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# broadview Avenue extension environm ental STUDY REPORT Preliminary Arborist Report \& Tree Inventory 

City of Toronto

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### 1.0 Introduction

The City of Toronto retained Dillon Consulting Limited (Dillon) to provide arborist services for the Environmental Study Report (ESR) for the Broadview Avenue Extension Study in the City of Toronto. The ESR focuses on advancing road designs for the extension of Broadview Avenue from Eastern Avenue to Lake Shore Blvd East, and creation of an new east-west street through the Unilever Precinct between the Don Roadway and Booth Avenue.

The primary Study Area, as shown in the tree inventory figure provided in Appendix A, is the area of direct impact bound by Eastern Avenue to the north, Lake Shore Blvd East to the south, Don Roadway to the west, and Booth Avenue to the east. The area currently consists of a mixture of land uses, including: light industrial, commercial, residential, and transportation corridors.

To support future permits and approvals from the City, the project's arborist services included an inventory of trees within a defined study area and the preparation of an Arborist Report to document the results. The Tree Inventory Study Area (TISA) consisted of the proposed new road connections at 30 Booth Street, Lake Shore Boulevard East and the Broadview Eastern Intersection which are part of the street designs subject to Phase 3 and Phase 4 of the M unicipal Class Environmental Assessment (MECA) Process, plus a surrounding 6-meter setback, extending up to 12 meters for large trees on adjacent properties. The survey was limited to the publicly accessible portions of the TISA and trees on adjacent private properties were documented from the property line.

As the project is in the early design stages, recommendations for tree removal, injury prevention, and preservation will not be provided at this time.

## 1.1 Applicable Policies

Several municipal policies pertaining to tree protection could apply to the TISA. This report was prepared in accordance with the policies, by-laws and guidelines set forth in the following City specifications, resources and communications:

- Private Tree Protection By-law, City of Toronto Municipal Code Chapter 813 Article III;
- Street Tree By-law, City of Toronto Municipal Code Chapter 813, Article II;
- Tree Protection Plan and Specifications for Construction Near Trees, City of Toronto;
- Arborist Report for Development Applications, City of Toronto;
- Guidelines for Completion of an Arborist Report, City of Toronto;
- Every Tree Counts - Help Grow Toronto's Street Tree Canopy, City of Toronto;
- Urban Forestry Tree Pruning Guidelines, City of Toronto;
- Removal of Crab Apple Trees that are Situated on City Road Allowances Policy, City of Toronto;
- M aintenance of Street Trees which are less than 50\% on City Property (City/Private Boundary Line Trees) Policy, City of Toronto;
- Bees Wasps and Hornets Nests in Trees Policy, City of Toronto;
- Termite Policy, City of Toronto; and
- Migratory Bird Convention Act, Government of Canada, 1994.

The City's tree by-laws and federal legislation relevant to the trees inventoried have been reviewed and are further described below.
1.1.1 Street Tree By-Law, City of Toronto Municipal Code Chapter 813, Article II

Under Article II, Chapter 813 of the City of Toronto M unicipal Code trees on City streets are protected under the Street Tree By-law. As such, no person or corporation can injure, destroy, remove or permit the injury destruction or removal of a City owned tree without a permit (The City of Toronto, 2015b). The need for a permit is required for any trees to be injured, destroyed, or removed by construction activity.

### 1.1.2 Private Tree Protection By-Law, City of Toronto Municipal Code Chapter 813

Under Article III, Chapter 813 of the City of Toronto M unicipal Code trees on private property with a diameter of 30 centimetres ( cm ) or greater are protected under the Private Tree By-law (The City of Toronto, 2015a). This also includes trees of any diameter that were planted as a condition of a permit issued under this bylaw or a site plan agreement.
1.1.3 Migratory Birds Convention Act

Environment and Climate Change Canada implements the federal M igratory Birds Convention Act (M BCA) (Government of Canada, 1994) to protect migratory birds and their nests. A person shall not harm a migratory bird or nest without authorization under the regulations.

Vegetation removals shall be completed outside of the period from April 1-August 31 to avoid the core period of migratory bird nesting. If vegetation removal is required to be conducted within this period, an avian survey shall be conducted in the area of planned vegetation removal in advance of the removal activities to determine the presence or absence of a migratory bird(s) or nest(s). If no migratory bird or nest is observed during the survey, vegetation removal may proceed if it is conducted within 48 hours of completing the survey. The results of the survey shall be considered valid for 48 hours from the completion of the survey. If a migratory bird or nest is 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 appropriate authorization is obtained.

## 2.0 <br> Methods

### 2.1 Inventory Methods

On September 14, 2020, a tree inventory was conducted by a Dillon arborist certified by the International Society of Arboriculture (ISA). The TISA, included the proposed new road connections at 30 Booth Street, Lake Shore Boulevard East, and the Broadview Eastern Intersection as well as an approximate zone of influence that extended 6 meters from the connections. The inventory followed the guidelines outlined in the City's Arborist Report for Development Applications and included the following trees:

- Public trees of all sizes situated in the City-owned road ROW and other City-owned and/or publicly owned lands within 6 m of the estimated project limits.
- Trees with diameters of 30 cm or more situated on private property or within 6 m of the estimated project limits.

