COUNTERPOINT LAND DEVELOPMENT BY | DILLON CONSULTING

2679264 Ontario Inc.

NATURAL SITE FEATURES INVENTORY

5259 Tecumseh Road East Redevelopment

FEBRUARY 2025 – 24-7395

Corporation of the City of Windsor
350 City Hall Square, Suite 210
Windsor, Ontario
N9A 6S1

Attention: Stefan Fediuk, Landscape Architect

Natural Site Features Inventory for 5259 Tecumseh Road East Redevelopment

Please find enclosed the results of a Tree Inventory completed to identify existing trees for a proposed development located at 5259 Tecumseh Road East, in the City of Windsor. This report outlines the results of the inventory which occurred on September 12, 2024. These results were used to prepare a Natural Site Features Inventory report to support a Zoning By-Law Amendment. The report summarizes the results of the tree inventory conducted for areas potentially impacted by the proposed development and provides recommendations for trees to be removed or retained.

Sincerely,

DILLON CONSULTING LIMITED





Brad McLeod, M.Sc.
Biologist

Steven Greidanus
ISA Certified Arborist – ON-2992A

Our File: 24-7395

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Development Description 1
1.2 Applicable Policy 1
1.2.1 City of Windsor 1
1.2.2 Migratory Birds Convention Act 1
2.0 METHODS 3
2.1 Analysis Methods 4
2.1.1 DBH of Multi-Stemmed Trees 5
2.1.2 Determination of the Critical Root Zone 5
2.1.3 Analysis for Tree Remove/Retain Recommendations 5
3.0 RESULTS 7
4.0 TREE PRESERVATION AND REMOVALS 9
4.1 Tree Removals 9
4.2 Tree Preservation 9
4.2.1 Pre-Construction Maintenance 9
4.2.2 Tree Protection Measures 10
4.2.3 Post-Construction Tree Maintenance and Monitoring 11
4.3 Compensation for Tree Removals 11
5.0 CONCLUSION 12

TABLES

Table 1: Tree Condition Rating Categories 4
Table 2: Determination of the Critical Root Zone 5
Table 3: Summary of Inventoried Trees by Species 7

APPENDICES

Appendix A – Figures
Appendix B – Tree Photographs
Appendix C – Detailed Tree Inventory
Appendix D – Ontario Standard Barrier for Tree Protection

1.0 INTRODUCTION

Dillon Consulting Limited ("Dillon") was retained by 2679264 Ontario Inc. (the "proponent"), to conduct a tree inventory to support a Zoning By-Law Amendment for a proposed development in the City of Windsor (the "City"). The need for this report was identified within the Pre-submission Consultation letter (dated October 23, 2019).

The proposed development will be located at 5259 Tecumseh Road East also known as the former Croatian Centre property (Appendix A; Figure 1). Dillon's services included documentation of existing trees within the property in addition to a 6 metre buffer onto adjacent lands (the "Project Location"). The report and figures summarize the tree inventory conducted by Dillon for lands within and adjacent to the Project Location and provide recommendations regarding tree removals and preservation, as well as information related to applicable tree protection policies.

This report has been written to support the proposed development and will be submitted to the City. It contains a detailed inventory of trees within the Project Location that may be potentially impacted by construction. Additionally, it describes the development and anticipated construction impact to trees.

1.1 DEVELOPMENT DESCRIPTION

The proponent is proposing to develop the Project Location into two multi-unit residential buildings and an associated parking lot and garage.

1.2 APPLICABLE POLICY

1.2.1 City of Windsor

The requirement for this report is based on the Pre-submission Consultation letter received from the City. Further to this requirement, the City of Windsor Official Plan, Volume I (Procedures), Chapter 10, Section 10.2.14 has additional specific requirements. The City By-Law 135-2004 (Trees on Highways) applies to this project, as the By-Law regulates the planting of trees and prohibits the destruction or injuring of trees on highways in the City or on any lands owned by the City.

1.2.2 Migratory Birds Convention Act

Environment and Climate Change Canada implements the Migratory Birds Convention Act (MBCA; 1994) to protect migratory birds and their nests. A person shall not harm a migratory bird or nest without authorization under the regulations. In order to mitigate potential affects to migratory birds, vegetation removals shall occur outside of the breeding bird season (April 1 to August 31) to avoid the core period of bird nesting. If vegetation removal is required within this period, an avian survey is recommended to be conducted by a qualified biologist within the planned vegetation removal area before the removal activities to determine the presence or absence of nesting birds. If no active bird nest is observed during the survey, vegetation removal may proceed if conducted within 48 hours of completing the survey. Avian survey results shall be valid for 48 hours from the completion of the survey. Should an active bird nest be observed

during the survey, vegetation removal that may harm a migratory bird or nest shall be avoided until a subsequent survey confirms the nest is no longer active and/or until authorization is obtained.

2.0 METHODS

A tree inventory was conducted on September 12, 2024, within the Project Location and a 6 metre buffer. Trees subject to the inventory were those with a diameter-at-breast-height (DBH) of 10 centimetres (cm) or greater. The collected data pertained to trees that require removal to facilitate development or trees anticipated to be retained and protected during construction operations. The information recorded consisted of the following:

- Identification of species or genus where determinable using reasonable assumptions based on location, leaves, bark, bud, branches, and growth habit;
- Measurement of DBH at 1.4 metres (m) from the ground;
- Assignment of a unique identification number for trees, where applicable. Note: Trees with multiple stems split below breast height were given one unique identification number;
- A Level 2 (basic) qualitative visual assessment to determine tree or tree grouping condition, following the condition health rating system detailed in Table 1;
- Marking coordinates using a handheld Global Positioning System (GPS) unit with an accuracy of approximately 2 m; and
- If determinable and/or applicable, providing recommendations regarding preservation, protection, or removal.

