



GUIDING SOLUTIONS IN THE
NATURAL ENVIRONMENT

Arborist Report

Elora Clayton

Township of Centre Wellington

Wellington County

Prepared For:

Cachet Developments

Prepared By:

Beacon Environmental Limited

Date: Project:

July 2023 221469

Table of Contents

	page
1. Introduction	1
2. Methodology.....	1
3. Results.....	1
4. Proposed Development and Tree Preservation and Removal Recommendations	4
4.1 Trees Proposed for Removal.....	4
4.1.1 Trees on Private Property	4
4.1.2 Trees Within the Municipal Road Allowance.....	5
4.2 Trees Recommended for Removal Due to Condition.....	5
4.3 Trees Recommended for Preservation	5
4.3.1 Trees on Private Property	5
5. Tree Protection and Preservation Guidelines	6
6. Tree Removal Specifications.....	7
6.1 Timing of Tree Removal	7
7. Tree Replacement	7
8. Summary.....	8
9. References.....	9

Figures

Figure 1. Site Location.....	after page 2
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Drawings

Drawings TP-1 to TP-4. Tree Inventory and Preservation Plan.....	after page 4
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Tables

Table 1. Subject Property Tree Inventory Summary.....	2
Table 2. Minimum TPZ Distances	6
Table 3. List of Suggested Tree Species for Planting.....	7

Appendices

- Appendix A. Limitations of Tree Assessment
- Appendix B. Tree Inventory Table
- Appendix C. Tree Protection Specifications

Report Versions Issued

Version	Date	Revisions
1.	July 2022	First Submission
2.	July 2023	Change to Plan of Subdivision

1. Introduction

Beacon Environmental Limited (Beacon) has been retained by Cachet Developments to undertake an Arborist Report including a Tree Inventory and Preservation Plan (TIPP) for the proposed development of lands legally described as Part of Lot 16, Concession 11, in the geographic Township of Nichol, located in the community of Salem, Township of Centre Wellington, County of Wellington. These lands include the “Clayton subject property” and “Elora Sands”, and are herein referred to as the subject properties (**Figure 1**). Only trees located within the Clayton subject property are included in this report.

The purpose of this report is to provide information regarding trees within and adjacent to the subject property in support of a development application. This report provides an update to the July 2022 Arborist Report based on changes to the plan of subdivision.

The report was prepared was prepared in accordance with accepted arboricultural guidelines, standards and practices as outlined by the *Arborists' Certification Study Guide* (Lilly 2001).

2. Methodology

Tree inventory data were collected on February 9, 2022, by a Beacon arborist certified by the International Society of Arboriculture (ISA). In the absence of a tree preservation by-law for the Township of Centre Wellington, trees 5 cm diameter at breast height (DBH) or greater were inventoried and assessed.

Individual trees greater than 20 cm DBH were tagged with numbered aluminum tags using a staple gun. Trees between 5 cm and 20 cm DBH were grouped and tallied by species and size class (i.e., 5 cm to 10 cm, 11 cm to 20 cm DBH).

Tree diameters were measured at breast height, approximately 1.4 m from the ground surface. The diameter for multi-stemmed trees that split below 1.4 m was determined by taking the square root of the sum of squares of each stem's DBH. Tree condition was assessed based on the presence and severity of visible flaws, damage, evidence of pests or diseases, structural condition, dead or dying branches, or other indicators of decline.

The location of individual trees and tree groups were recorded using a survey-grade Arrow 100 GNSS Receiver and incorporated into Geographical Information Systems (GIS) and AutoCAD platforms.

The limitations of the tree assessment are detailed in **Appendix A**.

3. Results

A total of 146 trees were inventoried and assessed within the study area. The 146 inventoried trees are comprised of 88 individual trees measuring greater than 20 cm DBH in size, and 58 tallied trees measuring between 5 cm and 20 cm DBH distributed across four (4) tree groups (i.e., Tree Groups A to D). Of the 88 trees greater than 20 cm DBH, 65 are located within the subject property, 11 are located

on adjacent private properties, three (3) are co-owned between the subject property and adjacent private properties, and nine (9) are located within the Municipal Road Allowance (MRA) along Irvine Street.

The 65 individual trees located on the subject property, listed in decreasing order of abundance, are provided in **Table 1** below.

Table 1. Subject Property Tree Inventory Summary

Scientific Name	Common Name	Quantity
<i>Thuja occidentalis</i>	Eastern White Cedar	23
<i>Juglans nigra</i>	Black Walnut	21
<i>Acer negundo</i>	Manitoba Maple	10
<i>Acer saccharum</i>	Sugar Maple	3
<i>Prunus serotina</i>	Black Cherry	3
<i>Sorbus aucuparia</i>	European Mountain-ash	3
<i>Acer saccharinum</i>	Silver Maple	1
<i>Picea glauca</i>	White Spruce	1

As per the results in **Table 1**, Eastern White Cedar (*Thuja occidentalis*), and Black Walnut (*Juglans nigra*) account for over two-thirds (~ 68%) of the trees recorded on the subject property. The remaining trees are comprised of several to single individuals of Manitoba Maple (*Acer negundo*), Sugar Maple (*A. saccharum*), Black Cherry (*Prunus serotina*), European Mountain-ash (*Sorbus aucuparia*), Silver Maple (*A. saccharinum*), and White Spruce (*Picea glauca*).

The 11 trees located off site on adjacent private properties are listed in decreasing order of abundance below:

- Five (5) Eastern White Cedar ranging from 20 cm to 61 cm DBH, and in fair to good condition;
- Three (3) Black Cherry ranging from 25 cm to 49 cm DBH, and in fair to good condition; and
- Three (3) White Spruce ranging from 21 cm to 45 cm DBH, and primarily in good condition.

The three (3) co-owned trees between the subject property and adjacent private properties include:

- Two (2) Sugar Maple that are 80 cm and 130 cm DBH, and in fair to good, and fair condition respectively; and
- One (1) 32 cm DBH Eastern White Cedar that is in fair to good condition.

The nine (9) trees located within the MRA are listed in decreasing order of abundance below:

- Four (4) Green Ash (*Fraxinus pennsylvanica*) ranging from 29 cm to 59 cm DBH, and in poor condition;
- Two (2) American Beech (*Fagus grandifolia*) that 64 cm and 92 cm DBH, both in fair condition;
- Two (2) Sugar Maple that are 46 cm and 124 cm DBH, and in fair condition, and good condition, respectively; and
- One (1) multi-stemmed Black Walnut with a combined DBH of 17 cm that is in good condition.



Legend

- Subject Property
- Watercourse (MNRF 2021)



Site Location	Figure 1
Elora Clayton EIS	
Project: 221469 Last Revised: July 2023	
Client: Cachet Developments	Prepared by: SZ Checked by: KQ
1:10,000	Inset Map: 1:70,000
<small>Contains information licensed under the Open Government License— Ontario Orthoimagery Baselayer: FBS Communities of Elora and Fergus (2018)</small>	

The individually-tagged trees are summarized in the tree inventory table in **Appendix B** and the tree groups are described below. The locations of the individual trees and four (4) tree groups are shown in the TIPP (**Drawings TP-1 to TP-4**).

Tree Group A

This tree group is located along the southeastern property boundary adjacent to Irvine Street and is comprised of three (3) Green Ash, including one (1) less than 10 cm DBH, and two (2) between 11 cm to 20 cm DBH. All three (3) trees are in fair condition.

Tree Group B

This tree group is located in the center portion of the subject property. It is comprised of two (2) Manitoba Maple less than 10 cm DBH, and one (1) Black Walnut between 5 cm to 10 cm DBH. All three (3) trees are in fair to good condition.

Tree Group C

This tree group is located along the southern property boundary. It is comprised of four (4) Black Walnut less than 20 cm DBH, five (5) Eastern White Cedar less than 10 cm DBH, and two (2) Manitoba Maple that are less than 10 cm DBH. All 11 trees are in fair to good condition.

Tree Group D

This tree group is located along the western property boundary and extends off site into the woodland community. This tree group is comprised of:

- Twenty-six (26) Eastern White Cedar less than 20 cm DBH, and primarily in fair to good condition;
- Two (2) White Spruce between 11 cm to 20 cm DBH, and both in fair condition;
- Two (2) Norway Spruce between 11 cm to 20 cm DBH, and both in fair condition;
- Four (4) White Pine (*Pinus strobus*) between 5 cm to 20 cm DBH, and primarily in fair to good condition;
- Three (3) Colorado Blue Spruce (*Picea pungens*) between 11 cm to 20 cm DBH, and in fair to good condition;
- Three (3) Manitoba Maple between 5 cm to 10 cm, and in fair to good condition; and
- One (1) Black Walnut between 5 cm to 10 cm, that is in good condition.

4. Proposed Development and Tree Preservation and Removal Recommendations

The proposed development is for a subdivision with multiple single detached houses, townhouses, a park block, and walkways, as well as necessary infrastructure and roadways. The development will be accessed through Irvine Street in north and Marr Drive in the south.

A total of 59 trees are proposed or recommended for removal. The 59 trees include 38 individually-tagged trees that are at least 20 cm DBH, and 17 tallied trees that are less than 20 cm DBH distributed between three (3) groups (i.e., Tree Groups A to C) that are proposed for removal to accommodate development, and four (4) trees that are recommended for removal due to condition (i.e., in a state of decline, in poor condition, or dead). A total of 46 individual trees and the entirety of Tree Group D (i.e., 41 tallied trees) are recommended for preservation.

