

**2663 INNES ROAD
TREE CONSERVATION REPORT**

DATE: DECEMBER 15, 2022

OTTAWA TREE REPORTS
SCOTT PETRIE

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Introduction

Ottawa Tree Reports was retained by Caber Group to complete a Tree Conservation Report in support of a site application to allow the development of a mixed-use building for the subject property located at 2663 Innes Road in Ottawa, Ontario.

The work plan for this Tree Conservation Report included the following:

- Prepare inventory of the tree resources on the subject property and within vicinity of impact on adjacent neighbouring property;
- Evaluate potential tree protection and preservation opportunities based on proposed site plans;
- Identify natural elements and,
- Document the findings in a Tree Conservation Report.

Contact Information

Owner Information:

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Arborist Information:

Name: Scott Petrie
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Policy Framework

The subject property is subject to the provisions of the City of Ottawa's Tree Protection By-law 2020-340. The purpose of this by-law is for the protection of municipal trees and municipal natural areas in the City of Ottawa and trees on private property in the urban area of the City of Ottawa.

City of Ottawa tree protection requirements were applied during the Tree Conservation Report planning process. These protection requirements indicate a minimum distance at which the critical root zone (CRZ) must be protected.

The CRZ distances allow for maximum development potential while providing sufficient space to ensure the tree(s) are not subject to any long term adverse due to the impacts of development. In instances where the CRZ will be encroached upon and impacted, an Adjusted Tree Protection Zone (Adj TPZ) has been calculated based upon impacts to the CRZ; further mitigation measure may be required to ensure there are no adverse long-term impacts to the tree(s).

Site Information

The subject property is approximately 0.16ha in size and is bordered to the North and East by the Ottawa Catholic School (Good Shepherd Catholic) Board, to South by Innes Road, and to the West by 2645 Innes Road, a retirement residence.

Tree Information

Field assessments were conducted on November 24, 2022 and December 2, 2022, the results of the assessment are provided in the Tree Information Tables and Tree Identification Plan (Map 1) found in Appendix “A”.

Tree Inventory and Assessment Methodology

All trees on the subject property and those that maybe impacted on adjacent properties were inventoried and assessed, with specific focus on trees that are protected and thus subject to the provisions of the City of Ottawa’s Tree Protection By-law 2020-340.

Tree inspections were limited to visual, on-ground examinations. No boring, probing, or sonic tomography was employed during the assessments. Any data and information collected is based on the conditions at the time of inspection.

Subject Trees

A total of 9 individual trees and 2 stands (community) of trees were inventoried and assessed for the project. It was determined that 7 individual protected trees and the 2 stands of trees will be impacted by the proposed works. Please refer to the table below for the number of trees, number of impacted trees, and the distribution of protection status and type of impact.

Table 1 – Tree Information Dashboard

# of Trees Inventoried	# of Protected Trees	# Protected Tree Impacts	Protected Tree Removals		Protected Tree Injuries	
			# of City Trees	# of Private Trees	# of City Trees	# of Private Trees
9, 2 stands	6, 2 Stands	6, 2 Stands	0	1, 2 stands	0	4

Impacted Trees

In total, 6 individual trees are to be impacted by the proposed work and are protected under the City of Ottawa’s Tree Protection By-law 2020-340, in addition 1 protected tree on the adjacent property and 2 Stands of trees on the subject property will be directly impacted by the works and are recommended to be removed; 4 protected trees have been identified for CRZ injury; 3 trees are considered exempt under the City’s tree by-law will also be removed. The impacted trees will be further discussed below (See Table 2), based on their location and proximity to proposed work, and the nature of impact to be incurred.

Table 2 – Tree Impact Table

Tree #	Species		DBH (cm)	Ownership	By-Law Protected	Condition			Arborist Rec
	Common	Botanical				(Poor/Fair/Good)			
						Trunk	Canopy	Canopy	
						Integrity	Structure	Vigour	
2	White Spruce	<i>Picea glauca</i>	30	Adjacent	Yes	G	G	G	Injure
3	White Spruce	<i>Picea glauca</i>	18	Adjacent	Yes	F	G	G	Injure
4	White Spruce	<i>Picea glauca</i>	28	Adjacent	Yes	F	G	G	Injure
5	White Pine	<i>Pinus strobus</i>	48	Adjacent	Yes	G	G	G	Remove
6	White Spruce	<i>Picea glauca</i>	32	Adjacent	Yes	F	G	G	Injure

Tree 2 is a 30cm White Spruce *Picea glauca* that is located on the adjacent property. This tree is approximately located 0.75m west of the western property limit. This tree has a critical root zone (CRZ) of 3m, 2.25m of the CRZ extends onto the subject property. The proposed works on the subject property will directly impact the CRZ of this tree, most notably the excavation and construction related activities for the parking spaces.

