GEMTEC
www.gemtec.ca

Tree Conservation Report
Zoning By-Law Amendment
910 March Road
Ottawa, Ontario

experience • knowledge • integrity expérience • connaissance • intégrité

GEMTEC
www.gemtec.ca

Submitted to:

Canadian Rental Development Services Inc.
206-555 Legget Drive (Tower A)
Ottawa, Ontario
K2K 2X3

Tree Conservation Report
Zoning By-Law Amendment
910 March Road
Ottawa, Ontario

May 4, 2023
Project: 100011.014_V02

experience • knowledge • integrity

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Canadian Rental Development Services Inc. to carry out a Tree Conservation Report (TCR) for the property located at 910 March Road, in Ottawa, Ontario, hereafter referred to as the "subject property". The site location is provided in Figure A.1 in Appendix A.

1.1 Purpose

The proponent is seeking a zoning by-law amendment for the property located at 910 March Road, in Ottawa, Ontario for future development. As a component of the zoning amendment application, the City of Ottawa is requesting a TCR for the collective property. In accordance with the City of Ottawa's Tree Protection (By-law No. 2020-340) a TCR is required to identify trees to be retained and protected under future development scenarios and, where feasible, identify opportunities to offset the loss of trees that cannot be retained or contribute to the City's forest cover targets.

The property has an approximate size of 2.71-hectares (ha). The proposed site development includes a mixed-use apartment building with road access via March Road. The existing site layout and proposed development is provided in Figure A.2 and Figure A.3, respectively, in Appendix A.

1.2 Definitions

Terms and abbreviations used throughout the remainder of this report are summarized below.

Diameter at Breast Height (DBH), is defined as the diameter of the tree trunk measured at a height of 1.2 metres above ground surface for trees of 10 centimeters in diameter and greater.

Critical Root Zone (CRZ), is defined as the ground area within a circumference around the tree trunk calculated as 10 centimeters from the trunk of the tree for every one centimeter of tree truck diameter at breast height.

Distinctive Tree, within the City of Ottawa, is defined as any tree with a DBH of 30 cm or greater within the inner urban area and with a DBH of 50 cm or greater within the suburban area and rural area. For the purposes of this report, a distinctive tree is considered to be a tree with a DBH of 50 cm or greater, as the subject property is located within the suburban boundary.

2.0 METHODOLOGY

2.1 Desktop Review

To complete the TCR, digital colour air photos of the site available from GeoOttawa were reviewed from 1976 to 2021 to identify natural features, including historical trees, present on-site and in the vicinity of the site.

Based on a review of historical air photos, the general surrounding area has seen an increase in residential and commercial development between 1999 – 2011, whereas the site has not undergone any significant change since at least 2007. Development on-site has been present since 1976, with the site at present day configuration since 2021. No alterations to land use were noted during review.

2.2 Field Investigations

In addition to the completion of a desktop review of historical air photos, a site visit was conducted on January 18, 2023, from 08:00 to 12:00, to document and identify all trees on-site with a DBH greater than 10 cm. The site investigation utilized transects bisecting the property to document the health of each tree greater than 10 cm in DBH, the trees location and the tree species.

To determine the presence or absence of species at risk on-site and adjacent to site, butternut were searched for during the transect surveys.

Site conditions during the site investigation were as follows: -2°C, 100% cloud cover, Beaufort 3 and light flurries.

Site photographs taken during the field investigations are provided in Appendix B.

3.0 RESULTS

3.1 Existing Conditions

Development on-site currently consists of an abandoned log building, storage containers and temporary site buildings. Other existing features on the property include road access to 910 March Road, existing driveways for site access, and gravel areas for parking. Existing development, including the existing structures and associated parking areas, occupies a combined approximate area of 1.05 ha. Impermeable surfaces account for 39% of the total property area.

Outside of the existing development, the subject site consists of the riparian areas of the Shirley's Brook tributaries that flow along the north and east property boundaries. A stormwater outfall and associated watercourse is present off-site, immediately adjacent to the south. Numerous trees are present on the property, primarily along the property lines. A summary of all trees on-site is provided in Section 3.2 below.

The land use in the vicinity of the site is characterized by agriculture, commercial and residential land uses. Natural environmental features in the vicinity of the project, as summarized in Table 3.1 below, include surface water features. Surface water features on-site include the stormwater outfall, associated watercourse and Shirley's Brook tributaries.

