	Sugar Maple	60	14	Good	Good form and vigour; Full healthy crown; Large mature tree recommended for preservation; Good root flare.	Subject Property	3.6	Preserve
378	*Acer saccharum*	Sugar Maple	21, 44 (49)	9	Poor-Fair	Largest stem is almost dead, with one live branch; Smaller stem with vigorous growth; Stems fork near ground; Included bark.	Subject Property	3	Preserve
379	*Juglans nigra*	Black Walnut	67	16	Good	Good form and vigour; Full healthy crown; Notable large mature tree recommended for preservation.	Subject Property	N/A	Remove Due to Development
380	*Acer saccharum*	Sugar Maple	31	8	Fair-Good	Leader snapped off; Asymmetrical crown; Vigorous growth in canopy.	Subject Property	N/A	Preserve
381	*Acer saccharum*	Sugar Maple	18	5	Fair	Leader died; Narrow crown.	Subject Property	2.4	Preserve
382	*Acer saccharum*	Sugar Maple	39	10	Good	Good form and vigour; Full healthy crown.	Subject Property	3	Preserve
780	*Acer platanoides*	Norway Maple	16, 19 (25)	8	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
782	*Juglans nigra*	Black Walnut	22	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
787	*Juglans nigra*	Black Walnut	20	5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
789	*Juglans nigra*	Black Walnut	18	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
793	*Juglans nigra*	Black Walnut	22	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
794	*Juglans nigra*	Black Walnut	21	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
798	*Juglans nigra*	Black Walnut	24	7	Fair-Good	Grapevines smothering canopy; Vigorous growth.	Subject Property	N/A	Remove Due to Development
801	*Juglans nigra*	Black Walnut	31	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
802	*Juglans nigra*	Black Walnut	24	6	Good	Good form and vigour.	Subject Property	2.4	Preserve
803	*Juglans nigra*	Black Walnut	26	6	Good	Good form and vigour.	Subject Property	2.4	Preserve
804	*Juglans nigra*	Black Walnut	25	7	Good	Good form and vigour.	Subject Property	2.4	Preserve
805	*Juglans nigra*	Black Walnut	18	5	Good	Good form and vigour.	Subject Property	2.4	Preserve
806	*Juglans nigra*	Black Walnut	31	9	Good	Good form and vigour; Located on top of berm less than one meter from property fence.	Subject Property	3	Preserve
807	*Ulmus americana*	White Elm	23	8	Good	Good form and vigour.	Subject Property	2.4	Preserve
808	*Juglans nigra*	Black Walnut	23	6	Good	Good form and vigour.	Subject Property	2.4	Preserve
809	*Juglans nigra*	Black Walnut	28	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
810	*Juglans nigra*	Black Walnut	17	4	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
811	*Juglans nigra*	Black Walnut	19	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
812	*Juglans nigra*	Black Walnut	20	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
813	*Juglans nigra*	Black Walnut	17	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
814	*Juglans nigra*	Black Walnut	12, 9 (15)	6	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	2.4	Preserve
815	*Juglans nigra*	Black Walnut	22	7	Good	Good form and vigour.	Subject Property	2.4	Preserve
816	*Fraxinus pennsylvanica*	Red Ash	10, 10, 4, 5, 3 (16)	6	Poor	Two largest stems are dead; Significant dieback and thinning; Stems fork near ground; Included bark; Tree likely to die due to EAB infestation.	Subject Property	N/A	Remove Due to Development
817	*Catalpa speciosa*	Northern Catalpa	37	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
818	*Juglans nigra*	Black Walnut	17	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
819	*Juglans nigra*	Black Walnut	15	4	Good	Good vigour; Narrow crown.	Subject Property	N/A	Remove Due to Development
820	*Juglans nigra*	Black Walnut	21	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
821	*Juglans nigra*	Black Walnut	15	3.5	Good	Good structure and vigour.	Subject Property	N/A	Remove Due to Development
821	*Juglans nigra*	Black Walnut	15	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
822	*Juglans nigra*	Black Walnut	25	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
823	*Juglans nigra*	Black Walnut	22	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
824	*Juglans nigra*	Black Walnut	18	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
825	*Juglans nigra*	Black Walnut	29	9	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
826	*Fraxinus pennsylvanica*	Red Ash	15	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
827	*Acer negundo*	Manitoba Maple	19	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
828	*Juglans nigra*	Black Walnut	33	10	Good	Good form and vigour; Full healthy crown.	Subject Property	3	Preserve
829	*Malus pumila*	Common Apple	22, 10, 8 (25)	8	Poor	Significant dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	N/A	Remove Due to Development
830	*Juglans nigra*	Black Walnut	18	8	Good	Good form and vigour.	Subject Property	2.4	Preserve
831	*Acer platanoides*	Norway Maple	22, 18, 16, 16, 8 (37)	11	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
832	*Fraxinus pennsylvanica*	Red Ash	12, 9 (15)	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
833	*Fraxinus pennsylvanica*	Red Ash	15	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
834	*Acer ginnala*	Amur Maple	16, 12 (20)	8	Fair-Good	Minor dieback and thinning; Vigorous growth in canopy; Shrub form with short stature; Stems fork below breast height; Strong stem union; Epicormic shoots at base.	Subject Property	N/A	Remove Due to Development
835	*Fraxinus pennsylvanica*	Red Ash	15	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
836	*Acer ginnala*	Amur Maple	10, 10, 12, 8, 8 (22)	7	Poor	Significant dieback and thinning; Several dead stems; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
837	*Populus balsamifera*	Balsam Poplar	15	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
838	*Populus balsamifera*	Balsam Poplar	18	6	Fair	Narrow crown; Moderate dieback and thinning.	Subject Property	N/A	Remove Due to Development
839	*Juglans nigra*	Black Walnut	32	9	Good	Good form and vigour; Full healthy crown.	Subject Property	N/A	Remove Due to Development
840	*Juglans nigra*	Black Walnut	18	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
841	*Acer ginnala*	Amur Maple	15, 9, 8, 9 (21)	6	Poor	Significant dieback and thinning; Several stems dead; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
842	*Acer platanoides*	Norway Maple	22	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
843	*Acer saccharum*	Sugar Maple	20	8	Good	Good form and vigour; Full healthy crown.	Subject Property	N/A	Remove Due to Development
844	*Juglans nigra*	Black Walnut	17	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
845	*Fraxinus pennsylvanica*	Red Ash	18	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
846	*Fraxinus pennsylvanica*	Red Ash	12, 15 (19)	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
847	*Fraxinus pennsylvanica*	Red Ash	18	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
848	*Acer ginnala*	Amur Maple	12, 14 (18)	7	Fair-Good	Vigorous growth in canopy; A couple old wounds with decay; Stems fork below breast height; Included bark.	Subject Property	N/A	Remove Due to Development
849	*Juglans nigra*	Black Walnut	21	7	Good	Good form and vigour.	Subject Property	N/A	Preserve
850	*Fraxinus pennsylvanica*	Red Ash	23	N/A	Dead	Standing snag; Potential risk tree.	Subject Property	N/A	Remove Due to Development
851	*Tilia americana*	Basswood	12, 9, 20 (25)	9	Good	Good vigour; Full healthy crown; One stem overhanging study area may need to be pruned; Stems fork below breast height; Included bark.	Subject Property	N/A	Preserve
852	*Tilia americana*	Basswood	17	6	Good	Good form and vigour.	Subject Property	N/A	Preserve
853	*Fraxinus pennsylvanica*	Red Ash	17	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
854	*Acer platanoides*	Norway Maple	26	9	Good	Good form and vigour; Full healthy crown.	Subject Property	N/A	Remove Due to Development
855	*Fraxinus pennsylvanica*	Red Ash	16	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
856	*Acer ginnala*	Amur Maple	13, 10, 8, 8 (20)	8	Fair-Good	Minor dieback and thinning; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
857	*Juglans nigra*	Black Walnut	19	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
858	*Acer platanoides*	Norway Maple	27	9	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
859	*Juglans nigra*	Black Walnut	15	4	Good	Good vigour; Suppressed by neighbouring tree.	Subject Property	N/A	Remove Due to Development
860	*Acer platanoides*	Norway Maple	19	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
861	*Pinus sylvestris*	Scots Pine	23	6	Fair-Good	Minor dieback and thinning; Stem leaning into work area, located on edge of berm.	Subject Property	N/A	Remove Due to Development
862	*Pinus sylvestris*	Scots Pine	37	8	Good	Good form and vigour; Full healthy crown.	Subject Property	N/A	Remove Due to Development
863	*Pinus sylvestris*	Scots Pine	29	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
864	*Acer platanoides*	Norway Maple	18	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
865	*Juglans nigra*	Black Walnut	32	9	Good	Good form and vigour; Full healthy crown; Approximately two metres from edge of berm.	Subject Property	N/A	Remove Due to Development
866	*Juglans nigra*	Black Walnut	21	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
867	*Tilia americana*	Basswood	23	8	Good	Good form and vigour.	Subject Property	N/A	Preserve
868	*Fraxinus pennsylvanica*	Red Ash	17, 7 (18)	N/A	Dead	Standing snag.	Subject Property	N/A	Preserve
869	*Tilia americana*	Basswood	23	7	Good	Good form and vigour.	Subject Property	N/A	Preserve
870	*Tilia americana*	Basswood	28	8	Good	Good form and vigour; Epicormic shoots at base.	Subject Property	N/A	Preserve
871	*Acer saccharum*	Sugar Maple	19	6	Fair-Good	Corba canker at breast height; Vigorous growth in canopy.	Subject Property	N/A	Preserve
872	*Acer platanoides*	Norway Maple	26	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
873	*Fraxinus pennsylvanica*	Red Ash	17	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
874	*Acer platanoides*	Norway Maple	31, 30 (43)	10	Good	Good vigour; Full healthy crown; Stems fork below breast height; Included bark and partially fused together.	Subject Property	N/A	Remove Due to Development
875	*Fraxinus pennsylvanica*	Red Ash	15	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
876	*Acer platanoides*	Norway Maple	17	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
877	*Acer platanoides*	Norway Maple	16	5	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
878	*Acer saccharum*	Sugar Maple	20, 14 (24)	7	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
879	*Acer saccharum*	Sugar Maple	16, 20, 13 (29)	8	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	N/A	Preserve
880	*Acer saccharum*	Sugar Maple	21, 18, 16 (31)	9	Poor	Two smaller stems are dead; Calloused wounds along stem of largest stem; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
881	*Acer platanoides*	Norway Maple	18	5	Good	Good form and vigour; Approximately two metres from edge of berm.	Subject Property	N/A	Remove Due to Development
882	*Acer platanoides*	Norway Maple	19	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
883	*Fraxinus pennsylvanica*	Red Ash	17	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
884	*Acer saccharum*	Sugar Maple	20, 19, 19, 19, 14, 10, 10, 8 (44)	10	Fair	Two stems are dead, remaining with vigorous growth; Clump style tree; Stems fork near ground; Included bark; Good root flare.	Subject Property	N/A	Remove Due to Development
885	*Juglans nigra*	Black Walnut	45	10	Good	Good form and vigour; Full healthy crown; Approximately three metres from edge of berm.	Subject Property	N/A	Preserve
886	*Acer saccharum*	Sugar Maple	30, 31 (43)	10	Fair	Moderate dieback and thinning; Stems fork below breast height; Included bark; Failed neighbouring tree caught between stems.	Subject Property	N/A	Remove Due to Development
887	*Acer saccharum*	Sugar Maple	15	5	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
888	*Acer platanoides*	Norway Maple	17	5	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
889	*Acer saccharum*	Sugar Maple	24, 13 (27)	9	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
890	*Acer platanoides*	Norway Maple	23	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
891	*Fraxinus pennsylvanica*	Red Ash	19	N/A	Dead	Standing snag.	Subject Property	N/A	Remove Due to Development
892	*Acer saccharum*	Sugar Maple	22	8	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
893	*Acer platanoides*	Norway Maple	24, 25 (35)	9	Good	Good vigour; Full healthy crown; Stems fork near ground; Included bark.	Subject Property	N/A	Remove Due to Development
894	*Tilia americana*	Basswood	20	7	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
895	*Acer saccharum*	Sugar Maple	19	6	Good	Good form and vigour.	Subject Property	N/A	Remove Due to Development
896	*Acer saccharum*	Sugar Maple	35	8	Good	Good form and vigour.	Subject Property	3	Preserve
897	*Juglans nigra*	Black Walnut	38	10	Good	Good form and vigour; Full healthy crown; Failed neighbouring tree caught in canopy.	Subject Property	3	Preserve
898	*Acer saccharum*	Sugar Maple	16	6	Good	Good form and vigour.	Subject Property	2.4	Preserve
899	*Tilia americana*	Basswood	39	7	Good	Good vigour; Stem leaning towards the rail track.	Subject Property	N/A	Remove Due to Development
900	*Juglans nigra*	Black Walnut	65	14	Good	Good form and vigour; Full healthy crown; Notable large mature tree recommended for preservation.	Subject Property	N/A	Remove Due to Development
1801	*Juglans nigra*	Black Walnut	22	5.5	Fair-Good	Good structure; Fair vigour; Grapevine surrounding trunk to lower canopy.	Subject Property	2.4	Preserve
1802	*Juglans nigra*	Black Walnut	23	4.5	Fair-Good	Good structure and vigour; Some Grapevine climbing trunk.	Subject Property	2.4	Preserve
1803	*Juglans nigra*	Black Walnut	22	6	Fair-Good	Good structure and vigour; Some Grapevine climbing trunk.	Subject Property	2.4	Preserve
1804	*Juglans nigra*	Black Walnut	18	4	Fair-Good	Good structure and vigour.	Subject Property	2.4	Preserve
1805	*Juglans nigra*	Black Walnut	23	4.5	Fair-Good	Good vigour; Some minor deadwood.	Subject Property	2.4	Preserve
1806	*Juglans nigra*	Black Walnut	23	4	Fair-Good	Good structure and vigour.	Subject Property	2.4	Preserve
1807	*Juglans nigra*	Black Walnut	19	4	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1808	*Juglans nigra*	Black Walnut	30	6	Fair-Good	Good structure and vigour; Minor grape vine climbing trunk.	Subject Property	2.4	Preserve
1809	*Juglans nigra*	Black Walnut	24	5.5	Fair-Good	Good structure and vigour; Minor deadwood.	Subject Property	2.4	Preserve
1810	*Juglans nigra*	Black Walnut	19	3.5	Fair-Good	Good structure; Fair vigour; Grapevine in canopy	Subject Property	2.4	Preserve
1811	*Juglans nigra*	Black Walnut	38	8	Fair-Good	Good structure and vigour; Minor grapevine climbing trunk.	Subject Property	3	Preserve
1812	*Juglans nigra*	Black Walnut	35	7.5	Fair-Good	Good structure and vigour; Minor grapevine climbing trunk.	Subject Property	3	Preserve
1813	*Juglans nigra*	Black Walnut	41	8.5	Fair-Good	Good structure and vigour; Minor Virginia Creeper climbing trunk.	Subject Property	3	Preserve
1814	*Juglans nigra*	Black Walnut	29, 28 (40)	9	Fair-Good	Good structure and vigour; Minor Virginia Creeper climbing trunk.	Subject Property	3	Preserve
1815	*Juglans nigra*	Black Walnut	30	5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1816	*Juglans nigra*	Black Walnut	41	8.5	Fair-Good	Good vigour; Fair structure; Lights wrapped around trunk.	Subject Property	3	Preserve
1817	*Acer negundo*	Manitoba Maple	30	5	Fair-Good	Good vigour; Epicormic growth from base at previously cut stumps; Potential snag/ bat habitat.	Subject Property	2.4	Preserve
1818	*Juglans nigra*	Black Walnut	15	2.5	Fair-Good	Good structure and vigour; Lights wrapped around trunk.	Subject Property	2.4	Preserve
1819	*Juglans nigra*	Black Walnut	21	3.5	Fair-Good	Good structure and vigour.	Subject Property	2.4	
1820	*Juglans nigra*	Black Walnut	21	4	Fair-Good	Good vigour; Fair structure; Some minor deadwood.	Subject Property	2.4	Preserve
1821	*Juglans nigra*	Black Walnut	33	7	Fair-Good	Good vigour; Fair structure; Beside new built deck.	Subject Property	3	Preserve
1822	*Ulmus americana*	White Elm	27	4	Fair-Good	Good vigour; Fair structure.	Subject Property	2.4	Preserve
1823	*Acer platanoides*	Norway Maple	20	4.5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1824	*Acer negundo*	Manitoba Maple	30	4	Fair-Good	Good vigour; Leans over adjacent property; Potential snag/ bat habitat.	Subject Property	2.4	Preserve
1825	*Acer negundo*	Manitoba Maple	16	2	Poor	Poor structure and vigour; In decline.	Subject Property	2.4	Preserve
1826	*Prunus avium*	Sweet Cherry	20	3	Fair-Good	Good vigour; Fair structure	Subject Property	2.4	Preserve
1827	*Juglans nigra*	Black Walnut	19	3	Fair-Good	Good structure; Fair vigour; Some deadwood.	Subject Property	2.4	Preserve
1828	*Salix euxina*	Crack Willow	58	9.5	Fair-Good	Good structure and vigour; Some deadwood and cracked branches.	Subject Property	3.6	Preserve
1829	*Populus deltoides*	Eastern Cottonwood	32	4	Good	Good structure and vigour.	Subject Property	3	Preserve
1830	*Juglans nigra*	Black Walnut	24	2	Dead	Standing snag.	Subject Property	N/A	Preserve
1831	*Tilia americana*	Basswood	18	3	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1832	*Fraxinus americana*	White Ash	17	0.5	Dead	Standing snag.	Subject Property	N/A	Preserve
1833	*Fraxinus americana*	White Ash	20	3	Dead	Standing snag.	Subject Property	N/A	Preserve
1834	*Ulmus americana*	White Elm	15	3	Fair-Good	Good vigour	Subject Property	2.4	Preserve
1835	*Salix euxina*	Crack Willow	27	3.5	Fair-Good	Good structure and vigour.	Subject Property	2.4	Preserve
1836	*Acer negundo*	Manitoba Maple	21	4	Fair-Good	Good vigour.	Subject Property	2.4	Preserve
1837	*Acer saccharum*	Sugar Maple	21	3.5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1838	*Ulmus pumila*	Siberian Elm	31, 25, 19 (44)	8	Fair-Good	Good vigour; Stems fork at base.	Subject Property	3	Preserve
1839	*Acer negundo*	Manitoba Maple	13, 11, 10, 11, 7 (21)	2.5	Fair-Good	Good vigour; Stems fork at base.	Subject Property	2.4	Preserve
1840	*Ulmus pumila*	Siberian Elm	26, 19 (32)	6	Fair-Good	Good vigour; Stems fork at base.	Subject Property	3	Preserve
1841	*Acer platanoides*	Norway Maple	15	3.5	Fair-Good	Good vigour; Canopy suppressed by neighbouring tree.	Subject Property	2.4	Preserve
1842	*Ulmus pumila*	Siberian Elm	12, 10 (15)	3.5	Fair	Fair vigour and structure; Stems fork at base.	Subject Property	2.4	Preserve
1843	*Acer platanoides*	Norway Maple	14, 12 (18)	4	Fair-Good	Good vigour and structure; Stems fork at base.	Subject Property	2.4	Preserve
1844	*Ulmus pumila*	Siberian Elm	23, 20, 16 (34)	5.5	Fair-Good	Good vigour and structure; Stems fork at base.	Subject Property	3	Preserve
1845	*Malus pumila*	Common Apple	15, 11 (18)	3	Fair-Good	Good vigour and structure; Stems fork below DBH.	Subject Property	2.4	Preserve
1846	*Juglans nigra*	Black Walnut	15	3	Good	Good vigour and structure.	Subject Property	2.4	Preserve
1847	*Acer negundo*	Manitoba Maple	15, 16 (22)	2.5	Dead	Standing snag.	Subject Property	N/A	Preserve
1848	*Populus deltoides*	Eastern Cottonwood	36	4.5	Fair-Good	Good structure and vigour; Trunk in chain-link fence; Some Grapevine in canopy.	Subject Property	3	Preserve
1849	*Juglans nigra*	Black Walnut	15	3	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1850	*Juglans nigra*	Black Walnut	16	3.5	Good	Good structure and vigour.	Subject Property	3	Preserve
1851	*Juglans nigra*	Black Walnut	16	3.5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1852	*Juglans nigra*	Black Walnut	16, 24 (29)	4.5	Fair-Good	Good vigour; Stems fork at DBH; Some Grapevine in canopy.	Subject Property	2.4	Preserve
1853	*Juglans nigra*	Black Walnut	35, 32 (47)		Fair-Good	Good structure and vigour; Stems fork at DBH.	Subject Property	N/A	Remove Due to Development
1854	*Salix euxina*	Crack Willow	36, 32, 34 (59)	3.5	Poor	Epicormic growth from previously cut stumps; Stumps cut above DBH; Stems fork at DBH.	Subject Property	N/A	Remove Due to Development
1855	*Acer platanoides*	Norway Maple	19	5	Fair-Good	Good structure and vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1856	*Acer platanoides*	Norway Maple	25	5	Fair-Good	Good structure and vigour; Growing in chain-link fence; Potential snag/ bat habitat.	Subject Property	N/A	Remove Due to Development
1857	*Acer platanoides*	Norway Maple	17	4	Fair-Good	Good structure and vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1858	*Ulmus pumila*	Siberian Elm	19	4.5	Fair-Good	Good structure and vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1859	*Acer negundo*	Manitoba Maple	24	4.5	Fair-Good	Good vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1860	*Acer platanoides*	Norway Maple	19	6	Fair-Good	Good vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1861	*Acer platanoides*	Norway Maple	12, 13 (18)	4	Fair-Good	Good vigour; Growing in chain-link fence; Stems fork at base.	Subject Property	N/A	Remove Due to Development
1862	*Ulmus pumila*	Siberian Elm	27	6	Fair-Good	Good vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1863	*Acer platanoides*	Norway Maple	28	6.5	Fair-Good	Good structure and vigour; Growing in chain-link fence; Potential snag/ bat habitat.	Subject Property	N/A	Remove Due to Development
1864	*Ulmus pumila*	Siberian Elm	46	8.5	Fair-Good	Good structure and vigour.	Subject Property	N/A	Remove Due to Development
1865	*Acer platanoides*	Norway Maple	34, 42, 11 (55)	8	Fair-Good	Good vigour; Stems fork at DBH; Stems cabled together with chain wrapped around and recycled tires for protection at ~6m from base; Potential snag/ bat habitat.	Subject Property	3.6	Preserve
1866	*Acer platanoides*	Norway Maple	19	3.5	Fair-Good	Good vigour; Tree leans over adjacent property; Canopy partially suppressed.	Subject Property	2.4	Preserve
1867	*Acer platanoides*	Norway Maple	69	11	Fair-Good	Good vigour; Stems fork above DBH; Potential snag/ bat habitat	Subject Property	4.2	Preserve
1868	*Acer negundo*	Manitoba Maple	36	6.5	Fair-Good	Good vigour; Potential snag/ bat habitat.	Subject Property	3	Preserve
1869	*Acer platanoides*	Norway Maple	35, 31, 29 (55)	7	Fair-Good	Good vigour; 2 north stems lean over adjacent property; Potential snag/ bat habitat.	Subject Property	3.6	Preserve
1870	*Juglans nigra*	Black Walnut	38	8.5	Good	Good structure and vigour.	Subject Property	3	Preserve
1871	*Ulmus pumila*	Siberian Elm	26	4	Good	Good structure and vigour.	Subject Property	N/A	Remove Due to Development
1872	*Ulmus pumila*	Siberian Elm	15	3.5	Fair-Good	Good structure and vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1873	*Acer platanoides*	Norway Maple	24	5	Fair-Good	Good structure and vigour; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1874	*Ulmus pumila*	Siberian Elm	22, 23 (32)	4.5	Poor-Fair	Poor structure; Fair vigour; Smaller stem dead; Cavity in base of trunk; Growing in chain-link fence.	Subject Property	N/A	Remove Due to Development
1875	*Acer saccharum*	Sugar Maple	57	9.5	Good	Good structure and vigour; Tertiary hydro and communication lines running through canopy. Potential snag/ bat habitat.	Subject Property	N/A	Remove Due to Development
1876	*Fraxinus americana*	White Ash	20	3.5	Dead	Standing snag	Subject Property	N/A	Preserve
1877	*Ulmus americana*	White Elm	12, 11, 10 (19)	4	Fair-Good	Good vigour; Stems fork at base.	Subject Property	2.4	Preserve
1878	*Fraxinus americana*	White Ash	28	4	Dead	Standing snag.	Subject Property	N/A	Preserve
1879	*Fraxinus americana*	White Ash	22	3	Poor	Epicormic growth only; Main stem dead.	Subject Property	2.4	Preserve
1880	*Fraxinus americana*	White Ash	15	2	Poor	Epicormic growth only; Main stem dead.	Subject Property	2.4	Preserve
1881	*Crataegus monogyna*	English Hawthorn	15	3	Fair	Fair vigour	Subject Property	2.4	Preserve
1882	*Fraxinus americana*	White Ash	31	5	Dead	Standing snag.	Subject Property	N/A	Preserve
1883	*Fraxinus americana*	White Ash	28	4.5	Dead	Standing snag.	Subject Property	N/A	Preserve
1884	*Ulmus americana*	White Elm	23	5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1885	*Fraxinus americana*	White Ash	23	4	Dead	Standing snag.	Subject Property	N/A	Preserve
1886	*Acer saccharinum*	Silver Maple	17, 5 (18)	5	Good	Good structure and vigour; Stems fork at base.	Subject Property	2.4	Preserve
1887	*Fraxinus americana*	White Ash	12, 11 (16)	3	Dead	Standing snag.	Subject Property	N/A	Preserve
1888	*Juglans nigra*	Black Walnut	20	6	Good	Good structure and vigour.	Subject Property	2.4	Preserve
1889	*Juglans nigra*	Black Walnut	33	10	Good	Good structure and vigour.	Subject Property	3	Preserve
1890	*Fraxinus americana*	White Ash	15	3	Dead	Standing snag.	Subject Property	N/A	Preserve
799M	*Pinus resinosa*	Red Pine	23	4	Good	Good structure and vigour.	Subject Property	2.4	Preserve
800M	*Pinus resinosa*	Red Pine	20	3	Good	Good structure and vigour.	Subject Property	2.4	Preserve
801M	*Pinus resinosa*	Red Pine	16	2.5	Good	Good structure and vigour.	Subject Property	2.4	Preserve
802M	*Pinus resinosa*	Red Pine	26	4	Good	Good structure and vigour.	Subject Property	2.4	Preserve
803M	*Ulmus americana*	White Elm	17	3.5	Fair-Good	Good vigour.	Subject Property	2.4	Preserve
805M	*Acer platanoides*	Norway Maple	16, 20, 19, 13, 11 (36)	5.5	Fair-Good	Good vigour; Stems fork at base.	Subject Property	3	Preserve
NT1	*Juglans nigra*	Black Walnut	40	9	Good	Good form and vigour; Full healthy crown; Located outside of rail corridor, DBH measurement estimated.	Adjacent Property	3	Preserve
NT2	*Acer negundo*	Manitoba Maple	40	8	Fair-Good	Minor dieback and thinning; Asymmetrical crown; Located outside of rail corridor; Potential snag tree based on DBH and leaf nest.	Adjacent Property	3	Preserve
NT3	*Juglans nigra*	Black Walnut	26	7	Good	Good form and vigour; Located outside of rail corridor, DBH measurement estimated.	Subject Property	2.4	Preserve
NT4	*Juglans nigra*	Black Walnut	45, 45 (64)	14	Good	Good form and vigour; Full healthy crown; Located outside of rail corridor; Large mature tree; Dripline slightly extends onto study area.	Adjacent Property	4.2	Preserve
NT5	*Juglans nigra*	Black Walnut	55	12	Good	Good form and vigour; Full healthy crown; Large mature tree; Located outside of rail corridor, DBH measurement estimated; Dripline slightly extends onto study area.	Adjacent Property	3.6	Preserve
NT6	*Juglans nigra*	Black Walnut	30	8	Good	Good form and vigour; Located outside of rail corridor, DBH measurement estimated; Dripline slightly extends onto study area.	Subject Property	2.4	Preserve
NT7	*Juglans nigra*	Black Walnut	21	6	Good	Good form and vigour; Located outside of rail corridor, DBH measurement estimated.	Adjacent Property	2.4	Preserve
NT8	*Juglans nigra*	Black Walnut	18	6	Good	Good form and vigour; Located outside of rail corridor, DBH measurement estimated.	Adjacent Property	2.4	Preserve
NT9	*Juglans nigra*	Black Walnut	25	8	Good	Good form and vigour; Located outside of rail corridor, DBH measurement estimated.	Adjacent Property	2.4	Preserve
NT10	*Juglans nigra*	Black Walnut	31	8.5	Good	Good structure and vigour; Lights wrapped around trunk.	Subject Property	3	Preserve
NT11	*Fraxinus americana*	White Ash	16	0	Dead	Standing snag.	Subject Property	N/A	Preserve

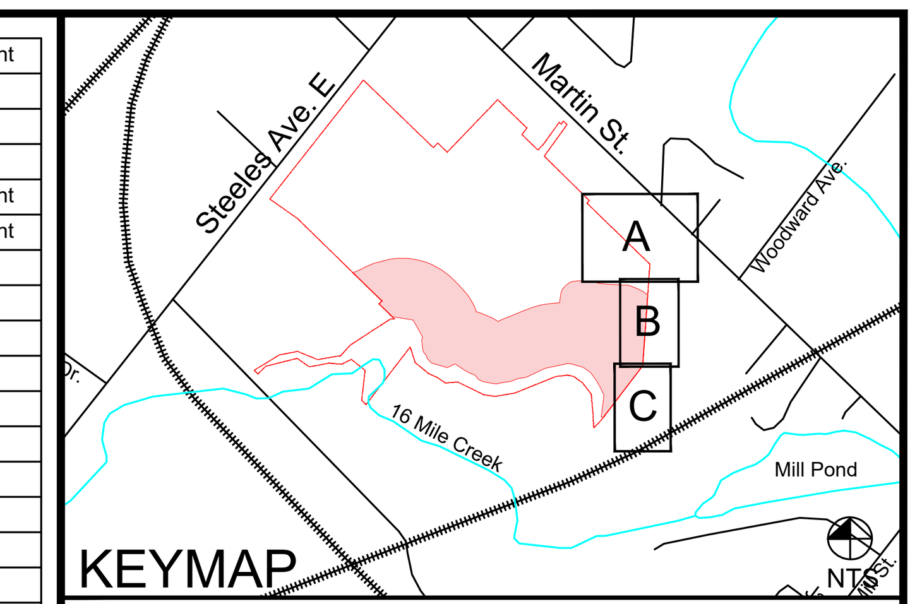
1. The tree health condition rating was based on factors that could include one or a combination of:

Poor Condition – Severe dieback, significant lean, decayed, missing leader, significant disease presence

Fair Condition – Moderate dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress

Good Condition – Healthy vigorous growth, no or minor visible defects or damage

2. The TPZ is the minimum distance required for tree preservation as per ISA and Town of Milton Guidelines.



LEGEND

Note:
At this time, it is assumed that cut or fill lines on land owned by the Town of Milton represent actual grading limits. Anticipated tree impacts shown here are been on the illustrated grading limit.

Grading limit(s) will need to be refined in detailed design following topographic survey. At that time, tree protection will be revisited by an Arborist to maximize retention of existing trees.

Note: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	SUBMISSION TO TOWN	2026/02/10	JS

SCALE

NORTH ARROW

BEACON ENVIRONMENTAL

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CLIENT

NEATT COMMUNITIES

PROJECT

150 STEELES AVENUE EAST, MILTON

SHEET TITLE

PRELIMINARY TREE IMPACT ASSESSMENT STORMWATER INFRASTRUCTURE

DESIGN BY:	--	PROJECT Nº:	221265
DRAWN BY:	JA	FIGURE Nº:	7C
CHECKED BY:	JS		
DATE:	10 February 2026		

All alternatives for infrastructure within the NHS have been considered including: (1) raising the grades 2–3 m on the tablelands; (2) outletting to the valley and wetland via a drop structure, and; (3) utilizing the existing swale within the former rail spur line corridor. In addition to evaluating all alternatives, the outlet is required to support the development of land within the Urban Area and, as such, has met the definition of "essential" within the ROP.

5.2 Impact Assessment and Recommended Mitigation

In order to assess the cumulative impact of the proposed development on the NHS, this section provides a comprehensive overview of both the anticipated future impacts and the recent past disturbances associated with the history of the subject property. A detailed summary of the potential effects of the development on NHS features and functions, along with recommended mitigation measures to mitigate or avoid adverse outcomes, is presented in **Table 2**. This summary synthesizes background information, the results of CEMS process, and study undertaken as part of this Scoped EIA to ensure that the cumulative effect of past and proposed activities is understood. It also identifies tailored recommendations to mitigate potential negative impacts. By consolidating these factors, the assessment supports a complete evaluation of potential risks to the NHS and identifies appropriate mitigation to protect the natural heritage features and areas in the long-term.

Table 2. Impact Assessment and Mitigation

Category	Feature/Function	Proposed or Potential Impacts	Recommended Mitigation/Management	No Negative Impact
Soils	**Topsoil and Subsoils**	Soil contamination has been addressed through remediation.	N/A	N/A
Groundwater	**Groundwater Flows**	The groundwater flow direction within the Site is inferred to be southwest toward the Sixteen Mile Creek (DS Consultants 2026a); however, no groundwater-dependent natural heritage features or areas (e.g., seeps or springs) have been identified in the study area. Ex-situ remediation of contaminated groundwater was not anticipated to have a significant impact on the groundwater flow regime outside of the groundwater treatment zone. Impacts associated with remediation were addressed through the CEMS. The proposed underground parking will extend below the groundwater table; therefore, dewatering will be required during construction, and long-term post-construction dewatering controls will also be necessary (DS Consultants 2026a). This aquifer has not been identified as vulnerable (DS Consultants 2026a).	Implement daily and weekly groundwater monitoring program as per the *Hydrogeological Investigation Report* (DS Consultants 2026a) to assess any adverse impacts as a result of dewatering. To mitigate impacts to the water resource system, including the potential for cumulative impacts, infiltration deficits will be addressed through LIDs, as described in the FSR (Urbantech 2026). The design will include infiltration of the 90th percentile storm event (27 mm), required by the CLI-ECA (Urbantech 2026). DS (2026b) have confirmed the proposed LIDs will match and exceed pre-development infiltration, assuming 60% LID efficiency. To mitigate groundwater-related challenges for permanent discharge, any buildings that extend to P3 or deeper are recommended to be bath tubbed (i.e., water-tight underground) (DS Consultants 2026a). If bath tubbing is not a viable option, alternative strategies should be explored to minimize groundwater impact. This includes designing the structure to remain above the water table where feasible, implementing robust waterproofing systems, and considering dewatering techniques to manage groundwater levels during long-term operation (DS Consultants 2026a).	✓
	Groundwater Quality	Remediation of existing contaminants in groundwater, that included PHCs, metals, inorganics EC and SAR. Remediation of groundwater in the RNHS to prevent migration of contaminants in the direction of Sixteen Mile Creek. Impacts associated with remediation were addressed through the CEMS. The proposed SWM pond could have an impact on groundwater quality.	Contaminated groundwater in the RNHS has been treated in an on-site treatment plant. Where treated water met reuse standards, it was reinjected back into the on-site shallow aquifer. Implement SWM pond design as per Urbantech (2025) to address potential adverse effects to groundwater quality, in accordance with the CLI-ECA. Provide a SWM pond liner if recommended by the geotechnical engineer. Plant or seed with salt-accumulating species — such as Switchgrass (*Panicum virgatum*) at the SWM pond edges, Sand Dropseed (*Sporobolus cryptandrus*) in any open drainage swales, and White Oak (*Quercus alba*) and Peach-leaved Willow (*Salix amygdaloides*) in the deepened swale, or surface-based LIDs.	✓
Regional Natural Heritage System	**Habitat of Endangered or Threatened Species (Key Feature)**	Remediation of soil within habitat was conducted in accordance with the ESA and regulations. Construction of SWM outlet pipe and swale will result in removal of a small number of snag trees (15), with potential to be maternity roost habitat for endangered bat species, from 11 ha of contiguous woodland habitat on the subject property, Rotary Park, and the Livingston Trail.	Maternity roost habitat of endangered bat species exists within the woodland communities and contiguous hedgerow on the subject property and adjacent lands. The preferred stormwater outlet location will require removal of approximately 15 snags in potential habitat. Past guidance from MECP indicates that removal of a small number of snags from a larger woodland will not impair bat life processes, provided the removals are conducted outside the active bat season (i.e., removal of habitat trees December 1 — March 15). In Beacon's opinion, the removal of 15 snag trees from 11 ha of contiguous endangered bat habitat will not impair or eliminate the function of the woodland for the support of endangered bat life processes. This opinion will be confirmed through consultation with MECP or authorization through a registry submission, in accordance with PPS Policy 4.1.7.	✓
	Significant Wetlands (Key Feature)	Significant wetlands on the subject property include the Milton Wetland Complex within the Sixteen Mile Creek valley. This is not a PSW but meets the criteria for significance under the ROP. In all considered alternatives, stormwater must discharge to the significant wetland in order to get to Sixteen Mile Creek; therefore, potential hydrological impacts related to the quality and quantity of water received from the proposed development were assessed. Without mitigation, the proposed development will reduce the area of permeable surfaces within the subject property, which may lead to increased surface runoff and decreased	See groundwater mitigation and management above and in FSR regarding LID design to address reductions in infiltration. Groundwater that is collected during dewatering will be treated and conveyed to the wetland post-development. While groundwater from the tableland may contribute to wetland hydrology to some degree, the large upstream drainage area of the creek and wetland paired with the notable rise in shallow groundwater following with rain events suggests that precipitation and surface water runoff is the primary driver of wetland hydrology (i.e., floodplain). Therefore, potential hydrological impacts on the wetland due to dewatering are expected to be minimal and not threaten the integrity of the wetland.	✓

Category	Feature/Function	Proposed or Potential Impacts	Recommended Mitigation/Management	No Negative Impact
		infiltration. Surface runoff, if untreated, could impact water quality within the wetland. The proposed P3 underground parking will extend below the groundwater table; therefore, dewatering will be required during construction, and long-term post-construction dewatering controls (e.g., bath tubbing or equivalent) will also be necessary. The significant wetland's hydroperiod is driven largely by inputs from the extensive catchment of the upstream Sixteen Mile Creek (approximately 8,845 ha). Shallow groundwater in the wetland responds significantly to major rainfall events (DS Consultants 2026a). According to the CEMS analysis, 20.26 ha of the subject property drains overland toward the wetland in pre-development conditions, accounting for approximately 0.23% of the 8,845-ha catchment area. Post-development, a comparable contributing catchment area is expected to be maintained (Urbantech 2026). As a result, any reduction in infiltration or minor changes in catchment contribution or flow volumes are anticipated to have negligible influence on the wetland's hydroperiod, form, and function. Water quality impacts will be minimized by implementing SWM technologies for the proposed development, which have been designed to meet provincial and municipal water quality standards for discharge to watercourses and waterbodies. In addition, flows from the SWM pond will be conveyed along a naturalized swale approximately 130 m in length. This will allow for infiltration, additional polishing, and flow attenuation of treated stormwater prior to reaching the wetland. The concentration of flows at the downstream end of the wetland is not expected to impact the hydrology of the upstream wetland area adjacent to the subject property due to the large upstream catchment which will continue to supply water to the wetland, as discussed above. Grading for the naturalized swale terminates approximately 65 m form the wetland edge; therefore, no disturbance is proposed within the wetland or 30 m buffer. It is also important to recognize that the previous industrial use likely resulted in contaminants being introduced into the Key Feature via the historic storm sewer outfall, which was likely not being treated to current standards. Also, due to the potential migration of soil contaminants to the wetland via groundwater under the previous industrial use, the soil remediation works that were undertaken to prepare the subject property for redevelopment likely resulted in an improvement to the water quality of the wetland.	Maintain catchment area to Milton Wetland Complex, as shown in FSR Drawing STM-2 (Urbantech 2026). Implement SWM pond design and erosion protection as per FSR (Urbantech 2026) to mitigate adverse effects to water quality, in accordance with or exceedance of provincial standards via the CLI-ECA (e.g., 80% TSS removal; thermal mitigation by 3-m deep permanent pool). Construct the SWM outlet to an open swale within the Town's land east of the subject property to avoid direct impacts on the wetland and provide opportunities for flow attenuation and polishing of treated stormwater prior to reaching the wetland. Develop SWM-related monitoring plan during detailed design. Undertake monitoring at SWM outlet, upslope of the wetland, as described in **Section 6.2** below.	
	Significant Woodlands (Key Feature)	Significant woodlands have been delineated as per the CEMS. Woodland area disturbed by remediation activities has been replanted. With the exception of a SWM outlet proposed to a swale within a former rail spur line in the significant woodland, no development is proposed within the woodland, and a 15 m buffer was applied to the woodland. Within the former rail spur corridor, the preferred design will result in a small area of permanent infrastructure (approximately 0.05 ha representing the SWM outlet pipe and maintenance road turnaround) and the removal of approximately 83 trees from significant woodland (to be confirmed at detailed design). As a result of the former land use (rail line). This disturbance represents approximately 3% of the total area of contiguous woodland (11 ha).	Plantings in post-remediation restoration areas will be maintained for a warranty period (2 years). The DPOS incorporates a 15 m buffer from the limit of the woodland and the outer length of this buffer will be fenced as a condition of draft plan approval. Landscaping plans have been prepared, and approved through the CEMS process, to naturalize the buffer, in accordance with CH Landscaping Guidelines, as per drawings in **Appendix C3**. The eroded slope in the woodland and the buffer restoration plans are proposed to be finalized as a condition of draft plan approval, as described in **Section 5.4.3** below and as per the agreed upon approach in the CEMS. At detailed design, opportunities for tree preservation, mitigation, and planting should be further explored, including reducing the limits of grading within the former rail spur line to the extent feasible and canopy pruning. Such opportunities will be documented in a revised Tree Impact and Mitigation Plan prepared as a condition of draft approval. Compensation plantings will occur within and along the swale side slopes, as feasible and will include native trees and native shrubs,	✓

Category	Feature/Function	Proposed or Potential Impacts	Recommended Mitigation/Management	No Negative Impact
			then seeding with a native seed mix. A detailed Restoration Plan will be prepared at detailed design for approval by the Town and CH. Vegetation clearing required to construct SWM infrastructure should occur between December 1 and March 15 to mitigate potential impacts to bats and breeding birds. Undertake monitoring at SWM outlet, in the woodland, as described in **Section 6.2** below.	
	Significant Valleylands (Key Feature)	The valley wall in one location has been eroded by a former storm outfall and natural erosion (**Figure 2**). The area is a steep gully with unstable slopes (Beacon *et al.* 2023). Although the storm pipe has been decommissioned from use, the natural erosion of the gully has been exacerbated by the prior use of the storm pipe. The proposed SWM outlet could potentially cause erosion within the receiving draw downstream of the headwall.	15 m LTSTOS setback is included in the RNHS. Implement 15 m buffer and naturalize in accordance with CH guidelines. Based on conversations with the Region and CH, the preferred alternative for the slope that has eroded around the former storm pipe is as follows: • Undertake no specific geotechnical solutions to address the localized erosion but rather, improve the vegetation cover in this area using species conducive to bioengineering (the "almost do-nothing approach"). • If necessary, at detailed design, undertake minor grading east of the top of slope to divert overland flow away from the eroded slope. • Capping and full grouting of the existing pipe • Remove debris (broken pipe, etc.) within proximity of the existing outfall. The above will be completed as a condition of draft plan approval through a Permit from CH. The eroded slope in the woodland and the buffer restoration plans are proposed to be finalized as a condition of draft plan approval. Review of outlet design and erosion assessment by a fluvial geomorphologist as a condition of draft plan approval. If erosion protection is required, bioengineering methods should be used to the extent feasible. Such erosion protection should be consistent with the Tree Impact and Mitigation Plan described above.	✓ (Neutral – Positive)
	Significant Wildlife Habitat (SWH; Key Feature)	Candidate SWH is present in the significant woodland and the former tailings pond / wetland (Beacon *et al*. 2023). Candidate SWH is present in the Sixteen Mile Creek watercourse (Northern Sunfish) and Milton Wetland Complex (amphibian breeding habitat). Impacts to SWH within the woodland and former tailings pond / wetland were addressed in the CEMS. Stormwater and associated sediment could impact amphibian breeding habitat associated with the significant wetland. This impact will be minimized by implementing SWM technologies for the development, which have been designed to meet provincial and municipal water quality standards for discharge to watercourses and waterbodies. In addition, flows from the SWM pond will be conveyed along a naturalized swale approximately 130 m in length. This will allow for infiltration, additional polishing and flow attenuation treated stormwater prior to reaching the wetland amphibian habitat and fish habitat. No disturbance is proposed within the wetland or 30 m buffer. Therefore, water quality impacts on habitat for amphibians within the wetland are not anticipated. In considering cumulative impacts, including past impacts, the previous industrial use likely resulted in contaminants (e.g., road salt and/or chemicals associated with manufacturing) being introduced into the Key Features via the historic storm sewer outfall with less stringent	Implement SWM plan to meet municipal and provincial water quality standards Wildlife rescue and relocation for terrestrial crayfish and amphibians was conducted prior to remediation. The DPOS incorporates a 15 m buffer from the limit of the woodland and created wetland. Monitoring as it relates to potential Amphibian Breeding and Terrestrial Crayfish SWH is described in **Section 6.2**. See Fish Habitat row below for mitigation measures related to Northern Sunfish. Implement SWM pond design and erosion protection as per FSR (Urbantech 2026) to mitigate adverse effects to water quality, in accordance with or exceedance of provincial standards via the CLI-ECA (e.g., 80% TSS removal; thermal mitigation by 3-m deep permanent pool). Constructing the SWM outlet to a deepened swale within the former rail spur line to avoid direct impacts on the feature and provides opportunities for flow attenuation and polishing prior to reaching the wetland habitat and watercourse.	✓

Category	Feature/Function	Proposed or Potential Impacts	Recommended Mitigation/Management	No Negative Impact
		water quality controls than today's standards. Therefore, decommissioning of this outlet through the remediation works likely resulted in improved water quality.		
	Fish Habitat (Key Feature)	Fish habitat on and adjacent to the subject property is associated with Sixteen Mile Creek. There is a potential for construction and the proposed development to indirectly impact downstream fish habitat within Sixteen Mile Creek if sediment migrates to the watercourse or if water is released without appropriate mitigation measures. The reduction in permeable surfaces may lead to increased surface runoff, which could impact downstream fish habitat within Sixteen Mile Creek via changes in flow and water quality if runoff is not attenuated using stormwater infrastructure.	Implement the Erosion and Sediment Control (ESC) measures, as outlined in the FSR (Urbantech 2026). Implement the slope improvements outlined in **Section 5.4.3** to mitigate the existing risk of further erosion and sedimentation to the Sixteen Mile Creek. SWM facilities to be designed to enhanced provincial standards (e.g., 80% TSS removal) with 3-m deep permanent pool to mitigate warming of stormwater, as outlined in the FSR (Urbantech, 2026). Design SWM outlet to an open swale that will be naturalized and restored to provide polishing of treated flows prior to them reaching Sixteen Mile Creek.	✓
	Linkages	The Sixteen Mile Creek valleylands are assumed to be significant valleylands and assumed to represent a regional scale linkage. The linkage function of these valleylands is not proposed to be altered.	See Significant Woodlands and Significant Valleylands mitigation and management measures above.	✓
	Watercourses	There is a potential impact on the CH-regulated watercourse (Sixteen Mile Creek) if sediment migrates to the watercourse or if water is released without appropriate mitigation measures.	Implement the Erosion and Sediment Control (ESC) recommendations as detailed in the FSR (Urbantech 2026). See Fish Habitat row above.	✓
	Wetlands other than those considered Significant	As documented in the CEMS, wetlands associated with the former tailings pond on the tableland were remediated and re-created. No alteration to the re-created wetlands is proposed. Stormwater, surface runoff, and sediment, if unmitigated, could impact the wetland.	The CEMS identified a catchment area to the created wetland that is entirely within the NHS. Implement ESC measures as outlined in the FSR (Urbantech 2026). Based on the recommendations of the CEMS, it is proposed to monitor the hydrology of the re-created wetlands to ensure an appropriate hydroperiod has been achieved. This monitoring may also help determine if the wetland starts to significantly contribute to the RNHS and qualifies as a significant wetland. The DPoS incorporates a 15 m buffer from the limit of this wetland.	✓

5.3 Summary of Mitigation Measures

The following list of recommendations reflects the mitigation measures provided in **Table 2** above:

- Implement ESC measures, as recommended in the FSR (Urbantech 2026);
- Design SWM facilities to Level 1 protection standard (80% average annual removal of TSS), in accordance with CLI-ECA, including erosion protection at the outlet and thermal mitigation, as recommended in the FSR (Urbantech 2026);
- Design LIDs as recommended in the FSR (Urbantech 2026) to infiltrate the 90th percentile storm event (27 mm) and match post- to pre- water balance (DS Consultants 2026b);
- Design any buildings that extend to P3 or deeper to be bath tubbed (i.e., water-tight underground). If bath tubbing is not a viable option, alternative strategies should be explored to minimize groundwater impact. This includes designing the structure to remain above the water table where feasible, implementing robust waterproofing systems, and considering dewatering techniques to manage groundwater levels during long-term operation (DS Consultants 2026a) and direct pumped groundwater to the valley wetland (if feasible);
- Maintain drainage from the subject property to Sixteen Mile Creek and Milton Wetland Complex, as recommended in the FSR (Urbantech 2026);
- Discharge stormwater to an open and naturalized swale, along a former rail spur line, to attenuate flows and provide polishing of treated stormwater prior to reaching the significant wetland and Sixteen Mile Creek;
- Consult with MECP that removal of bat habitat is in conformance with the ESA or *Species Conservation Act*, whichever is in force at the time of removal. Evidence of such consultation or filing will be provided to the Town as a condition of draft approval;
- At detailed design, a Tree Impact and Mitigation Strategy should be prepared by an ISA Certified Arborist to refine tree impacts and mitigation measures, including pruning recommendations and naturalization plantings in the proposed area of disturbance in the significant woodland, in accordance with arboricultural BMPs and CH *Guidelines for Landscaping and Rehabilitation Plans*. Compensation plantings should occur within and along the swale side slopes, as feasible and should include native trees and native shrubs, then seeding with a native seed mix. A detailed Restoration Plan should be prepared at detailed design for approval by the Town and CH;
- At detailed design, the SWM outlet design is recommended to be reviewed by a fluvial geomorphologist. If erosion protection is required, bioengineering methods should be used to the extent feasible. Such erosion protection should be consistent with the naturalization plantings prescribed by the Arborist;
- Tree removals from the significant woodland or on Town-owned lands should be conducted outside the bat roosting window (i.e., between December 1and March 15) to mitigate impacts to endangered bats;
- Prior to servicing, implement the landscape design for the ecological buffer to the woodland, stable top of bank, and significant wildlife habitat (**Appendix C3**). Maintain existing 15 m wetland buffer;
- No trails are to be within the 15 m NHS buffer, in accordance with the approved CEMS. The outer limit of the buffer is to be permanently fenced to prevent encroachment;
- Implement ecological restoration of the eroded slope around the historic storm sewer as per drawings in **Appendix C3** and **Section 5.4.3**;
- At detailed design, obtain confirmation from a geotechnical engineer as to whether a SWM pond liner is recommended;

- Undertake monitoring of the proposed SWM outlet, as described in **Section 6.2**; and
- Undertake monitoring of the re-created wetlands to identify potential amphibian and terrestrial crayfish SWH and target wetland hydrology, as described in **Section 6.2**.

5.4 Summary of Enhancements to Key Features

Enhancements to Key Features were recommended in the CEMS to provide net benefit to the RNHS, as illustrated in the CEMS' Conceptual Restoration Plan. To date, several recommended enhancements have been implemented; however, the remainder are proposed to be completed as part of the proposed development. **Table 3** below represents the status of the enhancements recommended in the CEMS.

Table 3. Enhancements to Key Features of the NHS

Enhancement Recommendation from CEMS	Status as of March 2025
Remediation of contaminated soil in Key Features and restoration of pre-landfill grades with clean soil	Complete
Wetland recreated adjacent to significant woodland for enhanced connectivity	Complete
Native plantings in Key Features in former locations of debris and invasive species	Complete
Remediation of contaminated groundwater in the NHS to mitigate the risk to NHS	Complete (P. Fioravanti, pers. comm., 26 Feb 2025)
Increase total woodland area and reduce the ratio of woodland edge length to total area	Complete
Removal of anthropogenic refuse and waste	Complete
Removal or control of invasive species	Complete
Diversification of vegetation by underplanting with native species	Complete
Creation of supplemental wildlife habitat using natural or artificial structures	The artificial snag, bat roost box, and snake hibernaculum are complete. Brush piles, remaining bat roost and artificial snag are included in the buffer planting plan and will be completed as a condition of draft plan approval.
Address area of slope failure around former storm sewer by grouting pipe in situ and vegetating the area.	To be completed as a condition of draft plan approval. A permit will be required from CH pursuant to O. Reg. 41/24.

5.4.1 Phase 1: Wetland Restoration and Adjacent Invasive Species Management

Restoration of the small tableland wetland and management of the adjacent population of invasive species was completed as of June 21, 2024, pursuant to drawings in **Appendices C1** and **C2**. This work has been completed as demonstrated by the Landscape Architect certification letter in **Appendix E**, Photographs 1, 2, and 3 in **Appendix F**, and **Photograph 5** below.

Photograph 5. Wetland Restoration Area, July 15, 2024 (east-facing view)

5.4.2 Phase 2: Restoration of Significant Woodland and Adjacent Invasive Species Management

Restoration of significant woodland and adjacent invasive species management was completed as of November 8, 2024, as per the concept that was agreed to with the Town through the CEMS and drawings in **Appendix C2**. This work has been completed as demonstrated by the Landscape Architect certification letter in **Appendix E** and Photographs 1, 4, and 5 in **Appendix F**.

5.4.3 Phase 3: Restoration at Eroded Slope and Buffer Completion

The storm sewer pipe and outfall infrastructure that had been previously constructed within the valleylands to service the manufacturing facility resulted in erosion and slope failure along the valley wall in a localized area. This outfall is no longer in use.

Design alternatives to address this area of erosion were explored through the CEMS submission process. Through acceptance of the CEMS, CH and the Region requested a geotechnical “do nothing” approach with some slope plantings or seeding to address the area of existing erosion. It should be noted that this approach acknowledges that the slope will continue to naturally erode over the long-term, to the LTSTOS.

To prevent further erosion and restore an area in a degraded Key Feature (significant valleyland), it was proposed that the affected area be stabilized and vegetated to help mitigate erosion of the exposed soils. This would also serve to enhance a natural corridor along a hydrologic linkage.

The extent of this restoration work was illustrated in the Conceptual Restoration Plan and described in the CEMS. It was anticipated that the significant valleyland would continue to function as a regional linkage, as there was nothing in the proposed landscaping restoration that would prevent the continued linkage function.