There were no trees on lands designated under City of Toronto M unicipal Code, Chapter 658, RNF Protection, within 6 m of the estimated limits of the TISA.

For each tree subject to the inventory, the following information and methods were collected and applied:

- Identification of species or genus, where determinable.
- Measurement of diameter at breast height DBH at 1.4 metres from the ground for trees within the TISA. For multi-stem trees the stem with the highest diameter was used as the DBH value. For trees on adjacent properties, DBH was visually estimated from the nearest property boundary as site access was not authorized.
- Assignment of a unique tree identification (ID) number.
- Geo-referencing tree locations using a Global Positioning System (GPS) unit.
- A Level 2 (basic) qualitative visual assessment to determine tree health condition, following the condition health rating system detailed in Table 1.

The basic qualitative visual health assessment for trees within the TISA is a detailed visual inspection to determine the condition of each tree. This non-invasive assessment includes evaluating the site conditions, root taper, trunk, and scaffold branch arrangement at the union, as well as the condition of secondary branches and leaves. This assessment is typically conducted by arborists and only includes conditions that can be observed from ground level. It should be noted that this assessment may not provide information on internal, below-ground, and upper-crown conditions or defects that may not be visible or difficult to assess from ground level.

The hazard potential of the tree 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 - $2^{\text {nd }}$ Edition (M atheny and Clark, 1994). Using this guide, an overall condition rating (i.e., dead, poor, fair, good or excellent) was given to each tree. These condition ratings are useful when evaluating the retention and/or replacement value of individual trees.

Table 1: Tree Condition Rating Categories

| Condi | Description |
| :---: | :---: |
| Dead | A specimen tree/stand 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 | Tree in poor condition show major symptoms of decline. At least $50 \%$ of main scaffold branches are dead, missing or in 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 | Tree 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 | Tree in good condition show 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 | Tree in excellent condition show no symptoms of decline in trunk, scaffold or secondary branches. Tree's in this condition have an excellent growth habit and should typically survive to maturity without major arboricultural maintenance. |

### 3.0 Inventory Results

During the site visit completed on September 14, 2020, it was observed that the community of tree species within the TISA consisted of both young and mature trees, with the majority (76\%) measuring 20 cm or less in DBH. A total of 139 trees were observed within or adjacent to the TISA and are summarized
in Table 2. Detailed assessment information of the trees inventoried within the TISA can be found in Table 3, Appendix B with tree locations being shown on the tree inventory figures in Appendix A.

A total of 29 species of trees were observed within the TISA. Of these 29 species, 8 species, consisting of: M anitoba M aple (Acer negundo), Norway M aple (Acer platanoides), Tree-of-heaven (Ailanthus altissima), Bur Oak (Quercus macrocarpa), English Oak (Quercus robur), Northern Red Oak (Quercus rubra), American Basswood (Tilia americana), and Siberian Elm (Ulmus pumila), comprised 65\% of all observations. Overall, the tree species were evenly split between non-native species and native species. With the exception of Kentucky Coffee-tree (Gymnocladus dioicus), the tree species observed were either common native species in Ontario or non-native species frequently planted as landscape trees.

Table 2: Summary Count of Inventoried Trees

| Scientific Name | Common Name | Count of <br> Inventoried Trees | Percentage of <br> Inventory |
| :--- | :--- | :---: | :---: |
| Acer negundo | Manitoba Maple | 9 | 9 |
| Acer platanoides | Norway Maple | 7 | 7 |
| Acer rubrum | Red M aple | 1 | $<1$ |
| Acer saccharinum | Silver M aple | 4 | 4 |
| Acer x freemanii | Freeman's Maple | 2 | 2 |
| Aesculus hippocastanum | Horse Chestnut | 2 | 2 |
| Ailanthus altissima | Tree-of-heaven | 7 | 7 |
| Alnus incana | Speckled Alder | 1 | $<1$ |
| Amelanchier amabilis | Beautiful Serviceberry | 1 | $<l$ |
| Amelanchier laevis | Smooth Serviceberry | 2 | 2 |
| Betula papyrifera | Paper Birch | 1 | $<1$ |
| Celtis occidentalis | Common Hackberry | 2 | 2 |
| Elaeagnus angustifolia | Russian Olive | 1 | $<l$ |
| Fraxinus pennsylvanica | Green Ash | 3 | 3 |
| Gleditsia triacanthos inermis | Thornless Honey-locust | 4 | 4 |
| Gymnocladus dioicus | Kentucky Coffee-tree | 3 | 3 |
| Juniperus virginiana | Eastern Red Cedar | 1 | $<l$ |
| Malus baccata | Siberian Crabapple | 1 | $<l$ |