Based on NHIC observation data, the following Species at Risk (SAR) have been observed within 1 km of the subject property: barn swallow (avian SAR), eastern small-foot myotis, little brown myotis, tri-colored bat (mammalian SARs), Blanding's turtle (reptilian SAR) and butternut (tree SAR). No SAR species were identified on-site or in the area immediately adjacent to the property during the site investigation. However, based conservatively on the NHIC observation data, the KNUEA EMP (DST, 2015; Novatech, 2016), and observation data from the McKinley EIS (2020), the subject site contains regulated Category 2 and Category 3 habitat for Blanding's turtle. Butternut trees were specifically targeted for presence/absence during the survey, however no butternut were observed on-site or within the study area.

There are no other natural environmental features in the vicinity of the project, as summarized in Table 3.1 below.

Table 3.1 Summary of Natural Features Present On-site or Adjacent to Site

Natural Feature	Present On-site or Adjacent
Surface water or wetlands present	Present
Steep slopes, valleys or escarpments	None
Urban Natural Features or Natural Environment Areas	None
Significant Woodlands	None
Greenspace Linkages	None

High Quality Specimen Trees	None
Rare plant communities or unique environmental features	None
Presence of Species at Risk	Present – suitable Blanding's turtle habitat within watercourse
Significant Wildlife Habitat	Present – On-site watercourse may support fish habitat

3.2 Tree Inventory Summary

A tree inventory was conducted on January 18, 2023. Trees on-site were identified, enumerated and assessed for visual signs of distress and disease. Table C.1 in Appendix C provides a summary of all tree specimens on-site whose DBH was greater than 10 cm. CRZ values for trees with DBH greater than 10 cm are also present in Table C.1 in Appendix C. CRZ were not calculated for dead trees. The square root of the sum of squares method was used to calculate the DBH of trees with multiple stems. All trees with a DBH greater than 10 cm and their CRZ are illustrated on Figure A.4, in Appendix A.

Per the City of Ottawa's Tree Protection (By-law No. 2020-340), 16 trees on the subject site, were identified as a distinctive tree (DBH > 50 cm). Table 3.2 below details the results. For the purpose of this report, dead standing trees were not included in the distinctive tree list, even if the DBH was greater than 50 cm.

Table 3.2 Summary of Distinctive Trees Present On-Site or Adjacent

Tree #	Species	DBH (cm)	Condition
2	Manitoba Maple	50	Healthy
7	Willow sp.	58	Healthy
12	Manitoba Maple	64	Healthy
20	Willow sp.	151	Healthy
28	Willow sp.	55	Healthy
81	Willow sp.	54	Healthy
98	Crabapple	59	Good
113	Black Cherry	54	Healthy
114	Black Cherry	57	Healthy
132	Black Cherry	57	Healthy
133	Manitoba maple	74	Healthy

None of the trees identified on-site are listed under the provincial Endangered Species Act.

In general, the tree community assemblage can be described as containing a few mature and semi-mature trees. Dominant tree species on-site were represented by Manitoba maple (*Acer negundo*) in areas of disturbance and willow species (*Salix* sp.) along the watercourses. Most of

the observed ash species identified on-site were of poor health or dead, likely due to the presence of emerald ash borer. Many of the ash species were observed to have epicormic shoots (young shoots growing from near the base of the tree) indicative of stress and poor health conditions. The majority of other tree species were observed to be in good or healthy conditions.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on a review of the information summarized in Section 3.2, Table C.1 in Appendix C and the proposed development concept illustrated on Figure A.3, the following conclusions are provided:

- Out of 143 trees identified on-site with a DBH greater or equal to 10 cm, 132 were identified as retainable and 11 trees as non-retainable;
- 16 distinctive trees, meeting the City of Ottawa's Tree Protection (By-law No. 2020-340), requirements of DBH > 50 cm, were identified on-site, 1 of which was identified as not retainable under the current development plan;
- Trees on-site are of a typical upland or early successional species;
- 107 trees are in good/healthy condition and 36 trees are in poor or dead condition;
- 27 of the trees present on-site were observed to provide potential wildlife habitat (snag, active nest), 1 of which is identified as not retainable under the current development plan;
- No Butternut trees were identified on-site or in the area immediately adjacent to site;
- None of the 143 trees present on-site are protected under the Endangered Species Act, Ontario 2007;
- None of the trees on-site were identified to represent High Quality Specimen Tree; and
- All trees identified to be retained or with a Critical Root Zone Conflict will have their existing elevations around the critical root zone maintained;

4.1 Tree Conservation Recommendations

As discussed above, none of the trees on-site represent exceptional tree specimens, rare communities, nor do they provide any conservation value or great ecological benefit. Based on the proposed development plan it is assumed that 143 of the identified trees on the subject property are retainable. Future development plans should give consideration to maintaining the distinctive trees identified in this report, in addition to other healthier more mature trees.