The limit of the RNHS in the vicinity of the slope failure was based on the existing LTSTOS plus the 15 m setback. This area was to be naturalized with buffer plantings, in accordance with CH requirements.

A plan for the buffer and conceptual vegetation treatment of the eroded slope is provided in **Appendix C3** and is described in this section. Drawings will be finalized as part of detailed design by Beacon and included in an application for a permit pursuant to O. Reg. 41/24, as described in **Section 6.1** below.

5.4.3.1 Capping and Decommissioning Storm Sewer

This outfall is no longer in use and will be capped and fully filled with grout, in consultation with the project engineer. The entire pipe that is buried within the slope will not be removed to mitigate anticipated impacts to the valley wall.

5.4.3.2 Erosion and Sediment Control

A Silt Sock at the bottom of slope will be installed immediately south of the proposed restoration area to provide temporary erosion and sediment control. The contractor will be required to install the Silt Sock prior to the commencement of any work and must be reviewed and approved by Beacon before the start of the work. The Contractor will be required to maintain the Sock in a good functioning condition until the area is sufficiently stable.

5.4.3.3 Debris Management

Three segments of storm sewer pipe and associated debris are present at the bottom of the eroded slope. The pipe segments are proposed to be lifted out of the valley using an excavator and chain(s). The excavator will be parked beyond the top of bank and will extend the hydraulic arm down the slope. A long chain will be inserted through one concrete pipe segment at a time and the chain will be secure to the hydraulic bucket before lifting to the top of slope for off-site disposal.

Prior to the seeding of the steep slopes, removal of woody debris, stones including scarification of the soil surface will be required.

5.4.3.4 Canopy Pruning

It is proposed to prune the lower and upper branches of the adjacent trees, as needed, to allow more sunlight to reach the slope restoration plantings. Canopy pruning will be undertaken by ISA Certified Arborists following arboricultural Best Management Practices and working around nesting birds protected under the MBCA.

5.4.3.5 Vegetated Interruption Socks Along Contours

A Vegetated Interruption Sock is a physical barrier designed to reduce runoff flow velocity and erosion. The Sock consists of a tubular mesh netting that is filled with a growth medium (e.g., compost and soil mixture). At the time of installation, Socks will be filled near their final location with the specified seed mixtures and growth medium. The Socks are then anchored to the slope with wooden stakes.

Smaller 20 cm diameter Interruption Socks will be installed along the steep slope, whereas larger Socks ranging from 45 cm – 60 cm diameter will be used along the lower portion of the slopes as well a across the gully to create barriers and hold the growth medium to be placed at the bottom of the gully and valley slope.

5.4.3.6 Planting Approach

The Vegetated Socks will provide growing medium for the establishment of native grasses and forbs as well as native shrubs. Live stakes of selected native shrub species will be planted in a horizontal line through the Socks. If feasible, it is also proposed to install fascines in a horizontal line atop live stakes between two Interruption Socks and or between the Interruption Sock and the native slope. Shrub species selected for the live stakes and fascines shall consist of the following:

- *Cornus amomum* – Silky Dogwood;
- *C. racemosa* - Gray Dogwood;
- *C. rugosa* – Round-leaved Dogwood*;
- *C. sericea* – Red-osier Dogwood;
- *Salix exigua* – Sandbar Willow; and
- *Viburnum lentago* – Nannyberry.

* If Round-leaved Dogwood is not available, it will be substituted with another species approved by Beacon.

Planting densities for 1-gallon potted shrubs are 1.7 per square metre, whereas 8.5 herbaceous plugs are proposed per square metre.

On the very steep slopes, it is proposed to hydroseed a native seed mix and nurse grass seed mix with the application of a soil amendment and engineered fibre matrix product(s). The proposed soil amendment is designed to accelerate the development of soils and helps the establishment of vegetation. The Engineered Fibre Matrix is a non-toxic biodegradable hydraulic mulch that promote rapid establishment of vegetation and temporarily reduces erosion and sediment transport. Following the planting of the shrubs and herbaceous ground cover, the restoration planting area will be seeded with the Woodland Seed Mix. The method of seeding for this area will be determined during the preparation of the detailed design drawings.

6. Next Steps

This section presents the next steps for implementation of the recommendations in this Scoped EIA. Included in this Scoped EIA are preliminary landscaping designs for review by agencies and support of the application for DPOS.

6.1 Permits from Conservation Halton

The following items to facilitate the proposed development require a permit pursuant to O. Reg. 41/24, to undertake work within the CH regulated area shown on **Figure 5**:

- Development within flooding and erosion hazards:
  - To restore the eroded slope around a historic storm sewer; and
- Development within or adjacent to wetlands:
  - To restore the eroded slope around a historic storm sewer;
  - To construct a portion of a new SWM pond, along with the outlet infrastructure and access road, between 15 m and 30 m from a re-created wetland; and
  - To construct the residential development on Block 6 between 15 m and 30 m from a re-created wetland.

A stormwater pond and outlet design, a site plan application for Block 6, detailed Landscaping Plan, ESC Plan and Staging Plan will be required as part of the future permit application. The following subsections include the items that will be addressed in these applications.

6.1.1 Development within Flooding and Erosion Hazards

The restoration of the eroded slope at the historic storm sewer outfall was agreed to with CH as part of the CEMS and is described above. It is proposed to include limited placement of growing media in filter socks and planting of native species.

6.1.2 Development Within or Adjacent to Wetlands

Restoration of the eroded slope is proposed within or adjacent to wetlands as noted above.

The wetland that was re-created on the tablelands has been implemented with a 15 m lot line setback. However, in accordance with O. Reg. 41/24, the area regulated by CH extends 30 m from the limit of this re-created wetland. As a result, a portion of the SWM pond, and its associated outlet infrastructure and access road, is proposed to be constructed outside of the 15 m setback to the restored wetland but within the 30 m regulated area; therefore, these works will require a permit from CH.

In addition to a portion of the SWM pond being, a portion of Block 6 is also within CH's regulated area (i.e., between 15 m and 30 m from the designed limit of the recreated wetland). To be conservative, the conceptual design of Block 6 provides for the above grade portion of the building to be outside of CH's regulated area; however, the underground parking would likely encroach within the regulated area.

This can be discussed further with CH at detailed design in terms of permitting requirements for the underground parking.

6.2 Monitoring and Adaptive Management

The preliminary monitoring plan proposed in this Scoped EIA follows from the approved CEMS monitoring plan. As noted in the CEMS, this section describes additional monitoring measures to ensure that the specified mitigation measures have been implemented and are performing as anticipated. It is proposed that a monitoring and adaptive management plan be finalized during detailed design.

This section has been divided into Erosion and Sediment Control monitoring and Ecological Restoration monitoring. Following the CEMS, one additional section has been added for buffer performance monitoring.

At the request of the Town, this monitoring plan has been reconsidered in the context of the Derry Green Corporate Business Park Subwatershed Impact Study Monitoring Terms of Reference (AMEC 2015). Note that the Derry Green SWS area, that was the basis of the Monitoring Terms of Reference, was large and complex, covering approximately 800 ha in area, whereas the proposed development covers less than 3% of that area (20.3 ha). The Derry Green SWS also pre-dates the Town's CLI-ECA, and the latter will precipitate its own monitoring obligations. As such, some aspects of the Derry Green monitoring program are not applicable to the subject property and/or may duplicate the requirements under the CLI-ECA. **Table 4** gives a summary of the components in the Derry Green monitoring program, adapted from Table 5.1 (AMEC 2015), and their applicability to this Scoped EIA. If applicable, the requirement has been carried forward to the proposed Monitoring and Adaptive Management Plan (**Table 5**).

It should be noted that SWM monitoring required by the CLI-ECA is discussed in the FSR (Urbantech 2026) and that such a monitoring plan will be prepared as part of detailed design.

Table 4. Comparison to Derry Green Monitoring Plan

Derry Green Monitoring Component in 2015	Applicability to 150 Steeles Ave E Scoped EIA
SWM facility inlet and outlet inspection	**Yes (subject to CLI-ECA)** — SWM facilities are designed to rigorous provincial standards, administered by the MECP and Town under a CLI-ECA. The Town has indicated that MECP will require annual monitoring of the stormwater outlet; therefore, they have requested a 4-m wide access road for monitoring and maintenance purposes. In anticipation of the above, localized erosion monitoring by a fluvial geomorphologist is proposed at the SWM outlet in **Section 6.2**.
Water temperature at SWM outlet	**To be determined** — The SWM facility is designed for typical Town and MECP requirements, which included consideration of thermal mitigation features (e.g., 3-m deep permanent pool). Based on the receiving features, thermal mitigation is not yet a requirement. There is potential that the MECP Monitoring Guidance may precipitate documentation of water temperature at the time of sample collection.

Derry Green Monitoring Component in 2015	Applicability to 150 Steeles Ave E Scoped EIA
Groundwater recharge and quality	**Limited/if required** — Remediation of contaminated groundwater has proceeded as documented in the RSC; therefore, the impact to groundwater quality is positive in the long-term. No groundwater monitoring is required following the remediation. Infiltration testing of LIDs may be implemented, subject to the CLI--ECA. Groundwater level monitoring may be accommodated with existing well(s) in the NHS, if required by the Town; however, such monitoring may not be actionable in an adaptive management context. Daily and weekly groundwater monitoring is recommended by DS Consultants (2025) during any construction dewatering to assess any adverse impacts.
Fluvial geomorphology of Sixteen Mile Creek	**None** — Fluvial geomorphology is the study of river systems. No rivers were impacted during the remediation and no rivers are proposed to be disturbed as part of the proposed development. The anticipated limit of grading downstream of the proposed storm outlet will be located approximately 200 m from the closest river (Sixteen Mile Creek). Given the extensive upstream drainage area, it is unlikely that erosion monitoring within Sixteen Mile Creek could identify any issues as a result of works on the subject property. The SWM pond is designed to provide SWM quantity controls to mitigate downstream erosion. As such fluvial monitoring of the watercourse is not recommended as part of the future monitoring program.
Fish habitat mapping and fish community sampling	**None** — Fish habitat on and adjacent to the subject property is associated with Sixteen Mile Creek. The proposed storm outlet requires grading in an existing swale that cannot be accessed by fish and is not connected to a waterbody that can be accessed by fish. The anticipated limit of grading downstream of the proposed storm outlet will be located approximately 200 m from direct fish habitat associated with Sixteen Mile Creek. Fish community sampling was not completed as part of the CEMS, and it is not recommended as part of the future monitoring program.
Chemical analysis of sediment and water in SWM facility	**Limited / to be determined** — The SWM facility is designed to mitigate certain water quality parameters as described in the FSR. Monitoring at the SWM facility inlet and outlet for water quality parameters is anticipated to be determined through the CLI-ECA process and will be part of the future SWM monitoring program, as discussed in the FSR (Urbantech 2026).
Natural Heritage System: Boundary integrity (i.e., buffer performance and human impacts)	**Yes** — See **Section 6.2.3** for description.
Natural Heritage System: ELC	**None** — Vegetation communities typically change slowly over time; therefore, ELC monitoring would likely not detect a change in vegetation within the NHS over the monitoring timeframe.
Natural Heritage System: Woody canopy health	**None** — In recent years, widespread canopy decline has been caused by the proliferation of invasive pests or disease, such as Emerald Ash Borer, Dutch Elm Disease (*Ophiostoma spp*), and Beech Bark Disease. Any change in canopy in the near future is anticipated to be attributable to introduction of invasive species by humans on a continental-scale, rather than any impact of

Derry Green Monitoring Component in 2015	Applicability to 150 Steeles Ave E Scoped EIA
	localized development. Any effect of development would be likely not be detectable on a site level. The CEMS identified the requirement to monitor conformance with the landscaping plans and CH planting densities for plantings within the slope vegetation area (plantings to be completed as a draft plan condition), remediated woodland area and re-created wetland (monitoring began in 2025), within the buffer (plantings to be completed as a draft plan condition) and within the additional Enhancement Areas (monitoring to begin following their completion). The CEMS also noted that the monitoring of these areas is to confirm that the conditions of the planting warranty are met by the end of the two-year warranty period.
Natural Heritage System: Floristic Quality Assessment	**None** — The pre-remediation NHS studied in the CEMS was low in plant species diversity, with a high proportion of exotic species or those that are tolerant of disturbance. Following the restoration plantings and seeding, this diversity is anticipated to improve. The CEMS did not identify the need to monitor for floristic quality assessment and it is not proposed as part of this report.
Natural Heritage System: Invasive plant mapping	**Yes** — This was agreed to in the CEMS and invasive species management has already taken place. See **Table 5** below for details related to the monitoring program.
Natural Heritage System: Wetland hydrology	**Yes** — This was agreed to in the CEMS and began in 2025. See **Table 5** below for details related to the monitoring program.
Natural Heritage System: Wildlife surveys for target species	**Yes** — Incidental wildlife observations around the re-created wetland were agreed to in Table 17 of the CEMS. Given that the hydroperiod for the ponds has exceeded expectations, amphibian surveys are recommended to be completed, as detailed in **Table 5**, for information purposes.

6.2.1 Erosion and Sedimentation Control and Monitoring

ESC is a first line of water quality protection and is implemented prior to construction. ESC measures are described in the FSR (Urbantech 2026) and detailed plans will be developed in a future design phase. The ESC plan will outline the various measures that will be implemented to address erosion and sedimentation during construction.

The following list provides a summary of key components of the ESC monitoring strategy:

- Inspections conducted by a competent person (e.g., CAN-CISEC);
- Inspections frequency on weekly basis, at a minimum:
    - Prior to predicted rain events;
    - After rain events;
    - After significant snow melt; and
    - Daily during extended rain or snow melt;
- Damaged ESC measures to be repaired within 48 hours of inspection;
- ESC Strategies that will be illustrated on drawings are not intended to be static and should be adaptively managed as needed to prevent sediment release; and

- Sediment accumulation by ESC measures to be inspected and cleaned, if required, to maintain function.

As noted in the FSR (Urbantech 2026), erosion and sediment controls will be implemented during all site construction works including topsoil stripping, bulk earthworks, foundation excavation, site servicing and stockpiling of materials and will conform to ESC guidelines. Typical measures will include:

- Heavy duty sediment fence along the perimeter of the site;
- Mud mat at the construction site entrance(s);
- Wrapping the tops of all existing inlet structures with filter fabric and using silt sacks;
- Sediment ponds or sediment traps at discharge locations; and
- Cut-off swales with check dams to direct flows to discharge locations.

If required, site-specific measures will be determined during the detailed design/site alteration application stage, to comply with the CLI-ECA that is held and administrated by the Town on behalf of MECP.

ESC specifications and notes will be in conformance with CSA standards and the *Sustainable Technologies Evaluation Program: Erosion and Sediment Control Guide for Urban Construction* (TRCA 2019).

Construction and post-development localized erosion monitoring is proposed at the SWM outlet to identify any channelization or concentration of flows in the wetland, as described in **Table 5**.

6.2.2 Restoration Monitoring

Restoration monitoring will be conducted for five-years following restoration of the woodland or wetland, whichever is later, to ensure that long-term impacts to the RNHS are as anticipated. A network of monumented photo stations will be established to document the evolution of the RNHS during the monitoring period.

The timeline for restoration works to date is as follows:

- In late 2023, wetland cells were constructed, nearby invasive species removed (European Buckthorn) from the enhancement area, wetland buffer graded, and planted, as per **Appendix C1**;
- By June 21, 2024, the wetland, enhancement area, and wetland buffer plantings were completed. The two-year planting warranty for these areas will continue through June 21, 2026; and
- By November 8, 2024, the significant woodland was restored to pre-landfill grades and planted, while the remainder of the invasive species areas were treated and planted, as per **Appendix C2**. The two-year planting warranty for these areas will continue through November 8, 2026.

Regular inspections in the above restoration areas have been ongoing by a Beacon landscape architect between 2023 and 2024 to ensure conformance with the landscaping plans. As the woodland was completed out of season in late 2024, the first year of restoration monitoring was in 2025.

Regarding the hydrology of the re-created wetland, the modelling carried out in the CEMS suggested the water level in the depressions would have seasonal drawdown and an ephemeral hydroperiod. Following construction, based on site inspections during the restoration works, the hydroperiod for the wetland depressions extends throughout the growing season in wet years.

The restoration area and wetland buffer, as of October 2024, is in accordance with drawings in **Appendix C1**, as demonstrated by drone photography in **Appendix E**.

The remaining restoration following from the CEMS is: (1) vegetating the eroded slope; and (2) the planting of the woodland buffer. Buffer planting warranty and performance monitoring is discussed below in **Section 6.2.3**.

As it relates to the restoration plantings along the deepened swale along the former rail spur line, this area is proposed to be regularly monitored by a landscape architect, as is being done for other restoration areas.

6.2.3 Buffer Performance Monitoring

Similar to restoration monitoring above, buffer performance monitoring will be conducted for five-years following complete planting of the buffer to ensure that long-term impacts to the RNHS are as anticipated and the principles of buffer design, outlined in Section 3.6 and the CEMS, are continued to be met.

As noted above, the portion of the buffer that surrounds the re-created wetland was completed with the wetland creation and is already in the two-year warranty period. The remainder of the buffer (i.e., woodland buffer) will be subject to a separate two-year warranty period, which will begin upon completion.

Monitoring activities and requirements are outlined in **Table 5**.

Table 5. Monitoring and Adaptive Management Plan

Category	Monitoring Target(s)	Adaptive Management Action(s)	Methods	Monitoring Frequency	Reporting Requirements	Responsibilities for Monitoring
Landscape Restoration Areas: 1) Slope Vegetation Area 2) Remediated Woodland Area 3) Re-created Wetland Area 4) Buffer Area 5) Additional Enhancement Area(s) 6) Stormwater outlet swale	In conformance with landscaping plans and CH planting densities Conditions of planting warranty for the given area are met by end of two-year period	Any planting deficiencies to be corrected by landscaping contractor	Inventory and assess landscaped areas	At time of installation Prior to expiration of two-year warranty period	In first annual report following the start of warranty for the given area, include confirmation of planting conformance with landscaping plans In annual report following the end of any warranty period, include confirmation that planting warranty conditions are met	Beacon
Hydrology of Re-Created Wetland	Appropriate hydroperiod for the establishment of wetland vegetation	If necessary, modify pit and mounds to achieve desired hydrology	Continuous monitoring of water depth in large pit via pressure transducer, which began in spring of 2025.	Annually, beginning in 2025 for a period of five years. As required for continuous monitoring	In each annual report, include: - results of continuous water level monitoring in the large pit; and - mapping of extent of wetland vegetation. If terrestrial crayfish are observed during annual surveys, these observations will be included in the monitoring report	Beacon
			Confirm and map the extent of hydrophytic and water tolerant vegetation using the OWES wetland plant list	Annually, beginning in 2025.		
			Visually estimate water depth and presence in each wetland pit. Note: this task was requested by the Town in late 2025, following their review of the first EIA submission.	Following each nocturnal breeding survey in spring and early summer, And once, annually, in late June or early July beginning in 2026 for a period of four years, to match the CEMS monitoring period.		
Amphibian Breeding Function of Re-Created Wetland	None — for information purposes only	None — for information purposes only. Based on Beacon's inspections, the hydroperiod is anticipated to facilitate amphibian breeding.	Three nocturnal surveys to document calling anurans (frogs and toads) in spring and early summer, as per the Marsh Monitoring Protocol (Bird Studies Canada 2019). One visual encounter survey (VES) for amphibian egg masses, tadpoles, and adults will be conducted after the amphibian breeding season concludes each year. There is no official protocol for amphibian VES but conditions should be sunny for higher success of viewing species.	Annually, beginning in 2025, for a period of five years.	In each annual report, include results of amphibian monitoring programs.	Beacon
Reptile Habitat	None — for information purposes only	None — for information purposes only	The artificial snake hibernaculum and adjacent area will be surveyed as per the *Survey Protocol for*	Once, in 2029. Turtle survey will only be conducted if suitable habitat appears to exist.	In the fifth annual report, include results of reptile monitoring.	Beacon

Category	Monitoring Target(s)	Adaptive Management Action(s)	Methods	Monitoring Frequency	Reporting Requirements	Responsibilities for Monitoring
			Ontario's Species at Risk Snakes (OMNRF 2016). If any wetland pit is continuously inundated following the fourth year of monitoring, it will be surveyed for basking turtles as per the *Survey Protocol for Blanding's Turtle in Ontario* (OMNRF 2015).			
Dragonfly, Damselfly, and Butterfly Habitat	None — for information purposes only	None — for information purposes only	The wetland area will be surveyed as per the CEMS.	Once, in 2029.	In the fifth annual report, include results of insect monitoring.	Beacon
Anthropogenic Refuse/Waste in Woodland	In conformance with landscaping plans	Direct contractor to rectify deficiencies	Inventory of previously mapped refuse/waste	Once within the season that waste was removed	In first annual report, include confirmation of conformance with landscaping plans	Beacon
Invasive Species Treatment in Tableland Woodland	In conformance with landscaping plans Post treatment or removal to have 10% or less of previous cover	Direct contractor to rectify deficiencies	Mapping/ inventory of areas identified for invasive species management	If herbicide application is specified, compliance monitoring shall occur at the time of herbicide application If removal is specified, compliance monitoring may occur within the same season All treatments/ removals shall be subject to annual performance monitoring for five years beginning in 2025	In first annual report, include confirmation of conformance with landscaping plans In each annual report following the first year, include mapping of invasive species extent	Beacon
Supplemental Wildlife Habitat Structures	In conformance with landscaping plans In functional state in subsequent years	Direct contractor to rectify deficiencies	Visual inspection	At time of installation Annually, beginning in 2025, for a period of five years	Include status of habitat structures in all annual reports	Beacon
Stormwater Outlet Swale	Stabilized post-construction Naturalization plantings complementary to significant woodland function	Strategic plantings or minor alterations to dissipate concentrated flows Replacement plantings	Visual inspection — monumented photos	Annually, beginning post-construction of the deepened swale, for a period of five years.	In all annual reports, include statement on condition of swale and valley draw at the downstream limit of grading and monumented photo(s).	Beacon
Water quality effect of SWM pond	To be determined (TBD) by CLI-ECA requirements.	TBD by CLI-ECA requirements.	TBD by CLI-ECA requirements.	TBD by CLI-ECA requirements.	TBD by CLI-ECA requirements.	TBD following finalization of CLI-ECA requirements.
Buffer Performance	Mitigating human disturbance in the Key Features of the NHS	Repair fencing; removal of dumped waste; closure of informal trails; resident education through signage if needed.	Visual inspection along the length of the buffer. If disturbance extends into the Key Feature, inspection will extend into the feature.	Annually, beginning in the growing season following the landscaping of the buffer, beginning in 2025 for a period of five years.	In all annual reports, include details of disturbance so the landowner may implement adaptive management. In all annual reports, include an assessment whether the buffer is effective in protecting the Key Feature.	Beacon

6.3 Annual Reporting

The first monitoring report associated with the CEMS-related monitoring items will be submitted to the Town and CH by March 1, 2026. Subsequent monitoring reports will be submitted annually for five years by March 1 of the year following monitoring. The final monitoring report associated with the CEMS-related monitoring items will be submitted by March 1, 2030. Monitoring of items related to SWM and the outlet will extend five years from the date of construction of the facilities.

7. Policy Conformity

Table 6 below provides a summary of how the proposed development complies with applicable provincial, municipal, and conservation authority policies and regulations.

Table 6. Policy Conformity

Applicable Policy / Legislation	Policy/Legislative Intent	Scoped EIA Findings & Recommendations
Provincial Planning Statement (2024) under the *Planning Act* (1990)		
1. Habitat of Endangered Species and Threatened Species	The PPS does not permit development or site alteration in habitat of threatened or endangered species except in accordance with provincial and federal requirements.	Maternity roost habitat of endangered bat species exists within the woodland communities on the subject property. The preferred stormwater outlet location will require removal of trees including several snags. Past guidance from MECP notes that if a small number of potential bat maternity roost trees are being removed, then there is no need to conduct further assessment provided the removals do not eliminate or impair the function of woodland for supporting bat life processes and removals are conducted outside the active bat roost period. Given the small number of snag removals and large area of remaining contiguous woodland, the tree removals are not expected to impair or eliminate bat maternity roost habitat. It is recommended that this be confirmed with MECP or through a registration, in accordance with provincial and federal requirements.
2. Significant Wetlands	The PPS does not permit development or site alteration in significant wetlands, except for conservation, wildlife management and stewardship purposes. The PPS also does not permit development or site alteration on lands adjacent to significant wetlands unless it can be demonstrated there will be no negative impact upon the feature and its functions.	Provincially significant wetlands are not present in the study area.

Applicable Policy / Legislation	Policy/Legislative Intent	Scoped EIA Findings & Recommendations
3. Significant Woodlands	The PPS does not permit development or site alteration in significant woodland or its adjacent lands unless it can be demonstrated through an EIA that there will be no negative impact upon the feature and its functions.	This feature will be protected in the long-term by a 15 m naturalized buffer. The length of the buffer will be fenced and there will be no trails within the NHS. Impacts on significant woodland vegetation during construction of the SWM outlet to accommodate grading of the outlet swale will require removal of some trees. To mitigate this loss, opportunities for tree preservation and ecological restoration will be utilized in detailed design through the preparation of a Tree Impact and Mitigation Strategy as a condition of draft plan approval.
4. Significant Valleylands	The PPS does not permit development or site alteration in significant valleyland or its adjacent lands unless it can be demonstrated through an EIA that there will be no negative impacts upon the feature and its functions.	Significant valleyland is identified along Sixteen Mile Creek on the subject property. This Scoped EIA recommends that the valley be protected in the long-term with a 15 m naturalized setback from the LTSTOS; however, in many cases the setback is much greater than 15 m given the presence of the significant woodland, re-created wetland, and associated buffers. Where the short section of unstable slope is present, it is recommended this area be cleaned of anthropogenic debris and revegetated. A permit from CH will be required to complete this work pursuant to O. Reg. 41/24. A storm outlet will discharge to a swale along a former rail spur line. A fluvial geomorphologist should confirm the receiving swale is not at risk of erosion from stormwater flows. If erosion protection is required, bioengineering solutions are recommended, consistent with the principles of ecological restoration.
5. Significant Wildlife Habitat	The PPS does not permit development or site alteration in Significant Wildlife Habitat (SWH) or its adjacent lands unless it can be demonstrated through an EIA that there will be no negative impacts upon the feature and its functions.	Mitigation for SWH was implemented following the CEMS. Potential SWH in the recreated wetland is proposed to be both monitored in the short-term and protected, by a 15 m naturalized buffer in the long-term. Potential impacts of stormwater discharge on SWH within the receiving wetland in the valley will be mitigated by implementing stormwater management technologies to meet stormwater quality standards. Additionally, outflows from the SWM pond will discharge through a 130 m long (approximate) naturalized swale which provides opportunities for additional polishing of treated stormwater. Therefore, water quality impacts affecting SWH within the wetland are expected to be minimal.
6. Significant Areas of Natural and Scientific Interest (ANSI)	The PPS does not permit development or site alteration in Significant ANSIs or the adjacent lands unless it can be demonstrated through an EIA that there will be no negative impacts upon the feature and its functions.	There are no ANSIs on or in the vicinity of the subject property.

Applicable Policy / Legislation	Policy/Legislative Intent	Scoped EIA Findings & Recommendations
7. Natural and Human-Made Hazards	Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage and not create new or aggravate existing hazards. The PPS directs planning authorities to prepare for the impacts of a changing climate that may increase the risk associated with natural hazards.	Natural hazards (flooding and erosion) are identified on the subject property and development is directed away from these areas with appropriate setbacks (i.e., 15 m from the greatest slope or flood hazard). Human-made hazards have been mitigated by remediation following the CEMS, as documented in RSC. Planning authorities may prepare for the impacts of a changing climate by updating standards for infrastructure and modelling hazards. No specific climate change standards have been prepared by the Town. As discussed with Urbantech, per common engineering practices, the development blocks are situated above the maximum flooding elevations with appropriate freeboard from overland flow routes to mitigate risk during emergency-level storm events or back-to-back storms. It is the study team's view that the implementation of a treatment train approach, as required by the CLI-ECA, thermal mitigation using a 3-m deep permanent pool, and the provision of a naturalized outlet swale builds resilience in the stormwater management system, possibly improving resistance to climate change. The provision of LIDs on the subject property (if feasible), in concert with the SWM pond and additional polishing offered by the deepened outlet swale, provides an appropriate treatment train approach to SWM. In addition, the restoration of the NHS, provision of naturally vegetated buffers and use of climate resilient species when preparing future landscape plans will also assist the NHS in being resilient to climate change.
Official Plans made under the *Planning Act* (1990)		
Halton Region Official Plan	Halton Region identifies an NHS as being comprised of significant natural heritage features, watercourses, enhancement areas, linkages, and buffers. Generally, development is not permitted within the NHS, unless in accordance with Federal and Provincial legislation and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.	Components of the Regional NHS on the subject property include significant woodlands, significant wetlands, significant valleyland, SWH, fish habitat, and habitat for endangered bats. With the exception of a headwall, portion of an access road, turnaround, and deepened swale within the significant woodland, no new development or site alteration is proposed or required within the NHS features or applied buffers. The Scoped EIA demonstrates that the proposed development will have no negative impact on components of the NHS, provided that the mitigation measures recommended in this report are implemented. Impacts on the significant woodland due to the storm outlet include removal of trees from along the former rail spur line. It was determined through an evaluation of alternatives that the preferred option was least impactful on the NHS. Woodland enhancements are recommended to mitigate the loss of trees.

Applicable Policy / Legislation	Policy/Legislative Intent	Scoped EIA Findings & Recommendations
Town of Milton Official Plan	The Town of Milton identifies a Greenlands System, with corresponding policies for the protection, maintenance and enhancement of significant natural features and areas.	The Scoped EIA demonstrates that the proposed development will have no negative impact on the NHS or Greenlands System, provided that mitigation measures in **Section 5** are implemented. The NHS will be dedicated to the Town through the DPoS process to ensure the long-term protection of the system. The Town already owns the lands on which the pipe and deepened swale will be constructed for the SWM pond outlet.
Federal Legislation		
***Fisheries Act* (1985)**	Fish and fish habitat are protected under the *Fisheries Act* (1985). Proponents are responsible for planning and implementing works, undertakings or activities in a manner that avoids harmful impacts, specifically the death of fish and the harmful alteration, disruption, or destruction of fish habitat. The PPS also does not permit development or site alteration in Fish Habitat or its adjacent lands unless it can be demonstrated through an EIA that there will be no negative impacts upon the feature and its functions.	The subject property contains a watercourse (Sixteen Mile Creek) that provides Fish Habitat. The watercourse will be maintained and protected in the long term within the NHS. Greater than 30 m buffers are provided to the watercourse. No impacts on fish habitat are anticipated provided the mitigation recommendations in the EIA are implemented. The proposed SWM outlet is well separated from the creek; therefore, in-water works and DFO review will not be required.
***Migratory Birds Convention Act* (1994)**	The federal *Migratory Birds Convention Act* (1994) and the Migratory Bird Regulations regulate migratory bird species in Canada. The regulation prohibits the destruction, damage, or disturbance of nesting migratory birds and applies to nests that contain a live bird or viable egg, and the nest of Schedule 1 species whenever and wherever they occur.	**Section 5.3** recommends that clearing of vegetation be avoided during the breeding bird season. No nests of Schedule 1 species were identified on the subject property.
Other Relevant Provincial Legislation and Regulations		
***Endangered Species Act* (2007)**	The *Endangered Species Act* (2007) protects species listed as endangered and threatened by the province. Section 9 of the Act prohibits the killing or harming of members of endangered, threatened, or extirpated species. Section 10 prohibits the damage or destruction of habitat of species listed as extirpated, endangered, or threatened.	Habitat for endangered bat species exists within the woodland communities on the subject property. The preferred/proposed stormwater outlet location will require removal of trees including several snags. Past guidance from MECP notes that if a small number of potential bat maternity roost trees are being removed, then there is no need conduct further assessment provided the removals do not eliminate or impair the function of woodland for supporting bat life processes and removals are conducted outside the active bat roost period. Given the small number of snag removals and large area of remaining contiguous woodland, the tree removals are not expected to impair or eliminate bat maternity roost habitat. It is

Applicable Policy / Legislation	Policy/Legislative Intent	Scoped EIA Findings & Recommendations
		recommended that this be confirmed with MECP to ensure compliance with the ESA.
Greenbelt Plan (2017) under the *Greenbelt Act* (2005)	The Greenbelt Plan, together with the Oak Ridges Moraine Conservation Plan and the Niagara Escarpment Plan, identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological and hydrological features, areas and functions occurring on the landscape. The Sixteen Mile Creek valleylands are identified as Urban River Valley in the Greenbelt Plan. Such a designation is only applicable to publicly-owned lands.	A portion of the Sixteen Mile Creek valleylands, immediately west of the subject property, is owned by the Town of Milton. As a result, the Greenbelt Plan Urban River Valley policies are applicable to those off-site lands. Once the valleyland on the subject property is dedicated to the Town through the DPoS process, the Urban River Valley policies will apply to that portion of the valley as well. The dedication of these lands into public ownership will assist with implementing Greenbelt Plan policy 3.2.6.1(b) which recommends that public agencies promote and undertake appropriate planning and design to ensure that external connections and Urban River Valley areas are maintained and/or enhanced. The restoration works outlined in the CEMS also resulted in implementation of several aspects of Policy 3.2.6.2 related to enhanced vegetative buffers and habitat restoration.
Prohibited Activities, Exemptions, and Permits (O. Reg. 41/24) under the *Conservation Authorities Act* (1990)	CH regulates hazard lands including stable slope, floodplains, and wetlands and ensures implementation of the Natural Hazard sections of the PPS.	Hazards on the subject property (flooding and erosion) have been confirmed with CH through the CEMS and the subsequent *Urban Milton Flood Hazard Mapping Study*. A permit will be obtained from CH to address the stormwater pond, development within Block 6, restoration of the eroded slope, and the stormwater outlet, as described in **Section 6.1**. Setbacks have been applied in accordance with Policy 3.2.2, which recommends a 15 m lot line setback from the greater of the floodplain limit, stable top of bank, or meander belt allowance. A portion of the SWM pond is proposed on lands regulated by CH (i.e., those lands between 15 m to 30 m of the re-created wetland), as shown in **Figure 5**. As such, a permit from CH will be required for the construction of the SWM Pond. A SWM pond monitoring plan will be provided in accordance with CH Policy 3.1.4 as part of detailed design, Vegetation will be protected during construction activities via the installation of sediment and erosion fencing. Wetlands on the subject property are regulated by CH. As discussed in Section 5, no hydrological impacts related to the amount or quality of water reaching the wetland are anticipated provided the mitigation recommendations in this report are implemented.
Conservation Halton Policies and Guidelines for the Administration of Part VI of the	Guide administration of CH regulatory responsibilities under the *Conservation Authorities Act* and under O. Reg. 686/21 (Natural Hazards sections of the PPS).	As noted above, a permit from CH is required. This Scoped EIA summarizes a natural hazard characterization, including feature staking and studies by qualified professionals, in accordance with CH policies 2.4.1.1, 2.4.2.1, 2.5, and 2.6.

Applicable Policy / Legislation	Policy/Legislative Intent	Scoped EIA Findings & Recommendations
***Conservation Authorities Act* and Ontario Regulation 41/24 Policies and Land Use Planning (April 2025)**	Policies that relate to this Scoped EIA include: 2.1 and 2.2 – Conditional prohibition of development in regulated areas, prescribed by O. Reg. 41/24 2.4.1.1 – Top of bank delineation 2.4.2.1 – Long-term stable top of bank delineation 2.5 – Wetland delineation 2.6 – Floodplain mapping 2.7 – Vegetation protection in regulated areas 2.8 – Works in CH regulated area to be conducted in accordance with CH guidelines. 3.1.4 – Monitoring 3.2.2 and 3.3.1 – Lot line setbacks to hazards	Lot line setbacks have been implemented as part of the CEMS and previous ZBA application, in accordance with CH policies 2.7 (in part), 3.2.2, and 3.3.1. Restoration of a failing slope was agreed to as part of the CEMS. Further conceptual plans are provided in this Scoped EIA and will be detailed as part of a future CH permit application, in order to provide for self-sustaining native vegetation as per CH policy 2.7, as per CH landscaping guidelines (CH policy 2.8). The stormwater outlet and associated deepened swale is proposed to be designed in accordance with the requirements of CH policy 2.7. Any areas disturbed as part of the outlet construction are recommended to be restored to self-sustaining native vegetation and in accordance with CH guidelines (CH policy 2.8). On-going monitoring of SWM facilities and the restored natural hazards is recommended in this EIA, in accordance with CH policy 3.1.4.

8. Conclusion

This Scoped EIA has been prepared in accordance with the approved CEMS (Beacon *et al*. 2023) and the approved Scoped EIA Table of Contents.

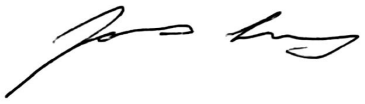
The primary purpose of this Scoped EIA is to demonstrate that the proposed development will not negatively impact the natural features and areas of the NHS that was previously identified through the approved CEMS.

The Scoped EIA has evaluated the existing biophysical resources, described the ecological mitigation and restoration, along with the natural hazards to identify all Key Features and other components of the RNHS in accordance with Regional, Town and CH policies.

The impact assessment describes in detail the proposed development, the ecological restoration that has taken place, along with the proposed eroded slope vegetation plan and related mitigative and restoration measures and their short and long-term impacts on various components of the RNHS. The impact assessment of the CEMS found that the proposed remediation would have a positive impact on the RNHS and its functions. Restoration following the CEMS is demonstrated in **Appendices D** and **E** of this Scoped EIA. This Scoped EIA demonstrates that the proposed development will not have a negative impact on the RNHS and its functions, provided the recommended mitigation measures are followed. Conceptual Restoration Plans related to the remaining buffer and the eroded slope are also appended to this Scoped EIA, which identify how the buffer will be implemented and how the slope will be restored.

Except for grading to accommodate a naturalized swale for stormwater conveyance, which will be designed to the satisfaction of agencies in detailed design, no development or site alteration is proposed within the NHS.

Prepared by:
Beacon Environmental Ltd.



James Seery, B.Sc.,
Ecologist,
ISA Certified Arborist (ON-2350A)

Reviewed by:
Beacon Environmental Ltd.

Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist,
ISA Certified Arborist (ON-1536A)

9. References

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Appendix A

Approved Table of Contents

Table of Contents - Final
Scoped Environmental Impact Assessment
150 Steeles Avenue Milton
October 2024

Table of Contents - Final
Scoped Environmental Impact Assessment
150 Steeles Avenue Milton
October 2024

October 28, 2024

Jessica Tijanic, M.Sc. MCIP RPP
Senior Planner, Development Review
150 Mary Street., Milton ON, L9T 6Z5
905-878-7252 ext. 2221
Sent via email: Jessica.Tijanic@milton.ca

RE: Peer Review of Draft Table of Contents for Agency Review, Scoped Environmental Impact Assessment, 150 Steeles Ave, Milton, July 2024

Dear Jessica:

The Town of Milton has requested North-South Environmental Inc. (NSE) to complete a peer review of the Draft Table of Contents for Agency Review, Scoped Environmental Impact Assessment, 150 Steeles Ave, Milton, prepared by Beacon Environmental, dated July 2024. NSE has previously provided comments on the Comprehensive Environmental Management Study prepared for 150 Steeles Ave (the 'subject property'). The review of the Draft Table of Contents has taken into consideration previous agency comments, including those provided by Halton Region, to which NSE was providing peer review services with regards to natural heritage planning matters.

To inform my review of the Draft Table of Contents for a scoped Environmental Impact Assessment (EIA) I have taken into consideration the Comprehensive Environmental Management Study (2nd Submission), 150 Steeles Avenue East, Milton. Prepared by Beacon Environmental Limited et. al., August 2023.

The Draft Table of Contents identifies the main sections that would be anticipated to be contained within the EIA. Given the specific content expected to be contained within each section heading is not described, the following comments are provided to ensure sufficient information is provided in the EIA:

1. Please ensure that the scoped EIA is completed in accordance with the Halton Region Environmental Impact Assessment Guidelines, 2020.
2. In the "Introduction" section, please include a sub-section that provides an overview of the previous studies (e.g., Comprehensive Environmental Management Study) along with a summary of previous agency correspondence, comments and direction regarding next steps.
3. Please ensure the "Adaptive Environmental Management and Monitoring" section is consistent with and refers to the Detailed Monitoring Plan that is anticipated to be prepared as part of the complete submission.

Please contact the undersigned if you have any questions or require clarification on the comments.

Sincerely,

Sal Spitale
Principal, Senior Ecologist
North-South Environmental Inc.

BEACON ENVIRONMENTAL

Appendix B

Historic Aerial Photography

Historic Condition 1984	Appendix A Figure 1

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Study Area

BEACON ENVIRONMENTAL

Project: 221265
Last Revised: February 2025

Client: 150 Steeles Milton Inc.	Prepared by: BD Checked by: SG	DRAFT

N

1:3,500

0 70 140 m

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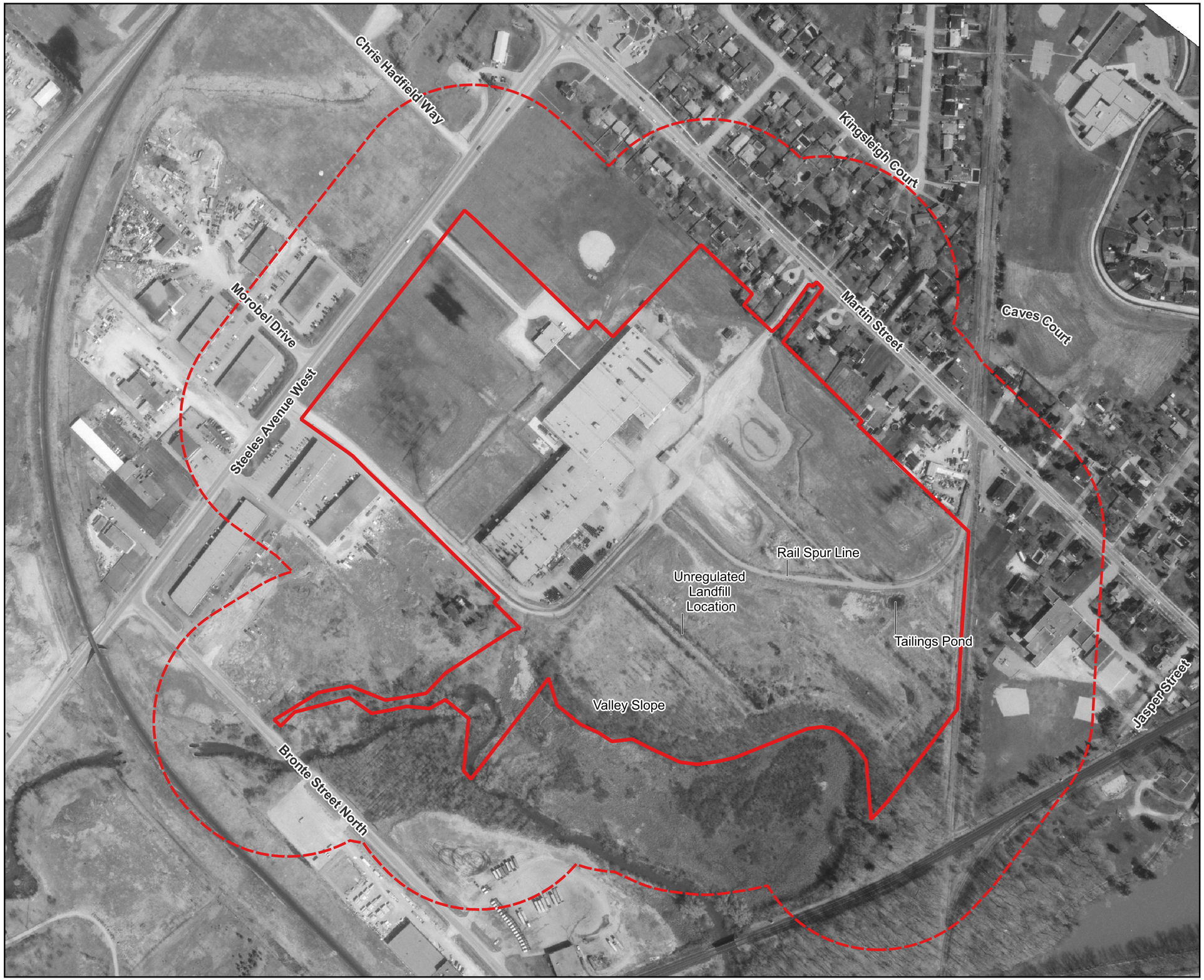

Historic Condition 1987 | Appendix A Figure 2

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Study Area

BEACON ENVIRONMENTAL

Project: 221265
Last Revised: February 2025

Client: 150 Steeles Milton Inc.

Prepared by: BD
Checked by: SG

DRAFT

N

1:3,500

0 70 140 m

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Historic Condition 1994	Apendix A Figure 3

150 Steeles Avenue Milton Scoped EIA

Legend

- Subject Property
- Study Area

BEACON ENVIRONMENTAL

Project: 221265
Last Revised: February 2025

Client: 150 Steeles Milton Inc.

Prepared by: BD
Checked by: SG

DRAFT

N

1:3,500

0 70 140 m

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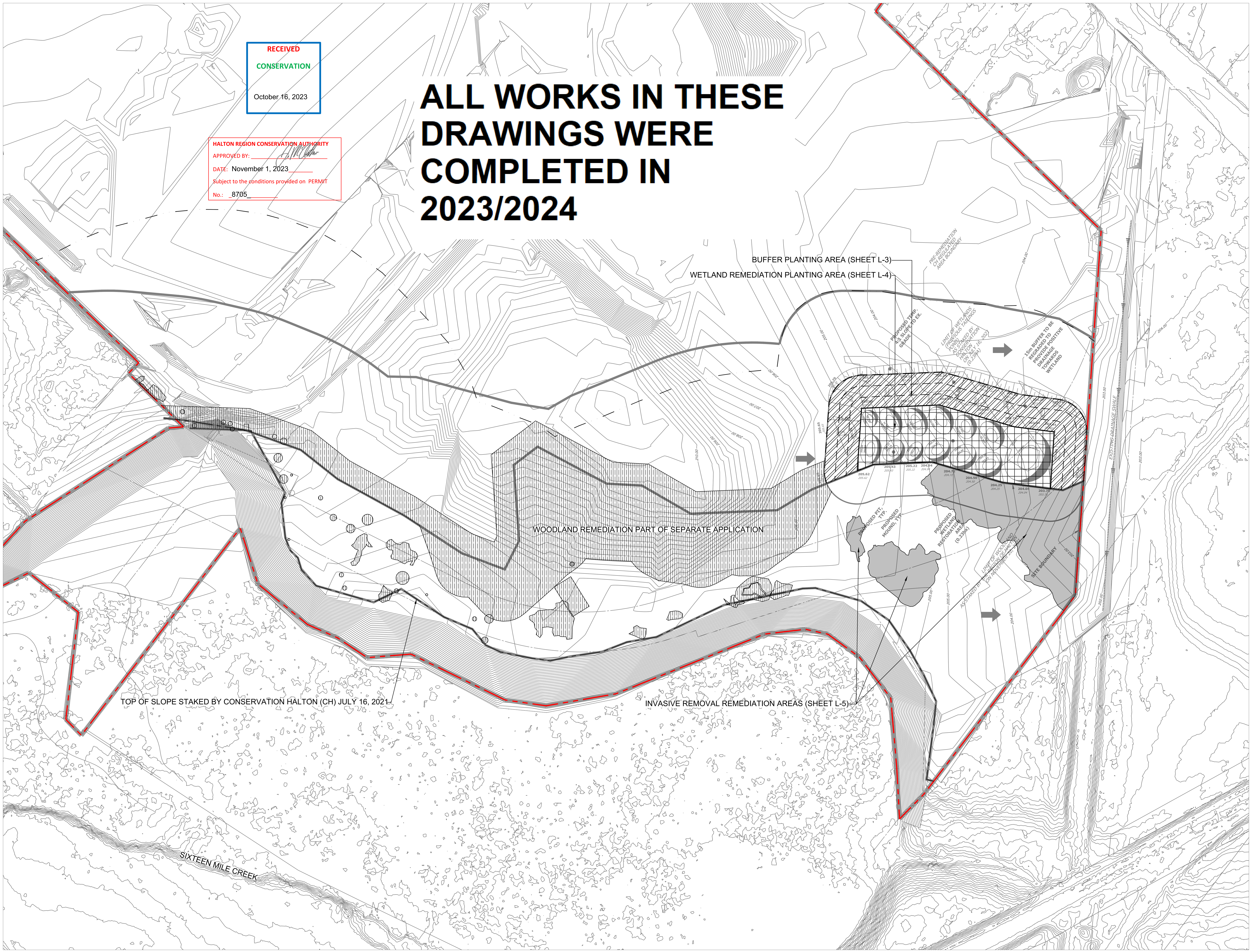
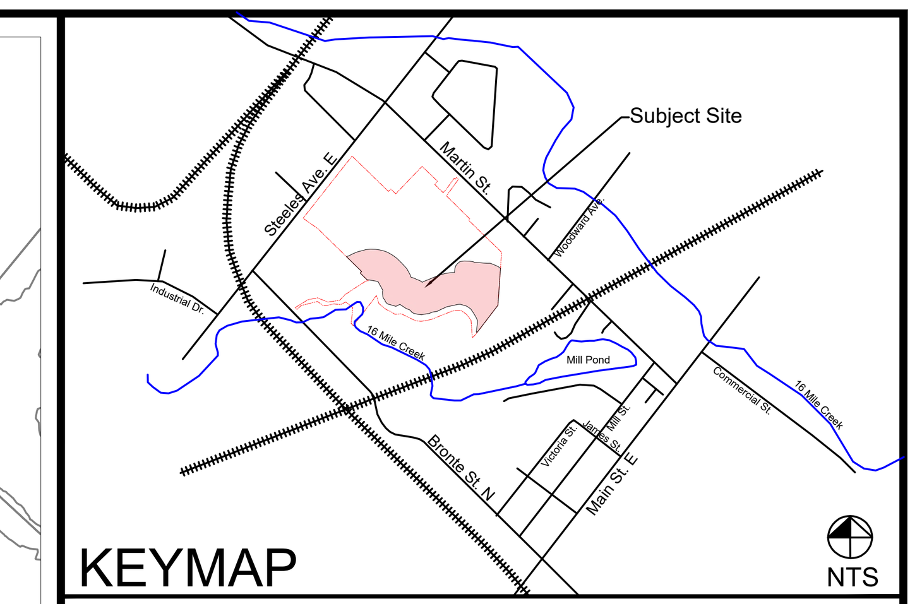
Appendix C

Landscape Restoration Drawings

Appendix C1

CH Approved Wetland Restoration Drawings





LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank Staked by CH July 16,2021
- Pr. Wetland Limit
- Pr. Wetland 15 m Buffer
- Wetland Remediation Planting Areas (Sheet L-4)
- Buffer Planting Areas (Sheet L-3)
- Invasive Species Area for Removal and Remediation
- Areas Part of Separate Application
- Pit & Mound Wetland Topography (By Others)

For grading design refer to the Proposed Pit and Mound Wetland Creation Drawing No 3 by Urbantech, February 2023.

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	REVISED TO ADDRESS CH COMMENTS	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/09	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE
1:750 (0 10 20m)

NORTH ARROW

SEAL
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
STEPHAN CRISPIN
OALA MEMBER
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

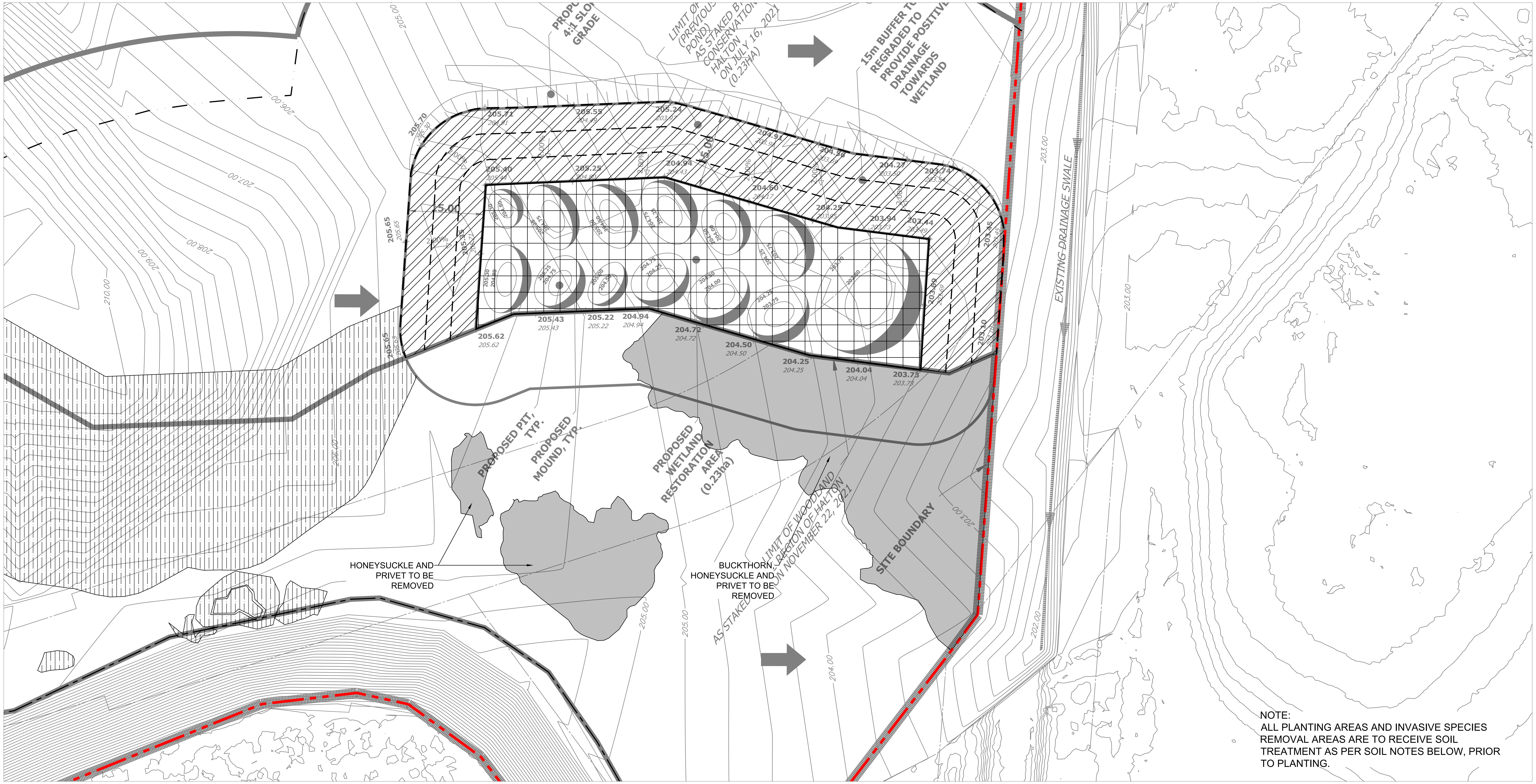
BEACON ENVIRONMENTAL
MARKHAM OFFICE
80 MAIN ST NORTH
MARKHAM, ON L3P 1X5
T) 905.201.7622
F) 905.201.0639
www.beaconenviro.com

CLIENT
NEATT COMMUNITIES

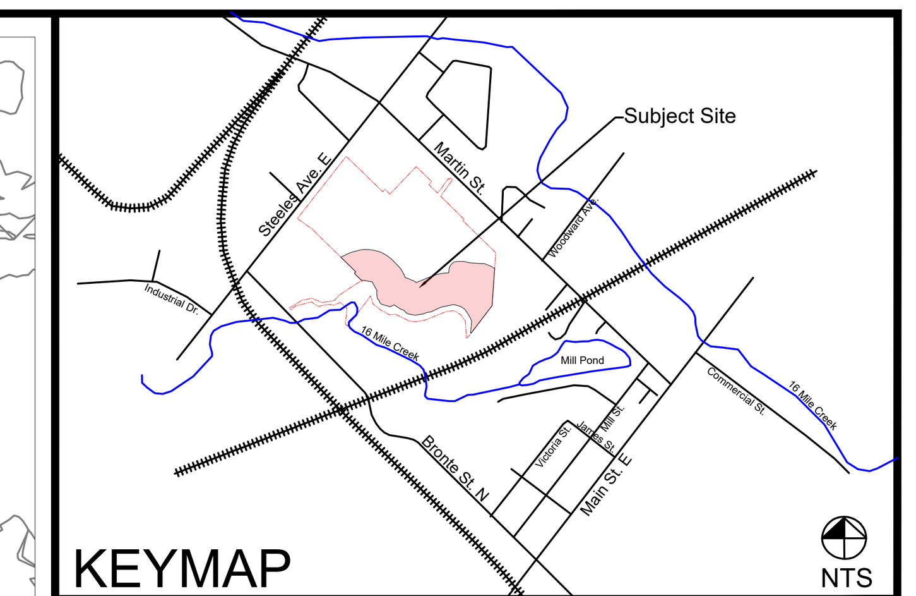
PROJECT
RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
OVERALL SITE CONTEXT PLAN

DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-0
CHECKED BY:	SC		
DATE:	15 October 2023		



NOTE:
ALL PLANTING AREAS AND INVASIVE SPECIES REMOVAL AREAS ARE TO RECEIVE SOIL TREATMENT AS PER SOIL NOTES BELOW, PRIOR TO PLANTING.