The Level 2 basic assessment that was completed for trees within the Project Location is a detailed visual inspection of the trees and surrounding area to obtain an opinion of the health condition of each tree. It includes a non-invasive inspection of each tree (i.e. looking at the site conditions, buttress roots, trunk, and branches). This basic assessment is the standard basic assessment that is performed by arborists, though only includes conditions that are detected from the ground. The results from a basic assessment should not be relied on for internal, below-ground, and/or upper-crown condition or defects as these areas may be impossible to see or difficult to assess from ground-level.

The condition rating designated to each tree was based on the results of the basic assessment. The hazard potential of trees was assessed using the method outlined in the International Society of Arboriculture publication A Photographic Guide to the Evaluation of Hazard Trees in Urban Area - 2nd Edition (Mattheny and Clark, 1994). Using this guide, an overall condition rating (i.e. dead, hazard, poor, fair, good, or excellent) was given to each tree included in the inventory. These condition ratings are useful when evaluating the retention and/or replacement value of individual trees. Trees were identified using all reasonable means available at the time of survey, such as leaf, bud, and bark characteristics, tree form, and branch orientations.

For those species of tree where the foliage characteristics is the primary distinguishing feature, the positive identification of tree species may have been hindered due to timing of the surveys occurring during the leaf-off period (i.e. April). Trees were identified using reasonable assumptions based on form, bark, and branch orientations to determine species.

Table 1: Tree Condition Rating Categories

CONDITION	DESCRIPTION
Dead	A specimen tree is considered dead when it has no living tissue.
Hazard	The specimen tree could either be alive or dead but the tree in its part could pose an imminent hazard to people or property during normal weather conditions. These trees have the potential for splitting, breaking, and/or falling over during inclement weather, and because of their proximity to various targets (i.e. people or property), could cause personal injury and/or severe damage to municipal infrastructure and/or private property.
Poor	Trees in poor condition show major symptoms of decline. At least 50% of main scaffold branches are dead, missing, or in a diseased state. The trunk shows evidence of advanced rot, deadwood, or is hollow throughout. Twig development on the main branches or throughout the canopy is poor and may have limited sucker growth. Callus growth around wounds is minimal. A tree in poor condition could decline further to become a safety hazard. Removal prior to development should be considered if it is considered a hazard tree.
Fair	Trees in fair condition show moderate symptoms of decline in lower canopy or scaffold branches, but more than 50% of scaffold branches are present and viable. The trunk shows limited evidence of rot or insect damage. Good callus growth is present near wound areas. Trees that have scaffold branches that are healthy, but are in a "Y" formation, may also be included in this category, if "included-bark" is evident as the risk of splitting or breakage increases as the tree matures. Removal or preservation of these trees depends on the location of the specimen and associated target potential, and would depend on the species, and its tolerance to grading, trenching and surviving in an urban environment. Some major arboricultural maintenance may be required and may include major scaffold or secondary branch removal, bracing, and/or cabling.
Good	The specimen tree shows no symptoms of decline in the trunk, and all scaffold branches are present and are in good condition. Most scaffold branches are at right angles to the trunk and show good vigour. Small amounts of dead wood may be present in secondary branches, but account for less than 25% of the canopy. Depending on the grading in the immediate area, a tree in good condition would be recommended for preservation. Such a tree would typically survive to maturity without major arboricultural maintenance.
Excellent	The specimen tree shows no symptoms of decline in trunk, scaffold, or secondary branches. Trees in this condition have an excellent growth habit and should typically survive to maturity without major arboricultural maintenance.

2.1 ANALYSIS METHODS

Tree information collected during the inventory was analyzed to develop recommendations for tree removals and preservations, which are outlined in subsequent sections of this report. The analysis included the methods outlined in the following subsections.

2.1.1 DBH of Multi-Stemmed Trees

For trees with multiple stems ≥10 cm DBH, the DBH values for each stem were recorded and inputted into the formula below to calculate a derived DBH value for the purpose of estimating the tree's Critical Root Zone (CRZ) radius. The formula is:

DBHD = √([DBH1]2 + [DBH2]2 + [DBH…etc.]2)

Where DBHD is the derived DBH and DBH1…etc. are the measured DBH values of each stem. This method is adapted from Tree Preservation & Protection Standards (The Urban Tree Management Group, 2019) as a best practice in effectively estimating the CRZ.

2.1.2 Determination of the Critical Root Zone

A tree's CRZ is the below-ground area containing the primary roots that are most critical to its survival, and which are most susceptible to disturbance and impacts. The CRZ is generally proportional to a tree's stem diameter. As such, it can be approximated as a circular area around the tree's stem with a radius estimated based on the tree's derived DBH. The CRZ also generally aligns with the extent of the tree's above-ground canopy, though canopies may extend beyond the CRZ. The approximated CRZ for each tree in the inventory was determined based on the derived DBH value ranges outlined in Table 2, as adapted from other various tree protection standards.

Table 2: Determination of the Critical Root Zone

DERIVED DBH (CM)	CRZ DISTANCES REQUIRED (M)
<10	1.8
11-40	4.0
41-50	5.0
51-60	6.0
61-70	7.0
71-80	8.0
81-90	9.0
91-100+	10.0

2.1.3 Analysis for Tree Remove/Retain Recommendations

To develop recommendations for trees to be removed or retained, the inventoried trees' locations were analyzed compared to the proposed limit of disturbance, which includes the proposed development areas (Appendix A). Construction activities in these areas are expected to result in disturbance to trees. The analysis compared the location of each tree and its CRZ to the limit of development in order to identify where tree impacts are expected to occur and categorized each tree to be removed or retained:

Removed

- Tree within the limit of disturbance: Trees located within the limit of development are required for removal to facilitate construction of the project.
- >35% CRZ within the limit of disturbance: Trees located within or near the limit of development and having >35% of their CRZ within the limit are likely to be heavily impacted, causing death or poor health conditions. These trees are recommended for removal.
- Condition: Dead trees or trees in poor condition have the potential to be hazardous if they fall on a person, vehicle, equipment, or sensitive property. Due to the proximity of the future development activities, these trees are recommended for removal.

