110394936 CANADA INC.

TREE CONSERVATION REPORT

8600 Jeanne-d'Arc Blvd N.

CIMA+ file number: A001295
May 23, 2023 – Review 000

110394936 CANADA INC.

TREE CONSERVATION REPORT

8600 Jeanne-d'Arc Blvd N.

Prepared by:

Casey Little, DipEM
Senior Environment Professional

Verified by:

Michelle Lavictoire, B. Sc., M.Sc.
Senior Biologist/ Senior Project Manager

CIMA+

600–1400 Blair Towers Place, Ottawa, ON
Canada K1J 9B8

CIMA+ file number: A001295
May 23, 2023 – Review 000

Confidentiality and ownership

Table of involved resources

In addition to the signatories of this report, the following individuals have also been involved in the study and writing of the report as technical experts within the project team:

Name	Discipline
Amal Siddiqui	Environmental Professional

Review and submission register			
Review No.	**Reviewed by**	**Date**	**Description of the change or submission**
000	ML	2023-05-23	QA/QC

Table of contents

List of Tables

List of Figures

List of Appendices

1. Introduction

CIMA+ has been retained by 110394936 Canada Inc. (Brigil) to prepare a Tree Conservation Report (TCR) for the planned development located at 8600 Jeanne-d'Arc Blvd N. in the Geographic Township of Cumberland, City of Ottawa (Site). This report follows the *City of Ottawa Tree Conservation Report Guidelines* (City of Ottawa, 2021). The field work was completed by Casey Little who has an Ecosystems Management Diploma and has 16 years of experience completing natural environment assessments, including tree inventories. Ms. Little is also a certified Butternut Health Assessor (#530) and is trained and certified in Ecological Land Classification (ELC) for Southern Ontario, and Ontario Wetland Evaluation System (OWES).

1.1 Project Location

The subject lands are roughly 7.5 ha and are bordered by Jeanne D'Arc Blvd North to the north and Regional Road 174 to the south. They are approximately 400 m west of Tweddle Road, immediately west of La Cité. They form part of Lots 31 and 32 Concession 1 in the Geographic Township of Cumberland, City of Ottawa. The development proposal for the Site consists of residential housing which will be fully serviced. No stormwater management ponds are anticipated. The EIS being completed by **CIMA+** for this project will address any other natural heritage features (including species at risk).

Refer to **Figure 1** below to view the Site location.

1.2 Objective

The intention of this TCR is to determine what woody vegetation should be retained and protected on the Site. In the paragraphs below, we have outlined the field methodology and findings and provided recommendations on tree protection within the Site. With respect to natural elements, these will be included solely within the EIS (i.e., Significant Woodlands, Species at Risk and their habitat). Any mitigation measures included herein are specifically with respect to individual trees to be retained and or injured, and these will also be included in the main body of the EIS.