KEYMAP

NTS

LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank Staked by CH July 16,2021
- Pr. Wetland Limit
- Pr. Wetland 15 m Buffer
- Wetland Remediation Planting Areas (Sheet L-4)
- Buffer Planting Areas (Sheet L-3)
- Invasive Species Area for Removal and Remediation ($2976.8m^2$)
- Areas Part of Separate Application
- Pit & Mound Wetland Topography (By Others)
  For grading design refer to the Proposed Pit and Mound Wetland Creation Drawing No 3 by Urbantech, February 2023.

Notes: Scale shown is for an 36" x 24" page. For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	REVISED TO ADDRESS CH COMMENTS	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/09	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE

1:400
0 2 5 10 20m

NORTH ARROW

NORTH

SEAL

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
STEPHAN CRISPIN
OALA
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED
MEMBER
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

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CLIENT
NEATT COMMUNITIES

PROJECT
RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
SITE PREPARATION PLAN

DESIGN BY: MB	PROJECT Nº: 221265
DRAWN BY: MB	FIGURE Nº: L-1
CHECKED BY: SC	
DATE: 15 October 2023	

GENERAL NOTES :

1. This design has been prepared in response to the requirement to remediate existing soil contamination on the Subject Property and to meet the ecological restoration goals outlined in the Comprehensive Environmental Management Study by Beacon Environmental Limited, dated March 2023.
2. This drawing is to be read in conjunction with the written specifications for the project and all other drawings.
3. Any ambiguity in this drawing or accompanying details is to be reported to the project Landscape Architect from Beacon Environmental. Contractor is not to proceed in uncertainty.
4. Limits or work to be clearly understood by the contractor prior to any work taking place on site.
5. Access to invasive species removal and enhancement areas shall be limited to established routes to minimize disturbance to the woodland. Existing desirable vegetation (e.g., hawthorn shrubs) are to be preserved.
6. The Contractor shall visit the site to confirm all site conditions prior to submitting a bid. Report all discrepancies in writing to the project Landscape Architect
7. The Contractor must notify the project Landscape Architect a minimum of 5 (five) days prior to the commencement of any construction work.
8. If any part of this plan cannot be followed due to site conditions contact the Project Landscape Architect for instruction prior to commencing work.
9. Perform excavation in the vicinity of underground utilities with care and by hand if necessary. The Contractor bears full responsibility for this work and disruption of damaged utilities shall be repaired at no expense to the Owner.
10. Drawings may be scaled for layout measurement but dimensions and elevations shown are subject to verification on site.
11. The Contractor shall maintain all areas until Owner's acceptance of the project in accordance with the specifications.
12. It is the responsibility of the Contractor and/ or Owner to ensure that the drawings with the latest revisions are used for construction.

INVASIVE SPECIES REMOVAL: WOODY SPECIES

13. All chemicals/herbicides are to be applied by a licensed applicator.
14. Mature plants must be managed using a cut stump method, while seedlings can be managed through a mechanical pulling.
15. Beacon recommends the use of triclopyr (trade names: Garlon 3A, Pathfinder II) mixed with an applicable surfactant for the cut stump method.
16. Identification of invasive plant infestations and/or individuals shall be completed by Beacon prior to initiation of herbicide treatment in accordance with the timeline below:

Step 1: A qualified ecologist / botanist / landscape architect shall identify and mark species for removal in early spring in the year of, or late fall the year prior to, installation of restoration plantings (dependant on project phasing).

Step 2: During mid-spring to late summer, cut invasive shrubs approximately 10 - 20 cm from the ground surface. Do not cut at the ground surface, as this may make identification during follow-up treatments more difficult. Vegetation removals shall be completed in accordance with the Federal *Migratory Birds Convention Act[1]*.

Step 3: Paint herbicide (triclopyr [2]) on freshly cut stumps. Backpack sprayers are not recommended, as herbicide drift may affect non-target plants and/or soils. Dye added to the herbicide mixture will allow for identification of treated stumps and is recommended.

Step 4: Remove all cut brush from the woodland. Disposal options include thorough burning on site (burn permit required) or disposing of materials off-site in a municipal waste facility. Brush should not be composted or chipped.

Step 5: Seedlings in the woodland shall be subject to foliar application of triclopyr when adjacent vegetation has not leafed-out (i.e., in the early spring or mid-autumn). Method of application will depend on the severity of infestations and shall be determined during investigations in *Step 1*.

[1] There is the potential to contravene the Migratory Birds Convention Act (MBCA) if vegetation removal or pruning occurs between April 1 and August 31 and protected birds are nesting and/or present. For any proposed clearing of vegetation between April 1 and August 31, an Ecologist or Avian Biologist should undertake detailed nest searches within three days of site alteration to ensure that no active nests are present. If active nests of protected species are confirmed, vegetation removal will need to be delayed until the nest is no longer actively used or an exclusion zone around the nest is delineated by the project Ecologist/Avian Biologist.

[2] Triclopyr should not be used during periods of drought or when air temperatures exceed 29°C.

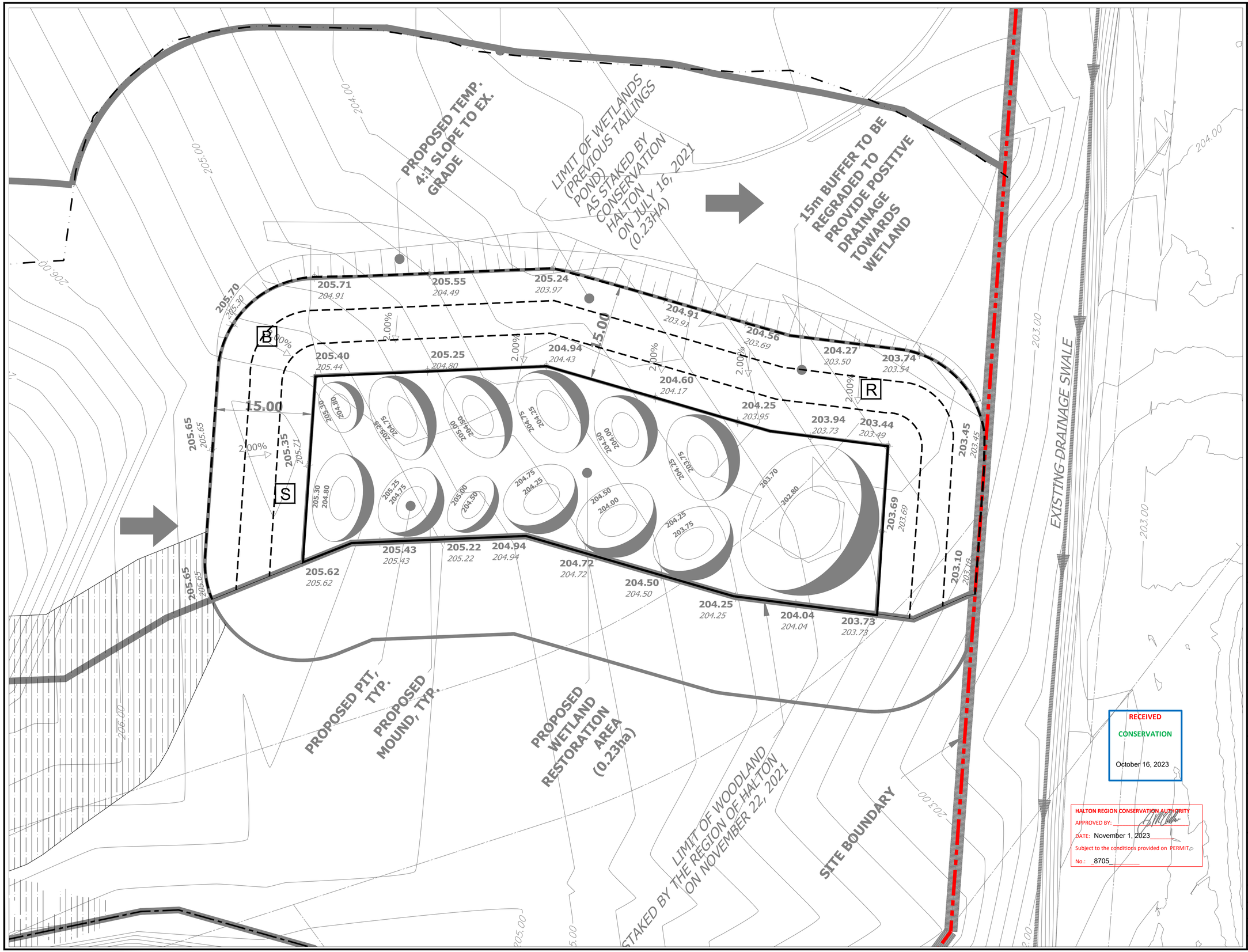
17. It is recommended that the first follow-up inspection occur the year following the initial treatment and monitored annually for a period of up to 3 years.
18. Any mature plants that were missed or have not responded to treatment will be subject to re-treatment in accordance with the methodology above.

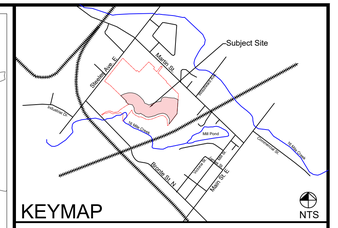
SOIL NOTES :

19. Finished grades within the regional natural heritage system are to match native, pre-landfill grades.
20. Clean topsoil shall be placed in the remediated areas and buffer at a minimum depth of 300 mm.
21. Subsoil in remediated areas shall be firm enough to mitigate the risk of slumping.
22. Prior to spreading topsoil, the the subsoil may require tilling and/or scarification to address compaction to a depth of 45 cm.
23. Place topsoil in 150 mm lifts.

RECEIVED
CONSERVATION
October 16, 2023

HALTON REGION CONSERVATION AUTHORITY
APPROVED BY: ____________
DATE: November 1, 2023
Subject to the conditions provided on PERMIT
No.: _8705_





LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank Staked by CH July 16,2021
- Pr. Wetland Limit
- Pr. Wetland 15 m Buffer
- B — Pr. Bat Rocket Box (1-2 / L-8)
- R — Pr. Raptor Perch/Snag (3 / L-8)
- S — Pr. Snake Hibernaculum (4 / L-8)
- Areas Part of Separate Application
- Pit & Mound Wetland Topography (By Others)

For grading design refer to the Proposed Pit and Mound Wetland Creation Drawing No 3 by Urbantech, February 2023.

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	REVISED TO ADDRESS CH COMMENTS	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/09	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE 1:250 (0, 5, 10, 20m)

NORTH ARROW

SEAL: ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — STEPHAN CRISTIN — OALA — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED — MEMBER

NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

RECEIVED
CONSERVATION
October 16, 2023

HALTON REGION CONSERVATION AUTHORITY
APPROVED BY:
DATE: November 1, 2023
Subject to the conditions provided on PERMIT
No.: 8705

BEACON ENVIRONMENTAL
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80 MAIN ST NORTH
MARKHAM, ON L3P 1X5
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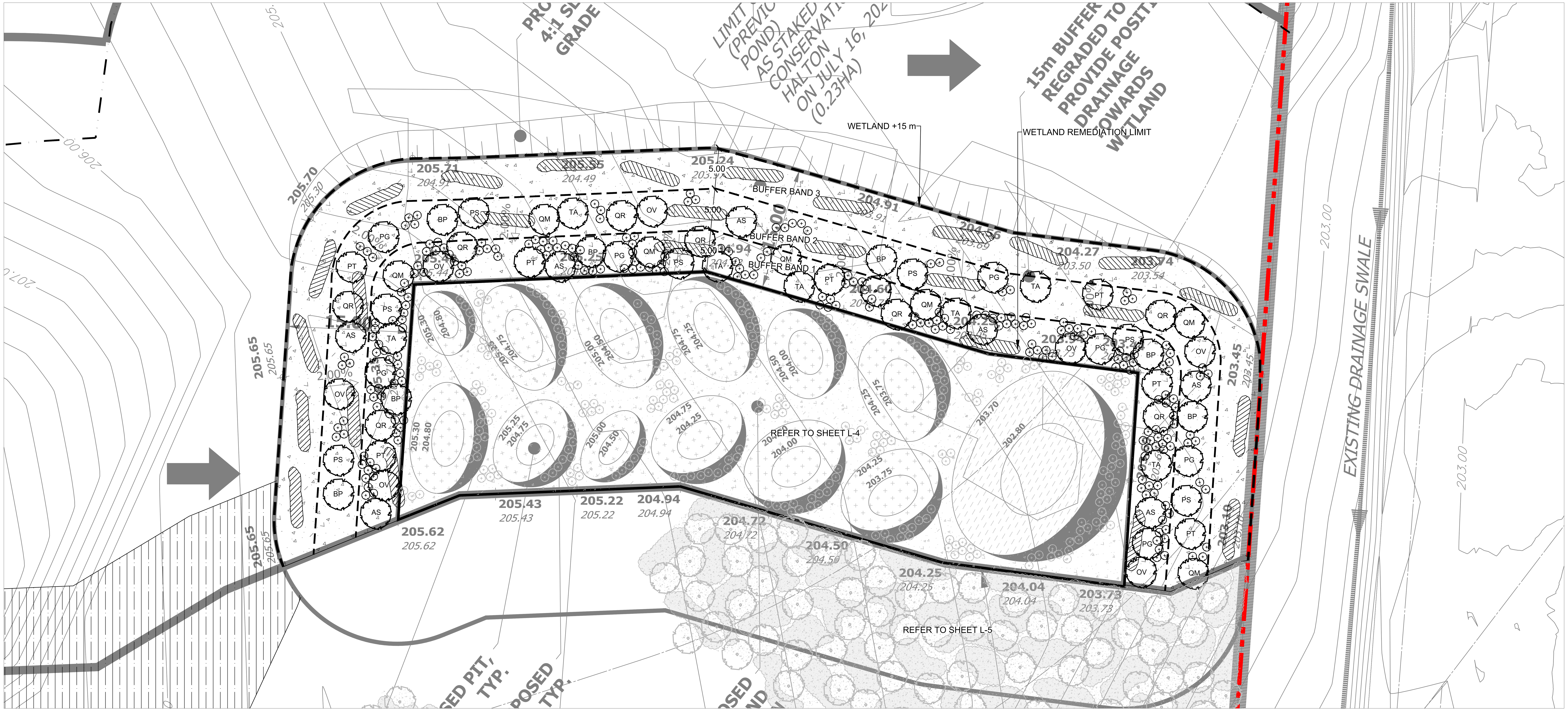
www.beaconenviro.com

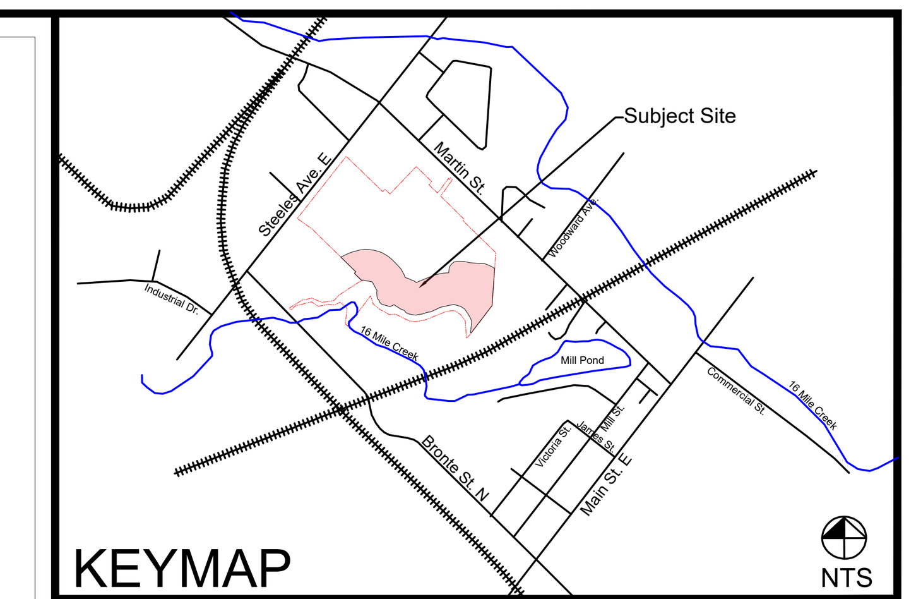
CLIENT
NEATT COMMUNITIES

PROJECT
RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
HABITAT ENHANCEMENT PLAN

DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-2
CHECKED BY:	SC		
DATE:	15 October 2023		





LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Existing Dripline
- Dripline 10 m Buffer
- Buffer Band Dividing Line
- Pr. Deciduous Tree (1 / L-7)
- Pr. Shrubs (3 / L-7)
- Pr. Herbaceous Plug Module (60 plugs per module @ 6/m^2) (4-5 / L-7)
- Pr. Woodland Edge Seedmix (Total Buffer Area - 2359 m^2)
- Areas Part of Separate Application
- Pit & Mound Wetland Topography (By Others)
  For grading design refer to the Proposed Pit and Mound Wetland Creation Drawing No 3 by Urbantech, February 2023.

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

BUFFER PLANTING SCHEDULE

TREES

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	STOCK TYPE	SPACING
AS	7	*Acer saccharum*	Sugar Maple	25mm cal (200-250cm ht)	10 gal	4 m O.C. min.
BP	7	*Betula papyrifera*	Paper Birch	150-175cm ht	5-7 gal	4 m O.C. min.
OV	7	*Ostrya virginiana*	Ironwood	150-175cm ht	3-5 gal	4 m O.C. min.
PG	7	*Populus grandidentata*	Large-Toothed Aspen	150-175cm ht	3-5 gal	4 m O.C. min.
PT	7	*Populus tremuloides*	Trembling Aspen	25mm cal (200-250cm ht)	3-5 gal	4 m O.C. min.
PS	7	*Prunus serotina*	Black Cherry	150-175cm ht	3-5 gal	4 m O.C. min.
QM	7	*Quercus macrocarpa*	Bur Oak	150-175cm ht	5-7 gal	4 m O.C. min.
QR	8	*Quercus rubra*	Red Oak	25mm cal (200-250cm ht)	10 gal	4 m O.C. min.
TA	7	*Tilia americana*	Basswood	25mm cal (200-250cm ht)	10 gal	4 m O.C. min.
Total	64					

SHRUBS

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	STOCK TYPE	SPACING
Ca	35	*Cornus alternifolia*	Alternate-leaved Dogwood	75-100cm ht	3 gal	1 m O.C. min.
Cr	95	*Cornus racemosa*	Gray Dogwood	45-75cm ht	1 gal	1 m O.C. min.
Pv	24	*Prunus virginiana ssp. virginiana*	Chokecherry	75-100cm ht	3 gal	1 m O.C. min.
Ri	11	*Rubus idaeus ssp. strigosus*	Wild Red Raspberry	45-75cm ht	1-2 gal	1 m O.C. min.
Sp	12	*Sambucus pubens*	Red Elderberry	45-75cm ht	1-2 gal	1 m O.C. min.
Va	24	*Viburnum acerifolium*	Maple-Leaved Viburnum	45-75cm ht	1-2 gal	1 m O.C. min.
Vl	35	*Viburnum lentago*	Nannyberry	75-100cm ht	3 gal	1 m O.C. min.
Total	235					

GRASSES AND FORBS

QTY	SCIENTIFIC NAME	COMMON NAME	STOCK TYPE	SPACING
400	*Anemone virginiana*	Tall Anemone	2 x 5 inch PLUG	6 per 1 m^2
600	*Elymus hystrix*	Bottlebrush Grass	2 x 5 inch PLUG	6 per 1 m^2
435	*Monarda fistulosa*	Wild Bergamot	2 x 5 inch PLUG	6 per 1 m^2
305	*Elymus virginicus*	Virginia Wild Rye	2 x 5 inch PLUG	6 per 1 m^2
1740	Total			

BUFFER SEEDING SCHEDULE

WOODLAND EDGE SEED MIX

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 sq. m)	PROPORTION OF SEED MIX(%)
FORBS			
Anemone virginiana	Tall Anemone	1.35	5.0
Eurybia macrophylla	Large-leaved Aster	1.35	5.0
Rudbeckia hirta	Black-eyed Susan	1.35	5.0
Solidago flexicaulis	Zig-Zag Goldenrod	0.54	2.0
Solidago juncea	Early Goldenrod	0.14	0.5
Solidago nemoralis	Grey Goldenrod	0.14	0.5
Solidago rugosa	Rough Goldenrod	0.14	0.5
Symphiotrichum laterflorum	Calico Aster	0.54	2.0
Symphiotrichum novae-angliae	New England Aster	0.68	2.50
GRASSES			
Carex pensylvanica	Pennsylvania Sedge	2.70	10
Elymus canadensis	Canada Wild Rye	7.30	27
Elymus virginicus	Virginia Wild Rye	5.4	20
Elymus hystrix	Bottlebrush Grass	5.4	20
TOTAL NATIVE SPECIES		27	100

NURSE CROP SEED MIX

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/ 10 000 m^2)	PLS REQUIRED (kg PLS per/2359 m^2)
FORBS			
Agrostis stolonifera	Creeping Bent Grass	15	3.53
Elymus canadensis	Canada Wild Rye	20	4.72
Avena sativa	Oats	30	7.08
TOTAL NURSE CROP		65	15.34

If seeding in late fall, substitute the Oats with winter hardy species. (Agrostis stonlonifera, Elymus canadensis, Elymus virginicus)

TABLE 1: PLANTING AREAS

AREA	TOTAL PLANTABLE AREA (m^2)	WIDTH (m)	PLANTING DENSITY (MIN. QTY. PER 100 m^2)		TOTAL QUANTITY			
			TREES	SHRUBS	TREES	SHRUBS	HERBACEOUS PLUGS	SEED MIX (m^2)
Wetland Remediation	1080	N/A	0	25	0	270	13,716	2286
Invasive Species Management	2977	N/A	5	60	149	1800	0	480
Buffer Band 1	782	5	5	25	40	196	240	782
Buffer Band 2	800	5	3	5	24	40	540	800
Buffer Band 3	777	5	0	0	0	0	960	777

RECEIVED
CONSERVATION
October 16, 2023

HALTON REGION CONSERVATION AUTHORITY
APPROVED BY: ____________
DATE: November 1, 2023________
Subject to the conditions provided on PERMIT
No.: _8705_________

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	REVISED TO ADDRESS CH COMMENTS	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/03	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE 1:250 (0, 5, 10, 20m)

NORTH ARROW

SEAL: ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — STEPHAN CRISPIN — OALA MEMBER — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

BEACON ENVIRONMENTAL
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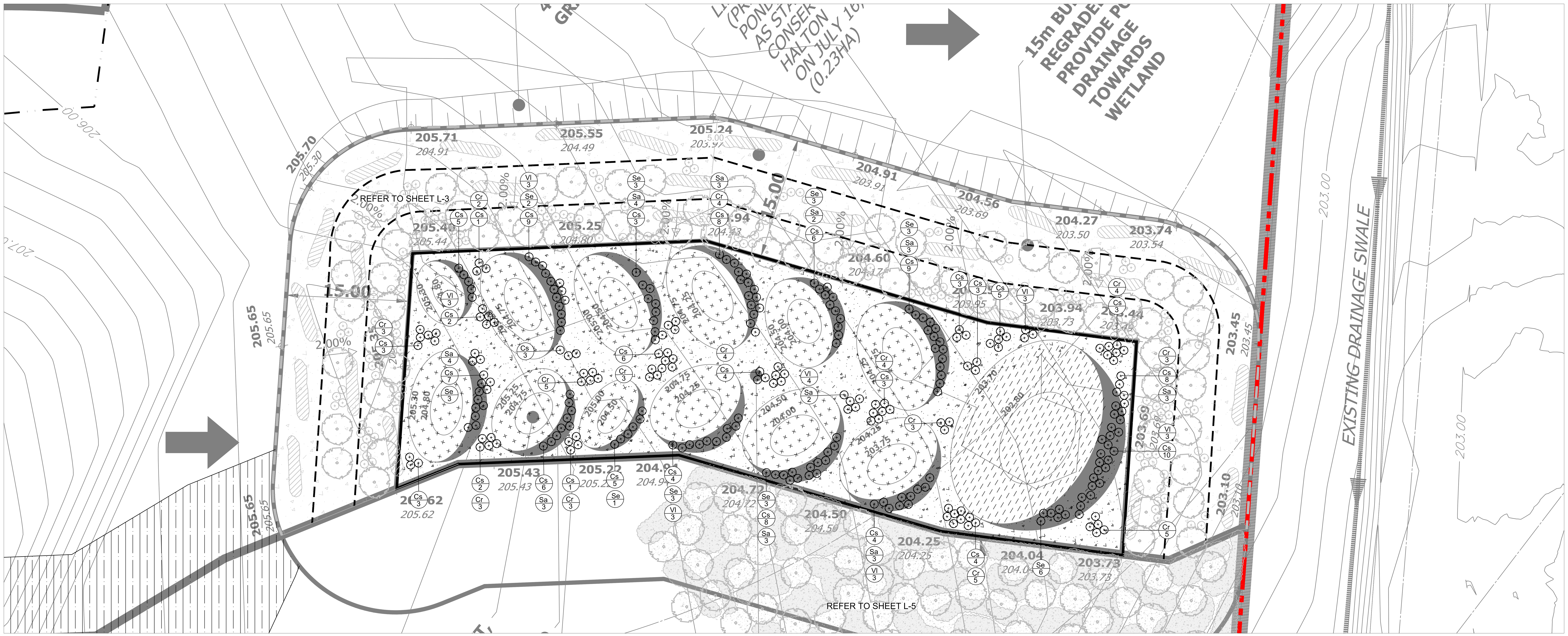
www.beaconenviro.com

CLIENT: NEATT COMMUNITIES

PROJECT: RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE: BUFFER PLANTING PLAN

DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-3
CHECKED BY:	SC		
DATE:	15 October 2023		



WETLAND PLANTING SCHEDULE (L-3 - L-4)

SHRUBS

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR (OWES)	SIZE	STOCK TYPE	SPACING
Cr	50	*Cornus racemosa*	Gray Dogwood	N	45-75cm ht	1 gal	1 m O.C. min.
Cs	135	*Cornus sericea*	Red-Osier Dogwood	Y	45-75cm ht	1 gal	1 m O.C. min.
Se	27	*Salix eriocephala*	Heart-Leaved Willow	N	45-75cm ht	1 gal	1 m O.C. min.
Sa	30	*Spiraea alba*	Narrow-Leaved Meadowsweet	Y	45-75cm ht	1 gal	1 m O.C. min.
Vl	22	*Viburnum lentago*	Nannyberry	N	100cm ht	3 gal	1 m O.C. min.

GRASSES AND FORBS

QTY	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR (OWES)	STOCK TYPE	SPACING
750	*Hydrophyllum canadense*	Canada Waterleaf	N	Plugs or 3.5" Pots	6 per 1 m^2
750	*Lysimachia ciliata*	Fringed Loosestrife	N	Plugs or 3.5" Pots	6 per 1 m^2
750	*Ranunculus hispidus var. caricetorum*	Swamp Buttercup	Y	Plugs or 3.5" Pots	6 per 1 m^2
800	*Symphyotrichum lanceolatum ssp. lanceolatum*	Panicled Aster	Y	Plugs or 3.5" Pots	6 per 1 m^2
750	*Verbena urticifolia*	White Vervain	N	Plugs or 3.5" Pots	6 per 1 m^2

QTY	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR (OWES)	STOCK TYPE	SPACING
750	*Asclepias incarnata ssp. incarnata*	Swamp Milkweed	Y	Plugs or 3.5" Pots	6 per 1 m^2
750	*Eupatorium maculatum ssp. maculatum*	Spotted Joe-Pye Weed	Y	Plugs or 3.5" Pots	6 per 1 m^2
750	*Eupatorium perfoliatum*	Boneset	Y	Plugs or 3.5" Pots	6 per 1 m^2
750	*Verbena hastata*	Blue Vervain	Y	Plugs or 3.5" Pots	6 per 1 m^2

QTY	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR (OWES)	STOCK TYPE	SPACING
765	*Alisma plantago-aquatica*	Water-plantain	Y	Plugs or 3.5" Pots	6 per 1 m^2
796	*Carex bebbii*	Bebb's Sedge	Y	Plugs or 3.5" Pots	6 per 1 m^2
765	*Carex vulpinoidea*	Fox Sedge	Y	Plugs or 3.5" Pots	6 per 1 m^2
765	*Iris versicolor*	Blue Flag Iris	Y	Plugs or 3.5" Pots	6 per 1 m^2
765	*Juncus torreyi*	Torrey's Rush	N	Plugs or 3.5" Pots	6 per 1 m^2
765	*Nuphar variegata*	Yellow Pond-Lily	Y	Plugs or 3.5" Pots	6 per 1 m^2
765	*Potamogeton pectinatus*	Sago Pondweed	Y	Plugs or 3.5" Pots	6 per 1 m^2
765	*Sagittaria latifolia*	Common Arrowhead	Y	Plugs or 3.5" Pots	6 per 1 m^2
765	*Scirpus cyperinus*	Wool-Grass	Y	Plugs or 3.5" Pots	6 per 1 m^2

WETLAND SEEDING SCHEDULE (L-3 - L-4)

CONSERVATION HALTON (CH) MEADOW MARSH SEED MIX

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 m^2)	PROPORTION OF SEED MIX(%)
Carex bebbi	Bebb's Sedge	0.25	1
Carex granularis	Meadow/Open Field Sedge	2.5	10
Carex stipata	Stalk Grain Sedge	0.5	2
Carex vulpinoidea	Fox Sedge	6.25	25
Eupatorium perfoliatum	Boneset	0.5	2
Euthamia graminifolia	Grass-Leaved Goldenrod	0.25	1
Eutrochium maculatum ssp. Maculatum	Spotted Joe-Pye Weed	0.5	2
Glyceria grandis	Tall Manna Grass	0.5	2
Juncus effusus	Soft Rush	1.25	5
Lobelia siphilitica	Blue Lobelia	0.25	1
Mimulus ringens	Monkey Flower	0.25	1
Poa palustris	Fowl Bluegrass	6.25	25
Scirpus atrovirens	Dark Green Bulrush	1.25	5
Scirpus cyperinua	Woolgrass	0.5	2
Symphyotrichum puniceum	Purple-Stemmed Aster	0.25	1
Verbena hastata	Blue Vervain	3.75	15
TOTAL NATIVE SPECIES		25	100

NURSE CROP SEED MIX

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/ 10 000 m^2)	PLS REQUIRED (kg PLS per/2286 m^2)
Agrostis stolonifera	Creeping Bent Grass	5	1.15
Avena sativa	Annual Oats	15	3.43
Elymus canadensis	Canada Wild Rye	15	3.43
Festuca rubra	Red Fescue	5	1.15
TOTAL NURSE CROP		40	5.73

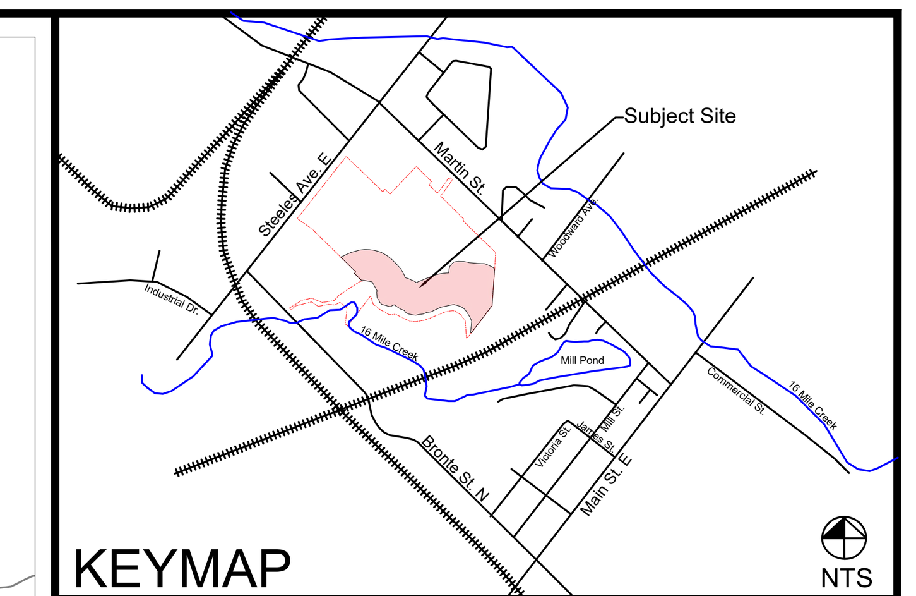
If seeding in late fall, substitute the Oats with winter hardy species. (Agrostis stonlonifera, Elymus canadensis, Festuca rubra)

TABLE 1: PLANTING AREAS

AREA	TOTAL PLANTABLE AREA (m^2)	WIDTH (m)	PLANTING DENSITY (MIN. QTY. PER 100 m^2)		TOTAL QUANTITY			
			TREES	SHRUBS	TREES	SHRUBS	HERBACEOUS PLUGS	SEED MIX (m^2)
Wetland Remediation	1080	N/A	0	25	0	270	13,716	2286
Invasive Species Management	2977	N/A	5	60	149	1800	0	480
Buffer Band 1	782	5	5	25	40	196	240	782
Buffer Band 2	800	5	3	5	24	40	540	800
Buffer Band 3	777	5	0	0	0	0	960	777

RECEIVED
CONSERVATION
October 16, 2023

HALTON REGION CONSERVATION AUTHORITY
APPROVED BY: ____________
DATE: November 1, 2023
Subject to the conditions provided on PERMIT
No.: 8705



KEYMAP

LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Existing Dripline
- Dripline 10 m Buffer
- Pr. Shrubs (3 / L-7)
- Pr. Herbaceous Plug Mix 1 & CH Meadow Marsh Seed Mix (311 m^2) (4-5 / L-7)
- Pr. Herbaceous Plug Mix 2 & CH Meadow Marsh Seed Mix (895 m^2) (4-5 / L-7)
- Pr. Herbaceous Plug Mix 3 & CH Meadow Marsh Seed Mix (311 m^2) (4-5 / L-7)
- Areas Part of Separate Application
- Pit & Mound Wetland Topography (By Others)
  For grading design refer to the Proposed Pit and Mound Wetland Creation Drawing No 3 by Urbantech, February 2023.

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	REVISED TO ADDRESS CH COMMENTS	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/09	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE
1:250 — 0, 5, 10, 20m

NORTH ARROW

SEAL
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — STEPHAN CRISPIN — OALA MEMBER — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

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PROJECT
RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
WETLAND REMEDIATION AREA PLANTING PLAN

DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-4
CHECKED BY:	SC		
DATE:	15 October 2023		

LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank Staked by CH July 16,2021
- Existing Dripline
- Dripline 10 m Buffer
- Pr. Deciduous Tree (1 / L-7)
- Pr. Shrub Module (Refer to Shrub Module Detail L-6) (3 / L-7)
- Pr. Woodland Edge Seedmix (Total Invasive Area 2977 m^2)
- Areas Part of Separate Application
- Pit & Mound Wetland Topography (By Others)

  For grading design refer to the Proposed Pit and Mound Wetland Creation Drawing No 3 by Urbantech, February 2023.
- A — Shrub Planting Module Identification Key
- AS — Tree Species Identification Key

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	REVISED TO ADDRESS CH COMMENTS	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/09	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE 1:250 (0, 5, 10, 20m)

NORTH ARROW — North

SEAL — ASSOCIATION OF LANDSCAPE ARCHITECTS CONTRARIO — STEPHAN CRISPIN — OALA — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED — MEMBER

NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

INVASIVE AREA PLANTING SCHEDULE

TREES						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
AS	16	*Acer saccharum*	Sugar Maple	150-175cm ht.	3-5 gal	
AS1	16	*Acer saccharum*	Sugar Maple	25-30mm ca.	10 gal	4 m O.C. min.
BP	14	*Betula papyrifera*	Paper Birch	150-175cm ht.	3-5 gal	4 m O.C. min.
OV	12	*Ostrya virginiana*	Ironwood	150-175cm ht.	3-5 gal	4 m O.C. min.
PG	13	*Populus grandidentata*	Large-Toothed Aspen	150-175cm ht.	3-5 gal	4 m O.C. min.
PT	13	*Populus tremuloides*	Trembling Aspen	150-175cm ht.	3-5 gal	4 m O.C. min.
PS	13	*Prunus serotina*	Black Cherry	150-175cm ht.	5-7 gal	4 m O.C. min.
QM	17	*Quercus macrocarpa*	Bur Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR	7	*Quercus rubra*	Red Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR1	10	*Quercus rubra*	Red Oak	25-30mm ca.	10 gal	4 m O.C. min.
TA	10	*Tilia americana*	Basswood	150-175cm ht.	5-7 gal	4 m O.C. min.
TA1	10	*Tilia americana*	Basswood	25-30mm ca.	10 gal	4 m O.C. min.
SHRUBS						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
Al	60	*Amelanchier laevis*	Allegheny Serviceberry	100-125cm ht	3 gal	1 m O.C. min.
Ca	130	*Cornus alternifolia*	Alternate-Leaved Dogwood	75-100cm ht	3 gal	1 m O.C. min.
Cr	790	*Cornus racemosa*	Gray Dogwood	50-75cm ht	1-2 gal	1 m O.C. min.
Pv	140	*Prunus virginiana ssp. virginiana*	Chokecherry	50-75cm ht	1-2 gal	1 m O.C. min.
Ri	135	*Rubus idaeus ssp. strigosus*	Wild Red Raspberry	50-75cm ht	1-2 gal	1 m O.C. min.
Sr	165	*Sambucus pubens*	Red Elderberry	50-75cm ht	1-2 gal	1 m O.C. min.
Va	255	*Viburnum acerifolium*	Maple-Leaved Viburnum	50-75cm ht	1-2 gal	1 m O.C. min.
Vl	120	*Viburnum lentago*	Nannyberry	75-100cm ht	3 gal	1 m O.C. min.
Pi	15	*Parhenocissus inserta*	Thicket Creeper	75-100cm ht	1 gal	1 m O.C. min.

INVASIVE AREA SEEDING SCHEDULE

WOODLAND EDGE SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 sq. m)	PROPORTION OF SEED MIX(%)
FORBS			
Anemone virginiana	Tall Anemone	1.35	5.0
Eurybia macrophylla	Large-leaved Aster	1.35	5.0
Rudbeckia hirta	Black-eyed Susan	1.35	5.0
Solidago flexicaulis	Zig-Zag Goldenrod	0.54	2.0
Solidago juncea	Early Goldenrod	0.14	0.5
Solidago nemoralis	Grey Goldenrod	0.14	0.5
Solidago rugosa	Rough Goldenrod	0.14	0.5
Symphiotrichum laterflorum	Calico Aster	0.54	2.0
Symphiotrichum novae-angliae	New England Aster	0.68	2.50
GRASSES			
Carex pensylvanica	Pennsylvania Sedge	2.70	10
Elymus canadensis	Canada Wild Rye	7.30	27
Elymus virginicus	Virginia Wild Rye	5.4	20
Elymus hystrix	Bottlebrush Grass	5.4	20
TOTAL NATIVE SPECIES		27	100
NURSE CROP SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 m^2)	PLS REQUIRED (kg PLS per/2977 m^2)
FORBS			
Agrostis stolonifera	Creeping Red Bent Grass	15	4.50
Avena sativa	Oats	20	5.95
Elymus canadensis	Canada Wild Rye	30	8.93
TOTAL NURSE CROP		65	19.38

If seeding in late fall, substitute the Oats with winter hardy species. (Agrostis stonlonifera, Elymus canadensis)

TABLE 1: PLANTING AREAS

AREA	TOTAL PLANTABLE AREA (m^2)	WIDTH (m)	PLANTING DENSITY (MIN. QTY. PER 100 m^2)		TOTAL QUANTITY			
			TREES	SHRUBS	TREES	SHRUBS	HERBACEOUS PLUGS	SEED MIX (m^2)
Wetland Remediation	1080	N/A	0	25	0	270	13,716	2286
Invasive Species Management	2977	N/A	5	60	149	1800	0	480
Buffer Band 1	782	5	5	25	40	196	240	782
Buffer Band 2	800	5	3	5	24	40	540	800
Buffer Band 3	777	5	0	0	0	0	960	777

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CONSERVATION
October 16, 2023

HALTON REGION CONSERVATION AUTHORITY
APPROVED BY: _____
DATE: November 1, 2023
Subject to the conditions provided on PERMIT
No.: 8705

BEACON ENVIRONMENTAL
MARKHAM OFFICE
80 MAIN ST NORTH
MARKHAM, ON L3P 1X5
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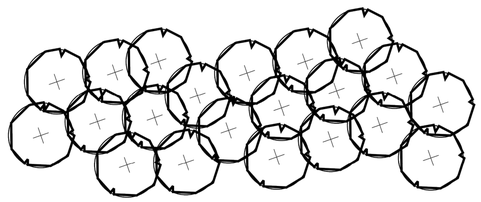
www.beaconenviro.com

CLIENT
NEATT COMMUNITIES

PROJECT
RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
INVASIVE AREA PLANTING PLAN

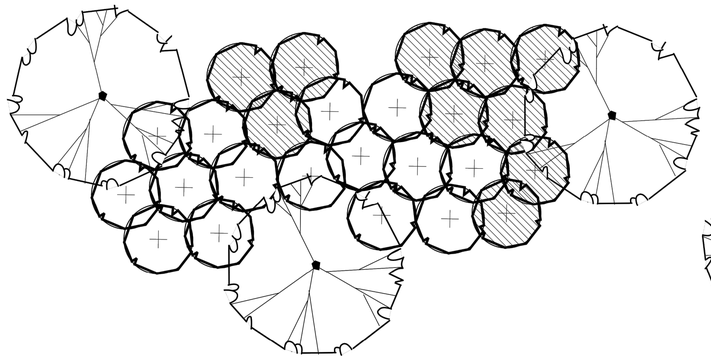
DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-5
CHECKED BY:	SC		
DATE:	15 October 2023		



A

20 - Cornus racemosa - Gray Dogwood

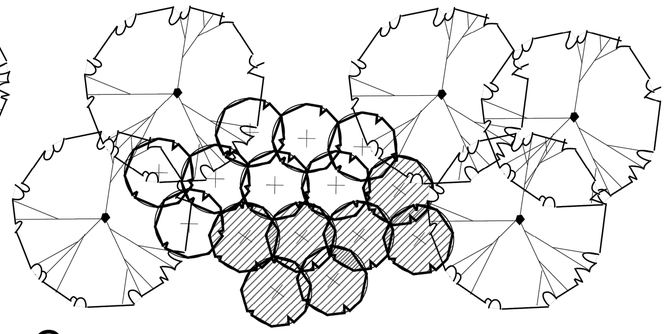
18 MODULES



B

3 - Amelanchier laevis - Smooth Serviceberry
15 - Cornus racemosa - Gray Dogwood
10 - Sambucus pubens - Red Elderberry

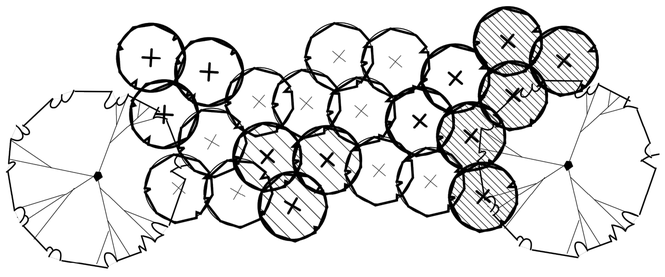
18 MODULES



C

5 - Cornus alternifolia - Alternate-leaf Dogwood
8 - Cornus racemosa - Gray Dogwood
7 - Prunus virginiana - Choke Cherry

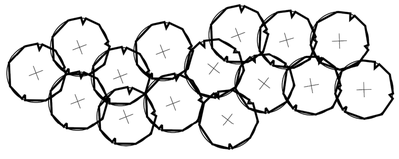
20 MODULES



D

2 - Cornus alternifolia - Alternate leave Dogwood
3 - Prunus virginiana - Choke Cherry
5 - Sambucus pubens - Red Elderberry
15 - Viburnum acerifolium - Maple leaf Viburnum

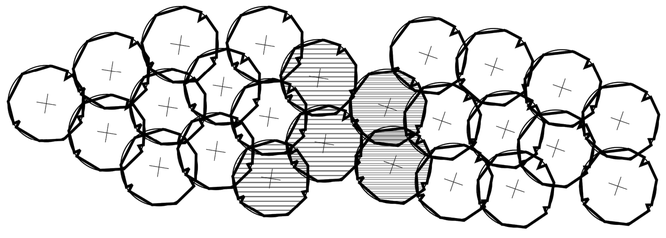
15 MODULES



E

15 - Rubus idaeus - Wild Strawberry

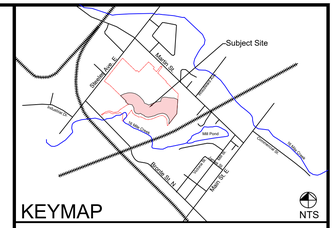
8 MODULES



F

5 - Viburnum rafinesquianum - Downy Arrowwood
20 - Viburnum lentago - Nannyberry

6 MODULES



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6			
5			
4			
3	ISSUED TO ADDRESS CH COMMENT	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/15	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE

NORTH ARROW

SEAL

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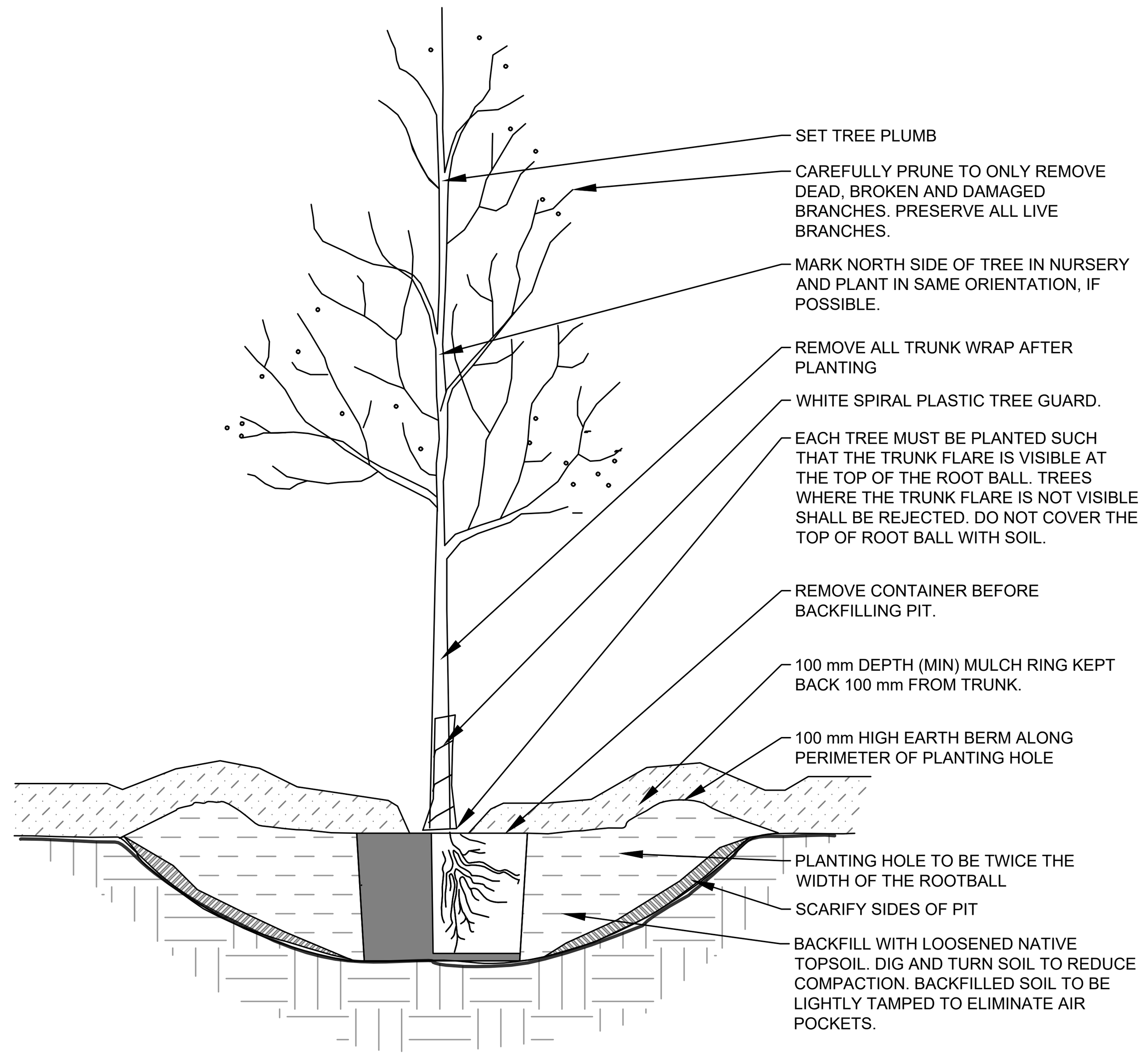
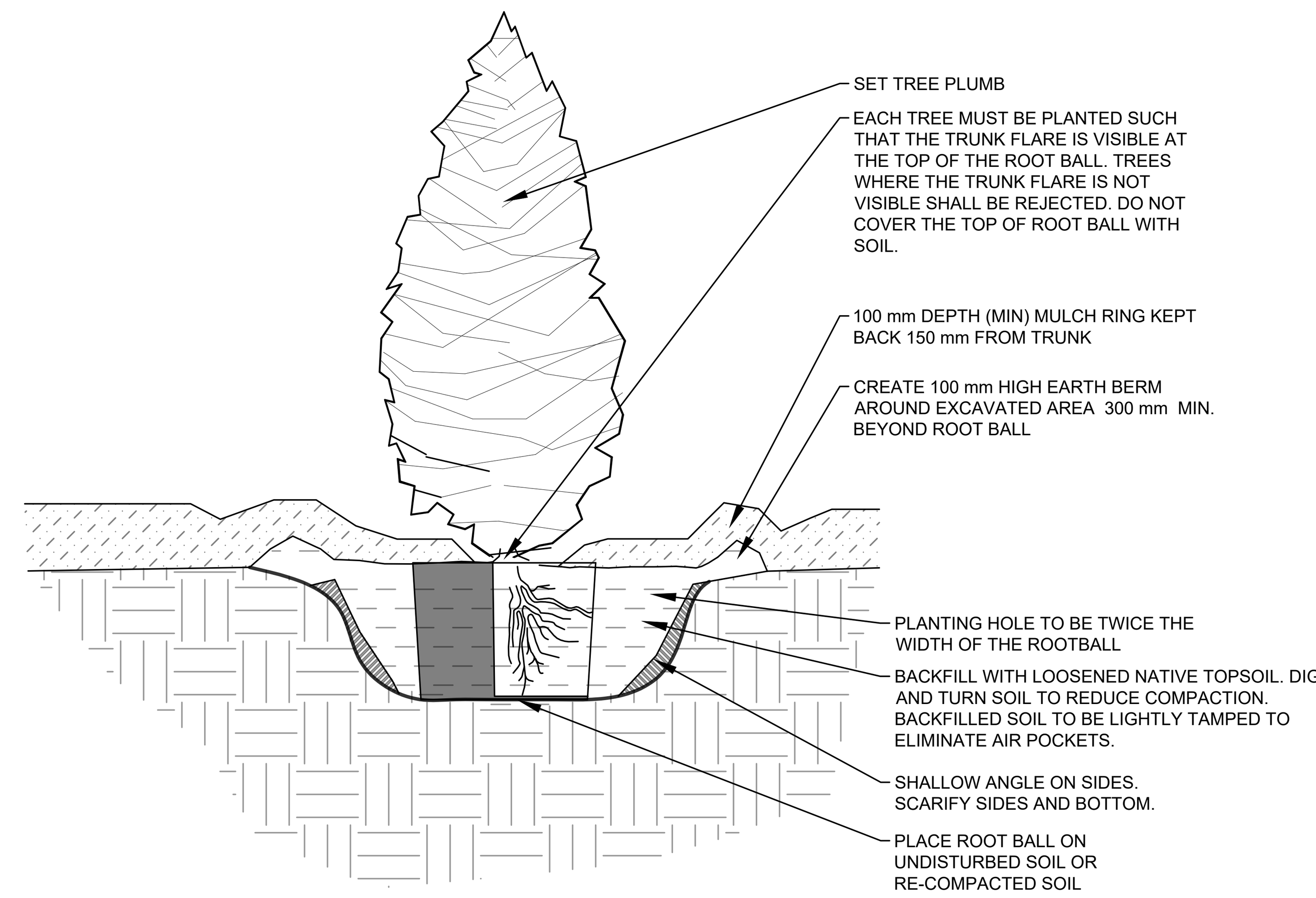
PROJECT
RESTORATION AND BUFFER PLANTING CONCEPT PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
SHRUB MODULE DETAILS