| Scientific Name | Common Name | Count of <br> Inventoried Trees | Percentage of <br> Inventory |
| :--- | :--- | :---: | :---: |
| Malus pumila | Common Apple | 1 | $<1$ |
| M orus alba | White M ulberry | 2 | 2 |
| Picea glauca | White Spruce | 3 | 3 |
| Pinus nigra | Black Pine | 2 | 2 |
| Quercus macrocarpa | Bur Oak | 9 | 9 |
| Quercus robur | English Oak | 5 | 5 |
| Quercus rubra | Northern Red Oak | 6 | 6 |
| Sorbus aucuparia | European M ountain-ash | 1 | $<1$ |
| Tilia americana | American Basswood | 8 | 8 |
| Tilia cordata | Little-leaf Linden | 2 | 2 |
| Ulmus pumila | Siberian Elm | 15 | 15 |
| Unknown (Dead) |  | 1 | $<1$ |
| Totals |  | $\mathbf{1 3 9}$ | $\mathbf{1 0 0}$ |

## 3.1

## Species at Risk and Species and Conservation Concern

Naturally occurring Kentucky Coffeetree (Gymnocladus dioicus) is listed as threatened on the Species at Risk in Ontario (SARO) under the ESA 2007; however, planted ornamental Kentucky Coffeetrees are not protected under the Act because their genetic origin is uncertain. Kentucky Coffeetree is also widely planted as an ornamental tree in municipalities according to the Recovery Strategy for the Kentucky Coffeetree (MNRF, 2017). This species is also listed as exotic (LRank L+) by the TRCA meaning it does not historically occur within the TRCA's jurisdiction. Native and naturally occurring Kentucky Coffeetrees are protected, but occur only in M iddlesex, Essex, Kent and Lambton Counties. The four Kentucky Coffeetree's observed within the TISA were found in the landscaped gardens adjacent to the residential buildings at 60 Broadview Avenue. Due to their planted status, and being located outside of the species' natural range, these trees would not be protected under the Endangered Species Act.

## 4.0 <br> Recommendations and Next Steps

As the project is in the early design stage, it is not possible to determine the exact number of trees that may need to be removed within the TISA. However, as the project progresses, additional work will be conducted to identify trees that must be removed in order to proceed with construction of the Broadview Avenue Extension Study. The necessary permits and approvals will be obtained from the City and trees will be removed in a safe and environmentally responsible manner. Efforts should also be made to minimize the number of trees that need to be removed and to replace any removed trees with new plantings within the project limits or alternative locations, as determined in consultation with City staff from the Forestry Operations and Ravine Protection groups within the Urban Forestry Branch of the Parks, Forestry, and Recreation Division.

The following are recommended next steps for tree removal and preservation in support of further advancement of the Broadview Avenue Extension Study.

1. Finalize the project detailed design and construction plans and, if necessary, conduct additional assessments to document any additional trees that fall within a revised TISA boundary. One area where additional tree inventory work may be required is the Broadview Avenue and Lake Shore Boulevard intersection, as this area is currently undergoing construction of the road, public realm, and landscape features for the Port Lands Flood Protection and Enabling Infrastructure (PLFPEI) Project. It is expected that tree removals or new plantings within the TISA may occur as a result of the PLFPEI Project since the time of the field investigation for the Broadview Avenue Extension Study.
2. Conduct a remove/retain analysis using the finalized project detailed design and construction plans to determine which trees require removal, preservation, or protection measures.
3. Develop tree protection measures in accordance with the City's Tree Protection Policy and Specification for Construction Near Trees.
4. Consult with the City to obtain relevant approvals for tree removal and other activities that could harm trees, such as excavation and grading in root zones or above-ground pruning. This should include confirmation of any fees to be paid to the City and/ or tree replacement planting requirements, if necessary.

## 5.0 <br> Conclusion

The City of Toronto retained Dillon Consulting Limited (Dillon) to provide arborist services for the Environmental Study Report (ESR) for the Broadview Avenue Extension Study. This preliminary Arborist Report and Tree Inventory Figure outline the tree inventory completed on September 14, 2020. As the project is in the early design stage, recommendations for tree removal, injury prevention, and preservation will not be provided at this time.

A total of 139 trees were observed within or adjacent to the Tree Inventory Study Area (TISA), which is defined as the proposed new road connections at 30 Booth Street, Lake Shore Boulevard East, and the Broadview Eastern Intersection, plus a surrounding 6-meter setback. The trees inventoried are considered common species in southern Ontario or were planted trees that are not subject to protections afforded under the Endangered Species Act.

As project design and construction plans advance, consultation with the City is to occur to obtain relevant approvals for tree removal and compensation and make revisions to this Arborist Report as required.

## DISCLAIMER

Dillon Consulting Limited (Dillon) has used the degree of care and skill ordinarily exercised under similar circumstances at the time the field work and reporting were performed by reputable members of the environmental consulting profession and International Society of Arboriculture (ISA) Certified Arborists practicing in Canada. This Arborist Report and Tree Inventory Figure were prepared by Dillon for the sole benefit of the addressee noted above. The material in it reflects Dillon's best judgment in light of the information available to Dillon at the time of preparation. Any use which a third party makes of this Arborist Report and Tree Inventory Figure, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Dillon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Arborist Report and Tree Inventory Figure.