Future development that requires vegetation clearing should be offset through landscape planting. Consideration should be given to landscape planting with native tree species indicative of the Great Lakes – St. Lawrence Forest Region, such as white cedar, white spruce, red maple and red oak.

4.2 Recommended Mitigation Measures

The following mitigation measures and best practice recommendations are provided by GEMTEC in order to minimize and eliminate negative impacts to trees identified in Appendix C as retainable during potential future construction. Construction contractors shall apply the following measures outlined below to prevent damage to trees identified to be retained in the redevelopment plan for the site;

- All trees identified to be retained should be clearly marked and the CRZ delineated with fencing to prevent encroachment and damage during construction. General prohibitions of activities within the fencing include:
    - No placement of construction material (including fill and equipment);
    - No construction activities (i.e. grading, machine operation, etc.) to avoid soil compaction and direct injury to the tree or its root system; and
    - No refueling or disposal of liquids.
    - Do not attach any signs, notices or posters to any tree identified to be retained;
- Tree protection should follow the tree protection specification provided by the City of Ottawa (2019). The Specification is provided in Appendix D;
- As per the City of Ottawa's Tree Protection (By-law No. 2020-340), a tree compensation plan may be brought forth by the City of Ottawa, by means of offsetting overall tree and vegetation removal;
- If existing pavement surface around trees to be retained is going to be removed than temporary fencing should be installed to delineate the CRZ of each tree;
- If trees to be removed overlap with the CRZ of trees to be retained, cut roots at the edge of the retained CRZ and grind down stumps after tree removal, do not pull out stumps. If roots must be cut, roots 20 cm or larger should be cut at right angles with clean, sharp, horticultural tools, without tearing, crushing, or pulling;
- All tree service activities (i.e. removal, branch / root pruning, etc.) will be completed by or under the direction of an ISA certified arborist;
- Do not damage the root system, trunk, or branches or any tree identified to be retained;
- Ensure that exhaust fumes from all equipment are directed away from tree canopy; and
- For the protection of migratory birds and SAR bat species, tree removal shall occur outside of March 15 – November 30 of any given year, to avoid the key breeding bird period as identified by Environment Canada and the bat active season as identified by the Ministry of Environment, Conservation and Parks (MECP). Adhering to the timing window will also avoid contravention of the Migratory Bird Convention Act and the Endangered Species Act. If vegetation clearing activities must take place outside of the aforementioned timing window than a nest and roost survey shall be conducted by a qualified professional.

5.0 CLOSURE

This letter and the work referred to within it have been undertaken by GEMTEC Consulting Engineers and Scientists Ltd. (GEMTEC), and was prepared for Canadian Rental Development Services Inc. and is intended for the exclusive use of Canadian Rental Development Services Inc. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and Canadian Rental Development Services Inc. Nothing in this report is intended to provide a legal opinion.

The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

This letter has been prepared for the application notes and it is based in part, on visual observations made at the site, all as described in the report. Unless otherwise states, the findings contained in this report cannot be extrapolates or extended to previous or future site conditions or for portions of the site that were unavailable for direct investigation.

Should new information become available during future work, or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions present herein.

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

Sincerely,

Emily Young, B.Sc.
Junior Biologist

Drew Paulusse, B.Sc.
Senior Biologist

6.0 REFERENCES

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2019. Natural Heritage Information Centre. Make a Map: Natural Heritage Areas.

Ottawa, City of (Ottawa). 2022, City of Ottawa Official Plan.