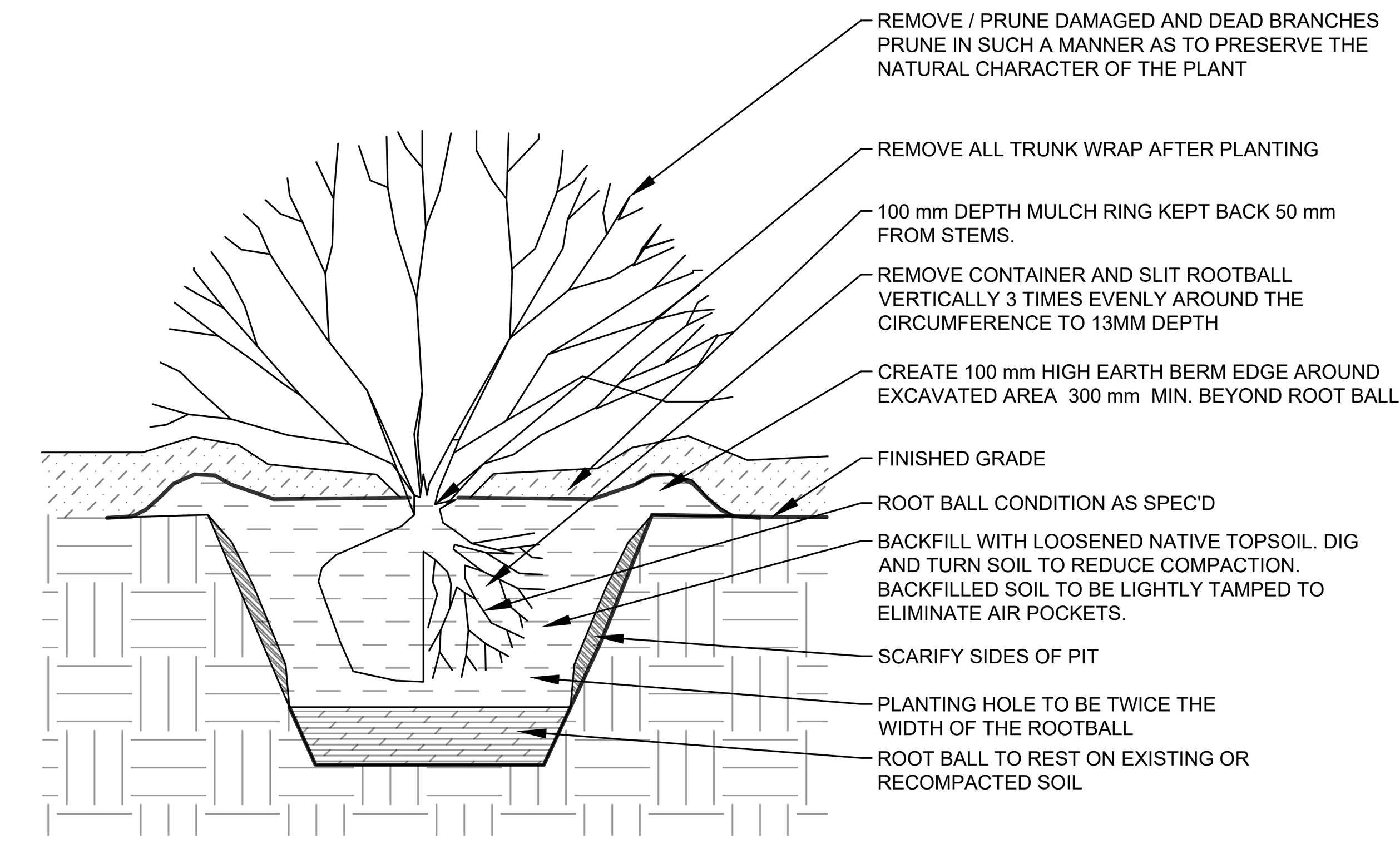
DESIGN BY: MB	PROJECT N°: 221265
DRAWN BY: MB	FIGURE N°: L-6
CHECKED BY: SC	
DATE: 09 August 2023	



1 / L-6 DECIDUOUS TREE WHIP PLANTING DETAIL
NTS



2 / L-6 CONIFEROUS PLANTING DETAIL
NTS



3 / L-6 DECIDUOUS SHRUB PLANTING DETAIL
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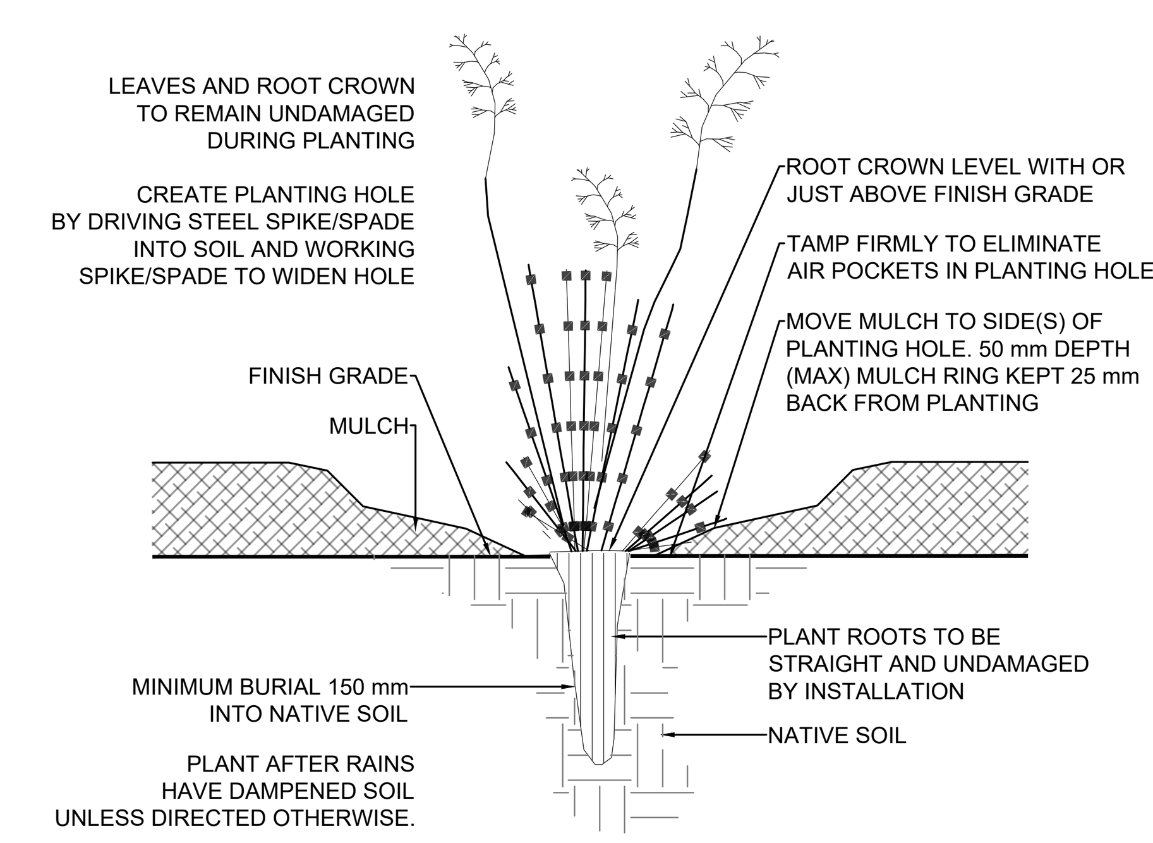
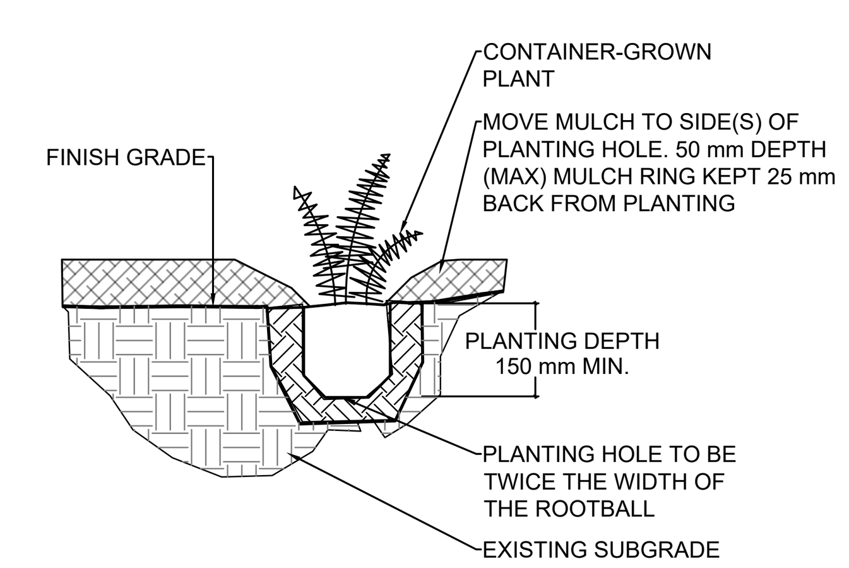


4 / L-6 UPLAND HERBACEOUS PLUG PLANTING DETAIL
NTS



5 / L-6 UPLAND HERBACEOUS PLANTING DETAIL (POTTED)
NTS

GENERAL NOTES :

1. This design has been prepared in response to the requirement to remediate existing soil contamination on the Subject Property and to meet the ecological restoration goals outlined in the Comprehensive Environmental Management Study by Beacon Environmental Limited, dated March 2023.
2. This drawing is to be read in conjunction with the written specifications for the project and all other drawings.
3. Any ambiguity in this drawing or accompanying details is to be reported to the project Landscape Architect from Beacon Environmental. Contractor is not to proceed in uncertainty.
4. Limits or work to be clearly understood by the contractor prior to any work taking place on site.
5. Access to invasive species removal and enhancement areas shall be limited to established routes to minimize disturbance to the woodland. Existing desirable vegetation (e.g., hawthorn shrubs) are to be preserved.
6. The Contractor shall visit the site to confirm all site conditions prior to submitting a bid. Report all discrepancies in writing to the project Landscape Architect
7. The Contractor must notify the project Landscape Architect a minimum of 5 (five) days prior to the commencement of any construction work.
8. If any part of this plan cannot be followed due to site conditions contact the Project Landscape Architect for instruction prior to commencing work.
9. Perform excavation in the vicinity of underground utilities with care and by hand if necessary. The Contractor bears full responsibility for this work and disruption of damaged utilities shall be repaired at no expense to the Owner.
10. Drawings may be scaled for layout measurement but dimensions and elevations shown are subject to verification on site.
11. The Contractor shall maintain all areas until Owner's acceptance of the project in accordance with the specifications.
12. It is the responsibility of the Contractor and/ or Owner to ensure that the drawings with the latest revisions are used for construction.

PLANTING NOTES :

13. As per Conservation Halton (CH) policy, the buffer is to be planted in three bands as described in Table 1 on this drawing package.
14. As per CH policy, only native species shall be used for planting, with the exception of the seed nurse crop. Nurse crop mix used in this plan shall conform to CH policy.
15. All planting material to meet horticultural standards of the Canadian Nursery Trades Association Guide Specification for Nursery Stock. All plant material to be No. 1 Grade and to the approval of the Landscape Architect.
16. No plant substitutions will be permitted without the written approval of the project Landscape Architect. Plant identification tags for all plant material are to remain on material until inspected.
17. All damaged material will be rejected. Trees without central leaders, with trunk wounds, or damaged major limbs will be rejected. Shrubs with damaged branches or insufficient root mass will be rejected.
18. Planting of herbaceous material is to be completed outside of frost period with sufficient time for plants to take root.
19. All material that can not be planted within 48 hours of delivery shall be healed in on site and be kept properly protected from desiccation by wind or sun.
20. The Planting Design presented will require field fitting based on site condition. Spacing between the woody plants will be form-fitted on site and will vary based on site conditions and direction from the project Landscape Architect.
21. The Contractor shall flag out the location of tree and shrub planting modules for field review with the project Landscape Architect prior to commencing planting works.
22. The distribution of species across the site shall be reviewed and approved on site by the Landscape Architect at the time of planting operation.
23. The Contractor shall relocate any trees or shrubs on the property as directed by the project Landscape Architect
24. Any dead or damaged branches are to be pruned according to horticultural standards and timing appropriate to each species.
25. All plant materials shall be planted in naturalistic groupings and in accordance with the layout and planting details and written specifications.
26. Staking of trees shall be as per detail provided. Alternative methods may be acceptable with the approval of the Landscape Architect prior to installation.
27. All large caliper trees shall have an earth saucer at the base with a diameter as large as the excavated area to retain water.

AQUATIC PLANTING NOTES :

28. Plant aquatic plants only when there is sufficient water level to allow for plant establishment.
29. Plant centre of large pit only with submergent and floating leaved plants.
30. Plant edge of large pit with emergent plants, using sloped rocky shelves to accommodate variation in water level.
31. Large pit to be planted by removing containers from stock and most of the soil. Do not plant in plastic containers.
32. Aquatic plants may be held in place beneath the water level using small rocks or small amounts of sandy soil.
33. Plant small pits with remaining hydrophytic species (e.g., tall herbaceous species).

WATERING REQUIREMENTS:

34. All material delivered to site shall be either watered immediately or within 24 hours as warranted by the moisture content of the root balls/containers.
35. All material shall be watered at the time of planting.
36. All material shall be watered regularly (weekly basis if conditions require) during the first year of establishment. More frequent watering will be required during periods of drought.

MULCHING REQUIREMENTS:

37. All trees and shrubs are to be planted in continuous mulched beds unless otherwise indicated on the drawings, or as field directed by the the Project Landscape Architect.
38. Mulch shall be topped up during the warranty period to ensure the specified minimum depth is maintained on all planting beds.
39. Continuous mulch bed around all tree and shrub plantings shall consist of hardwood mulch/wood chips to a depth of 150 mm (6") or shredded pine/cedar bark to a depth of 100 mm (4").
40. Shrub pit, saucer and planting beds shall be soaked with water & mulched immediately following planting. Top dress area immediately over root mass (saucer area) with bone meal or compost.

RODENT PROTECTION:

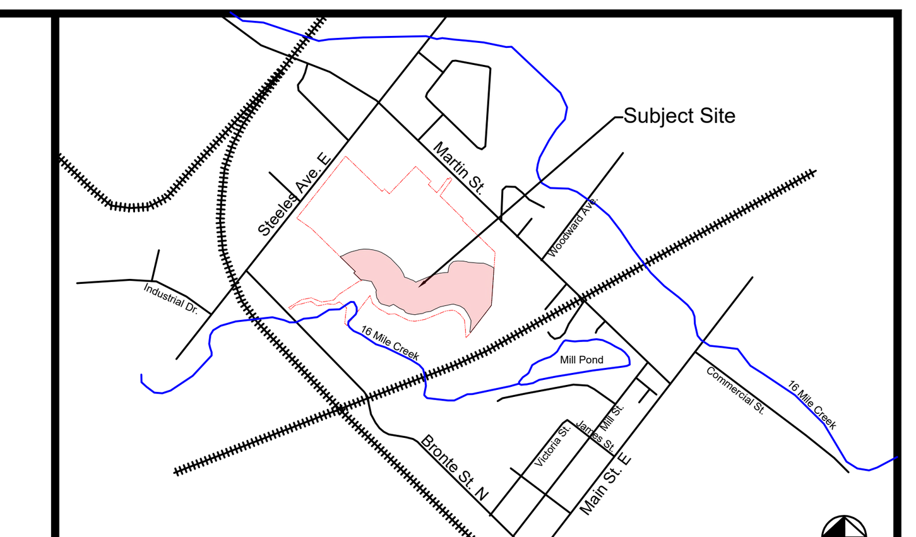
41. The contractor shall be responsible for the protection of all trees and shrubs from rodent injury for the duration of the guarantee period.
42. Install an approved wrap-around type plastic tree guard on all deciduous and coniferous for rodent protection. Refer to planting detail and specification.
43. All shrubs and coniferous trees shall have an application of “skoot' or approved equivalent rodent formula, to be applied at the end of October. Follow manufacturer's directions for application.

SEEDING:

44. Large pit and other pits holding water are to be seeded by hand broadcasting or cyclone. Place no compost, topsoil, or peat in pits holding water.
45. Seed all other areas by pneumatic terraseeding (hydraulic seeding is not acceptable). Seed and compost mix will be blown over all disturbed areas and around all planted shrubs and perennials.
46. Depth of composted soil/seed mix will vary dependent upon the slope as follows:
-0-25% slopes: 20-25 mm depth
-26% and greater slopes: 50 mm depth
47. The Contractor shall be responsible for all labor, materials and equipment necessary to Terraseed the specified seed mixtures as designated on this plan and in accordance with the specifications.
48. Terraseeding operation shall not commence until Beacon's Landscape Architect has inspected compost and has approved the seed test results in a Certificate of Seed Analysis. Compost contaminated with plastic will be rejected.
49. Terraseeding is to be executed following completion of the planting operations.
50. The Contractor shall be responsible to seed and stabilize all disturbed areas unless otherwise instructed on site by Beacon's Landscape Architect.
51. At the time of Terraseeding all surface designated for this operation shall be friable and fine graded to a relative uniform surface. If the soil is not friable, the surface shall be cultivated to a depth between 50mm (2") and 75mm (3").
52. Terraseeding operation shall not commence until Beacon's Landscape Architect has inspected and approved the surface preparation including verification of the seed mixtures being applied and the layout of the permanent seed mixtures locations as demarcated in the field by the Contractor.
53. Seeding and or re-seeding shall not be carried out under adverse field conditions such as high wind, frozen ground or ground covered with snow, ice or standing water.
54. The site and erosion control measures shall be maintained until conditions permit the Terraseed application or re-application of seeds and compost material.
55. Ensure that seeds are spread only in the top 2cm of compost. Seeds should not be buried in soil but should be on the top. To achieve this an initial layer of compost may need to be put down before mixing seed in with the final layer of compost for spreading.
56. All surfaces to be Terraseeded shall be prepared not more than 3 days before the seeding operation. The surface shall not have stones greater than 25 mm in diameter, weeds or other unwanted vegetation.
57. Seeding and or re-seeding shall be performed only between spring start up and May 31 or between October 1 and freeze up.
58. No seeding or cover application shall not come in contact with the foliage of existing vegetation. No seed or cover shall come in contact with existing water bodies.
59. Refer to specifications for submission requirements, supplier, seeding rates, construction schedule and performance measure.

WARRANTY PERIOD AND MAINTENANCE ACTIVITIES:

60. All workmanship, and plant materials to be guaranteed for a period of two years following the date of initial acceptance of the project by the project Landscape Architect.
61. It is the responsibility of the Contractor to ensure nurse crop establishment and maintain plant materials in good condition from the date of initial planting to the end of the 2 years warranty period.
62. General maintenance requirements shall be performed during the growing season and shall include, but not limited to the following activities:
   -Weekly inspection until nurse crop seed is well established with good coverage (>80%)
   -Watering regularly on a weekly basis as required during the first year of establishment depending on weather conditions.
   -Pruning
   -Mulching
   -Replacement Plantings
63. The Contractor shall be responsible for the Replacement of unacceptable or dead material, straightening trees that lean, and any other procedure consistent with good horticultural practice necessary to ensure normal, healthy growing condition of plant material.
64. During the warranty period the contractor is responsible for maintaining the depth of mulch that is specified in these notes under all plantings.
65. At the end of the warranty period, it is the responsibility of the Contractor to remove and properly dispose of all plant tags, plastic tree guards, stakes and tree ties.
66. Prior to acceptance of the end of the warranty period all planting beds are to be supplemented, where necessary, with additional mulch in order that the specified minimum thickness described for each of the planting areas is maintained.
67. The Consultant reserves the right to extend contractor's warranty responsibilities for an additional year if, at the end of initial warranty period, leaf development and growth is not sufficient to ensure future survival.



KEYMAP
NTS

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1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE

NORTH ARROW

SEAL
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
STEPHAN CRISPIN
OALA
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED
MEMBER
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

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PROJECT
RESTORATION AND BUFFER PLANTING PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
NOTES AND DETAILS

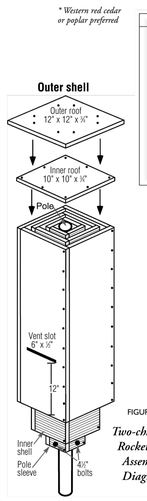
DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-7
CHECKED BY:	SC		
DATE:	09 August 2023		

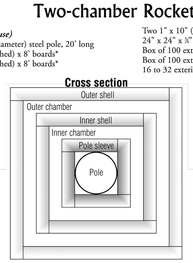
Two-chamber Rocket Box

Materials (makes one house)
2" diameter (2⅜" outside diameter) steel pole, 20' long
Two 1" x 4" (¾" x 3½" finished) x 8' boards*
Two 1" x 8" (¾" x 7¼" finished) x 8' boards*
Two 1" x 10" (¾" x 9½" finished) x 6' boards*
24" x 24" x ¾" piece of AC exterior plywood
Box of 100 exterior-grade screws, 1⅝"
Box of 100 exterior-grade screws, 1¼"
16 to 32 exterior-grade screws, 2"
20 to 30 roofing nails, ¾"
One quart water-based primer, exterior grade
Two quarts flat, water-based stain or paint, exterior grade
Asphalt shingles or dark galvanized metal
One tube paintable latex caulk
Two ⅜" x 4½" carriage bolts, washers and nuts

** Western red cedar or poplar preferred*

Recommended tools
Table saw or circular saw
Caulk gun
Hammer
Tape measure
Square
Jigsaw, keyhole saw or router
Sandpaper or sander
Rasp or wood file
Variable-speed reversing drill
1½" hole saw or spade bit
¾" and ½" drill bits
Screwdriver bit for drill





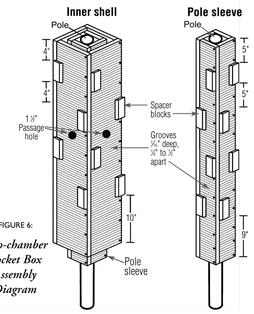


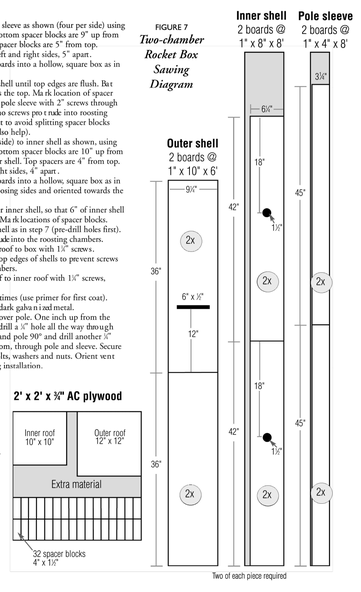
FIGURE 6:
Two-chamber Rocket Box Assembly Diagram

Construction
1. Measure, mark and cut out parts according to Figure 7. Dimensions must be exact for correct fit. Cut out two vent slots and four passage holes as shown.
2. Cut ¾"-deep horizontal grooves ¾" to ½" apart on one side of all 36" and 45" boards and on both sides of all 42" boards. Sand to remove splinters.
3. Drill two ¾" holes through each ¾" x 1½" x 4" spacer block to prevent splitting.
4. Assemble four pole sleeve boards into a hollow, square box as shown using 1¾" screws and caulk. Pre-drill holes to prevent splitting. Countersinking holes may also help.

5. Attach spacer blocks to pole sleeve as shown (four per side) using two 1¼" screws per block. Bottom spacer blocks are 9" up from bottom of pole sleeve. Top spacer blocks are 5" from top. Alternate spacer blocks on left and right sides, 5" apart.
6. Assemble four inner shell boards into a hollow, square box as in step 4.
7. Slide pole sleeve into inner shell until top edges are flush. Bat passage holes will be towards the top. Mark location of spacer blocks. Secure inner shell to pole sleeve with 2" screws through the spacer blocks to ensure no screws protrude into roosting chambers. Pre-drill holes first to avoid splitting spacer blocks (countersinking holes may also help).
8. Attach spacer blocks (4 per side) to inner shell as shown, using two 1¼" screws per block. Bottom spacer blocks are 10" up from the bottom edge of the inner shell. Top spacers are 4" from top. Alternate spacers left and right sides, 4" apart.
9. Assemble four outer-shell boards into a hollow, square box as in step 4. Vent slots are on opposing sides and oriented towards the bottom.
10. Slide finished outer shell over inner shell, so that 6" of inner shell protrudes below outer shell. Mark locations of spacer blocks. Secure outer shell to inner shell as in step 7 (pre-drill holes first). Ensure that no screws protrude into the roosting chambers.
11. Caulking first, attach inner roof to box with 1¼" screws. Carefully drive screws into top edges of shells to prevent screws from entering roosting chambers.
12. Center and attach outer roof to inner roof with 1½" screws, caulking first.
13. Paint or stain exterior three times (use primer for first coat). Cover roof with shingles or dark galvanized metal.
14. Slide completed rocket box over pole. One inch up from the bottom edge of pole sleeve, drill a ½" hole all the way through pole and sleeve. Rotate box and pole 90° and drill another ½" hole, 2 inches from the bottom, through pole and sleeve. Secure box to pole with two ¼" bolts, washers and nuts. Orient vent slots north and south during installation.

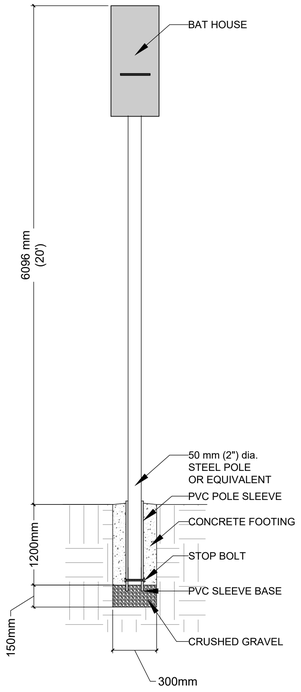
Optional modifications to the rocket box
1. For extra mounting height, insert a ¼" bolt and nut about halfway up through pole sleeve after completing step 5.
2. For extra heat-holding capacity, create a compartment in upper half of pole sleeve with a 2½"-square piece of leftover plywood. Fill upper half of sleeve with sand, gravel or dirt, and seal with another piece of plywood flush with top.
3. In warmer climates, a larger outer roof with more overhang can be used for additional shading.

FIGURE 7
Two-chamber Rocket Box Sawing Diagram

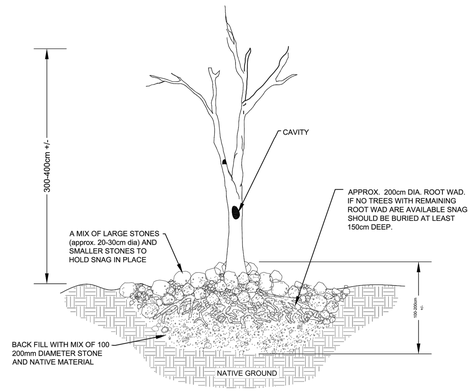


NOTES:

1. MINIMUM OF 6 HOURS OF DIRECT SUNLIGHT IS RECOMMENDED WITH UP TO 10 HOURS OF DIRECT SUNLIGHT BEING IDEAL.
2. POLES SHALL BE INSTALLED A MINIMUM OF 4 m AWAY FROM EXISTING AND PROPOSED TREES, IN ORDER TO MINIMIZE CHANCES OF PREDATION.
3. BAT HOUSES MUST BE INSTALLED 2-6 WEEKS PRIOR TO EVICTING BATS FROM NEARBY EXISTING STRUCTURES.
4. BAT HOUSES SHOULD BE INSTALLED IN FALL, WINTER OR EARLY SPRING, PRIOR TO THE SUMMER IN WHICH YOU INTEND THE BATS TO MOVE IN.
5. A METAL POLE SHALL BE USED IN ORDER TO DETER PREDATORS FROM REACHING THE BAT HOUSE.
6. THE HOLE DUG FOR THE POST FOOTING SHOULD BE AT LEAST 1350 mm (53") DEEP, BY 300 mm (12") WIDE. THE BOTTOM 150 mm (6") SHOULD BE FILLED WITH CRUSHED GRAVEL.

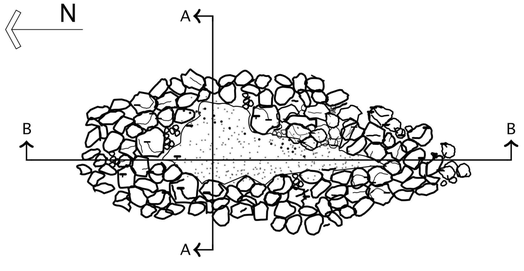


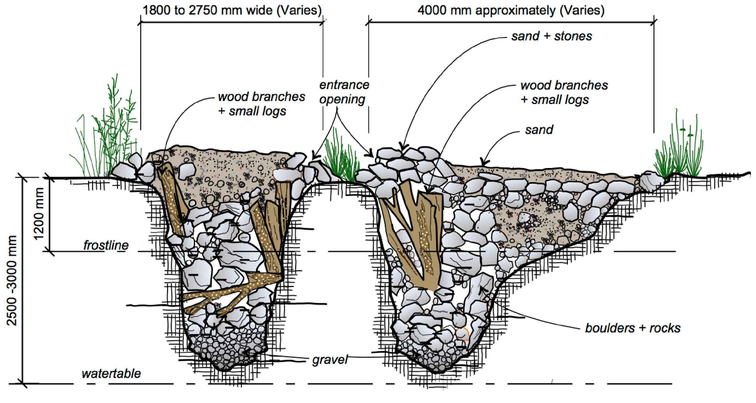
2 / L-7 BAT HOUSE POLE FOOTING DETAIL
NTS



NOTES
- ALL MATERIALS INCLUDING ROCKS, SOIL, AND SNAG TREE SHOULD BE SALVAGED FROM MATERIALS ON THE SITE WHERE POSSIBLE.
- TREES WITH NATURAL CAVITIES SHOULD BE SELECTED. IF NOT AVAILABLE 1-2 15cm HOLES SHOULD BE DRILLED TO CREATE CAVITY HABITAT.
- ANY LARGE BRANCHES (over 15cm diameter) SHOULD BE CUT TO 30-50cm OF THE MAIN TRUNK TO REDUCE POTENTIAL FOR HAZARDOUS BRANCH FAILURE.
- WHERE TREES WITH ATTACHED ROOT WADS ARE UNAVAILABLE:
  -CUT THE SNAG BASE AS FLAT AS POSSIBLE
  -PLACE IN HOLE APPROX.⅓ THE HEIGHT OF THE SNAG AND FIRMLY TAMP SOIL AND ROCKS SURROUNDING IT
- ALL DIMENSIONS ARE IN CENTIMETERS UNLESS OTHERWISE SHOWN.

3 / L-7 SNAG DETAIL
NTS

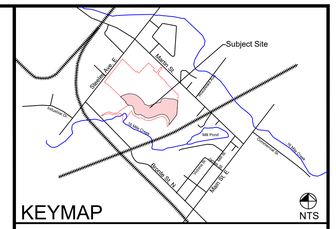




1 / L-7 TWO CHAMBER ROCKET BOX BAT HOUSE DETAIL
NTS

Open Source Publication -
Tuttle, Merlin; Kiser, Mark; and Kiser, Selena, "Two-chamber Rocket Box Bat House Plans" (2005). Other Publications in Wildlife Management. 2.
http://digitalcommons.unl.edu/icwdmother/2

4 / L-7 SNAKE HIBERNACULUM DETAIL
NTS



LEGEND

RECEIVED
CONSERVATION
October 16, 2023

HALTON REGION CONSERVATION AUTHORITY
APPROVED BY:
DATE: November 1, 2023
Subject to the conditions provided on PERMIT
No.: 8705

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
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3	ISSUED TO ADDRESS CH COMMENT	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/15	SC
1	ISSUED FOR PERMIT	2023/04/06	SC

SCALE

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STEPHAN CRISP
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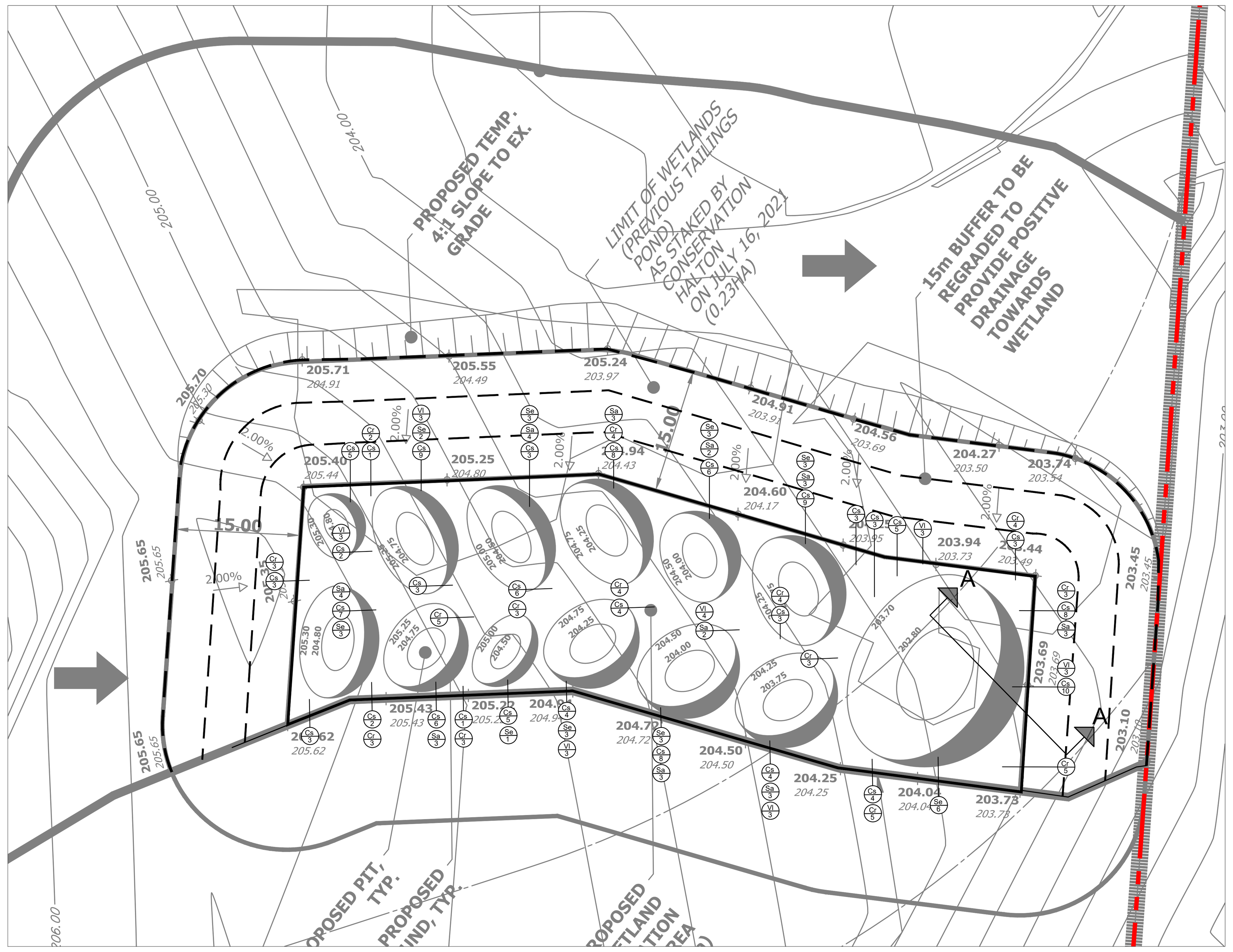
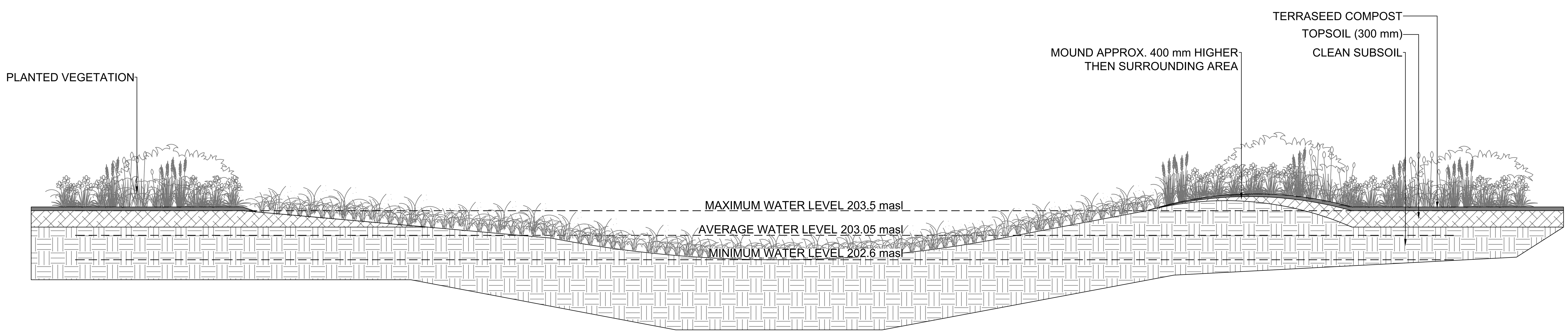
PROJECT
RESTORATION AND BUFFER PLANTING PLANS
150 STEELES AVE.
MILTON, ON

SHEET TITLE
DETAILS

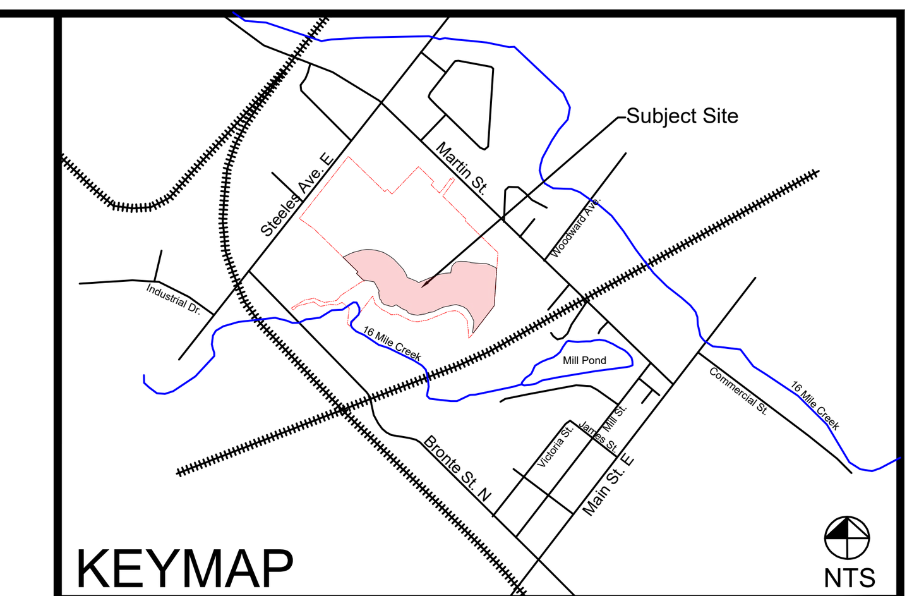
DESIGN BY: MB	PROJECT Nº: 221265
DRAWN BY: MB	FIGURE Nº: L-8
CHECKED BY: SC	
DATE: 09 August 2023	





NOTE: Water level elevations refer to the large cell only and are based on continuous hydrologic modeling in 1985 and between 1987 and 1991

1 / L-8 PIT AND MOUND WETLAND SECTION A-A
1:40



LEGEND

RECEIVED
CONSERVATION
October 16, 2023

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APPROVED BY:
DATE: November 1, 2023
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Nº	REVISIONS	DATE:	BY:
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3	ISSUED TO ADDRESS CH COMMENT	2023/10/13	SC
2	ISSUED FOR CONSTRUCTION	2023/08/15	SC
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SCALE

NORTH ARROW

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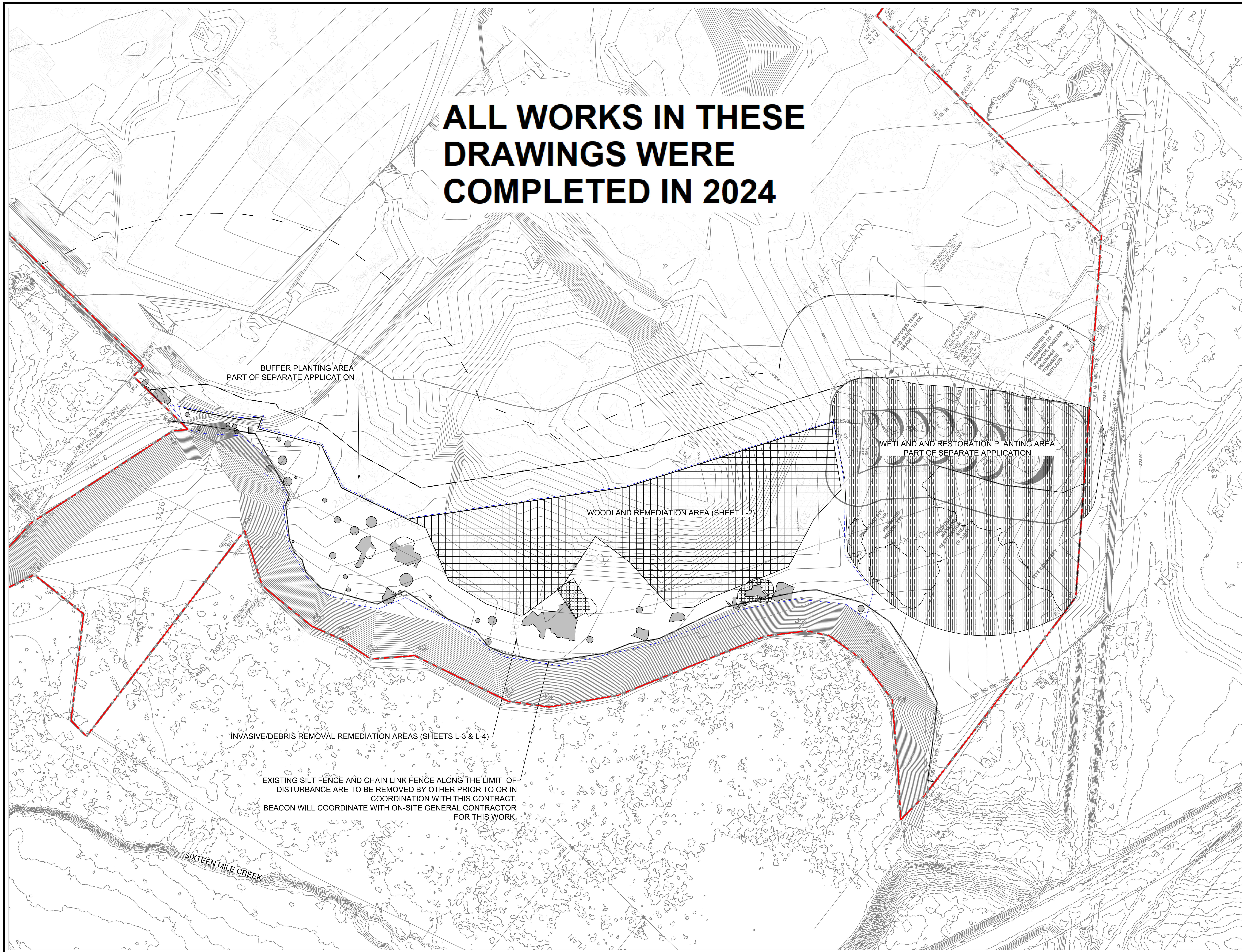
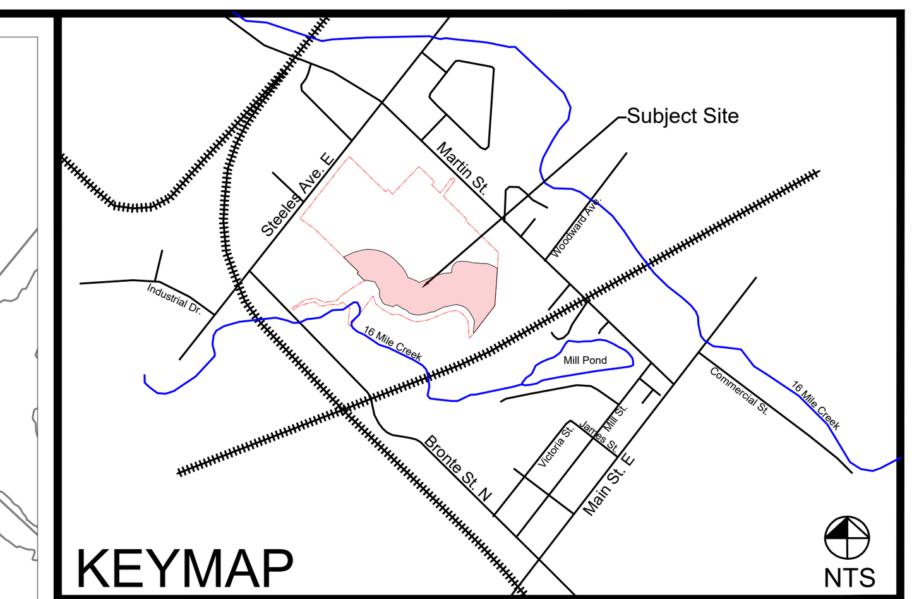
SHEET TITLE
SECTIONS

DESIGN BY:	MB	PROJECT Nº:	221265
DRAWN BY:	MB	FIGURE Nº:	L-9
CHECKED BY:	SC		
DATE:	09 August 2023		

Appendix C2

Woodland Restoration Drawings





LEGEND

- Property Line
- Limit of Construction / Contract
- Conservation Halton Regulated Limit
- Top of Bank
- Post-Remediation Woodland Planting Limit
- Post-Remediation Woodland Buffer
- Limit of Disturbance
- Woodland Remediation Planting Area (Sheet L-2)
- Invasive Species for Removal and Remediation ($840m^2$)
- Litter/Debris for Removal and Remediation ($248m^2$)
- Area Part of Separate Application (N.I.C.)

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
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2	REVISED AND ISSUED FOR TENDERING	2024/08/06	SC
1	ISSUED FOR PERMIT	2023/03/31	TS

SCALE
1:750 0 10 20m

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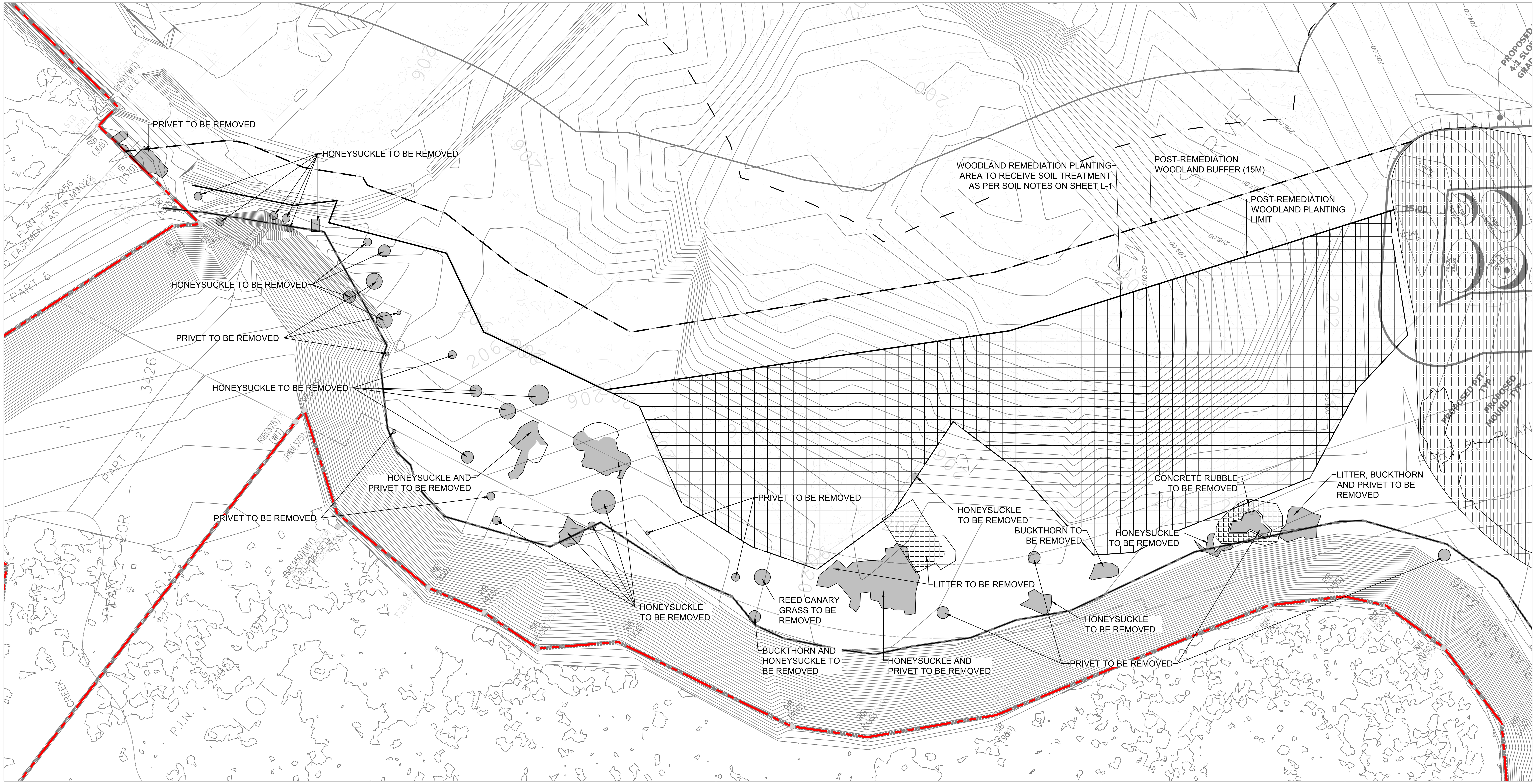
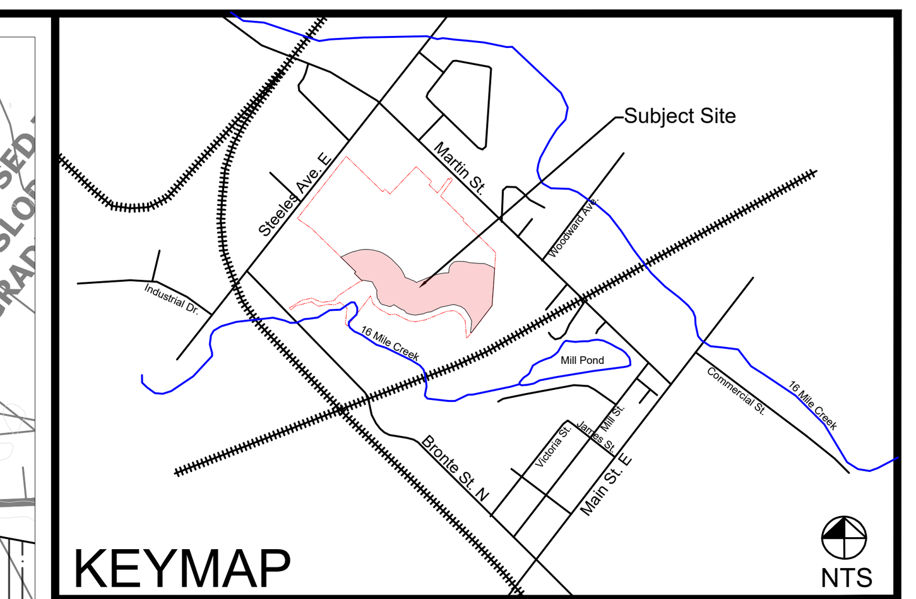
SHEET TITLE
OVERALL SITE CONTEXT PLAN

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-0
CHECKED BY:	SC		
DATE:	23 August 2024		





LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank
- Post-Remediation Woodland Planting Limit
- Post-Remediation Woodland Buffer
- Limit of Disturbance
- Invasive Species for Removal and Remediation (840m^2)
- Litter/Debris Area for Removal and Remediation (248m^2)
- Areas Part of Separate Application
- Woodland Remediation Planting Area

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
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4			
3	Updated Plan Addendum # 1	2024/08/ 27	SC
2	REVISED AND ISSUED FOR TENDERING	2024/08/06	SC
1	ISSUED FOR PERMIT	2023/03/31	TS

SCALE
1:500 0 10 20 40m

NORTH ARROW
SEAL

GENERAL NOTES :

1. This design has been prepared in response to the requirement to remediate existing soil contamination on the Subject Property and to meet the ecological restoration goals outlined in the Comprehensive Environmental Management Study by Beacon Environmental Limited, dated March 2023.
2. This drawing is to be read in conjunction with the written specifications for the project and all other drawings.
3. Any ambiguity in this drawing or accompanying details is to be reported to the project Landscape Architect from Beacon Environmental. Contractor is not to proceed in uncertainty.
4. Limits or work to be clearly understood by the contractor prior to any work taking place on site.
5. Access to invasive species removal and enhancement areas shall be limited to established routes to minimize disturbance to the woodland.
6. The Contractor shall visit the site to confirm all site conditions prior to submitting a bid. Report all discrepancies in writing to the project Landscape Architect
7. The Contractor must notify the project Landscape Architect a minimum of 5 (five) days prior to the commencement of any construction work.
8. If any part of this plan cannot be followed due to site conditions contact the Project Landscape Architect for instruction prior to commencing work.
9. Perform excavation in the vicinity of underground utilities with care and by hand if necessary. The Contractor bears full responsibility for this work and disruption of damaged utilities shall be repaired at no expense to the Owner.
10. Drawings may be scaled for layout measurement but dimensions and elevations shown are subject to verification on site.
11. The Contractor shall maintain all areas until Owner's acceptance of the project in accordance with the specifications.
12. It is the responsibility of the Contractor and/ or Owner to ensure that the drawings with the latest revisions are used for construction.

INVASIVE SPECIES REMOVAL: CUTTING AND HERBICIDE TREATMENT - OPTION A

13. All chemicals/herbicides are to be applied by a licensed applicator.
14. Mature plants must be managed using a cut stump method, while seedlings can be managed through a mechanical pulling.
15. Beacon recommends the use of triclopyr (trade names: Garlon 4) mixed with an applicable surfactant for the cut stump method.
16. Identification of invasive plant infestations and/or individuals shall be completed by Beacon prior to initiation of herbicide treatment in accordance with the timeline below:

Step 1: A qualified ecologist / botanist / landscape architect shall identify and mark species for removal in early spring in the year of, or fall the year prior to, installation of restoration plantings (dependant on project phasing).

Step 2: During mid-spring to late summer, cut invasive shrubs approximately 10 - 20 cm from the ground surface. Do not cut at the ground surface, as this may make identification during follow-up treatments more difficult. Vegetation removals shall be completed in accordance with the Federal *Migratory Birds Convention Act[1]*.

Step 3: Paint herbicide (triclopyr [2]) on freshly cut stumps. Backpack sprayers are not recommended, as herbicide drift may affect non-target plants and/or soils. Dye added to the herbicide mixture will allow for identification of treated stumps and is recommended.