Retain

- Tree not within the limit of disturbance: Trees (including their CRZ) that are located entirely outside of the limit of development are identified to be retained.
- <35% CRZ within the limit of disturbance: Trees with <35% of their CRZ within the limit of development are expected to sustain only a low level of impact and injury to their roots and/or canopy. Provided appropriate protection measures are applied, they are expected to maintain their condition; therefore, recommended to be retained.

3.0 RESULTS

The inventory documented 87 trees (74 client-owned trees and 13 trees beyond the Project Location) within the Study Area. The locations of the inventoried trees are presented in Appendix A with photographs of the assessed trees included in Appendix B. Detailed tree inventory results including species, DBH, condition, and other relevant information recorded during the tree inventory are provided in Appendix C.

A total of 17 species of trees were documented, with 15 species identified to the species level and two species identified to the genus level. Additionally, there were trees that could not be identified due to their poor condition and were labeled as "unknown". Norway Maple (Acer platanoides) was the dominant species, accounting for 25% of the trees inventoried, followed by White Elm (Ulmus americana) at 14%. A summary of inventoried trees can be found in Table 3 below.

Overall, out of the 87 documented trees, 37 (43%) are native to Ontario, while 36 (41%) are non-native species. The remaining 14 trees (16%) could not be classified as non-native or native due to their condition or because identification only to genus level was possible.

Table 3: Summary of Inventoried Trees by Species

FAMILY	SCIENTIFIC NAME	COMMON NAME	SARA[1]	ESA[2]	SRANK[3]	INVASIVE PRIORITY FOR CONTROL[4]	COUNT
Pinaceae	*Picea pungens*	Blue Spruce	---	---	SNA	---	1
Pinaceae	*Pinus strobus*	Eastern White Pine	---	---	S5	---	2
Fabaceae	*Gleditsia triacanthos inermis*	Thornless Honey-locust	---	---	SNA	---	1
Fagaceae	*Quercus alba*	White Oak	---	---	S5	---	1
Platanaceae	*Platanus occidentalis*	Sycamore	---	---	S4	---	1
Juglandaceae	*Juglans nigra*	Black Walnut	---	---	S4	---	6
Rosaceae	*Crataegus sp.*	Hawthorn species	---	---	---	---	1
Rosaceae	*Prunus sp.*	Cherry species	---	---	---	---	8
Rosaceae	*Pyrus calleryana*	Bradford Pear	---	---	SNA	C4	2
Aceraceae	*Acer negundo*	Manitoba Maple	---	---	S5	C2	3

FAMILY	SCIENTIFIC NAME	COMMON NAME	SARA[1]	ESA[2]	SRANK[3]	INVASIVE PRIORITY FOR CONTROL[4]	COUNT
Aceraceae	*Acer platanoides*	Norway Maple	---	---	SNA	C1	22
Aceraceae	*Acer saccharinum*	Silver Maple	---	---	S5	---	3
Aceraceae	*Acer rubrum X Acer saccharinum*	Freeman's Maple	---	---	SNA	---	5
Simaroubaceae	*Ailanthus altissima*	Tree-of-heaven	---	---	SNA	C2	2
Oleaceae	*Fraxinus pennsylvanica*	Red Ash	---	---	S4	---	3
Moraceae	*Morus alba*	White Mulberry	---	---	SNA	C1	8
Ulmaceae	*Ulmus americana*	American Elm	---	---	S5	---	12
unknown	*unknown*	unknown	---	---	---	---	6
						Total	87

[1]Status identified under the federal Species at Risk Act; [2]Status identified under the provincial Endangered Species Act; [3]SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 = common and apparently secure, SNA = not applicable; [4]Invasive Exotic Plant Species Rankings for Southern Ontario (Draft - Urban Forest Associates/MNRF 2014). Category 1 (C1) – Aggressive invasive exotic species that can dominate a site to exclude all other species and remain dominant on the site indefinitely. These are a threat to natural areas wherever they occur because they can reproduce by means that allow them to move long distances. These are the top priority for control, but control may be difficult. Eradication may be the only option for long-term success. Category 2 (C2) – Exotic species that are highly invasive, but tend to only dominate certain niches or do not spread rapidly from major concentrations. Many of these vegetatively or by seeds that drop close to the parent plant. They may have been deliberately planted and persist in dense populations for long periods. Control where necessary and limit their spread to other areas. Category 4 (C4) – Exotic species that do not pose a serious threat to natural areas unless they are competing directly with more desirable vegetation. These can often be tolerated in restoration projects if they are already present. They may eventually be replaced through natural succession or management. Control where necessary and limit their spread to other areas.

4.0 TREE PRESERVATION AND REMOVALS

This section provides preliminary recommendations for tree removal and preservation. A summary of the analysis used to determine tree retention or removal is also provided. Based on the current site plan (including building envelopes, hard surfaces, etc.), of the 87 trees identified within the Study Area, 49 are observed to be preserved. Refer to Appendix A; Figure 2 for the locations of identified trees in relation to the site plan. It should be noted that during detailed design, effort will be made to retain as many other trees as possible as landscaping trees. Tree preservation and removals will occur after the Site Plan Control Approval phase of the development.

4.1 TREE REMOVALS

Of the inventoried trees, 38 trees are required to be removed.

Trees recommended for removal are symbolized in red on the Tree Inventory figures (Appendix A; Figure 2) and are identified in the tree inventory table (Appendix C). Of the 38 trees to be removed, 25 are in good condition, one is in fair condition, two are in poor condition, and 10 are dead.

Tree removals should be conducted by qualified and International Society of Arboriculture (ISA)-certified arborist following best arboricultural practices. Removal activities should avoid or minimize impacts to adjacent trees to be preserved (as identified below), and timing of removals should consider the project schedule of other construction activities (e.g. conduct removals following the installation of site fencing and/or tree protection fencing).

