# Tree Inventory and Preservation Plan Report
# 683-685 Warden Avenue
# Toronto, Ontario

prepared for

**Choice Properties Limited Partnership**
**c/o DTAH**
**50 Park Road**
**Toronto, ON M4W 2N5**

prepared by

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KUNTZ FORESTRY CONSULTING INC Project P2766

## Introduction

Kuntz Forestry Consulting Inc. was retained by DTAH on behalf of Choice Properties Limited Partnership to complete a Tree Inventory and Preservation Plan in support of a development application for the property located at 683-685 Warden Avenue in Toronto. The property is located on the east side of Warden Avenue, south of St. Clair Avenue East, within a mixed-use area.

The work plan for this tree preservation study included the following:

- Prepare inventory of the tree resources greater than 15cm diameter at breast height (DBH) on and within six metres of the subject property, and trees of all sizes within the road right-of-way surrounding the property;
- Evaluate potential tree saving opportunities based on proposed development plans; and
- Document the findings in a Tree Inventory and Preservation Plan Report.

The results of the evaluation are provided below.

## Policy Framework

The property is subject to the Private Tree-By-law (Chapter 813), which regulates tree injury and destruction of individual trees. Preliminary information is acquired on individual trees which are then categorized in compliance with the by-law in support of development applications (refer to Table 1). Tree categories range from one through five and are as follows:

> ***Categories***
> ***1.*** *Trees with diameters of 30 cm or more situated on private property on the subject site.*
> ***2.*** *Trees with diameters of 30 cm or more, situated on private property, within 6 m of the subject site.*
> ***3.*** *Trees of all diameters situated on City owned parkland within 6 m of the subject site.*
> ***4.*** *On lands designated under City of Toronto Municipal Code, Chapter 658, Ravine and Natural Feature Protection, trees of all diameters within 10 metres of any construction activity.*
> ***5.*** *Trees of all diameters situated within the City road allowance adjacent to the subject site.* (City of Toronto, 2008).

## Methodology

Trees over 15cm DBH on and within six metres of the subject property, and trees of all sizes within the road right-of-way surrounding the subject property were included in the inventory. Trees were located using the topographic survey provided, aerial imagery, and estimations made in-field. Trees that could be tagged were identified using the numbers 167-198 and 375-378. Neighbouring trees and others that could not be tagged were identified as Trees A-M. See Table 1 for the results of the inventory, Figure 1 for their locations, and Appendix B for photographs of the trees.

Tree resources were assessed utilizing the following parameters:

**Tree #** - number assigned to tree that corresponds to Table 1 and Figure 1.
**Species** - common and botanical names provided in the inventory table.
**DBH** - diameter (centimetres) at breast height, measured at 1.4 m above the ground.
**Condition** - condition of tree considering trunk integrity, crown structure, and crown vigour. Condition ratings include poor (P), fair (F) and good (G).
**Comments** - additional relevant detail.

## Existing Site Conditions

The subject property is currently occupied by vacant lands with fill and rubble piles throughout. The eastern portion of the site is CN Rail lands with regenerating tree resources. Tree resources exist primarily in the form of regenerating and self-seeded trees, especially around the perimeters of the site. Refer to Figure 1 for the existing conditions.

## Individual Tree Resources

The tree inventory was conducted on 7 May 2021. The inventory documented 49 trees on and within six metres of the subject property. Refer to Table 1 for the full tree inventory and Figure 1 for the location of trees reported in the tree inventory.

Tree resources were comprised of Manitoba Maple (*Acer negundo*), Cherry species (*Prunus sp.*), Black Locust (*Robinia pseudoacacia*), Siberian Elm (*Ulmus pumila*), White Elm (*Ulmus americana*), White Mulberry (*Morus alba*), Trembling Aspen (*Populus tremuloides*), Willow species (*Salix sp.*), Black Walnut (*Juglans nigra*), Largetooth Aspen (*Populus grandidentata*), Red Maple (*Acer rubrum*), and a Butternut hybrid (*Juglans x*).

Tree M was identified as a Butternut hybrid. Pure Butternut are protected by the Endangered Species Act (2007) but hybrids are exempt from protection. Field identification of this tree was conducted in accordance with the MNRF's Butternut Health Assessment Guidelines (2011) and confirmed it is a hybrid. Refer to Appendix A for the results of the analysis.