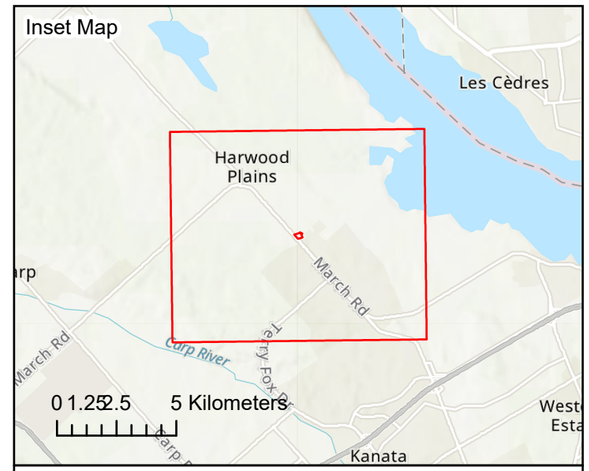
Ottawa, City of (Ottawa), By-law No. 2020-340, Tree Protection (Updated: January, 2021).

APPENDIX A

Report Figures

Legend

- Property Boundary
- Study Area



Scale
1:25,000
0 200 400 800 1,200 1,600 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client:	Project:
Canadian Rental Development Services Inc.	100011.014

Location
910 March Road
Ottawa, Ontario

Drwn By:	Chkd By:	
EP	TW	Site Location

Date: January 2023	Rev.	
	0	Figure: A.1

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Topographic Map: City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, NRCan, Parks Canada
World Street Map: City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada

Legend

- Property Boundary
- Study Area
- Watercourse

Scale
1:1,900
0 15 30 60 90 120 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client: Canadian Rental Development Services Inc.	Project: 100011.014
Location: 910 March Road Ottawa, Ontario	
Drwn By: EP / Chkd By: TW	Site Layout
Date: January 2023	Rev. 0

Figure: A.2

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: Hybrid Reference Layer: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
City of Ottawa 2021 Imagery:

Legend

- Property Boundary
- Study Area
- Watercourse

Development Concept

- Building
- Private Road / Parking
- Sidewalk

Scale
1:1,900
0 15 30 60 90 120 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client: Canadian Rental Development Services Inc.	Project: 100011.014
Location: 910 March Road Ottawa, Ontario	
Drwn By: EP / Chkd By: TW	Development Concept
Date: January 2023	Rev. 0
	Figure: A.3

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: Hybrid Reference Layer: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
City of Ottawa 2021 Imagery:

Legend

- Property Boundary
- Study Area
- Watercourse
- Development Concept

Tree with DBH Greater than 10 cm

- Dead
- Alive

Scale 1:1,900

0 15 30 60 90 120 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client: Canadian Rental Development Services Inc.	Project: 100011.014
Location: 910 March Road Ottawa, Ontario	
Drwn By: EP / Chkd By: TW	Tree Inventory
Date: January 2023	Rev. 0

Figure: A.4

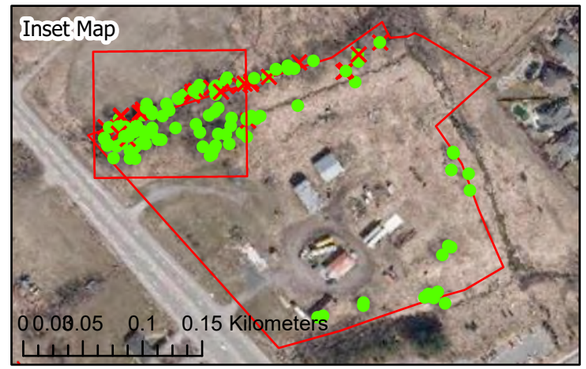
Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: Hybrid Reference Layer: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
City of Ottawa 2021 Imagery:

Legend

- Property Boundary
- Study Area
- Watercourse
- Development Concept

Tree Number (Critical Root Zone [cm])

- Retainable
- Conflict
- Dead



Scale 1:300

0 2.5 5 10 15 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client:	Project:
Canadian Rental Development Services Inc.	100011.014

Location: 910 March Road, Ottawa, Ontario

Drwn By:	Chkd By:	
EP	TW	Tree Inventory

Date: January 2023	Rev.	
	0	Figure: A.4a

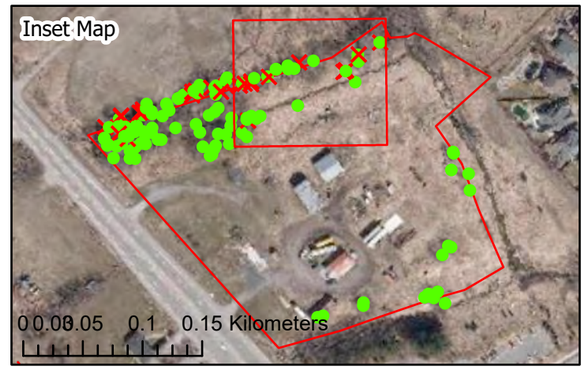
Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Topographic Map: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
World Imagery: Maxar, Microsoft