4.2 TREE PRESERVATION

Of the inventoried trees, 49 are recommended to be preserved.

During the detailed design stage, if any trees are to be retained, it is important to consider the potential impacts of construction activities on preserved trees. These impacts may include changes to soil conditions due to alterations in grade, as well as physical damage. Compaction of the soil, either by design or due to using heavy machinery within root zones, can affect root systems during construction. Similarly, the placement or removal of fill material within a root zone can cause root system impairments (e.g. lack of oxygen). Trees require a loosely compact soil medium for root growth, oxygen uptake, and absorption of water and nutrients. Soil compaction and grading changes within the root zone can inhibit root growth and function, and these impacts have the potential to result in a decline in the overall condition of a tree. In addition, accidental contact between construction equipment and trees can cause physical damage to the trunk and crown.

The following recommendations are provided regarding the trees to be preserved.

4.2.1 Pre-Construction Maintenance

Prior to construction activities, overhanging limbs of trees to be preserved should be pruned in a manner that minimizes physical damage and promotes quick wound closure and regeneration. Maintenance of limbs should be carried out by a qualified arborist.

Trees recommended for preservation which have declined in condition or become hazardous since the writing of this report should be reassessed by an arborist upon commencement and/or completion of construction and removed.

4.2.2 Tree Protection Measures

A tree's CRZ is the below-ground area containing the primary roots that are most critical to its survival, and which are most susceptible to disturbance impacts. The size of the CRZ is typically proportional to the tree's age and stem diameter and can be estimated as a circular area around the tree's stem, with a radius calculated based on the tree's DBH (Appendix A; Figure 2).

To minimize the impact of adjacent construction work, a Tree Protection Zone (TPZ) should be established for each tree to be retained. The intent of a TPZ is to protect a tree's roots and soil to ensure impacts on overall health and stability are minimized. The TPZ would align with the CRZ. An example of tree protection fencing is provided in Appendix D.

The TPZ calculated for trees to be preserved was made using a standard calculation from the ISA, but modified by the City. The TPZ is calculated by multiplying the DBH by 12 and dividing by 100 to provide the TPZ in metres (Appendix C). Protection fencing should be installed at the edge of the TPZ, where possible. The fenced TPZ should be clear of building materials, waste, soil stockpiles, and construction equipment. Subject to finalization of construction plans, the following activities should not occur within the TPZ:

- Construction;
- Altering of grade by adding fill, excavating, trenching, scraping, dumping, or disturbance of any kind;
- Storage of construction materials, equipment, soil, construction waste, or debris;
- Disposal of any liquids (e.g. concrete sleuth, gas, oil, paint);
- Movement of vehicles, equipment, or pedestrians; and
- Parking of vehicles or machinery.

If the above recommendations are followed, potential impacts to root zones from compaction are expected to be minor and localized. There should be no excavation (e.g. stripping or trenching) within the TPZ though in some instances, a TPZ which extends into the construction zone may require minor adjustments to facilitate access for construction personnel, equipment and may require excavation.

Directional micro-tunneling, track boring, and other sub-surface drilling can generally be undertaken within the limits of a TPZ without impacts on the respective tree, depending on the depth of drilling. Open-face cuts that require root pruning within a TPZ should be completed under the supervision of an ISA Certified Arborist or approved tree professional. An exploratory dig to expose the roots that may be impacted can be completed either by hand, using an air pressure dry-vac method (low air pressure has less impact on roots); air spade or other suitable alternative should be completed prior to commencing with open face cuts within the TPZ.

4.2.3 Post-Construction Tree Maintenance and Monitoring

Post-construction tree maintenance methods will be used as required to repair any damage caused to trees by construction activities. These include, but are not limited to the following:

- Treating trunk and crown injuries (e.g. pruning, cabling, bracing, repairing wounds to damaged bark and trunks, etc.);
- Irrigation and drainage;
- Mulching; and
- Aeration of the root zone for compacted areas.

Within 12 months of the completion of construction, an assessment of preserved trees, if available, within the Project Location should be conducted. Trees which are dead, in poor health, or hazardous should be removed or pruned, as determined by a qualified arborist. Tree removal should occur prior to home occupancy to avoid foreseeable risk of trees falling and causing damage or harm to people and/or property.

Compensation plantings should be monitored periodically after construction to ensure survival. Should tree condition decline, necessary steps should be taken to ensure that the impacted trees are restored or replaced.

Post-construction maintenance and monitoring are to be carried out be a qualified arborist skilled in the above-listed methods.

4.3 COMPENSATION FOR TREE REMOVALS

Tree preservation and removals will occur at the Site Plan Control Approval phase of the development.

Compensation in the form of landscape trees (e.g. within parks, lots, or boulevards) and/or restoration plantings on-site or off-site may be required.

Species, condition, size/DBH, and other characteristics of existing trees should be considered in discussions regarding fair compensation for removals. For compensation on the trees, we recommend that DBH replacement for excellent (0), good (25), and fair (1) trees (26 total trees) may be appropriate to determine the number of plantings required or equal monetary compensation.

5.0 CONCLUSION

Dillon Consulting Limited was retained by 2679264 Ontario Inc. to undertake a tree inventory to support a proposed development at 5259 Tecumseh Road East in the City of Windsor. An inventory of trees was completed on September 12, 2024, and 87 trees were documented. To facilitate construction of the proposed development, 38 trees are required to be removed. A total of 49 trees are recommended for preservation during construction, however it should be noted that during detailed design, effort will be made to retain as many other trees as possible as landscaping trees. Detailed recommendations for tree removals, maintenance, and preservation were provided.

REFERENCES

Farrar, J.L. 1995. Trees in Canada. Seventh Impression 2000. Fitzhenry & Whiteside Limited, Markham, Ontario and the Canadian Forestry Service, Natural Resources Canada, Ottawa, in cooperation with Public Works and Government Services Canada.

