TREE CONSERVATION REPORT

The Ottawa Hospital – Riverside Campus Staff Parking Lot

Revision 02

March 2025

CONTENTS

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APPENDICES

1 Contact Information

Site Address:	1967 Riverside Drive
Date of Report:	November 14, 2024
Date of Site Visits:	April 16, 17, and 26 ; June 11 and 12 ; July 9 ; and October 29, 2024
Prepared By :	Nicole Nolan, ISA Certified Arborist ON-2660A – Parsons; nicole.nolan@parsons.com Maria Ning, Terrestrial Ecologist – Parsons; maria.ning@parsons.com
Client :	The Ottawa Hospital - c/o Dwight Breault; dwbreault@toh.ca
Construction Contractor:	TBD
Tree Removal Contractor:	J. Carty's Tree Service – c/o James Carty; cartytree@gmail.com
Preliminary Construction Schedule:	Construction is anticipated to extend from May – October 2025. Tree clearing is anticipated to occur in March 2025. An advance Tree Cutting Permit is being requested to allow for vegetation removal in advance of April 1, in order to avoid sensitive timing windows for birds and bats (April 1 to September 30).

2 Introduction

2.1 Objectives

This Tree Conservation Report has been prepared in support of the Site Plan Application for two new parking lots at the Ottawa Hospital Riverside Campus (the Project). This report has been prepared in accordance with the City of Ottawa Tree Protection By-law, 2020-340 and is intended to inform tree avoidance through site selection, to document trees that may be impacted by the Project, to recommend protection measures for retained trees, and to provide replacement requirements.

The Construction Limits are based on the available design information at the time this report was prepared and may change should new information become available. The findings in this report are based on the conditions observed at the time of the field investigation and are generally considered valid for a two-year window and should be revisited should there be a significant lag in time between the completion of this report and Project construction.

2.2 Study Area

The Riverside Hospital is located at 1967 Riverside Drive and is located within the urban area of the City of Ottawa (**Figure 1**). The property measures 8.48 hectares and is owned by The Ottawa Hospital (TOH), It is bordered by the City of Ottawa owned right-of-way (ROW) of Riverside Drive to the west, Sarah Billings Drive to the south, and Smyth Road to the north, and by the CN Rail owned Beachburg Rail Corridor (CNR Corridor) to the east. The OC Transpo Transitway runs north-south through the property and separates the existing Riverside Hospital buildings and parking lot from Riverside Drive.

Two proposed parking lots (Parking Lot C and Parking Lot D) are planned. Parking Lot C is located at the south-eastern edge of the site, south of the existing parking lot and bordered by the Transitway on the east and by the CNR Corridor on the west. Parking Lot D is located on the northeast corner of the site, west of the Transitway, and immediately adjacent to Riverside Drive. The tree inventory captured all three, candidate parking lot locations; however, this report focuses on trees located within 6 metres (m) of the proposed Parking Lot C, and Parking Lot D.

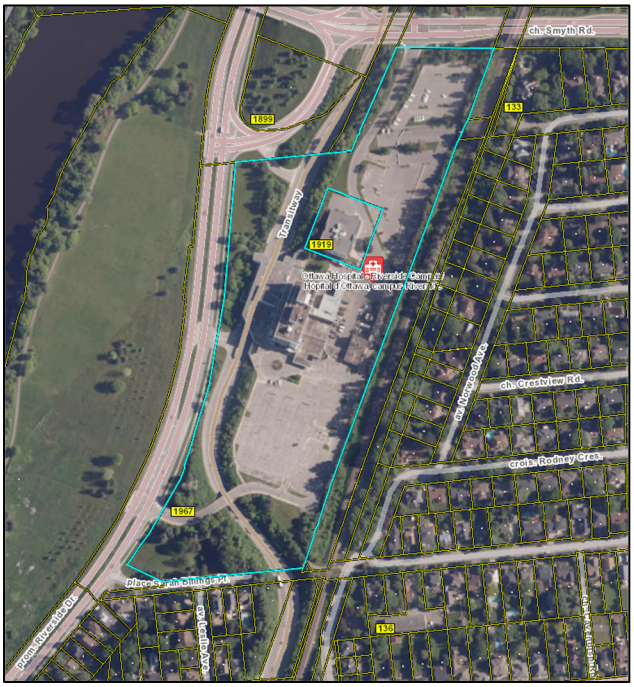

FIGURE 1: RIVERSIDE HOSPITAL PROPERTY, 1967 RIVERSIDE DRIVE. (GEOOTTAWA 2024)

3 Regulatory Framework and Guidelines

3.1 City of Ottawa Tree Protection By-law 2020-340

The City of Ottawa Tree Protection By-law 2020-340 regulates injury and destruction of trees on public and private properties within the urban and rural areas of the City. Within the urban area, the following trees are regulated:

- All City-owned trees
- All trees 10 cm or greater in diameter at breast height (DBH) on private properties subject to Planning Act applications
- All distinctive trees (trees 30 cm DBH or greater) on private properties 1 hectare or less in size.

A permit is required for the removal or injury of all trees regulated by the By-law. The City requires compensation planting or cash in lieu for trees removed.

General prohibitions under the Public Tree Protection By-law are:

1. *injure or destroy the trunk, branches or roots of a municipal tree;*
2. *affix a poster, notice or sign to a municipal tree;*
3. *affix any guy line or other fastening or fixture to a municipal tree;*
4. *apply tree paint to a municipal tree;*
5. *remove branches, trim or alter any municipal tree; or*
6. *perform any operation or activity within the critical root zone of a municipal tree that may result in injury or destruction of a tree.*

3.2 Species at Risk and Wildlife

The project site is subject to regulations under the Ontario Endangered Species Act (ESA) and the Migratory Bird Convention Act (MBCA). This report scope does not include a detailed risk assessment for potential species at risk (SAR) and migratory birds, however potential constraints are identified.

4 Methodology

4.1 Site Visits

Site visits were carried out on April 16, 17, and 26; June 11 and 12; July 9 ; and October 29, 2024, to document trees measuring 10 cm or greater on the Site. The information collected on-site, included the location, species, size (i.e., measured in centimetres at DBH at 1.3 m above grade), and observable condition of individual trees based on visual inspection from the ground.

Tree Locations were recorded as part of a Survey completed by Annis, O'Sullivan, Vollebekk Ltd. (AOV), and were then inventoried by Parsons, using a Bad Elf GNSS Pro to assist with field-locating of trees as surveyed. The results of the tree inventory are shown in **Appendix A** and detailed in **Appendix B**.

4.2 Tree Condition Ranking

The following ranking was used to assess the overall condition of each tree:

1. **EXCELLENT**: tree displays no evidence of deficiency/defect ;
2. **GOOD**: tree displays less than 15% deficiency/defect;
3. **FAIR**: tree displays 15%-40% deficiency/defect;
4. **POOR**: tree displays greater than 40% deficiency/defect; and
5. **DEAD**: tree is dead, showing no evidence of live tissue* within the trunk(s) or canopy.

*Note that dead trees may include heavily ash trees where the main trunk is dead or has been previously cut, however residual epicormic growth below 10 cm diameter remains.

The following features were also assessed for the trees inventoried by Parsons: trunk integrity, canopy structure, canopy vigour, root condition (where observable). Condition notes included any noted deficiencies for these areas as well as evidence of diseases, pests and anthropogenic damage as applicable. Additionally, trees inventoried were inspected for evidence of wildlife habitat such as bird nests, cavities, crevices, and sloughing bark.

4.3 Critical Root Zone

The Critical Root Zone (CRZ) is the area around an existing tree wherein tree protection measures must be implemented if site disturbance is planned within the area, or if there is a reasonable likelihood of inadvertent encroachment of any form into the area during site disturbance. The intent of tree protection measures to be undertaken within or at the limit of the CRZ is to prevent or mitigate, to the fullest extent possible, adverse impacts associated with site disturbance within the CRZ.

The City of Ottawa Tree Protection Specification (**Appendix C**) provides guidance for tree protection of trees to be retained through the development. Under By-law 2020-340, the Critical Root Zone (CRZ) is *the area of land within a radius of ten (10) cm from the trunk of a tree for every one (1) cm of trunk diameter*. For trees with multiple stems, the CRZ is calculated using the following formula to adjust the DBH to account for additional stems:

$$DBH = \sqrt{(stem_1^2 + stem_2^2 + \cdots stem_n^2}$$

5 Results and Recommendations

5.1 Tree Inventory Summary

A Tree Protection and Removal Plan (**Appendix A**) has been prepared to identify trees within the proposed project areas. A total of 233 trees were inventoried (**Appendix B**), which included 69 distinctive trees 30 cm DBH or greater, 154 trees measuring between 10 cm and 29 cm DBH, and 9 trees under 10 cm DBH. Of these trees, a total of 147 trees were located outside of a 5 m buffer surrounding the final areas selected for the proposed parking lots, and are not expected to be at risk of injury or removal as a result of construction activities. These trees are identified as 'Retain' with no protection measures required, based on the proposed design. The inventory data for these trees is provided for information in **Appendix B**, however they occur outside of the selected sites for the proposed Parking Lot C and Parking Lot D, and are therefore not shown in **Appendix A**.

A total of 86 trees are located within proximity to the proposed works, with a 75 trees proposed for removal. Tree protection measures are recommended for 11 trees, in order to prevent tree injury during construction. A summary of anticipated tree retentions and proposed impacts by size category is provided in **Table 1**. Of the 75 trees to be removed, 58 are located entirely on TOH property, and 17 are shared ownership, along the property line between TOH and the CNR Corridor. Tree Inventory Details including reason for removal, health condition ratings and ownership, are provided in **Appendix B**.

TABLE 1. TREE INVENTORY SUMMARY

Trunk Diameter (DBH)	Retain	Protect	Injure	Remove
Under 10 cm	9	0	0	0
10 cm to 29 cm	91	9	0	54
30 cm to 49 cm	41	2	0	19
50 cm or greater	6	0	0	2
TOTAL	**147**	**11**	**0**	**75**

A discussion on permitting for trees protected under the City's *Public Tree Protection By-law 0020-2022* and *Private Tree Protection By-law 0021-2022* is provided in **Section 3.1**. Compensation requirements for the removal of trees are provided in **Section 5.1.1** below.

5.1.1 TREE REMOVALS AND COMPENSATION

Proposed tree removals include 64 living trees, 2 EAB infested ash trees, and 11 dead trees (75 total). Based on the proposed tree removals, 43 replacement trees are recommended for the removal of 20 living and 1 dead Distinctive Trees (**Table 2**). A total of 56 trees (44 living, 10 dead, 2 ash) measuring between 10 cm – 29 cm DBH do not have a defined compensation ratio under Schedule B of By-law 2020-340. As the subject property is over 1 ha, tree compensation requirements outlined under Schedule B are provided for information, and the agreed compensation for tree removals must be determined in consultation with the City. The City may propose an alternative compensation arrangement which may include cash-in-lieu, canopy cover targets, or other methods. A tree permit or distinctive tree permit is not required for trees that are deemed dead, or for ash trees infested with EAB, although compensation is generally recommended at a 1:1 ratio.

TABLE 2. TREE REMOVALS AND COMPENSATION SUMMARY

Trunk Diameter (DBH)	Living Trees (not including Ash)			Ash Trees with EAB			Dead Trees			Total		
	Remove	Comp. Ratio	Comp. Trees	Remove	Comp. Ratio	Comp. Trees	Remove	Comp. Ratio	Comp. Trees	Remove	Comp. Ratio	Comp. Trees
Under 10 cm	0	n/a	n/a	0	n/a	n/a	0	n/a	n/a	**0**	**n/a**	**n/a**
10 cm to 29 cm	44	n/a	n/a	2	n/a	n/a	10	n/a	n/a	**56**	**n/a**	**n/a**
30 cm to 49 cm	18	2:1	36	0	1:1	0	1	1:1	1	**19**	**n/a**	**37**
50 cm or greater	2	3:1	6	0	1:1	0	0	1:1	0	**2**	**n/a**	**6**
TOTAL	**64**	**n/a**	**42**	**2**	**n/a**	**1**	**11**	**n/a**	**1**	**76**	**n/a**	**43**

The Landscape Plan proposes a combination of individual canopy tree plantings and a 'pocket forest' that includes retained vegetation and new plantings to enhance canopy cover and species diversity. A total of 40 individual trees are proposed; with the additional pocket forest plantings, this is anticipated to fulfil the compensation requirements.

No tree planting restrictions associated with sensitive marine clays were identified in the Geotechnical Reports prepared in support of this submission. Species recommendations are included in the Landscape Plan.