Tree 3 is an 18 cm White Spruce *Picea glauca* that is located on the adjacent property. This tree is approximately located 0.75m west of the western property limit. This tree has a critical root zone (CRZ) of 1.8m, 1.05m of the CRZ extends onto the subject property. The proposed works on the subject property will directly impact the CRZ of this tree, most notably the excavation and construction related activities for the parking spaces.

Tree 4 is a 28 cm White Spruce *Picea glauca* that is located on the adjacent property. This tree is approximately located 0.76 m west of the western property limit. This tree has a critical root zone (CRZ) of 2.8m, 2.04 m of the CRZ extend onto the subject property. The proposed works on the subject property will directly impact the CRZ of this tree, most notably the excavation and construction related activities for the parking spaces.

Tree 5 is a 48 cm White Pine *Pinus strobus* that is located on the adjacent property. This tree is approximately located 0.76 m west of the western property limit. This tree has a critical root zone (CRZ) of 4.8m, 4.04 m of the CRZ extends onto the subject property. The proposed works on the subject property will directly impact the CRZ of this tree, most notably the excavation and construction related activities for the parking spaces; this excavation will also impact the static relevant zone of this tree, it is recommended that the applicant seek written permission from the adjacent property owner to remove this tree in order to facilitate the proposed works.

Tree 6 is a 32 cm White Spruce *Picea glauca* that is located on the adjacent property. This tree is approximately located 0.72 m west of the western property limit. This tree has a critical root zone (CRZ) of 3.2m, 2.48 m of the CRZ extend onto the subject property. The proposed works on the subject property will directly impact the CRZ of this tree, most notably the excavation and construction related activities for the parking spaces.

Table 3 – Stand Impact Table

Stand #	Species Composition	Avg DBH (cm)	Ownership	By-Law Protected	Condition	Arborist Rec
					(Poor/Fair/Good)	
1	Manitoba Maple dominated	20	Private	Yes	Poor	Removal
2	Poplar, Manitoba Maple	8-12	Private	Yes	Fair	Removal

Stand 1 is located along the western side of the subject property. The stand is dominated by multi-stem Manitoba Maple *Acer negundo*, with an average DBH of 20cm. Many of the trees in this stand have a trunk integrity and canopy structure ratings of poor, this rating is not uncommon for this species when they have been naturally seeded and left free to grow. The location of the trees within the stand (eg within 1 m of the western property line) will be directly impacted by the proposed works (eg installation of parking spots and barrier curb at 1.5m from the property line). Due to the existing condition of the trees, the proposed works directly withing the critical and static relevant zones of the trees, its recommended that the trees be removed to facilitate the proposed works.

It is also recommended that after this stand of trees are removed, that the stumps be removed by good arboricultural practices such as stump grinding, (to a minimum of 0.3m below grade), excavation and/or pulling of stumps shall not be permitted. Furthermore, if the remaining stumps are located within 1 m of **Trees 2,3,4,5,6** grinding operations shall be conducted under the direct supervision of an arborist to ensure structural roots are not damaged of the trees noted.

Stand 2 is primarily located in the northern third of the property, from the existing gravel parking area to the northern property limit, as well as along the eastern property line. This stand is dominated by regenerative and coppice growth of Poplars (*Populus spp.*) and Manitoba Maple (*Acer negundo*) with average DBH of 8-12cm. Due to the species composition average DBH of the trees win the stand, and that the proposed works will directly impact the trees. It is recommended that the trees in Stand 2 be removed to facilitate the proposed works.,

Exempt Trees

Tree 7 is an 84 cm Willow *Salix spp.* that is located completely on the subject property but abuts the northern property line. This tree is over mature and in poor overall condition. The tree is in severe decline, scaffold branching has been extensively damaged, scaffolding structure is non-existent, epicormic shooting is present throughout the canopy, rot and decay is in the pedestal of the tree. The location of the tree at the northern property line is significant at that it is adjacent to a school. The recommendation is to remove this tree due its over mature and declining condition, furthermore the proximity of the tree to a high target area makes this tree hazardous and exempt from the by-law, and is recommended for removal.