Matheny, N.P. and J.R. Clark. 1994. A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas - 2nd Edition. International Society of Arboriculture.

Migratory Birds Convention Act, 1994. (S.C. 1994, C-22). http://laws-lois.justice.gc.ca/eng/acts/m-7.01/. Accessed 2024.

Smiley, E.T., N.P. Matheny, and S. Lilly. 2012. Tree Risk Assessment: Levels of Assessment. ISA News, April 2012 Issue. pp. 12-20.

Urban Tree Management Group, The. 2019. Tree Preservation & Protection Standards. pp. 1-14.

APPENDIX A

FIGURES

2679264 Ontario Inc. PROPERTIES

5259 TECUMSEH ROAD EAST REDEVELOPMENT

PROJECT LOCATION

FIGURE 1

Project Location

Study Area (6 m Buffer)

SCALE 1:1,300

0 12.5 25 50 m

N W E S

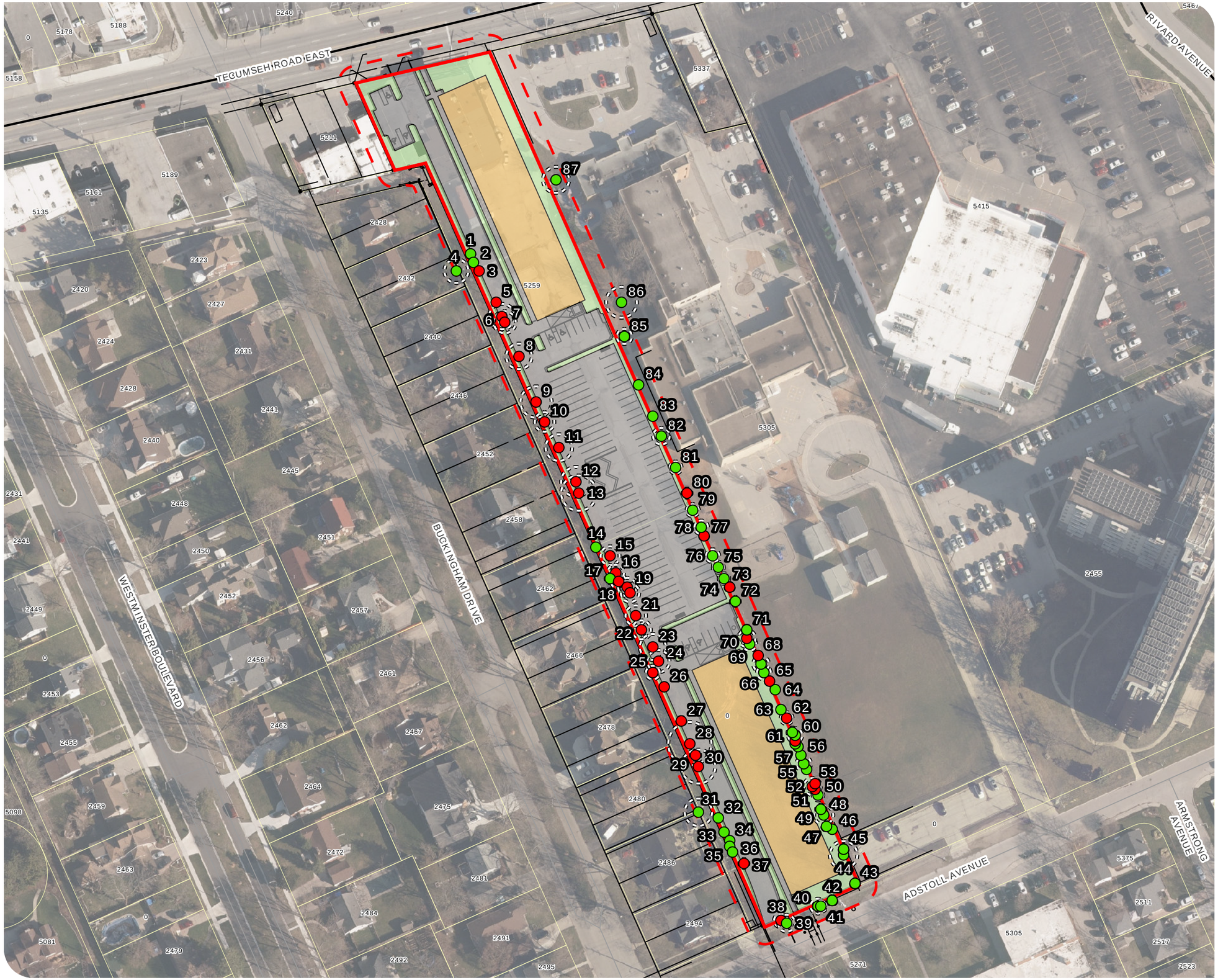
MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, ESRI Aerial Imagery

MAP CREATED BY: DU
MAP CHECKED BY: BTM
MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 24-7395
STATUS: DRAFT
DATE: 2025-02-19

FILE LOCATION: K:\2024\247395\Product\Client\Phase 1 Environmental Assesment\247395_TIPP\TIPP.aprx



2679264 Ontario Inc. PROPERTIES

5259 TECUMSEH ROAD EAST REDEVELOPMENT

NATURAL SITE FEATURES INVENTORY

FIGURE 2

- Project Location
- Study Area (6m Buffer)
- Tree Location (Retain)
- Tree Location (Remove)
- Critical Root Zone
- Site Plan
- Proposed Building
- Parking
- Grass

SCALE 1:1,300

0 12.5 25 50 m

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, ESRI Aerial Imagery

MAP CREATED BY: DU
MAP CHECKED BY: BTM
MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 24-7395
STATUS: DRAFT
DATE: 2025-02-19

FILE LOCATION: K:\2024\247395\Product\Client\Phase 1 Environmental Assesment\247395_TIPP\TIPP.aprx