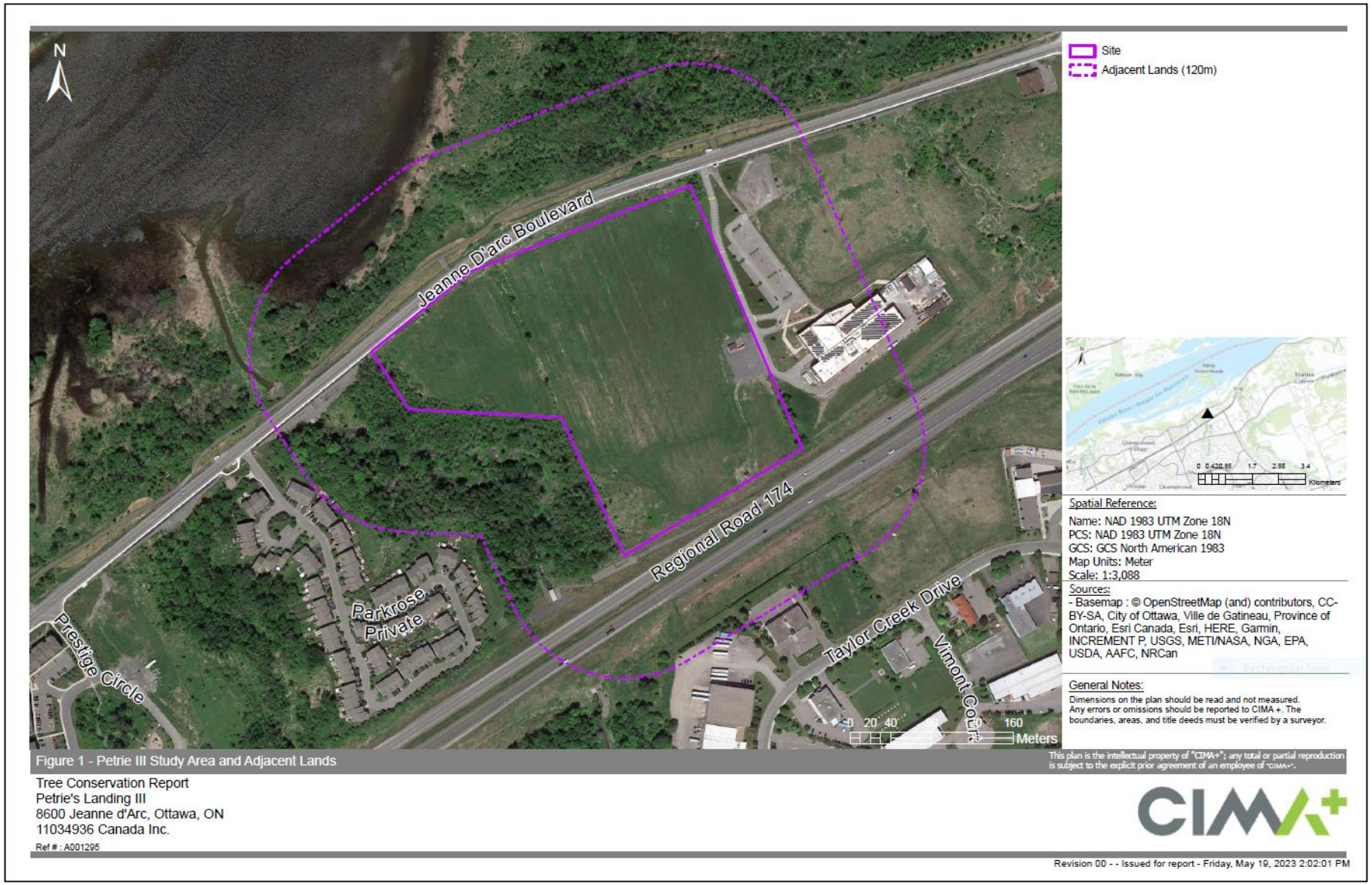


Figure 1: Site Location and Adjacent Lands

2. Limitations

The assessment presented in this report has been made using accepted standard arboriculture techniques as outlined in the *Council of Tree and Landscape Appraisers Guide for Plant Appraisal, 10th Edition, Second Printing (2020)*. These techniques include visual examination of above-ground parts of each tree or trees in each group. The trees observed were not climbed, cored, or dissected, and excavation for detailed root crown inspection was not performed. Since some symptoms may only be present seasonally, the extent of observations that can be made may be limited by the time of year in which the inspection took place.

Since trees are living organisms, their health and vigour continually change over time due to seasonal variations, changes in site conditions, and other factors. For this reason, the assessment presented in this report is valid at the time of inspection, and no guarantee is made about the continued health of trees that are deemed to be in good condition. It is recommended that the trees be reassessed periodically to identify changes in condition. While every standing tree has the potential for failure and therefore poses some risk, a tree assessment is a good indication of present health and potential problems that could arise in the future.

CIMA+ has prepared this report for the sole use of the client. Any use of this report by a third party, as any decision based on this report, is the singular responsibility of the third party. **CIMA+** will not be held responsible for eventual damages towards a third party resulting from decisions taken, or based, on this report.

3. Methodology

The tree inventory was undertaken on September 29, 2022. Trees were numbered, identified, measured, and assessed for condition. Information collected on the individual trees included:

- Their location (GPS coordinates, NAD83)
- Species
- Diameter at breast height (DBH)
- Approximate crown spread
- Condition

The assessment methodology is outlined in the sections below. The tree inventory table containing this information is included in **Appendix A** along with the figures that show the locations of the numbered trees assessed.

3.1 Tree Size

Size refers to trunk diameter at breast height (DBH or caliper) measured in centimetres at 1.4 m above the ground. Where trees had more than one trunk from the base, the size of each trunk was recorded. Where trees forked to codominant trunks, each trunk was measured, or the diameter was measured at the narrowest point below the fork.

3.2 Observations

Several structural defects and health problems are included in the Tree Inventory and Assessment Table (**Appendix A**). The following list provides an explanation of the short forms used in the table of the top eight (8) deficiencies observed on Site:

- DB - Dieback refers to the ends of branches dying, which is often associated with root problems.
- SMD - Small dead branches are an indicator of crown dieback and can be an early sign of stress.
- ADV - Adventitious shoots are vigorous growth of shoots from pruning cuts, inner branches, or along the trunk that usually occur in response to stress.
- COD - Codominant leaders (2 trunks or branches of approximately equal size) often have narrow branch angles and are associated with weak branch attachment. Strong branch attachments occur between 2 limbs of unequal size with enough space for branch enlargement and formation of a branch bark ridge.
- INC - Included bark is bark that has become embedded in a crotch where limbs join and causes weakened branch attachments. As the trunk and branch increase in diameter, the bark of each stem in the tight crotch begin to push apart, increasing the likelihood of failure.
- EAB - Emerald Ash Borer refers to a species of beetle native to East Asia that feeds on all species ash trees (Fraxinus spp.) during its larval stage. Typical symptoms of infection include

heavy seed set, dieback, splitting bark, and adventitious shoots. Almost all infected ash trees will die within a few years of infection.