Trees 8 and 9 are two dead standing Poplars *Populus spp.* stems, both have no canopy (eg branches) and are classified as a snag or chicot. These trees are dead, and are exempt from the by-law and are recommended to for removal.

Tree Protection Details

5 individual trees are required to have tree protection measures installed as outlined in the Tree Protection Plan and in accordance with the City of Ottawa’s Tree Protection Specification, both found in Appendix “B”. Tree protection measures are recommended to be installed prior to the commencement of the proposed works (eg after tree removal and before excavation) to ensure trees designated for retention and protection are not impacted by the development. The tree protection measures should be maintained throughout the duration of the proposed works until final grading and landscaping are complete, or as otherwise directed by City of Ottawa staff.

Unless otherwise indicated, tree protection shall be installed at the minimum extent of the CRZ. Where an adjusted tree protection zone has been recommended, this recommended limit although within the CRZ will not impact the static (stability) relevant zone of the noted trees; the recommended limit is a minimum, where feasible the excavation limit should be as close as possible to the limit of the CRZ.

When construction related activities are occurring within the CRZ, the works should be performed under the direct supervision of an Arborist. Any, and all roots that are damaged during excavation, shall be pruned in accordance with good arboricultural practices, any exposed roots not pruned, or damaged should be kept damp and moist, or backfilled around immediately to prevent desiccation.

Table 4 – Tree Protection Table

Tree #	Species		DBH (cm)	Ownership	Arborist Rec	CRZ (m)	CRZ Impacted	CRZ on 2663 Innes (m)	Adj TPZ (m)	Adj CRZ on 2663 Innes to protect (m)	Specification Rec
	Common	Botanical									
1	White Poplar	<i>Populus alba</i>	32	City	Protect	3.2	No	NA	NA	NA	Plywood
2	White Spruce	<i>Picea glauca</i>	30	Adjacent	Injure	3	Yes	2.25	1.5	0.75	Plywood
3	White Spruce	<i>Picea glauca</i>	18	Adjacent	Injure	1.8	Yes	1.05	0.9	0.15	Plywood
4	White Spruce	<i>Picea glauca</i>	28	Adjacent	Injure	2.8	Yes	2.04	1.4	0.74	Plywood
6	White Spruce	<i>Picea glauca</i>	32	Adjacent	Injure	3.2	Yes	2.48	1.6	0.88	Plywood

Tree 2 is a 30cm White Spruce *Picea glauca* will be impacted by the proposed works. The critical root zone located on the subject property will be directly impacted by the excavation; a recommended adjusted tree protection of zone of 1.5 m shall be installed (from the base) along the eastern side of the tree. Tree protection is recommended to be installed at along a north south axis at 0.75m east of the property line, this will ensure the CRZ located on the subject property is protected according to the recommendations.

Tree 3 is an 18 cm White Spruce *Picea glauca* will be impacted by the proposed works. The critical root zone located on the subject property will be directly impacted by the excavation; a recommended adjusted tree protection of zone of 0.9 m shall be installed (from the base) along the eastern side of the tree. Tree protection is recommended to be installed at along a north south axis at 0.15m east of the property line, this will ensure the CRZ located on the subject property is protected according to the recommendations.

Tree 4 is a 28 cm White Spruce *Picea glauca* will be impacted by the proposed works. The critical root zone located on the subject property will be directly impacted by the excavation; a recommended adjusted tree protection zone of 1.4 m shall be installed (from the base) along the eastern side of the tree. Tree protection is recommended to be installed along a north-south axis at 0.74m east of the property line, this will ensure the CRZ located on the subject property is protected according to the recommendations.

Tree 6 is a 32 cm White Spruce *Picea glauca* will be impacted by the proposed works. The critical root zone located on the subject property will be directly impacted by the excavation; a recommended adjusted tree protection zone of 1.6 m shall be installed (from the base) along the eastern side of the tree. Tree protection is recommended to be installed along a north-south axis at 0.88m east of the property line, this will ensure the CRZ located on the subject property is protected according to the recommendations.

Tree Compensation and Replanting

For private property located within the urban area, subject to a Planning Act application (Site Plan), tree compensation requirements will be determined through the development review process.

Table 5 – Tree Planting and Compensation

Trees being removed	4 (Trees 5,7,8,9) Stands 1,2
Trees Exempt	3
Trees Being Replanted	TBD
Trees Cash in Lieu of Planting	TBD

For replanting, please refer to the Landscape Plan provided by Ruhland and Associates Ltd.