Detailed tree preservation and removal recommendations are provided below and shown in the Tree Inventory Preservation Plan (**Drawings TP-1 to TP-4**).

4.1 Trees Proposed for Removal

Trees located within the area of proposed development and associated grading requirements are proposed for removal. On this basis, 55 trees are proposed for removal including 31 individually-tagged trees that are at least 20 cm DBH, and 17 tallied trees within three (3) tree groups (i.e., Tree Groups A to C) that are less than 20 cm DBH located on the subject property, two (2) co-owned trees located between the subject property and adjacent private properties, and five (5) trees located within the MRA.

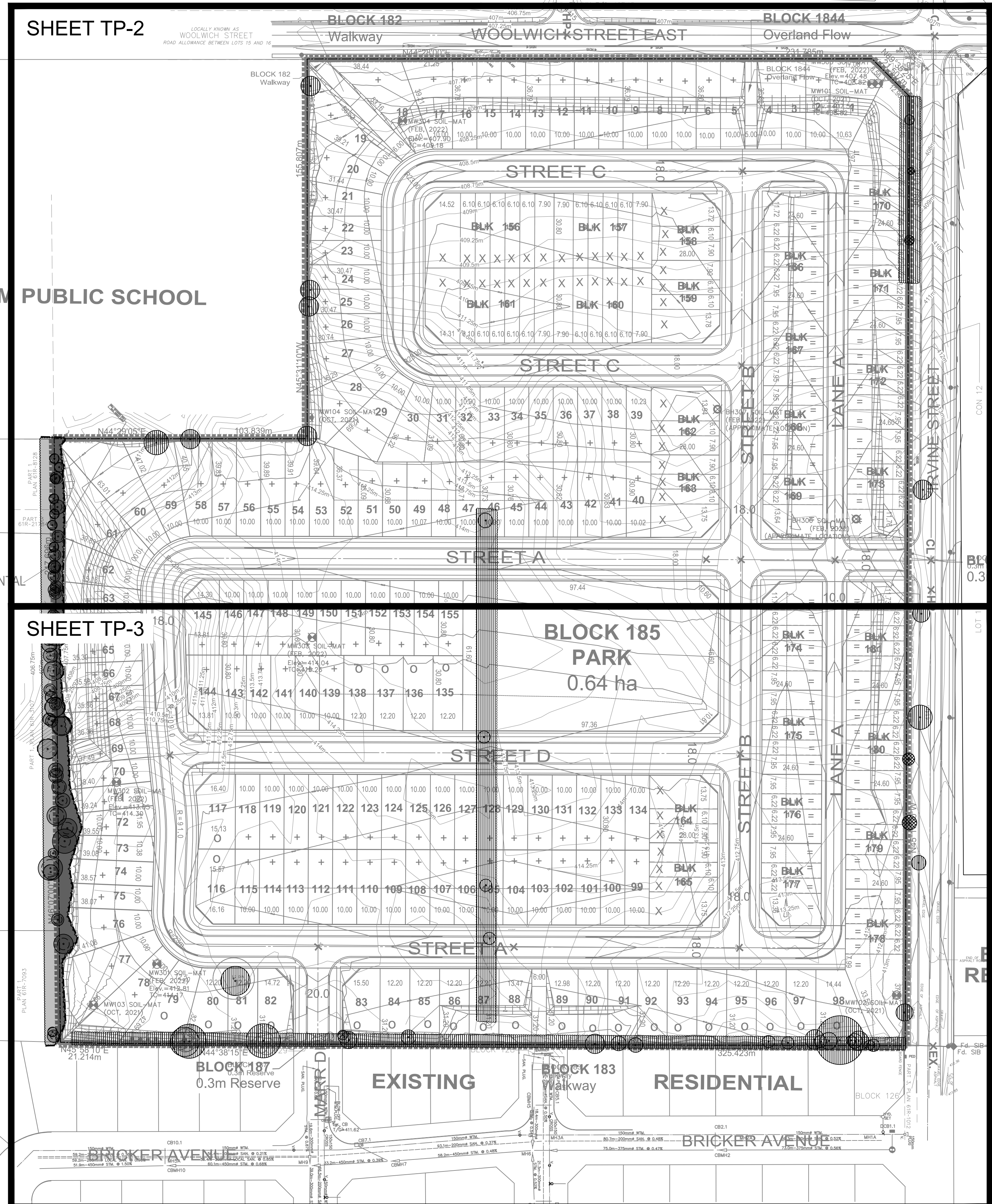
4.1.1 Trees on Private Property

A total of 48 trees on the subject property composed of 31 individually-tagged trees that are at least 20 cm DBH and 17 tallied trees (Tree Groups A to C) less than 20 cm DBH that all range from fair to good condition, are proposed for removal.

The 31 individually-tagged trees (Tree Nos. 1210, 1212 to 1235, and 1268 to 1273) located on the subject property are listed in decreasing order of abundance below:

- Twenty-one (21) Black Walnut that range from 18 cm to 51 cm DBH;
- Five (5) Manitoba Maple that range from 35 cm to 67 cm;
- Three (3) Sugar Maple that range from 23 cm to 130 cm DBH; and
- Two (2) European Mountain-ash with a 23 cm and 42 cm DBH.

The 17 tallied trees on the subject property (i.e., distributed between Tree Groups A to C) include 14 trees that are between 5 cm to 10 cm DBH, and three (3) trees that are between 11 cm to 20 cm DBH,. The 17 trees include several to single individuals of Green Ash, Manitoba Maple, Black Walnut, and Eastern White Cedar.



MILFORD CRESCENT

EXISTING RESIDENTIAL

SALEM PUBLIC SCHOOL

EXISTING RESIDENTIAL

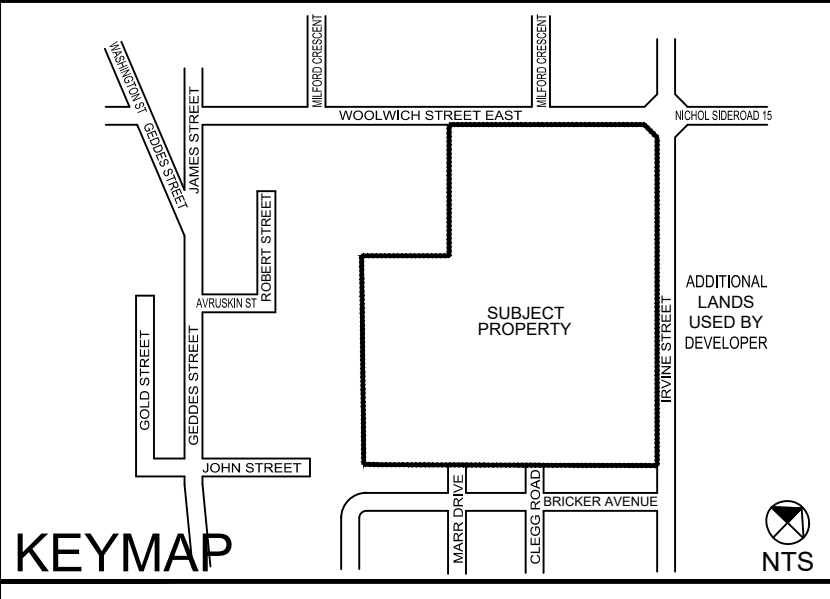
ENVIRONMENTAL EASEMENT

AGRICULTURAL

Block 186
0.3m Reserve

EXISTING RESIDENTIAL

EXISTING RESIDENTIAL



- LEGEND**
- Property Line
 - Tree Protection Fencing
 - Tree Crown
 - Minimum Tree Protection Zone
 - Tree Location
 - Tree to be Preserved
 - Tree to be Removed Due to Development
 - Tree to be Removed Due to Condition
 - Tree Group to be Preserved
 - Tree Group to be Removed

Notes: Scale shown is for a 36" x 24" page. For illustrative purposes. Do not scale.

NO	REVISIONS	DATE	BY:
6			
5			
4			
3	RE-ISSUED FOR SUBMISSION	2023/07/04	AH
2	RE-ISSUED FOR DRAFT PLAN	2023/03/27	AH
1	ISSUED FOR SUBMISSION	2022/07/13	AH