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## Appendix A

## Tree Inventory Figure

Broadview Avenue Extension Environmental Study Report
Preliminary Arborist Report \& Tree Inventory

January 2023-19-1243



## Appendix B

## Tree Inventory Table

Broadview Avenue Extension Environmental Study Report
Preliminary Arborist Report \& Tree Inventory

Table B-1: Detailed Tree Inventory Results

| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Easting* | Northing | Scientific Name | Common Name | Condition | $\begin{aligned} & \text { DBH1 } \\ & (\mathrm{cm}) \end{aligned}$ | DBH2 (cm) | $\begin{gathered} \text { DBH3 } \\ (\mathrm{cm}) \end{gathered}$ | DBH4 (cm) | DBH5 (cm) | Largest Stem (cm) | Hazard | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lake Shore Boulevard East Connection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 633594.8531 | 4834640.986 | Acer rubrum | Red Maple | Dead | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 2 | 633589.4931 | 4834646.804 | Quercus robur | English Oak | Good | 18 | 3 | 4 | 3 | 3 | 18 | No |  |
| 3 | 633587.6803 | 4834636.583 | Quercus rubra | Northern Red Oak | Poor | 8 | 0 | 0 | 0 | 0 | 8 | No | Large closed would at base. Minor witches brooming present in crown. |
| 4 | 633584.6015 | 4834642.633 | Ulmus pumila | Siberian Elm | Good | 3 | 2 | 3 | 0 | 0 | 3 | No |  |
| 5 | 633582.2462 | 4834633.026 | Quercus rubra | Northern Red Oak | Fair | 11 | 0 | 0 | 0 | 0 | 11 | No | Pre-mature fall colours. Minor scaffold branch dieback observed in crown |
| 6 | 633577.6791 | 4834639.161 | Ulmus pumila | Siberian Elm | Good | 2 | 0 | 0 | 0 | 0 | 2 | No |  |
| 7 | 633580.7408 | 4834640.704 | Ulmus pumila | Siberian Elm | Good | 1 | 0 | 0 | 0 | 0 | 1 | No |  |
| 8 | 633575.8123 | 4834638.383 | Quercus robur | English Oak) | Good | 22 | 4 | 3 | 4 | 4 | 22 | No |  |
| 9 | 633574.5259 | 4834628.728 | Quercus rubra | Northern Red Oak | Fair | 11 | 0 | 0 | 0 | 0 | 11 | No | Two closed wounds at base. |
| 10 | 633569.7221 | 4834633.632 | Quercus robur | English Oak | Good | 18 | 3 | 2 | 3 | 3 | 18 | No |  |
| 11 | 633567.6441 | 4834623.221 | Quercus rubra | Northern Red Oak | Dead | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 12 | 633561.7391 | 4834629.399 | Quercus robur | English Oak | Good | 21 | 6 | 2 | 3 | 3 | 21 | No |  |
| 13 | 633560.2977 | 4834627.519 | Ulmus pumila | Siberian Elm | Good | 2 | 1 | 1 | 0 | 0 | 2 | No |  |
| 14 | 633560.9683 | 4834620.865 | Quercus rubra | Northern Red Oak | Poor | 10 | 0 | 0 | 0 | 0 | 10 | No | $50 \%$ live crown remains with pre-mature foliage dieback observed in crown. |
| 15 | 633556.03 | 4834625.767 | Quercus robur | English Oak | Good | 19 | 3 | 4 | 3 | 3 | 19 | No |  |
| 16 | 633552.0497 | 4834623.095 | Ulmus pumila | Siberian Elm | Good | 2 | 1 | 1 | 0 | 0 | 2 | No |  |
| 17 | 633555.285 | 4834615.937 | Quercus rubra | Northern Red Oak | Fair | 9 | 0 | 0 | 0 | 0 | 9 | No | Two closed wounds at base. M inor witches brooming present in crown. |
| 18 | 633548.6068 | 4834620.434 | Quercus robur | English Oak | Fair | 17 | 4 | 3 | 3 | 3 | 17 | No |  |
| 19 | 633550.2553 | 4834611.948 | Gleditsia triacanthos inermis | Thornless Honey-locust | Good | 5 | 0 | 0 | 0 | 0 | 5 | No |  |
| 20 | 633541.968 | 4834616.227 | Quercus robur | English Oak | Good | 20 | 2 | 3 | 2 | 3 | 20 | No |  |
| 21 | 633522.5429 | 4834699.27 | Acer x freemanii | Freeman's M aple | Good | 20 | 0 | 0 | 0 | 0 | 20 | No |  |
| 22 | 633539.2949 | 4834662.863 | Sorbus aucuparia | European M ountain-ash | Good | 5 | 0 | 0 | 0 | 0 | 5 | No | Dense grapevine present in canopy. |
| 23 | 633528.0224 | 4834656.24 | Acer negundo | M anitoba M aple | Fair | 5 | 0 | 0 | 0 | 0 | 5 | No |  |
| 30 Booth Street Connection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 | 633750.4662 | 4834853.903 | Acer x freemanii | Freeman's M aple | Good | 11 | 0 | 0 | 0 | 0 | 11 | No |  |
| 25 | 633748.4145 | 4834862.38 | Acer x freemanii | Freeman's M aple | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 26 | 633738.0704 | 4834854.13 | Pinus nigra | Black Pine | Good | 40 | 0 | 0 | 0 | 0 | 40 | No |  |
| 27 | 633726.2731 | 4834851.16 | Pinus nigra | Black Pine | Good | 30 | 0 | 0 | 0 | 0 | 30 | No |  |
| 28 | 633735.914 | 4834895.833 | Gleditsia triacanthos inermis | Thornless Honey-locust | Good | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 29 | 633733.2395 | 4834908.557 | Alnus incana | Speckled Alder | Good | 43 | 0 | 0 | 0 | 0 | 43 | No |  |
| 30 | 633728.0692 | 4834919.689 | Elaeagnus angustifolia | Russian Olive | Good | 3 | 2 | 2 | 0 | 0 | 3 | No |  |