Summary

Ottawa Tree Reports was retained by Cade Developments to complete a Tree Conservation Report in support of a Site Application to allow the development of a mixed-use building for the subject property located at 2663 Innes Road in Ottawa, Ontario.

The findings of the tree inventory indicate a total of five trees (2,3,4,5,6) that are completely located on the neighbouring property will be impacted. Trees 2,3,4,6 have been recommended for critical root zone injury, and adjusted tree protection zones. Tree 5 has been recommended for removal; however, this is contingent upon securing written permission from the adjacent property owner.

On the subject property itself, the lot will be cleared (removed) of all existing vegetation to facilitate the proposed works; Trees 7,8,9, are exempt due to their condition (hazardous, dead), however the removal of the trees in Stands 1 and 2 will be required to accommodate the proposed works.

There is only one City of Ottawa owned tree (1) that has been identified, this tree shall be preserved and protected.

The following recommendations are suggested to minimize impacts to trees identified for protection. Refer to Tree Protection Drawing in Appendix "B" for additional tree preservation plan notes and the tree protection fence details.

- Tree protection barriers and fencing should be erected at locations prescribed on Tree Protection Drawing/Tree Protection Table in accordance to the Tree Protection Specification in Appendix "B"
- Tree protection measures should be implemented prior to construction phase to ensure the trees identified for preservation and protection are not impacted by the development.
- Branches and roots that extend past prescribed critical root zone and/or adjusted tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. All pruning of tree roots and branches must be in accordance with good arboricultural practices and meet or exceed ANSI A300 or approved Tree Care Industry Standards. Root pruning shall be done with a sharp tool (eg stump grinder, chainsaw, hand saw), in such a way that does not pull on the roots, but leaves smooth cuts. It is preferable to expose the roots prior to root pruning. After pruning, the area should be backfilled with quality topsoil and water until thoroughly soaked.
- Site visits, pre, during and post construction is recommended by Ottawa Tree Reports to ensure proper utilization of tree protection barriers.

Trees should also be inspected for damage incurred during construction to ensure appropriate corrective pruning or other mitigation measures are implemented.

Application Fees

Applications associated with Planning Act applications (Site Plan) will have Tree Removal Permit fees included within the development application fees, therefore no further fees will apply for this permit.