NORTH ARROW

CERTIFIED ARBORIST
ISA
ALEX HANEY
#ON-2723A

MARKHAM OFFICE
80 MAIN ST NORTH
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CLIENT
CACHET DEVELOPMENTS

PROJECT
ELORA CLAYTON EIS

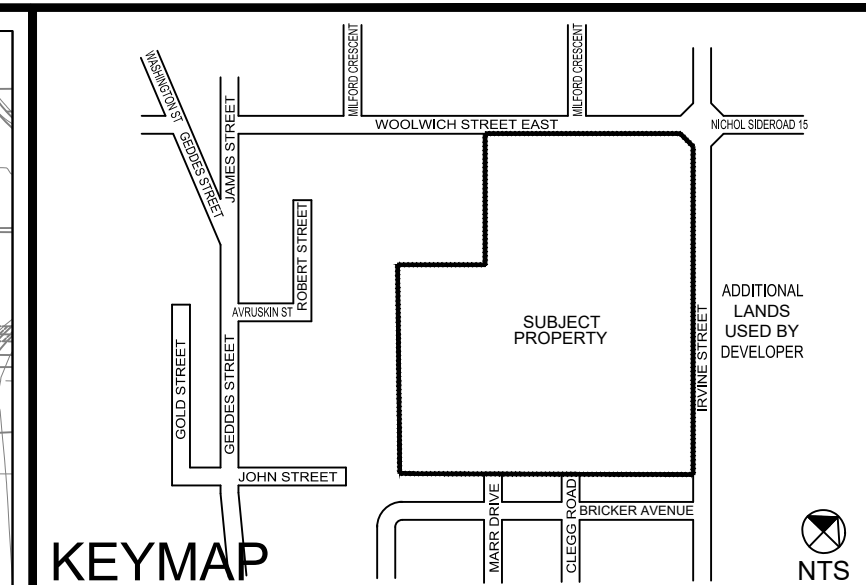
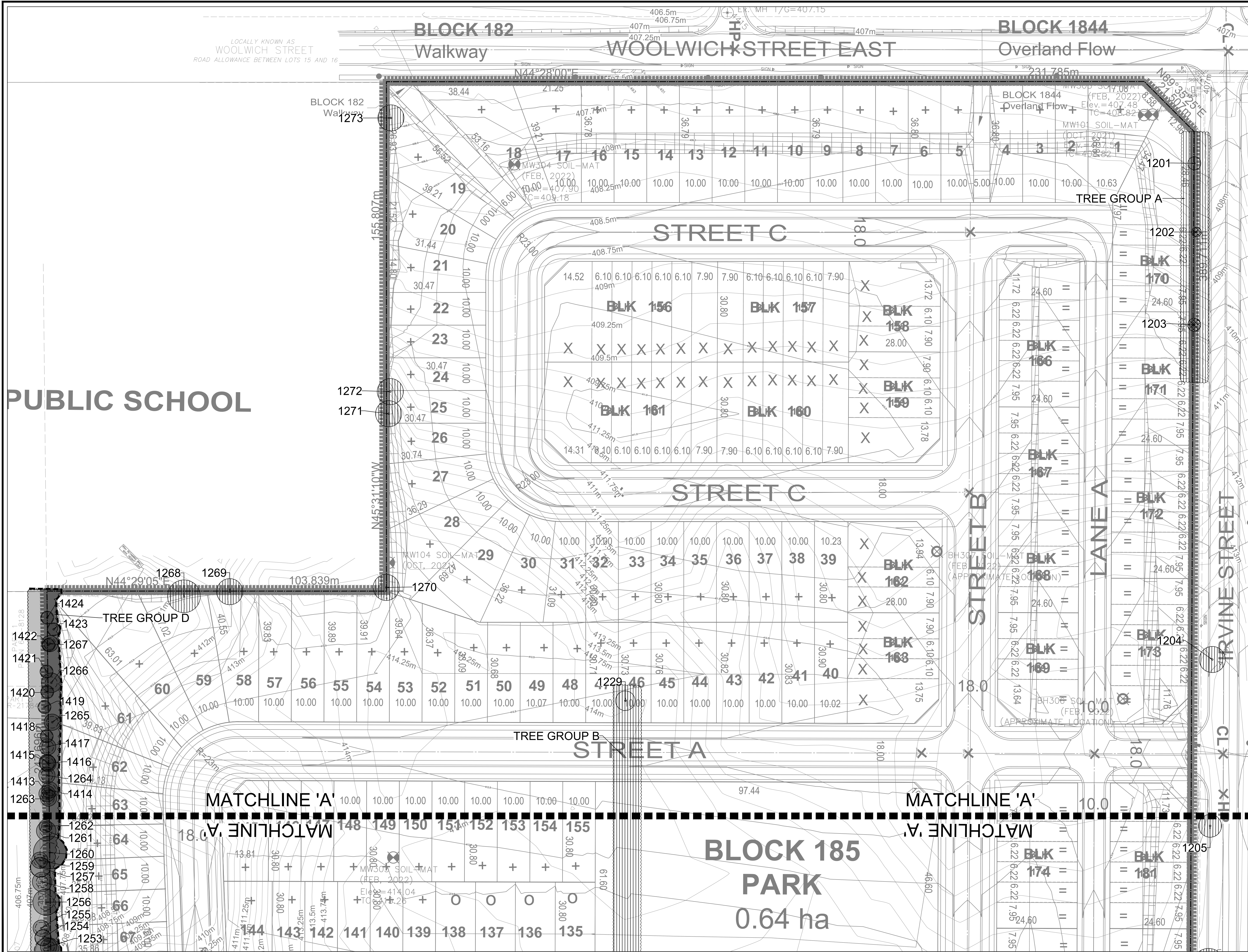
SHEET TITLE
TREE INVENTORY AND PRESERVATION PLAN

DESIGN BY: ... PROJECT NO: 221469

DRAWN BY: MB FIGURE NO: **TP-1**

CHECKED BY: KQ/AH

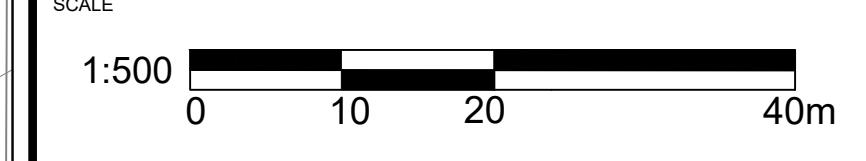
DATE: 13 July 2023



- LEGEND**
- Property Line
 - Tree Protection Fencing (TP-4)
 - Tree tag
 - Tree Crown
 - Minimum Tree Protection Zone
 - Tree Location
 - Tree to be Preserved
 - Tree to be Removed Due to Development
 - Tree to be Removed Due to Condition
 - Tree Group to be Preserved
 - Tree Group to be Removed

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale.

NO	REVISIONS	DATE	BY:
1	ISSUED FOR SUBMISSION	2022/07/13	AH
2	RE-ISSUED FOR DRAFT PLAN	2023/03/27	AH
3	RE-ISSUED FOR SUBMISSION	2023/07/04	AH
4			
5			
6			



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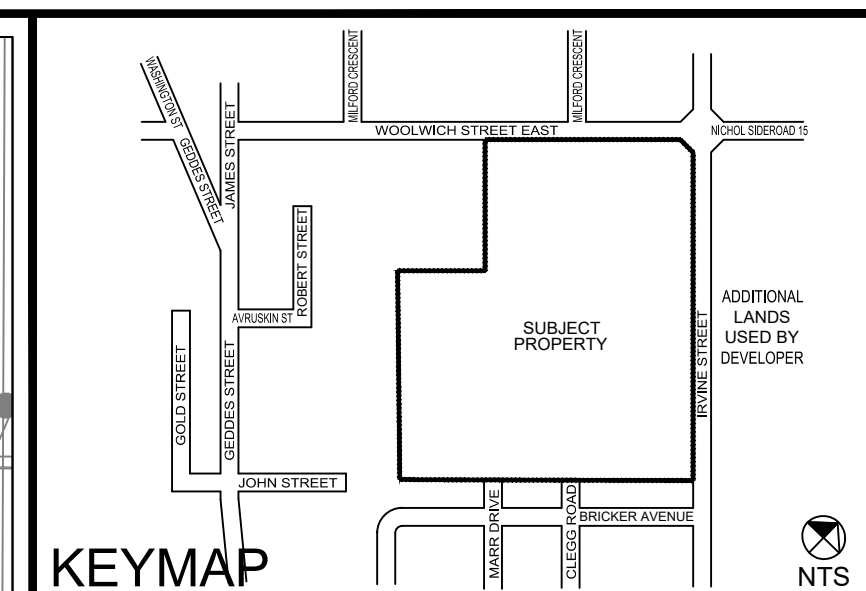
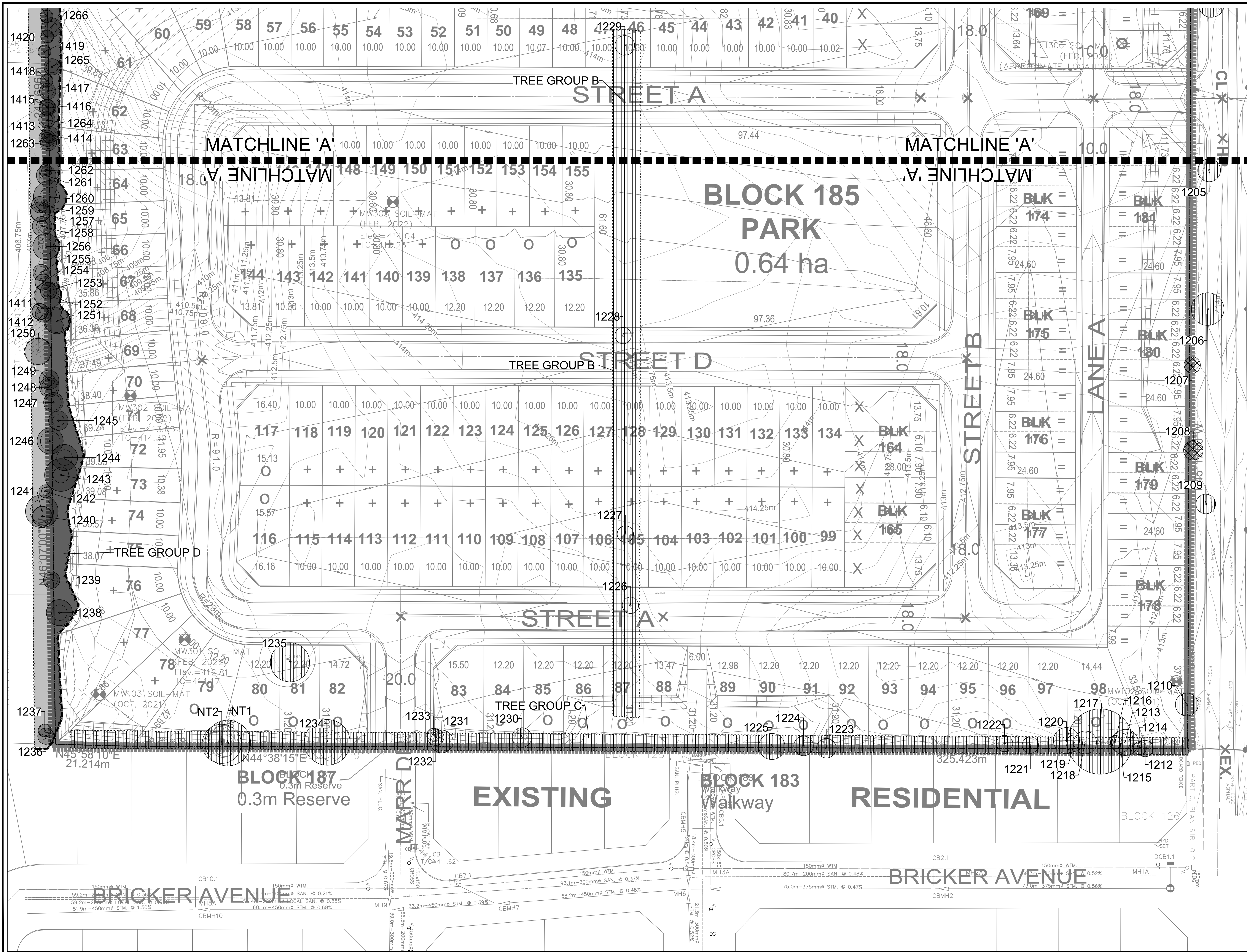
T) 905-201-7622
F) 905-201-0639
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CLIENT: CACHET DEVELOPMENTS