Step 4: Remove all cut brush from the woodland. Disposal options include thorough burning on site (burn permit required) or disposing of materials off-site in a municipal waste facility. Brush should not be composted or chipped.

Step 5: Seedlings in the woodland shall be subject to foliar application of triclopyr when adjacent vegetation has not leafed-out (i.e., in the early spring or mid-autumn). Method of application will depend on the severity of infestations and shall be determined during investigations in *Step 1*.

[1] There is the potential to contravene the Migratory Birds Convention Act (MBCA) if vegetation removal or pruning occurs between April 1 and August 31 and protected birds are nesting and/or present. For any proposed clearing of vegetation between April 1 and August 31, an Ecologist or Avian Biologist should undertake detailed nest searches within three days of site alteration to ensure that no active nests are present. If active nests of protected species are confirmed, vegetation removal will need to be delayed until the nest is no longer actively used or an exclusion zone around the nest is delineated by the project Ecologist/Avian Biologist.

[2] Triclopyr should not be used during periods of drought or when air temperatures exceed 29°C.

17. It is recommended that the first follow-up inspection occur the year following the initial treatment and monitored annually for a period of up to 3 years.
18. Any mature plants that were missed or have not responded to treatment will be subject to re-treatment in accordance with the methodology above.

INVASIVE SPECIES REMOVAL: MECHANICAL- OPTION B

19. Project Landscape Architect shall identify and flag the species designated for removal in early spring or in late summer prior to the commencement of the project. Mechanical management is to be performed prior to fruit production in late summer.
20. The Contractor shall site review with the project Landscape Architect the extent of invasive species and debris to be removed.
21. Mechanical removal of invasive trees and shrubs involves removing the entire plants from the soil.
22. Pulling the plants is most effective on seedlings and saplings where the entire root system can be removed at once.
23. For larger trees and shrubs, cut the plants about 30 cm above ground and remove all cut stems from the work area. Excavate the entire root system and stumps using a backhoe or excavator.
24. Remove all root system and stumps along with the above ground branches and disposed of all materials at a local municipal waste facility.
25. Disturbed soil should be tamped down firmly after removing the plants.

SOIL NOTES :

26. Following the mechanical removal of the invasive species, if the disturbed areas to be replanted are too low or deficient in providing adequate planting soil, the Contractor shall use available on-site top soil to supplement those planting beds
27. All planting areas corresponding to the invasive species removal areas shall be graded to match existing grades.
28. Finished grade elevation of the woodland remediation area shall match existing elevations along the limit of disturbance.
29. The finished grade elevation along the woodland / buffer limit shall be as per proposed grade elevation established by Project Surveyor.
30. For the Woodland Remediation Planting Area, a minimum of 1.0m. depth top soil is to be placed and graded by the General Contractor.
31. Prior to spreading of top soil, the underlying top soil shall be tilled or scarified to an average depth of 45 cm.
32. Following final grading of top soil, prior to planting operation, the Contractor shall place a 100 mm layer of clean organic compost over the entire woodland remediation area. The compost shall be tilled and well mixed into the top 30 cm of the soil surface.

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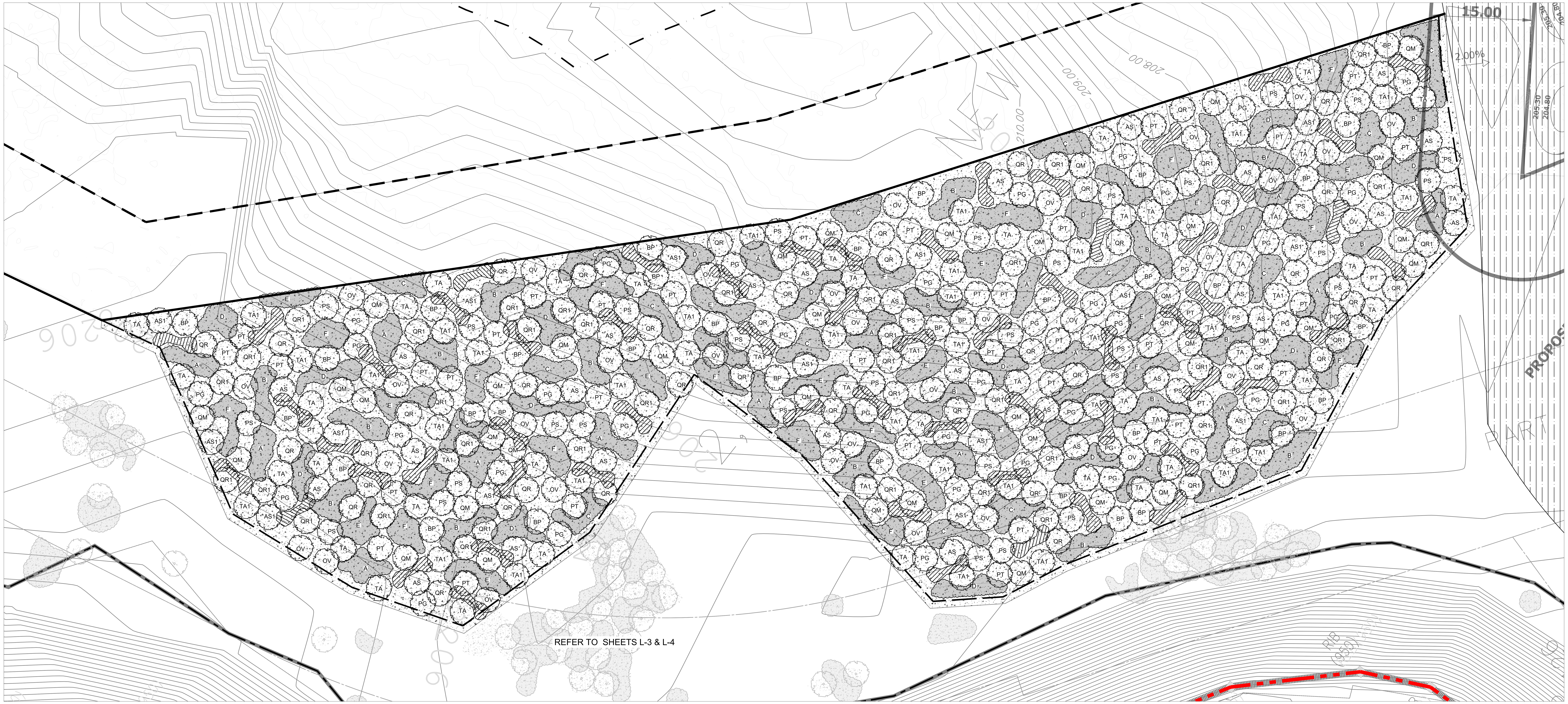
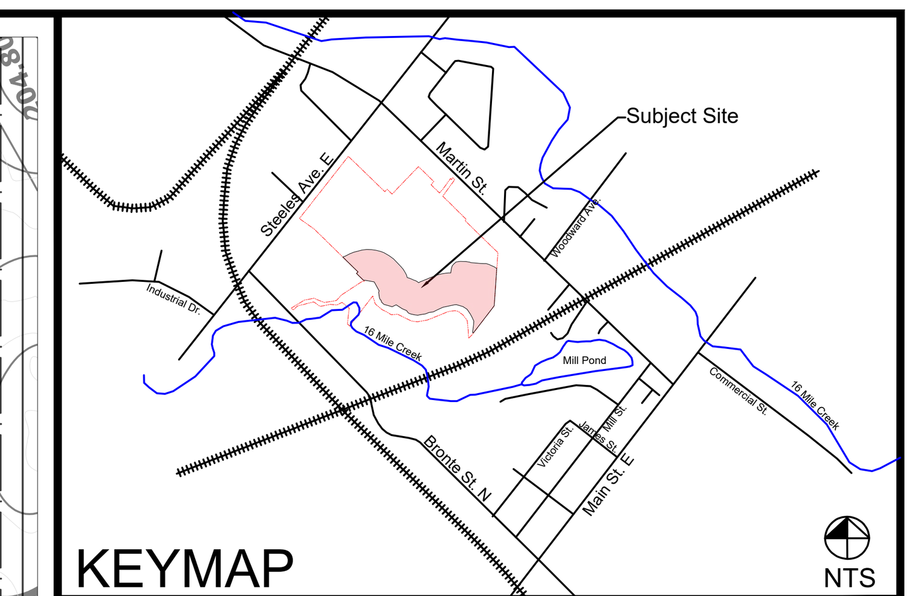
150 STEELES AVE.
MILTON, ON

SHEET TITLE
SITE PREPARATION PLAN

DESIGN BY: MB/JA	PROJECT Nº: 221265
DRAWN BY: MB/JA	FIGURE Nº: L-1
CHECKED BY: SC	
DATE: 23 August 2024	





LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank
- Post-Remediation Woodland Planting Limit
- Post-Remediation Woodland Buffer
- Limit of Disturbance
- Pr. Deciduous Tree (1 / L-6)
- Pr. Shrub Module (1 m O.C.) (Refer to Sheet L-8) (3 / L-6)
- Pr. Herbaceous Plug Module (30 plugs per module @ 3/m^2) (60) (4-5 / L-6)
- Pr. Woodland Edge Seed Mix (Total Woodland Area - 6540 m^2)
- Areas Part of Separate Application
- A — Shrub Module Identification Letter
- QR — Tree Species Identification Key

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3	Updated Plan Addendum # 1	2024/08/ 27	SC
2	REVISED AND ISSUED FOR TENDERING	2024/08/06	SC
1	ISSUED FOR PERMIT	2023/03/31	TS

SCALE
1:300 (0, 5, 10, 20m)

NORTH ARROW — NORTH

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PLANTING SCHEDULE

TREES						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	STOCK TYPE	SPACING
AS	27	*Acer saccharum*	Sugar Maple	150-175cm ht.	5-7 gal	4 m O.C. min.
AS1	15	*Acer saccharum*	Sugar Maple	25-35mm cal.	10-15 gal	4 m O.C. min.
BP	34	*Betula papyrifera*	Paper Birch	150-175cm ht.	5-7 gal	4 m O.C. min.
OV	34	*Ostrya virginiana*	Ironwood	150-175cm ht.	5-7 gal	4 m O.C. min.
PG	39	*Populus grandidentata*	Large-Toothed Aspen	150-175cm ht.	5-7 gal	4 m O.C. min.
PT	39	*Populus tremuloides*	Trembling Aspen	150-175cm ht.	5-7 gal	4 m O.C. min.
PS	34	*Prunus serotina*	Black Cherry	150-175cm ht.	5-7 gal	4 m O.C. min.
QM	37	*Quercus macrocarpa*	Bur Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR	39	*Quercus rubra*	Red Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR1	41	*Quercus rubra*	Red Oak	25-35mm ca.	10-15 gal	4 m O.C. min.
TA	39	*Tilia americana*	Basswood	150-175cm ht.	5-7 gal	4 m O.C. min.
TA1	40	*Tilia americana*	Basswood	25-35mm ca.	10-15 gal	4 m O.C. min.
Total	418					

SHRUBS						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
Al	60	*Amelanchier laevis*	Allegheny Serviceberry	100-125cm ht	3 gal	1 m O.C. min.
Ca	127	*Cornus alternifolia*	Alternate-Leaved Dogwood	75-100cm ht	3 gal	1 m O.C. min.
Cr	792	*Cornus racemosa*	Gray Dogwood	50-75cm ht	1-2 gal	1 m O.C. min.
Pv	181	*Prunus virginiana ssp. virginiana*	Chokecherry	50-75cm ht	1-2 gal	1 m O.C. min.
Ri	210	*Rubus idaeus ssp. strigosus*	Wild Red Raspberry	50-75cm ht	1-2 gal	1 m O.C. min.
Sp	280	*Sambucus pubens*	Red Elderberry	50-75cm ht	1-2 gal	1 m O.C. min.
Va	340	*Viburnum acerifolium*	Mapleleaf Viburnum	50-75cm ht	1-2 gal	1 m O.C. min.
Vl	400	*Viburnum lentago*	Nannyberry	75-100cm ht	3 gal	1 m O.C. min.
Total	2390					

GRASSES AND FORBES				
QTY	SCIENTIFIC NAME	COMMON NAME	STOCK TYPE	SPACING
300	*Anemone virginiana*	Tall Anemone	2 x 5 inch plug	3 per 1 m^2
475	*Elymus canadensis*	Canada Wild Rye	2 x 5 inch plug	3 per 1 m^2
425	*Elymus hystrix*	Bottlebrush Grass	2 x 5 inch plug	3 per 1 m^2
300	*Monarda fistulosa*	Wild Bergamot	2 x 5 inch plug	3 per 1 m^2
300	*Symphiotrichum ericoides*	White Heath Aster	2 x 5 inch plug	3 per 1 m^2
1800	Total			

SEEDING SCHEDULE

WOODLAND EDGE SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 sq. m)	PROPORTION OF SEED MIX(%)
FORBS			
Anemone virginiana	Tall Anemone	0.81	3.0
Eurybia macrophylla	Large-leaved Aster	1.35	5.0
Rudbeckia hirta	Black-eyed Susan	0.54	2.0
Solidago flexicaulis	Zig-Zag Goldenrod	0.54	2.0
Solidago juncea	Early Goldenrod	0.16	0.6
Solidago nemoralis	Grey Goldenrod	0.16	0.6
Solidago rugosa	Rough Goldenrod	0.16	0.6
Symphiotrichum ericoides	White Heath Aster	0.16	0.6
Symphiotrichum laterflorum	Calico Aster	0.16	0.6
Symphiotrichum novae-angliae	New England Aster	0.27	1.0
Symphiotrichum pilosum	Frost Aster	0.27	1.0
Verbena stricta	Hoary vervain	0.81	3.0
GRASSES			
Elymus canadensis	Canada Wild Rye	8.1	30.0
Elymus trachycaulus	Slender Wheat Grass	2.7	10.0
Elymus hystrix	Bottlebrush Grass	4.6	17.0
Panicum clandestinum	Deer-Tongue Grass	3.5	13.0
Sorghastrum nutans	Indian Grass	2.7	10
TOTAL NATIVE SPECIES		27	100

NURSE CROP SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/ 10 000 m^2)	PLS REQUIRED (kg PLS per/ 6540 m^2)
FORBS			
Lolium multiflorum	Annual rye grass	35	23.24
Elymus canadensis	Canada Wild Rye	30	19.92
TOTAL NURSE CROP		65	43.16

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PROJECT
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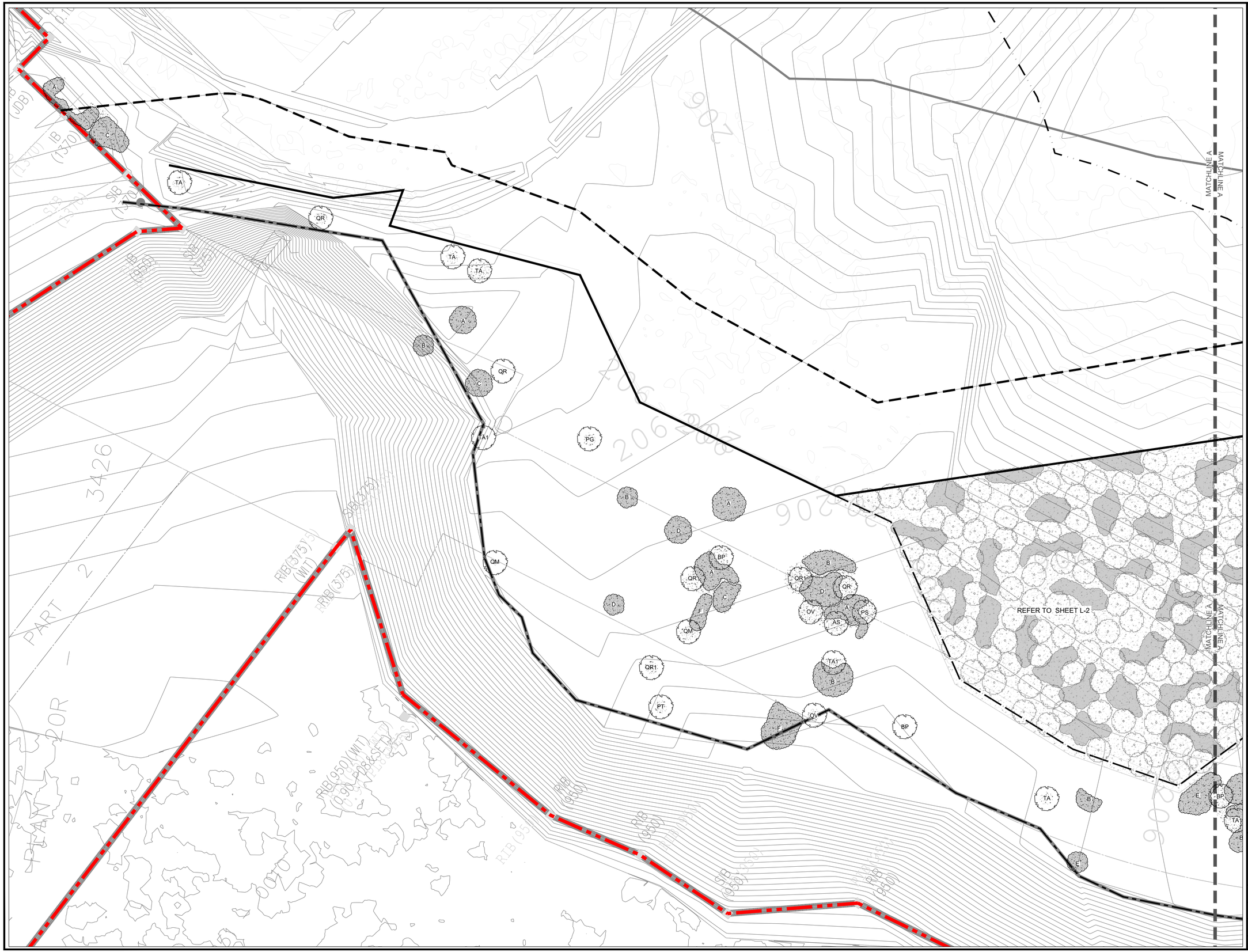
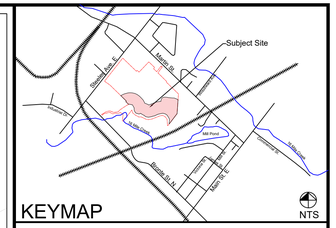
150 STEELES AVE.
MILTON, ON

SHEET TITLE
WOODLAND REMEDIATION AREA PLANTING PLAN

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-2
CHECKED BY:	SC		
DATE:	23 August 2024		





LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank
- Post-Remediation Woodland Planting Limit
- Post-Remediation Woodland Buffer
- Limit of Disturbance
- Pr. Deciduous Tree (1 / L-6)
- Pr. Shrub Module (1 m O.C.) (Refer to Sheet L-8) (3 / L-6)
- A — Shrub Module Identification Letter
- Pr. Woodland Edge Seed Mix (Total Invasive/Debris Area 1122 m^2)

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

N°:	REVISIONS	DATE:	BY:
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4	Updated Plan Addendum # 1	2024/08/ 27	SC
3	REVISED AND ISSUED FOR TENDERING	2024/08/06	SC
2	ISSUED FOR PERMIT	2023/10/27	SC
1	ISSUED FOR PERMIT	2023/03/31	TS

SCALE
1:250
0 5 10 20m

NORTH ARROW
North

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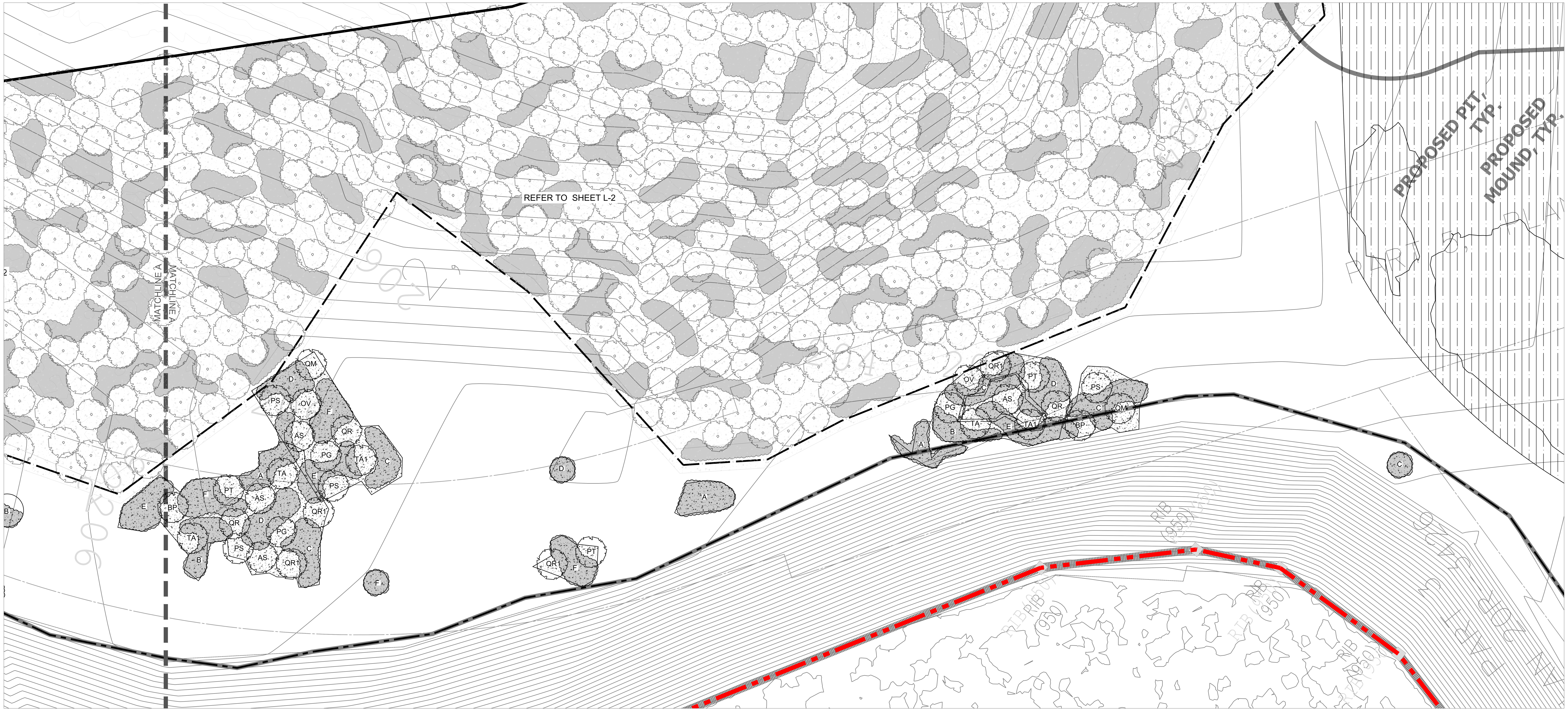
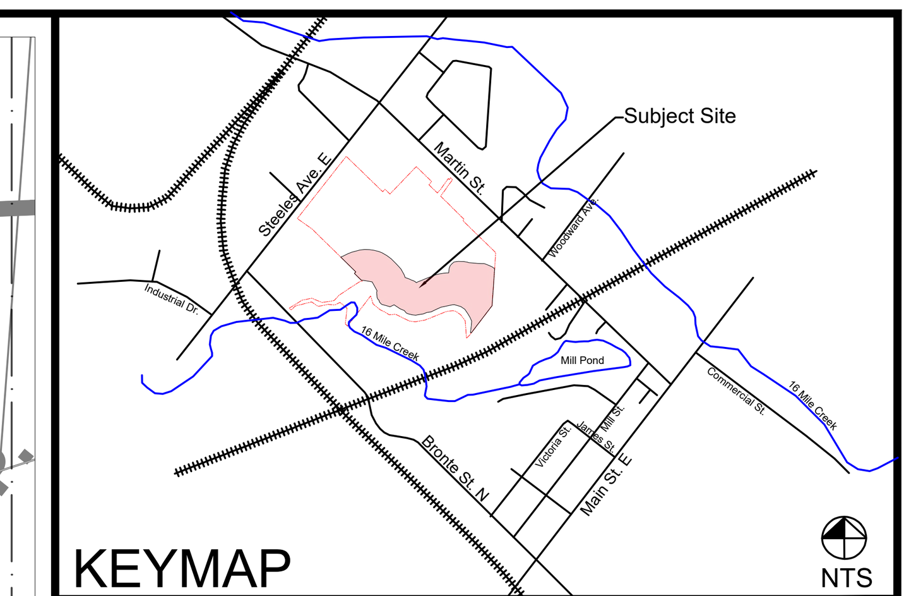
PROJECT
RESTORATION PLANTING PLAN
150 STEELES AVE.
MILTON, ON

SHEET TITLE
INVASIVE AND DEBRIS AREA PLANTING PLAN

DESIGN BY:	MB/JA	PROJECT N°:	221265
DRAWN BY:	MB/JA	FIGURE N°:	L-3
CHECKED BY:	SC		
DATE:	23 August 2024		





LEGEND

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- Top of Bank
- Post-Remediation Woodland Planting Limit
- Limit of Disturbance
- Pr. Deciduous Tree (1 / L-6)
- Pr. Shrub Module (1 m O.C.) (Refer to Sheet L-8) (3 / L-6)
- Pr. Herbaceous Plug Module (30 plugs per module @ 3/m^2) (4-5 / L-6)
- A — Shrub Module Identification Letter
- Pr. Woodland Edge Seed Mix (Total Invasive/Debris Area 1,122 m^2)
- Areas Part of Separate Application

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4	Updated Plan Addendum # 1	2024/08/ 27	SC
3	REVISED AND ISSUED FOR TENDERING	2024/08/06	SC
2	ISSUED FOR PERMIT	2023/10/27	SC
1	ISSUED FOR PERMIT	2023/03/31	TS

SCALE
1:250 (0, 5, 10, 20m)

INVASIVE/DEBRIS AREA PLANTING SCHEDULE (L-3 & L-4)

TREES						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
AS	5	*Acer saccharum*	Sugar Maple	150-175cm ht.	5-7 gal	4 m O.C. min.
BP	4	*Betula papyrifera*	Paper Birch	175-200cm ht.	5-7 gal	4 m O.C. min.
OV	4	*Ostrya virginiana*	Ironwood	150-175cm ht.	5-7 gal	4 m O.C. min.
PG	4	*Populus grandidentata*	Large-Toothed Aspen	150-175cm ht.	5-7 gal	4 m O.C. min.
PT	4	*Populus tremuloides*	Trembling Aspen	175-200cm ht.	5-7 gal	4 m O.C. min.
PS	5	*Prunus serotina*	Black Cherry	150-175cm ht.	5-7 gal	4 m O.C. min.
QM	4	*Quercus macrocarpa*	Bur Oak	175-200cm ht.	5-7 gal	4 m O.C. min.
QR	7	*Quercus rubra*	Red Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR1	6	*Quercus rubra*	Red Oak	25-35mm ca.	10-15 gal	4 m O.C. min.
TA	6	*Tilia americana*	Basswood	150-175cm ht.	5-7 gal	4 m O.C. min.
TA1	5	*Tilia americana*	Basswood	25-35mm ca.	10-15 gal	4 m O.C. min.
Total	54					

SHRUBS						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
Al	21	*Amelanchier laevis*	Allegheny Serviceberry	125-150cm ht	3-5 gal	1 m O.C. min.
Ca	54	*Cornus alternifolia*	Alternate-Leaved Dogwood	75-100cm ht	3 gal	1 m O.C. min.
Cr	329	*Cornus racemosa*	Gray Dogwood	50-75cm ht	1-2 gal	1 m O.C. min.
Pv	77	*Prunus virginiana ssp. virginiana*	Chokecherry	75-100cm ht	3 gal	1 m O.C. min.
Ri	60	*Rubus idaeus ssp. strigosus*	Wild Red Raspberry	50-75cm ht	1-2 gal	1 m O.C. min.
Sp	105	*Sambucus pubens*	Red Elderberry	50-75cm ht	1-2 gal	1 m O.C. min.
Va	135	*Viburnum acerifolium*	Mapleleaf Viburnum	50-75cm ht	1-2 gal	1 m O.C. min.
Vl	120	*Viburnum lentago*	Nannyberry	75-100cm ht	3 gal	1 m O.C. min.
Total	901					

INVASIVE/DEBRIS AREA SEEDING SCHEDULE (L-3 & L-4)

WOODLAND EDGE SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 sq. m)	PROPORTION OF SEED MIX(%)
FORBS			
Anemone virginiana	Tall Anemone	0.81	3.0
Eurybia macrophylla	Large-leaved Aster	1.35	5.0
Rudbeckia hirta	Black-eyed Susan	0.54	2.0
Solidago flexicaulis	Zig-Zag Goldenrod	0.54	2.0
Solidago juncea	Early Goldenrod	0.16	0.6
Solidago nemoralis	Grey Goldenrod	0.16	0.6
Solidago rugosa	Rough Goldenrod	0.16	0.6
Symphiotrichum ericoides	White Heath Aster	0.16	0.6
Symphiotrichum laterflorum	Calico Aster	0.16	0.6
Symphiotrichum novae-angliae	New England Aster	0.27	1.0
Symphiotrichum pilosum	Frost Aster	0.27	1.0
Verbena stricta	Hoary vervain	0.81	3.0
GRASSES			
Carex pensylvanica	Pennsylvania Sedge	2.70	10
Elymus canadensis	Canada Wild Rye	7.30	27
Elymus virginicus	Virginia Wild Rye	5.4	20
Elymus hystrix	Bottlebrush Grass	5.4	20
TOTAL NATIVE SPECIES		27	100

NURSE CROP SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 m^2)	PLS REQUIRED (kg PLS per/1,122 m^2)
FORBS			
Lolium multiflorum	Annual rye grass	35	3.98
Elymus canadensis	Canada Wild Rye	30	3.42
TOTAL NURSE CROP		65	7.4

TABLE 1: PLANTING AREAS

AREA	TOTAL PLANTABLE AREA (m^2)	WIDTH (m)	PLANTING DENSITY (MIN. QTY. PER 100 m^2)		TOTAL QUANTITY			
			TREES	SHRUBS	TREES	SHRUBS	HERBACEOUS PLUGS	SEED MIX (m^2)
Woodland Remediation	8760	N/A	5	25	414	2304	1800	8760
Invasive Species Management	979	N/A	5	60	49	723	0	1005
Buffer	4655	15	5	25	136	547	1110	4655

NORTH ARROW

SEAL
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — STEPHAN CRISPIN — MEMBER — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

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MARKHAM, ON L3P 1X5
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F) 905.201.0639
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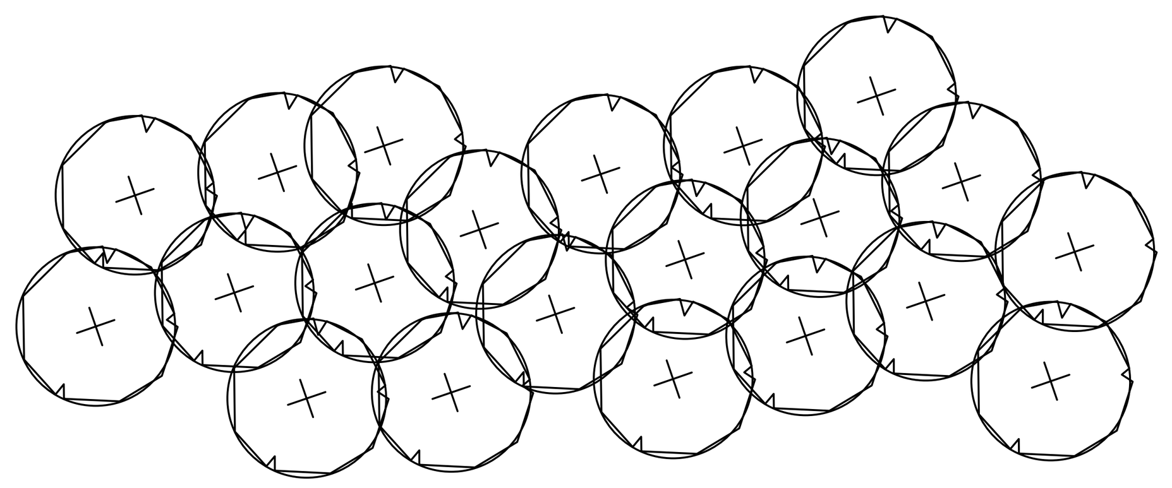
NEATT COMMUNITIES

PROJECT
RESTORATION PLANTING PLAN
150 STEELES AVE.
MILTON, ON

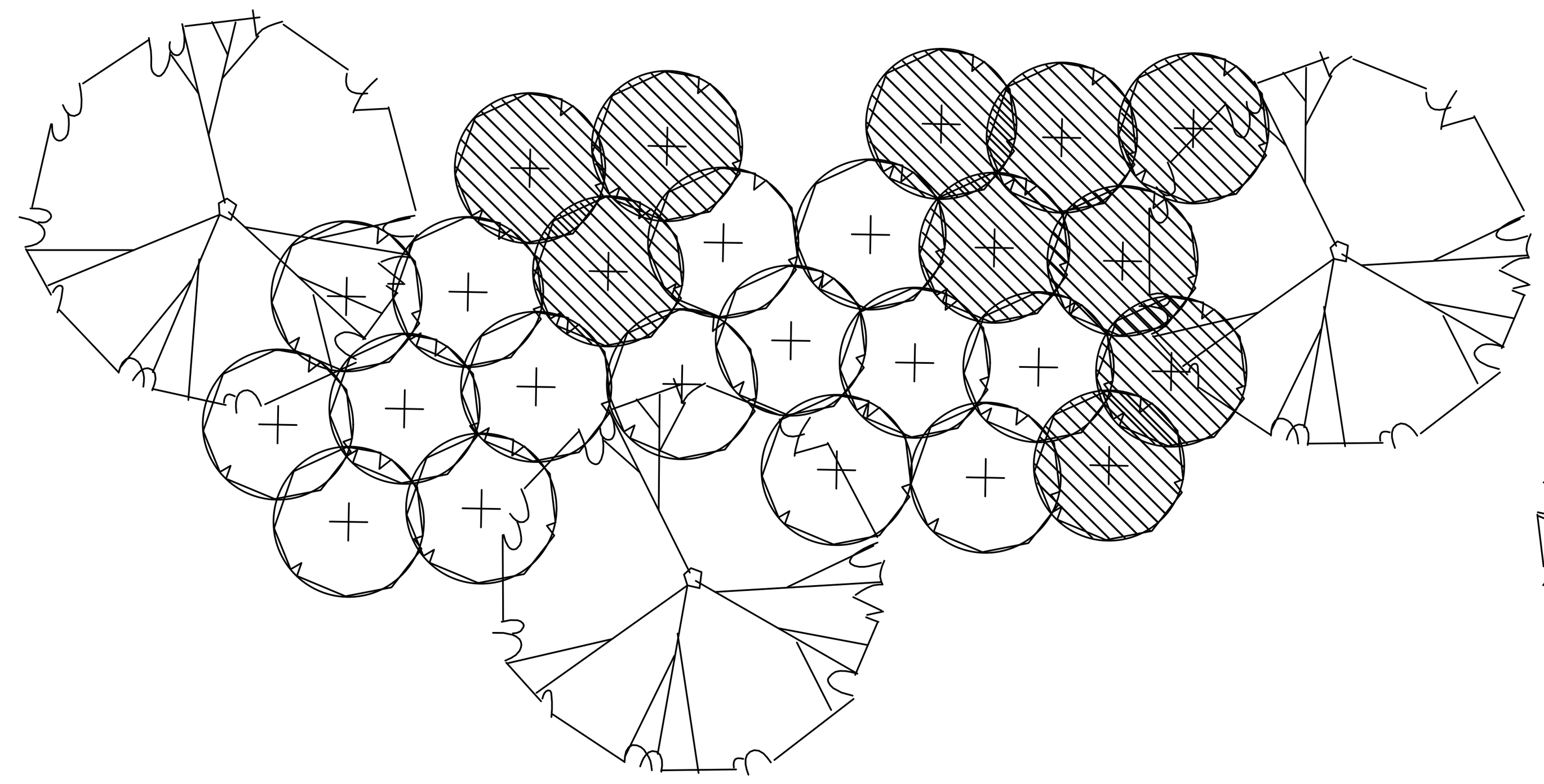
SHEET TITLE
INVASIVE AND DEBRIS AREA PLANTING PLAN

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-4
CHECKED BY:	SC		
DATE:	23 August 2024		

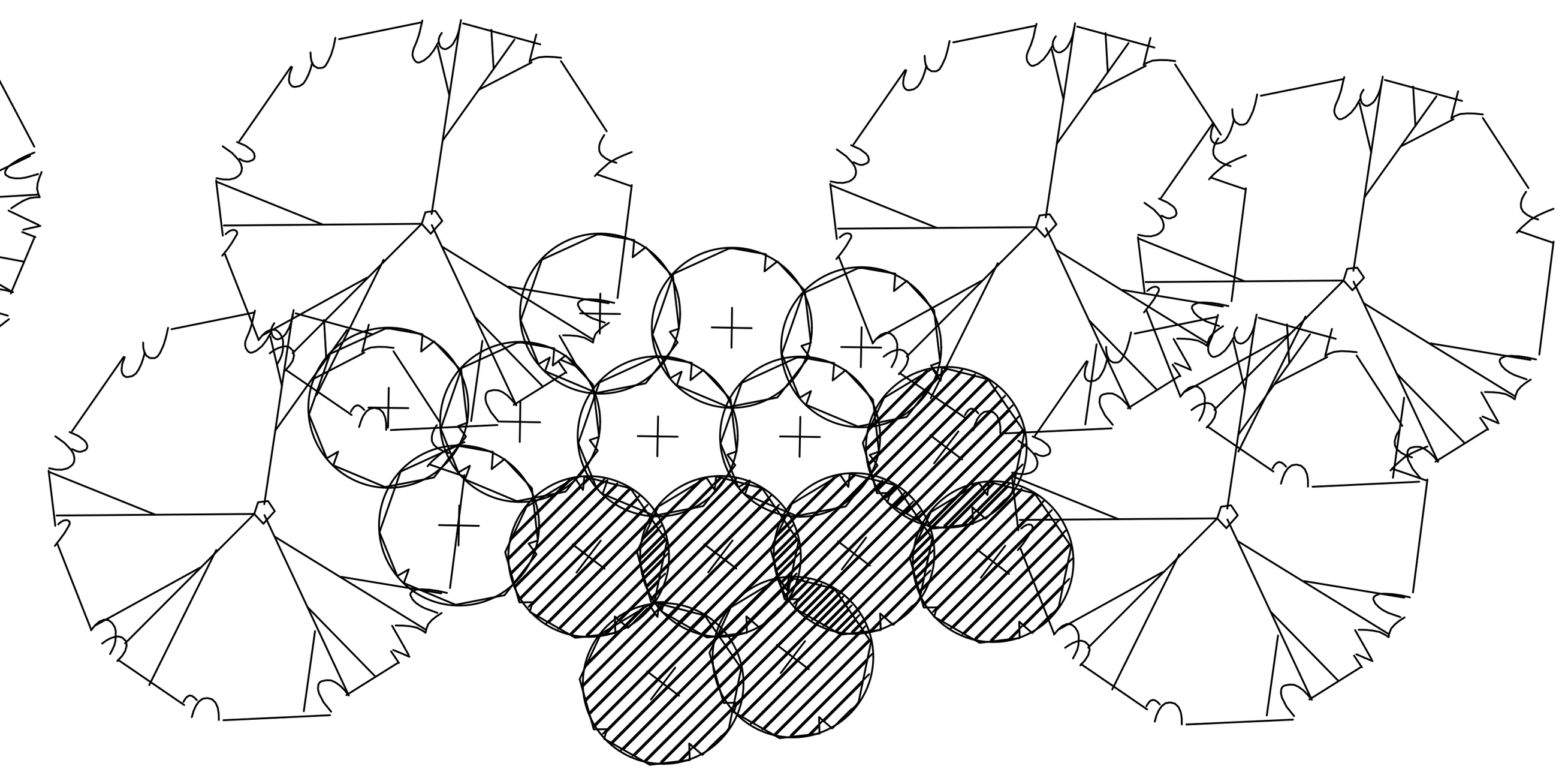
SHRUB MODULES (SHEETS L-2, L-3, L-4)



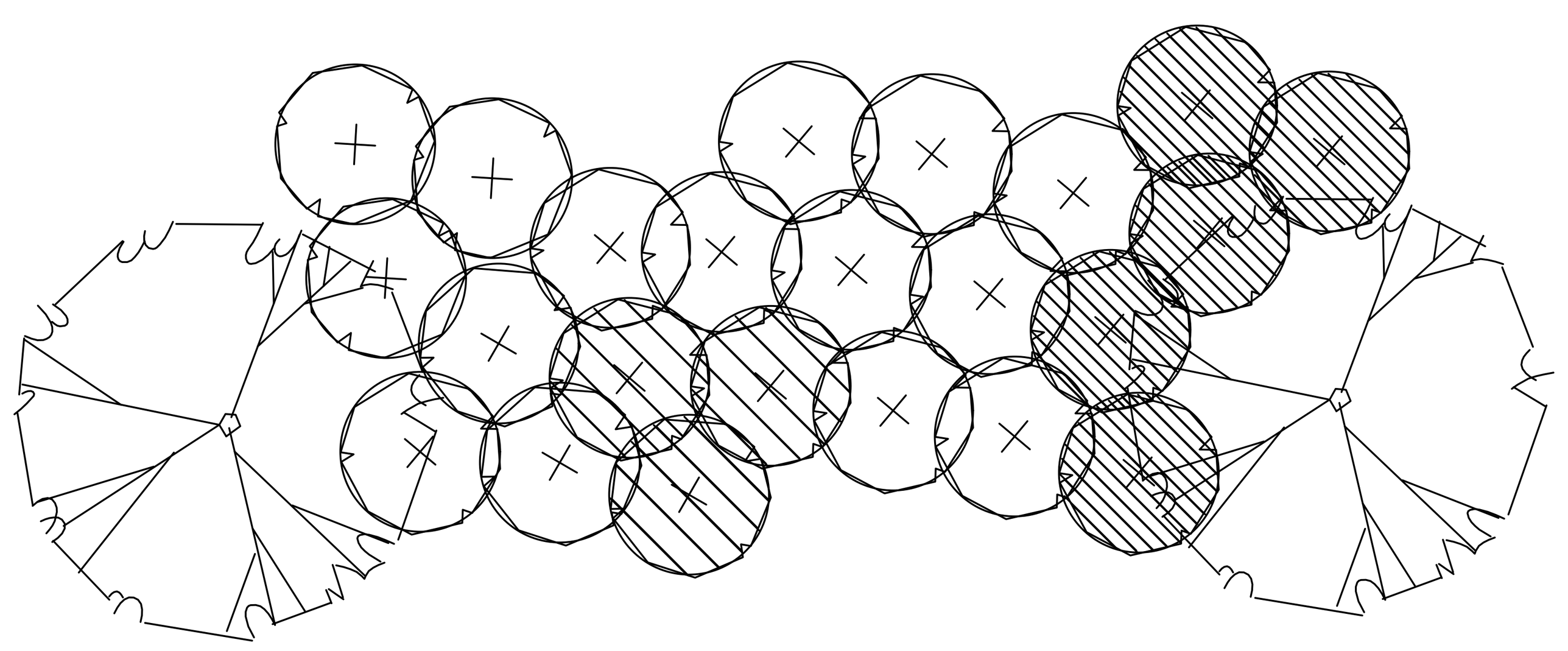
A 20 - *Cornus racemosa* - Gray Dogwood



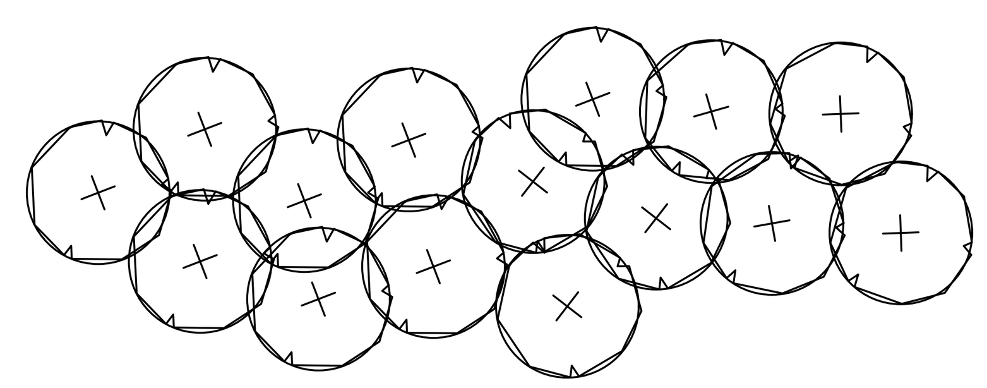
B
3 - *Amelanchier laevis* - Allegheny Serviceberry
15 - *Cornus racemosa* - Gray Dogwood
10 - *Sambucus pubens* - Red Elderberry



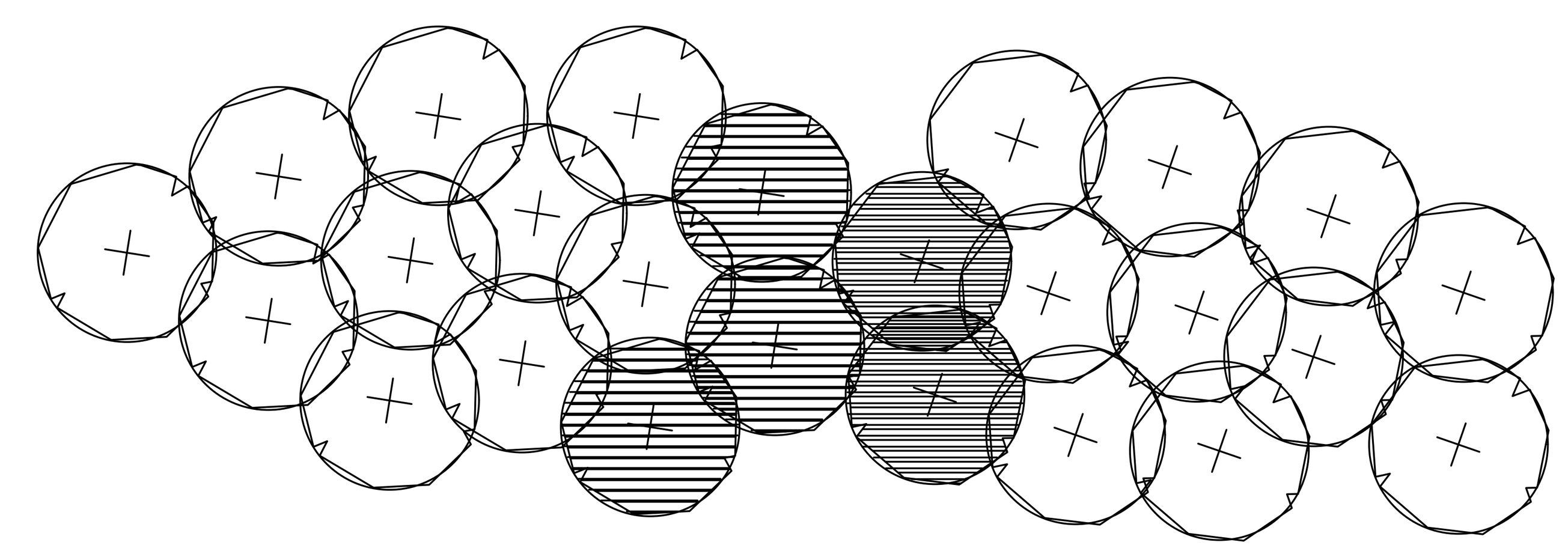
C
5 - *Cornus alternifolia* - Alternate-Leaved Dogwood
8 - *Cornus racemosa* - Gray Dogwood
7 - *Prunus virginiana* - Chokecherry



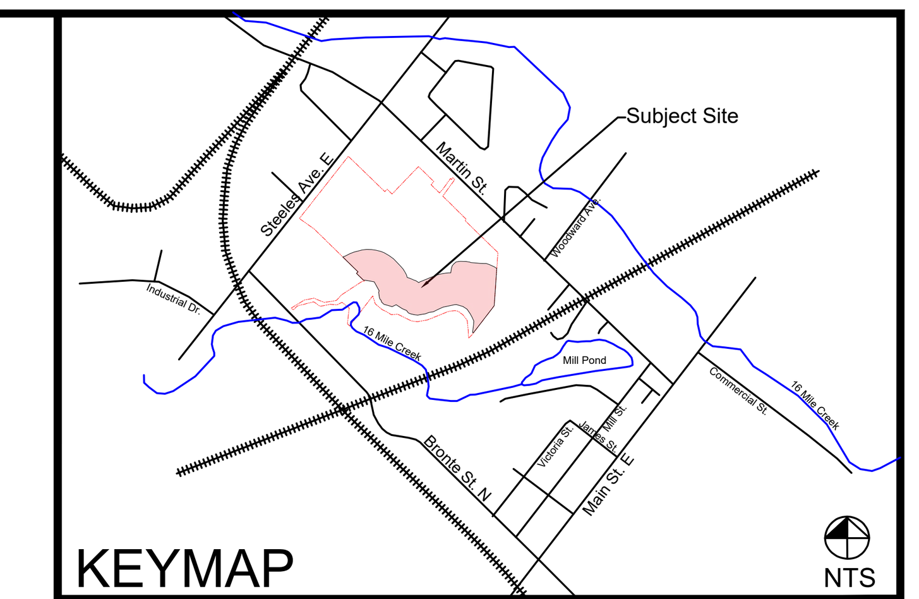
D
2 - *Cornus alternifolia* - Alternate-Leaved Dogwood
3 - *Prunus virginiana* - Chokecherry
5 - *Sambucus pubens* - Red Elderberry
15 - *Viburnum acerifolium* - Mapleleaf Viburnum



E 15 - *Rubus idaeus* - Wild Red Raspberry



F
5 - *Viburnum acerifolium* - Mapleleaf Viburnum
20 - *Viburnum lentago* - Nannyberry



KEYMAP

LEGEND

Notes: Scale shown is for an 36" x 24" page.
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Nº	REVISIONS	DATE:	BY:
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5			
4			
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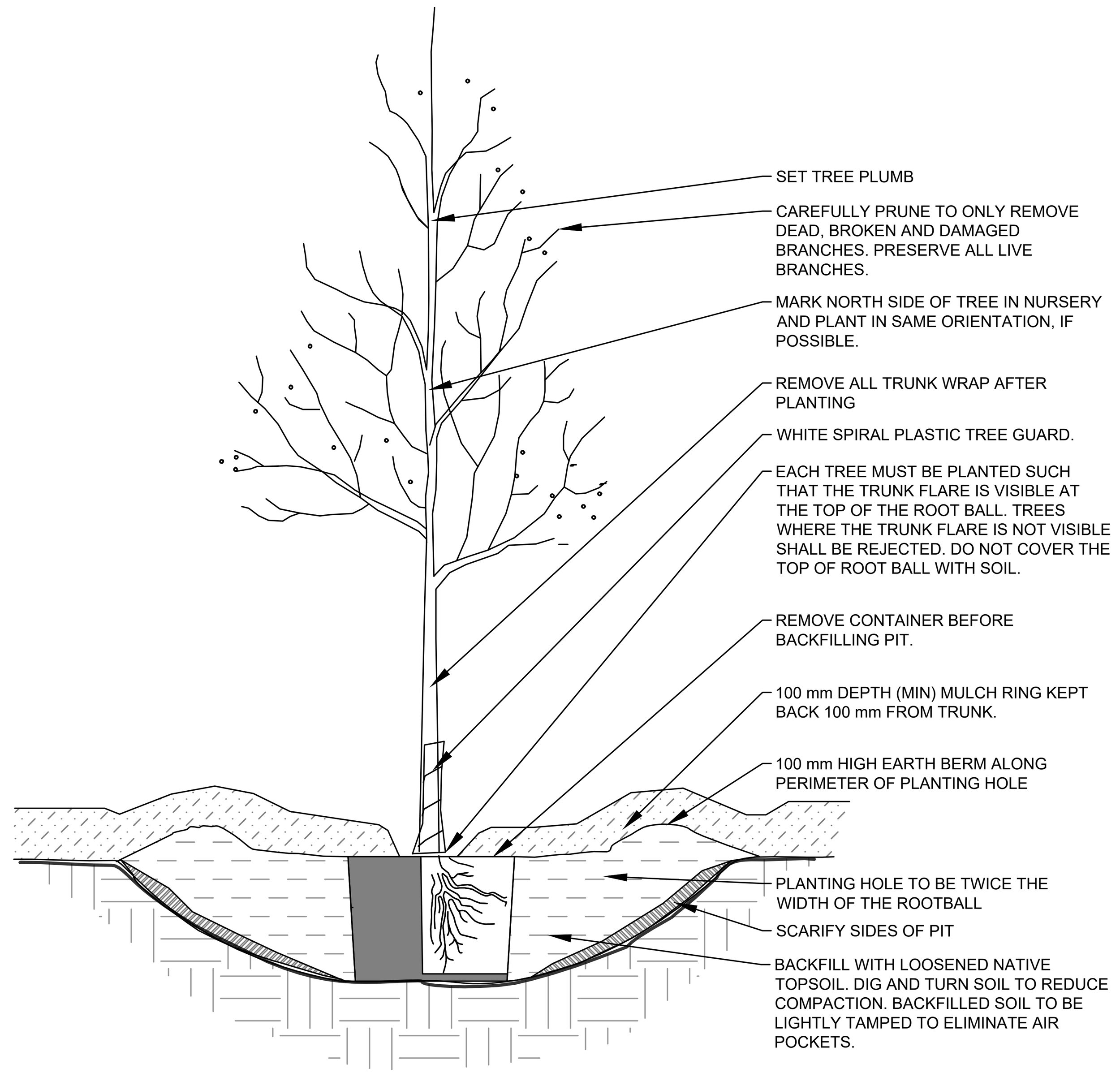
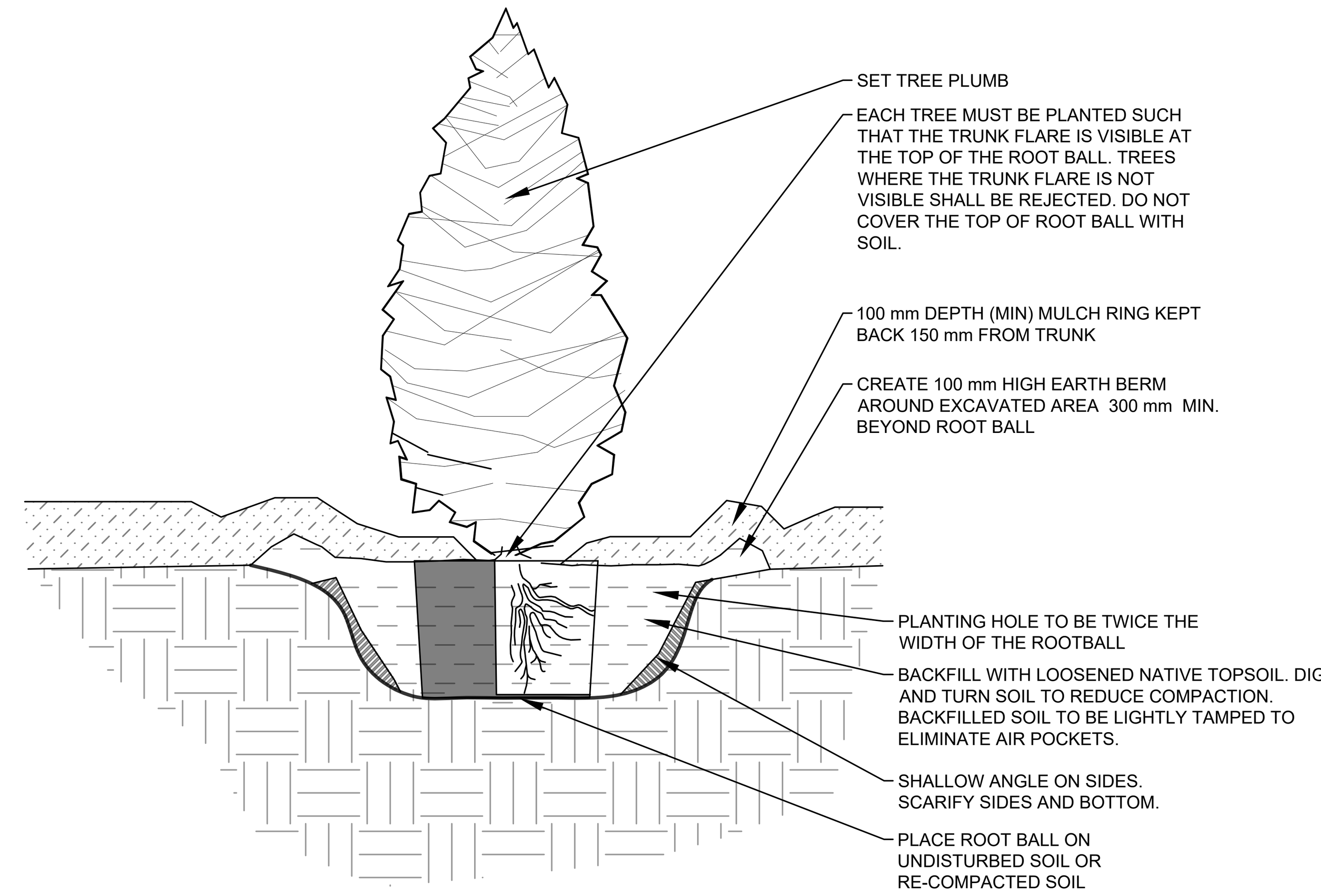
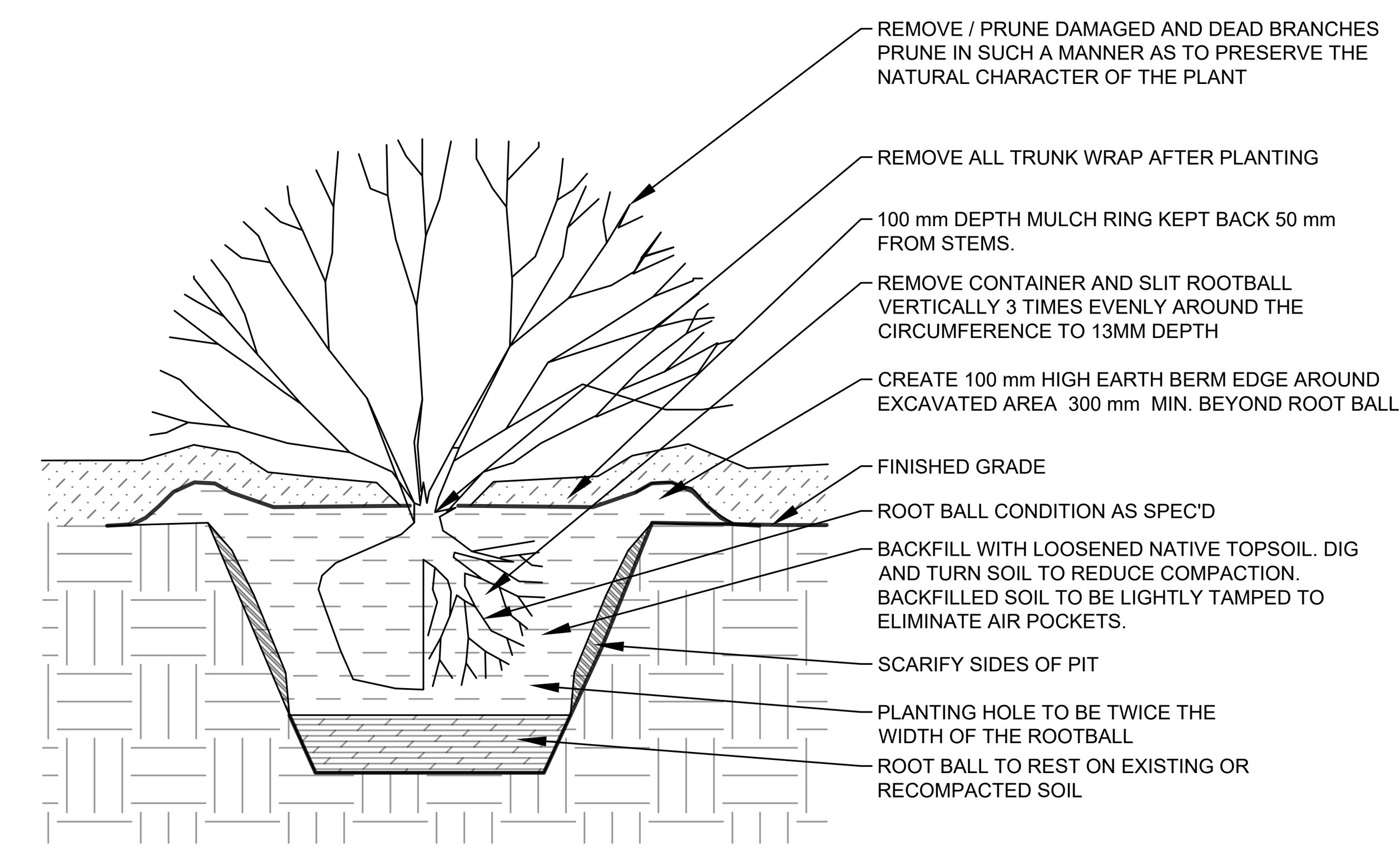
RESTORATION PLANTING PLAN
150 STEELES AVE.
MILTON, ON

SHEET TITLE
SHRUB MODULES

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-5
CHECKED BY:	SC		
DATE:	23 August 2024		







1 / L-6 DECIDUOUS TREE WHIP PLANTING DETAIL
NTS

2 / L-6 CONIFEROUS PLANTING DETAIL
NTS

3 / L-6 DECIDUOUS SHRUB PLANTING DETAIL
NTS

GENERAL NOTES :

1. This design has been prepared in response to the requirement to remediate existing soil contamination on the Subject Property and to meet the ecological restoration goals outlined in the Comprehensive Environmental Management Study by Beacon Environmental Limited, dated March 2023.
2. This drawing is to be read in conjunction with the written specifications for the project and all other drawings.
3. Any ambiguity in this drawing or accompanying details is to be reported to the project Landscape Architect from Beacon Environmental. Contractor is not to proceed in uncertainty.
4. Limits or work to be clearly understood by the contractor prior to any work taking place on site.
5. Access to invasive species removal and enhancement areas shall be limited to established routes to minimize disturbance to the woodland. Existing desirable vegetation (e.g., hawthorn shrubs) are to be preserved.
6. The Contractor shall visit the site to confirm all site conditions prior to submitting a bid. Report all discrepancies in writing to the project Landscape Architect
7. The Contractor must notify the project Landscape Architect a minimum of 5 (five) days prior to the commencement of any construction work.
8. If any part of this plan cannot be followed due to site conditions contact the Project Landscape Architect for instruction prior to commencing work.
9. Perform excavation in the vicinity of underground utilities with care and by hand if necessary. The Contractor bears full responsibility for this work and disruption of damaged utilities shall be repaired at no expense to the Owner.
10. Drawings may be scaled for layout measurement but dimensions and elevations shown are subject to verification on site.
11. The Contractor shall maintain all areas until Owner's acceptance of the project in accordance with the specifications.
12. It is the responsibility of the Contractor and/ or Owner to ensure that the drawings with the latest revisions are used for construction.

