

1-871 Equestrian Court, Oakville, ON L6L 6L7 Tel: 647-795-8153 / www.pecg.ca

# Memorandum

Date: November 6, 2023

Project #: 2100803

To: Tony Vella, Argo Sherwood Forrest Limited

From: Carly Houghton and Austin Adams (Palmer)

- cc: Dirk Janas (Palmer)
- Re: Sherwood Forrest Circle Arborist Tree Preservation and Protection Report 1720 Sherwood Forrest Circle, City of Mississauga

## 1. Introduction and Background

This document represents the Arborist Report and Tree Preservation Plan prepared by Palmer for the proposed redevelopment at 1720 Sherwood Forrest Circle, City of Mississauga, Region of Peel (**Figure 1**). The subject property is approximately 11 acres (4.5 ha) and currently supports a building complex, maintained lawn with planted trees, and a forested valley slope.

This report has been developed to satisfy the City of Mississauga's *Private Tree Protection By-law 0021-2022* (City of Mississauga, 2022). The tree preservation and protection plan is intended to identify trees that can be retained, trees that may be require pruning to prevent injury, and trees that require removal. Tree protection measures for tree to be retained are provided as well as tree replacement requirements.

## 2. Guidance Documents

#### 2.1 City of Mississauga's Private Tree Protection By-law (0021-2022)

The removal of trees of private property must comply with the City's Private Tree Protection By-law (City of Mississauga, 2022). A permit is needed to injure, destroy or remove any individual tree greater than 15 cm in diameter at breast height (DBH). However, this Arborist Report has been prepared in support of a Development Application and Site Plan process. Tree removal as part of an approved Development Plan is an exempt activity under Part 7, Section 17(9) of the By-law.

As the proposed development requires an approval under the *Planning Act*, this Arborist Report provides the information and mitigation recommendations necessary to provide an exemption under Part 7 of the By-law. Regardless, replacement recommendations within this report are in keeping with the criteria of By-law 0021-2022.



## 2.2 City of Mississauga Official Plan

The City of Mississauga's Official Plan (Chapter 19, Section 19.4, sub-section 19.4.5) states that an Arborist Report including Tree Survey/Tree Preservation Plan may be required as part of a complete application submission for an official plan amendment, rezoning, draft plan of subdivision, condominium, consent application or site plan application to supplement the development proposal (City of Mississauga, 2019).

#### 2.3 Terms of Reference – Arborist Reports, Tree Inventory/Survey and Tree Preservation Plans

The City of Mississauga created a Terms of Reference for Arborist Reports to ensure "that the potential effects of proposed development on existing trees and vegetation and to ensure the proposal conforms to the relevant Official Plan policies, Urban Design Guidelines, standards and details of the City of Mississauga" (City of Mississauga, 2019). This document details the trees that should be inventoried for a report and the data to be collected, the content and format for an Arborist Report (including compensation ratios), and the content and format for the companion Tree Preservation Plan.

#### 2.4 Migratory Birds Convention Act

The *Migratory Birds Convention Act (MBCA*), 1994 and Migratory Birds Regulations (MBR), 2014 protect most species of migratory birds and their nests and eggs anywhere they are found in Canada (Government of Canada, 1994). General prohibitions under the *MBCA* and MBR protect migratory birds, their nests and eggs and prohibit the deposition of harmful substances in waters / areas frequented by them. The MBR includes an additional prohibition against incidental take, which is the inadvertent harming or destruction of birds, nests or eggs.



Document Path: G:\Shared drives\Projects 2021 (21001 to 21123)/21008 - Argo Development Group\/2100803 - Sherwood Forrest Circle\GIS\1\_Workspace\Task 1 - Arborist Figures\2100803-1-1-Site Location.mxd



# 3. Methods

A tree inventory was completed for all trees ≥10 cm DBH within and adjacent to the Site, in accordance with the City of Mississauga *Terms of Reference* (City of Mississauga, 2019). All trees on Site and within 6 metres (m) to the proposed work areas were inventoried to establish Tree Protection Zones (TPZ). Information collected during the inventory includes species scientific and common names, tree tag number, DBH, location, crown spread, a general health assessment (structure, vigour and overall), and notes on tree trunk and canopy conditions. Where adjacent property access was not obtained, visual estimates were made. Notes on ownership and proposed actions including preservation techniques were made.