## Proposed Development

The construction of a six-tower condominium complex is proposed for the subject property. The CN lands to the east are proposed to be a linear park. Refer to Figure 1 for the existing conditions and proposed site plan.

## Discussion

The following sections provide a discussion and analysis of tree impacts and tree preservation relative to the proposed development and existing conditions.

*Development Impacts/Tree Removals*

The removal of Trees 167-198, 375-378, L, and M will be required to accommodate the proposed development. Refer to Figure 1 for the location of these trees.

Trees 168, 173, 174, 181, 182, 194, and L are private trees and greater than 30cm DBH (Category 1 or 2 trees). They will require a permit prior to their removal.

Trees 167, 168, 169, 178, 179, 182, 189, 194, 196, 376, L, and other smaller trees not included in the inventory but roughly depicted on Figure 1, are located on the perimeters of the site and are partially or fully on neighbouring properties. Permission from the neighbouring property owners is required prior to their removal.

*Tree Preservation*

The preservation of Trees A-K will be possible with the use of appropriate tree protection measures as indicated on Figure 1. Tree protection measures will have to be implemented prior to construction to ensure tree resources designated for retention are not impacted by the development. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and the tree preservation fence detail.

As the existing conditions include debris, rubble, and fill piles through the subject site which is presumed to require remediation, debris removal or minor hand grading is permitted within the TPZ's shown on Figure 1, but must occur by hand only, under the supervision of a certified Arborist. If significant grading and/or excavation for the proposed underground parking garage is required within the TPZ's, preservation planning may be subject to change.

The proposed pedestrian connection to Pilkington Drive to the east of the site should be sited outside of the mTPZ of Tree F during the detailed design stage to ensure the preservation of this tree.

## Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by DTAH on behalf of Choice Properties Limited Partnership to complete a Tree Inventory and Preservation Plan in support of a development application for the property located at 683-685 Warden Avenue in Toronto, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total of 49 trees on and within six metres of the subject property. The removal of 38 trees will be required to accommodate the proposed development. All other trees can be saved provided appropriate tree protection measures are installed prior to the development.

The following recommendations are suggested to minimize impact to trees identified for preservation. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and the tree preservation fence detail.

- Tree protection barriers and fencing should be erected at locations as prescribed on Figure 1. All tree protection measures should follow the guidelines as set out in the tree preservation plan notes and the tree preservation fencing detail.

- No construction activity including surface treatments, excavations of any kind, storage of materials or vehicles, unless specifically outlined above, is permitted within the area identified on Figure 1 as a tree protection zone (TPZ at any time during or after construction.

- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. All pruning of tree roots and branches must be in accordance with Good Arboricultural Standards.

- Site visits, pre, during, and post construction are recommended by either a certified consulting arborist (I.S.A.) or registered professional forester (R.P.F.) to ensure proper utilization of tree protection barriers. Trees should also be inspected for damage incurred during construction to ensure appropriate pruning or other measures are implemented.

Respectfully Submitted,

**Kuntz Forestry Consulting Inc.**

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*Limitations of Assessment*

*Only the tree(s) identified in this report were included in the inventory. The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These may include a visual examination taken from the ground of all the above-ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree of lean (if any), the general condition of the trees and the identification of potentially hazardous trees or recommendations for removal (if applicable). Where trees could not be directly accessed (ie. due to obstructions, and/or on neighbouring properties), trees were assessed as accurately as possible from nearby vantage points.*

*Locations of trees provided in the report are determined as accurately as possible based on the best information available. If official survey information is not provided, tree location in the report may not be exact. In this case, if trees occur on or near property boundaries, an official site survey may be required to determine ownership utilizing specialized survey protocol to gain precise location.*

*Furthermore, recommendations made in this report are based on the site plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the site plan and/or grading, servicing, or landscaping plans following report submission.*

*Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions. Any tree will fail if the forces applied to the tree exceed the strength of the tree or its parts.*

*Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.*

## Table 1. Tree Inventory

Location: 685 Warden Avenue Date: 7 May 2021 Surveyors: CB

| Tree # | Common Name | Scientific Name | DBH | TI | CS | CV | CDB | Cat | mTPZ | Comments | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 167 | Manitoba Maple | *Acer negundo* | 6-17 | P-F | P-F | P-F | | | 1.8 | Union at 0.6m with stump at base, included fence (M), poor form (M), deadwood (M), 8 stems | Remove |
| 168 | Cherry species | *Prunus spp.* | 29, 38.5 | P | F-G | F | | 1/2 | 2.4 | V-union at 0.2m, splitting union at 1.6m -> **cable or remove** | Remove |
| 169 | Manitoba Maple | *Acer negundo* | 17, 11.5, ~8, 7 | F | F | F | | | 1.8 | Union at base, fill in root zone, asymmetrical crown (L), pruning wounds (L), epicormic branching (L), included fence (L) | Remove |
| 170 | Black Locust | *Robinia pseudoacacia* | 20, 10, 10 | F | F-G | F-G | | | 1.8 | V-union at 0.1m | Remove |
| 171 | Siberian Elm | *Ulmus pumila* | 24 | F | F-G | F-G | | | 1.8 | V-union at 1.5m, stem wounds (L), asymmetrical crown (L) | Remove |
| 172 | Manitoba Maple | *Acer negundo* | 18 | F | F | F | | | 1.8 | Pruning wounds (L), bowed (L), epicormic branching (L) | Remove |
| 173 | Siberian Elm | *Ulmus pumila* | 44.5 | F-G | F-G | F-G | | 1 | 3.0 | V-union at 1.5m with included bark (L), sapsucker damage (L), deadwood (L) | Remove |
| 174 | Siberian Elm | *Ulmus pumila* | ~33 | P | P | P | 60 | 1 | 2.4 | Lost leaders, epicormic branching (H), poor form (H), included fence (H) | Remove |
| 175 | White Elm | *Ulmus americana* | 18 | F | F | F | | | 1.8 | V-union at 0.1m, asymmetrical crown (L), deadwood (L) | Remove |
| 176 | Manitoba Maple | *Acer negundo* | 16.5 | F-G | F-G | F-G | | | 1.8 | Union at 1.6m | Remove |
| 177 | Manitoba Maple | *Acer negundo* | 18 | F-G | F-G | F-G | | | 1.8 | Union at 1.6m | Remove |
| 178 | Manitoba Maple | *Acer negundo* | 18.5 | F | F | F | | | 1.8 | Bowed (L), epicormic branching (L), pruning wounds (L) | Remove |
| 179 | Manitoba Maple | *Acer negundo* | 16.5 | F | F | F | | | 1.8 | Bowed (M) south, included fence (M), one lost leader, epicormic branching (M) | Remove |
| 180 | Siberian Elm | *Ulmus pumila* | 19.5, 17 | F | F | F | | | 1.8 | Asymmetrical crown (M), union at 0.3m, deadwood (L) | Remove |
| 181 | Siberian Elm | *Ulmus pumila* | 34.5, 30, ~30, 18 | F | F | F | | 1 | 2.4 | V-union at 1m, epicormic branching (L), deadwood (L), asymmetrical crown (L) | Remove |
| 182 | White Mulberry | *Morus alba* | 34.5, 24 | F-G | F | F | | 1/2 | 2.4 | Union at 1.3m, poor form (L), epicormic branching (L) | Remove |
| 183 | Trembling Aspen | *Populus tremuloides* | 16 | G | G | G | | | 1.8 | | Remove |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 184 | Trembling Aspen | *Populus tremuloides* | 17 | G | G | G | | | 1.8 | Bowed (L) | Remove |
| 185 | Trembling Aspen | *Populus tremuloides* | 16 | G | G | G | | | 1.8 | | Remove |
| 186 | Trembling Aspen | *Populus tremuloides* | 17 | G | G | G | | | 1.8 | | Remove |
| 187 | Willow species | *Salix spp.* | 17 | F | P-F | F | | | 1.8 | Lost leader, poor form (H), epicormic branching (H), bowed (L) | Remove |
| 188 | Siberian Elm | *Ulmus pumila* | 17 | F-G | F | F | | | 1.8 | Vine competition (M) | Remove |
| 189 | Black Walnut | *Juglans nigra* | 17 | F | F-G | F-G | | | 1.8 | Pruning wounds (L), poor union at 2m, asymmetrical crown (L) | Remove |