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| Tree ID | Easting* | Northing | Scientific Name | Common Name | Condition | DBH1 <br> (cm) | $\begin{aligned} & \text { DBH2 } \\ & (\mathrm{cm}) \end{aligned}$ | DBH3 <br> (cm) | DBH4 <br> (cm) | DBH5 <br> (cm) | Largest Stem (cm) | Hazard | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31 | 633729.8364 | 4834917.377 | Ulmus pumila | Siberian Elm | Good | 16 | 0 | 0 | 0 | 0 | 16 | No |  |
| 32 | 633728.7613 | 4834917.356 | Fraxinus pennsylvanica | Green Ash | Good | 3 | 0 | 0 | 0 | 0 | 3 | No |  |
| 33 | 633728.9171 | 4834916.543 | Ulmus pumila | Siberian Elm | Good | 6 | 0 | 0 | 0 | 0 | 6 | No |  |
| 34 | 633731.2051 | 4834909.442 | Acer negundo | M anitoba M aple | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 35 | 633731.0737 | 4834907.417 | Fraxinus pennsylvanica | Green Ash | Good | 3 | 0 | 0 | 0 | 0 | 3 | No |  |
| 36 | 633731.9363 | 4834906.494 | Fraxinus pennsylvanica | Green Ash | Good | 5 | 0 | 0 | 0 | 0 | 5 | No |  |
| 37 | 633732.8912 | 4834904.385 | Betula papyrifera | Paper Birch | Fair | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 38 | 633733.3727 | 4834901.893 | Acer negundo | M anitoba M aple | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 39 | 633734.2198 | 4834899.873 | Acer negundo | M anitoba M aple | Good | 7 | 0 | 0 | 0 | 0 | 7 | No |  |
| 40 | 633734.9425 | 4834894.183 | Acer negundo | M anitoba M aple | Fair | 14 | 12 | 10 | 0 | 0 | 14 | No |  |
| 41 | 633735.8356 | 4834891.632 | Acer platanoides | Norway M aple | Dead | 20 | 0 | 0 | 0 | 0 | 20 | No |  |
| 42 | 633736.6541 | 4834890.556 | Acer platanoides | Norway M aple | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 43 | 633733.4125 | 4834889.799 | Ailanthus altissima | Tree-of-heaven | Good | 3 | 0 | 0 | 0 | 0 | 3 | No |  |
| 44 | 633731.8069 | 4834888.732 | Acer negundo | M anitoba M aple | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 45 | 633728.8692 | 4834888.353 | Ailanthus altissima | Tree-of-heaven | Good | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 46 | 633727.314 | 4834887.756 | Ulmus pumila | Siberian Elm | Fair | 18 | 0 | 0 | 0 | 0 | 18 | No |  |
| 47 | 633725.5844 | 4834887.035 | Ailanthus altissima | Tree-of-heaven | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 48 | 633722.4442 | 4834885.863 | Ulmus pumila | Siberian Elm | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 49 | 633719.1159 | 4834884.847 | Ailanthus altissima | Tree-of-heaven | Good | 12 | 0 | 0 | 0 | 0 | 12 | No |  |
| 50 | 633715.4665 | 4834883.827 | Ulmus pumila | Siberian Elm | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 51 | 633670.3651 | 4834868.519 | Ulmus pumila | Siberian Elm | Fair | 20 | 0 | 0 | 0 | 0 | 20 | No |  |
| 52 | 633665.5993 | 4834867.373 | Acer negundo | M anitoba M aple | Fair | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 53 | 633660.3903 | 4834865.22 | Unknown (dead) | Unknown (dead) | Dead | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 54 | 633651.813 | 4834862.813 | Ulmus pumila | Siberian Elm | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 55 | 633648.7399 | 4834862.115 | Acer negundo | M anitoba M aple | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 56 | 633643.9742 | 4834860.531 | Ulmus pumila | Siberian Elm | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 57 | 633640.5702 | 4834859.763 | Ulmus pumila | Siberian Elm | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 58 | 633634.533 | 4834856.808 | Ulmus pumila | Siberian Elm | Good | 20 | 0 | 0 | 0 | 0 | 20 | No |  |
| 59 | 633626.0155 | 4834854.176 | Ulmus pumila | Siberian Elm | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 60 | 633620.2058 | 4834853.017 | Ailanthus altissima | Tree-of-heaven | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 61 | 633614.8904 | 4834851.206 | Ulmus pumila | Siberian Elm | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| Broadview Eastern Intersection Connection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 62 | 633144.5453 | 4834999.776 | Tilia americana | American Basswood | Good | 33 | 0 | 0 | 0 | 0 | 33 | No |  |
| 63 | 633148.3415 | 4834998.185 | Acer saccharinum | Silver M aple | Good | 30 | 0 | 0 | 0 | 0 | 30 | No |  |
| 64 | 633154.6434 | 4834999.051 | Acer saccharinum | Silver M aple | Good | 23 | 0 | 0 | 0 | 0 | 23 | No |  |
| 65 | 633158.4414 | 4835004.126 | Acer negundo | M anitoba M aple | Poor | 10 | 11 | 0 | 0 | 0 | 11 | No | New shoots growing from an old stump. |