- DED - Dutch Elm Disease. The leaves on the elm tree begin to wilt, curl, shrivel and turn brown on one or more branches. The foliage throughout the entire crown wilts and the tree dies.
- SUP - Suppressed trees are growing under the canopies of neighbouring trees, which can diminish vigour and affect structural form.

3.3 Tree Condition

Each tree was given an overall health condition rating of: Excellent, Good, Fair, Poor, or Dead. The following is a summary of how the ratings are determined:

- EXCELLENT: No apparent health problems; good structural form.
- GOOD: Minor problems with health and/or structural form.
- FAIR: Significant problems with health and/or structural form.
- POOR: Major problems with health and structural form.
- DEAD: Dead.

3.4 Tree Protection

The minimum Critical Root Zone (CRZ) of each tree canopy is illustrated on the drawings to help determine possible injury and branch pruning that may be required (**Appendix A**). The Comments section of the Tree Inventory Table also includes notes about tree form and canopy location that can help to determine pruning that may be required to accommodate construction equipment.

The CRZ was determined using the *City of Ottawa's Tree Conservation Report Guidelines*. The CRZ is established as being 10 centimetres from the trunk of a tree for every centimetre of trunk DBH measured in a radius around the tree. The CRZ is calculated as DBH x 10 cm.

Tree Impact (retain, prune, or remove) has been determined and is included in the Tree Inventory and Assessment Table in **Appendix A**.

4. Results

The dates, timing, and environmental conditions at the time of the assessments are presented below in **Table 1**. As noted in the introduction, the field work was completed by Casey Little.

Table 1: Site Investigation Details

Date	Start/End Time	Field Surveys	Weather Conditions
2022/10/29	0930 ~ 1400hrs	Visual assessment of all trees ≥10 cm dbh on-site	Temperature: 13°C Cloud cover / Precip: mixed sun/clouds, moderate wind.

The approximate 7.5 ha Site is comprised mainly of a mixed meadow ecosite dominated by a mix of grasses and broadleaf species. Woody vegetation in this community was limited, except for a few scattered Green Ash (*Fraxinus pennsylvanica*), and Bur Oak (*Quercus macrocarpa*), saplings, and Staghorn Sumac (*Rhus typhina*) and Red-osier Dogwood (*Cornus sericea*) shrubs in the southwest extents of the Site. Majority of the trees inventoried were located within the deciduous forest associated with Taylor Creek, situated in the western extent of the Site. This forest was dominated by young Green Ash, with scattered Bur Oak, White Elm (*Ulmus americana*), Eastern White Cedar (*Thuja occidentalis*), and White Pine (*Pinus strobus*). Two (2) fencerows are present on Site. One (1) situated within the north central portion of the Site comprised of White Elm and Green Ash, and the other runs along the southeastern extent of the Site, near La Cité, and consists of Bur Oak and Green Ash. The overall topography of the Site is flat. The adjacent lands to the east are fully developed (La Cité), with naturalized, undeveloped lands to the north and west, and Regional Road 174 to the south.

A total of 71 trees with a DBH of 10 cm or greater were assessed as part of this inventory within the Site boundaries. Of these, 36 were alive, and 35 were dead. The most common living species were Bur Oak (15%), Green Ash (13%), and White Elm (13%), and majority of the dead trees were Green Ash.

A summary of the trees surveyed on site is provided in **Table 2** and in the Tree Inventory and Assessment Table and Figures in **Appendix A**.

Table 2: Summary of Tree Inventory

Species	Count	Size Range (DBH cm)	Height Range (m)	Crown Spread (m)
Black Cherry	1	33	16-20	6
Bur Oak	11	10-68	4-21+	2-13
Green Ash	9	10-22	4-11	2-6
Manitoba Maple	1	13	4-7	6
Common Hackberry	2	12-13	4-11	2-4
Eastern White Pine	3	25-48	4-20	7-8
White Elm	9	13-34	8-20	3-6
Unknown/Dead	35	-	-	-
Total	**71**	**10-68**	**4-21+**	**2-13**

5. Impact Assessment

An impact assessment was undertaken to determine impacts to the trees within the site because of the proposed project construction. Trees recommended for removal include trees within or outside the limit of work that would not be able to withstand construction-related impacts, and all dead trees. Trees identified as being injured require work within the minimum CRZ; however, impacts to these trees are anticipated to be minor and it is likely that these trees will survive post construction. Trees identified as being retained are expected to be minimally damaged by the project and are proposed to be protected through mitigation measures outlined below.

Based on the species and conditions of the trees located within the site and the extent of the grading limits of the proposed project design it is recommended to remove 43 trees and retain 28. Of the trees recommended for removal, 35 are dead ash and/or elm, two (2) are ash in poor condition, and the remaining six (6) individuals are directly within the impact area. The 28 trees recommended for retention are all living and are situated outside the limits of construction.

The results of the impact assessment are summarized below in **Table 3.** Tree Impact (retain, prune, or remove) has been determined and is included in the Tree Inventory and Assessment Table and Figures in **Appendix A**.