PLANTING NOTES :

13. As per Conservation Halton (CH) policy, the buffer is to be planted in three bands as described in Table 1 on this drawing package.
14. As per CH policy, only native species shall be used for planting, with the exception of the seed nurse crop. Nurse crop mix used in this plan shall conform to CH policy.
15. All planting material to meet horticultural standards of the Canadian Nursery Trades Association Guide Specification for Nursery Stock. All plant material to be No. 1 Grade and to the approval of the Landscape Architect.
16. No plant substitutions will be permitted without the written approval of the project Landscape Architect. Plant identification tags for all plant material are to remain on material until inspected.
17. All damaged material will be rejected. Trees without central leaders, with trunk wounds, or damaged major limbs will be rejected. Shrubs with damaged branches or insufficient root mass will be rejected.
18. Planting of herbaceous material is to be completed outside of frost period with sufficient time for plants to take root.
19. All material that can not be planted within 48 hours of delivery shall be healed in on site and be kept properly protected from desiccation by wind or sun.
20. The Planting Design presented will require field fitting based on site condition. Spacing between the woody plants will be form-fitted on site and will vary based on site conditions and direction from the project Landscape Architect.
21. The Contractor shall flag out the location of tree and shrub planting modules for field review with the project Landscape Architect prior to commencing planting works.
22. The distribution of species across the site shall be reviewed and approved on site by the Landscape Architect at the time of planting operation.
23. The Contractor shall relocate any trees or shrubs on the property as directed by the project Landscape Architect
24. Any dead or damaged branches are to be pruned according to horticultural standards and timing appropriate to each species.
25. All plant materials shall be planted in naturalistic groupings and in accordance with the layout and planting details and written specifications.
26. Staking of trees shall be as per detail provided. Alternative methods may be acceptable with the approval of the Landscape Architect prior to installation.
27. All large caliper trees shall have an earth saucer at the base with a diameter as large as the excavated area to retain water.

WATERING REQUIREMENTS:

28. All material delivered to site shall be either watered immediately or within 24 hours as warranted by the moisture content of the root balls/containers.
29. All material shall be watered at the time of planting.
30. All material shall be watered regularly (weekly basis if conditions require) during the first year of establishment. More frequent watering will be required during periods of drought.

MULCHING REQUIREMENTS:

31. All shrubs are to be planted in continuous mulched beds unless otherwise indicated on the drawings, or as field directed by the the Project Landscape Architect.
32. All trees are to be planted in individually mulched beds that shall consist of shredded pine/cedar bark to a depth of 100 mm (4")
33. Mulch shall be topped up during the warranty period to ensure the specified minimum depth is maintained on all planting beds.
34. Continuous mulch beds around all shrub plantings and individually mulched tree saucers shall consist of shredded pine/cedar bark to a depth of 100 mm (4").
35. Shrub pit, tree saucers and planting beds shall be soaked with water & mulched immediately following planting. Top dress area immediately over root mass (shrub bed/saucer area) with bone meal or compost.

RODENT PROTECTION:

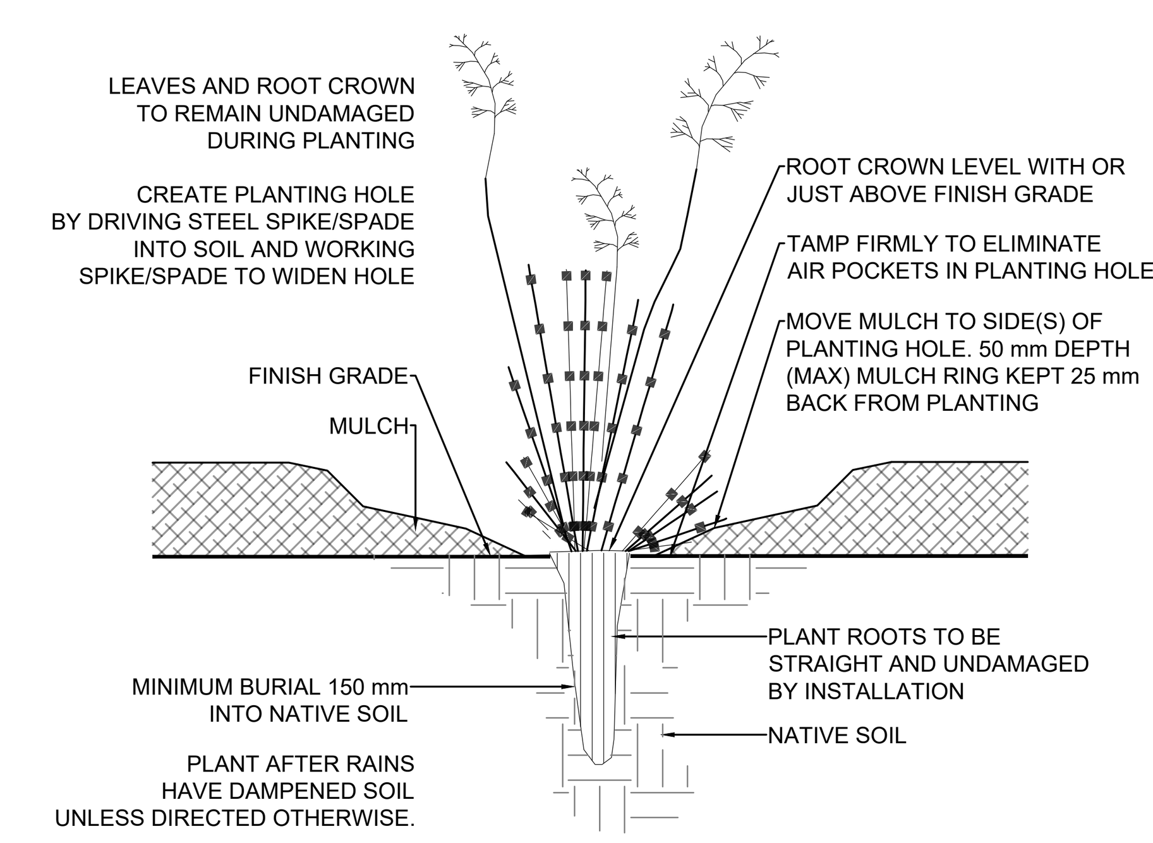
36. The contractor shall be responsible for the protection of all trees and shrubs from rodent injury for the duration of the guarantee period.
37. Install an approved wrap-around type plastic tree guard on all deciduous and coniferous for rodent protection. Refer to planting detail and specification.
38. All shrubs and coniferous trees shall have an application of “skoot' or approved equivalent rodent formula, to be applied at the end of October. Follow manufacturer's directions for application.

TERRASEEDING:

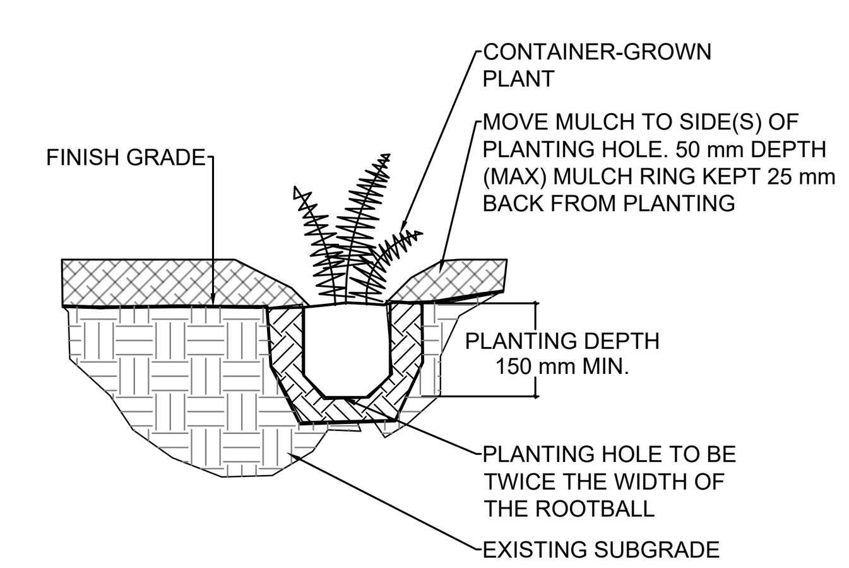
39. Seeding to be completed by pneumatic terraseeding (hydraulic seeding is not acceptable). Seed and compost mixture will be blown over all disturbed areas and around all planted shrub beds.
40. A 50 mm depth of compost blanket to be applied over all disturbed areas to be stabilized and revegetated.
41. The Contractor shall be responsible for all labor, materials and equipment necessary to Terraseed the specified seed mixtures as designated on this plan and in accordance with the specifications.
42. Terraseeding operation shall not commence until Beacon's Landscape Architect has reviewed and approved the seed test results in a Certificate of Seed Analysis. Compost contaminated with plastic will be rejected.
43. Terraseeding is to be executed following completion of the planting operations.
44. The Contractor shall be responsible to seed and stabilize all disturbed areas unless otherwise instructed on site by Beacon's Landscape Architect.
45. At the time of Terraseeding all surface designated for this operation shall be friable and fine graded to a relative uniform surface. If the soil is not friable, the surface shall be cultivated to a depth between 50mm (2") and 75mm (3").
46. Terraseeding operation shall not commence until Beacon's Landscape Architect has inspected and approved the surface preparation including verification of the seed mixtures being applied and the layout of the permanent seed mixtures locations as demarcated in the field by the Contractor.
47. Seeding and or re-seeding shall not be carried out under adverse field conditions such as high wind, frozen ground or ground covered with snow, ice or standing water.
48. The site and erosion control measures shall be maintained until conditions permit the Terraseed application or re-application of seeds and compost material.
49. Ensure that seeds are injected only in the top 25 mm of compost. Seeds should not be buried in soil but should be on the top. To achieve this, the initial 25 mm compost layer is to be applied with no seeds. The seeds are to be injected only in the top 25 mm compost layer.
50. All surfaces to be Terraseeded shall be prepared not more than 3 days before the seeding operation. The surface shall not have stones greater than 25 mm in diameter, weeds or other unwanted vegetation.
51. Seeding and or re-seeding shall be performed only between spring start up and May 31 or between October 1 and freeze up.
52. No seeding or cover application shall not come in contact with the foliage of existing vegetation. No seed or cover shall come in contact with existing water bodies.
53. Refer to specifications for submission requirements, supplier, seeding rates, construction schedule and performance measure.

WARRANTY PERIOD AND MAINTENANCE ACTIVITIES:

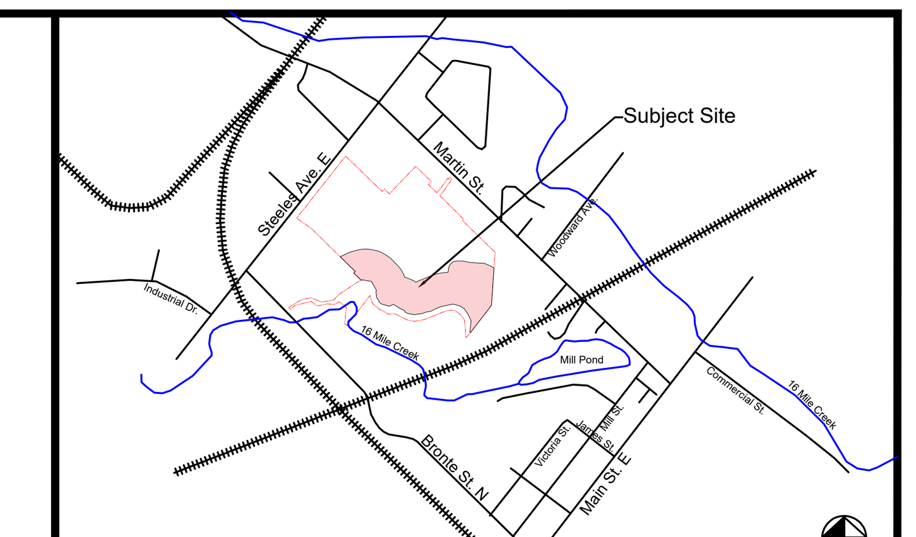
54. All workmanship, and plant materials to be guaranteed for a period of two years following the date of initial acceptance of the project by the project Landscape Architect.
55. It is the responsibility of the Contractor to ensure nurse crop establishment and maintain plant materials in good condition from the date of initial planting to the end of the 2 years warranty period.
56. General maintenance requirements shall be performed during the growing season and shall include, but not limited to the following activities:
    - -Weekly inspection until nurse crop seed is well established with good coverage (>80%)
    - -Watering regularly on a weekly basis as required during the first year of establishment depending on weather conditions.
    - -Pruning
    - -Mulching
    - -Replacement Plantings
    - -Weeding all shrub planting beds and individually mulched tree saucers two times per growing season (June and August)
57. The Contractor shall be responsible for the Replacement of unacceptable or dead material, straightening trees that lean, and any other procedure consistent with good horticultural practice necessary to ensure normal, healthy growing condition of plant material.
58. During the warranty period the contractor is responsible for maintaining the minimum depth of mulch that is specified for all plantings.
59. At the end of the warranty period, it is the responsibility of the Contractor to remove and properly dispose of all plastic tree guards, stakes and tree ties.
60. Prior to acceptance of the end of the warranty period all planting beds are to be supplemented, where necessary, with additional mulch in order that the specified minimum thickness described for each of the planting areas is maintained.
61. The Consultant reserves the right to extend contractor's warranty responsibilities for an additional year if, at the end of initial warranty period, leaf development and growth is not sufficient to ensure future survival.



4 / L-6 HERBACEOUS PLUG PLANTING DETAIL
NTS



5 / L-6 HERBACEOUS PLANTING DETAIL (POTTED)
NTS



KEYMAP
NTS

LEGEND

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
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3	Updated Plan Addendum # 1	2024/08/ 27	SC
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1	ISSUED FOR PERMIT	2023/03/31	TS

SCALE

NORTH ARROW

SEAL

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
STEPHAN CRISPIN
OALA
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED
MEMBER
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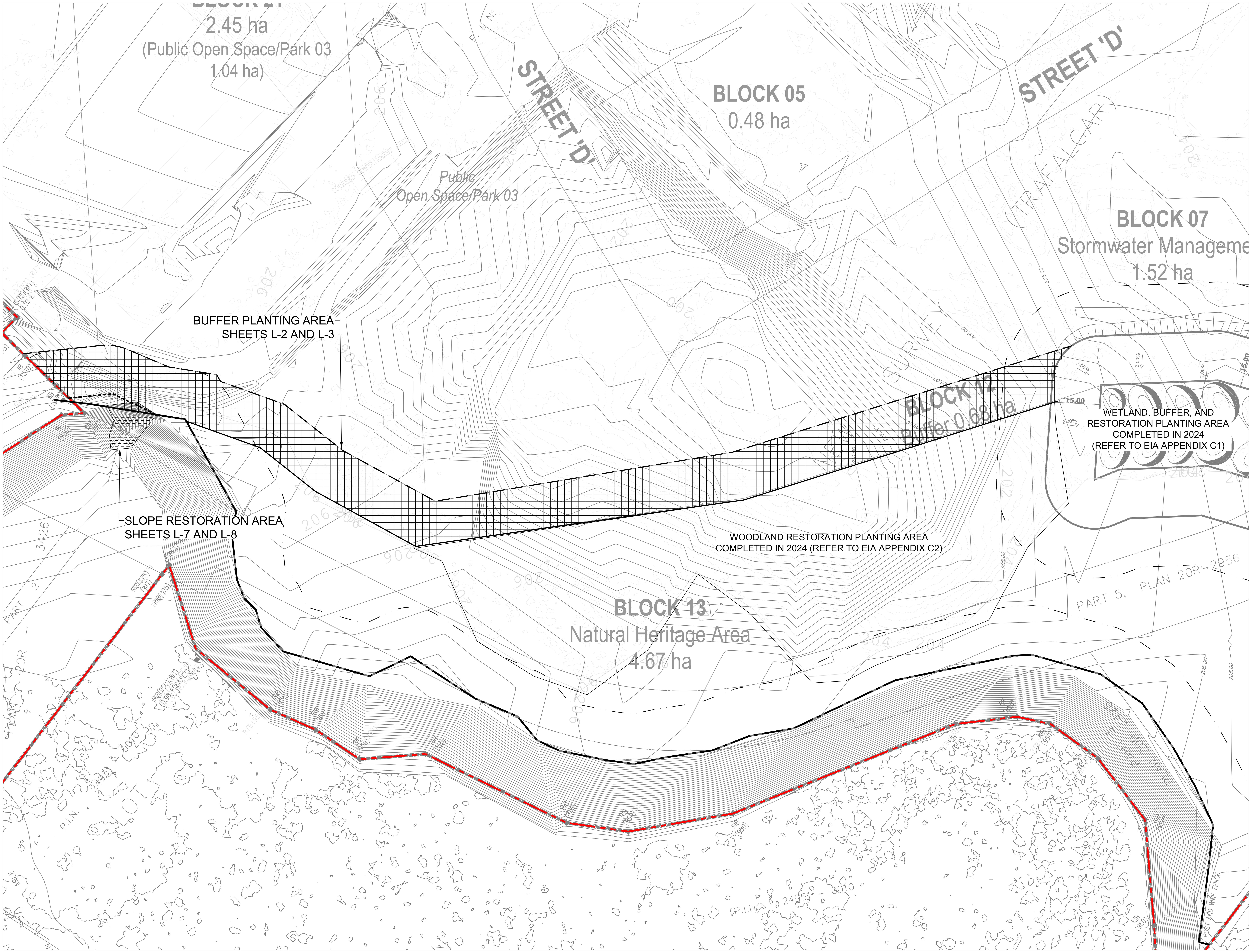
PROJECT
RESTORATION PLANTING PLAN
150 STEELES AVE.
MILTON, ON

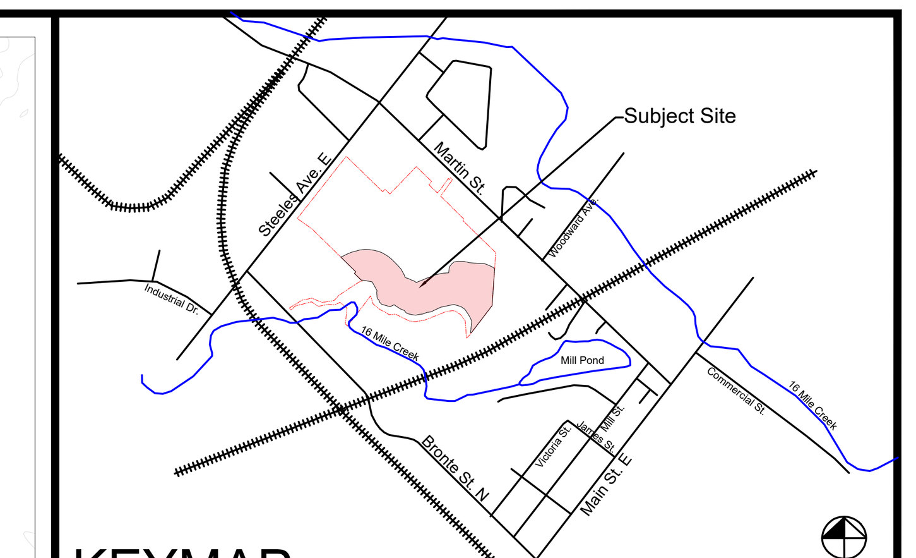
SHEET TITLE
NOTES AND DETAILS

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-6
CHECKED BY:	SC		
DATE:	23 August 2024		

Appendix C3

Proposed Buffer and Eroded Slope Restoration Drawings





KEYMAP
NTS

LEGEND

- Property Line
- Conservation Halton Regulated Limit
- Top of Bank Staked by CH 2021
- Long Term Stable Top of Bank (DS Consultants 2023)
- Woodland Planting Limit
- Buffer Limit
- Buffer Planting Area (Sheets L-2 and L-3)
- Slope Restoration Area (Sheets L-7 and L-8)

Notes: Scale shown is for an 36" x 24" page.
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Nº	REVISIONS	DATE:	BY:
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1	ISSUED FOR REVIEW	2025/03/12	SC

SCALE
1:500
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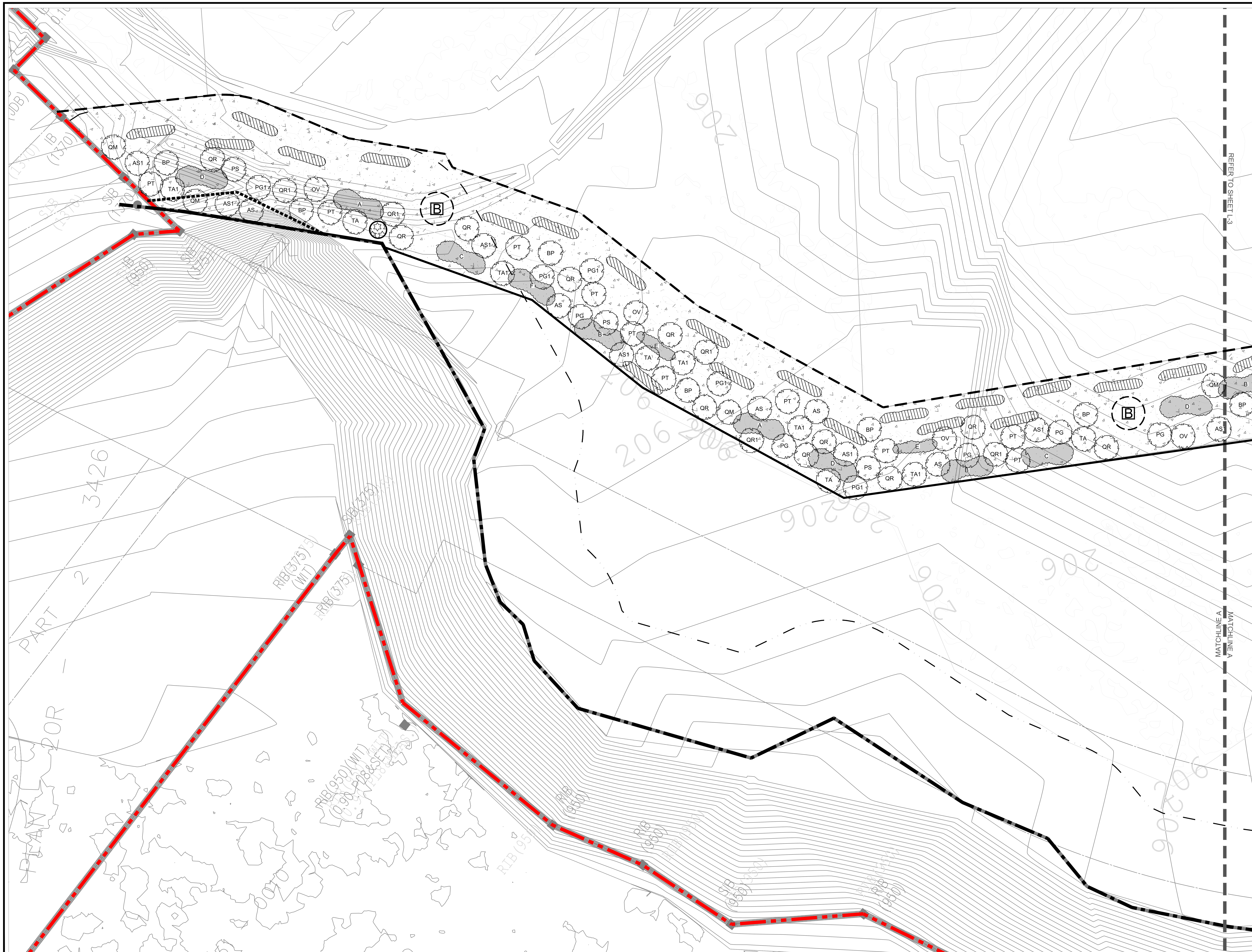
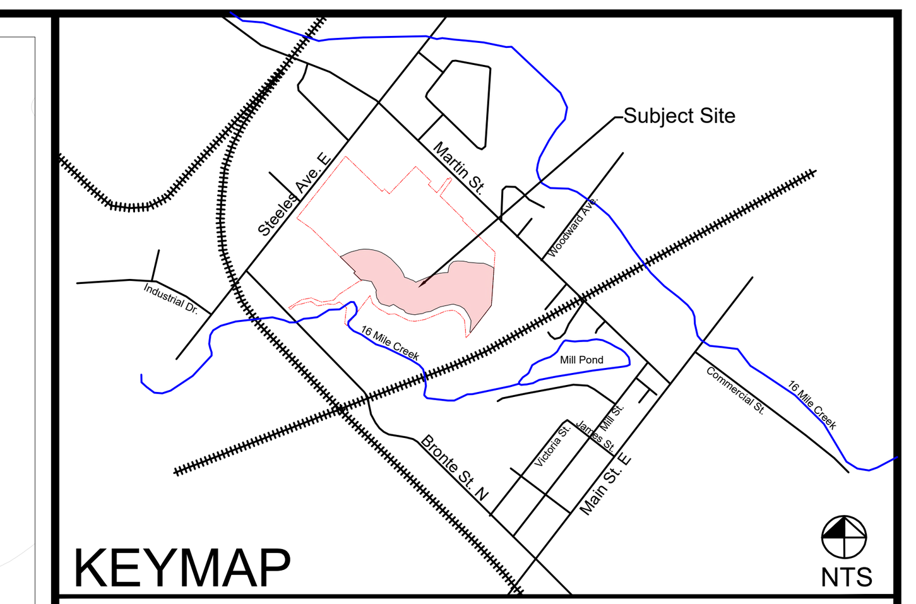
150 STEELES MILTON INC.

PROJECT
BUFFER AND SLOPE PLANTING PLAN
150 STEELES AVE.
MILTON, ON

SHEET TITLE
OVERALL SITE CONTEXT PLAN

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-1
CHECKED BY:	SC		
DATE:	29 March 2025		





LEGEND

Property Line		
Top of Bank Staked by CH 2021		
Conservation Halton Regulated Limit		
Long Term Stable Top of Bank (DS Consultants 2023)		
Woodland Planting Limit		
Buffer Limit		
Pr. Deciduous Tree		1-2 / L-5
Pr. Shrub Module (1 m O.C.) (25) (Refer to Sheet L-4)		3 / L-5
Pr. Herbaceous Plug Module (30 plugs per module @ 3/m^2) (37)		4-5 / L-5
Pr. Woodland Edge Seed Mix (Total Buffer Area - 4850 m^2)		
Shrub Module Identification Letter (Refer to L-4)	A	
Tree Species Identification Key	QR	
Proposed Two-Chamber Rocket Box Bat House Location with 5m Planting Setback (2)	B	1-2 / L-6
Pr. Brush Pile		3 / L-6

Notes: Scale shown is for an 36" x 24" page.
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3			
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1	ISSUED FOR REVIEW	2025/03/12	SC

SCALE
1:250 — 0, 5, 10, 20m

NORTH ARROW — NORTH

SEAL — ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — STEPHAN CRISPIN — OALA — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED — MEMBER
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

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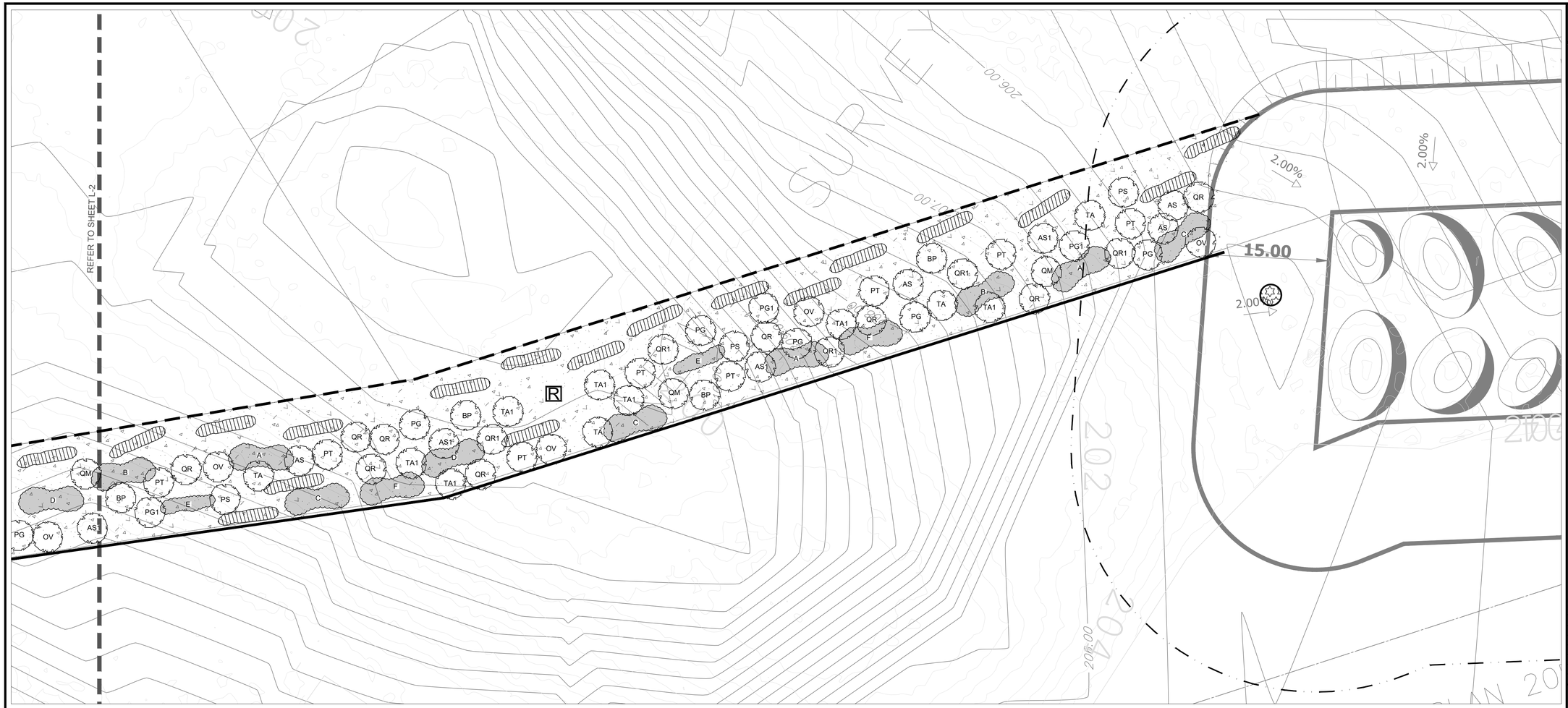
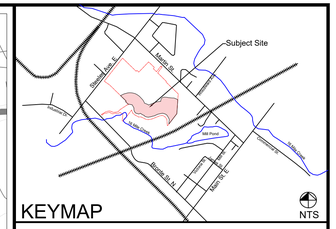
CLIENT
150 STEELES MILTON INC.

PROJECT
BUFFER AND SLOPE PLANTING PLAN
150 STEELES AVE.
MILTON, ON

SHEET TITLE
BUFFER PLANTING PLAN

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-2
CHECKED BY:	SC		
DATE:	29 March 2025		





LEGEND

- Conservation Halton Regulated Limit
- Woodland Planting Limit
- Buffer Limit
- Pr. Deciduous Tree (1-2 / L-5)
- Pr. Shrub Module (1 m O.C.) (25) (Refer to Sheet L-4) (3 / L-5)
- Pr. Herbaceous Plug Module (30 plugs per module @ 3/m^2) (37) (4-5 / L-5)
- Pr. Woodland Edge Seed Mix (Total Buffer Area - 4850 m^2)
- A — Shrub Module Identification Letter (Refer to L-4)
- QR — Tree Species Identification Key
- R — Pr. Raptor Perch
- Pr. Brush Pile (3 / L-6)

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
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4			
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1	ISSUED FOR REVIEW	2025/03/12	SC

SCALE 1:250 (0, 5, 10, 20m)

NORTH ARROW

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CLIENT: 150 STEELES MILTON INC.

PROJECT: BUFFER AND SLOPE PLANTING PLAN
150 STEELES AVE.
MILTON, ON

SHEET TITLE: BUFFER PLANTING PLAN

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-2
CHECKED BY:	SC		
DATE:	29 March 2025		

BUFFER PLANTING SCHEDULE (L-2 & L-3)

TREES						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	STOCK TYPE	SPACING
AS	9	*Acer saccharum*	Sugar Maple	150-175cm ht.	5-7 gal	4 m O.C. min.
AS1	10	*Acer saccharum*	Sugar Maple	25-35mm cal.	10-15 gal	4 m O.C. min.
BP	10	*Betula papyrifera*	Paper Birch	150-175cm ht.	5-7 gal	4 m O.C. min.
OV	8	*Ostrya virginiana*	Ironwood	150-175cm ht.	5-7 gal	4 m O.C. min.
PG	10	*Populus grandidentata*	Large-Toothed Aspen	150-175cm ht.	5-7 gal	4 m O.C. min.
PG1	8	*Populus grandidentata*	Large-Toothed Aspen	25-35mm cal.	10-15 gal	4 m O.C. min.
PT	18	*Populus tremuloides*	Trembling Aspen	150-175cm ht.	5-7 gal	4 m O.C. min.
PS	6	*Prunus serotina*	Black Cherry	150-175cm ht.	5-7 gal	4 m O.C. min.
QM	6	*Quercus macrocarpa*	Bur Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR	20	*Quercus rubra*	Red Oak	150-175cm ht.	5-7 gal	4 m O.C. min.
QR1	10	*Quercus rubra*	Red Oak	25-35mm ca.	10-15 gal	4 m O.C. min.
TA	8	*Tilia americana*	Basswood	150-175cm ht.	5-7 gal	4 m O.C. min.
TA1	12	*Tilia americana*	Basswood	25-35mm cal.	10-15 gal	4 m O.C. min.
Total	135					

SHRUBS						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
Al	12	*Amelanchier laevis*	Allegheny Serviceberry	100-125cm ht	3 gal	1 m O.C. min.
Ca	33	*Cornus alternifolia*	Alternate-Leaved Dogwood	75-100cm ht	3 gal	1 m O.C. min.
Cr	200	*Cornus racemosa*	Gray Dogwood	50-75cm ht	1-2 gal	1 m O.C. min.
Pv	47	*Prunus virginiana ssp. virginiana*	Chokecherry	50-75cm ht	1-2 gal	1 m O.C. min.
Ri	60	*Rubus idaeus ssp. strigosus*	Wild Red Raspberry	50-75cm ht	1-2 gal	1 m O.C. min.
Sr	60	*Sambucus pubens*	Red Elderberry	50-75cm ht	1-2 gal	1 m O.C. min.
Va	75	*Viburnum acerifolium*	Mapleleaf Viburnum	50-75cm ht	1-2 gal	1 m O.C. min.
Vl	60	*Viburnum lentago*	Nannyberry	75-100cm ht	3 gal	1 m O.C. min.
Total	547					

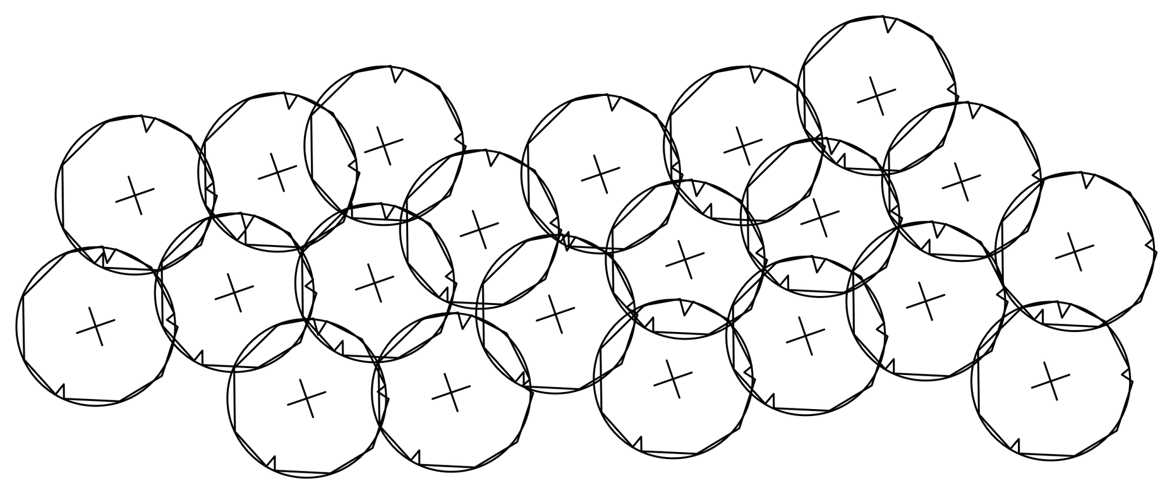
GRASSES AND FORBES				
QTY	SCIENTIFIC NAME	COMMON NAME	STOCK TYPE	SPACING
222	*Anemone virginiana*	Tall Anemone	2 x 5 inch plug	3 per 1 m^2
222	*Elymus canadensis*	Canada Wild Rye	2 x 5 inch plug	3 per 1 m^2
222	*Elymus hystrix*	Bottlebrush Grass	2 x 5 inch plug	3 per 1 m^2
222	*Monarda fistulosa*	Wild Bergamot	2 x 5 inch plug	3 per 1 m^2
222	*Symphiotrichum ericoides*	White Heath Aster	2 x 5 inch plug	3 per 1 m^2
1110	Total			

BUFFER SEEDING SCHEDULE (L-2 & L-3)

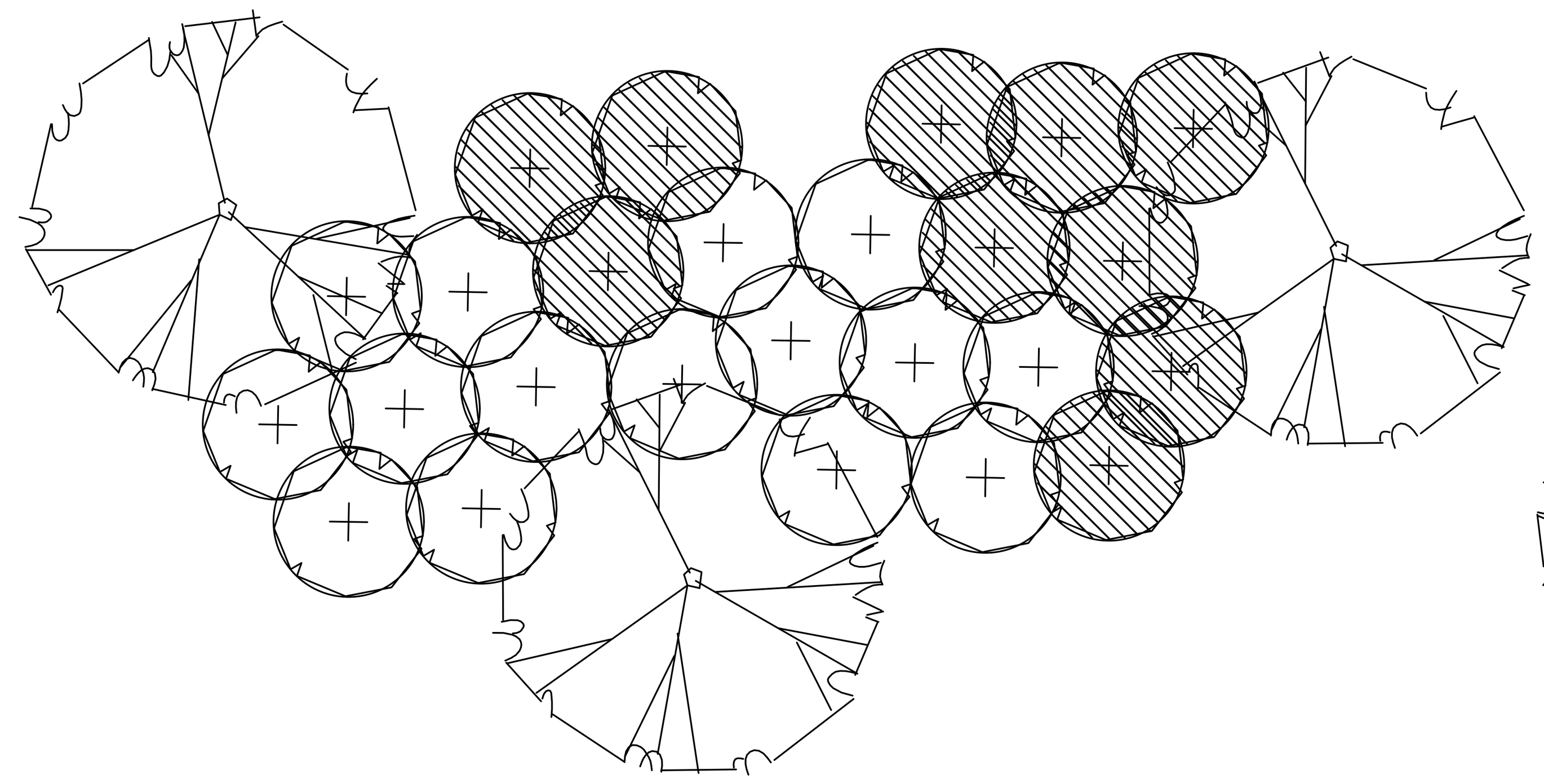
WOODLAND EDGE SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 sq. m)	PROPORTION OF SEED MIX(%)
FORBS			
Anemone virginiana	Tall Anemone	0.81	3.0
Eurybia macrophylla	Large-leaved Aster	1.35	5.0
Rudbeckia hirta	Black-eyed Susan	0.54	2.0
Solidago flexicaulis	Zig-Zag Goldenrod	0.54	2.0
Solidago juncea	Early Goldenrod	0.16	0.6
Solidago nemoralis	Grey Goldenrod	0.16	0.6
Solidago rugosa	Rough Goldenrod	0.16	0.6
Symphiotrichum ericoides	White Heath Aster	0.16	0.6
Symphiotrichum laterflorum	Calico Aster	0.16	0.6
Symphiotrichum novae-angliae	New England Aster	0.27	1.0
Symphiotrichum pilosum	Frost Aster	0.27	1.0
Verbena stricta	Hoary vervain	0.81	3.0
GRASSES			
Elymus canadensis	Canada Wild Rye	8.1	30.0
Elymus trachycaulus	Slender Wheat Grass	2.7	10.0
Elymus hystrix	Bottlebrush Grass	4.6	17.0
Panicum clandestinum	Deer-Tongue Grass	3.5	13.0
Sorghastrum nutans	Indian Grass	2.7	10
TOTAL NATIVE SPECIES		27	100

NURSE CROP SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/ 10 000 m^2)	PLS REQUIRED (kg PLS per/4655 m^2)
FORBS			
Lolium multiflorum	Annual rye grass	35	8.26
Avena sativa	Oats	30	7.08
TOTAL NURSE CROP		65	15.34

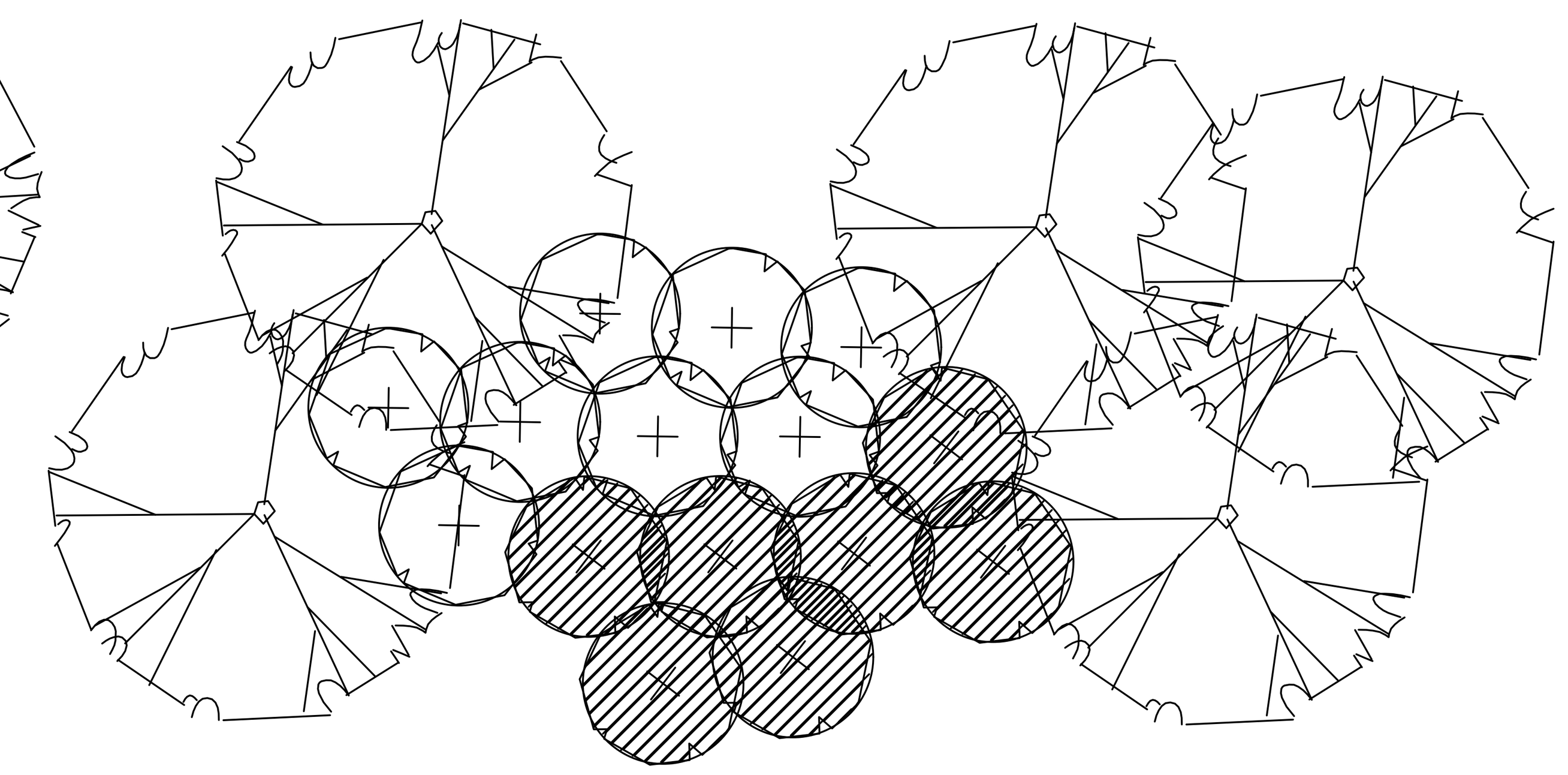
SHRUB MODULES (SHEETS L-2 & L-3)