[^1]dillon

| $\begin{gathered} \text { Tree } \\ \text { ID } \end{gathered}$ | Easting* | Northing | Scientific Name | Common Name | Condition | DBH1 <br> (cm) | $\begin{aligned} & \text { DBH2 } \\ & (\mathrm{cm}) \end{aligned}$ | DBH3 <br> (cm) | DBH4 <br> (cm) | DBH5 <br> (cm) | Largest Stem (cm) | Hazard | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 66 | 633159.1282 | 4835003.399 | Acer negundo | M anitoba M aple | Fair | 15 | 18 | 0 | 0 | 0 | 18 | No | M ain stem is growing through adjacent chain-link fence. |
| 67 | 633162.177 | 4834998.83 | Ailanthus altissima | Tree-of-heaven | Poor | 18 | 20 | 0 | 0 | 0 | 20 | Yes | Large cavity with decay at base. |
| 68 | 633164.7318 | 4834998.394 | Ulmus pumila | Siberian Elm | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 69 | 633165.8095 | 4834998.071 | Ailanthus altissima | Tree-of-heaven | Fair | 25 | 0 | 0 | 0 | 0 | 25 | No |  |
| 70 | 633166.619 | 4834997.545 | Ailanthus altissima | Tree-of-heaven | Fair | 30 | 0 | 0 | 0 | 0 | 30 | No |  |
| 71 | 633184.7851 | 4834994.377 | Acer negundo | M anitoba M aple | Fair | 30 | 0 | 0 | 0 | 0 | 30 | No |  |
| 72 | 633167.0461 | 4835031.148 | Acer negundo | M anitoba M aple | Good | 31 | 33 | 24 | 0 | 0 | 33 | No |  |
| 73 | 633166.4717 | 4835032.989 | Juniperus virginiana | Eastern Red Cedar | Good | 22 | 0 | 0 | 0 | 0 | 22 | No |  |
| 74 | 633170.1262 | 4835031.765 | Morus alba | White M ulberry | Good | 10 | 6 | 6 | 5 | 8 | 10 | No |  |
| 75 | 633161.5138 | 4835032.149 | M alus pumila | Common Apple | Fair | 18 | 15 | 20 | 13 | 15 | 20 | No |  |
| 76 | 633157.3972 | 4835036.326 | M alus baccata | Siberian Crabapple | Poor | 18 | 14 | 12 | 14 | 13 | 18 | No |  |
| 77 | 633224.293 | 4835025.807 | Ulmus pumila | Siberian Elm | Good to Fair | 30 | 32 | 0 | 0 | 0 | 32 | No |  |
| 78 | 633231.2836 | 4835031.417 | Picea glauca | White Spruce | Good | 17 | 0 | 0 | 0 | 0 | 17 | No | Planted in raised concrete planter. |
| 79 | 633236.6962 | 4835033.556 | Picea glauca | White Spruce | Fair | 13 | 0 | 0 | 0 | 0 | 13 | No | Planted in raised concrete planter. |
| 80 | 633241.0314 | 4835035.955 | Picea glauca | White Spruce | Fair | 24 | 0 | 0 | 0 | 0 | 24 | No | Planted in raised concrete planter. |
| 81 | 633243.5496 | 4835035.666 | Picea glauca | White Spruce | Fair | 13 | 0 | 0 | 0 | 0 | 13 | No |  |
| 82 | 633181.9948 | 4835063.667 | Acer platanoides | Norway M aple | Good | 37 | 0 | 0 | 0 | 0 | 37 | No |  |
| 83 | 633175.7795 | 4835065.21 | Acer platanoides | Norway M aple | Fair | 42 | 0 | 0 | 0 | 0 | 42 | No |  |
| 84 | 633169.6802 | 4835067.681 | Acer platanoides | Norway M aple | Good | 44 | 0 | 0 | 0 | 0 | 44 | No |  |
| 85 | 633162.9236 | 4835069.398 | Acer platanoides | Norway M aple | Good | 36 | 0 | 0 | 0 | 0 | 36 | No |  |
| 86 | 633155.5098 | 4835070.362 | Acer platanoides | Norway M aple | Good | 47 | 0 | 0 | 0 | 0 | 47 | No |  |
| 87 | 633138.5674 | 4835092.579 | Gleditsia triacanthos inermis | Thornless Honey-locust | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 88 | 633132.6342 | 4835110.822 | Acer saccharinum | Silver M aple | Good | 4 | 5 | 0 | 0 | 0 | 5 | No |  |
| 89 | 633130.4436 | 4835115.439 | Ailanthus altissima | Tree-of-heaven | Good | 6 | 2 | 0 | 0 | 0 | 6 | No |  |
| 90 | 633120.2073 | 4835092.35 | Gleditsia triacanthos inermis | Thornless Honey-locust | Good | 7 | 0 | 0 | 0 | 0 | 7 | No |  |
| 91 | 633117.7944 | 4835099.694 | Fraxinus pennsylvanica | Green Ash | Poor | 18 | 0 | 0 | 0 | 0 | 18 | No | M arked for removal by City. |
| 92 | 633106.8786 | 4835120.366 | Acer saccharinum | Silver M aple | Good | 37 | 0 | 0 | 0 | 0 | 37 | No |  |
| 93 | 633104.5375 | 4835111.753 | Gymnocladus dioicus | Kentucky Coffee-tree | Excellent | 18 | 0 | 0 | 0 | 0 | 18 | No |  |
| 94 | 633101.2904 | 4835108.999 | Gymnocladus dioicus | Kentucky Coffee-tree | Excellent | 18 | 0 | 0 | 0 | 0 | 18 | No |  |
| 95 | 633098.0553 | 4835106.44 | Amelanchier amabilis | Beautiful Serviceberry | Good | 10 | 0 | 0 | 0 | 0 | 10 | No |  |
| 96 | 633099.2344 | 4835110.79 | M orus alba | White M ulberry | Good | 6 | 5 | 5 | 0 | 0 | 6 | No |  |
| 97 | 633089.0021 | 4835106.76 | Quercus rubra | Northern Red Oak | Excellent | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 98 | 633087.591 | 4835105.305 | Acer saccharinum | Silver M aple | Good | 23 | 0 | 0 | 0 | 0 | 23 | No |  |
| 99 | 633084.7918 | 4835105.143 | Celtis occidentalis | Common Hackberry | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 100 | 633082.0685 | 4835106.504 | Celtis occidentalis | Common Hackberry | Good | 23 | 0 | 0 | 0 | 0 | 23 | No |  |