APPENDIX B

TREE PHOTOGRAPHS



Trees 1-7



Trees 8-26



Trees 27-37



Trees 41-71



Trees 84-86



Looking north from the centre of the Project Location



Looking south from the centre of the Project Location

APPENDIX C

DETAILED TREE INVENTORY

Appendix C - Detailed Tree Inventory

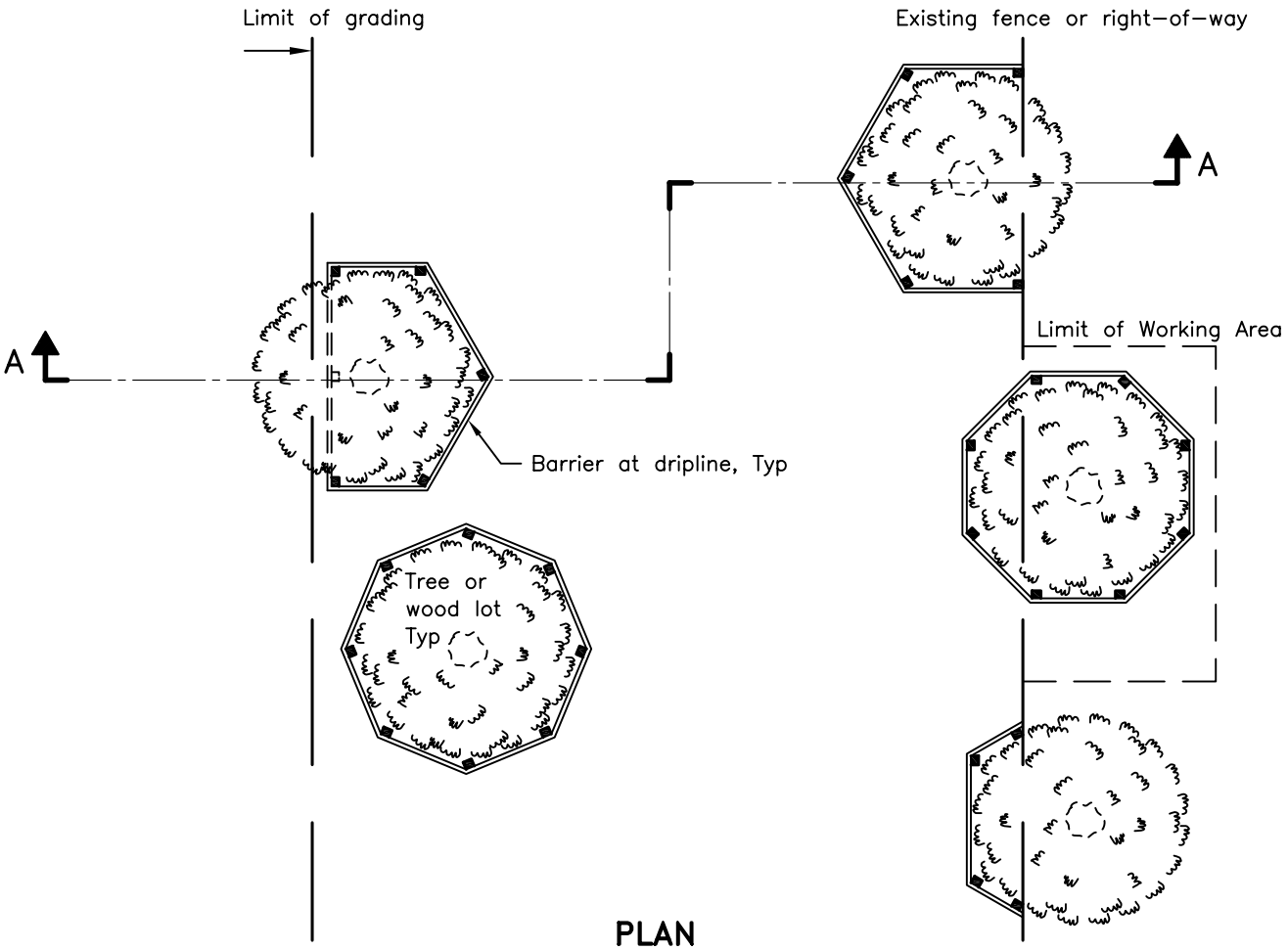
Figure ID	Scientific Name	Common Name	DBH (cm)	Critical Root Zone/Tree Protection Zone (m)	Condition	Level 2 Assessment Notes	Action	Rationale for Removal or Preservation
1	*Acer negundo*	Manitoba Maple	10.9	1.31	Good		Retain	Tree not within disturbance limit
2	*Morus alba*	White Mulberry	10.6, 10.6, 10.1 (7.9)	0.95	Good		Retain	Tree not within disturbance limit
3	*Acer rubrum X Acer saccharinum*	Freeman's Maple	16.6, 14.4 (7.9)	0.95	Good		Remove	Tree within disturbance limit
4	*Pinus strobus*	Eastern White Pine	~35	4.20	Good	West of property	Retain	Tree not within disturbance limit
5	*Acer negundo*	Manitoba Maple	10.2, 10.5, 11, 10.7 (9.2)	1.10	Good		Remove	Tree within disturbance limit
6	*Acer platanoides*	Norway Maple	37.4	4.49	Good		Remove	Tree within disturbance limit
7	*Acer platanoides*	Norway Maple	32.2	3.86	Good		Remove	Tree within disturbance limit
8	*Acer platanoides*	Norway Maple	37.3	4.48	Good		Remove	Tree within disturbance limit
9	*Acer platanoides*	Norway Maple	45.7	5.48	Good		Remove	Tree within disturbance limit
10	*Acer platanoides*	Norway Maple	28.7	3.44	Good		Remove	Tree within disturbance limit
11	*Acer platanoides*	Norway Maple	38.8	4.66	Good		Remove	Tree within disturbance limit
12	*Acer platanoides*	Norway Maple	43.2	5.18	Good		Remove	Tree within disturbance limit
13	*Acer platanoides*	Norway Maple	51.7	6.20	Good		Remove	Tree within disturbance limit
14	*Morus alba*	White Mulberry	~20, 11 (7.9)	0.95	Good	West of property	Retain	Tree not within disturbance limit
15	*Acer platanoides*	Norway Maple	27.8	3.34	Good		Remove	Tree within disturbance limit
16	*Acer platanoides*	Norway Maple	23.9	2.87	Good		Remove	Tree within disturbance limit
17	*Ailanthus altissima*	Tree-of-heaven	~48, 38 (13.1)	1.57	Good	West of property	Retain	Tree not within disturbance limit
18	*Ailanthus altissima*	Tree-of-heaven	22.1	2.65	Good		Remove	Tree within disturbance limit
19	*Acer platanoides*	Norway Maple	26.8	3.22	Good		Remove	Tree within disturbance limit
20	*Acer platanoides*	Norway Maple	26.9	3.23	Good		Remove	Tree within disturbance limit
21	*Acer platanoides*	Norway Maple	30	3.60	Good		Remove	Tree within disturbance limit
22	*Acer platanoides*	Norway Maple	27.6	3.31	Good		Remove	Tree within disturbance limit
23	*Acer platanoides*	Norway Maple	37.9	4.55	Good		Remove	Tree within disturbance limit
24	*Acer platanoides*	Norway Maple	32.4	3.89	Good		Remove	Tree within disturbance limit
25	*Morus alba*	White Mulberry	~20	2.40	Poor	West of property	Remove	Tree within disturbance limit
26	*Juglans nigra*	Black Walnut	17.7, 17.1 (8.3)	1.00	Fair		Remove	Tree within disturbance limit
27	*Acer negundo*	Manitoba Maple	14.5, 16.6, 22.4, 14.5 (11.7)	1.40	Good		Remove	Tree within disturbance limit
28	*Acer saccharinum*	Silver Maple	63.3	7.60	Good		Remove	Tree within disturbance limit
29	*Morus alba*	White Mulberry	45, 44.9 (13.4)	1.61	Good		Remove	Tree within disturbance limit