| 190 | Manitoba Maple | *Acer negundo* | 13, 16.5, ~15 | F | P-F | F | | | 1.8 | Union at base, 1 phoenix stem, epicormic branching (L), poor form (M) | Remove |
| 191 | Black Walnut | *Juglans nigra* | 16 | G | G | G | | | 1.8 | | Remove |
| 192 | Siberian Elm | *Ulmus pumila* | 18, 17 | F-G | F | F-G | | | 1.8 | Epicormic branching (L), deadwood (L), crook (L), asymmetrical crown (L), union at base | Remove |
| 193 | Siberian Elm | *Ulmus pumila* | 17, 8, 9 | F | F | F | | | 1.8 | Sweep (L), deadwood (L) | Remove |
| 194 | Siberian Elm | *Ulmus pumila* | ~55 | F | F | F | | 1/2 | 3.6 | Union at 1.4m, deadwood (M), pruning wounds (L), epicormic branching (L), included fence (M), shared tree, poor form (M), -> **prune deadwood** | Remove |
| 195 | Manitoba Maple | *Acer negundo* | 15.5 | F-G | G | G | | | 1.8 | Lean (L), stem wound (L) | Remove |
| 196 | Manitoba Maple | *Acer negundo* | 21.5, 13.5, ~13 | F | F-G | G | | | 1.8 | Union at base | Remove |
| 197 | Largetooth Aspen | *Populus grandidentata* | 18 | G | F-G | G | | | 1.8 | Asymmetrical crown (L) | Remove |
| 198 | Largetooth Aspen | *Populus grandidentata* | 15.5 | G | F-G | G | | | 1.8 | Asymmetrical crown (L) | Remove |
| 375 | Largetooth Aspen | *Populus grandidentata* | 16, 15 | F-G | F-G | G | | | 1.8 | V-union at 0.2m | Remove |
| 376 | Manitoba Maple | *Acer negundo* | ~15 | F | F | F | | | 1.8 | Included fence (M), union at 1.2m, poor form (H), broken branches (L) | Remove |
| 377 | Manitoba Maple | *Acer negundo* | ~22 | F | P-F | F | | | 1.8 | Epicormic branching (H), poor form (H), included fence (H) | Remove |
| 378 | Black Locust | *Robinia pseudoacacia* | 16.5 | G | G | G | | | 1.8 | | Remove |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Siberian Elm | *Ulmus pumila* | ~36 | F-G | F | F | | 2 | 2.4 | Union at 3m, pruning wound (L), epicormic branching (L), broken branches (L) | Retain |
| B | Manitoba Maple | *Acer negundo* | ~42, 21, 21, 21, 18, 23, 13 | F | F | F | | 2 | 3.0 | Union at base and 1.4m with included bark (M), epicormic branching (M), deadwood (L), half of root zone under impervious surface | Retain |
| C | Manitoba Maple | *Acer negundo* | ~18, 17, 27 | F | F | F | | | 1.8 | Union at base, deadwood (L), broken branches (L), bowed (L), epicormic branching (L) | Retain |
| D | Siberian Elm | *Ulmus pumila* | ~26 | F-G | G | G | | | 1.8 | V-union at 1.7m, pruning wounds (L) | Retain |
| E | Siberian Elm | *Ulmus pumila* | ~28 | F | F-G | F-G | | | 1.8 | V-union at 2m with included bark (L), deadwood (L) | Retain |
| F | Red Maple | *Acer rubrum* | ~13 | G | G | G | | 5 | 1.8 | | Retain |
| G | Red Maple | *Acer rubrum* | ~14 | G | F-G | G | | 5 | 1.8 | Asymmetrical crown (L) | Retain |
| H | Siberian Elm | *Ulmus pumila* | ~22 | F | F | F | | | 1.8 | Union at 1m | Retain |
| I | Manitoba Maple | *Acer negundo* | ~32, 31, 30 | F | F | F | | 2 | 2.4 | Union at 1m, poor form (M) | Retain |
| J | Siberian Elm | *Ulmus pumila* | ~52 | F | F | F | | 2 | 3.6 | V-union at 2m with included bark (M), deadwood (M), epicormic branching (L) -> **prune deadwood** | Retain |
| K | Siberian Elm | *Ulmus pumila* | ~42 | F | F | F | | 2 | 3.0 | Union at 1.6m with 1 dead leader, epicormic branching (L), deadwood (M) -> **prune deadwood** | Retain |
| L | Siberian Elm | *Ulmus pumila* | ~65 | F | P-F | F | | 1/2 | 4.2 | Lean (M) southwest, broken branches (M), epicormic branching (H), deadwood (M), union at 4m with included bark (M), shared tree | Remove |
| M | Butternut hybrid | *Juglans x* | 12 | G | G | G | | | 1.8 | | Remove |