5.1.2 TREE PROTECTION AND INJURIES

A total of 11 trees within proximity to the proposed works are proposed to remain throughout construction and are expected to be protected. The CRZ of Protected trees shall be protected following the City of Ottawa's Tree Protection Guidelines (**Appendix C**), with efforts made to minimize and reduce any required overlap of construction activities and the CRZ through the implementation of Tree Protection Fencing. Specific mitigations are provided in **Appendix B**, with further details on tree protection and mitigation of impacts to trees in **Section 5.3** below.

TABLE 3. TREE PROTECTION AND INJURIES

Project Location	Protect		Injure	
	# of Trees	Tree ID #s	# of Trees	Tree ID #s
Parking Lot C	2	#69, 70	0	0
Parking Lot D	9	#13, 16, 21, 22, 23, 25, 26, 28, 55	0	0
TOTAL	**11**	**n/a**	**n/a**	**n/a**

5.1.3 RETAINED VEGETATION

A total of 147 inventoried trees are retained in the proposed site plan, which includes retention of naturalized edges of the site and tall canopy trees along the southwestern limits of the property. This area represents the densest area of tall tree cover on the site, providing the better habitat value for urban wildlife, compared to the areas selected for the proposed parking lots which include sparser tree cover and are located between busy roadways (Riverside Drive and the Transitway). As this area is separated from the proposed parking lots by existing roadways, both direct or indirect impacts to trees in this area as a result of the project are not expected.

In addition to tall treed areas, the naturalized buffers of shrub cover around the CNR Corridor and the Transitway will remain, which provide a visual buffer, noise reduction, and erosion control along the slopes of these corridors. Areas of shrub cover are dominated by tatarian honeysuckle (*Lonicera tatarica*), common buckthorn (*Rhamnus cathartica*), and staghorn sumac (*Rhus typhina*). Occasional tall trees, as inventoried are present within these communities, and include Manitoba maple (*Acer negundo*), green ash (*Fraxinus pennsylvanica*), and American elm (*Ulmus americana*), as well as planted white spruce (*Picea glauca*) and pines (*Pinus* spp.) along the edges.

Limited edge impacts to existing shrub cover near Parking Lot C are expected along the existing CNR Corridor fence line and at the top of slope above the Transitway. Overall impacts to the integrity of retained plant communities are expected to be negligible due to the existing dominance of disturbance tolerant, opportunistic and invasive species. Proposed replanting include an increased diversity of native tree species for the site.

Opportunities for future enhancement and improvement of retained vegetation include limiting the spread and reducing cover of invasive shrub species, control of vines to reduce canopy suppression, and general maintenance pruning as required.

5.2 Species at Risk and Wildlife

5.2.1 GENERAL HABITAT DESCRIPTION

The existing site context has limited naturalized areas for wildlife which include shrub dominated fencerows along the OC Transpo Corridor and the Via Rail Corridor, as well as planted trees which are primarily located within manicured lawns, and form small, naturalized woodlot and thicket communities where groupings of trees occur.

Available habitat within the site is expected to be suitable for common disturbance tolerant urban wildlife. Observations and signs included eastern grey squirrel, red squirrel, eastern cotton tail, groundhog, coyote, American crow, blue jay, and black-capped chickadee. Potential for bird nesting and bat roosting are also associated with trees on site.

5.2.2 SPECIES AT RISK

No Butternut or Black Ash trees (Endangered under the ESA) are identified for injury or removal as a result of the Project. One Butternut tree (*Juglans cinerea*) was identified greater than 100 m from the nearest project limits and is located behind the existing Riverside Hospital entrance sign. No risk to this tree is likely as it is separated from project works by distance and grade-separated roadways. As the project does not occur within 25 m of this tree, there are no implications under the ESA for butternut associated with the project.

All trees may provide potential roosting opportunities for bats, with potential roost features including leaf clusters, rough bark, crevices, and cavities. In order to avoid potential impacts to Endangered bats, removal of trees 10 cm DBH and greater must occur outside of the bat active season (April 1 to September 30). If tree removals cannot be completed outside of this season, an ESA authorization may be required and MECP should be contacted for next steps.

5.2.3 MIGRATORY BIRDS

No MBCA Schedule 1 nests were observed. All trees and shrubs may provide nesting opportunities for migratory birds. In order to avoid potential impacts to nesting birds, removal of trees and shrubs should occur outside of the bird nesting season (April 15 to August 31). If vegetation removals cannot be completed outside of this season, bird nest sweeps (details provided in **Section 5.4**) may be appropriate for isolated trees and shrub cover, provided that there are no concerns for Endangered bats (see above).

5.2.4 WILDLIFE IMPACTS

Proposed work may contribute to temporary and permanent impacts to local wildlife. Activities during construction, such as tree removal, excavation, and grading, may produce temporary disturbances in noise, dust, and vibrations for the duration of the project works. Permanent impacts include changes to existing tree cover, however retention of naturalized areas limits the scale of these impacts, as retained canopy trees provide cover and ecosystem services while newly planted trees mature.

5.3 Tree Preservation and Protection

5.3.1 TREE PROTECTION ZONE AND BARRIER

The City of Ottawa has established a Tree Protection Specification (**Appendix C**) that identifies the CRZ as a minimum setback for each tree in order to avoid injury to the tree. For all protected trees, the following measures must be implemented unless otherwise authorized by the General Manager:

1. *Prior to any work activity, tree protection fencing must be installed around the outer edge of the critical root zone, or as per the approved Tree Conservation Report or Tree Information Report, as applicable, and remain in place until the work is complete;*
2. *Tree protection fencing shall be at least 1.2 metres in height and installed in such a way that the fence cannot be altered; and*
3. *Such other measures as required by the General Manager to protect the tree.*

Further, the following activities are prohibited within the CRZ of a protected tree, unless authorized (i.e. approved tree injury):

- *Place any material or equipment, including outhouses;*
- *Raise or lower the existing grade; or*
- *Extend any hard surface or significantly change landscaping.*
- *Attach any signs, notices or posters to a tree, except as required by this by-law;*
- *Damage the root system, trunk or branches of a tree; or*
- *Direct exhaust fumes from equipment toward a tree canopy.*

5.3.2 TREE INJURY WITHIN CRITICAL ROOT ZONE

The following best management practices and mitigations should be applied to minimize injury within the CRZ of all trees identified as injuries within this plan. Where injuries to live trees are expected, approval for activities prohibited within the CRZ may be granted, provided efforts are made to reduce the degree and likelihood of injuries.

5.3.2.1 Root Compression Mitigation

The following mitigations should be applied wherever construction activities including vehicle access or increase of grade are expected within the CRZ of a tree:

- Place a layer of 15 – 30 cm of woodchip mulch over the CRZ; and
- Place plywood or steel plating over the woodchip layer.

5.3.2.2 Root Pruning Practices

Where excavation is to be carried out within the CRZ of trees identified as injuries, a qualified Arborist should be present on-site to carry out root pruning as needed. The following are standard Best Management Practices (BMPs) for root pruning and management:

- Root damage can be minimized by restricting equipment in the vicinity of the existing trees and limiting equipment and materials storage area within proximity to retained trees and shrubs. In general, roots 100 mm in diameter or larger should be considered structural roots. If there is any question about whether a tree's stability may be affected, an ISA Certified Arborist should be consulted.
- Root pruning should occur prior to the start of construction to prevent desiccation of roots, increase root regeneration, and minimize damage to root systems during construction. Roots should be pruned 15 cm to 30 cm back from the edge of the CRZ and to a depth of 1 m or the maximum depth of root penetration (whichever is greater). Pruning roots within the CRZ provides an area of minimally disturbed soil, allowing for new root growth.
- All pruning should be done with clean, approved root-pruning equipment and under the supervision of an ISA Certified Arborist. Tools for root pruning should be selected based on the size and location of roots; selective root pruning may be carried out with secateurs, chisels, loppers, hand saws, reciprocating saws, oscillating saws, and small chain saws; non-selective root pruning should be carried out with mechanical root pruners or air-spades.
- Any roots that are severed during construction should be cut cleanly to minimize decay and entry points for disease. If roots will be exposed for more than a few hours, they should be protected from drying with the application of mulch.
- Pruned root ends shall be neatly and squarely trimmed and the area shall be backfilled with clean native fill as soon as possible to prevent desiccation and promote root growth.
- The exposed roots shall not be allowed to dry out and an appropriate watering schedule shall be undertaken (e.g., water bi-weekly to field capacity between June 1st and September 15th) so that the roots maintain optimum soil moisture during construction and backfilling operations.

5.3.2.3 Branch Pruning Practices

The following are standard BMPs for branch pruning:

- Limbs that may interfere with construction should be pruned by a Certified Arborist. All pruning shall be completed as per the American National Standard (ANSI) A300 (Part 1) - Pruning (2008).
- All limbs damaged or broken during construction should be pruned cleanly, utilizing by-pass secateurs in accordance with approved horticultural practices. Should there be a potential risk of transfer of disease from infected to non-infected trees; tools must be disinfected after pruning each tree by dipping in methyl hydrate. This practice is particularly important during periods of tree stress and when pruning many members of the same genera, within which a disease could be spread quickly (i.e., Verticillium Wilt on Maples or Fireblight on genera of the Rosaceae family).
- Pruning cuts should be reduction cuts wherever possible and made to a growing point such as a bud, twig, or branch of approximately 1/3 diameter of the branch being pruned.
- Removal cuts should not exceed 10% of the total cuts made on each individual tree, and cuts should be made just outside the branch collar (the swollen area at the base of the branch that sometimes has a bark ridge), and perpendicular to the branch being pruned rather than as close to the trunk as possible. This minimizes the site of the wound. No stubs should be left. Poor cut location, poor cut angle and torn cuts are not acceptable.
- Extensive pruning is best completed before plants break dormancy.
- Pruning should be limited to the removal of no more than 20% of the total bud and leaf bearing branches. Pruning should include the careful removal of:
    - Deadwood
    - Branches that are weak, damaged, diseased and those which will interfere with construction activity
    - Secondary leaders of conifers
    - Trunk and root suckers
    - Trunk waterspouts
    - Tight V-shaped or included bark in unions
- Any branches that overhang the work area and require pruning are to be pruned using good arboricultural practices utilizing by-pass secateurs in accordance with approved horticultural practices and ANSI A300 (Part 1) - 2008 Pruning.

5.4 Wildlife Mitigations

Standard mitigations are recommended below to minimize and mitigate any impacts to wildlife as a result of proposed works as outlined by the Protocol for Wildlife Protection during Construction (Ottawa 2022):

- All tree clearing personnel should be briefed on wildlife protection measures, potential SAR, and provided contact information for the Project Biologist, and wildlife rehabilitators.
- Pre-stress areas where vegetation is to be cleared to encourage wildlife to leave the site.
- Check the work site prior to beginning of work each day for wildlife. If wildlife is found in the work site, stand back and allow the animal to leave the site independently.
- In the event that wildlife encountered does not move away from the construction zone, and construction activities are such that continuing construction in the area would result in harm to the animal, all activities will stop, and the Project Manager will be notified immediately.
- Minimize garbage present at the work site to reduce wildlife encounters.

In addition to the above standard mitigations, timing windows for tree removals are required to avoid impacts to Endangered bats and breeding birds.

5.4.1 TIMING FOR TREE REMOVALS

To minimize impacts to wildlife and ensure compliance of the Migratory Birds Convention Act, 1994 and the Endangered Species Act, 2007 (i.e., for bats), the following is recommended:

- Time vegetation removal to occur between October 1 to March 31, which is outside of the breeding bird (i.e., April 15 to August 31) and active bat season (i.e., April 1 to September 30);
- If vegetation removal is required during the breeding bird season, a nest sweep should be completed by a qualified biologist prior to construction to verify nesting activity.
    - Vegetation sweeps are acceptable within non-complex habitat (i.e. isolated trees with no cavities or peeling bark) however are not recommended where dense clusters of vegetation are present, or where trees are too tall to feasibly inspect.
    - Vegetation clearing must take place within 48 hours of the inspection; and
    - If an active nest is found within the work area, at any time (including times outside of the typical nesting season), construction in the vicinity must cease until the young birds have fledged or the nest is otherwise abandoned. A setback from the nest (e.g., 30 m) should be identified and the area demarcated to ensure work does not occur within the setback limits. A qualified biologist should be consulted to determine the setback limits.

6 Conclusion

This Tree Conservation Report identified a total of 64 living trees measuring 10 cm or greater to be removed as a result of the project. The design considered avoidance of tree impacts in selection of the proposed parking lot locations, with a total of 130 inventoried trees to be retained outside of the selected project limits. Additionally, retention and protection are recommended for 11 trees within proximity to the works. This report includes recommendations for mitigation measures, permitting and compensation requirements, and is based on the project details available at the time of assessment.