Figure ID	Scientific Name	Common Name	DBH (cm)	Critical Root Zone/Tree Protection Zone (m)	Condition	Level 2 Assessment Notes	Action	Rationale for Removal or Preservation
30	*Juglans nigra*	Black Walnut	49.6	5.95	Good		Remove	Tree within disturbance limit
31	*Picea pungens*	Blue Spruce	~40	4.80	Fair	West of property	Retain	Tree not within disturbance limit
32	*Prunus sp.*	Cherry species	~10	1.20	Good	West of property	Retain	Tree not within disturbance limit
33	*Pyrus calleryana*	Bradford Pear	~10	1.20	Good	West of property	Retain	Tree not within disturbance limit
34	*Pyrus calleryana*	Bradford Pear	~10	1.20	Good	West of property	Retain	Tree not within disturbance limit
35	*Prunus sp.*	Cherry species	~10, 10 (6.3)	0.76	Good	West of property	Retain	Tree not within disturbance limit
36	*Prunus sp.*	Cherry species	~10	1.20	Good	West of property	Retain	Tree not within disturbance limit
37	*Pinus strobus*	Eastern White Pine	~13	1.56	Good		Remove	Tree within disturbance limit
38	*Morus alba*	White Mulberry	20.1	2.41	Good		Remove	Tree within disturbance limit
39	*Juglans nigra*	Black Walnut	24.8	2.98	Good		Retain	Tree not within disturbance limit
40	*Ulmus americana*	White Elm	21.7	2.60	Good		Retain	Tree not within disturbance limit
41	*Juglans nigra*	Black Walnut	16.8	2.02	Good		Retain	Tree not within disturbance limit
42	*Morus alba*	White Mulberry	12.5	1.50	Good		Retain	Tree not within disturbance limit
43	*Acer saccharinum*	Silver Maple	12.2, 12.7, 30.8, 14.5 (11.9)	1.43	Good		Retain	Tree not within disturbance limit
44	*Ulmus americana*	White Elm	40.1	4.81	Good		Retain	Tree not within disturbance limit
45	*Ulmus americana*	White Elm	11.8	1.42	Good		Retain	Tree not within disturbance limit
46	*Crataegus sp.*	Hawthorn species	17.8, 29.2 (9.7)	1.16	Fair		Retain	Tree not within disturbance limit
47	*Juglans nigra*	Black Walnut	12.4	1.49	Good		Retain	Tree not within disturbance limit
48	*Ulmus americana*	White Elm	28	3.36	Good		Retain	Tree not within disturbance limit
49	*Ulmus americana*	White Elm	13.4	1.61	Good		Retain	Tree not within disturbance limit
50	*Ulmus americana*	White Elm	15.6	1.87	Good		Retain	Tree not within disturbance limit
51	*Ulmus americana*	White Elm	14.2, 21.7 (8.5)	1.02	Dead/Fair		Remove	Tree within disturbance limit
52	*unknown*	unknown	24.8	2.98	Dead		Remove	Tree within disturbance limit
53	*Ulmus americana*	White Elm	~34, 20 (10.4)	1.25	Dead/Fair		Remove	Tree within disturbance limit
54	*Acer rubrum X Acer saccharinum*	Freeman's Maple	11.5, 12.7, 10.5, 10.5 (9.5)	1.14	Good		Retain	Tree not within disturbance limit
55	*Acer saccharinum*	Silver Maple	21.1	2.53	Good		Retain	Tree not within disturbance limit
56	*Acer rubrum X Acer saccharinum*	Freeman's Maple	11.7, 10.7 (6.7)	0.80	Good		Retain	Tree not within disturbance limit
57	*Fraxinus pennsylvanica*	Red Ash	11.1	1.33	Good		Retain	Tree not within disturbance limit
58	*Acer rubrum X Acer saccharinum*	Freeman's Maple	10.6, 10.5 (6.5)	0.78	Good		Retain	Tree not within disturbance limit
59	*unknown*	unknown	10.7, 22, 27.7, 11.7 (12)	1.44	Dead		Remove	Tree within disturbance limit