| **Codes** | | |
|---|---|---|
| DBH | Diameter at Breast Height | *(cm)* |
| TI | Trunk Integrity | *(G, F, P)* |
| CS | Crown Structure | *(G, F, P)* |
| CV | Crown Vigor | *(G, F, P)* |
| CDB | Crown Die Back | *(%)* |
| Cat. | City of Toronto Tree Category | *1, 2, 3, 4, 5* |
| mTPZ | Minimum Preservation Zone | *(m)* |
| ~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy | | |

## Appendix A. Field Identification of Butternut Hybrid (Tree M)

Table 4: Data Sheet for Field Identification of Butternut Hybrids

| BHA name: | C. Butternut | Tree ID #: | Tree ID #: | Tree ID #: | Tree ID #: | Tree ID #: | Tree ID #: |
|---|---|---|---|---|---|---|---|
| BHA ID #: | 459 | | | | | | |
| BHA Report #: | – | M | | | | | |
| Assessment Date(s): | 7 May 2021 | | | | | | |
| Tree location (site address): | 685 Warden | | | | | | |
| Client name: | DTAH | | | | | | |
| **Traits (must evaluate at least five traits):** | | **Score Assigned:** | **Score Assigned:** | **Score Assigned:** | **Score Assigned:** | **Score Assigned:** | **Score Assigned:** |
| Leaf Retention | | | | | | | |
| Dormant Terminal Bud | | | | | | | |
| Dormant Twigs | | 2 | | | | | |
| Lenticel Shape on New Twigs | | 1 | | | | | |
| Pith Color of 1-Year Twig | | 2 | | | | | |
| Leaf Scar | | 1 | | | | | |
| Leaf Length | | | | | | | |
| Color of Bark Fissures on Mature Trees | | | | | | | |
| Green Hull Characteristics | | | | | | | |
| Nut Shape | | | | | | | |
| Catkin Length When Fully Extended and Shedding Pollen | | | | | | | |
| *How to interpret total score:*<br>*0 to 3 = Butternut;*<br>*4 or greater = Hybrid* | **Total:** | 6 | | | | | |

## Appendix B. Photographic Appendix

## Appendix B. Photographic Appendix


Image 1. Trees 167 (right) and 168 (left)


Image 2. Tree 169


Image 3. Tree A


Image 4. Tree 170


Image 5. Tree B


Image 6. Tree C (right) and D (left)


Image 7. Tree D


Image 8. Tree E


Image 9. Tree F


Image 10. Tree 171 (foreground) and Tree G (background, left)


Image 11. Tree G


Image 12. Tree 172


Image 13. Tree 173


Image 14. Tree 174


Image 15. Tree 175


Image 16. Trees 176 (right) and 177 (centre)


Image 15. Tree 178


Image 16. Tree 179


Image 17. Trees 180 (right) and 181 (left)


Image 18. Tree 182


Image 19. Trees 184-186 (right-left)


Image 20. Tree 187


Image 21. Tree 188


Image 22. Tree 189 (right) and 190 (left)