Legend

- Property Boundary
- Study Area
- Watercourse
- Development Concept

Tree Number (Critical Root Zone [cm])

- Retainable
- Conflict
- Dead



Scale
1:300
0 2.5 5 10 15 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client: Canadian Rental Development Services Inc.	Project: 100011.014
Location: 910 March Road Ottawa, Ontario	
Drwn By: EP / Chkd By: TW	Tree Inventory
Date: January 2023	Rev. 0

Figure: A.4b

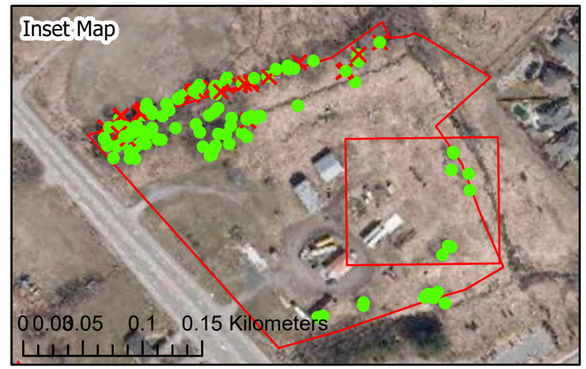
Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Topographic Map: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
World Imagery: Maxar, Microsoft

Legend

- Property Boundary
- Study Area
- Watercourse
- Development Concept

Tree Number (Critical Root Zone [cm])

- Retainable
- Conflict
- Dead



Scale 1:300

0 2.5 5 10 15 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client:	Project:
Canadian Rental Development Services Inc.	100011.014

Location: 910 March Road, Ottawa, Ontario

Drwn By:	Chkd By:	
EP	TW	Tree Inventory

Date: January 2023	Rev.	
	0	Figure: A.4c

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Topographic Map: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
World Imagery: Maxar, Microsoft

Legend

- Property Boundary
- Study Area
- Watercourse
- Development Concept

Tree Number (Critical Root Zone [cm])

- Retainable
- Conflict
- Dead

Scale 1:300

0 2.5 5 10 15 Meters

GEMTEC
Consulting Engineers and Scientists
32 Steacie Drive,
Ottawa, ON K2K 2A9
T: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

Client:	Project:
Canadian Rental Development Services Inc.	100011.014

Location: 910 March Road, Ottawa, Ontario

Drwn By:	Chkd By:	
EP	TW	Tree Inventory

Date: May 2023	Rev.	Figure: A.4d
	1	

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Topographic Map: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada
World Imagery: Maxar, Microsoft