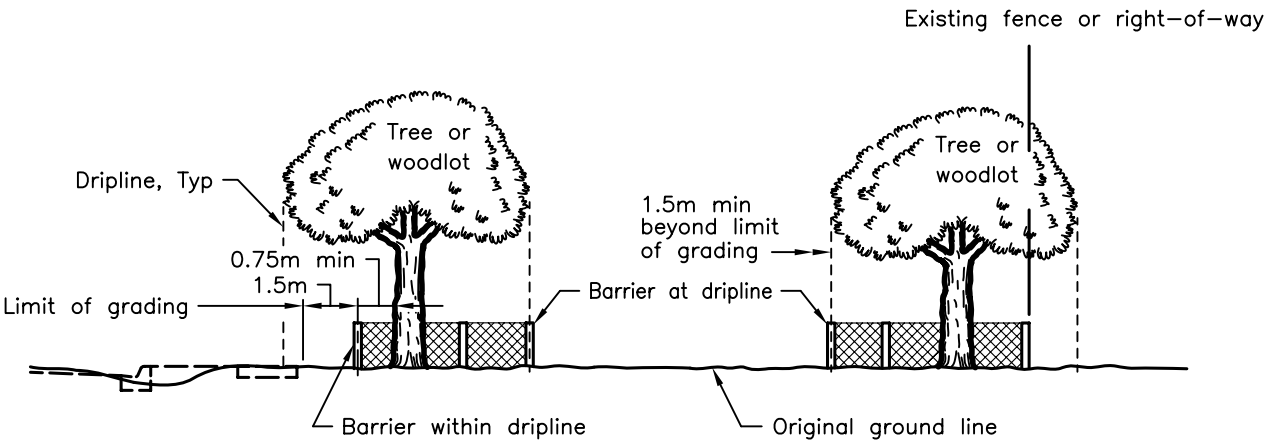
Figure ID	Scientific Name	Common Name	DBH (cm)	Critical Root Zone/Tree Protection Zone (m)	Condition	Level 2 Assessment Notes	Action	Rationale for Removal or Preservation
60	*Ulmus americana*	White Elm	20.7	2.48	Good		Retain	Tree not within disturbance limit
61	*Fraxinus pennsylvanica*	Red Ash	14	1.68	Good		Retain	Tree not within disturbance limit
62	*unknown*	unknown	17.3	2.08	Dead		Remove	Tree within disturbance limit
63	*Prunus sp.*	Cherry species	21.8, 19.7 (9.1)	1.09	Good		Retain	Tree not within disturbance limit
64	*Prunus sp.*	Cherry species	11, 11.9 (6.8)	0.82	Fair		Retain	Tree not within disturbance limit
65	*Prunus sp.*	Cherry species	11.1	1.33	Dead		Remove	Tree within disturbance limit
66	*Ulmus americana*	White Elm	20.1	2.41	Good		Retain	Tree not within disturbance limit
67	*Prunus sp.*	Cherry species	23	2.76	Fair		Retain	Tree not within disturbance limit
68	*unknown*	unknown	23, 14 (8.6)	1.03	Dead		Remove	Tree within disturbance limit
69	*Juglans nigra*	Black Walnut	19.4	2.33	Good		Retain	Tree not within disturbance limit
70	*unknown*	unknown	25	3.00	Dead		Remove	Tree within disturbance limit
71	*Ulmus americana*	White Elm	11.9	1.43	Good		Retain	Tree not within disturbance limit
72	*Prunus sp.*	Cherry species	~13	1.56	Fair		Retain	Tree not within disturbance limit
73	*Acer platanoides*	Norway Maple	12.1	1.45	Dead		Remove	Tree within disturbance limit
74	*Acer platanoides*	Norway Maple	15.3	1.84	Good		Retain	Tree not within disturbance limit
75	*Ulmus americana*	White Elm	~16	1.92	Good		Retain	Tree not within disturbance limit
76	*Acer platanoides*	Norway Maple	19.1	2.29	Poor		Retain	Tree not within disturbance limit
77	*unknown*	unknown	20.3, 17.6, 11.5, 20 (11.8)	1.42	Dead		Remove	Tree within disturbance limit
78	*Acer platanoides*	Norway Maple	19.8	2.38	Good		Retain	Tree not within disturbance limit
79	*Acer platanoides*	Norway Maple	17.8	2.14	Good		Retain	Tree not within disturbance limit
80	*Fraxinus pennsylvanica*	Red Ash	13.2	1.58	Poor		Remove	Tree within disturbance limit
81	*Acer platanoides*	Norway Maple	17.6	2.11	Good		Retain	Tree not within disturbance limit
82	*Morus alba*	White Mulberry	24.3	2.92	Good		Retain	Tree not within disturbance limit
83	*Morus alba*	White Mulberry	11.4, 15, 21.2 (9.8)	1.18	Good		Retain	Tree not within disturbance limit
84	*Quercus alba*	White Oak	13.5, 11 (7.9)	0.95	Good		Retain	Tree not within disturbance limit
85	*Acer rubrum X Acer saccharinum*	Freeman's Maple	~22	2.64	Good	East of property	Retain	Tree not within disturbance limit
86	*Platanus occidentalis*	Sycamore	~45	5.40	Good	East of property	Retain	Tree not within disturbance limit
87	*Gleditsia triacanthos inermis*	Thornless Honey-locust	~38	4.56	Good	Thornless. East of property.	Retain	Tree not within disturbance limit

APPENDIX D

ONTARIO STANDARD BARRIER FOR TREE PROTECTION



PLAN



SECTION A–A

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2007	Rev	0
BARRIER FOR TREE PROTECTION			
	OPSD 220.010		