Image 23. Tree H

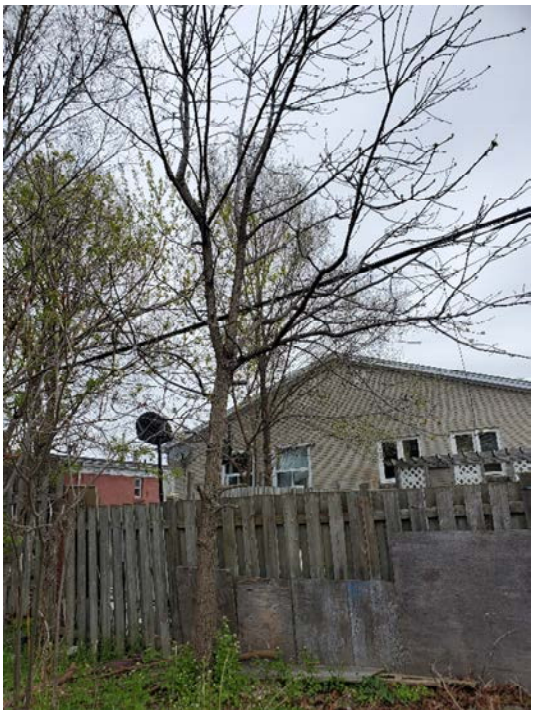
Image 24. Tree 191

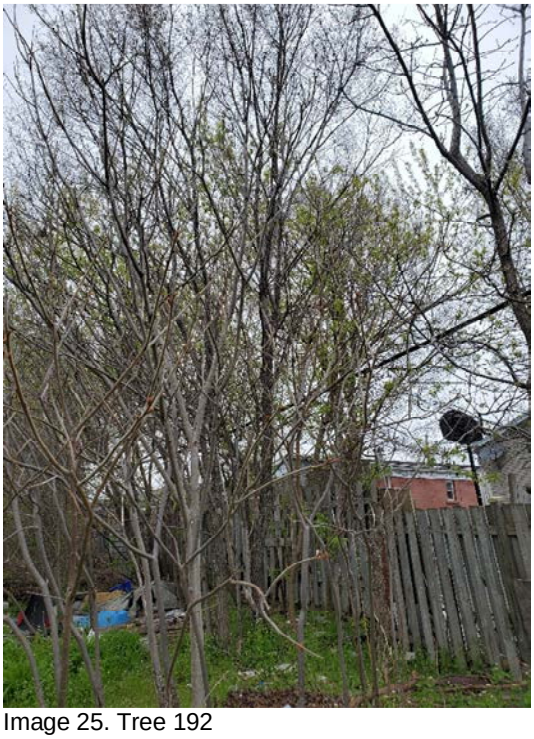
Image 25. Tree 192


Image 26. Tree I


Image 27. Tree 193 (right), J, (centre right), and K (centre left)


Image 28. Tree 194

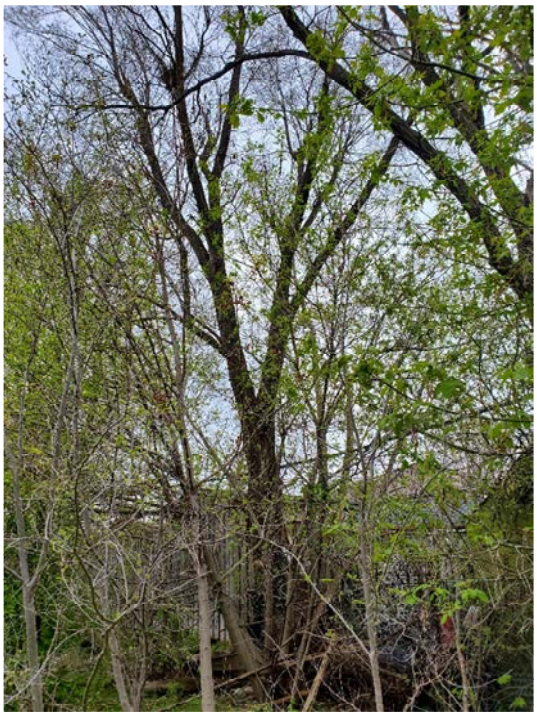
Image 29. Tree L


Image 30. Tree M


Image 31. Tree 196


Image 32. Trees 197 (right) and 198 (left)


Image 33. Tree 376


Image 34. Tree 377

Image 35. Tree 378