PROJECT: ELORA CLAYTON EIS

SHEET TITLE: TREE INVENTORY AND PRESERVATION PLAN

DESIGN BY: ..	PROJECT NO: 221469
DRAWN BY: MB	FIGURE NO:
CHECKED BY: KQ/AH	TP-2
DATE: 13 July 2023	



- LEGEND**
- Property Line
 - Tree Protection Fencing
 - Tree tag
 - Tree Crown
 - Minimum Tree Protection Zone
 - Tree Location
 - Tree to be Preserved
 - Tree to be Removed Due to Development
 - Tree to be Removed Due to Condition
 - Tree Group to be Preserved
 - Tree Group to be Removed

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale.

NO	REVISIONS	DATE	BY:
6			
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4			
3	RE-ISSUED FOR SUBMISSION	2023/07/04	AH
2	RE-ISSUED FOR DRAFT PLAN	2023/03/27	AH
1	ISSUED FOR SUBMISSION	2022/07/13	AH



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CLIENT: **CACHET DEVELOPMENTS**

PROJECT: **ELORA CLAYTON EIS**

SHEET TITLE: **TREE INVENTORY AND PRESERVATION PLAN**

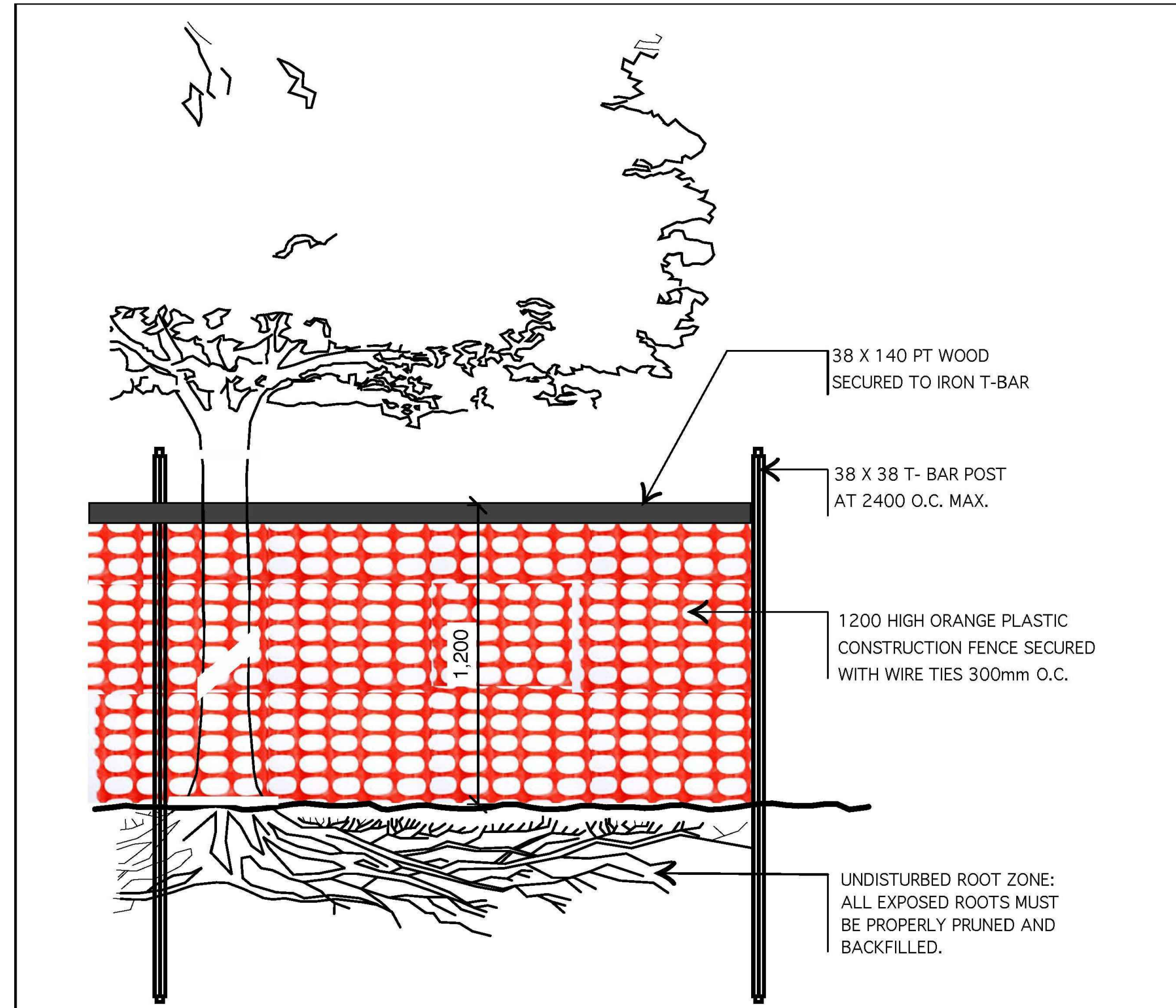
DESIGN BY:	PROJECT NO:	221469
DRAWN BY:	FIGURE NO:	TP-3
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DATE:		13 July 2023