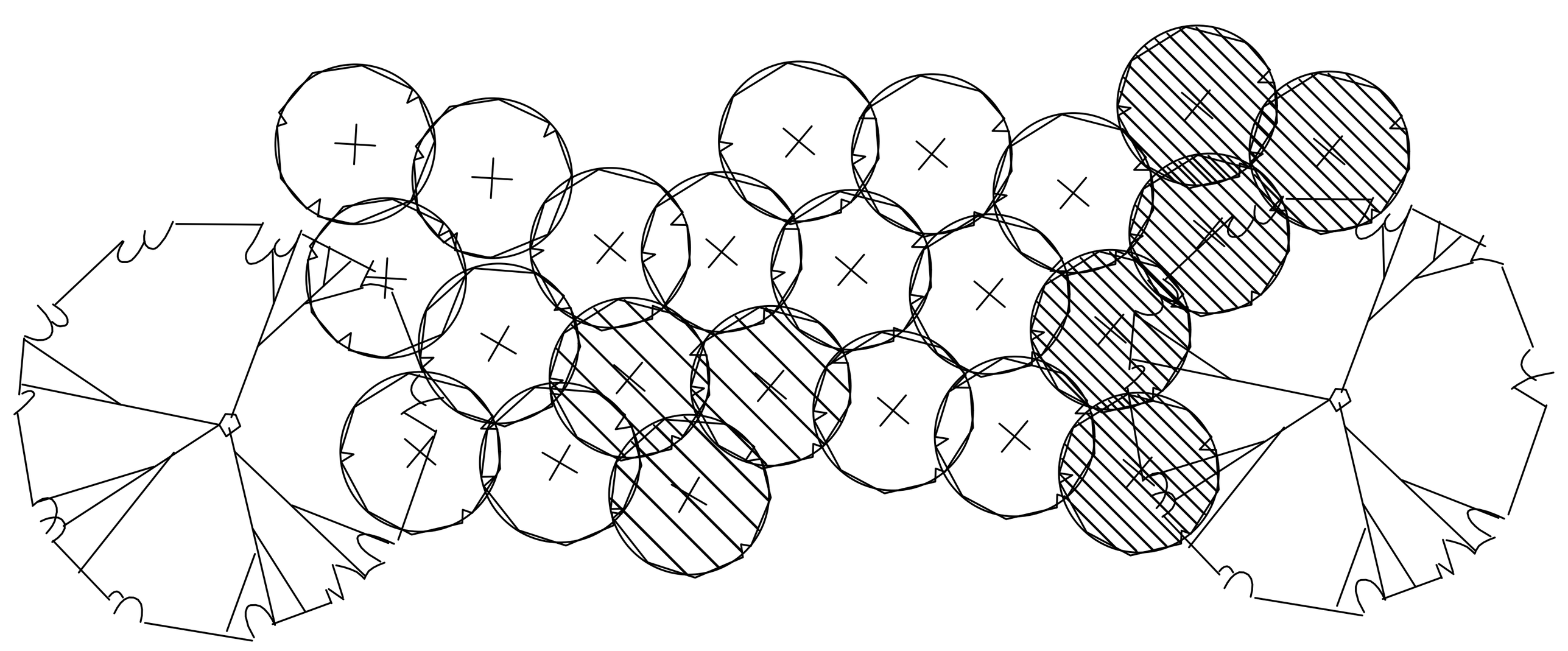
A 20 - *Cornus racemosa* - Gray Dogwood



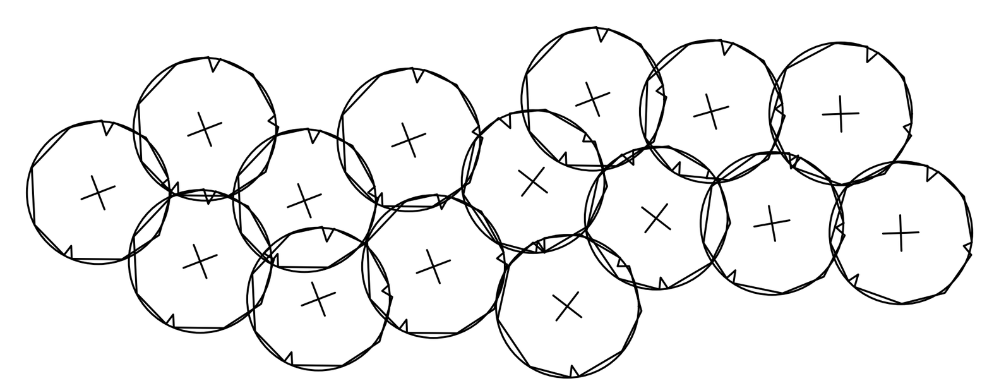
B
3 - *Amelanchier laevis* - Allegheny Serviceberry
15 - *Cornus racemosa* - Gray Dogwood
10 - *Sambucus pubens* - Red Elderberry



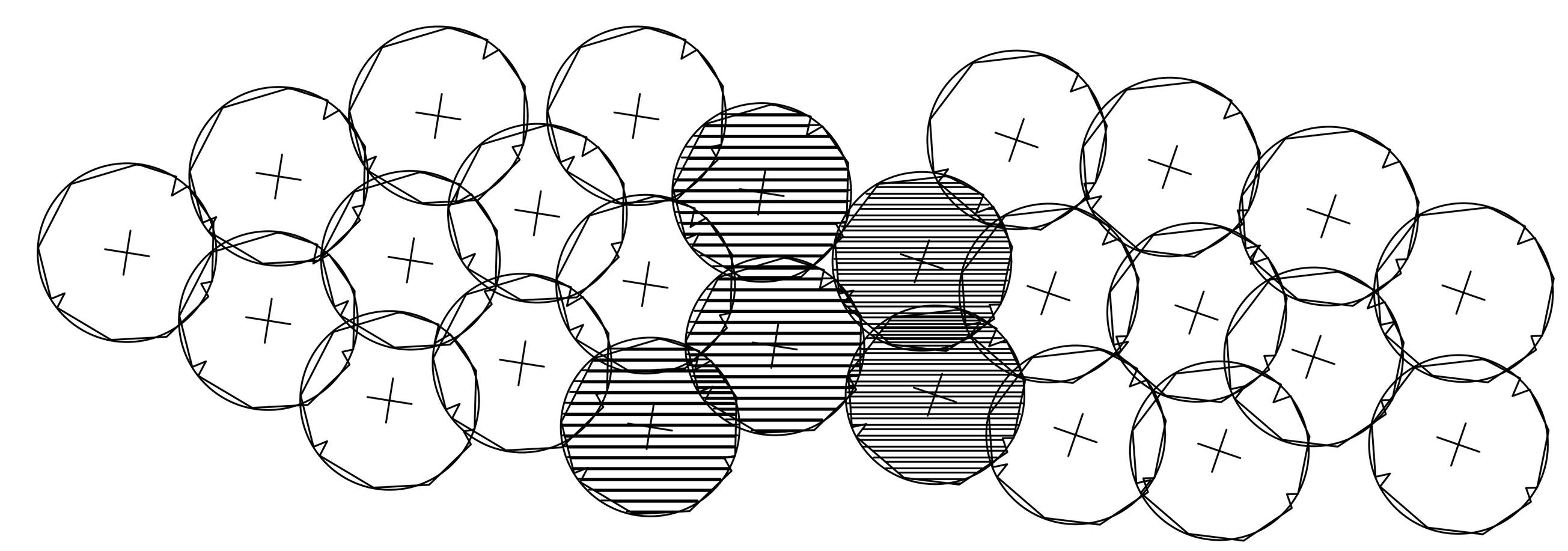
C
5 - *Cornus alternifolia* - Alternate-Leaved Dogwood
8 - *Cornus racemosa* - Gray Dogwood
7 - *Prunus virginiana* - Chokecherry



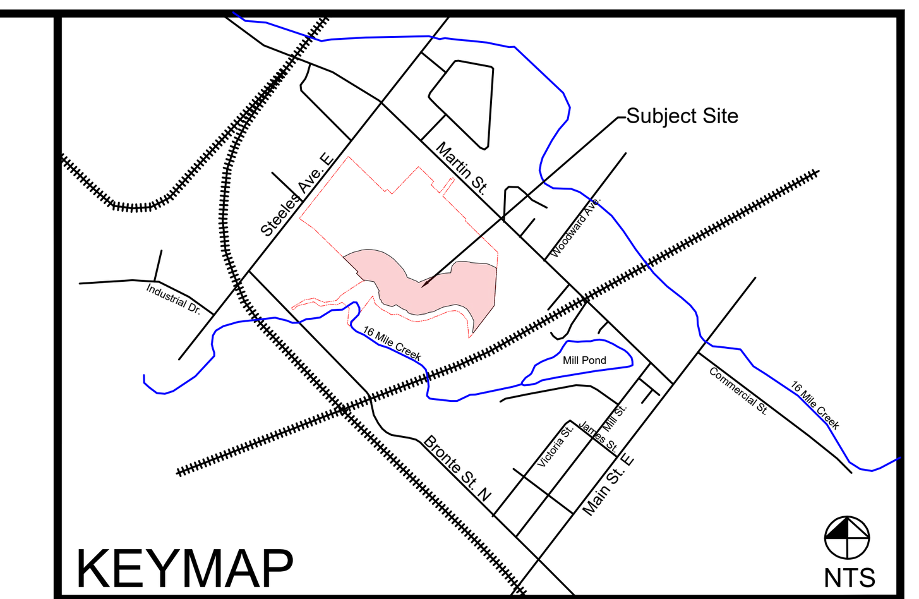
D
2 - *Cornus alternifolia* - Alternate-Leaved Dogwood
3 - *Prunus virginiana* - Chokecherry
5 - *Sambucus pubens* - Red Elderberry
15 - *Viburnum acerifolium* - Mapleleaf Viburnum



E 15 - *Rubus idaeus* - Wild Red Raspberry



F
5 - *Viburnum acerifolium* - Mapleleaf Viburnum
20 - *Viburnum lentago* - Nannyberry



KEYMAP

LEGEND

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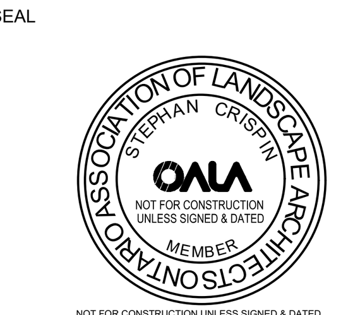

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BUFFER AND SLOPE PLANTING PLAN
150 STEELES AVE.
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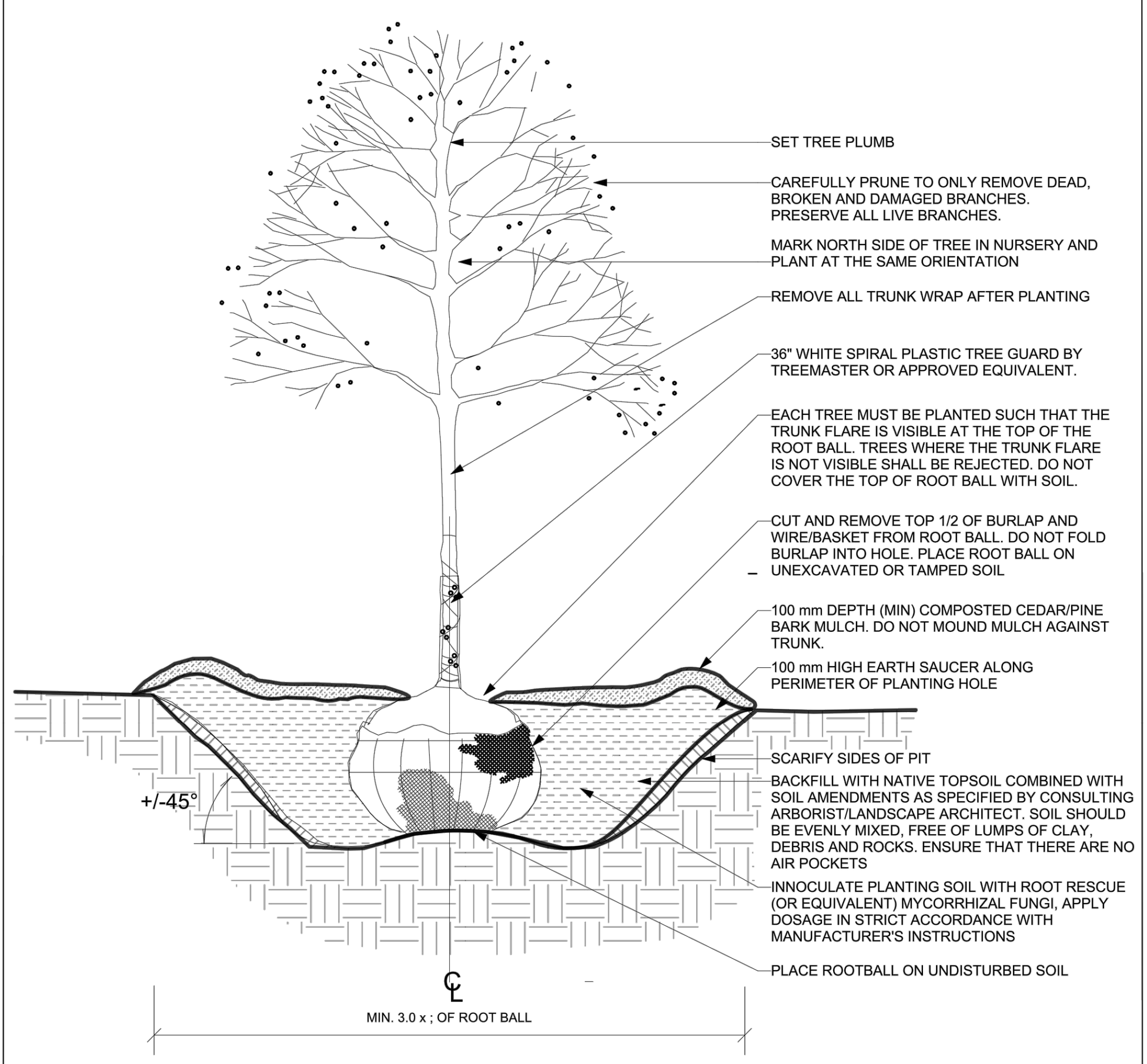
SHEET TITLE

SHRUB MODULES

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-4
CHECKED BY:	SC		
DATE:	29 March 2025		

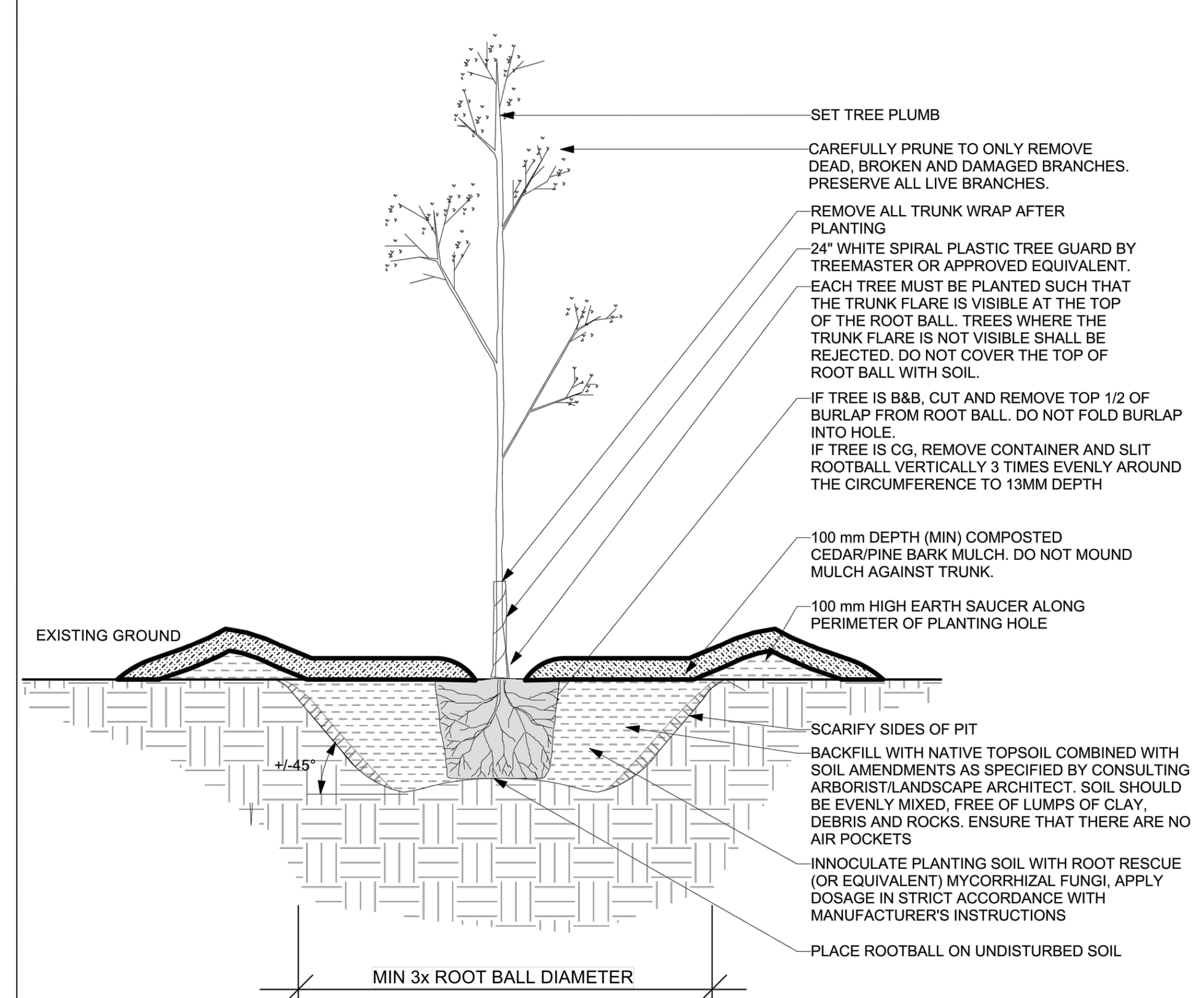


ALL TREES TO BE PLANTED IN ACCORDANCE WITH THE "CANADIAN LANDSCAPE STANDARD, Version 4, June 2024

BEACON ENVIRONMENTAL | TYPICAL CALIPER SIZE TREE PLANTING DETAIL | NOV. 2024 | NTS

1 / L-5 CALIPER DECIDUOUS TREE

NTS

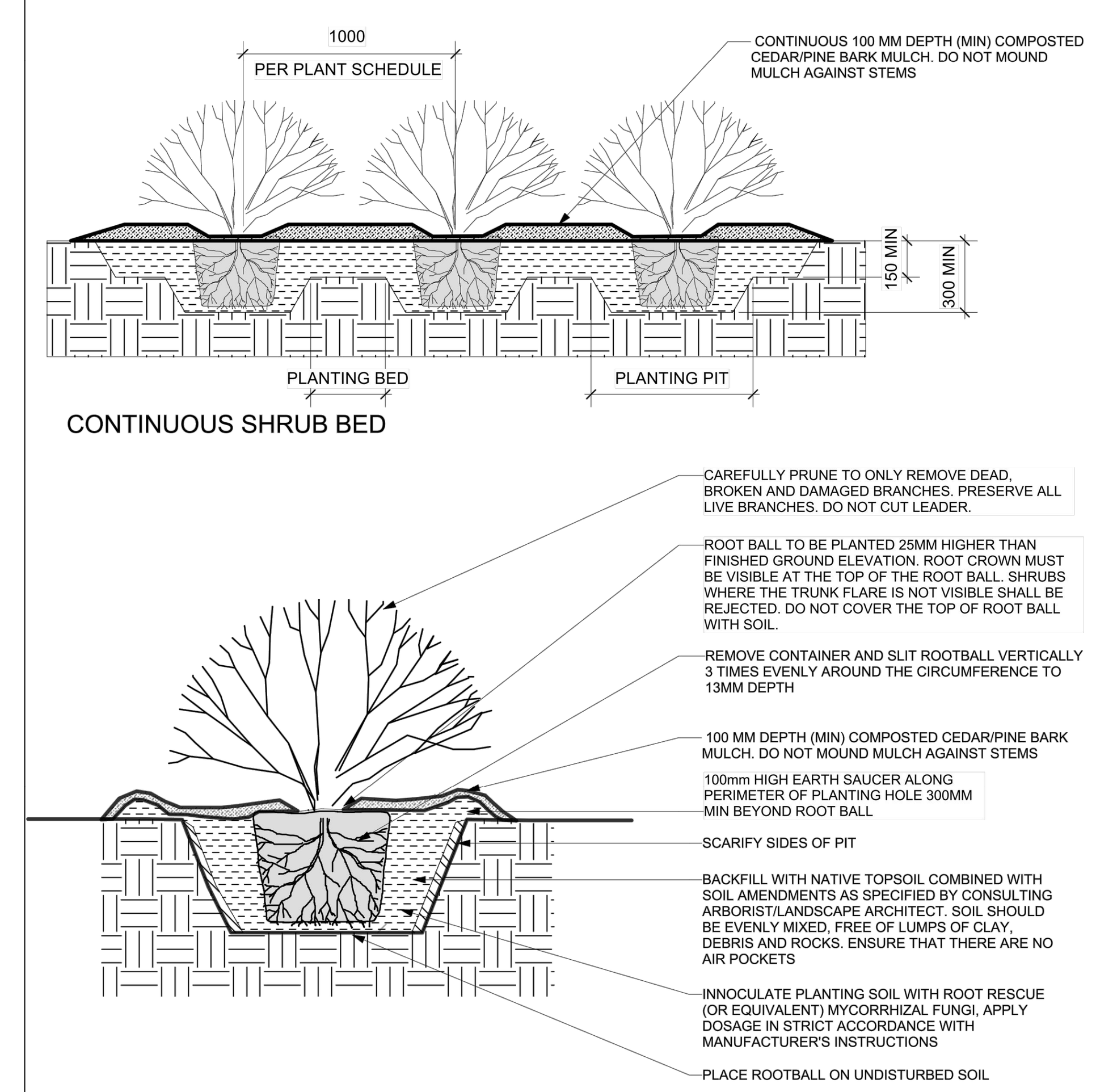


ALL TREES TO BE PLANTED IN ACCORDANCE WITH THE "CANADIAN LANDSCAPE STANDARD, Version 4, June 2024

BEACON ENVIRONMENTAL | DECIDUOUS TREE WHIP PLANTING DETAIL (FOR SMALL TREES 150 to 250cm HIGH POTTED AND OR BURLAPPED) | NOV. 2024 | NTS

2 / L-5 DECIDUOUS TREE WHIP

NTS



ALL SHRUBS TO BE PLANTED IN ACCORDANCE WITH THE "CANADIAN LANDSCAPE STANDARD, Version 4, June 2024

BEACON ENVIRONMENTAL | SHRUB PLANTING DETAIL CG 1-2 GALLON | NOV. 2024 | NTS

3 / L-5 DECIDUOUS SHRUB PLANTING DETAIL

NTS

GENERAL NOTES :

1. This design has been prepared in response to the requirement to remediate existing soil contamination on the Subject Property and to meet the ecological restoration goals outlined in the Comprehensive Environmental Management Study by Beacon Environmental Limited, dated March 2023.
2. This drawing is to be read in conjunction with the written specifications for the project and all other drawings.
3. Any ambiguity in this drawing or accompanying details is to be reported to the project Landscape Architect from Beacon Environmental. Contractor is not to proceed in uncertainty.
4. Limits or work to be clearly understood by the contractor prior to any work taking place on site.
5. Access to invasive species removal and enhancement areas shall be limited to established routes to minimize disturbance to the woodland. Existing desirable vegetation (e.g., hawthorn shrubs) are to be preserved.
6. The Contractor shall visit the site to confirm all site conditions prior to submitting a bid. Report all discrepancies in writing to the project Landscape Architect
7. The Contractor must notify the project Landscape Architect a minimum of 5 (five) days prior to the commencement of any construction work.
8. If any part of this plan cannot be followed due to site conditions contact the Project Landscape Architect for instruction prior to commencing work.
9. Perform excavation in the vicinity of underground utilities with care and by hand if necessary. The Contractor bears full responsibility for this work and disruption of damaged utilities shall be repaired at no expense to the Owner.
10. Drawings may be scaled for layout measurement but dimensions and elevations shown are subject to verification on site.
11. The Contractor shall maintain all areas until Owner's acceptance of the project in accordance with the specifications.
12. It is the responsibility of the Contractor and/ or Owner to ensure that the drawings with the latest revisions are used for construction.

PLANTING NOTES :

13. As per Conservation Halton (CH) policy, the buffer is to be planted in three bands as described in Table 1 on this drawing package.
14. As per CH policy, only native species shall be used for planting, with the exception of the seed nurse crop. Nurse crop mix used in this plan shall conform to CH policy.
15. All planting material to meet horticultural standards of the Canadian Nursery Trades Association Guide Specification for Nursery Stock. All plant material to be No. 1 Grade and to the approval of the Landscape Architect.
16. No plant substitutions will be permitted without the written approval of the project Landscape Architect. Plant identification tags for all plant material are to remain on material until inspected.
17. All damaged material will be rejected. Trees without central leaders, with trunk wounds, or damaged major limbs will be rejected. Shrubs with damaged branches or insufficient root mass will be rejected.
18. Planting of herbaceous material is to be completed outside of frost period with sufficient time for plants to take root.
19. All material that can not be planted within 48 hours of delivery shall be healed in on site and be kept properly protected from desiccation by wind or sun.
20. The Planting Design presented will require field fitting based on site condition. Spacing between the woody plants will be form-fitted on site and will vary based on site conditions and direction from the project Landscape Architect.
21. The Contractor shall flag out the location of tree and shrub planting modules for field review with the project Landscape Architect prior to commencing planting works.
22. The distribution of species across the site shall be reviewed and approved on site by the Landscape Architect at the time of planting operation.
23. The Contractor shall relocate any trees or shrubs on the property as directed by the project Landscape Architect
24. Any dead or damaged branches are to be pruned according to horticultural standards and timing appropriate to each species.
25. All plant materials shall be planted in naturalistic groupings and in accordance with the layout and planting details and written specifications.
26. Staking of trees shall be as per detail provided. Alternative methods may be acceptable with the approval of the Landscape Architect prior to installation.
27. All large caliper trees shall have an earth saucer at the base with a diameter as large as the excavated area to retain water.

WATERING REQUIREMENTS:

28. All material delivered to site shall be either watered immediately or within 24 hours as warranted by the moisture content of the root balls/containers.
29. All material shall be watered at the time of planting.
30. All material shall be watered regularly (weekly basis if conditions require) during the first year of establishment. More frequent watering will be required during periods of drought.

MULCHING REQUIREMENTS:

31. All shrubs are to be planted in continuous mulched beds unless otherwise indicated on the drawings, or as field directed by the the Project Landscape Architect.
32. All trees are to be planted in individually mulched beds that shall consist of shredded pine/cedar bark to a depth of 100 mm (4")
33. Mulch shall be topped up during the warranty period to ensure the specified minimum depth is maintained on all planting beds.
34. Continuous mulch beds around all shrub plantings and individually mulched tree saucers shall consist of shredded pine/cedar bark to a depth of 100 mm (4").
35. Shrub pit, tree saucers and planting beds shall be soaked with water & mulched immediately following planting. Top dress area immediately over root mass (shrub bed/saucer area) with bone meal or compost.

RODENT PROTECTION:

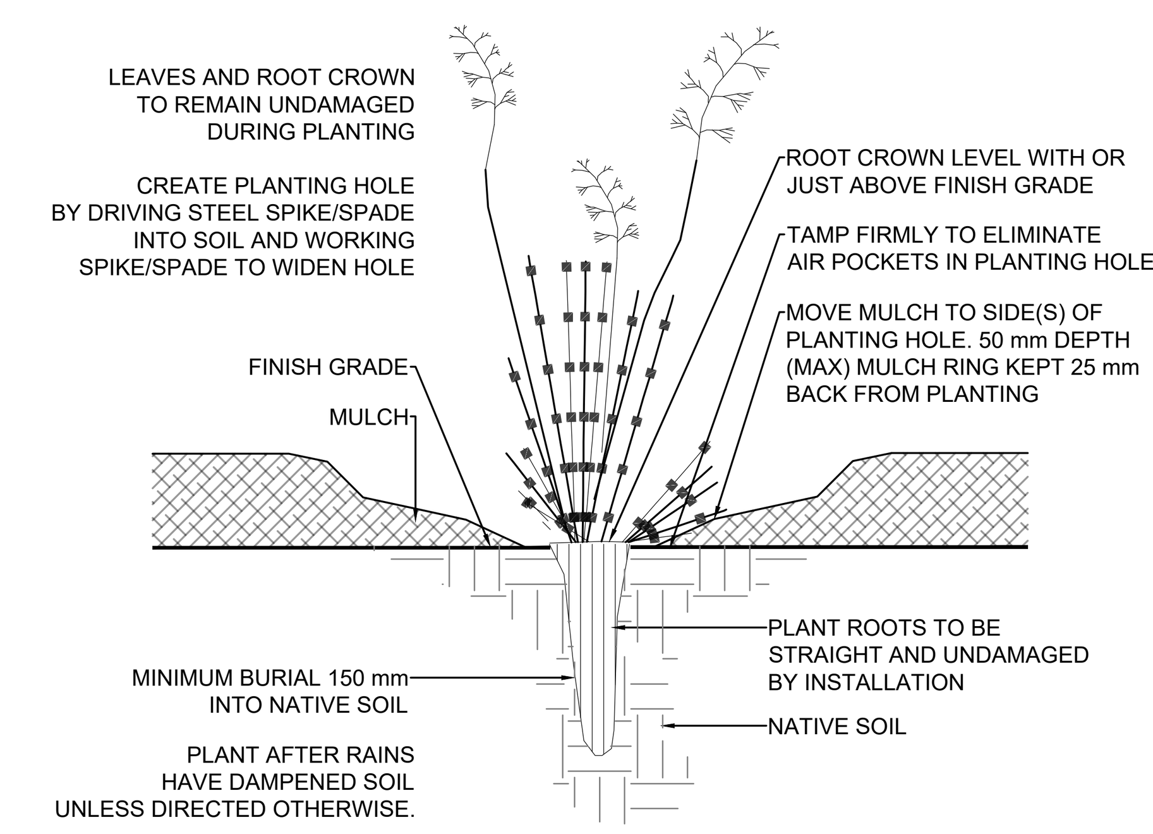
36. The contractor shall be responsible for the protection of all trees and shrubs from rodent injury for the duration of the guarantee period.
37. Install an approved wrap-around type plastic tree guard on all deciduous and coniferous for rodent protection. Refer to planting detail and specification.
38. All shrubs and coniferous trees shall have an application of “skoot' or approved equivalent rodent formula, to be applied at the end of October. Follow manufacturer's directions for application.

TERRASEEDING:

39. Seeding to be completed by pneumatic terraseeding (hydraulic seeding is not acceptable). Seed and compost mixture will be blown over all disturbed areas and around all planted shrub beds.
40. A 50 mm depth of compost blanket to be applied over all disturbed areas to be stabilized and revegetated.
41. The Contractor shall be responsible for all labor, materials and equipment necessary to Terraseed the specified seed mixtures as designated on this plan and in accordance with the specifications.
42. Terraseeding operation shall not commence until Beacon's Landscape Architect has reviewed and approved the seed test results in a Certificate of Seed Analysis. Compost contaminated with plastic will be rejected.
43. Terraseeding is to be executed following completion of the planting operations.
44. The Contractor shall be responsible to seed and stabilize all disturbed areas unless otherwise instructed on site by Beacon's Landscape Architect.
45. At the time of Terraseeding all surface designated for this operation shall be friable and fine graded to a relative uniform surface. If the soil is not friable, the surface shall be cultivated to a depth between 50mm (2") and 75mm (3").
46. Terraseeding operation shall not commence until Beacon's Landscape Architect has inspected and approved the surface preparation including verification of the seed mixtures being applied and the layout of the permanent seed mixtures locations as demarcated in the field by the Contractor.
47. Seeding and or re-seeding shall not be carried out under adverse field conditions such as high wind, frozen ground or ground covered with snow, ice or standing water.
48. The site and erosion control measures shall be maintained until conditions permit the Terraseed application or re-application of seeds and compost material.
49. Ensure that seeds are injected only in the top 25 mm of compost. Seeds should not be buried in soil but should be on the top. To achieve this, the initial 25 mm compost layer is to be applied with no seeds. The seeds are to be injected only in the top 25 mm compost layer.
50. All surfaces to be Terraseeded shall be prepared not more than 3 days before the seeding operation. The surface shall not have stones greater than 25 mm in diameter, weeds or other unwanted vegetation.
51. Seeding and or re-seeding shall be performed only between spring start up and May 31 or between October 1 and freeze up.
52. No seeding or cover application shall not come in contact with the foliage of existing vegetation. No seed or cover shall come in contact with existing water bodies.
53. Refer to specifications for submission requirements, supplier, seeding rates, construction schedule and performance measure.

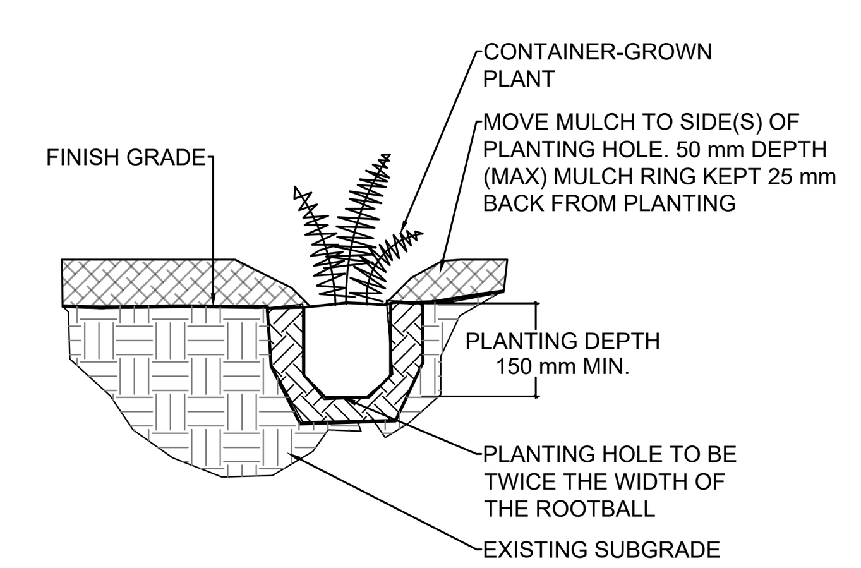
WARRANTY PERIOD AND MAINTENANCE ACTIVITIES:

54. All workmanship, and plant materials to be guaranteed for a period of two years following the date of initial acceptance of the project by the project Landscape Architect.
55. It is the responsibility of the Contractor to ensure nurse crop establishment and maintain plant materials in good condition from the date of initial planting to the end of the 2 years warranty period.
56. General maintenance requirements shall be performed during the growing season and shall include, but not limited to the following activities:
    - -Weekly inspection until nurse crop seed is well established with good coverage (>80%)
    - -Watering regularly on a weekly basis as required during the first year of establishment depending on weather conditions.
    - -Pruning
    - -Mulching
    - -Replacement Plantings
    - -Weeding all shrub planting beds and individually mulched tree saucers two times per growing season (June and August)
57. The Contractor shall be responsible for the Replacement of unacceptable or dead material, straightening trees that lean, and any other procedure consistent with good horticultural practice necessary to ensure normal, healthy growing condition of plant material.
58. During the warranty period the contractor is responsible for maintaining the minimum depth of mulch that is specified for all plantings.
59. At the end of the warranty period, it is the responsibility of the Contractor to remove and properly dispose of all plastic tree guards, stakes and tree ties.
60. Prior to acceptance of the end of the warranty period all planting beds are to be supplemented, where necessary, with additional mulch in order that the specified minimum thickness described for each of the planting areas is maintained.
61. The Consultant reserves the right to extend contractor's warranty responsibilities for an additional year if, at the end of initial warranty period, leaf development and growth is not sufficient to ensure future survival.



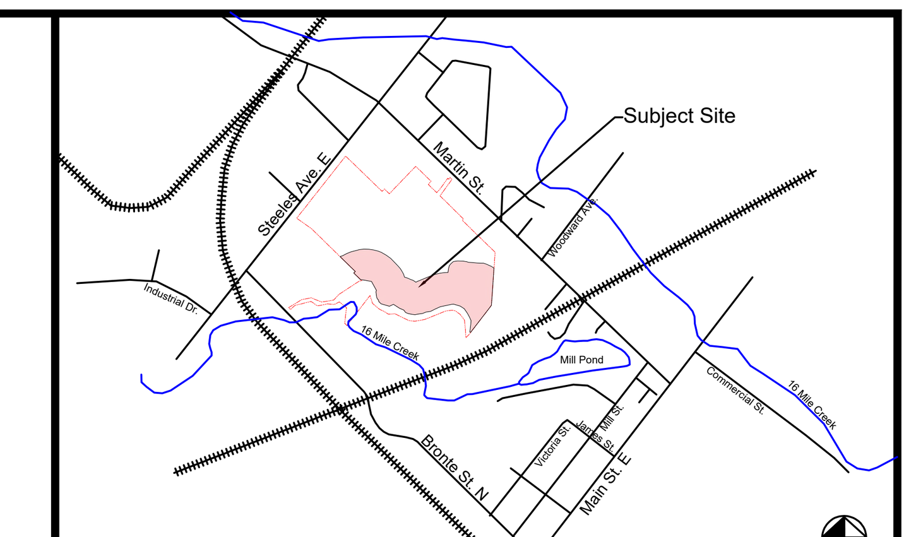
4 / L-5 HERBACEOUS PLUG PLANTING DETAIL

NTS



5 / L-5 HERBACEOUS PLANTING DETAIL (POTTED)

NTS



KEYMAP

NTS

LEGEND

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PROJECT

BUFFER AND SLOPE PLANTING PLAN
150 STEELES AVE.
MILTON, ON

SHEET TITLE

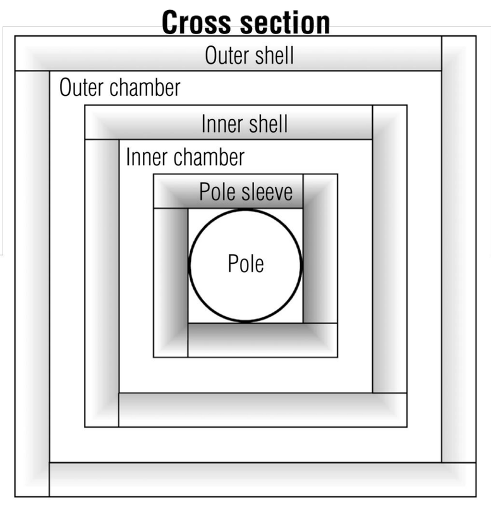
NOTES AND DETAILS

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-5
CHECKED BY:	SC		
DATE:	29 March 2025		

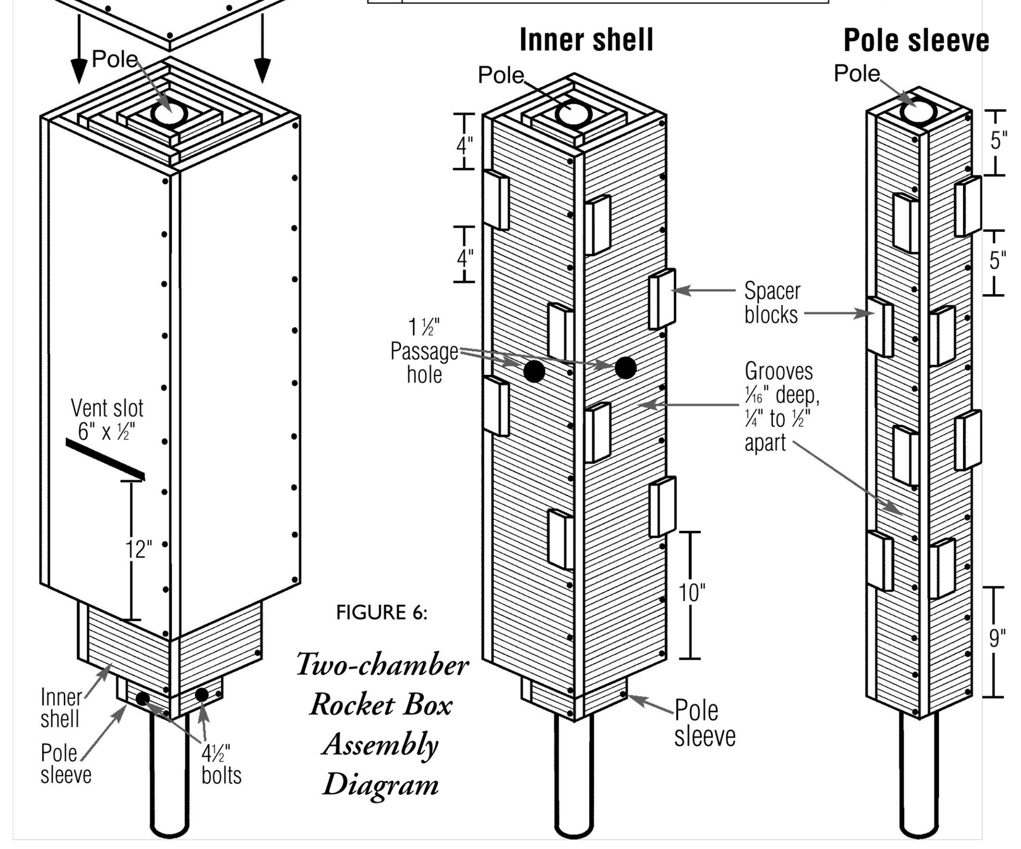
Two-chamber Rocket Box

Materials (makes one house)
2" diameter (2⅜" outside diameter) steel pole, 20' long
Two 1" x 4" (¾" x 3½" finished) x 8' boards*
Two 1" x 8" (¾" x 7¼" finished) x 8' boards*
Two 1" x 10" (¾" x 9¼" finished) x 6' boards*
24" x 24" x ¾" piece of AC exterior plywood
Box of 100 exterior-grade screws, 1⅝"
Box of 100 exterior-grade screws, 1¼"
16 to 32 exterior-grade screws, 2"
20 to 30 roofing nails, ⅞"
One quart water-based primer, exterior grade
Two quarts flat, water-based stain or paint, exterior grade
Asphalt shingles or dark galvanized metal
One tube paintable latex caulk
Two ¼" x 4½" carriage bolts, washers and nuts

** Western red cedar or poplar preferred*

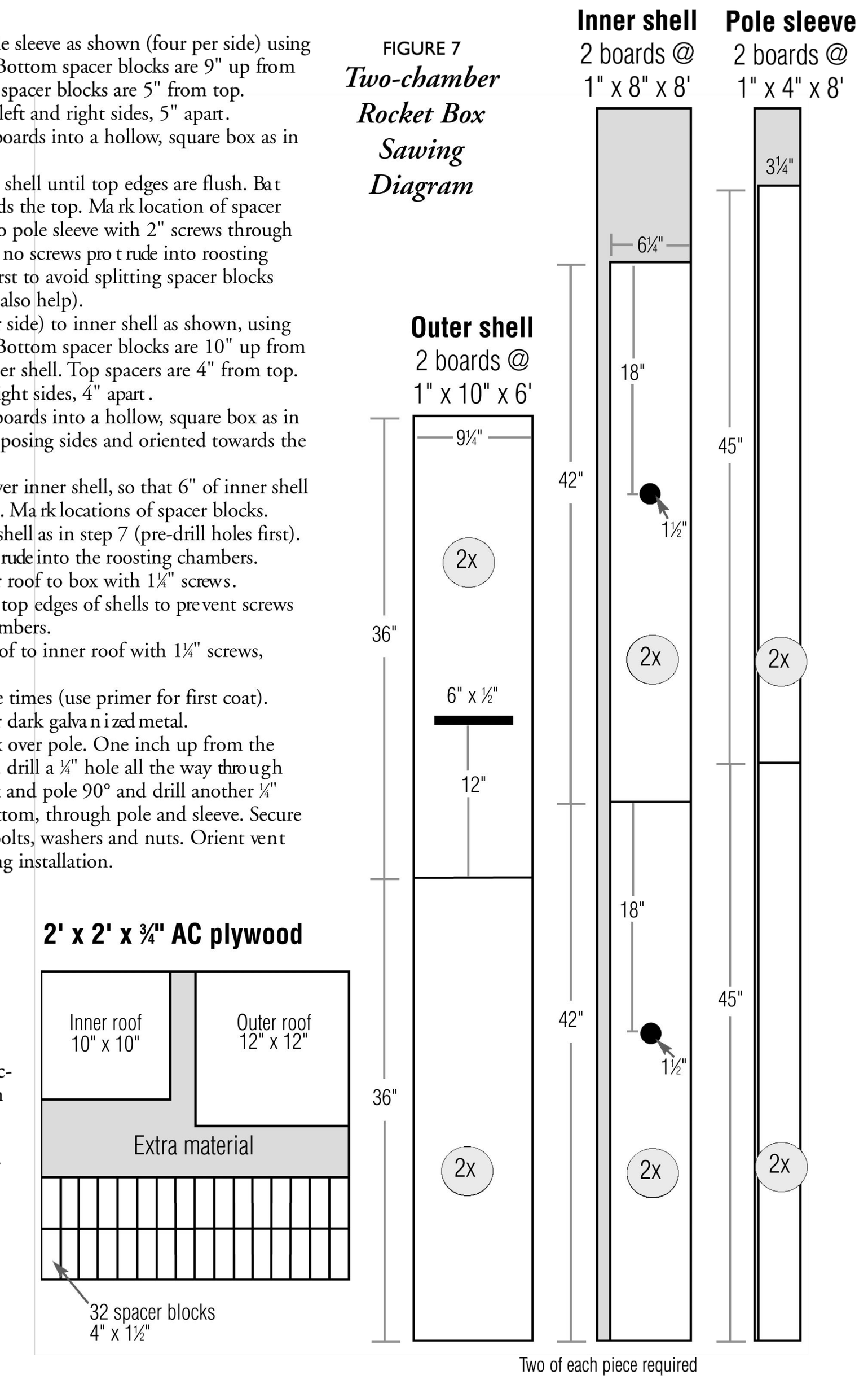


Recommended tools
Table saw or circular saw
Caulk gun
Hammer
Tape measure
Square
Jigsaw, keyhole saw or router
Sandpaper or sander
Rasp or wood file
Variable-speed reversing drill
1½" hole saw or spade bit
⅛" and ¼" drill bits
Screwdriver bit for drill



Construction
1. Measure, mark and cut out parts according to Figure 7. Dimensions must be exact for correct fit. Cut out two vent slots and four passage holes as shown.
2. Cut 1⁄16"-deep horizontal grooves ¼" to ½" apart on one side of all 36" and 45" boards and on both sides of all 42" boards. Sand to remove splinters.
3. Drill two ⅛" holes through each ¾" x 1½" x 4" spacer block to prevent splitting.
4. Assemble four pole sleeve boards into a hollow, square box as shown using 1⅝" screws and caulk. Pre-drill holes to prevent splitting. Countersinking holes may also help.
5. Attach spacer blocks to pole sleeve as shown (four per side) using two 1¼" screws per block. Bottom spacer blocks are 9" up from bottom of pole sleeve. Top spacer blocks are 5" from top. Alternate spacer blocks on left and right sides, 5" apart.
6. Assemble four inner shell boards into a hollow, square box as in step 4.
7. Slide pole sleeve into inner shell until top edges are flush. Bat passage holes will be towards the top. Mark location of spacer blocks. Secure inner shell to pole sleeve with 2" screws through the spacer blocks to ensure no screws protrude into roosting chambers. Pre-drill holes first to avoid splitting spacer blocks (countersinking holes may also help).
8. Attach spacer blocks (4 per side) to inner shell as shown, using two 1¼" screws per block. Bottom spacer blocks are 10" up from the bottom edge of the inner shell. Top spacers are 4" from top. Alternate spacers left and right sides, 4" apart.
9. Assemble four outer-shell boards into a hollow, square box as in step 4. Vent slots are on opposing sides and oriented towards the bottom.
10. Slide finished outer shell over inner shell, so that 6" of inner shell protrudes below outer shell. Mark locations of spacer blocks. Secure outer shell to inner shell as in step 7 (pre-drill holes first). Ensure that no screws protrude into the roosting chambers.
11. Caulking first, attach inner roof to box with 1¼" screws. Carefully drive screws into top edges of shells to prevent screws from entering roosting chambers.
12. Center and attach outer roof to inner roof with 1¼" screws, caulking first.
13. Paint or stain exterior three times (use primer for first coat). Cover roof with shingles or dark galvanized metal.
14. Slide completed rocket box over pole. One inch up from the bottom edge of pole sleeve, drill a ¼" hole all the way through pole and sleeve. Rotate box and pole 90° and drill another ¼" hole, 2 inches from the bottom, through pole and sleeve. Secure box to pole with two 4½" bolts, washers and nuts. Orient vent slots north and south during installation.

Optional modifications to the rocket box
1. For extra mounting height, insert a 4½" bolt and nut about halfway up through pole sleeve after completing step 5.
2. For extra heat-holding capacity, create a compartment in upper half of pole sleeve with a 2½"-square piece of leftover plywood. Fill upper half of sleeve with sand, gravel or dirt, and seal with another piece of plywood flush with top.
3. In warmer climates, a larger outer roof with more overhang can be used for additional shading.

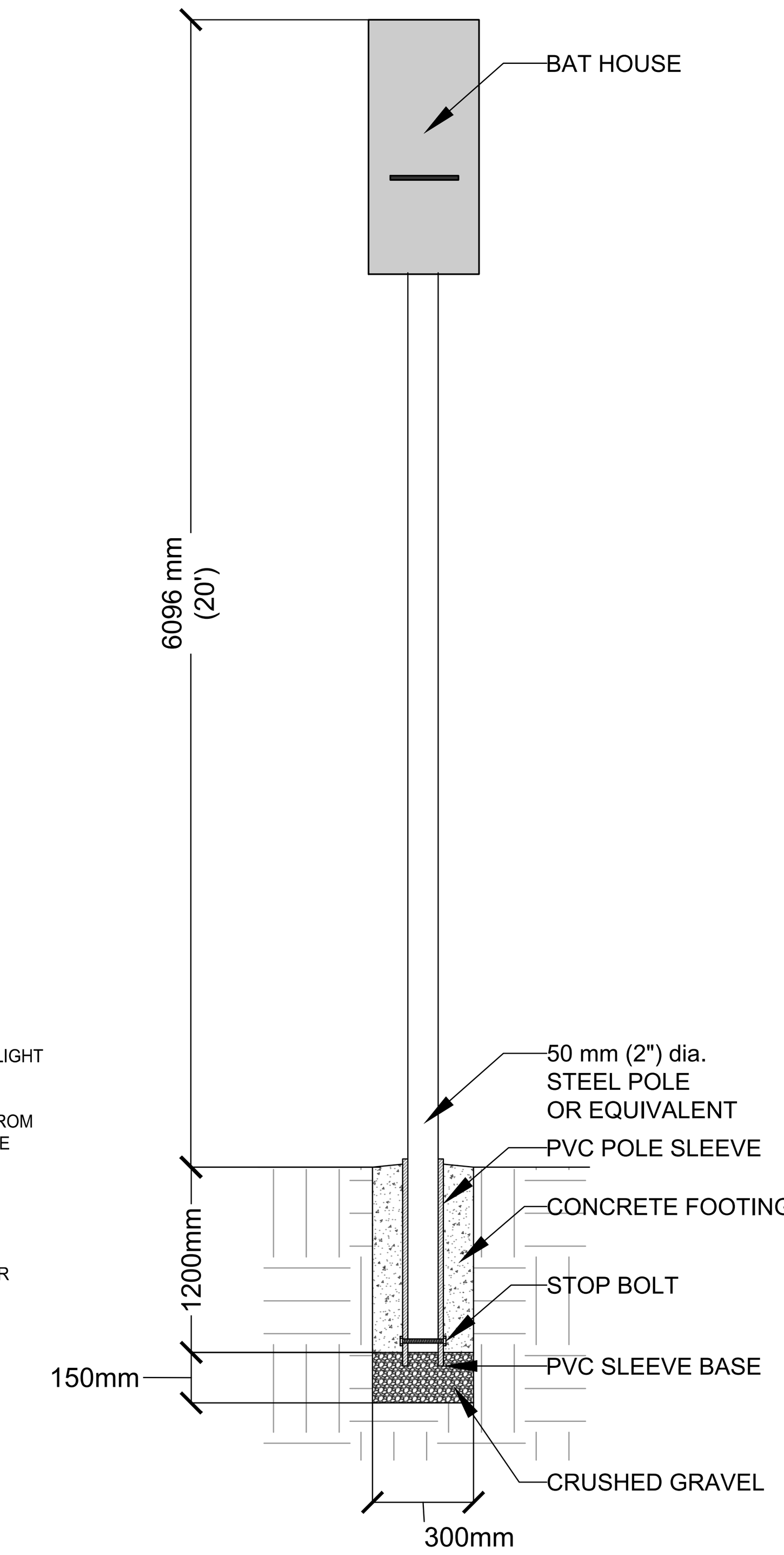


1 TWO CHAMBER ROCKET BOX BAT HOUSE DETAIL (1 TOTAL)
L-6 NTS

Open Source Publication -
Tuttle, Merlin; Kiser, Mark; and Kiser, Selena, "Two-chamber Rocket Box Bat House Plans" (2005). Other Publications in Wildlife Management. 2.
http://digitalcommons.unl.edu/icwdmother/2

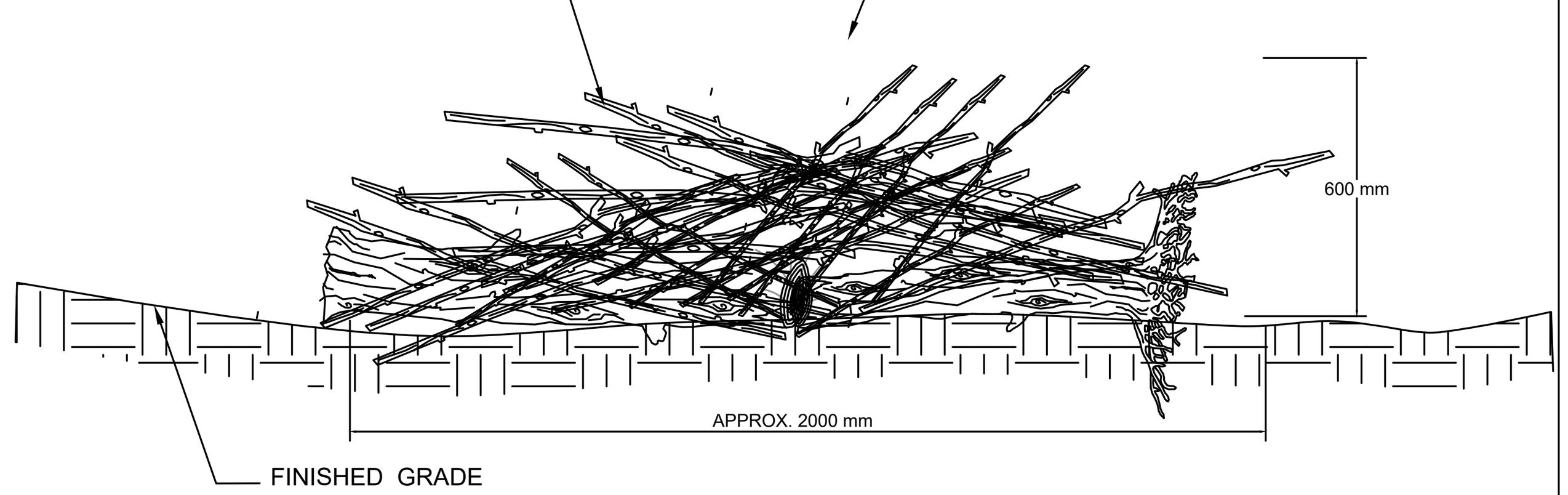
NOTES:

1. MINIMUM OF 6 HOURS OF DIRECT SUNLIGHT IS RECOMMENDED WITH UP TO 10 HOURS OF DIRECT SUNLIGHT BEING IDEAL.
2. POLES SHALL BE INSTALLED A MINIMUM OF 4 m AWAY FROM EXISTING AND PROPOSED TREES, IN ORDER TO MINIMIZE CHANCES OF PREDATION.
3. BAT HOUSES MUST BE INSTALLED 2-6 WEEKS PRIOR TO EVICTING BATS FROM NEARBY EXISTING STRUCTURES.
4. BAT HOUSES SHOULD BE INSTALLED IN FALL, WINTER OR EARLY SPRING, PRIOR TO THE SUMMER IN WHICH YOU INTEND THE BATS TO MOVE IN.
5. A METAL POLE SHALL BE USED IN ORDER TO DETER PREDATORS FROM REACHING THE BAT HOUSE.
6. THE HOLE DUG FOR THE POST FOOTING SHOULD BE AT LEAST 1350 mm (53") DEEP, BY 300 mm (12") WIDE. THE BOTTOM 150 mm (6") SHOULD BE FILLED WITH CRUSHED GRAVEL.