Respectfully Submitted,

Scott Petrie

**Scott Petrie, Dip EMT, EDDM
Ottawa Tree Reports**

APPENDIX A

Tree Information Tables

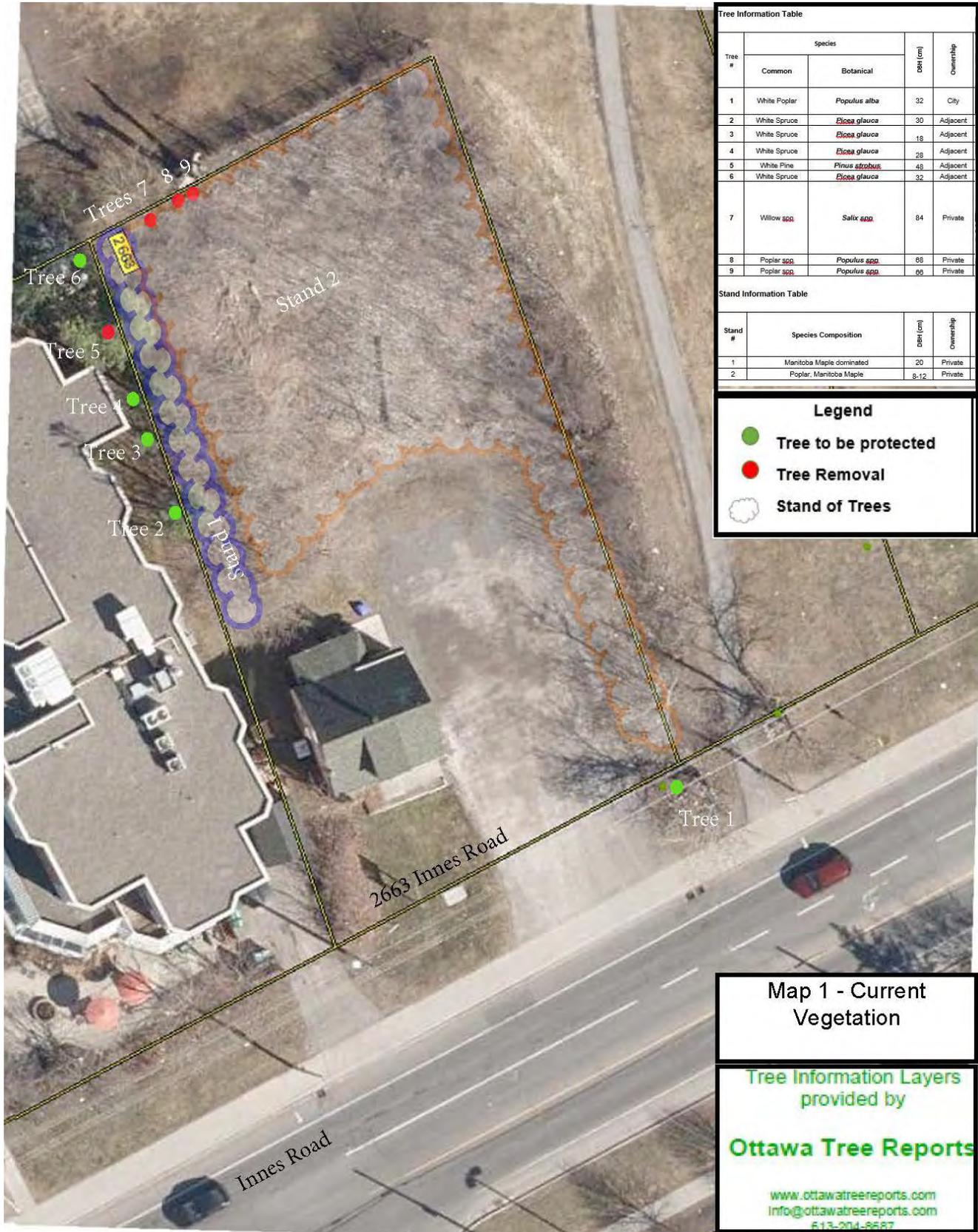
Table 6 – Tree Information Table

Tree #	Species		DBH (cm)	Ownership	By-Law Protected	Condition			Arborist Rec	CRZ (m)	CRZ Impacted	Rec Excavation Limit (m)	Adj TPZ (m)	Specification Recommendations	Notes
	Common	Botanical				(Poor/Fair/Good)									
						Trunk	Canopy	Canopy							
						Integrity	Structure	Vigour							
1	White Poplar	<i>Populus alba</i>	32	City	Yes	P	F	F	Protect	3.2	No	NA	NA	Plywood	this is a multi-stem tree (30,32, 28 cm)
2	White Spruce	<i>Picea glauca</i>	30	Adjacent	Yes	G	G	G	Injure	3	Yes	1.5	1.5	Plywood	Plywood to be installed at Adj TPZ
3	White Spruce	<i>Picea glauca</i>	18	Adjacent	Yes	F	G	G	Injure	1.8	Yes	0.9	0.9	Plywood	Plywood to be installed at Adj TPZ
4	White Spruce	<i>Picea glauca</i>	28	Adjacent	Yes	F	G	G	Injure	2.8	Yes	1.4	1.4	Plywood	Plywood to be installed at Adj TPZ
5	White Pine	<i>Pinus strobus</i>	48	Adjacent	Yes	G	G	G	Removal	4.8	Yes	NA	NA	NA	Excavation within the CRZ will also occur within the static relevant zone causing stability issues, tree removal is recommended.
6	White Spruce	<i>Picea glauca</i>	32	Adjacent	Yes	F	G	G	Injure	3.2	Yes	1.6	1.6	Plywood	Plywood to be installed at Adj TPZ
7	Willow spp	<i>Salix spp</i>	84	Private	Yes	P	P	P	Removal	0	NA	NA	NA		Poor Condition, Tree is in severe decline, scaffold branching has been extensively damaged, scaffolding structure is none existent, epicormic shooting is present throughout the canopy, rot and decay is in the pedestal of the tree, the location of the tree at the northern property line is adjacent to a school. The recommendation is to remove this tree due its over mature and declining condition, furthermore the proximity of the tree to a high target area makes this tree hazardous and exempt from the by-law.
8	Poplar spp	<i>Populus spp</i>	68	Private	Yes	P	P	P	Removal	0	NA	NA	NA		Tree is dead (chicot), broken top and is exempt from the by-law.
9	Poplar spp	<i>Populus spp</i>	66	Private	No	P	P	P	Removal	0	NA	NA	NA		Tree is dead (chicot), broken top and is exempt from the by-law.