Table 3: Impact Assessment for Trees on Site

Trees to be Removed	Trees to be Pruned	Trees to be Retained
43	0	28

6. Mitigation Measures and Construction Management

6.1 Tree Protection Measures

As noted above, avoidance and mitigation measures associated with other natural heritage features are in the EIS. The EIS must be referred to when planning the timing of tree removal.

The most typical construction damage to trees is root damage from compaction and severance. While the drip line of a tree's canopy is typically thought to be associated with the root area, the root zones can extend significantly beyond the drip line of the tree, sometimes up to 2 or 3 times the height of the tree. Some of the trees inventoried are growing close to the edge of the proposed construction and will be at risk of contact with, and damage from, heavy equipment. Generally, to protect trees, grade changes and construction activities that could cause soil compaction should be kept away from trees as much as possible.

To successfully preserve trees that are recommended for on-site retention, as well as those identified as being impacted, the following series of mitigation measures is recommended. These recommended measures largely center on the minimum CRZ of trees, as defined by the City's Tree Conservation Report Guidelines. The following measures are being recommended to protect the CRZ of all trees slated for retention and/or impact:

+ Refer to the most recent EIS for this project for the scheduling of tree removals to avoid impacting other natural heritage features (i.e., bird nests or species at risk or their habitat).
+ Delineation of the disturbance limits within work areas will be clearly defined on drawings and on the site prior to construction.
+ Install Tree Protection Fencing prior to commencement of construction activities, and retain fencing until construction activities have been completed, as per City of Ottawa's Tree Protection (By-law No. 2020-340), Part VI:
    - Tree protection fencing shall be at least 1.2 metres in height and installed in such a way that the fence cannot be altered.
+ Do not place any material or equipment within the CRZ of a tree.
+ Do not raise or lower the existing grade within the CRZ of a tree.
+ Do not extend any hard surface or significantly change landscaping.
+ If the construction will have to encroach into a tree's minimum CRZ, installing a temporary layer of 150 mm deep partially composed wood chips mulch over the root zone can help to protect roots from compaction damage, and conserve soil moisture levels.
+ Equipment and materials should not be stored near trees
+ Ensure that exhaust fumes from all equipment are not directed towards any tree's canopy.
+ Do not attach any signs, notices, or posters to trees.

- Ensure that site clearing is carried out only in areas where it is specifically required, and that the areas to be cleared are carefully and clearly delineated.

6.2 Tree and Root Pruning

- Do not damage the root system, trunk, or branches of any tree; if any roots are encountered during excavation while working outside the CRZ, they should be cut off cleanly with sharp pruning tools rather than allow them to be torn by large equipment; clean cuts will help to minimize decay and entry points for disease.
- All exposed roots of trees to be retained should be covered in a minimum of 5 cm of firm soil within 24 hours of exposure.
- If root pruning is implemented, the crown of the tree should be reduced proportionately under the direction of a Certified Arborist or Registered Forester, to decrease wind sail. Pruning should be kept to thinning cuts (no major limb removal), and crowns should be monitored, and maintenance carried out for two (2) years after root pruning to remove any dieback under the direction of a Certified Arborist or Registered Forester.
- If branches are likely to hang in the way of passing equipment, the branches should be pruned by a Certified Arborist or Registered Forester to avoid tearing and undue injury to the tree.
- All pruning work must be performed under the supervision and guidance of a qualified tree professional in accordance with the latest ANSI A300 Pruning Standards and best management practices identified by the International Society of Arboriculture.

7. Permits and Approvals

The City of Ottawa's Tree Protection By-law No. 2020-340 describes the rules that govern tree ownership in Ottawa and the responsibility of tree maintenance, including administration and enforcement. As per Part IV: Sections 42 – 44 Prohibition: *No person shall injure or destroy a tree without a permit*. Sections 45 to 48 - Application for tree permit stipulates the process to apply for a permit under this by-law.

Therefore, it is recommended that consultation should be undertaken with the City prior to construction to confirm the requirements for tree removal permits associated with the municipal tree protection by-law. Where required, tree removal permits must be obtained from the city prior to the start of construction.

8. Certification and Closure

We certify that all the statements of fact in this assessment are true, complete, and correct to the best of our knowledge and belief, and that they are made in good faith.