Trees located on the Subject Property were inventoried by an International Society of Arboriculture (ISA) certified arborist on August 22, 2017 and trees directly adjacent to the Subject Property were inventoried from the Subject Property on January 19, 2021. Trees adjacent to the Subject Property were assigned identification letters (i.e., AA – AZ and BA – BL) and we're not physically tagged due to access limitation. On June 16, 2023 the general location and condition of the trees were verified to be similar to the 2017 inventory. Tree growth is variable between species; however, existing data was used as the new development plan generally provides for a discrete division between trees to retain versus requiring removal, regardless of size.

The TPZ for each tree was calculated using the City of Mississauga's *Tree Preservation and Protection Standards* (City of Mississauga, 2017) where the measured DBH of each tree corresponds to a predetermined minimum TPZ distance from the trunk of each tree (**Table 1**).

| Trunk Diameter (cm) | Minimum Tree Protection Zone<br>(TPZ) Distance from Trunk (m) | Minimum Tree Protection Zone (TPZ)<br>Distance from Trunk (m) for trees in Open<br>Spaces and Woodlands |
|---------------------|---|---|
| <10 cm              | 1.2   | 2.4   |
| 10-20               | 1.5   | 2.4   |
| 21-30               | 1.8   | 3.6   |
| 31-40               | 2.4   | 4.8   |
| 41-50               | 3.0   | 6.0   |
| 51-60               | 3.6   | 7.2   |
| 61-70               | 4.2   | 8.4   |
| 71-80               | 4.8   | 9.6   |
| 81-90               | 5.4   | 10.8  |
| 91-100              | 6.0   | 12.0  |
| >100                | 6 cm per 1 cm DBH   | 12 cm per 1 cm DBH  |

#### Table 1. City of Mississauga's Tree Protection Zone

#### TREE PRESERVATION SPECIFICATIONS

#### TREE PROTECTION AND FENCING

• ALL EXISTING TREES, THAT ARE DESIGNATED TO REMAIN, MUST BE FULLY PROTECTED WITH TREE PROTECTION FENCING IN ACCORDANCE WITH CITY OF MISSISSAUGA DETAIL 02830-6, WHICH IS TO BE ERECTED BEYOND THE TREE PROTECTION ZONE.

• TREE PROTECTION ZONES ARE TO INCLUDE SIGNAGE (AS PER BELOW) AT REGULAR INTERVALS ON THE FENCING. THE SIGNS ARE TO BE 40.64 CM X 60.96 CM AND ON A WATERPROOF MATERIAL



- STORAGE OF EQUIPMENT
- EXCAVATION (UNLESS APPROVED FOR ROOT PRUNING)
- GRADE CHANGES
- CUTTING, TEARING, BREAKING TREE'S ROOTS, BRANCHES AN TRUNK - DUMPING
- PARKING
- STRINGING CABLES/WIRES

• TREE PROTECTION FENCING IS TO BE INSPECTED REGULARLY TO ENSURE IT IS PERFORMING ITS INTENDED FUNCTION. IF ANY SECTION IS FOUND TO BE DAMAGED OR NON-FUNCTIONAL, IT SHOULD BE REPLACED IMMEDIATELY. TREE PROTECTION FENCING MUST REMAIN IN EFFECTIVE CONDITION UNTIL ALL SITE ACTIVITIES INCLUDING LANDSCAPING ARE COMPLETE. IT MUST NOT BE REMOVED WITHOUT THE WRITTEN AUTHORIZATION OF THE CONSULTING LANDSCAPE ARCHITECT OR ARBORIST.

#### TREE AND ROOT PRUNING

• PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, PRUNE LIMBS THAT MAY BE NEGATIVELY IMPACTED DURING CONSTRUCTION UTILIZING PRUNING SHEARS, PRUNING SAW, OR CHAIN SAW. PRUNE CLEANLY THE ROOTS OF EXISITING TREES THAT ARE ANTICIPATED TO BE DISTRUBED BY EXCAVATION. PRUNING SHOULD BE CARRIED OUT AS SPECIFIED BY AN ISA CERTIFIED ARBORIST.

• WHERE DIRECTED BY THE CITY'S ARBORIST, THE CONTRACTOR SHALL MAKE ALL DAMAGE CAUSE TO THE AREAS SURROUNDING PLANT MATERIAL INCLUDING REPLACING DAMAGED OR DESTROYED PLANT MATERIALS, TO THE SATISFACTION OF THE CITY'S ARBORIST.