APPENDIX B

Site Photographs

Site Photograph 1 – Tributary 2

Site Photograph 2 – Tributary 2

Site Photograph 3 – Tributary 2 Riparian

Site Photograph 4 – Tributary 2 Riparian

Site Photograph 5 – Tributary 3

Site Photograph 6 – Tributary 3

Site Photograph 7 – Tributary 3 Riparian

Site Photograph 8 – Riparian Confluence for Tributary 2 and 3

Site Photograph 9 – Inlet for Tributary 4

Site Photograph 10 – Barn Swallow Habitat Compensation

Site Photograph 11 – Previous Development On-site

Site Photograph 12 – Previous Development On-site

APPENDIX C

Tree Inventory Summary Table

TABLE C.1
TREE INVENTORY

Tree Number	Common Name	Scientific Name	Diameter (cm DBH)	Critical Root Zone (cm)	Condition	Retainable or Conflict	Signficant Tree (> 50 cm)	Wildlife Tree
1	Manitoba maple	*Acer negundo*	36	358	Healthy	Retainable	No	No
2	Manitoba maple	*Acer negundo*	50	501	Healthy	Retainable	Yes	Yes
3	Black Ash	*Fraxinus nigra*	19	185	Poor	Retainable	No	No
4	Black Ash	*Fraxinus nigra*	19	185	Poor	Retainable	No	No
5	Willow	*Salix sp.*	19	185	Good	Retainable	No	No
6	Willow	*Salix sp.*	25	250	Healthy	Retainable	No	No
7	Willow	*Salix sp.*	58	580	Healthy	Retainable	Yes	No
8	Black Ash	*Fraxinus nigra*	22	217	Poor	Retainable	No	No
9	Willow	*Salix sp.*	36	355	Healthy	Retainable	No	No
10	Willow	*Salix sp.*	20	200	Healthy	Retainable	No	No
11	Green Ash	*Fraxinus pennsylvanica*	33	328	Poor	Retainable	No	No
12	Manitoba maple	*Acer negundo*	64	636	Healthy	Retainable	Yes	No
13	Manitoba maple	*Acer negundo*	40	398	Healthy	Conflict	No	No
14	Manitoba maple	*Acer negundo*	27	270	Healthy	Conflict	No	No
15	Manitoba maple	*Acer negundo*	25	245	Healthy	Conflict	No	No
16	Manitoba maple	*Acer negundo*	34	335	Healthy	Retainable	No	No
17	Manitoba maple	*Acer negundo*	23	228	Healthy	Retainable	No	No
18	Manitoba maple	*Acer negundo*	43	432	Healthy	Retainable	No	No
19	Manitoba maple	*Acer negundo*	25	250	Healthy	Retainable	No	No
20	Willow	*Salix sp.*	151	1510	Healthy	Conflict	Yes	Yes
21	Manitoba maple	*Acer negundo*	29	290	Healthy	Retainable	No	No
22	Manitoba maple	*Acer negundo*	17	165	Healthy	Retainable	No	No
23	Manitoba maple	*Acer negundo*	24	235	Healthy	Retainable	No	No
24	Manitoba maple	*Acer negundo*	19	192	Healthy	Retainable	No	No
25	Willow	*Salix sp.*	37		Dead	Retainable	No	Yes
26	Manitoba maple	*Acer negundo*	20	198	Healthy	Retainable	No	No
27	Willow	*Salix sp.*	47	466	Good	Retainable	No	Yes
28	Willow	*Salix sp.*	55	550	Good	Retainable	Yes	Yes
29	Green Ash	*Fraxinus pennsylvanica*	14	135	Poor	Retainable	No	No
30	Green Ash	*Fraxinus pennsylvanica*	14	135	Poor	Retainable	No	No
31	Willow	*Salix sp.*	20	200	Healthy	Retainable	No	No
32	Willow	*Salix sp.*	29	287	Healthy	Retainable	No	No
33	Manitoba maple	*Acer negundo*	43	435	Healthy	Retainable	No	No
34	Manitoba maple	*Acer negundo*	34	340	Healthy	Retainable	No	No
35	Eastern cottonwood	*Populus deltoides*	15	150	Healthy	Retainable	No	No
36	Manitoba maple	*Acer negundo*	26	260	Healthy	Retainable	No	No
37	Manitoba maple	*Acer negundo*	21	214	Healthy	Retainable	No	Yes
38	Manitoba maple	*Acer negundo*	35	353	Healthy	Conflict	No	No
39	Manitoba maple	*Acer negundo*	25	246	Healthy	Conflict	No	No
40	Manitoba maple	*Acer negundo*	33	329	Healthy	Conflict	No	No
41	Manitoba maple	*Acer negundo*	20	200	Healthy	Retainable	No	No
42	Manitoba maple	*Acer negundo*	15	150	Healthy	Retainable	No	No
43	Manitoba maple	*Acer negundo*	21	212	Healthy	Retainable	No	No
44	Manitoba maple	*Acer negundo*	15	150	Healthy	Retainable	No	No
45	Manitoba maple	*Acer negundo*	31	311	Healthy	Retainable	No	No
46	Manitoba maple	*Acer negundo*	30	303	Healthy	Retainable	No	No
47	Manitoba maple	*Acer negundo*	42	418	Healthy	Conflict	No	No
48	Manitoba maple	*Acer negundo*	37	369	Healthy	Conflict	No	No
49	Manitoba maple	*Acer negundo*	32	324	Healthy	Conflict	No	No
50	Manitoba maple	*Acer negundo*	23	230	Healthy	Conflict	No	No
51	American Elm	*Ulmus americana*	52		Dead	Retainable	Yes	Yes