A

Appendix A
Tree Inventory and Assessment Table and Figure

APPENDIX A: Tree Inventory and Assessment Table

Tree No.	Common Name / Scientific Name	DBH (cm)	No. stems	Crown Spread (m)	Structural Defects[i]								Overall Condition[ii]	Comments	Ownership	CRZ (m from trunk)	Recommendation
					DB	SMD	COD	INC	ADV	EAB	DED	SUP					
1	Green Ash / *Fraxinus pennsylvanica*	13	2	3	☑	☐	☐	☐	☑	☑	☐	☐	Fair	Main stem dead, EAB	Property Boundary	1.3	Remove
2	Green Ash / *Fraxinus pennsylvanica*	13	2	5	☑	☐	☐	☐	☑	☑	☐	☐	Poor	Main stem dead; EAB	Property Boundary	1.3	Remove
3	Bur Oak / *Quercus macrocarpa*	13	1	3	☐	☐	☐	☐	☐	☐	☐	☐	Good		Property Boundary	1.3	Retain
4	Bur Oak / *Quercus macrocarpa*	56	2	9	☑	☑	☐	☐	☐	☐	☐	☐	Good		Property Boundary	5.6	Retain
5	Bur Oak / *Quercus macrocarpa*	41	1	8	☐	☑	☐	☐	☐	☐	☐	☐	Good		Property Boundary	4.1	Retain
6	Bur Oak / *Quercus macrocarpa*	10	1	2	☑	☑	☐	☐	☐	☐	☐	☑	Fair		Property Boundary	4.2	Retain
7	Bur Oak / *Quercus macrocarpa*	42	2	9	☑	☑	☐	☐	☐	☐	☐	☐	Good		Property Boundary	1	Retain
8	Bur Oak / *Quercus macrocarpa*	21	1	3	☑	☑	☐	☐	☐	☐	☐	☑	Good		Property Boundary	2.1	Retain
9	Bur Oak / *Quercus macrocarpa*	63	1	13	☑	☑	☐	☑	☐	☐	☐	☐	Good		Property Boundary	6.3	Retain
10	White Elm / *Ulmus americana*	18	1	4	☐	☑	☐	☐	☑	☐	☐	☐	Fair		Property Boundary	1.8	Retain
11	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Property Boundary		Remove
12	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Property Boundary		Remove
13	Bur Oak / *Quercus macrocarpa*	68	1	9	☑	☑	☐	☐	☑	☐	☐	☐	Good		Property Boundary	6.8	Retain
14	Bur Oak / *Quercus macrocarpa*	17	2	5	☑	☑	☑	☑	☑	☐	☐	☑	Fair	Covered in wild grape	Private	1.7	Retain

Tree No.	Common Name / Scientific Name	DBH (cm)	No. stems	Crown Spread (m)	Structural Defects[i]								Overall Condition[ii]	Comments	Ownership	CRZ (m from trunk)	Recommendation
					DB	SMD	COD	INC	ADV	EAB	DED	SUP					
15	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
16	Bur Oak / *Quercus macrocarpa*	12	1	3	☐	☐	☐	☐	☐	☐	☐	☐	Good		Private	1.2	Retain
17	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
18	White Elm / *Ulmus americana*	26	1	6	☐	☐	☐	☐	☐	☐	☑	☐	Fair		Private	2.6	Retain
19	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
20	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
21	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
22	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead	Within impact area	Private		Remove
23	Common Hackberry / *Celtis occidentalis*	12	1	2	☑	☑	☐	☐	☐	☐	☐	☑	Fair	Covered in Virginia creeper; within impact area	Private		Remove
24	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead	Within impact area	Private		Remove
25	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead	Within impact area	Private		Remove
26	White Elm / *Ulmus americana*	34	1	4	☑	☑	☑	☑	☐	☐	☑	☐	Fair	Within impact area	Private		Remove
27	White Elm / *Ulmus americana*	32	1	4	☐	☐	☐	☐	☐	☐	☐	☐	Good	Within impact area	Private		Remove
28	White Elm / *Ulmus americana*	19	1	3	☐	☐	☐	☐	☐	☐	☐	☑	Good	Within impact area	Private		Remove
29	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead	Within impact area	Private		Remove
30	White Elm / *Ulmus americana*	25	1	5	☐	☐	☐	☐	☐	☐	☐	☑	Fair	Covered in wild grape; within impact area	Private		Remove