TREE INVENTORY TABLE

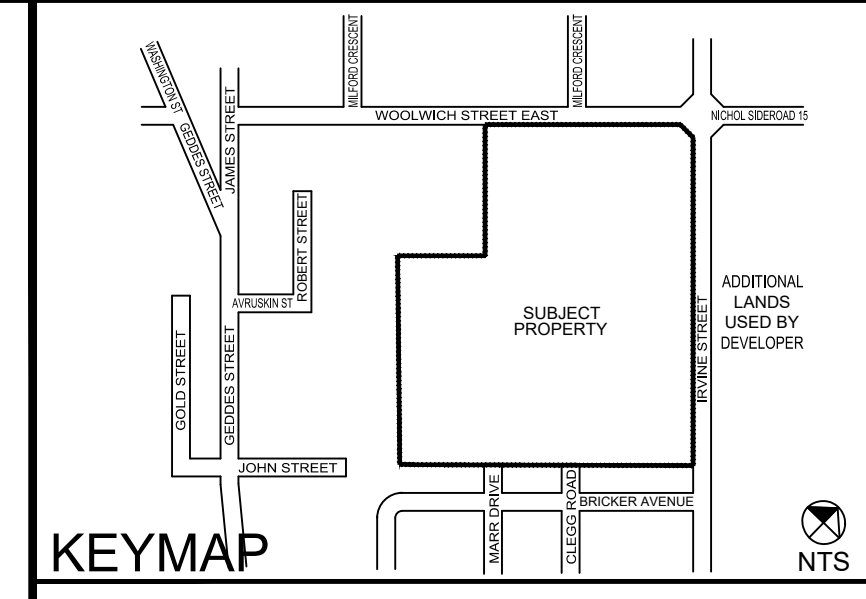
Tree No.	Scientific Name	Common Name	DBH (cm)	Crown Diameter (m)	Condition	Comment	Ownership	TPZ Radius	Preservation Recommendation
1201	<i>Juglans nigra</i>	Black Walnut	11, 13 (17)	4	Good	Good form and vigour.	Municipal Road Allowance	N/A	Remove due to Development
1202	<i>Fraxinus pennsylvanica</i>	Green Ash	41, 10, 9 (43)	3	Poor	Almost dead as of EAB infestation; Epicormic shoots at base; Stems fork at ground; Included bark.	Municipal Road Allowance	N/A	Remove due to Condition
1203	<i>Fraxinus pennsylvanica</i>	Green Ash	18, 11, 20 (29)	4	Poor	Almost dead as of EAB infestation; Epicormic shoots at base; Stems fork at ground; Included bark.	Municipal Road Allowance	N/A	Remove due to Condition
1204	<i>Fagus grandifolia</i>	American Beech	92	8	Fair	Good form; Moderate dieback and thinning; Large rotting cavities in trunk; Large mature tree.	Municipal Road Allowance	N/A	Remove due to Development
1205	<i>Fagus grandifolia</i>	American Beech	64	7	Fair	Good form; Moderate dieback and thinning; Large rotting cavities in trunk; Large mature tree.	Municipal Road Allowance	N/A	Remove due to Development
1206	<i>Acer saccharum</i>	Sugar Maple	124	10	Fair	Good form; Moderate dieback and thinning; Large cavity at breast height; Large mature tree.	Municipal Road Allowance	N/A	Remove due to Development
1207	<i>Fraxinus pennsylvanica</i>	Green Ash	23, 27 (35)	5	Poor	Almost dead as a result of EAB infestation; Stems fork near ground; Included bark; Epicormic shoots at base.	Municipal Road Allowance	N/A	Remove due to Condition
1208	<i>Fraxinus pennsylvanica</i>	Green Ash	44, 39 (59)	6	Poor	Almost dead as a result of EAB infestation; Stems fork near ground; Included bark; Epicormic shoots at base.	Municipal Road Allowance	N/A	Remove due to Condition
1209	<i>Acer saccharum</i>	Sugar Maple	46	6	Good	Good form and vigour.	Municipal Road Allowance	N/A	Remove due to Development
1210	<i>Juglans nigra</i>	Black Walnut	45, 24 (51)	7	Good	Good form and vigour; Stems fork below breast height.	Subject Property	N/A	Remove due to Development
1211	<i>Acer saccharum</i>	Sugar Maple	15, 18 (23)	5	Good	Good form and vigour; Stems fork below breast height; Included bark.	Subject Property	N/A	Remove due to Development
1212	<i>Juglans nigra</i>	Black Walnut	33, 20 (38)	8	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1213	<i>Juglans nigra</i>	Black Walnut	16, 17 (23)	4	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	N/A	Remove due to Development
1214	<i>Sorbus aucuparia</i>	European Mountain-ash	16, 17 (23)	4	Fair-Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1215	<i>Juglans nigra</i>	Black Walnut	31	6	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1216	<i>Juglans nigra</i>	Black Walnut	30	4	Good	Good vigour and form.	Subject Property	N/A	Remove due to Development
1217	<i>Juglans nigra</i>	Black Walnut	20	20	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1218	<i>Juglans nigra</i>	Black Walnut	38	7	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1219	<i>Juglans nigra</i>	Black Walnut	29	5	Fair-Good	Good form and vigour; Cavity along trunk; Minor dieback and thinning.	Subject Property	N/A	Remove due to Development
1220	<i>Juglans nigra</i>	Black Walnut	45	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Cavity in trunk.	Subject Property	N/A	Remove due to Development
1221	<i>Juglans nigra</i>	Black Walnut	20	5	Fair-Good	Good form; Minor dieback and thinning; Stems fork below breast height.	Subject Property	N/A	Remove due to Development
1222	<i>Juglans nigra</i>	Black Walnut	30, 18 (35)	5	Fair-Good	Good form and vigour; Stems fork at breast height; Included bark.	Subject Property	N/A	Remove due to Development
1223	<i>Juglans nigra</i>	Black Walnut	25	6	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1224	<i>Juglans nigra</i>	Black Walnut	22, 30 (37)	6	Fair-Good	Good form and vigour; Stems fork at breast height; Included bark; Lower branches pruned off; Epicormic shoots along stem.	Subject Property	N/A	Remove due to Development
1225	<i>Juglans nigra</i>	Black Walnut	27	8	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1226	<i>Juglans nigra</i>	Black Walnut	16, 13 (21)	5	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1227	<i>Juglans nigra</i>	Black Walnut	27	5	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1228	<i>Juglans nigra</i>	Black Walnut	23	5	Fair-Good	Good form and vigour; Old mechanical injury at base; Wound wood present.	Subject Property	N/A	Remove due to Development
1229	<i>Acer negundo</i>	Manitoba Maple	15, 16, 17, 22 (33)	6	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork near ground; Included bark.	Subject Property	N/A	Remove due to Development
1230	<i>Juglans nigra</i>	Black Walnut	33	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Lower branches pruned off.	Subject Property	N/A	Remove due to Development
1231	<i>Juglans nigra</i>	Black Walnut	29	7	Fair	Good form; Minor dieback and thinning; Old mechanical injury along trunk; Wound wood present.	Subject Property	N/A	Remove due to Development
1232	<i>Juglans nigra</i>	Black Walnut	16, 13 (21)	5	Fair-Good	Good form; Minor dieback and thinning; Stems fork at ground; Included bark; Smaller stem splitting away.	Subject Property	N/A	Remove due to Development
1233	<i>Juglans nigra</i>	Black Walnut	10, 15 (18)	4	Good	Good vigour; Stems fork at ground; Included bark.	Subject Property	N/A	Remove due to Development
1234	<i>Acer saccharum</i>	Sugar Maple	98	14	Fair-Good	Good form and vigour; Minor dieback and thinning; Good root flare; Large mature tree.	Subject Property	N/A	Remove due to Development
1235	<i>Acer saccharum</i>	Sugar Maple	130	12	Fair	Good form and vigour; Moderate dieback and thinning; Large branches dead; Large rotting cavity.	Subject Property	N/A	Remove due to Development
1236	<i>Thuja occidentalis</i>	Eastern White Cedar	20	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.2	Preserve
1237	<i>Picea glauca</i>	White Spruce	21	4	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.8	Preserve
1238	<i>Acer negundo</i>	Manitoba Maple	19, 22, 20 (35)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	2.4	Preserve
1239	<i>Thuja occidentalis</i>	Eastern White Cedar	24	5	Fair-Good	Good form; Minor dieback and thinning.	Subject Property	1.8	Preserve
1240	<i>Prunus serotina</i>	Black Cherry	22, 32, 30 (49)	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height.	Adjacent Private Properties	3	Preserve
1241	<i>Thuja occidentalis</i>	Eastern White Cedar	17, 14, 24, 20, 18, 15, 15, 17, 17, 16, 15, 13 (59)	10	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Adjacent Private Properties	3.6	Preserve
1242	<i>Thuja occidentalis</i>	Eastern White Cedar	20	4	Fair-Good	Good form; Minor dieback and thinning.	Adjacent Private Properties	1.2	Preserve
1243	<i>Acer negundo</i>	Manitoba Maple	23, 22, 15, 14 (38)	10	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark; Slight lean towards the east.	Subject Property	2.4	Preserve
1244	<i>Acer negundo</i>	Manitoba Maple	26, 21, 20 (39)	8	Fair	Good vigour; Moderate dieback and thinning; Stems fork below breast height; Epicormic shoots at base.	Subject Property	2.4	Preserve
1245	<i>Acer negundo</i>	Manitoba Maple	24	6	Fair	Good vigour; Moderate dieback and thinning; Branches broken in canopy; Adventitious shoots.	Subject Property	1.8	Preserve
1246	<i>Prunus serotina</i>	Black Cherry	45, 20 (49)	8	Fair	Good vigour; Moderate dieback and thinning; Stems fork below breast height; Canopy with broken branches; Adventitious shoots; Smaller stem leaning towards the east.	Subject Property	3	Preserve
1247	<i>Prunus serotina</i>	Black Cherry	34	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Slight lean toward the east.	Subject Property	2.4	Preserve
1248	<i>Prunus serotina</i>	Black Cherry	35	6	Fair-Good	Good form and vigour; Minor dieback and thinning.	Subject Property	2.4	Preserve
1249	<i>Sorbus aucuparia</i>	European Mountain-ash	20, 15 (25)	6	Fair-Good	Good form; Minor dieback and thinning; Stems fork below breast height; Fruiting.	Subject Property	1.8	Preserve
1250	<i>Thuja occidentalis</i>	Eastern White Cedar	35, 40, 30 (61)	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Adjacent Private Properties	4.2	Preserve
1251	<i>Acer negundo</i>	Manitoba Maple	20, 31, 35 (51)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark; Epicormic shoots at base.	Subject Property	3.6	Preserve
1252	<i>Thuja occidentalis</i>	Eastern White Cedar	70	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Large mature tree.	Subject Property	4.2	Preserve
1253	<i>Thuja occidentalis</i>	Eastern White Cedar	26	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Subject Property	1.8	Preserve
1254	<i>Thuja occidentalis</i>	Eastern White Cedar	32	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Slight lean towards the west.	Co-owned between Subject Property and Adjacent Private Properties	2.4	Preserve
1255	<i>Thuja occidentalis</i>	Eastern White Cedar	29	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.8	Preserve
1256	<i>Thuja occidentalis</i>	Eastern White Cedar	18, 30, 16 (38)	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	2.4	Preserve
1257	<i>Picea glauca</i>	White Spruce	45	6	Good	Good form and vigour.	Adjacent Private Properties	3	Preserve
1258	<i>Picea glauca</i>	White Spruce	25	6	Good	Good form and vigour; Minor dieback and thinning.	Subject Property	1.8	Preserve
1259	<i>Picea glauca</i>	White Spruce	22	5	Good	Good form and vigour.	Adjacent Private Properties	1.8	Preserve
1260	<i>Acer saccharinum</i>	Silver Maple	50	10	Fair-Good	Good form and vigour; Minor dieback and thinning; Epicormic shoots at base.	Subject Property	3	Preserve
1261	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 18 (27)	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1262	<i>Thuja occidentalis</i>	Eastern White Cedar	20	4	Good	Good form and vigour.	Subject Property	1.2	Preserve
1263	<i>Thuja occidentalis</i>	Eastern White Cedar	25, 15 (29)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1264	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 11 (23)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1265	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1266	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1267	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1268	<i>Acer negundo</i>	Manitoba Maple	43, 31, 41 (67)	10	Fair	Good vigour; Moderate dieback and thinning; Epicormic shoots at base; Stems fork below breast height; Included bark. One stem is dead.	Subject Property	N/A	Remove due to Development
1269	<i>Sorbus aucuparia</i>	European Mountain-ash	42	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork above breast height; Included bark. One small stem is dead; Fruiting.	Subject Property	N/A	Remove due to Development
1270	<i>Juglans nigra</i>	Black Walnut	25	8	Fair-Good	Good vigour; Minor dieback and thinning; Old mechanical injury; Stem growing in fence.	Subject Property	N/A	Remove due to Development
1271	<i>Acer negundo</i>	Manitoba Maple	15, 12, 30 (36)	8	Fair	Good vigour; Moderate dieback and thinning; Stems fork at ground; Stems growing in fence.	Subject Property	N/A	Remove due to Development
1272	<i>Acer negundo</i>	Manitoba Maple	48, 22, 14 (55)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork near ground; Epicormic shoots at base.	Subject Property	N/A	Remove due to Development
1273	<i>Acer negundo</i>	Manitoba Maple	20, 6, 18, 22 (35)	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark; Epicormic shoots at base.	Subject Property	N/A	Remove due to Development
1411	<i>Prunus serotina</i>	Black Cherry	34	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	2.4	Preserve
1412	<i>Prunus serotina</i>	Black Cherry	25	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.8	Preserve
1413	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 13, 12, 5 (24)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1414	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1415	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 20, 12, 6 (31)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	2.4	Preserve
1416	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 20, 10, 5 (27)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1417	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 12, 10, 7 (26)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1418	<i>Thuja occidentalis</i>	Eastern White Cedar	22	4	Fair-Good	Good form and vigour; Minor dieback and thinning.	Subject Property	1.8	Preserve
1419	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1420	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1421	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 14, 10 (23)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1422	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1423	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1424	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 12, 10 (22)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
NT1	<i>Acer saccharum</i>	Sugar Maple	130	14	Fair	Good form and vigour; Moderate dieback and thinning; DBH measurement estimated; Large mature tree.	Co-owned between Subject Property and Adjacent Private Properties	N/A	Remove due to Development
NT2	<i>Acer saccharum</i>	Sugar Maple	80	12	Fair-Good	Good form and vigour; Minor dieback and thinning.	Co-owned between Subject Property and Adjacent Private Properties	N/A	Remove due to Development