Table 7 – Stand Information Table

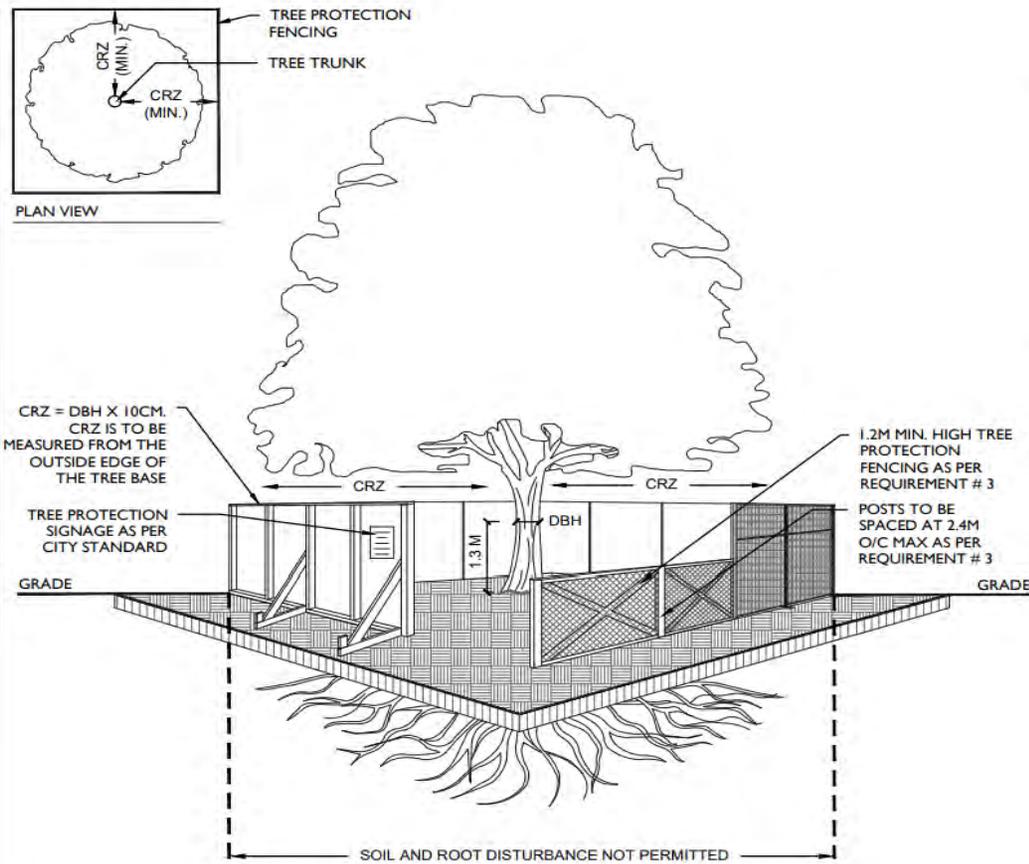
Stand #	Species Composition	DBH (cm)	Ownership	By-Law Protected	Condition	Arborist Rec	Notes
					(Poor/Fair/Good)		
1	Manitoba Maple dominated	20	Private	Yes	Poor	Removal	Stand 1 is required to be removed to facilitate the proposed works
2	Poplar, Manitoba Maple	8-12	Private	Yes	Fair	Removal	Stand 2 is required to be removed to facilitate the proposed works

Tree Identification Plan



APPENDIX B

Tree Protection Specification



- TREE PROTECTION REQUIREMENTS:**
- PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
 - UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
 - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
 - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
 - DO NOT RAISE OR LOWER THE EXISTING GRADE;
 - TUNNEL OR BORE WHEN DIGGING;
 - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
 - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
 - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
 - TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
 - THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
 - IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.
- THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST



TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE: NTS

DATE: MARCH 2021

DRAWING NO.: 1 of 1

Self-Declaration Statement

By signing this application declaration, the owner, arborist and contractor (if known at time of application) which confirms that all parties agree with the information provided and will respect the proposed work and mitigation measures (if required). Furthermore, the signature of the owner is also acknowledging and understanding that a City of Ottawa Forestry Staff may enter your property at a reasonable time for the purpose of carrying out an inspection. You also acknowledge and understand that failure to abide by the recommendations of the approved Tree Conservation Report, damaging or destructing trees identified for protection, you will be responsible to bear fully the cost of compensation, removal and replacement.

It is the owner/applicant's responsibility to ensure that all protection and mitigation measures described in the Conservation Report are followed, and where necessary are done so under the supervision of an arborist.

Owner/Applicant

Print Name

Signature

Arborist

Scott Petrie

Print Name

Scott Petrie

Signature

Contractor

Signature