52	Green Ash	*Fraxinus pennsylvanica*	22	220	Poor	Retainable	No	No
53	Sugar maple	*Acer saccharum*	32	320	Healthy	Retainable	No	No
54	Black Cherry	*Prunus serotina*	49	490	Good	Retainable	No	No
55	White Ash	*Fraxinus americana*	16		Dead	Retainable	No	No
56	White Ash	*Fraxinus americana*	16		Dead	Retainable	No	No
57	Red Pine	*Pinus resinosa*	27	270	Healthy	Retainable	No	No
58	Red Pine	*Pinus resinosa*	25	250	Healthy	Retainable	No	No
59	Red Pine	*Pinus resinosa*	27	270	Healthy	Retainable	No	No
60	Crabapple	*Malus sp.*	15	150	Healthy	Retainable	No	No
61	Rock Elm	*Ulmus thomasii*	14	140	Healthy	Retainable	No	No
62	White Ash	*Fraxinus americana*	22		Dead	Retainable	No	Yes
63	Red Pine	*Pinus resinosa*	27	270	Healthy	Retainable	No	No
64	Red Pine	*Pinus resinosa*	33	330	Healthy	Retainable	No	No
65	Red Pine	*Pinus resinosa*	29	285	Healthy	Retainable	No	No
66	Tamarack	*Larix laricina*	32	315	Healthy	Retainable	No	No
67	Tamarack	*Larix laricina*	29	290	Healthy	Retainable	No	No
68	White Ash	*Fraxinus americana*	44	435	Poor	Retainable	No	Yes
69	Green Ash	*Fraxinus pennsylvanica*	17		Dead	Retainable	No	No
70	Red Pine	*Pinus resinosa*	26	260	Healthy	Retainable	No	No
71	Red Pine	*Pinus resinosa*	21	210	Healthy	Retainable	No	No
72	Rock Elm	*Ulmus thomasii*	12	120	Healthy	Retainable	No	No
73	Red Pine	*Pinus resinosa*	24	240	Healthy	Retainable	No	No
74	Red Pine	*Pinus resinosa*	25	250	Healthy	Retainable	No	No
75	Red Pine	*Pinus resinosa*	26	260	Healthy	Retainable	No	No
76	Red Pine	*Pinus resinosa*	21	210	Healthy	Retainable	No	No
77	Red Pine	*Pinus resinosa*	23	225	Healthy	Retainable	No	No
78	Red Pine	*Pinus resinosa*	20	200	Healthy	Retainable	No	No
79	Red Pine	*Pinus resinosa*	23	230	Healthy	Retainable	No	No
80	Red Pine	*Pinus resinosa*	27	270	Healthy	Retainable	No	No
81	Willow	*Salix sp.*	54	544	Healthy	Retainable	Yes	No
82	Red Pine	*Pinus resinosa*	29	290	Healthy	Retainable	No	No
83	Black Cherry	*Prunus serotina*	21	205	Healthy	Retainable	No	No
84	White Ash	*Fraxinus americana*	21		Dead	Retainable	No	Yes
85	White Ash	*Fraxinus americana*	16	160	Dead	Retainable	No	No
86	White Ash	*Fraxinus americana*	23		Dead	Retainable	No	Yes
87	Sugar Maple	*Acer saccharum*	40	400	Healthy	Retainable	No	No
88	Rock Elm	*Ulmus thomasii*	14	140	Healthy	Retainable	No	No
89	Hawthorns	*Crataegus sp.*	27	270	Healthy	Retainable	No	No
90	Red Pine	*Pinus resinosa*	27	270	Healthy	Retainable	No	No
91	Red Pine	*Pinus resinosa*	26	260	Healthy	Retainable	No	No
92	Red Pine	*Pinus resinosa*	20	200	Healthy	Retainable	No	No
93	Red Pine	*Pinus resinosa*	18	180	Healthy	Retainable	No	No
94	Sugar Maple	*Acer saccharum*	16	160	Good	Retainable	No	No
95	Black Cherry	*Prunus serotina*	22	216	Healthy	Retainable	No	No
96	Sugar Maple	*Acer saccharum*	18	180	Healthy	Retainable	No	No
97	Sugar Maple	*Acer saccharum*	20	200	Healthy	Retainable	No	No
98	Crabapple	*Malus sp.*	59	588	Good	Retainable	Yes	Yes
99	White Ash	*Fraxinus americana*	33		Dead	Retainable	No	Yes
100	White Ash	*Fraxinus americana*	29		Dead	Retainable	No	Yes
101	Sugar Maple	*Acer saccharum*	22	220	Healthy	Retainable	No	No
102	Bur Oak	*Quercus macrocarpa*	34	340	Healthy	Retainable	No	No
103	White Ash	*Fraxinus americana*	30		Dead	Retainable	No	Yes
104	Black Cherry	*Prunus serotina*	18	180	Healthy	Retainable	No	No