1. The tree health condition rating was based on factors that could include one or a combination of:
 Fair Condition - Moderate dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress
 Good Condition - Healthy vigorous growth, no or minor visible defects or damage
 Poor Condition - Severe dieback, significant lean, decayed, missing leader, significant disease presence

2. The TPZ is the minimum distance required for tree preservation as per ISA Standards and Guidelines.



1 TP-4 TREE PROTECTION FENCING DETAIL NTS



LEGEND

Notes: Scale shown is for a 36" x 24" page. For illustrative purposes. Do not scale

NO	REVISIONS	DATE	BY
6			
5			
4			
3	RE-ISSUED FOR SUBMISSION	2023/07/04	AH
2	RE-ISSUED FOR DRAFT PLAN	2023/03/27	AH
1	ISSUED FOR SUBMISSION	2022/07/13	AH

CERTIFIED ARBORIST
 ISA
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CLIENT
CACHET DEVELOPMENTS

PROJECT
ELORA CLAYTON EIS

SHEET TITLE
TREE INVENTORY TABLE

DESIGN BY: ...	PROJECT NO: 221469
DRAWN BY: MB	FIGURE NO: TP-4
CHECKED BY: KQ/AH	
DATE: 13 July 2023	

The two (2) co-owned trees (Tree Nos. NT1, and NT2) located between the subject property and adjacent private properties include two (2) Sugar Maple that are 80 cm and 130 cm DBH, and in fair to good, and fair condition, respectively.

4.1.2 Trees Within the Municipal Road Allowance

There are five (5) trees (Tree Nos. 1201, 1204 to 1206, and 1209) located within the MRA that are proposed for removal to accommodate development. The five (5) MRA trees recommended for removal are listed in decreasing order of abundance below:

- Two (2) American Beech that are 92 cm and 64 cm DBH, and in fair condition;
- Two (2) Sugar Maple that are 124 cm and 46 cm DBH, and that are in fair and good condition, respectively; and
- One (1) multi-stemmed Black Walnut with a combined DBH of 17 cm that is in good condition.

Permissions will be required from the municipality and private landowners prior to the removal of trees located off property.

4.2 Trees Recommended for Removal Due to Condition

There are four (4) trees observed to be dead, in poor condition or in a state of decline that are posing a potential hazard, to targets (e.g., workers, buildings and vehicles) during and post-development that are recommended for removal.

The four (4) trees (Tree Nos. 1202, 1203, 1207, 1208) are composed entirely of Green Ash that range from 29 cm to 59 cm DBH and that are located within the MRA.

The Green Ash are in a state of decline due to an infestation from the invasive Emerald Ash Borer (*Agrilus planipennis*).

Permissions will be required from the municipality prior to the removal of trees located within the MRA.

4.3 Trees Recommended for Preservation

4.3.1 Trees on Private Property

The entirety of Tree Group D (i.e., 41 tallied trees) and 46 individually-tagged trees (Tree Nos. 1236 to 1267, and 1411 to 1424) are recommended for preservation. All trees recommended for preservation are located within the subject property along the western and southwestern property boundary, and extend into the off-site treed community.

5. Tree Protection and Preservation Guidelines

Any trees that do not require removal to accommodate construction shall be protected through the establishment of a Tree Protection Zone (TPZ). Prior to construction, heavy-duty tree protection fencing with erosion/silt control measures is required to be installed around the tree located a minimum distance as shown in the TPZ column within the tree inventory table in **Appendix B**. The TPZ should be measured from the base of the tree, or to the edge of paved surface.

The TPZs should be demarcated with tree protection fence comprised of orange snow fencing secured to t-bar stakes spaced a maximum of 1.8 m apart as shown in the Tree Protection Specifications presented in **Appendix C**. No materials shall be stored inside or up against this fencing, and a sign should be hung on the most visible side designating the TPZ. The location of the tree protection barriers in relation to the proposed development is shown on the Tree Inventory Preservation Plan (**Drawings TP-1 to TP-3**).

Table 2 outlines TPZs based on tree diameter categories. A minimum TPZ has been determined which recommends 6 cm of TPZ radius be provided for every 1 cm of trunk diameter and is consistent with many municipalities within southern Ontario. Engineering and development constraints may impact or prevent the retention of trees recommended for protection.

Table 2. Minimum TPZ Distances

Trunk Diameter at Breast Height (cm)	Minimum TPZ (m)
≤10	1.2
11-20	1.2
21-30	1.8
31-40	2.4
41-50	3.0
51-60	3.6
61-70	4.2
71-80	4.8
81-90	5.4
91-100	6.0

In addition to the establishment of TPZs, the following specifications are recommended:

- Before the beginning of work, the contractor shall meet with Beacon Environmental on site to review work procedures, access routes, storage areas and the TPZ or other tree protection measures;
- Tree protection fencing shall be installed and in good condition prior to the start of construction and is to be maintained in good condition throughout the duration of construction activities;
- Areas within the tree protection fencing of the trees designated for preservation are not to be used for any type of storage;
- Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas or flushed where they may come into contact with the feeder roots of the trees;

- In the event that it is necessary to remove additional limbs or portions of trees, after construction has commenced, to accommodate construction, the consulting Arborist or project administrator is to be informed and the removal is to be executed carefully and in full accordance with arboricultural techniques, by a qualified Arborist;
- During excavation operations in which roots are affected, the Contractor is to prune all exposed roots cleanly. Pruned root ends shall point obliquely downwards. The exposed roots should not be allowed to dry out. The Contractor shall discuss watering of the roots with the Owner and Contract Administrator prior to pruning to ensure that so that optimum soil moisture is maintained during construction and backfilling operations. Backfilling must be completed as soon as practical with clean, uncontaminated native topsoil or mulch. Directional drilling is recommended for installing infrastructure servicing within TPZs; and
- Where the access route abuts the tree protection fencing, curb shall be hand-formed to minimize root loss.

6. Tree Removal Specifications

6.1 Timing of Tree Removal

The federal *Migratory Bird Convention Act* (1994) and the provincial *Fish and Wildlife Conservation Act* (1997) protect the nests, eggs and young of most bird species from harm or destruction. Environment Canada considers the general nesting period of breeding birds in southern Ontario to be between late March and the end of August. This includes times at the beginning and end of the season when only a few species might be nesting. During the peak period of bird nesting, no vegetation clearing or disturbance to nesting bird habitat should occur (between mid-May and mid-July). In the ‘shoulder’ seasons of April 1 to May 15, and July 16 to August 31, vegetation clearing could occur, but only after an ecologist with appropriate avian knowledge has surveyed the area to confirm an absence of nesting. If nesting is found, then vegetation clearing (in an area around the nest) has to wait until nesting has concluded. From September 1 through to March 31, of any year, vegetation clearing can occur without nest surveys, but the law for nest protection applies at any time (i.e., if an active nest is known it should be protected). Nesting habitat includes grasses, shrubs trees and structures.