7 References

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Appendix A

Tree Removal and Protection Plan

PARSONS

User Name: p0066646G

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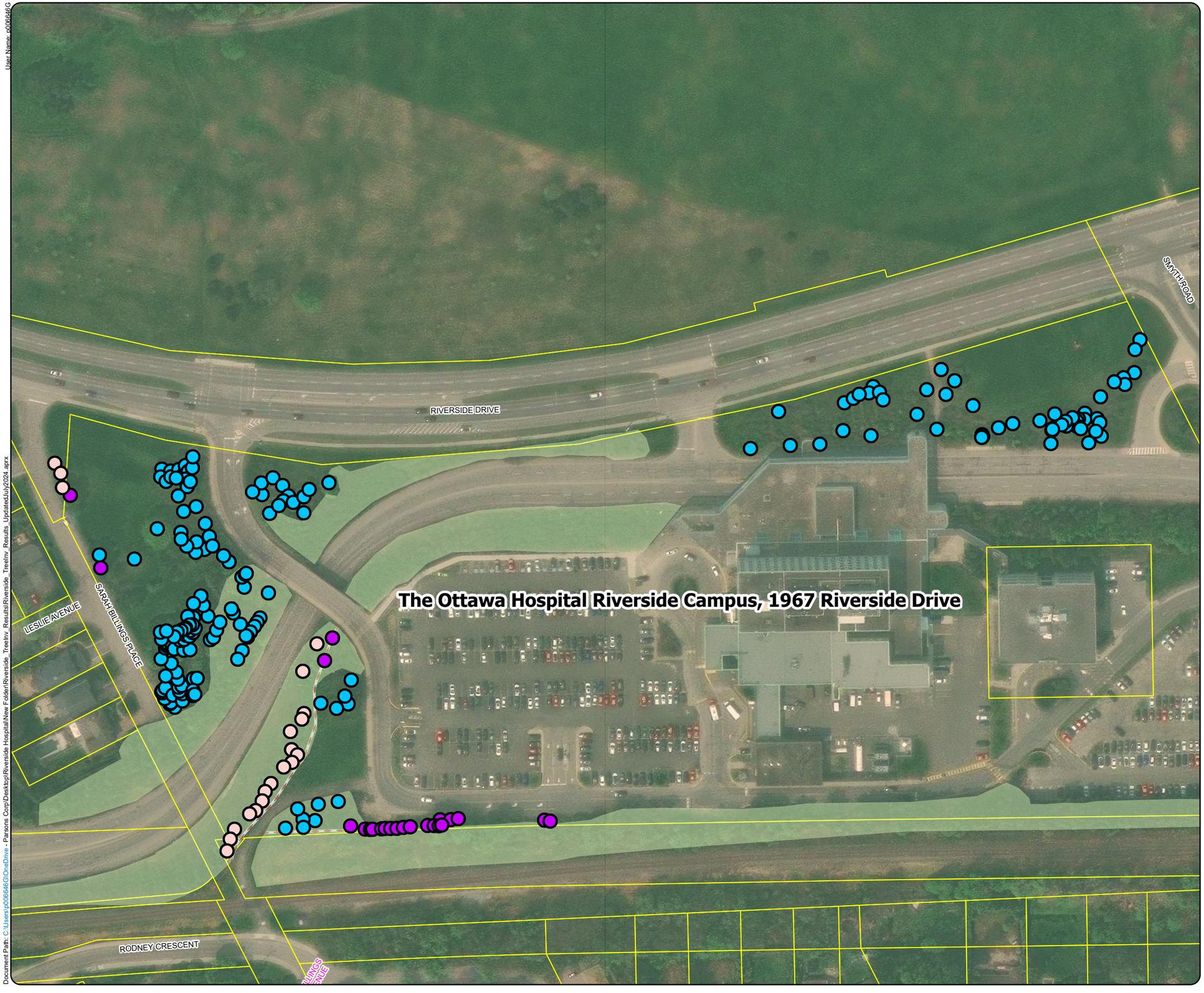
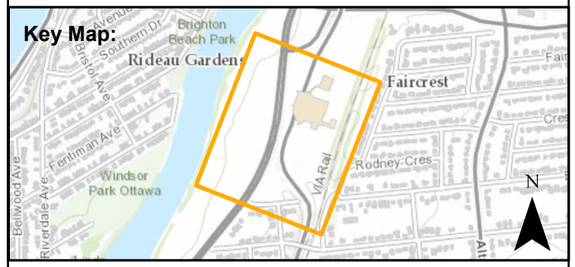


Tree Inventory

Riverside Campus Parking Lot (The Ottawa Hospital)

Map 1A: Overview



Legend

- Property Parcels
- Existing Fenceline
- Shrub Areas

Tree Ownership

- Shared
- TOH
- City of Ottawa

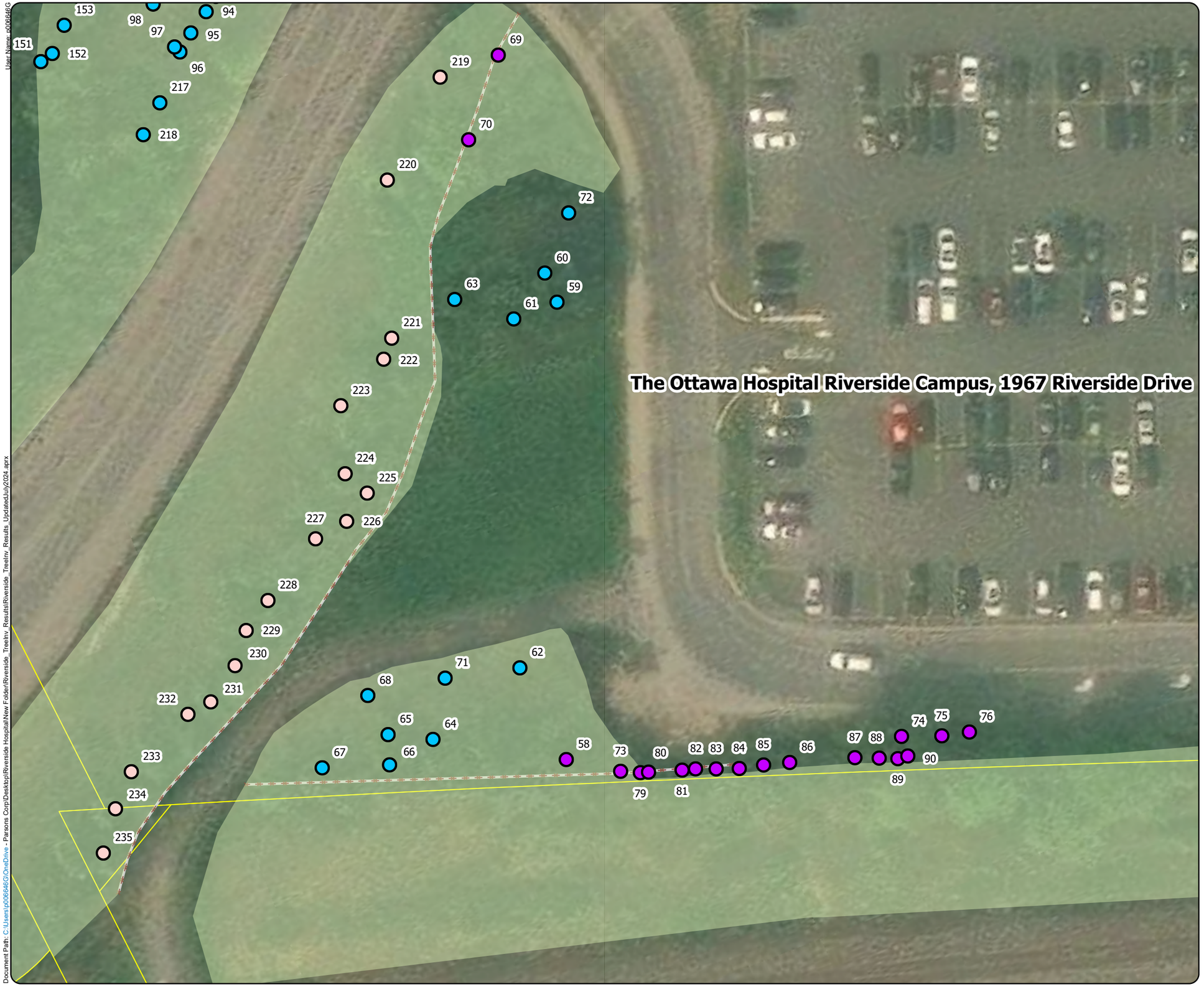
Scale: 1:1,500

0 12.5 25 50 75 100 Meters

Parsons Job No:	Date:	Author:
479008	3/13/2025	MN

Data Source:
Basemap Imagery - ESRI
Vegetation Inventory Data - Parsons

PARSONS®
100-1223 Michael Street
Gloucester, ON K1J 7T2, Canada
613-738-4160



Tree Inventory

Riverside Campus Parking Lot (The Ottawa Hospital)

Map 1B: Parking Lot C

Legend

- Property Parcels
- Existing Fenceline
- Shrub Areas

Tree Ownership

- Shared
- TOH
- City of Ottawa

Scale: 1:400

0 5 10 20 30 Meters

Parsons Job No:	Date:	Author:	
479008	3/14/2025	MN	
Data Source: Basemap Imagery - ESRI Vegetation Inventory Data - Parsons			

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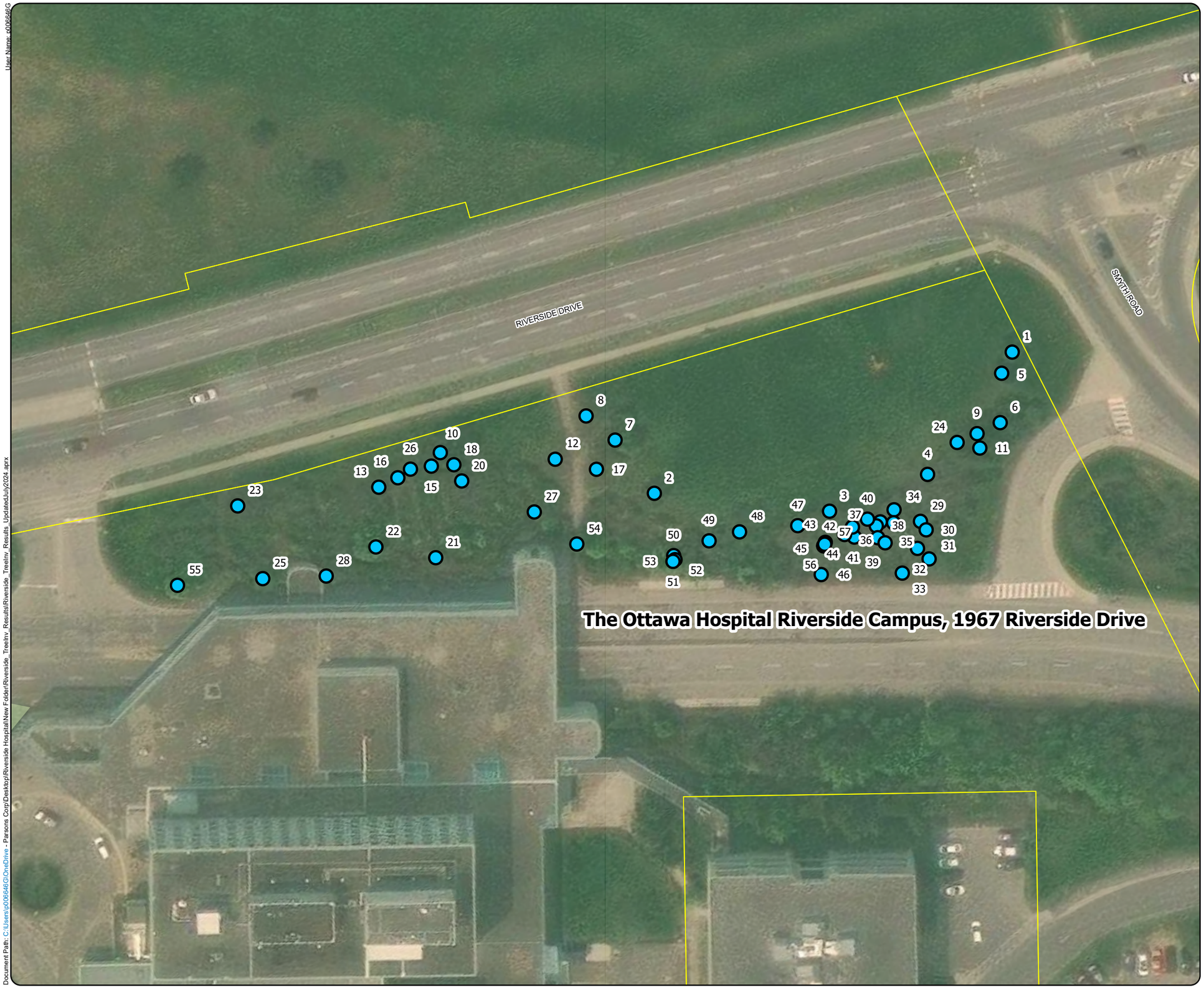
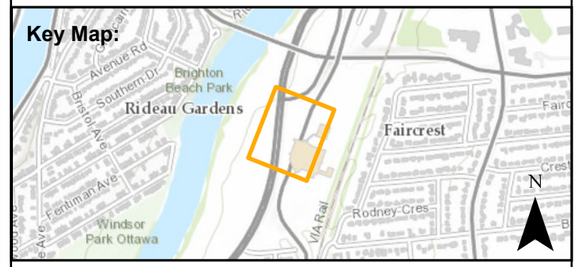