2 BAT HOUSE POLE FOOTING DETAIL
L-6 NTS

** LOCATION OF WOODY DEBRIS HABITAT FEATURE TO BE SPORADICALLY PLACED ALONG WOODLAND BUFFER

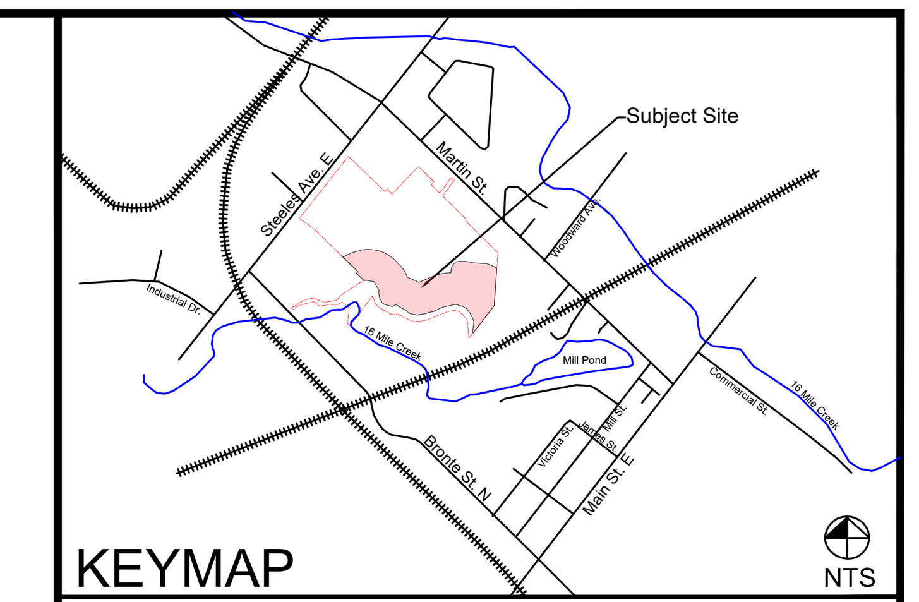


NOTES

1. HEIGHT OF MOUND WILL BE DEPENDANT ON SIZE AND SHAPE OF MATERIALS. NOT TO EXCEED 1000 mm.
2. NO SPECIFIC SPECIES ARE REQUIRED, HOWEVER MOUND SHOULD BE EVEN MIX OF BOTH HARDWOOD AND SOFTWOOD SPECIES.
3. NO ADDITIONAL WOOD DEBRIS SHALL BE DEPOSITED ON TO WOODLAND BUFFER, UNLESS INTERCONNECT WITHIN THE HABITAT FEATURE.

BEACON ENVIRONMENTAL	WOOD DEBRIS HABITAT FEATURE	Date: Nov. 2017
		Scale: NTS

3 WOOD DEBRIS HABITAT FEATURE
L-6 NTS



KEYMAP

LEGEND

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	ISSUED FOR REVIEW	2025/03/12	SC

SCALE

NORTH ARROW

SEAL
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
STEPHAN CRISPIN
OALA
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED
MEMBER
NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

BEACON ENVIRONMENTAL
GUELPH OFFICE
373 WOOLWICH ST,
GUELPH, ON N1H 3W4
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519.826.9306
www.beaconenviro.com

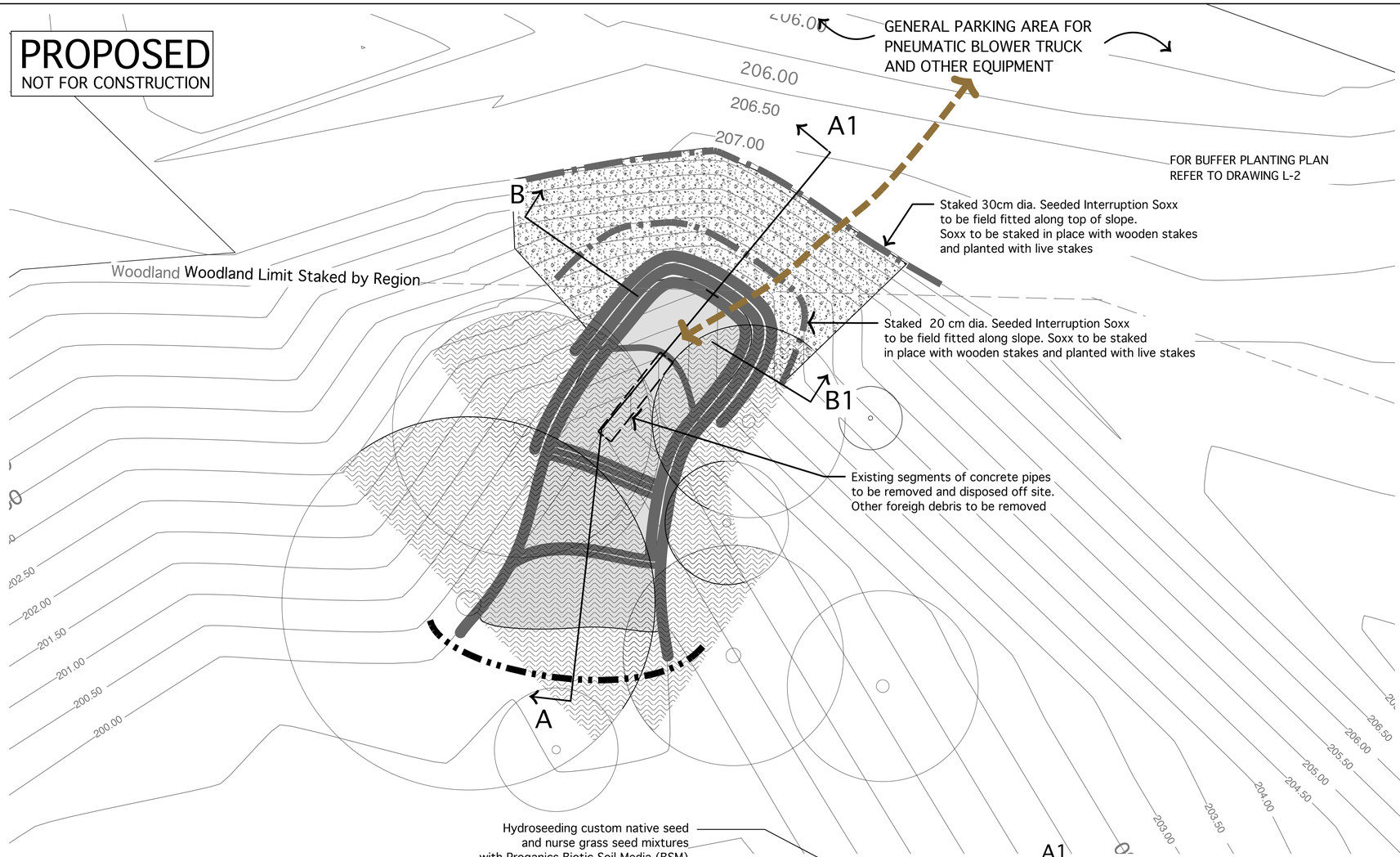
CLIENT
150 STEELES MILTON INC.

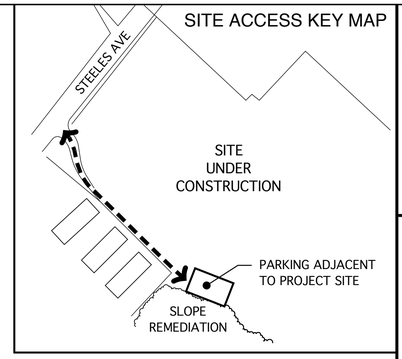
PROJECT
BUFFER AND SLOPE PLANTING PLAN
150 STEELES AVE.
MILTON, ON

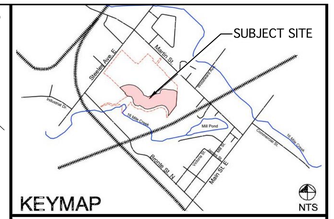
SHEET TITLE
HABITAT FEATURE DETAILS

DESIGN BY:	MB/JA	PROJECT Nº:	221265
DRAWN BY:	MB/JA	FIGURE Nº:	L-6
CHECKED BY:	SC		
DATE:	29 March 2025		

PROPOSED
NOT FOR CONSTRUCTION







CONSTRUCTION SEQUENCING NOTES

PHASE 1- SITE PREPARATION

1. Existing open sewer pipe to be capped and grouted.
2. Removal of three segments of storm sewer pipes and associated debris from the bottom of valley slope.
3. Extensive pruning of lower and upper branches from adjacent trees. Canopy pruning to be undertaken by ISA Certified Arborists following arboricultural Best Management Practices and working around nesting birds protected under the Migratory Birds Convention Act.
4. Remove all woody debris from slopes and scarify the upper slope prior to application of soil remediation matrix and seeding.
5. Review site conditions and obtain Beacon's direction and approval.

PHASE 2 - SLOPE INTERRUPTION SOXX AND PLANTING

6. Install Slope Interruption Soxx in conjunction with placement of bulk soil/compost material to fill the lower portion of the gully. Ensure the soil mixture is compacted in lift of 30cm.
7. Review site conditions and obtain Beacon's direction and approval on a regular basis regarding field fitting of materials installation.
8. Fascines and live stakes planting to be installed during the dormant season.
9. Ensure appropriate species substitutions have been reviewed and approved by Beacon well in advance of the start of planting and seeding operations.
10. Planting of proposed shrubs, grasses and wildflowers herbaceous plugs
11. Seeding

LEGEND

- 206.00 — EXISTING CONTOUR ELEVATION
- EXISTING SURVEYED TREES
- PROPOSED ZONE OF CANOPY PRUNING (APPROXIMATE)
- PROPOSED 30/45cm. DIA. SILT SOXX
- ACCESS FOR LIFTING CONCRETE PIPES USE OF BLOWER TRUCK LONG HOSES TO PROVIDE SAFE ACCESS, LOW IMPACT DELIVERY AND PLACEMENT OF INTERRUPTION SOXX AND PLANTING SOIL MIXTURE.
- PROPOSED SMALL 20-30cm DIA. VEGETATED SLOPE INTERRUPTION SOXX
- PROPOSED 45-60cm DIA. VEGETATED SLOPE INTERRUPTION SOXX STAKED INTO EXISTING GROUND
- HYDROSEEDING: WOODLAND MEADOW SEED MIX WITH PROGANICS ™DUAL BIOTIC SOIL MEDIA AND ENGINEERED FIBRE MATRIX (EFM) (50sq.m. +/-)
- FILLING LOWER SLOPE AREAS WITH SPECIFIED COMPOST SOIL MIXTURE (51sq.m) VARYING DEPTH (0.5-0.75m.)

N°	REVISION	DATE	BY
1.	ISSUED FOR APPROVAL	2025/03/31	SC

SCALE 1: 75 (0 1 2 3 4 5)

NORTH ARROW

SEAL — ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO — STEPHAN CRUSH — OALA — MEMBER — NOT FOR CONSTRUCTION UNLESS SIGNED & DATED

BEACON ENVIRONMENTAL
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MARKHAM, ON L3P 1X5
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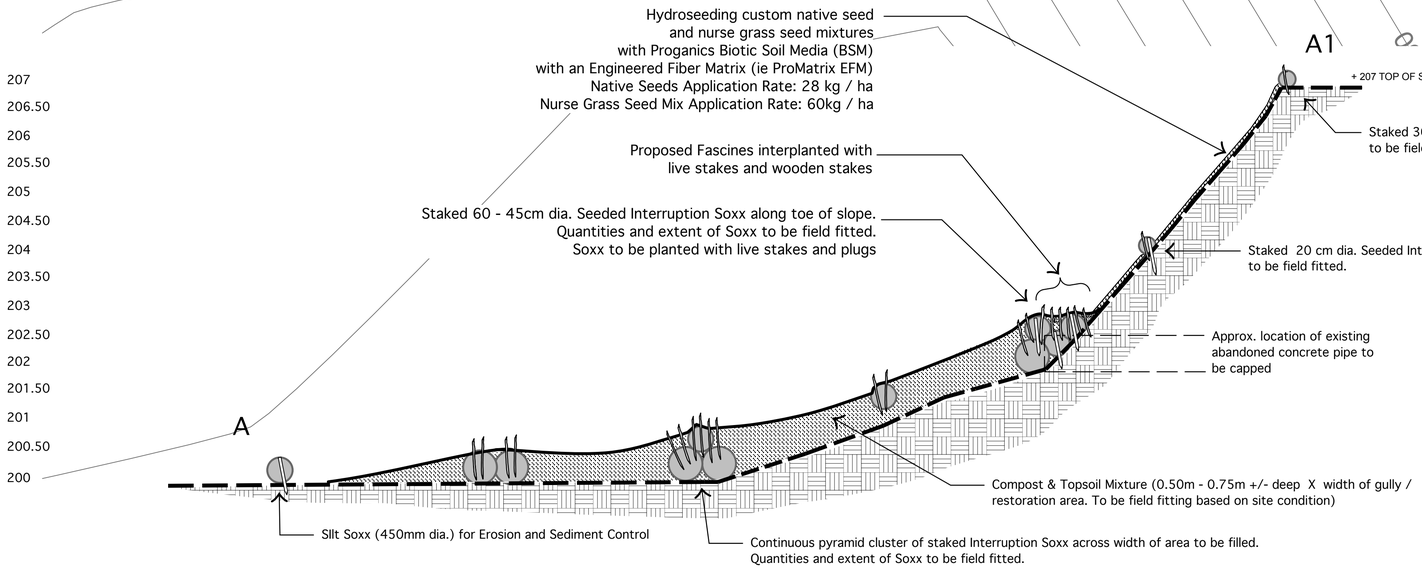
F) 905. 201. 0639
www.beaconenviro.com

CLIENT: NEATT COMMUNITIES

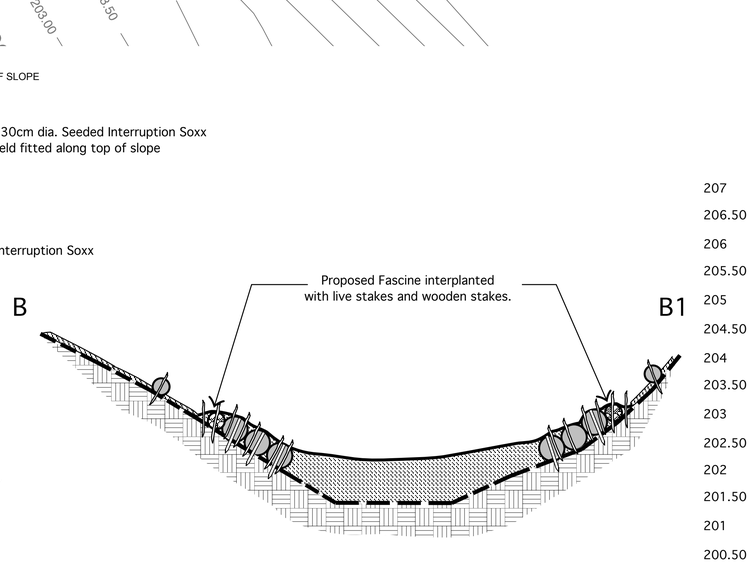
PROJECT: 150 STEELES AVE. MILTON

SHEET TITLE: PRELIMINARY SLOPE RESTORATION PLAN

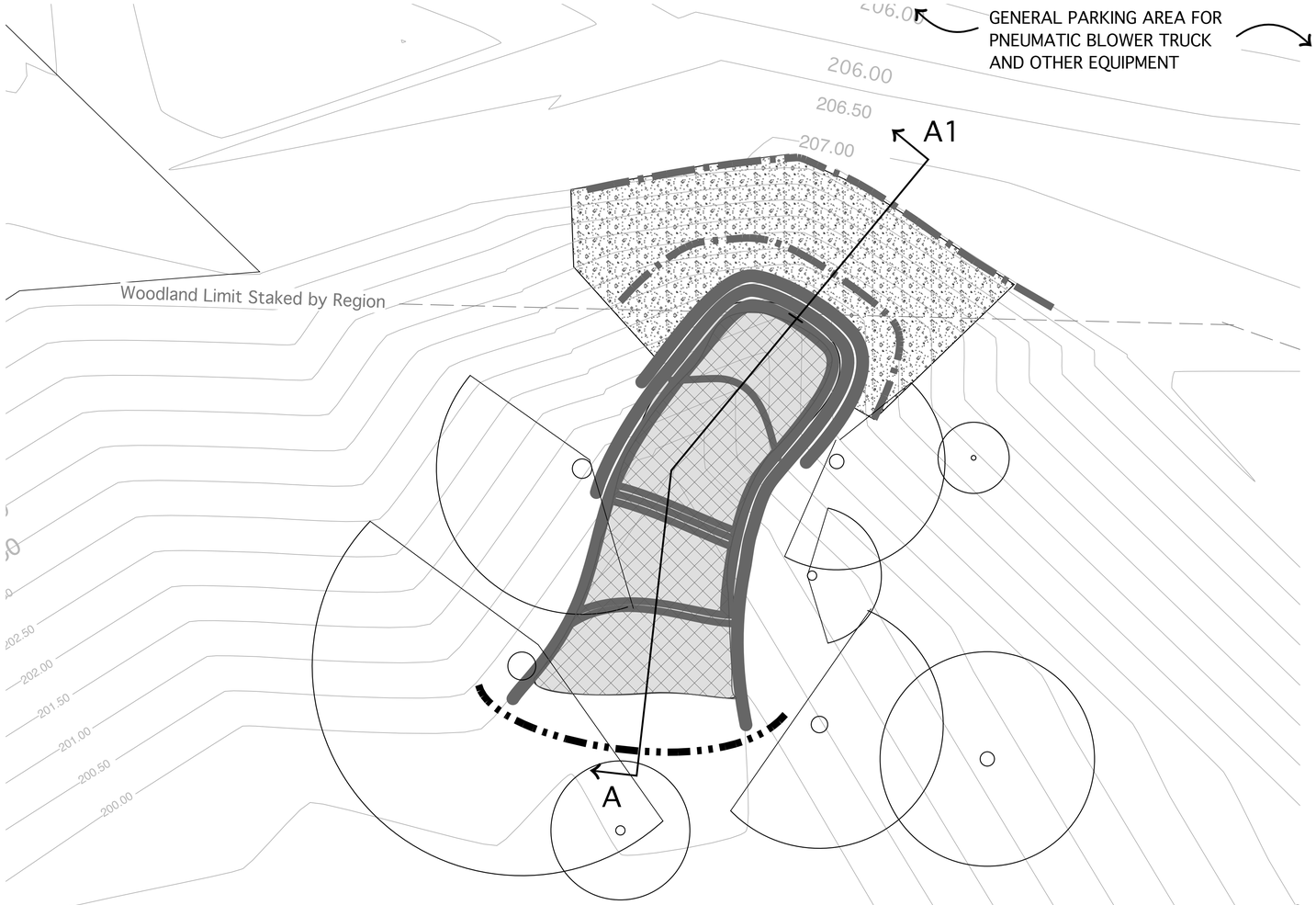
DESIGN BY:	SC	PROJECT NO:	221265
DRAWN BY:	SC	SHEET NO:	L-7
CHECKED BY:	SC/JS		
DATE:	2025/03/21		

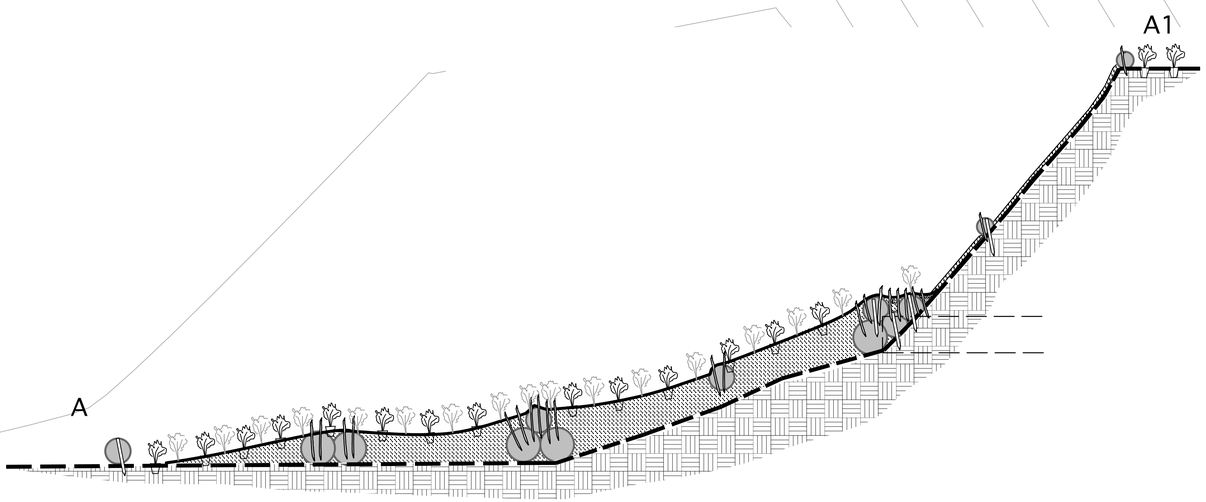


A — LONGITUDINAL SECTION OF SLOPE TREATMENT
1: 50



B — CROSS SECTION OF SLOPE TREATMENT
1: 50





A LONGITUDINAL SECTION OF SLOPE TREATMENT

1: 50

Woody Plant List - Lives Stakes (87 L.M.+/-)

Est. Qty	Scientific Name	Common Name	Size	Spacing
50	*Cornus amomum*	Silky Dogwood	15-35mm dia x 600 -1000mm L	0.6m O.C. +/-
100	*Cornus racemosa*	Gray Dogwood	15-35mm dia x 600 -1000mm L	0.6m O.C. +/-
50	*Cornus rugosa*	Round Leaf Dogwood	15-35mm dia x 600 -1000mm L	0.6m O.C. +/-
40	*Cornus sericea*	Red Osier Dogwood	15-35mm dia x 600 -1000mm L	0.6m O.C. +/-
40	*Salix exigua*	Sandbar Willow	15-35mm dia x 600 -1000mm L	0.6m O.C. +/-
70	*Viburnum lentago*	Nannyberry	15-35mm dia x 600 -1000mm L	0.6m O.C. +/-
350				

Woody Plant List - (Short Fascines) Horizontal Layout btw Soxx & Slope (50L.M.)

Est. Qty	Scientific Name	Common Name	Size	Layout
30	*Cornus amomum*	Silky Dogwood	15-35mm dia x 1000 - 1200mm L	Bundle
40	*Cornus racemosa*	Gray Dogwood	15-35mm dia x 1000 - 1200 mm L	Bundle
35	*Cornus rugosa*	Round Leaf Dogwood	15-35mm dia x 1000 - 1200 mm L	Bundle
25	*Cornus sericea*	Red Osier Dogwood	15-35mm dia x 1000 - 1200 mm L	Bundle
15	*Salix exigua*	Sandbar Willow	15-35mm dia x 1000 - 1200 mm L	Bundle
35	*Viburnum lentago*	Nannyberry	5-35mm dia x 1000 - 1200 mm L	Bundle
150				

Woody Plant List

Est. Qty	Scientific Name	Common Name	Size	Condition	Spacing
50	*Cornus racemosa*	Gray Dogwood	45-75cm	1 gal	1.0m O.C. -staggered
50	*Diervila lonicera*	Bush Honeysuckle	45-75cm	1 gal	1.0m O.C. -staggered
5	*Parthenocisus inserta*	Thicket Creeper	2 years min	1 gal	1.0m O.C. -staggered
50	*Prunus virginiana*	Choke Cherry	45-75cm	1 gal	1.0m O.C. -staggered
50	*Rhus typhina*	Staghorn Sumac	45-75cm	1 gal	1.0m O.C. -staggered
50	*Symphoricarpus albus*	Common Snowberry	45-75cm	1 gal	1.0m O.C. -staggered
50	*Viburnum lentago*	Nannyberry	45-75cm	1 gal	1.0m O.C. -staggered
80					

Herbaceous Plant List

Est. Qty	Scientific Name	Common Name	Size / Condition (mm)	Spacing
0	*Anemone canadensis*	Canada Anemone	50 x 125 plug	0.3 - 0.5m O.C.
0	*Eurybia macrophylla*	Large Leaved Aster	50 x 125 plug	0.3 - 0.5m O.C.
0	*Solidago flexicaulis*	Zig-Zag Goldenrod	50 x 125 plug	0.3 - 0.5m O.C.
0	*Carex arctata*	Drooping Wood Sedge	50 x 125 plug	0.3 - 0.5m O.C.
0	*Carex pendunculata*	Long-Stalked Sedge	50 x 125 plug	0.3 - 0.5m O.C.
0	*Carex pensylvanica*	Pensylvania Sedge	50 x 125 plug	0.3 - 0.5m O.C.
0	*Elymus virginicus*	Virginia WildRye	50 x 125 plug	0.3 - 0.5m O.C.
0	*Elymus hystrix*	Bottlebrush Grass	50 x 125 plug	0.3 - 0.5m O.C.
0	*Panicum clandestinum*	Deer- Tongue	50 x 125 plug	0.3 - 0.5m O.C.
400				

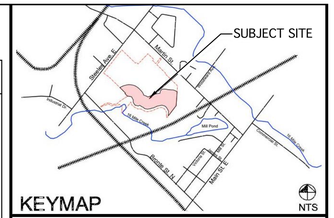
Woodland Edge Seed Mix

Scientific Name	Common Name	(kg PLS per /10,000 sq.m)	Proportion of seed mix (%)
Forbs (broad-leaved species)			
Anemone canadensis	Canada Anemone	-	3.5
Desmodium canadense	Showy Tick Trefoil	-	3.5
Eurybia macrophylla	Large-leaved Aster	-	2.5
Helianthus divaricalus	Woodland Sunflower	-	2.5
Solidago flexicaulis	Zig-Stalk Goldenrod	-	2.0
Solidago nemoralis	Grey Goldenrod	-	1.5
Solidago rugosa	Rough Goldenrod	-	1.5
Symphiotrichum cordifolium	Heart-leaved Aster	-	3.0
Grasses			
Carex arctata	Drooping Wood Sedge	-	10.0
Carex pedunculata	Long-stalked Sedge	-	10.0
Carex pensylvanica	Pensylvanica Sedge	-	10.0
Elymus canadensis	Canada Wild Rye	-	15.0
Elymus virginicus	Virginia Wild Rye	-	15.0
Elymus hystrix (Hystrix patula)	Bottlebrush Grass	-	20.0
Panicum clandestinum	Dear -Tongue	-	10.0
Panicum virgatum	Switch Grass	-	10.0
Total native species		**27**	**100.0**

Nurse Crop Seed Mix

Species	Common Name	Seeding rate (PLS kg/10,000 sq.m.)	PLS Required (kg/ 110 sq.m.)
Avena sativa	Oats	30	10
Festuca rubra	Creeping Red Fescue	30	10
Total nurse grasses		**60**	**20**

PROPOSED
NOT FOR CONSTRUCTION



LEGEND

- EXISTING CONTOUR ELEVATION (206.00)
- EXISTING SURVEYED TREES
- PRUNED TREE CANOPY
- PROPOSED 20-30cm DIA. VEGETATED SLOPE INTERRUPTION SOXX (20-30 l.m.)
- PROPOSED 45-60cm DIA. VEGETATED SLOPE INTERRUPTION SOXX STAKED INTO EXISTING GROUND (80-85 l.m.+/-)
- HYDROSEEDING: WOODLAND MEADOW SEED MIX WITH PROGANICS DUAL BIOTIC SOIL MEDIA AND ENGINEERED FIBER MATRIX (EFM) (50sq.m. +/-)
- FILLING LOWER SLOPE AREAS WITH SPECIFIED PLANTING SOIL MIXTURE (50 sq.m) VARYING DEPTH (0.5-.75m.)
- MASS PLANTING OF SHRUBS (80) AND HERBACEOUS PLUGS (400) (47 sq.m.) Ave Shrub Spacing 1.0m O.C. Ave Herbaceous Spacing 0.4m O.C.
- PROPOSED 30/45cm. DIA. SILT SOXX

N°	REVISION	DATE	BY
1.	ISSUED FOR APPROVAL	2025/03/31	SC

SCALE
1: 75
0 1 2 3 4 5

NORTH ARROW

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STEPHAN CRUBIN
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NEATT COMMUNITIES

PROJECT
RESTORATION PLAN
150 STEELES AVE. MILTON

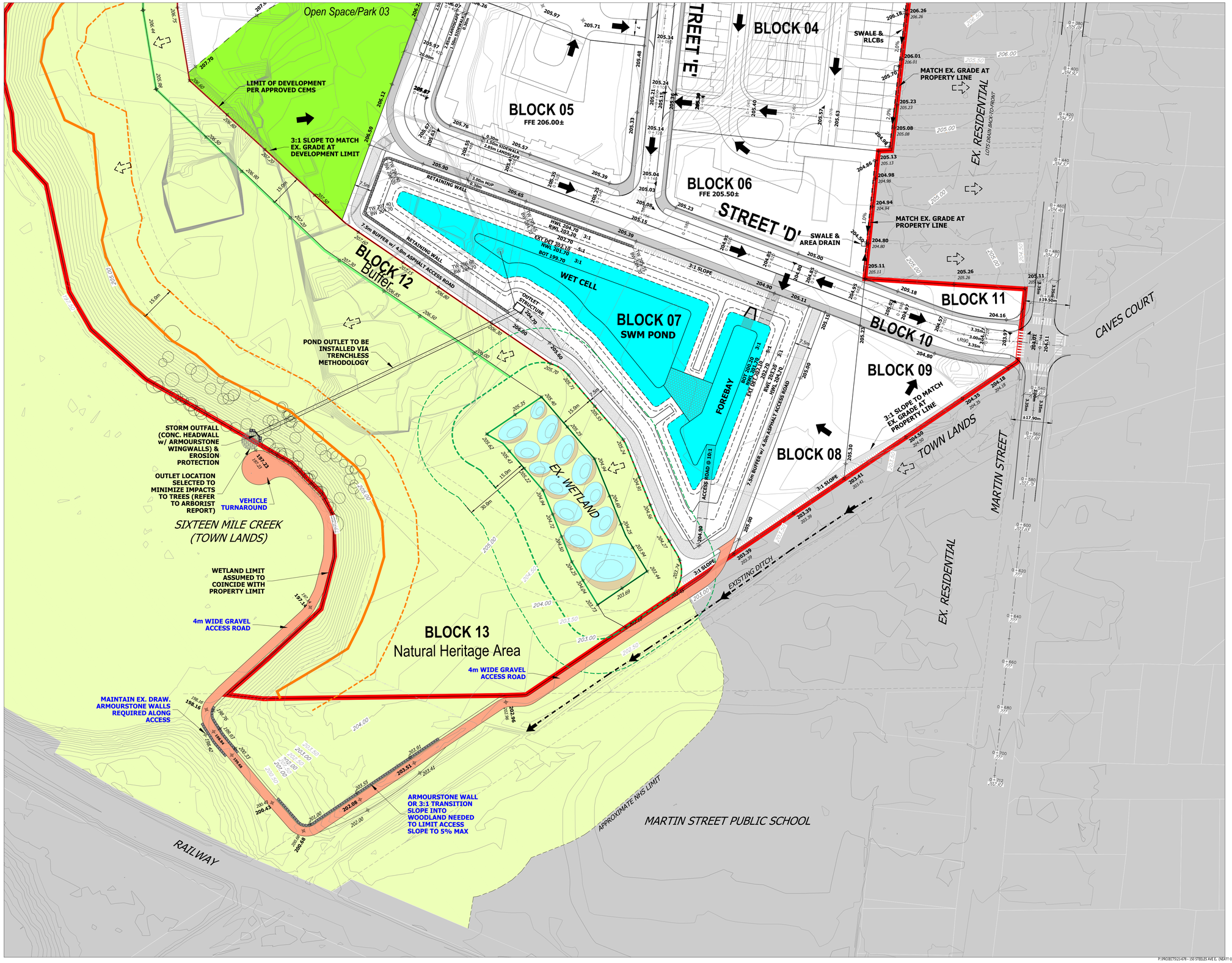
SHEET TITLE
PRELIMINARY
SLOPE RESTORATION PLAN
PLANTING CONCEPT PLAN

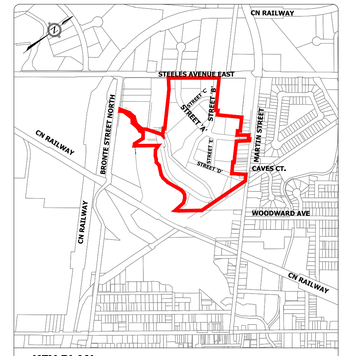
DESIGN BY:	SC	PROJECT NO:	221265
DRAWN BY:	SC	SHEET NO:	L-8
CHECKED BY:	SC/JS		
DATE:	2025/03/21		

BEACON ENVIRONMENTAL

Appendix D

Stormwater Outlet Alternatives





KEY PLAN

LEGEND

- SUBJECT LANDS
- EXTERNAL LANDS
- NHS LANDS
- OPEN SPACE
- NORMALIZED WOODLAND LIMIT
- PHYSICAL TOP OF BANK (STAKED BY CONSERVATION HALTON JUL 16, 2021)
- 15m BUFFER FROM TOP OF BANK
- LIMIT OF RECREATED WETLAND
- 15m BUFFER FROM WETLAND
- 30m BUFFER FROM WETLAND
- EXISTING CONTOUR
- EXISTING ELEVATION
- PROPOSED ELEVATION
- EXISTING OVERLAND FLOW ROUTE
- PROPOSED OVERLAND FLOW ROUTE
- 3:1 TRANSITION GRADING

BENCHMARK

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATIONS. BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN), UTM ZONE 17, NAD 83 (ORIGINAL).

ORP A	NORTH 4 818 861.60	EAST 589 747.57
ORP B	NORTH 4 818 687.05	EAST 589 097.13

COORDINATES ARE UTM ZONE 17, NAD83 (ORIGINAL), TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES.

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999671.

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Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
3760 14th Avenue, Suite 301,
Markham, ON. L3R 3T7
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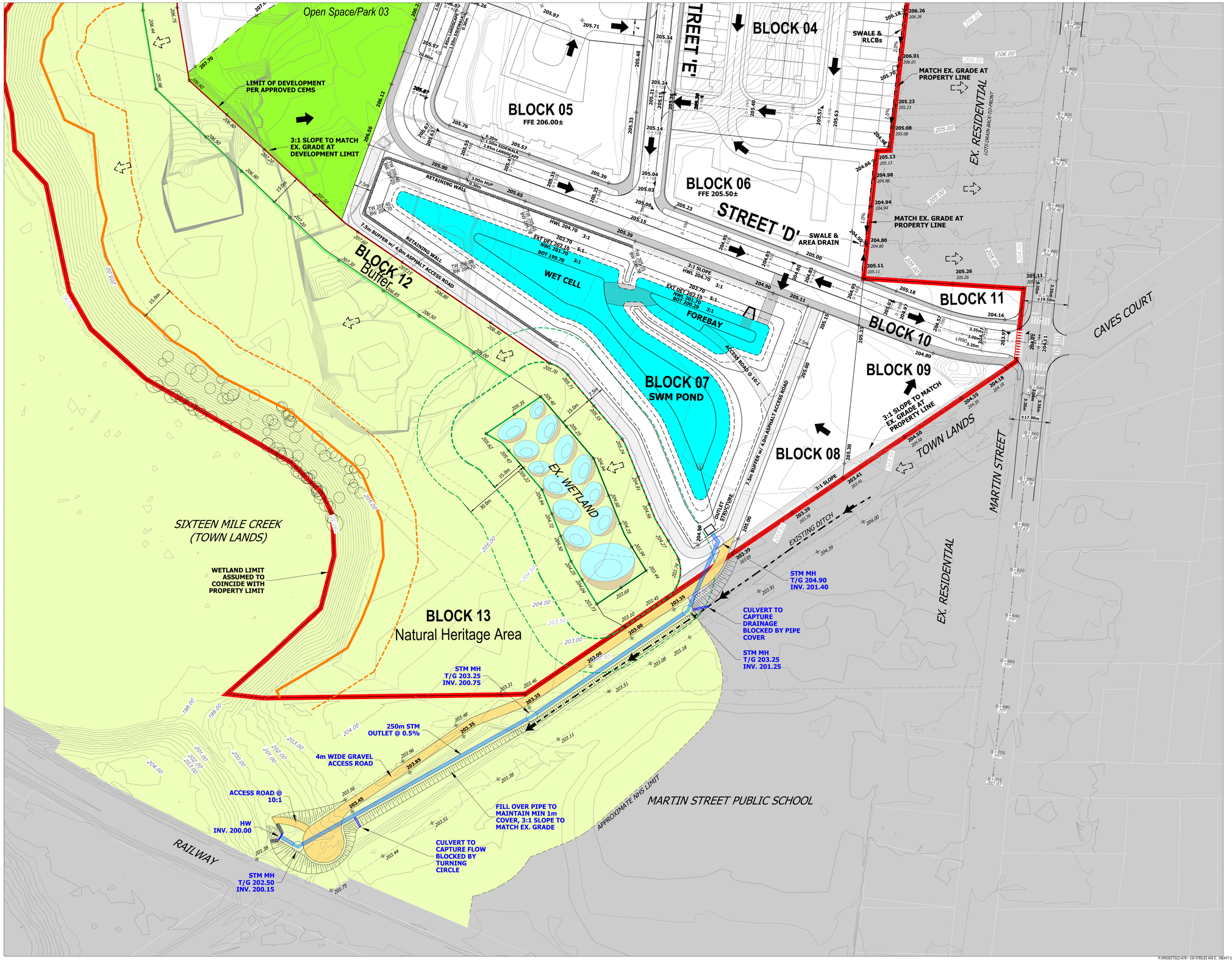
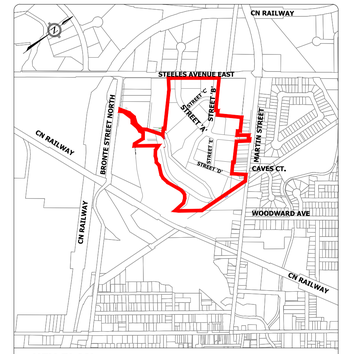
150 STEELES AVENUE EAST (MERITOR)
TOWN OF MILTON

ORIGINAL POND OUTFALL OPTION WITH VEHICLE ACCESS

PROJECT No.	DATE	SCALE	DWG No.
21-678	NOV. 2025	1:750	OUT-0

P:\PROJECTS\21-678 - 150 STEELES AVE E. (MERITT COMM- MILTON - HALTON)\REPORTS\FUNCTIONAL SERVICING REPORT\DRAWINGS & FIGURES_DESIGN BASE\21-678-GRADING BASE-ORIGINAL WITH ACCESS.DWG





KEY PLAN

LEGEND

- SUBJECT LANDS
- EXTERNAL LANDS
- NHS LANDS
- OPEN SPACE
- NORMALIZED WOODLAND LIMIT
- PHYSICAL TOP OF BANK (STAKED BY CONSERVATION HALTON JUL 16, 2021)
- 15m BUFFER FROM TOP OF BANK
- LIMIT OF RECREATED WETLAND
- 15m BUFFER FROM WETLAND
- 30m BUFFER FROM WETLAND
- EXISTING CONTOUR
- EXISTING ELEVATION
- PROPOSED ELEVATION
- EXISTING OVERLAND FLOW ROUTE
- PROPOSED OVERLAND FLOW ROUTE
- 3:1 TRANSITION GRADING

BENCHMARK

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATIONS. BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN), UTM ZONE 17, NAD 83 (ORIGINAL).

ORP A	NORTH 4 818 861.60	EAST 589 747.57
ORP B	NORTH 4 818 687.05	EAST 589 097.13

COORDINATES ARE UTM ZONE 17, NAD83 (ORIGINAL), TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES.

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999671.

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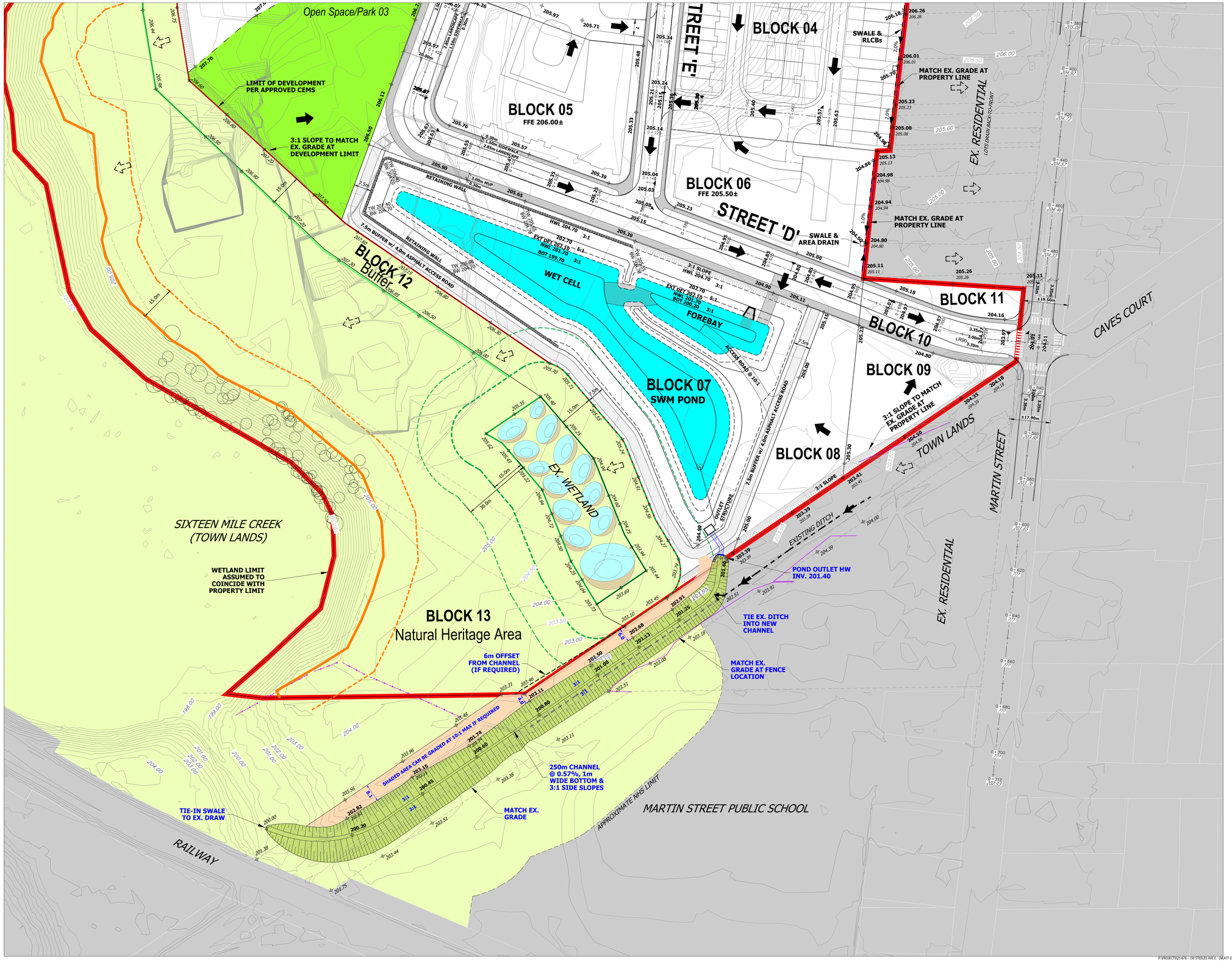
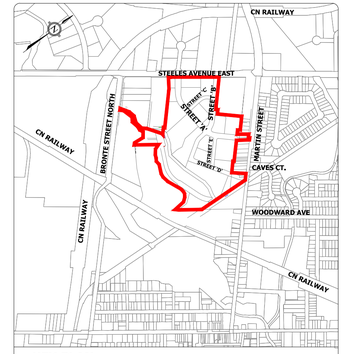
150 STEELES AVENUE EAST (MERITOR)
TOWN OF MILTON

ALTERNATE POND OUTFALL OPTION 1
PIPE THROUGH TOWN LANDS

PROJECT No.	DATE	SCALE	DWG No.
21-678	NOV. 2025	1:750	OUT-1

P:\PROJECTS\21-678 - 150 STEELES AVE E. (MEATT COMM - MILTON - HALTON)\REPORTS\FUNCTIONAL SERVICING REPORT\DRAWINGS & FIGURES_DESIGN BASED\21-678-GRADING BASE+ALTERNATE OUTFALL 1.DWG





LEGEND

- SUBJECT LANDS
- EXTERNAL LANDS
- NHS LANDS
- OPEN SPACE
- NORMALIZED WOODLAND LIMIT
- PHYSICAL TOP OF BANK (STAKED BY CONSERVATION HALTON JUL 16, 2021)
- 15m BUFFER FROM TOP OF BANK
- LIMIT OF RECREATED WETLAND
- 15m BUFFER FROM WETLAND
- 30m BUFFER FROM WETLAND
- EXISTING CONTOUR
- EXISTING ELEVATION
- PROPOSED ELEVATION
- EXISTING OVERLAND FLOW ROUTE
- PROPOSED OVERLAND FLOW ROUTE
- 3:1 TRANSITION GRADING

BENCHMARK

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATIONS. BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN), UTM ZONE 17, NAD 83 (ORIGINAL).

ORP A	NORTH 4 818 861.60	EAST 589 747.57
ORP B	NORTH 4 818 687.05	EAST 589 097.13

COORDINATES ARE UTM ZONE 17, NAD83 (ORIGINAL), TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES.

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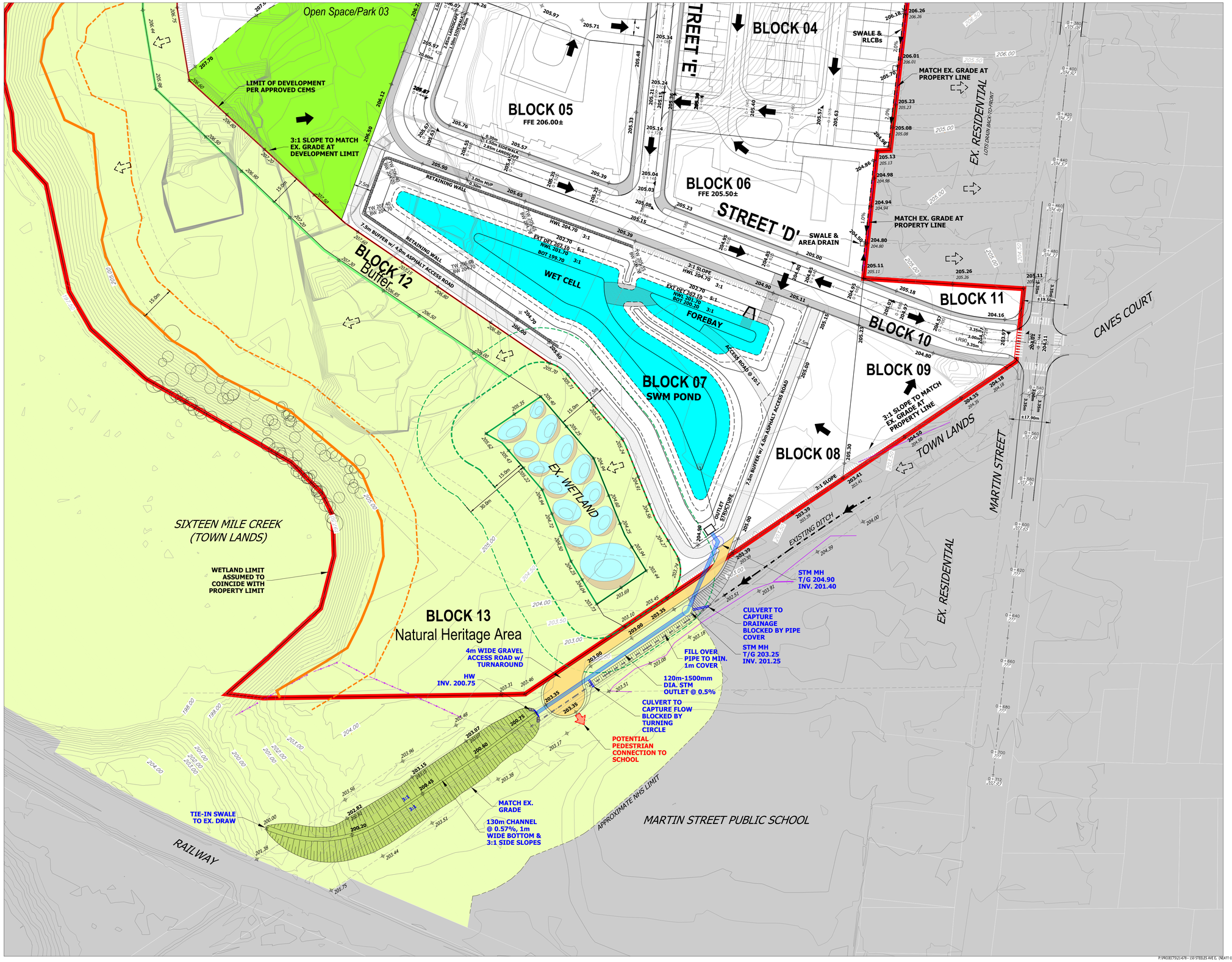
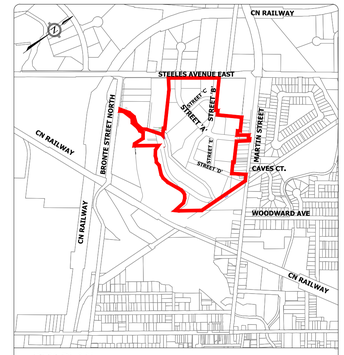
150 STEELES AVENUE EAST (MERITOR)
TOWN OF MILTON

ALTERNATE POND OUTFALL OPTION 2 CHANNEL THROUGH TOWN LANDS

PROJECT No.	DATE	SCALE	DWG No.
21-678	NOV. 2025	1:750	OUT-1

P:\PROJECTS\21-678 - 150 STEELES AVE E. (MEATT COMM - MILTON - HALTON)\REPORTS\FUNCTIONAL SERVICING REPORT\DRAWINGS & FIGURES_DESIGN BASED\21-678-GRADING BASE+ALTERNATE OUTFALL 2.DWG





KEY PLAN

LEGEND

- SUBJECT LANDS
- EXTERNAL LANDS
- NHS LANDS
- OPEN SPACE
- NORMALIZED WOODLAND LIMIT
- PHYSICAL TOP OF BANK (STAKED BY CONSERVATION HALTON JUL 16, 2021)
- 15m BUFFER FROM TOP OF BANK
- LIMIT OF RECREATED WETLAND
- 15m BUFFER FROM WETLAND
- 30m BUFFER FROM WETLAND
- EXISTING CONTOUR
- EXISTING ELEVATION
- PROPOSED ELEVATION
- EXISTING OVERLAND FLOW ROUTE
- PROPOSED OVERLAND FLOW ROUTE
- 3:1 TRANSITION GRADING

BENCHMARK

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150 STEELES AVENUE EAST (MERITOR)
TOWN OF MILTON

ALTERNATE POND OUTFALL OPTION 3 PIPE & CHANNEL THROUGH TOWN LANDS

PROJECT No.	DATE	SCALE	DWG No.
21-678	NOV. 2025	1:750	OUT-3

P:\PROJECTS\21-678 - 150 STEELES AVE E. (MEATT COMM)- MILTON - HALTON\REPORTS\FUNCTIONAL SERVICING REPORT\DRAWINGS & FIGURES_DESIGN BASED\21-678-GRADING BASE-ALTERNATE OUTFALL 3.DWG

Appendix E

Landscape Architect's Certificate of Completion

January 30, 2025 BEL 221265

Mr. Mike Vernooy
Neatt Communities
775 Main St. E.
Milton, On L9T 3Z3

via email: mike@neattcommunities.com

Re: Certificate of Completion for the Restoration and Buffer Plans, Drawing # L-0 to L-9 dated October 13, 2023, and Restoration Planting Plans Drawing # L0 to L-6 dated August 27, 2024, at 150 Steeles Ave., Town of Milton, Regional Municipality of Halton

Dear Mike,

Please accept this letter as certification that as of June 21 2024, the Restoration and Buffer Plans constructed at the above noted address have been completed in accordance with the approved plans (Stamped November 1 2023) and to the satisfaction of Beacon Environmental. The 2-year warranty period begins on June 21, 2024 and will continue through to June 21, 2026.

This letter also certifies that as of November 8, 2024, the Restoration Planting Plans, Drawing L-1 to L-6 were implemented tothe satisfaction of Beacon Environmental. The 2-year warranty period begins on November 8, 2024 and will continue through to November 8, 2026.

Should you have any questions, please contact the undersigned at scrispin@beaconenvironemtal.com or 519-400-9491.

Prepared by:
Beacon Environmental Ltd.

Stephan Crispin, B.L.A, OALA, CSLA,
Senior Landscape Architect

Reviewed By:
Beacon Environmental Ltd.

Jean-Marc Daigle, B.L.A., M.E.S., OALA, CSLA
Senior Landscape Architect

BEACON ENVIRONMENTAL

Appendix F

Restoration Area Photo Log

Photograph 1. NHS Restoration and Adjacent NHS, South-Facing View (Oct 16, 2024).

Photograph 2. Wetland (foreground) and Enhancement Area (background), South-Facing.

Photograph 3. Enhancement Area: Former Buckthorn Thicket with Native Trees and Shrubs.

Photograph 4. Eastern Portion of Woodland Restoration. Note photo predates topsoiling.

Photograph 5. Western Portion of Woodland Restoration and NHS Enhancement Area.