[^2]January 2023-19-1243
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| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Easting* | Northing | Scientific Name | Common Name | Condition | DBH1 (cm) | $\begin{aligned} & \text { DBH2 } \\ & (\mathrm{cm}) \end{aligned}$ | DBH3 (cm) | DBH4 (cm) | DBH5 (cm) | Largest Stem (cm) | Hazard | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101 | 633084.905 | 4835098.4 | Gleditsia triacanthos inermis | Thornless Honey-locust | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 102 | 633075.5177 | 4835103.954 | Tilia americana | American Basswood | Fair | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 103 | 633068.8382 | 4835105.521 | Tilia americana | American Basswood | Good | 11 | 0 | 0 | 0 | 0 | 11 | No |  |
| 104 | 633080.3613 | 4835110.739 | Gymnocladus dioicus | Kentucky Coffee-tree | Good | 19 | 0 | 0 | 0 | 0 | 19 | No |  |
| 105 | 633079.1601 | 4835114.341 | Gymnocladus dioicus | Kentucky Coffee-tree | Good | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 106 | 633077.4791 | 4835111.243 | Amelanchier laevis | Smooth Serviceberry | Good | 6 | 0 | 0 | 0 | 0 | 6 | No |  |
| 107 | 633074.4737 | 4835113.224 | Amelanchier laevis | Smooth Serviceberry | Good | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 108 | 633070.8529 | 4835112.64 | Quercus rubra | Northern Red Oak | Good | 22 | 0 | 0 | 0 | 0 | 22 | No |  |
| 109 | 633063.7886 | 4835105.573 | Aesculus hippocastanum | Horse Chestnut | Good | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 110 | 633049.7381 | 4835108.997 | Aesculus hippocastanum | Horse Chestnut | Good | 8 | 0 | 0 | 0 | 0 | 8 | No |  |
| 111 | 633035.0223 | 4835108.585 | Tilia americana | American Basswood | Good | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 112 | 633025.9246 | 4835109.822 | Tilia americana | American Basswood | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 113 | 633015.264 | 4835118.488 | Acer platanoides | Norway M aple | Good | 24 | 0 | 0 | 0 | 0 | 24 | No |  |
| 114 | 633012.831 | 4835116.379 | Acer platanoides | Norway M aple | Good | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 115 | 633034.3765 | 4835083.692 | Quercus macrocarpa | Bur Oak | Good | 20 | 0 | 0 | 0 | 0 | 20 | No |  |
| 116 | 633044.3511 | 4835082.409 | Quercus macrocarpa | Bur Oak | Good | 13 | 0 | 0 | 0 | 0 | 13 | No |  |
| 117 | 633053.9888 | 4835077.786 | Quercus macrocarpa | Bur Oak | Good | 14 | 0 | 0 | 0 | 0 | 14 | No |  |
| 118 | 633062.2384 | 4835075.358 | Quercus macrocarpa | Bur Oak | Good | 11 | 0 | 0 | 0 | 0 | 11 | No |  |
| 119 | 633072.7579 | 4835073.715 | Quercus macrocarpa | Bur Oak | Good | 16 | 0 | 0 | 0 | 0 | 16 | No |  |
| 120 | 633084.1391 | 4835069.312 | Quercus macrocarpa | Bur Oak | Good | 13 | 0 | 0 | 0 | 0 | 13 | No |  |
| 121 | 633095.4007 | 4835064.166 | Quercus macrocarpa | Bur Oak | Good | 13 | 0 | 0 | 0 | 0 | 13 | No |  |
| 122 | 633103.7811 | 4835061.092 | Quercus macrocarpa | Bur Oak | Good | 12 | 0 | 0 | 0 | 0 | 12 | No |  |
| 123 | 633110.2871 | 4835059.277 | Quercus macrocarpa | Bur Oak | Good | 14 | 0 | 0 | 0 | 0 | 14 | No |  |
| 124 | 633119.9175 | 4835055.024 | Quercus macrocarpa | Bur Oak | Good | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 125 | 633127.3902 | 4835051.099 | Quercus macrocarpa | Bur Oak | Good | 17 | 0 | 0 | 0 | 0 | 17 | No |  |
| 126 | 633105.5108 | 4835042.826 | Tilia cordata | Little-leaf Linden | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 127 | 633125.1436 | 4835020.507 | Quercus macrocarpa | Bur Oak | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 128 | 633116.3494 | 4835017.628 | Quercus macrocarpa | Bur Oak | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 129 | 633131.0003 | 4834978.986 | Gleditsia triacanthos inermis | Thornless Honey-locust | Good | 23 | 0 | 0 | 0 | 0 | 23 | No |  |
| 130 | 633067.109 | 4834975.109 | Tilia americana | American Basswood | Good | 55 | 0 | 0 | 0 | 0 | 55 | No |  |
| 131 | 633062.6515 | 4834970.439 | Tilia americana | American Basswood | Good | 45 | 0 | 0 | 0 | 0 | 45 | No |  |
| 132 | 633060.7302 | 4834973.121 | Tilia americana | American Basswood | Good | 49 | 0 | 0 | 0 | 0 | 49 | No |  |
| 133 | 633054.062 | 4834970.939 | Tilia americana | American Basswood | Good | 5 | 60 | 0 | 0 | 0 | 60 | No |  |
| 134 | 633055.2058 | 4834967.565 | Tilia americana | American Basswood | Good | 38 | 0 | 0 | 0 | 0 | 38 | No |  |
| 135 | 633057.0142 | 4834963.846 | Tilia americana | American Basswood | Good | 40 | 0 | 0 | 0 | 0 | 40 | No |  |
| 136 | 633043.3957 | 4835006.677 | Tilia cordata | Little-leaf Linden | Good | 16 | 0 | 0 | 0 | 0 | 16 | No |  |