Tree Inventory

Riverside Campus Parking Lot (The Ottawa Hospital)

Map 1C: Parking Lot D



Legend

- Property Parcels
- Shrub Areas

Tree Ownership

- TOH

Scale: 1:700

0 5 10 20 30 Meters

Parsons Job No:	Date:	Author:
479008	3/14/2025	MN

Data Source:
Basemap Imagery - ESRI
Vegetation Inventory Data - Parsons

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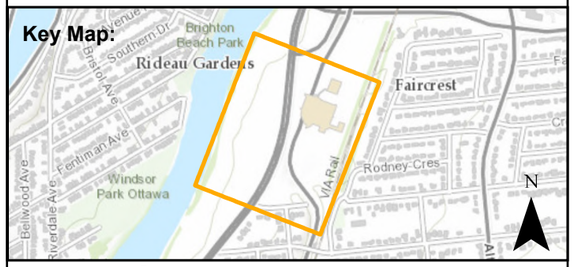
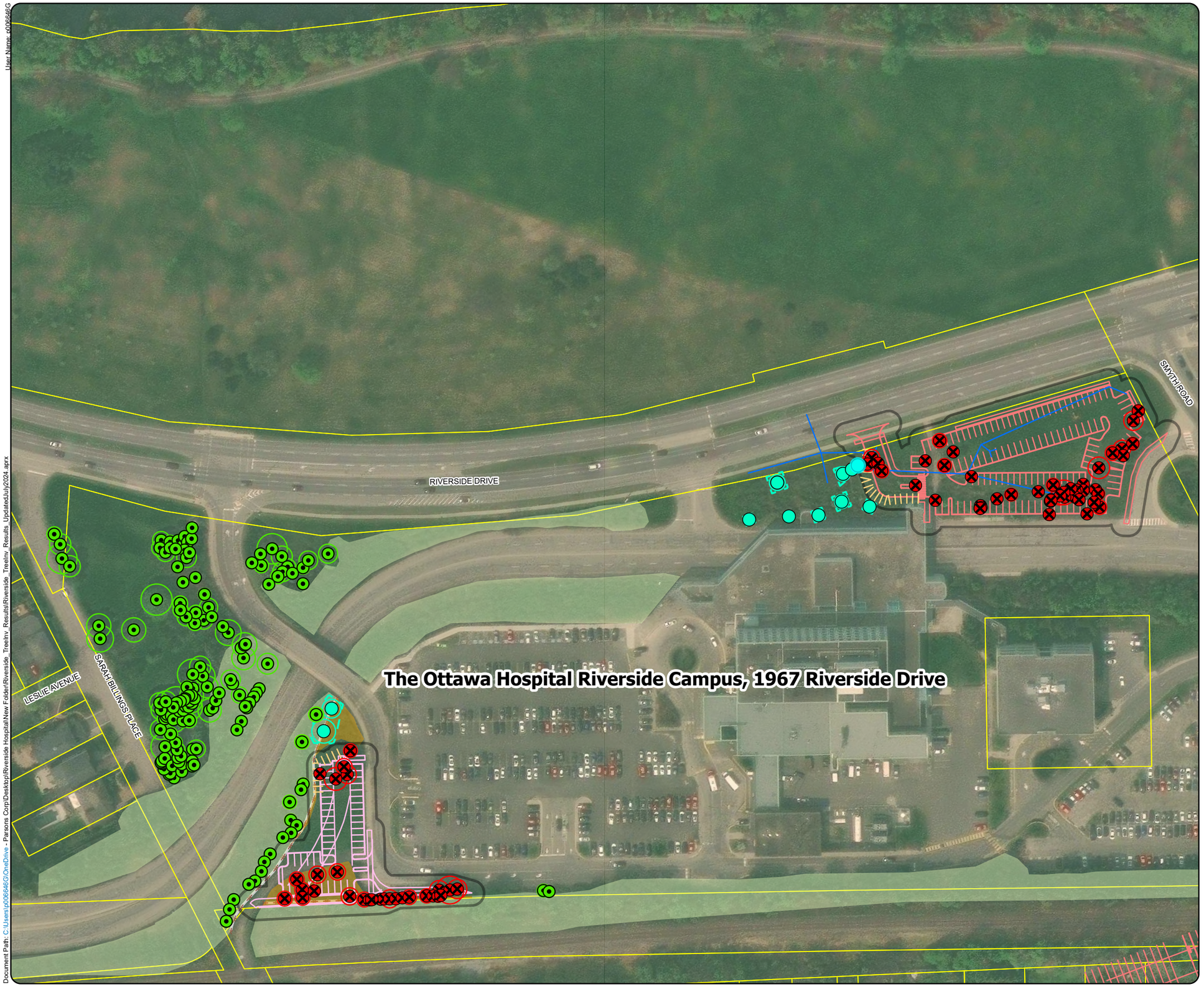
Tree Inventory

Riverside Campus Parking Lot (The Ottawa Hospital)

Map 2A: Overview





Legend

- Property Parcels
- Existing Fenceline
- Proposed Parking Lot C
- Proposed Parking Lot D
- Proposed Drainage
- Proposed Limits of Grading
- Recommended Tree Protection Fencing
- Design Buffer (5 m)

Shrub Areas

- Remove
- Retain

Tree Location

- Remove
- Protect
- Retain

Critical Root Zone (CRZ)

- Remove
- Protect
- Retain

Scale: 1:1,500

0 12.5 25 50 75 100 Meters

Parsons Job No:	Date:	Author:
479008	3/14/2025	MN

Data Source:
Basemap Imagery - ESRI
Vegetation Inventory Data - Parsons

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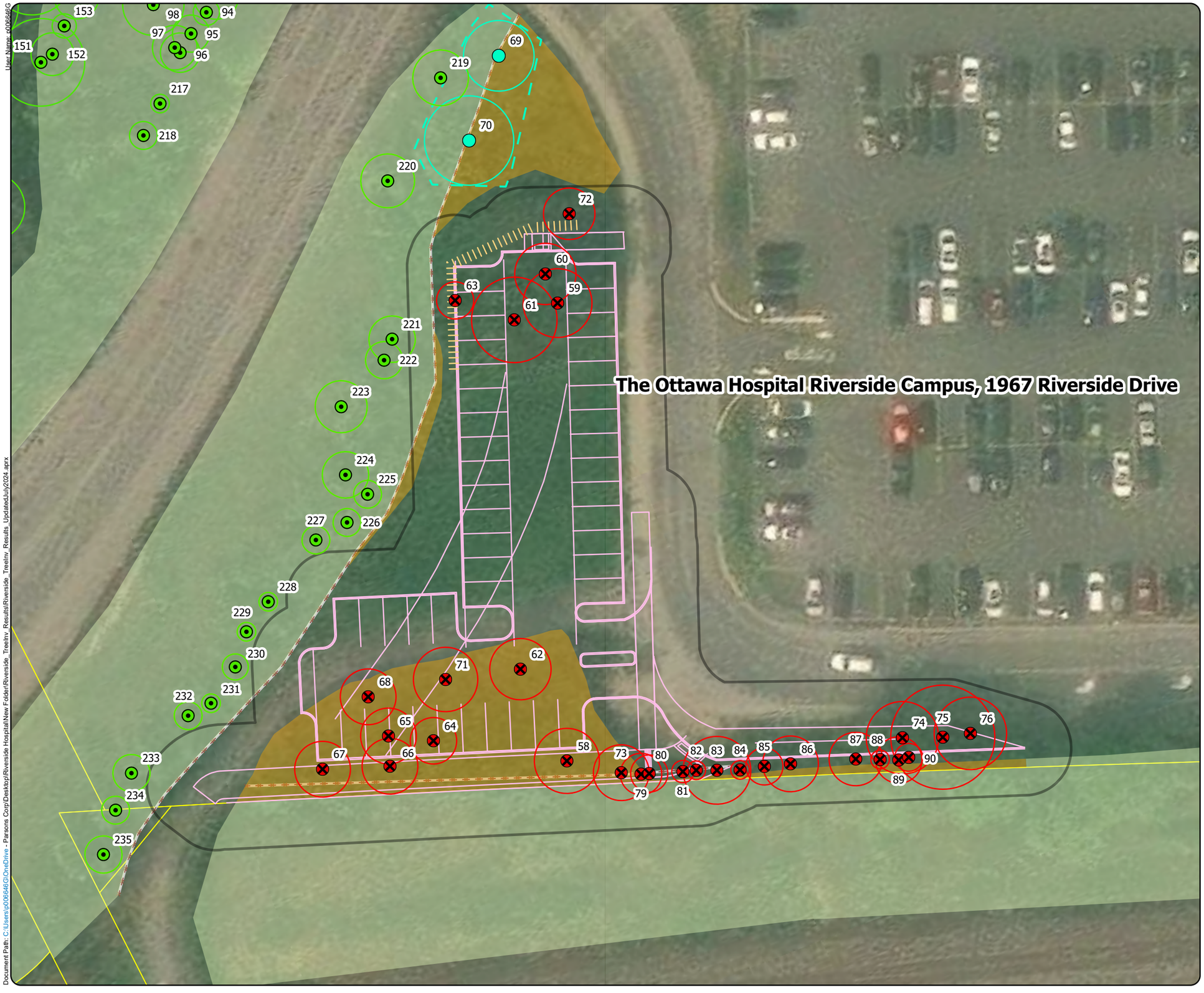
Gloucester, ON K1J 7T2, Canada
613-738-4160



Tree Inventory

Riverside Campus Parking Lot (The Ottawa Hospital)

Map 2B: Parking Lot C

Legend

- Property Parcels
- Existing Fenceline
- Proposed Parking Lot C
- Recommended Tree Protection Fencing
- Design Buffer (5 m)

Shrub Areas

- Remove
- Retain

Tree Location

- Remove
- Protect
- Retain

Critical Root Zone (CRZ)