TABLE C.1
TREE INVENTORY

105	Sugar Maple	*Acer saccharum*	20	200	Healthy	Retainable	No	No
106	White Ash	*Fraxinus americana*	70		Dead	Retainable	Yes	Yes
107	Manitoba maple	*Acer negundo*	18	180	Healthy	Retainable	No	No
108	Manitoba maple	*Acer negundo*	15	150	Healthy	Retainable	No	No
109	Willow	*Salix sp.*	20	200	Healthy	Retainable	No	Yes
110	Sugar maple	*Acer saccharum*	20	200	Healthy	Retainable	No	No
111	Sugar maple	*Acer saccharum*	15	150	Healthy	Retainable	No	No
112	Manitoba maple	*Acer negundo*	15	150	Healthy	Retainable	No	No
113	Black Cherry	*Prunus serotina*	54	535	Healthy	Retainable	Yes	No
114	Black Cherry	*Prunus serotina*	57	570	Healthy	Retainable	Yes	No
115	White Ash	*Fraxinus americana*	58		Dead	Retainable	Yes	No
116	Sugar Maple	*Acer saccharum*	20	200	Healthy	Retainable	No	No
117	Sugar Maple	*Acer saccharum*	15	150	Healthy	Retainable	No	No
118	White Ash	*Fraxinus americana*	51		Dead	Retainable	Yes	No
119	American Elm	*Ulmus thomasii*	47		Dead	Retainable	No	Yes
120	Black Cherry	*Prunus serotina*	45	445	Healthy	Retainable	No	No
121	American Elm	*Ulmus americana*	25		Dead	Retainable	No	Yes
122	White Ash	*Fraxinus americana*	33		Dead	Retainable	No	Yes
123	White Ash	*Fraxinus americana*	41		Dead	Retainable	No	Yes
124	Crabapple	*Malus sp.*	29	290	Healthy	Retainable	No	No
125	Black Cherry	*Prunus serotina*	25	250	Healthy	Retainable	No	No
126	White Ash	*Fraxinus americana*	88		Dead	Retainable	Yes	Yes
127	Black Cherry	*Prunus serotina*	26	260	Healthy	Retainable	No	No
128	Black Cherry	*Prunus serotina*	15	150	Healthy	Retainable	No	No
129	White Ash	*Fraxinus americana*	20	200	Poor	Retainable	No	No
130	White Ash	*Fraxinus americana*	20	200	Poor	Retainable	No	No
131	White Ash	*Fraxinus americana*	25		Dead	Retainable	No	Yes
132	Black Cherry	*Prunus serotina*	57	570	Healthy	Retainable	Yes	No
133	Manitoba maple	*Acer negundo*	74	737	Healthy	Retainable	Yes	No
134	White Ash	*Fraxinus americana*	25		Dead	Retainable	No	Yes
135	White Ash	*Fraxinus americana*	30		Dead	Retainable	No	Yes
136	White Ash	*Fraxinus americana*	25		Dead	Retainable	No	Yes
137	Willow	*Salix sp.*	34	335	Healthy	Retainable	No	No
138	Willow	*Salix sp.*	30	300	Healthy	Retainable	No	No
139	Willow	*Salix sp.*	25	250	Healthy	Retainable	No	No
140	Willow	*Salix sp.*	26	256	Healthy	Retainable	No	No
141	White Ash	*Fraxinus americana*	30		Dead	Retainable	No	No
142	White Ash	*Fraxinus americana*	35		Dead	Retainable	No	No
143	Manitoba maple	*Acer negundo*	47	472	Good	Retainable	No	Yes

APPENDIX D

City of Ottawa Tree Protection

experience • knowledge • integrity

civil	civil
geotechnical	géotechnique
environmental	environnementale
field services	surveillance de chantier
materials testing	service de laboratoire des matériaux

expérience • connaissance • intégrité