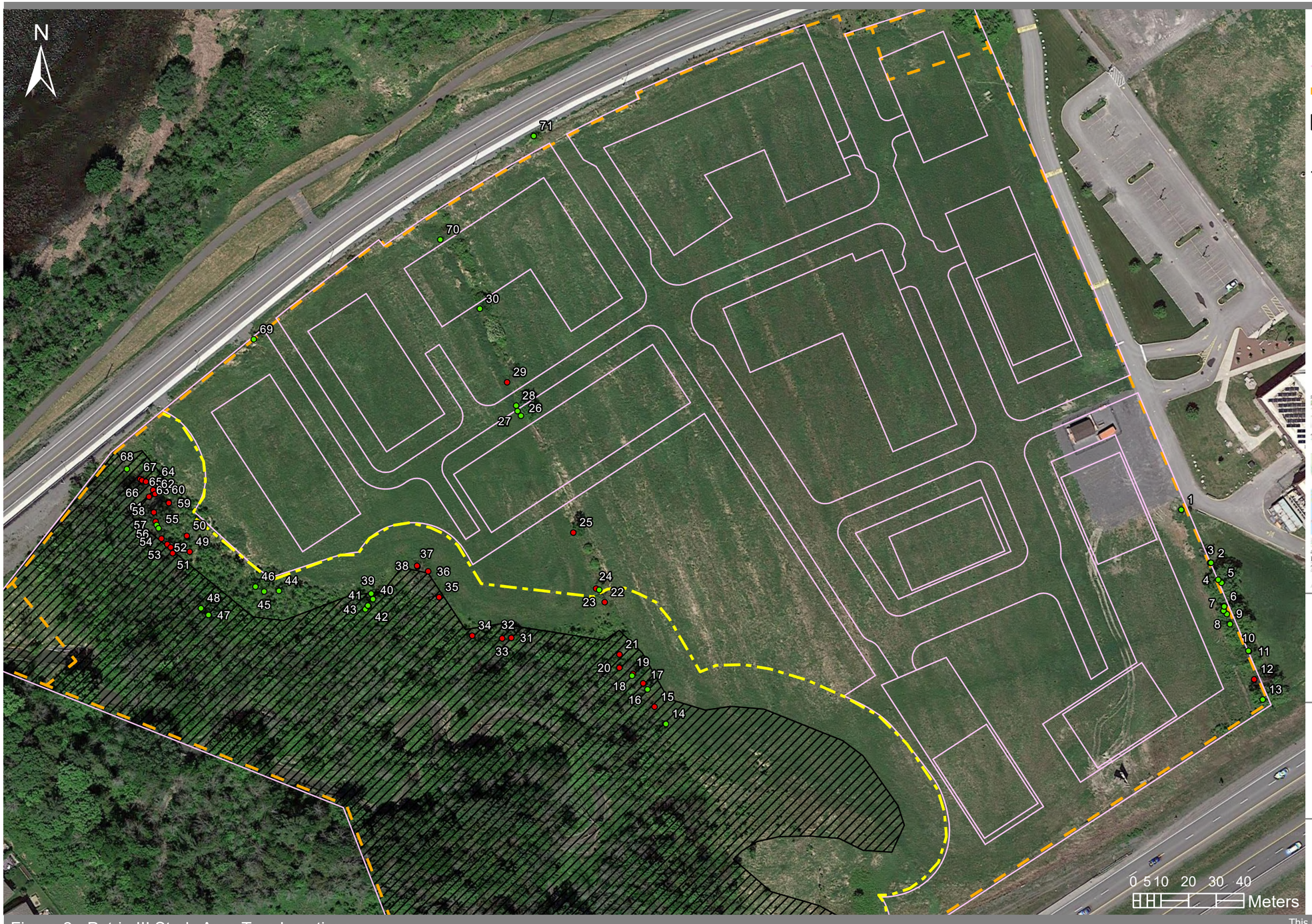
Tree No.	Common Name / Scientific Name	DBH (cm)	No. stems	Crown Spread (m)	Structural Defects[i]								Overall Condition[ii]	Comments	Ownership	CRZ (m from trunk)	Recommendation
					DB	SMD	COD	INC	ADV	EAB	DED	SUP					
31	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
32	Bur Oak / *Quercus macrocarpa*	27	1	7	☑	☑	☐	☐	☐	☐	☐	☐	Good		Private	2.7	Retain
33	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
34	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
35	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
36	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
37	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
38	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
39	Green Ash / *Fraxinus pennsylvanica*	10	1	2	☑	☐	☐	☐	☐	☑	☐	☐	Poor		Private	1	Retain
40	White Elm / *Ulmus americana*	22	1	3	☐	☐	☐	☐	☐	☐	☑	☑	Fair	Covered in wild grape	Private	2.2	Retain
41	Common Hackberry / *Celtis occidentalis*	13	1	4	☐	☐	☐	☐	☐	☐	☐	☐	Good		Private	1.3	Retain
42	Black Cherry / *Prunus serotina*	33	1	6	☑	☑	☑	☑	☐	☐	☐	☐	Fair		Private	3.3	Retain
43	White Elm / *Ulmus americana*	13	1	3	☐	☐	☐	☐	☐	☐	☑	☐	Poor		Private	1.3	Retain
44	Green Ash / *Fraxinus pennsylvanica*	16	1	3	☐	☐	☐	☐	☐	☑	☐	☐	Poor		Private	1.6	Retain
45	Green Ash / *Fraxinus pennsylvanica*	11	1	2	☐	☐	☐	☐	☐	☑	☐	☐	Fair		Private	1.1	Retain
46	Green Ash / *Fraxinus pennsylvanica*	13	1	2	☐	☐	☐	☐	☐	☑	☐	☐	Fair		Private	1.3	Retain
47	Eastern White Pine / *Pinus strobus*	27	1	8	☐	☐	☐	☐	☐	☐	☐	☐	Excellent		Private	2.7	Retain