- Remove
- Protect
- Retain

Scale: 1:400

0 5 10 20 30 Meters

Parsons Job No:	Date:	Author:
479008	3/14/2025	MN

Data Source:
Basemap Imagery - ESRI
Vegetation Inventory Data - Parsons

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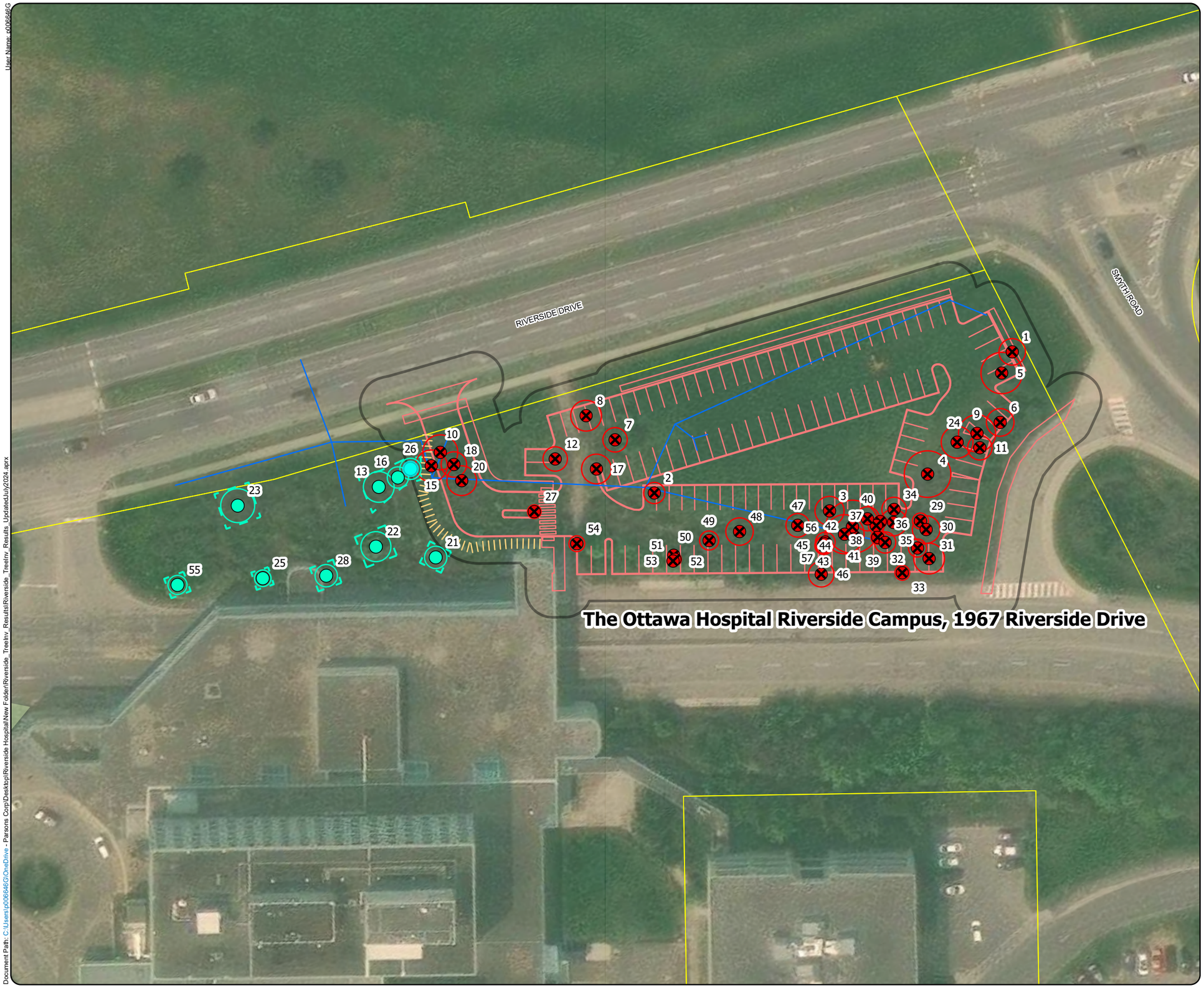
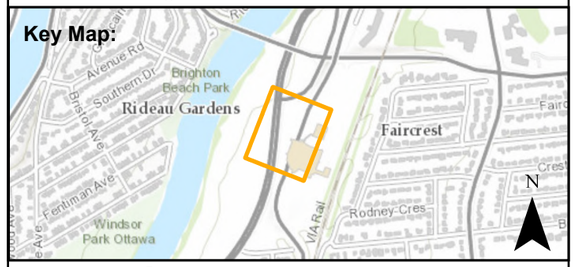


Tree Inventory

Riverside Campus Parking Lot (The Ottawa Hospital)

Map 2C: Parking Lot D



Legend

- Property Parcels
- Proposed Parking Lot C
- Proposed Parking Lot D
- Proposed Drainage
- Proposed Limits of Grading
- Recommended Tree Protection Fencing
- Design Buffer (5 m)

Shrub Areas

- Remove
- Retain

Tree Location

- Remove
- Protect

Critical Root Zone (CRZ)

- Remove
- Protect

Scale: 1:700

0 5 10 20 30 Meters

Parsons Job No:	Date:	Author:
479008	3/14/2025	MN

Data Source:
Basemap Imagery - ESRI
Vegetation Inventory Data - Parsons

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Appendix B

Tree Inventory Data

PARSONS

Tree ID #	Common Name	*Botanical Name*	DBH (cm)	DBH Category	Number of Stems	DBH Add. Stems	CRZ (m)	Condition	Condition Notes	Project Location	Proposed Action	Reason for Removal/Injury	Mitigation	Ownership
1	White Spruce	*Picea glauca*	25	10 to 29 cm	1	n/a	2.5	Good	Minor lean towards road.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
2	Austrian Pine	*Pinus nigra*	20	10 to 29 cm	1	n/a	2.0	Good	Insect damage	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
3	Black Locust	*Robinia pseudoacacia*	16	10 to 29 cm	4	15	2.7	Fair	Bark damage. Very close to nearby tree.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
4	Black Walnut	*Juglans nigra*	40	30 to 49 cm	2	18	4.4	Good	Broken branches.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
5	White Spruce	*Picea glauca*	39	30 to 49 cm	1	n/a	3.9	Good	Lean away from road.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
6	Austrian Pine	*Pinus nigra*	26	10 to 29 cm	1	n/a	2.6	Good	Canopy topped.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
7	Russian Olive	*Elaeagnus angustifolia*	23	10 to 29 cm	1	n/a	2.3	Poor	Major lean towards road. Dieback 85%. Only top of crown remains. Heavy competition by shrubs.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
8	Honey Locust	*Gleditsia triacanthos*	29	10 to 29 cm	1	n/a	2.9	Good	Exposed roots from mower damage.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
9	Austrian Pine	*Pinus nigra*	35	30 to 49 cm	1	n/a	3.5	Good	Exposed roots.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
10	Red Pine	*Pinus resinosa*	33	30 to 49 cm	1	n/a	3.3	Good	Minor lean away from road. Exposed roots from mower damage.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
11	Austrian Pine	*Pinus nigra*	23	10 to 29 cm	1	n/a	2.3	Fair	Woodbine vines. Insect damage. DSV.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
12	Honey Locust	*Gleditsia triacanthos*	23	10 to 29 cm	1	n/a	2.3	Good	Mower damage. Exposed roots.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
13	Honey Locust	*Gleditsia triacanthos*	29	10 to 29 cm	1	n/a	2.9	Good	DSV at mowed edge. Surrounded by shrubs.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
15	Red Pine	*Pinus resinosa*	30	30 to 49 cm	1	n/a	3.0	Good	Mower damage. Exposed roots.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
16	Red Pine	*Pinus resinosa*	20	10 to 29 cm	1	n/a	2.0	Good	Mower damage.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
17	Honey Locust	*Gleditsia triacanthos*	28	10 to 29 cm	1	n/a	2.8	Good	Exposed root. Mower damage. Previous bark damage from pruning.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
18	Austrian Pine	*Pinus nigra*	24	10 to 29 cm	1	n/a	2.4	Good	Mammal burrow near base. Exposed root from mower.	Parking Lot D	Remove	Overlaps with designed parking lot	Pre-stress wildlife burrow.	TOH
20	Honey Locust	*Gleditsia triacanthos*	28	10 to 29 cm	1	n/a	2.8	Good	Exposed root from mower damage. Covered by shrubs.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
21	Black Walnut	*Juglans nigra*	12	10 to 29 cm	4	10	2.1	Good	Codominant leaders, DBHs: 10, 10 cm. Broken side branch.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
22	Japanese Tree Lilac	*Syringa reticulata*	10	10 to 29 cm	8	10	2.8	Fair	Epicormic growth. Codominant leaders, DBHs at 10 cm each. Insect damage. DSV.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
23	Honey Locust	*Gleditsia triacanthos*	32	30 to 49 cm	1	n/a	3.2	Good	Exposed roots from mower damage. Competition with honeysuckle shrubs at base.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
24	Austrian Pine	*Pinus nigra*	30	30 to 49 cm	1	n/a	3.0	Good	Exposed roots. Insect damage.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
25	White Birch	*Betula papyrifera*	12	10 to 29 cm	2	10	1.6	Good	Exposed roots. A foot from electrical box. Codominant leaders.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
26	Honey Locust	*Gleditsia triacanthos*	20	10 to 29 cm	1	n/a	2.0	Good	Epicormic growth. Mower damage. Exposed roots.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
27	Green Ash	*Fraxinus pennsylvanica*	10	10 to 29 cm	2	8	1.3	Poor	Dieback 90%. Codominant leaders. Shrub competition. DSV and wild grape.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
28	Green Ash	*Fraxinus pennsylvanica*	12	10 to 29 cm	4	10	2.1	Fair	Codominant leaders, DBHs: 10, 10 cm. Epicormic growth. Peeling bark. EAB damage. Next to building, major lean. Fungus.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
29	Ash sp	*Fraxinus sp.*	15	10 to 29 cm	1	n/a	1.5	Dead	EAB insect damage	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
30	Pine sp	*Pinus sp*	26	10 to 29 cm	1	n/a	2.6	Dead	Insect damage	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
31	Black Walnut	*Juglans nigra*	29	10 to 29 cm	1	n/a	2.9	Good	Good tree. No visible issues.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
32	Green Ash	*Fraxinus pennsylvanica*	17	10 to 29 cm	1	n/a	1.7	Dead	Main stem dead. EAB damage. Peeling bark. Epicormic growth is still alive.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
33	Black Walnut	*Juglans nigra*	14	10 to 29 cm	1	n/a	1.4	Good	Good tree.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
34	Black Walnut	*Juglans nigra*	19	10 to 29 cm	2	13	2.3	Good	Codominant leaders.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
35	Austrian Pine	*Pinus nigra*	25	10 to 29 cm	1	n/a	2.5	Poor	Insect damage. Dieback 90%. Only crown remain.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
36	Black Locust	*Robinia pseudoacacia*	12	10 to 29 cm	1	n/a	1.2	Fair	Lower branches dieback. Only crown remain with competition.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
37	Black Locust	*Robinia pseudoacacia*	15	10 to 29 cm	1	n/a	1.5	Good	No comments, good tree.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
38	Black Locust	*Robinia pseudoacacia*	13	10 to 29 cm	1	n/a	1.3	Good	No comments, good tree.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
39	Green Ash	*Fraxinus pennsylvanica*	20	10 to 29 cm	1	n/a	2.0	Dead	EAB damage. Main stem dead. Epicormic stems are still alive. DSV. Peeling bark.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
40	Black Locust	*Robinia pseudoacacia*	17	10 to 29 cm	2	15	2.3	Good	Codominant leaders. Shrub competition	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
41	Black Locust	*Robinia pseudoacacia*	11	10 to 29 cm	1	n/a	1.1	Good	No comments, good tree.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
42	Black Locust	*Robinia pseudoacacia*	50	50 cm +	1	n/a	5.0	Fair	Peeling bark. Exposed roots. Mammal burrow 2 ft away	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
43	Black Locust	*Robinia pseudoacacia*	15	10 to 29 cm	2	11	1.9	Good	Exposed roots. On slope.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
44	Black Locust	*Robinia pseudoacacia*	25	10 to 29 cm	2	27	3.7	Good	Codominant leaders. Mower damage. Exposed roots. Peeling bark.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
45	Black Locust	*Robinia pseudoacacia*	15	10 to 29 cm	1	n/a	1.5	Good	Squirrel nest.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
46	Black Walnut	*Juglans nigra*	24	10 to 29 cm	1	n/a	2.4	Good	Dropping lower branches but otherwise good.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
47	Black Locust	*Robinia pseudoacacia*	15	10 to 29 cm	3	13	2.2	Good	Codominant leaders, other stems DBH 10 cm. Lean towards road. Very close to ash tree.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
48	Amur Maple	*Acer ginnala*	13	10 to 29 cm	6	10	2.6	Fair	Codominant leaders, DBHs: 10, 10, 10, 10 cm. Mower damage. Splitting bark. Peeling bark.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
49	Amur Maple	*Acer ginnala*	11	10 to 29 cm	3	10	1.8	Fair	Codominant leaders, other stems DBH 10 cm. Broken branches.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
50	Trembling Aspen	*Populus tremuloides*	10	10 to 29 cm	1	n/a	1.0	Good	DSV. Edge of path.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
51	Balsam Poplar	*Populus balsamifera*	10	10 to 29 cm	1	n/a	1.0	Good	Minor lean toward path.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
52	Trembling Aspen	*Populus tremuloides*	12	10 to 29 cm	1	n/a	1.2	Good	Very close to balsam poplar	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
53	Balsam Poplar	*Populus balsamifera*	11	10 to 29 cm	1	n/a	1.1	Good	DSV	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
54	Small-leaved Linden	*Tilia cordata*	10	10 to 29 cm	2	11	1.5	Good	Next to paved path. Epicormic growth. Previously pruned.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
55	Japanese Tree Lilac	*Syringa reticulata*	11	10 to 29 cm	3	10	1.8	Good	Codominant leaders, other stems DBH 10 cm. Previously pruned. Epicormic growth.	Parking Lot D	Protect	n/a	Tree Protection Fencing	TOH
56	Black Locust	*Robinia pseudoacacia*	17	10 to 29 cm	1	n/a	1.7	Good	Squirrel nest.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
57	Black Locust	*Robinia pseudoacacia*	11	10 to 29 cm	1	n/a	1.1	Good	Exposed roots. On slope.	Parking Lot D	Remove	Overlaps with designed parking lot	n/a	TOH
58	White Spruce	*Picea glauca*	35	30 to 49 cm	1	n/a	3.5	Excellent	No notes	Parking Lot C	Remove	Overlaps with designed MUP	n/a	Shared
59	Red Pine	*Pinus resinosa*	37	30 to 49 cm	1	n/a	3.7	Fair	Unbalanced. Dieback 40%.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
60	Red Pine	*Pinus resinosa*	33	30 to 49 cm	1	n/a	3.3	Poor	Dieback 60%. Canopy competition with nearby white pine.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
61	White Pine	*Pinus strobus*	46	30 to 49 cm	1	n/a	4.6	Poor	Dieback 40%. Stick nest at bottom third of tree facing road.	Parking Lot C	Remove	Overlaps with designed parking lot	Confirm that nest is inactive	TOH
62	Red Oak	*Quercus rubra*	33	30 to 49 cm	1	n/a	3.3	Good	Minor pruning over trail	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
63	White Spruce	*Picea glauca*	20	10 to 29 cm	1	n/a	2.0	Fair	Side leader dominant, small stick nest	Parking Lot C	Remove	Overlaps with designed parking lot	Confirm that nest is inactive	TOH
64	White Spruce	*Picea glauca*	25	10 to 29 cm	1	n/a	2.5	Good	Lower branch dieback (shade suppressed)	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
65	White Spruce	*Picea glauca*	30	30 to 49 cm	1	n/a	3.0	Good	Lower branch dieback shade suppressed	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
66	Scots Pine	*Pinus sylvestris*	30	30 to 49 cm	1	n/a	3.0	Fair	Sparse canopy	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
67	Scots Pine	*Pinus sylvestris*	30	30 to 49 cm	1	n/a	3.0	Fair	Lower branches Dieback. Competition with shrubs	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
68	Red Oak	*Quercus rubra*	30	30 to 49 cm	1	n/a	3.0	Good	Minor pruning over trail, competition with shrubs. Dieback 10%	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
69	Manitoba Maple	*Acer negundo*	19	10 to 29 cm	4	19	3.8	Poor	Dead stems, dieback 20%. Growing into fence with half of tree on one side.	Parking Lot C	Protect	n/a	Tree Protection Fencing	Shared
70	Manitoba Maple	*Acer negundo*	34	30 to 49 cm	2	34	4.8	Fair	Lean towards transit way. Dieback 15%	Parking Lot C	Protect	n/a	Tree Protection Fencing	Shared
71	Red Oak	*Quercus rubra*	20	10 to 29 cm	3	20	3.5	Fair	Competition with shrubs, Epicormic growth.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	TOH
72	Serviceberry	*Amelanchier sp*	16	10 to 29 cm	3	16	2.8	Fair	Codominant leaders, each stem the same size. Unbalanced. Dieback 20%.	Parking Lot C	Remove	Overlaps with expected grading work	n/a	TOH
73	Jack Pine	*Pinus banksiana*	30	30 to 49 cm	1	n/a	3.0	Fair	Peeling bark, competition with other shrubs and smaller trees.	Parking Lot C	Remove	Overlaps with designed MUP	n/a	Shared
74	Red Pine	*Pinus resinosa*	39	30 to 49 cm	1	n/a	3.9	Good	Minor lean towards road, woodpecker feeding holes. Mower damage on exposed roots.	Parking Lot C	Remove	Overlaps with designed MUP	n/a	Shared
75	Scots Pine	*Pinus sylvestris*	56	50 cm +	1	n/a	5.6	Good	Insect damage	Parking Lot C	Remove	Overlaps with designed MUP	n/a	Shared
76	Scots Pine	*Pinus sylvestris*	39	30 to 49 cm	1	n/a	3.9	Good	Insect Damage	Parking Lot C	Remove	Overlaps with designed MUP	n/a	Shared