7. Tree Replacement

Any trees identified for removal should be replaced after construction activities are completed. Replacement trees should be healthy calliper stock (50 mm minimum), balled and burlap trees of suggested species listed in **Table 3** below, or any combination thereof. Planting of ash trees, which are host species for the EAB, should be avoided entirely.

Table 3. List of Suggested Tree Species for Planting

Scientific Name	Common Name
<i>Acer saccharinum</i>	Silver Maple
<i>Acer x freemanii</i>	Freeman's Maple
<i>Acer nigrum</i>	Black Maple

Scientific Name	Common Name
<i>Betula papyrifera</i>	White Birch
<i>Carya cordiformis</i>	Bitternut Hickory
<i>Juglans nigra</i>	Black Walnut
<i>Quercus macrocarpa</i>	Bur Oak
<i>Quercus rubra</i>	Red Oak
<i>Platanus occidentalis</i>	American Sycamore
<i>Picea glauca</i>	White Spruce
<i>Tilia americana</i>	Basswood
<i>Thuja occidentalis</i>	White Cedar

Tree plantings should follow accepted arboricultural techniques for planting balled and burlap trees.

Trees should be watered regularly for at least the first two years. Provided the trees are properly installed with follow-up care, the removed trees will be sufficiently replaced.

8. Summary

Beacon has been retained by Cachet Development to undertake an Arborist Report and TIPP for the proposed development of lands legally described as Part of Lot 16, Concession 11, within the Township of Centre Wellington, County of Wellington.

A total of 146 trees were inventoried and assessed including 65 individually-tagged trees that are at least 20 cm DBH located on the subject property, 58 tallied trees measuring less than 20 cm DBH on the subject property distributed between four (4) tree groups (i.e., Tree Groups A to D), 11 individual trees located on the adjacent private properties, three (3) co-owned trees between the subject property and adjacent private properties, and nine (9) trees located within the MRA.

A total of 59 trees are proposed for removal including 38 individually-tagged trees that are at least 20 cm DBH, 17 tallied trees that are less than 20 cm DBH distributed between three (3) tree groups (i.e., Tree Groups A to C), and four (4) trees to be removed due to condition. A total of 46 individual trees and the entirety of Tree Group D (i.e., 41 tallied trees) are recommended for preservation.

Should you have any comments regarding the above, or require clarification or modification, please contact the undersigned at ahaney@beaconenviro.com or (647) 770-5769.

Report prepared by:
Beacon Environmental



Alex Haney, B.E.S. (Hons.)
Ecologist,
ISA Certified Arborist (ON-2723A)

Report reviewed by:
Beacon Environmental



Todd Smith, B.Sc., M.L.A., OALA, CSLA
Senior Landscape Architect, Practice Lead,
ISA Certified Arborist (ON-1608A)

9. References

Government of Canada. 1994.

Migratory Birds Convention Act, 1994 (S.C. 1994, c.22).

Government of Ontario. 1997.

Fish and Wildlife Conservation Act, 1997 (S.O. 1997, c.41).

Lilly, Sharon J. 2001.

Arborists' Certification Study Guide. International Society of Arboriculture, Champaign, Illinois.

Appendix A

Limitations of Tree Assessment

Appendix A

Limitations of Tree Assessment

It is the policy of Beacon Environmental Limited to attach the following clause regarding limitations of the tree assessment. The intent is to ensure that the client is aware of what is technically and professionally realistic in assessing and/or retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These techniques include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, crown dieback, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of property and people. Except where specifically noted in the report, none of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms and their health and vigour constantly change over time. They are not immune to changes in site conditions, pests, or variations in the weather conditions including severe storms with high-speed winds. Furthermore, some symptoms may only be visible seasonally; the extent of observations that can be made may be limited by the time of year in which the inspection took place.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy unless stated otherwise within the report, no warranty or guarantees are offered, or implied, that these trees, or any parts of them, will have continued health or structure as noted in the report. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or group of trees or their component parts in all circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure if provided with the necessary combinations of stresses and elements. This risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, it is recommended that trees be re-assessed periodically to identify changes in condition. Design or site plan changes may also necessitate re-assessment and/or revisions to this report. **The assessment presented in this report is valid at the time of the inspection and is intended for sole use of the client.** Any use of this report by a third party, and any decision based on this report, is the singular responsibility of the third party.

Appendix B

Tree Inventory Table

Appendix B

Tree Inventory Table

Tree No.	Scientific Name	Common Name	DBH (cm)	Crown Diameter (m)	Condition ¹	Comment	Ownership	TPZ Radius ² (m)	Preservation Recommendation
1201	<i>Juglans nigra</i>	Black Walnut	11, 13 (17)	4	Good	Good form and vigour.	Municipal Road Allowance	N/A	Remove due to Development
1202	<i>Fraxinus pennsylvanica</i>	Green Ash	41, 10, 9 (43)	3	Poor	Almost dead as of EAB infestation; Epicormic shoots at base; Stems fork at ground; Included bark.	Municipal Road Allowance	N/A	Remove due to Condition
1203	<i>Fraxinus pennsylvanica</i>	Green Ash	18, 11, 20 (29)	4	Poor	Almost dead as of EAB infestation; Epicormic shoots at base; Stems fork at ground; Included bark.	Municipal Road Allowance	N/A	Remove due to Condition
1204	<i>Fagus grandifolia</i>	American Beech	92	8	Fair	Good form; Moderate dieback and thinning; Large rotting cavities in trunk; Large mature tree.	Municipal Road Allowance	N/A	Remove due to Development
1205	<i>Fagus grandifolia</i>	American Beech	64	7	Fair	Good form; Moderate dieback and thinning; Large rotting cavities in trunk; Large mature tree.	Municipal Road Allowance	N/A	Remove due to Development
1206	<i>Acer saccharum</i>	Sugar Maple	124	10	Fair	Good form; Moderate dieback and thinning; Large cavity at breast height; Large mature tree.	Municipal Road Allowance	N/A	Remove due to Development
1207	<i>Fraxinus pennsylvanica</i>	Green Ash	23, 27 (35)	5	Poor	Almost dead as a result of EAB infestation; Stems fork near ground; Included bark; Epicormic shoots at base.	Municipal Road Allowance	N/A	Remove due to Condition
1208	<i>Fraxinus pennsylvanica</i>	Green Ash	44, 39 (59)	6	Poor	Almost dead as a result of EAB infestation; Stems fork near ground; Included bark; Epicormic shoots at base.	Municipal Road Allowance	N/A	Remove due to Condition
1209	<i>Acer saccharum</i>	Sugar Maple	46	6	Good	Good form and vigour.	Municipal Road Allowance	N/A	Remove due to Development
1210	<i>Juglans nigra</i>	Black Walnut	45, 24 (51)	7	Good	Good form and vigour; Stems fork below breast height.	Subject Property	N/A	Remove due to Development
1212	<i>Acer saccharum</i>	Sugar Maple	15, 18 (23)	5	Good	Good form and vigour; Stems fork below breast height; Included bark.	Subject Property	N/A	Remove due to Development
1213	<i>Juglans nigra</i>	Black Walnut	33, 20 (38)	8	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1214	<i>Sorbus aucuparia</i>	European Mountain-ash	16, 17 (23)	4	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	N/A	Remove due to Development
1215	<i>Juglans nigra</i>	Black Walnut	31	6	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1216	<i>Juglans nigra</i>	Black Walnut	30	4	Good	Good vigour and form.	Subject Property	N/A	Remove due to Development
1217	<i>Juglans nigra</i>	Black Walnut	20	20	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1218	<i>Juglans nigra</i>	Black Walnut	38	7	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1219	<i>Juglans nigra</i>	Black Walnut	29	5	Fair-Good	Good form and vigour; Cavity along trunk; Minor dieback and thinning.	Subject Property	N/A	Remove due to Development
1220	<i>Juglans nigra</i>	Black Walnut	45	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Cavity in trunk.	Subject Property	N/A	Remove due to Development
1221	<i>Juglans nigra</i>	Black Walnut	20	5	Fair-Good	Good form; Minor dieback and thinning; Stems fork below breast height.	Subject Property	N/A	Remove due to Development
1222	<i>Juglans nigra</i>	Black Walnut	30, 18 (35)	5	Fair-Good	Good form and vigour; Stems fork at breast height; Included bark.	Subject Property	N/A	Remove due to Development
1223	<i>Juglans nigra</i>	Black Walnut	25	6	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1224	<i>Juglans nigra</i>	Black Walnut	22, 30 (37)	6	Fair-Good	Good form and vigour; Stems fork at breast height; Included bark; Lower branches pruned off; Epicormic shoots along stem.	Subject Property	N/A	Remove due to Development
1225	<i>Juglans nigra</i>	Black Walnut	27	8	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1226	<i>Juglans nigra</i>	Black Walnut	16, 13 (21)	5	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1227	<i>Juglans nigra</i>	Black Walnut	27	5	Good	Good form and vigour.	Subject Property	N/A	Remove due to Development
1228	<i>Juglans nigra</i>	Black Walnut	23	5	Fair-Good	Good form and vigour; Old mechanical injury at base; Wound wood present.	Subject Property	N/A	Remove due to Development
1229	<i>Acer negundo</i>	Manitoba Maple	15, 16, 17, 22 (35)	6	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork near ground; Included bark.	Subject Property	N/A	Remove due to Development
1230	<i>Juglans nigra</i>	Black Walnut	33	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Lower branches pruned off.	Subject Property	N/A	Remove due to Development