Tree No.	Common Name / Scientific Name	DBH (cm)	No. stems	Crown Spread (m)	Structural Defects[i]								Overall Condition[ii]	Comments	Ownership	CRZ (m from trunk)	Recommendation
					DB	SMD	COD	INC	ADV	EAB	DED	SUP					
48	Eastern White Pine / *Pinus strobus*	25	1	7	☐	☐	☐	☐	☐	☐	☐	☐	Excellent		Private	2.5	Retain
49	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
50	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
51	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
52	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
53	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
54	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
55	White Elm / *Ulmus americana*	17	1	3	☑	☐	☐	☐	☑	☐	☑	☐	Fair	Leaning east into study area	Private	1.7	Retain
56	Eastern White Pine / *Pinus strobus*	48	1	8	☐	☐	☐	☐	☐	☐	☐	☐	Poor		Private	4.8	Retain
57	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
58	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
59	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
60	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
61	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
62	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
63	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
64	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove

Tree No.	Common Name / Scientific Name	DBH (cm)	No. stems	Crown Spread (m)	Structural Defects[i]								Overall Condition[ii]	Comments	Ownership	CRZ (m from trunk)	Recommendation
					DB	SMD	COD	INC	ADV	EAB	DED	SUP					
65	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
66	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
67	Dead				☐	☐	☐	☐	☐	☐	☐	☐	Dead		Private		Remove
68	Green Ash / *Fraxinus pennsylvanica*	18	1	3	☑	☐	☐	☐	☑	☑	☐	☐	Poor	Only small stem of branch is living.	Private	1.8	Retain
69	Green Ash / *Fraxinus pennsylvanica*	10	1	6	☐	☐	☑	☐	☐	☐	☐	☐	Fair	Small clump growing out of cut trunk, Multiple stems <10cm	Property Boundary	1	Retain
70	Green Ash / *Fraxinus pennsylvanica*	22	1	3	☐	☐	☐	☐	☐	☑	☐	☐	Poor	Only suckers <10 cm living off main dead stem; within impact area	Private	2.2	Remove
71	Manitoba Maple / *Acer negundo*	16	2	6	☑	☑	☑	☑	☐	☐	☐	☐	Fair	Large scar on trunk	City		Retain

[i] DB - Dieback refers to the ends of branches dying, which is often associated with root problems.
SMD - Small dead branches are an indicator of crown dieback and can be an early sign of stress.
ADV - Adventitious shoots are vigorous growth of shoots from pruning cuts, inner branches, or along the trunk that usually occur in response to stress.
COD - Codominant leaders (2 trunks or branches of approximately equal size) often have narrow branch angles and are associated with weak branch attachment. Strong branch attachments occur between 2 limbs of unequal size with enough space for branch enlargement and formation of a branch bark ridge.
INC - Included bark is bark that has become embedded in a crotch where limbs join and causes weakened branch attachments. As the trunk and branch increase in diameter, the bark of each stem in the tight crotch begin to push apart, increasing the likelihood of failure.
EAB - Emerald Ash Borer refers to a species of beetle native to East Asia that feeds on all species ash trees (Fraxinus spp.) during its larval stage. Typical symptoms of infection include heavy seed set, dieback, splitting bark, and adventitious shoots. Almost all infected ash trees will die within a few years of infection.
DED - Dutch Elm Disease. The leaves on the elm tree begin to wilt, curl, shrivel and turn brown on one or more branches. The foliage throughout the entire crown wilts and the tree dies.
SUP - Suppressed trees are growing under the canopies of neighbouring trees, which can diminish vigour and affect structural form.

[ii] Excellent: No apparent health problems; good structural form.
Good: Minor problems with health and/or structural form.
Fair: Significant problems with health and/or structural form.
Poor: Major problems with health and structural form.
Dead: Dead.

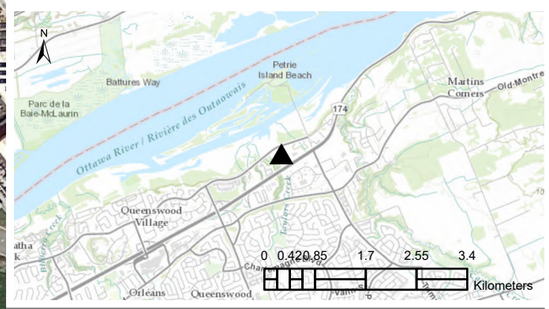


Legend

- Site Plan
- Lots
- Top of Slope
- Top of Slope - 15 m Setback

Tree Locations

- Alive
- Dead



Spatial Reference:

Name: NAD 1983 UTM Zone 18N
PCS: NAD 1983 UTM Zone 18N
GCS: GCS North American 1983
Map Units: Meter
Scale: 1:1,440

Sources:

- Basemap : © OpenStreetMap (and) contributors, CC-BY-SA, City of Ottawa, Ville de Gatineau, Province of Ontario, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCan

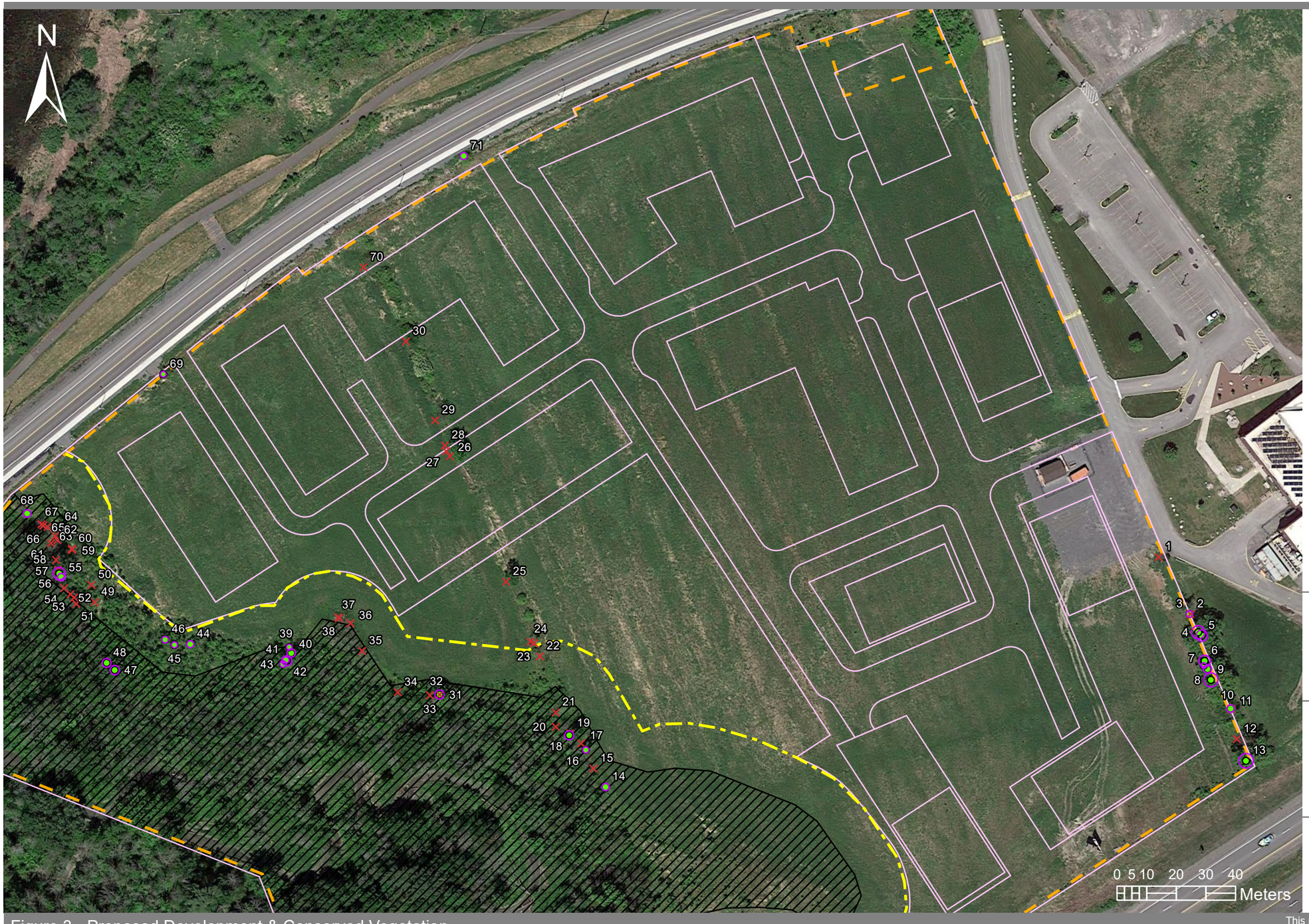
General Notes:

Dimensions on the plan should be read and not measured.
Any errors or omissions should be reported to CIMA +. The boundaries, areas, and title deeds must be verified by a surveyor.

Figure 2 - Petrie III Study Area Tree Locations

Tree Conservation Report
Petrie's Landing III
8600 Jeanne d'Arc, Ottawa, ON
11034936 Canada Inc.
Ref # : A001295

Survey by : C. Little
Figure by : J. Scott, A. Siddiqui
Concept by : C. Little
Verified by : M. Lavictoire



Lots
Site Plan
Top of Slope
Top of Slope - 15 m Setback

Recommendation

Remove
Retain

Tree Protection

Critical Root Zone

Spatial Reference:

Name: NAD 1983 UTM Zone 18N
PCS: NAD 1983 UTM Zone 18N
GCS: GCS North American 1983
Map Units: Meter
Scale: 1:1,339

Sources:

- Basemap : © OpenStreetMap (and) contributors, CC-BY-SA, City of Ottawa, Ville de Gatineau, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan, City of Ottawa, Ville de Gatineau, Province of Ontario, Esri Canada, Esri,

General Notes:

*CRZs with small diameters may not be visible at this scale.
Dimensions on the plan should be read and not measured.
Any errors or omissions should be reported to CIMA +. The boundaries, areas, and title deeds must be verified by a surveyor.

Figure 3 - Proposed Development & Conserved Vegetation

Tree Conservation Report
4386 Rideau, Ottawa, ON
Uniform Urban Developments Ltd.

Ref # : A001244-104

Survey by : C. Little
Figure by : J. Scott
Concept by : C. Little
Verified by : M. Lavictoire