Tree ID #	Common Name	*Botanical Name*	DBH (cm)	DBH Category	Number of Stems	DBH Add. Stems	CRZ (m)	Condition	Condition Notes	Project Location	Proposed Action	Reason for Removal/Injury	Mitigation	Ownership
77	Green Ash	*Fraxinus pennsylvanica*	13	10 to 29 cm	6	10	2.6	Poor	Other stems at 10. Codom. And Epi. Prev main stem cut. Peeling bark. Insect. Growing at base of fence.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	Shared
78	Green Ash	*Fraxinus pennsylvanica*	10	10 to 29 cm	1	n/a	1.0	Dead	Previously cut tree with original DBH at 25 cm. Epicormic growth still alive but no main leader. Growing in fence. Competition with elm.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	Shared
79	Manitoba Maple	*Acer negundo*	20	10 to 29 cm	2	10	2.2	Dead	Codominant leader, 10 DBH. Many Epicormic growths, main trunk dead, covered in vines. Already broken 2 leaders.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	Shared
80	Green Ash	*Fraxinus pennsylvanica*	20	10 to 29 cm	1	n/a	2.0	Dead	Very poor health. Galleries abundant. Only Epicormic branches are alive. Vines. At fence line.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	Shared
81	Green Ash	*Fraxinus pennsylvanica*	12	10 to 29 cm	1	n/a	1.2	Dead	Lean away from fence. Peeling bark. Many galleries.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	Shared
82	Green Ash	*Fraxinus pennsylvanica*	10	10 to 29 cm	1	n/a	1.0	Dead	Peeling bark, leaning on shrubs. Already fallen	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	Shared
83	Manitoba Maple	*Acer negundo*	23	10 to 29 cm	3	20	3.6	Poor	Dbh3: 20. Third leader dead. Major root flare damage. Growing from fence. Insect. Dieback 50%. Epicormic growth.	Parking Lot C	Remove	Overlaps with designed parking lot	n/a	Shared
84	Green Ash	*Fraxinus pennsylvanica*	10	10 to 29 cm	1	n/a	1.0	Dead	Leaning dead ash within 1 m of existing fence	Parking Lot C	Remove	Dead tree adjacent to fence line to be moved.	n/a	Shared
85	Manitoba Maple	*Acer negundo*	20	10 to 29 cm	1	n/a	2.0	Poor	2 dead leaders. Major lean away from fence. Epicormic growth.	Parking Lot C	Remove	CRZ overlaps with parking design	n/a	Shared
86	Manitoba Maple	*Acer negundo*	30	30 to 49 cm	1	n/a	3.0	Dead	Only trunk left behind. Topped at 2 m	Parking Lot C	Remove	Over 30% CRZ overlaps with design	n/a	Shared
87	Green Ash	*Fraxinus pennsylvancia*	25	10 to 29 cm	1	10	2.9	Poor	Dbh3:10. 1 stem alive, two dead. Major lean away from fence. Root at fence line. Vines. Buckthorn.	Parking Lot C	Remove	Over 30% CRZ overlaps with design	n/a	Shared
88	Green Ash	*Fraxinus pennsylvanica*	10	10 to 29 cm	1	n/a	1.0	Dead	Dead stand	Parking Lot C	Remove	CRZ overlaps with parking design	n/a	Shared
89	Manitoba Maple	*Acer negundo*	20	10 to 29 cm	2	15	2.5	Poor	Major lean away from fence. Codominant leaders. Unbalanced. Competition with basswood.	Parking Lot C	Remove	Over 30% CRZ overlaps with design	n/a	Shared
90	Basswood	*Tilia americana*	15	10 to 29 cm	1	n/a	1.5	Fair	Outside of fence. Root at fence competing with manimaple. Epi. Unbalanced.	Parking Lot C	Remove	CRZ overlaps with parking design	n/a	Shared
91	Manitoba Maple	*Acer negundo*	42	30 to 49 cm	1	n/a	4.2	Fair	Epicormic growths. Codominant leaders. Broken branches. Dieback 30%. Competition with shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
92	Manitoba Maple	*Acer negundo*	16	10 to 29 cm	2	16	2.3	Poor		Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
93	Black Walnut	*Juglans nigra*	24	10 to 29 cm	1	n/a	2.4	Fair	Sparse canopy. Minor dieback.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
94	Manitoba Maple	*Acer negundo*	10	10 to 29 cm	2	10	1.4	Poor	1 stem dead, peeling bark	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
95	Black Walnut	*Juglans nigra*	20	10 to 29 cm	1	n/a	2.0	Fair	Sparse canopy. Minor dieback.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
96	Manitoba Maple	*Acer negundo*	15	10 to 29 cm	2	15	2.1	Poor	1 stem dead, bark removed	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
97	Black Walnut	*Juglans nigra*	24	10 to 29 cm	1	n/a	2.4	Fair	Competition with Manitoba maple. Vine. Sparse canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
98	Black Walnut	*Juglans nigra*	33	30 to 49 cm	1	n/a	3.3	Good	On slope. Vines. Dieback 20%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
99	Manitoba Maple	*Acer negundo*	10	10 to 29 cm	1	n/a	1.0	Poor	Trunk not straight. Mower trunk damage. Canopy competition with red pine. Previously pruned.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
100	Red Pine	*Pinus resinosa*	39	30 to 49 cm	1	n/a	3.9	Fair	Codominant leaders starting midway. Otherwise good canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
101	Manitoba Maple	*Acer negundo*	38	30 to 49 cm	3	22	4.7	Fair	Codominant, 3 stems. DBHs: 22, 18 cm. Epicormic growth. Exposed roots. Mower damage. Previously pruned. Vines. Dieback 20%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
102	Manitoba Maple	*Acer negundo*	11	10 to 29 cm	2	11	1.6	Fair	Vines, unbalanced canapy	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
103	Manitoba Maple	*Acer negundo*	25	10 to 29 cm	4	25	5.0	Fair	Unbalanced, vines	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
104	Manitoba Maple	*Acer negundo*	10	10 to 29 cm	2	10	1.4	Fair	Note that this is connected to other tree. No 15 cm trees are present.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
105	Manitoba Maple	*Acer negundo*	17	10 to 29 cm	3	17	2.9	Poor	Dieback 40%. Competition with shrubs. Epicormic growth and dying.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
106	Black Walnut	*Juglans nigra*	17	10 to 29 cm	1	n/a	1.7	Fair	Dieback 20%. Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
107	Manitoba Maple	*Acer negundo*	25	10 to 29 cm	6	25	6.1	Fair	Epicormic growth. Competition with shrubs. Dieback 20%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
108	Amur Maple	*Acer ginnala*	19	10 to 29 cm	5	19	4.2	Fair	Multistem and Epicormic growth. Competition with shrubs. Dieback 15%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
109	White Spruce	*Picea glauca*	33	30 to 49 cm	1	n/a	3.3	Fair	Major lean. Competition with shrubs. Lower branches dieback 50%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
110	Amur Maple	*Acer ginnala*	20	10 to 29 cm	4	20	4.0	Good	Codominant leaders. Competition with shrubs	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
111	Apple	*Malus sp*	22	10 to 29 cm	1	n/a	2.2	Fair	Competition with white spruce. Dieback 10%. Competition with shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
112	Apple	*Malus sp*	19	10 to 29 cm	1	n/a	1.9	Fair	Competition with shrubs. On hill with slight lean.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
113	Ginko	*Ginkgo biloba*	26	10 to 29 cm	1	n/a	2.6	Dead	Bark damage, no visible buds.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
114	Russian Olive	*Elaeagnus angustifolia*	30	30 to 49 cm	2	23	3.8	Fair	Epicormic growth, DBH2: 23. Lean. Competition with shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
115	Norway Maple	*Acer platanoides*	35	30 to 49 cm	2	16	3.8	Fair	Second stem is 16 cm DBH. Exposed roots. Peeling bark. Lower stem dieback 15%. Competition with shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
116	White Spruce	*Picea glauca*	20	10 to 29 cm	1	n/a	2.0	Good	Unbalanced	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
117	Staghorn Sumac	*Rhus typhina*	9	Under 10 cm	1	n/a	0.9	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
118	Staghorn Sumac	*Rhus typhina*	11	10 to 29 cm	2	11	1.6	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
119	Staghorn Sumac	*Rhus typhina*	10	10 to 29 cm	1	n/a	1.0	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
120	Staghorn Sumac	*Rhus typhina*	18	10 to 29 cm	1	n/a	1.8	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
121	Staghorn Sumac	*Rhus typhina*	10	10 to 29 cm	1	n/a	1.0	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
122	Staghorn Sumac	*Rhus typhina*	9	Under 10 cm	1	n/a	0.9	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
123	Staghorn Sumac	*Rhus typhina*	10	10 to 29 cm	1	n/a	1.0	Poor	Very few live buds, may be dead	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
124	Staghorn Sumac	*Rhus typhina*	9	Under 10 cm	1	n/a	0.9	Dead		Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
125	White Spruce	*Picea glauca*	26	10 to 29 cm	1	n/a	2.6	Good		Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH

Tree ID #	Common Name	*Botanical Name*	DBH (cm)	DBH Category	Number of Stems	DBH Add. Stems	CRZ (m)	Condition	Condition Notes	Project Location	Proposed Action	Reason for Removal/Injury	Mitigation	Ownership
126	White Spruce	*Picea glauca*	22	10 to 29 cm	1	n/a	2.2	Fair	Unbalanced, broken branches on side where fallen tree used to grow	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
127	White Spruce	*Picea glauca*	23	10 to 29 cm	1	n/a	2.3	Good	Unbalanced	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
128	White Spruce	*Picea glauca*	25	10 to 29 cm	1	n/a	2.5	Fair	Lean, trunk damage	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
129	White Spruce	*Picea glauca*	21	10 to 29 cm	1	n/a	2.1	Fair	Shade suppressed, dead tree with squirrel nest leaning on it	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
130	Manitoba Maple	*Acer negundo*	20	10 to 29 cm	1	n/a	2.0	Fair	Lean, epicormic growth	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
131	Scots Pine	*Pinus sylvestris*	32	30 to 49 cm	1	n/a	3.2	Good		Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
132	Scots Pine	*Pinus sylvestris*	27	10 to 29 cm	1	n/a	2.7	Good	Shade suppressed lower branches, stick nest	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
133	Scots Pine	*Pinus sylvestris*	28	10 to 29 cm	1	n/a	2.8	Good	Lower branch dieback	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
134	Red pine	*Pinus resinosa*	57	50 cm +	1	n/a	5.7	Fair	Good balance but large dead wood needs pruning, stick nest, small cavity at the top.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
135	Red Oak	*Quercus rubra*	41	30 to 49 cm	1	n/a	4.1	Fair	Codominant leaders, included bark, small cankers and dieback on lower branches	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
136	Manitoba Maple	*Acer negundo*	31	30 to 49 cm	1	n/a	3.1	Fair	Steep lean towards side street	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
137	Manitoba Maple	*Acer negundo*	13	10 to 29 cm	1	n/a	1.3	Fair	Lean, lower branch dieback 15%	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
138	Manitoba Maple	*Acer negundo*	16	10 to 29 cm	1	n/a	1.6	Fair	Steep lean, one branch has pressure contact with nearby spruce	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
139	Manitoba Maple	*Acer negundo*	32	30 to 49 cm	2	15	3.5	Good	Second stem at 15 cm DBH, lean	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
140	Manitoba Maple	*Acer negundo*	30	30 to 49 cm	3	30	5.2	Good	Very straight for species, 3 leaders, 30 cm DBH each. Lower branch dieback	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
141	Red Oak	*Quercus rubra*	26	10 to 29 cm	1	n/a	2.6	Fair	Codominant leaders, unbalanced	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
142	Manitoba Maple	*Acer negundo*	21	10 to 29 cm	2	21	3.0	Fair	Lean, included bark	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
143	Manitoba Maple	*Acer negundo*	18	10 to 29 cm	1	n/a	1.8	Fair	Sparse canopy, major lean. Dieback 40%	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
144	Manitoba Maple	*Acer negundo*	5	Under 10 cm	1	n/a	0.5	Poor	Epicormic growth. Major damage to main stem. Dieback 90%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
145	Manitoba Maple	*Acer negundo*	15	10 to 29 cm	1	n/a	1.5	Fair	Sparse canopy. Dieback 50%. Epicormic growth.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
146	Manitoba Maple	*Acer negundo*	10	10 to 29 cm	1	n/a	1.0	Poor	Major lean. Sparse canopy. Dieback of most of branches minus top of canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
147	Manitoba Maple	*Acer negundo*	39	30 to 49 cm	2	39	5.5	Poor	Codominant leader. Lean. Dieback 20%. Exposed roots. Roots damaged during construction.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
148	Manitoba Maple	*Acer negundo*	32	30 to 49 cm	2	20	3.8	Fair	Codominant leader, 20 cm DBH for other stem. Epicormic growth. Major lean on main stem. Dieback 20%. Root damage from construction near base of tree.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
149	Manitoba Maple	*Acer negundo*	14	10 to 29 cm	2	10	1.7	Fair	DBH 10 cm for second stem. Lean on second stem. Epicormic growth. Sparse canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
150	Manitoba Maple	*Acer negundo*	19	10 to 29 cm	1	n/a	1.9	Fair	Epicormic growth. Root damage by construction. Strong lean. Sparse canopy. Dieback 20%	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
151	Manitoba Maple	*Acer negundo*	40	30 to 49 cm	2	25	4.7	Fair	DBH 25 cm for 2nd stem. Vines. Competition with nearby Manitoba maple. Sparse canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
152	Manitoba Maple	*Acer negundo*	23	10 to 29 cm	1	n/a	2.3	Poor	Lean. Vines. Competition with shrubs. Uneven canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
153	Green Ash	*Fraxinus pennsylvanica*	13	10 to 29 cm	1	n/a	1.3	Poor	Epicormic growth. EAB present. Construction damage. Sloughing bark. Vine. Not salvageable.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
154	White Spruce	*Picea glauca*	24	10 to 29 cm	1	n/a	2.4	Fair	Uneven canopy due to shading.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
155	White Spruce	*Picea glauca*	44	30 to 49 cm	1	n/a	4.4	Fair	Exposed roots. Root damage from construction.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
156	Scots Pine	*Pinus sylvestris*	50	50 cm +	1	n/a	5.0	Good	Codominant leader. Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
157	White Spruce	*Picea glauca*	43	30 to 49 cm	1	n/a	4.3	Good	Exposed roots. Root damage from construction. Good canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
158	Scots Pine	*Pinus sylvestris*	62	50 cm +	1	n/a	6.2	Good	Previously pruned. Minimal dieback. Good canopy size. Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
159	Scots Pine	*Pinus sylvestris*	34	30 to 49 cm	1	n/a	3.4	Good	Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
160	White Spruce	*Picea glauca*	26	10 to 29 cm	1	n/a	2.6	Good	Exposed roots. Uneven canopy with shade suppression.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
161	Scots Pine	*Pinus sylvestris*	48	30 to 49 cm	1	n/a	4.8	Fair	Previously pruned. Codominant leader. New leader start closer to canopy. Dieback 30%. Only the crown has leaves.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
162	Common Buckthorn	*Rhamnus cathartica*	8	Under 10 cm	1	n/a	0.8	Fair	Suppressed by other trees. Canopy drooping.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
163	Manitoba Maple	*Acer negundo*	10	10 to 29 cm	2	10	1.4	Poor	Base at 10 cm DBH. Dieback 60%. Growing out of base of adjacent dead Scott's pine.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
164	White Spruce	*Picea glauca*	25	10 to 29 cm	1	n/a	2.5	Dead	Woodpecker feeding holes	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
165	Manitoba Maple	*Acer negundo*	12	10 to 29 cm	1	n/a	1.2	Poor	Sparse canopy. Shaded	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
166	Scots Pine	*Pinus sylvestris*	65	50 cm +	1	n/a	6.5	Fair	Measured low. Codominant leader close to base of tree. Stick nest in tree potentially crow.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
167	Manitoba Maple	*Acer negundo*	13	10 to 29 cm	2	13	1.8	Fair	Main stem has major lean. Other stems counter leaned. Shaded.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
168	White Spruce	*Picea glauca*	40	30 to 49 cm	1	n/a	4.0	Fair	Major dieback of lower branches, small canopy	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
169	Scots Pine	*Pinus sylvestris*	33	30 to 49 cm	2	25	4.1	Fair	DBH 25 cm for second stem (dead)	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
170	Scots Pine	*Pinus sylvestris*	30	30 to 49 cm	1	n/a	3.0	Fair	Canopy competition with nearby trees. Unbalanced canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
171	Scots Pine	*Pinus sylvestris*	43	30 to 49 cm	1	n/a	4.3	Fair	Pruned branches. Unbalanced. Canopy comp with near by trees.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
172	Scots Pine	*Pinus sylvestris*	48	30 to 49 cm	2	38	6.1	Fair	Codominant leaders, DBH2: 38 cm. Minor insect damage. Dieback 40%. Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
173	Scots Pine	*Pinus sylvestris*	43	30 to 49 cm	1	n/a	4.3	Fair	Dieback 10%. Minor insect damage.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	Shared