Tree No.	Scientific Name	Common Name	DBH (cm)	Crown Diameter (m)	Condition ¹	Comment	Ownership	TPZ Radius ² (m)	Preservation Recommendation
1231	<i>Juglans nigra</i>	Black Walnut	29	7	Fair	Good form; Minor dieback and thinning; Old mechanical injury along trunk; Wound wood present.	Subject Property	N/A	Remove due to Development
1232	<i>Juglans nigra</i>	Black Walnut	16, 13 (21)	5	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark; Smaller stem splitting away.	Subject Property	N/A	Remove due to Development
1233	<i>Juglans nigra</i>	Black Walnut	10, 15 (18)	4	Good	Good vigour; Stems fork at ground; Included bark.	Subject Property	N/A	Remove due to Development
1234	<i>Acer saccharum</i>	Sugar Maple	98	14	Fair-Good	Good form and vigour; Minor dieback and thinning; Good root flare; Large mature tree.	Subject Property	N/A	Remove due to Development
1235	<i>Acer saccharum</i>	Sugar Maple	130	12	Fair	Good form and vigour; Moderate dieback and thinning; Large branches dead; Large rotting cavity.	Subject Property	N/A	Remove due to Development
1236	<i>Thuja occidentalis</i>	Eastern White Cedar	20	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.2	Preserve
1237	<i>Picea glauca</i>	White Spruce	21	4	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.8	Preserve
1238	<i>Acer negundo</i>	Manitoba Maple	19, 22, 20 (35)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	2.4	Preserve
1239	<i>Thuja occidentalis</i>	Eastern White Cedar	24	5	Fair-Good	Good form; Minor dieback and thinning.	Subject Property	1.8	Preserve
1240	<i>Prunus serotina</i>	Black Cherry	22, 32, 30 (49)	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height.	Adjacent Private Properties	3	Preserve
1241	<i>Thuja occidentalis</i>	Eastern White Cedar	17, 14, 24, 20, 18, 15, 15, 17, 17, 16, 15, 13 (59)	10	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Adjacent Private Properties	3.6	Preserve
1242	<i>Thuja occidentalis</i>	Eastern White Cedar	20	4	Fair-Good	Good form; Minor dieback and thinning.	Adjacent Private Properties	1.2	Preserve
1243	<i>Acer negundo</i>	Manitoba Maple	23, 22, 15, 14 (38)	10	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark; Slight lean towards the east.	Subject Property	2.4	Preserve
1244	<i>Acer negundo</i>	Manitoba Maple	26, 21, 20 (39)	8	Fair	Good vigour; Moderate dieback and thinning; Stems fork below breast height; Epicormic shoots at base.	Subject Property	2.4	Preserve
1245	<i>Acer negundo</i>	Manitoba Maple	24	6	Fair	Good vigour; Moderate dieback and thinning; Branches broken in canopy; Adventitious shoots.	Subject Property	1.8	Preserve
1246	<i>Prunus serotina</i>	Black Cherry	45, 20 (49)	8	Fair	Good vigour; Moderate dieback and thinning; Stems fork below breast height; Canopy with broken branches; Adventitious shoots; Smaller stem leaning towards the east.	Subject Property	3	Preserve
1247	<i>Prunus serotina</i>	Black Cherry	34	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Slight lean toward the east.	Subject Property	2.4	Preserve
1248	<i>Prunus serotina</i>	Black Cherry	35	6	Fair-Good	Good form and vigour; Minor dieback and thinning.	Subject Property	2.4	Preserve
1249	<i>Sorbus aucuparia</i>	European Mountain-ash	20, 15 (25)	6	Fair-Good	Good form; Minor dieback and thinning; Stems fork below breast height; Fruiting.	Subject Property	1.8	Preserve
1250	<i>Thuja occidentalis</i>	Eastern White Cedar	35, 40, 30 (61)	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Adjacent Private Properties	4.2	Preserve
1251	<i>Acer negundo</i>	Manitoba Maple	20, 31, 35 (51)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork at ground; Included bark; Epicormic shoots at base.	Subject Property	3.6	Preserve
1252	<i>Thuja occidentalis</i>	Eastern White Cedar	70	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Large mature tree.	Subject Property	4.2	Preserve
1253	<i>Thuja occidentalis</i>	Eastern White Cedar	26	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Subject Property	1.8	Preserve
1254	<i>Thuja occidentalis</i>	Eastern White Cedar	32	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Slight lean towards the west.	Co-owned between Subject Property and Adjacent Private Properties	2.4	Preserve
1255	<i>Thuja occidentalis</i>	Eastern White Cedar	29	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.8	Preserve

Tree No.	Scientific Name	Common Name	DBH (cm)	Crown Diameter (m)	Condition ¹	Comment	Ownership	TPZ Radius ² (m)	Preservation Recommendation
1256	<i>Thuja occidentalis</i>	Eastern White Cedar	18, 30, 16 (38)	8	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	2.4	Preserve
1257	<i>Picea glauca</i>	White Spruce	45	6	Good	Good form and vigour.	Adjacent Private Properties	3	Preserve
1258	<i>Picea glauca</i>	White Spruce	25	6	Good	Good form and vigour; Minor dieback and thinning.	Subject Property	1.8	Preserve
1259	<i>Picea glauca</i>	White Spruce	22	5	Good	Good form and vigour.	Adjacent Private Properties	1.8	Preserve
1260	<i>Acer saccharinum</i>	Silver Maple	50	10	Fair-Good	Good form and vigour; Minor dieback and thinning; Epicormic shoots at base.	Subject Property	3	Preserve
1261	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 18 (27)	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1262	<i>Thuja occidentalis</i>	Eastern White Cedar	20	4	Good	Good form and vigour.	Subject Property	1.2	Preserve
1263	<i>Thuja occidentalis</i>	Eastern White Cedar	25, 15 (29)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1264	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 11 (23)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1265	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1266	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	6	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1267	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork at ground; Included bark.	Subject Property	1.8	Preserve
1268	<i>Acer negundo</i>	Manitoba Maple	43, 31, 41 (67)	10	Fair	Good vigour; Moderate dieback and thinning; Epicormic shoots at base; Stems fork below breast height; Included bark; One stem is dead.	Subject Property	N/A	Remove due to Development
1269	<i>Sorbus aucuparia</i>	European Mountain-ash	42	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork above breast height; Included bark; One small stem is dead; Fruiting.	Subject Property	N/A	Remove due to Development
1270	<i>Juglans nigra</i>	Black Walnut	25	8	Fair-Good	Good vigour; Minor dieback and thinning; Old mechanical injury; Stem growing in fence.	Subject Property	N/A	Remove due to Development
1271	<i>Acer negundo</i>	Manitoba Maple	15, 12, 30 (36)	8	Fair	Good vigour; Moderate dieback and thinning; Stems fork at ground; Stems growing in fence.	Subject Property	N/A	Remove due to Development
1272	<i>Acer negundo</i>	Manitoba Maple	48, 22, 14 (55)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork near ground; Epicormic shoots at base.	Subject Property	N/A	Remove due to Development
1273	<i>Acer negundo</i>	Manitoba Maple	20, 6, 18, 22 (35)	8	Fair-Good	Good vigour; Minor dieback and thinning; Stems fork below breast height; Included bark; Epicormic shoots at base.	Subject Property	N/A	Remove due to Development
1411	<i>Prunus serotina</i>	Black Cherry	34	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	2.4	Preserve
1412	<i>Prunus serotina</i>	Black Cherry	25	5	Fair-Good	Good form and vigour; Minor dieback and thinning.	Adjacent Private Properties	1.8	Preserve
1413	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 13, 12, 5 (24)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1414	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 15, 12 (28)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1415	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 20, 12, 6 (31)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	2.4	Preserve
1416	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 20, 10, 5 (27)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1417	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 12, 10, 7 (26)	5	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1418	<i>Thuja occidentalis</i>	Eastern White Cedar	22	4	Fair-Good	Good form and vigour; Minor dieback and thinning.	Subject Property	1.8	Preserve
1419	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve

Tree No.	Scientific Name	Common Name	DBH (cm)	Crown Diameter (m)	Condition ¹	Comment	Ownership	TPZ Radius ² (m)	Preservation Recommendation
1420	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1421	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 14, 10 (23)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1422	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1423	<i>Thuja occidentalis</i>	Eastern White Cedar	20, 5, 5 (21)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
1424	<i>Thuja occidentalis</i>	Eastern White Cedar	15, 12, 10 (22)	4	Fair-Good	Good form and vigour; Minor dieback and thinning; Stems fork below breast height; Included bark.	Subject Property	1.8	Preserve
NT1	<i>Acer saccharum</i>	Sugar Maple	130	14	Fair	Good form and vigour; Moderate dieback and thinning; DBH measurement estimated; Large mature tree.	Co-owned between Subject Property and Adjacent Private Properties	N/A	Remove due to Development
NT2	<i>Acer saccharum</i>	Sugar Maple	80	12	Fair-Good	Good form and vigour; Minor dieback and thinning.	Co-owned between Subject Property and Adjacent Private Properties	N/A	Remove due to Development

- The tree health condition rating was based on factors that could include one or a combination of:
 - Fair Condition* – Moderate dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress
 - Good Condition* – Healthy vigorous growth, no or minor visible defects or damage
 - Poor Condition* – Severe dieback, significant lean, decayed, missing leader, significant disease presence
- The TPZ is the minimum distance required for tree preservation as per ISA Standards and Guidelines.

Appendix C

Tree Protection Specifications

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