[^3]dillion

| Tree ID | Easting* | Northing | Scientific Name | Common Name | Condition | DBH1 <br> (cm) | $\begin{aligned} & \text { DBH2 } \\ & (\mathrm{cm}) \end{aligned}$ | DBH3 (cm) | DBH4 (cm) | $\begin{aligned} & \text { DBH5 } \\ & (\mathrm{cm}) \end{aligned}$ | Largest Stem (cm) | Hazard | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 137 | 633046.0546 | 4835016.211 | Tilia cordata | Little-leaf Linden | Good | 15 | 0 | 0 | 0 | 0 | 15 | No |  |
| 138 | 632879.1888 | 4835092.275 | Acer negundo | M anitoba M aple | Good | 15 | 12 | 6 | 0 | 0 | 15 | No |  |
| 139 | 632860.7402 | 4835084.411 | Ulmus pumila | Siberian Elm | Good | 35 | 0 | 0 | 0 | 0 | 35 | No |  |


[^0]:    Broadview Avenue Extension Environmental Study Report
    Preliminary Arborist Report \& Tree Inventory
    January 2023-19-1243

[^1]:    Broadview Avenue Extension Environmental Study Report
    Preliminary Arborist Report \& Tree Inventory
    January 2023-19-1243

[^2]:    Broadview Avenue Extension Environmental Study Report
    Preliminary Arborist Report \& Tree Inventory

[^3]:    Broadview Avenue Extension Environmental Study Report
    Preliminary Arborist Report \& Tree Inventory
    January 2023-19-1243