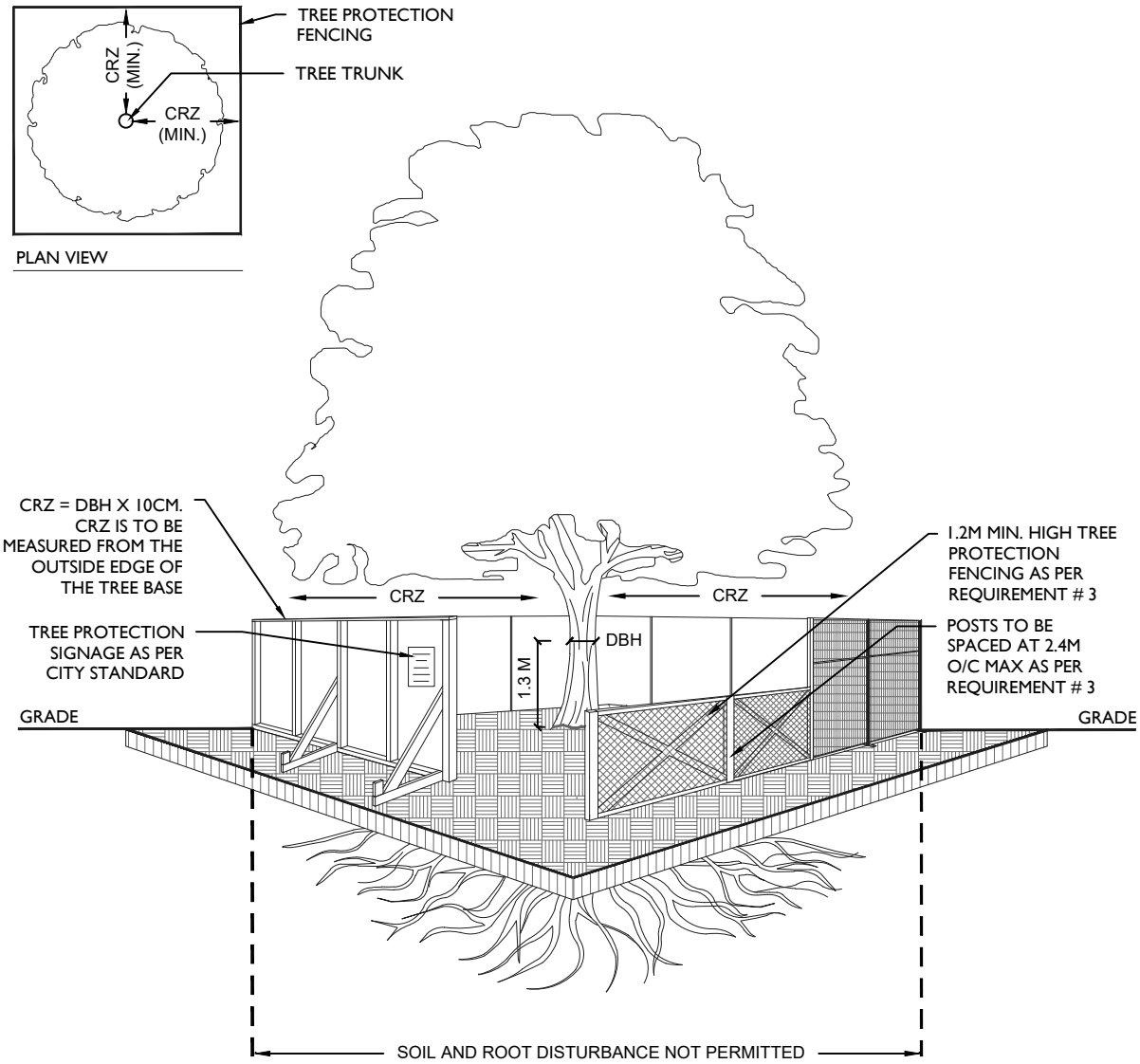
Tree ID #	Common Name	*Botanical Name*	DBH (cm)	DBH Category	Number of Stems	DBH Add. Stems	CRZ (m)	Condition	Condition Notes	Project Location	Proposed Action	Reason for Removal/Injury	Mitigation	Ownership
174	Red Pine	*Pinus resinosa*	49	30 to 49 cm	1	n/a	4.9	Fair	Dropped branches. Peeling bark at upper branches. Dieback 50%	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
175	White Spruce	*Picea glauca*	54	50 cm +	1	n/a	5.4	Good	Minor lean towards Sarah Billings. Exposed roots, root damage by construction.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	Shared
176	Kentucky Coffeetree	*Gymnocladus dioicus*	49	30 to 49 cm	1	n/a	4.9	Poor	Bark peeling, mower damage at base, root damage, pruned, unbalanced.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
177	Colorado Blue Spruce	*Picea pungens*	35	30 to 49 cm	1	n/a	3.5	Fair	Exposed roots. Unbalanced canopy. Dieback 50%. Competition with other trees.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
178	Colorado Blue Spruce	*Picea pungens*	34	30 to 49 cm	1	n/a	3.4	Good	Competition with nearby trees. Lower branches dieback 30%. Unbalanced canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
179	Colorado Blue Spruce	*Picea pungens*	37	30 to 49 cm	1	n/a	3.7	Fair	Competition with near by trees. Uneven canopy. Dieback 20%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
180	Colorado Blue Spruce	*Picea pungens*	27	10 to 29 cm	1	n/a	2.7	Fair	Lean away from major road. Competition. Dieback 70% due to shade.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
181	Colorado Blue Spruce	*Picea pungens*	24	10 to 29 cm	1	n/a	2.4	Fair	Competition. 70% canopy remain. Trident tree.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
182	Eastern Red Cedar	*Juniperus virginiana*	15	10 to 29 cm	1	n/a	1.5	Fair	Lean. Dieback 50%. Competition with other trees. DSV. Bark damage. Epicormic growths.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
183	Common Buckthorn	*Rhamnus cathartica*	10	10 to 29 cm	1	n/a	1.0	Fair	Competition with another common buckthorn. Epicormic growth. Shaded.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
184	Apple	*Malus sp*	27	10 to 29 cm	1	n/a	2.7	Fair	Competition. Epicormic growth. Dieback 10%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
185	Eastern Red Cedar	*Juniperus virginiana*	10	10 to 29 cm	1	n/a	1.0	Fair	Competition with shrubs. Only top crown remains.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
186	Common Buckthorn	*Rhamnus cathartica*	7	Under 10 cm	1	n/a	0.7	Poor	Epicormic growth. Shaded.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
187	Apple	*Malus sp*	20	10 to 29 cm	1	n/a	2.0	Fair	Competition with shrubs. Uneven canopy.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
188	Butternut	*Juglans cinerea*	18	10 to 29 cm	1	n/a	1.8	Good	Canker present but healing. 90% covered with scar wood. Dieback 20%. Previously pruned. Peeling bark. Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
189	Colorado Blue Spruce	*Picea pungens*	26	10 to 29 cm	1	n/a	2.6	Fair	Dieback 50%. Competition with other tree and shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
190	Colorado Blue Spruce	*Picea pungens*	40	30 to 49 cm	1	n/a	4.0	Fair	Uneven canopy. Shaded on one side. Competition with other tree. Dieback 40%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
191	Apple	*Malus sp*	18	10 to 29 cm	1	n/a	1.8	Fair	Mower damage at base. Previously pruned.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
192	Red Maple	*Acer rubrum*	8	Under 10 cm	1	n/a	0.8	Poor	Sign of mower damage, almost girdled. Young tree. Dieback 10%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
193	Black Walnut	*Juglans nigra*	23	10 to 29 cm	1	n/a	2.3	Good	Competition with shrubs. Dieback 10%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
194	Black Walnut	*Juglans nigra*	25	10 to 29 cm	1	n/a	2.5	Good	Competition with shrubs. Dieback 10%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
195	Colorado Blue Spruce	*Picea pungens*	37	30 to 49 cm	1	n/a	3.7	Fair	Ripped branches. Competition with other spruce. Dieback 15%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
196	Colorado Blue Spruce	*Picea pungens*	36	30 to 49 cm	1	n/a	3.6	Good	Uneven canopy. Dieback 15%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
197	Red Pine	*Pinus resinosa*	30	30 to 49 cm	1	n/a	3.0	Good	Competition with other coniferous trees. Uneven lower branches, Dieback 15%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
198	Colorado Blue Spruce	*Picea pungens*	31	30 to 49 cm	1	n/a	3.1	Good	Uneven canopy. Dieback 25%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
199	Red Pine	*Pinus resinosa*	36	30 to 49 cm	1	n/a	3.6	Good	Slight Lean. Dieback 20%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
200	Red Pine	*Pinus resinosa*	30	30 to 49 cm	1	n/a	3.0	Good	Not full canopy. Dieback 10%	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
201	Norway Maple	*Acer platanoides*	63	50 cm +	1	n/a	6.3	Poor	Half of main trunk damaged and gone. Construction damaged roots. Ripped branches. Despite major damage still flowering for most rest of tree.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
202	Manitoba Maple	*Acer negundo*	20	10 to 29 cm	1	n/a	2.0	Good	Codominant leaders	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
203	Manitoba Maple	*Acer negundo*	36	30 to 49 cm	1	n/a	3.6	Good	Epicormic growth	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
204	Manitoba Maple	*Acer negundo*	7	Under 10 cm	1	n/a	0.7	Fair	Lean, shade suppressed	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
205	Norway Maple	*Acer platanoides*	20	10 to 29 cm	1	n/a	2.0	Good	No major deficiencies	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
206	Staghorn Sumac	*Rhus typhina*	10	10 to 29 cm	1	n/a	1.0	Poor	Steep lean, decay at root collar	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
207	Common Buckthorn	*Rhamnus cathartica*	10	10 to 29 cm	2	10	1.4	Poor	Codominant leaders. Uneven canopy that tilts toward road. Shaded by trees.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
208	Apple	*Malus sp*	18	10 to 29 cm	1	n/a	1.8	Fair	Dieback 30%. Competition with shrubs. Epicormic growth.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
209	Red Pine	*Pinus resinosa*	31	30 to 49 cm	1	n/a	3.1	Good	Slight lean. Dieback 20%.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
210	Manitoba Maple	*Acer negundo*	22	10 to 29 cm	1	n/a	2.2	Fair	Competition with shrub and dead ash.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
211	Colorado Blue Spruce	*Picea pungens*	21	10 to 29 cm	1	n/a	2.1	Fair	Dieback 40%. Canopy competition with other trees.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
212	Manitoba Maple	*Acer negundo*	26	10 to 29 cm	4	26	5.2	Good	Codominant leaders. Epicormic growth. Bird nest. Competition with shrubs. Exposed roots.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
213	Manitoba Maple	*Acer negundo*	21	10 to 29 cm	1	n/a	2.1	Fair	Lean. Competition with shrubs. Dieback 10%. Canopy comp with near by tree.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
214	Black Walnut	*Juglans nigra*	8	Under 10 cm	1	n/a	0.8	Good	Shrub competition	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
215	Amur maple	*Acer ginnala*	17	10 to 29 cm	3	17	2.9	Fair	Codominant leaders. Base of trunk with dead branches.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
216	Scots Pine	*Pinus sylvestris*	43	30 to 49 cm	1	n/a	4.3	Fair	Shaded, dieback of bottom branches. Canker midway on tree.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
217	Manitoba Maple	*Acer negundo*	10	10 to 29 cm	1	n/a	1.0	Fair	Growing in fence, estimated due to slope and shrubs	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
218	Manitoba Maple	*Acer negundo*	15	10 to 29 cm	1	n/a	1.5	Fair	Estimated DBH. Near fence line, dense shrubs	Greater than 5 m from Proposed Works	Retain	n/a	n/a	TOH
219	Sugar Maple	*Acer saccharum*	30	30 to 49 cm	1	n/a	3	Poor	Lean. Beyond fence. Competiton with shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
220	Manitoba Maple	*Acer negundo*	25	10 to 29 cm	2	15	2.9	Fair	Major lean to road. Vines. DSV. Competition with shrubs.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
221	White Spruce	*Picea glauca*	25	10 to 29 cm	1	n/a	2.5	Good	Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa

Tree ID #	Common Name	*Botanical Name*	DBH (cm)	DBH Category	Number of Stems	DBH Add. Stems	CRZ (m)	Condition	Condition Notes	Project Location	Proposed Action	Reason for Removal/Injury	Mitigation	Ownership
222	White Spruce	*Picea glauca*	20	10 to 29 cm	1	n/a	2	Good	On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
223	Manitoba Maple	*Acer negundo*	20	10 to 29 cm	2	20	2.8	Fair	Vines. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
224	White Spruce	*Picea glauca*	25	10 to 29 cm	1	n/a	2.5	Fair	Canopy sparse but present. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
225	White Spruce	*Picea glauca*	15	10 to 29 cm	1	n/a	1.5	Fair	Competition with buckthorn. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
226	White Spruce	*Picea glauca*	15	10 to 29 cm	1	n/a	1.5	Fair	Competition with buckthorn. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
227	Black Walnut	*Juglans nigra*	15	10 to 29 cm	1	n/a	1.5	Fair	Vines. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
228	White Spruce	*Picea glauca*	10	10 to 29 cm	1	n/a	1	Good	Competition with buckthorn. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
229	White Pine	*Pinus alba*	10	10 to 29 cm	1	n/a	1	Fair	On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
230	White Pine	*Pinus alba*	14	10 to 29 cm	1	n/a	1.4	Fair	Lower branch dieback. Competition with shrubs. Vines. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
231	White Spruce	*Picea glauca*	10	10 to 29 cm	1	n/a	1	Fair	Lower branch dieback. Competition with shrubs. Vines. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
232	White Spruce	*Picea glauca*	15	10 to 29 cm	1	n/a	1.5	Good	Competition with buckthorn. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
233	White Spruce	*Picea glauca*	20	10 to 29 cm	1	n/a	2	Good	Competition with buckthorn. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
234	White Spruce	*Picea glauca*	15	10 to 29 cm	1	n/a	1.5	Fair	Competition with buckthorn. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa
235	Colorado Blue Spruce	*Picea pungens*	20	10 to 29 cm	1	n/a	2	Good	Competition with shrubs. On slope. Past fence line.	Greater than 5 m from Proposed Works	Retain	n/a	n/a	City of Ottawa

Appendix C

Tree Protection Details

PARSONS



TREE PROTECTION REQUIREMENTS:

1. 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.
2. 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
3. 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)
4. 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.
5. 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

Ottawa

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

Appendix D

Photo Appendix

PARSONS

Photo 1: View of trees near the existing fence line at Parking Lot C with Tree ID numbers.

Photo 2: Extended view of trees near the existing fence line at Parking Lot C with Tree ID numbers.

Photo 3: View of the space between the existing fence line and trees at Parking Lot C.

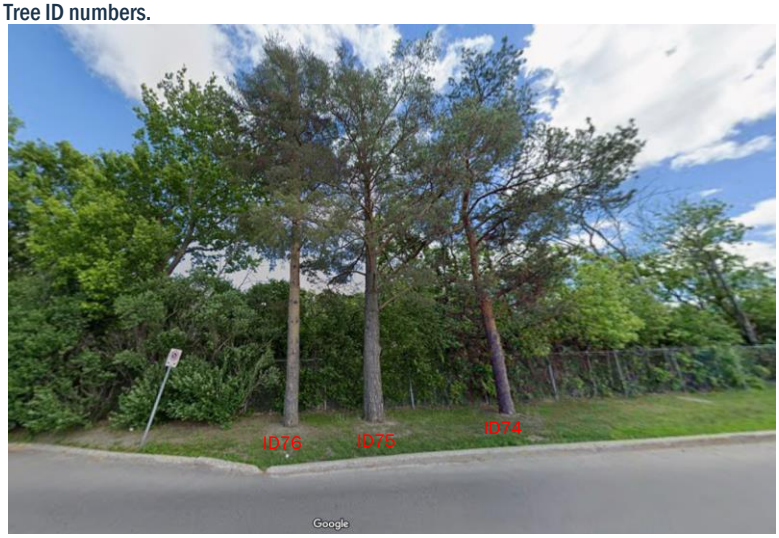


Photo 4: View of three coniferous trees in front of the fence line at Parking Lot C.

Photo 5: View existing fence line along the transitway and the mix of trees and shrubs beyond the fence line.

Photo 6: Extended view of existing fence line along the transitway, showing mix of trees and shrubs beyond the fence line.

Photo 7: View of existing fence line and surrounding trees on City of Ottawa property along the transitway.

Photo 8: Extended view of vegetated areas along the transitway on City of Ottawa property.

Photo 9: View of trees growing on existing fence along the boundary between TOH and City of Ottawa property, along the transitway.

Photo 10: View of tree growing at base of existing fence along the transitway.