• DO NOT STOCKPILE MATERIAL WITHIN THE DRIP LINE OF TREES OR SHRUBS TO BE RETAINED.

• DO NOT ALLOW TRAFFIC, VEHICLES OR EQUIPMENT TO COMPACT SOIL WITHIN THE DRIP LINE OF TREES OR SHRUBS TO BE RETAINED.

#### TREE REMOVAL:

• TREES ARE TO BE FELLED INTO THE CONSTRUCTION AREA TO REDUCE THE POTENTIAL FOR INJURY/DAMAGE TO PROTECTED AREAS.

• TO AVOID INTERFERENCE WITH THE EGGS, NESTS OR YOUNG OF BIRDS PROTECTED UNDER THE FEDERAL MIGRATORY BIRDS CONVENTION ACT (GOVERNMENT OF CANADA, 1994), REMOVALS SHOULD NOT OCCUR FROM ÀPRIL 1 TO AUGUST 31 OF ANY GIVEN YEAR. IDEALLY, REMOVAL SHOULD OCCUR FROM AUGUST THROUGH DECEMBER TO AVOID INTERFERENCE WITH ALL NESTING BIRDS. SHOULD REMOVAL BE REQUIRED WITHIN THE APRIL 1 TO AUGUST 31 BREEDING PERIOD. A QUALIFIED AVIAN BIOLOGIST SHOULD CONDUCT A THOROUGH SURVEY IMMEDIATELY PRIOR TO THE DESIRED TREE REMOVAL DATE TO CONFIRM PRESENCE OR ABSENCE OF PROTECTED SPECIES. IF PROTECTED SPECIES ARE PRESENT, REMOVAL CANNOT OCCUR WITHOUT A PERMIT FROM THE CANADIAN WILDLIFE SERVICE



| EGEND             |   |  | 0 10 20  |
|-------------------|---|--|--|
| $\bigcirc$        | Inventory Tree with TPZ to Retain   | Long Term Stable Top of Bank (Tarasick, Sept 05, 2018)                     | MET  |
| $\mathbf{\times}$ | Inventory Tree with TPZ to Remove   | Long Term Stable Top of Bank (Terraprobe, Nov 23, 2017)                    | North American Datum 19<br>Universal Transverse Mer                    |
| •                 | Dead Top of Bank (Staked by CVC and the city of Mississauga, Aug 3, 2018) |  | Scale: 1:1,800<br>Page Size: Tabloid (11 x 1                           |
|                   | Tree Protection Fencing   | Top of Bank (R-PE Surveying, May 18, 2023)                                 | Drawn: SM<br>Checked: CH   |
| 53                | Waterbody <sup>1</sup>  | ····· Natural Feature (Staked by CVC and City of Missisauga, Aug, 3, 2018) | Date: Nov 6, 2023  |
|                   | Study Area  | New Development Limit (Based on LTSTOS from Tarasick)                      | Source Notes:<br>Base imagery (2020) prov<br>services. Contains inform |

Document Path: G:\Shared drives\Projects 2021 (21001 to 21123))21008 - Argo Development Group\2100803 - Sherwood Forrest Circle\GIS\1\_Workspace\Task 1 - Arborist Figures\2100803-2-1-Tree Preservation Plan.mxd



## 4. Results

#### 4.1 Tree Inventory

A total of 183 tree were inventoried, however, five (5) trees have fallen due to strong winds following completion of the inventory. These trees are #95, 101, 113, 152, and 153, which are now considered deadfall and have been removed from the inventory. Thus, this report includes the findings of 178 trees in total (**Figure 2**). This includes 72 (40%) native trees, 103 (58%) non-native trees, and 3 (2%) which were identified to genus only (**Table 2**). The majority of the inventoried trees within the subject property included non-native Norway Spruce (*Picea abies*) and native Eastern White Cedar (*Thuja occidentalis*). The majority of the inventoried trees planted and are largely comprised of non-native species. The trees inventoried along the edge of the woodland feature are mostly comprised of naturally occurring native species.

No Species at Risk (SAR) such as Butternut (*Juglans cinerea*) were observed or inventoried on the subject property. Two Green Ash (*Fraxinus pennsylvanica*), known to be at high risk of disease or infestation were recorded within the subject property. Based on the general health and condition of the trees, 171 (97%) trees are in fair to good health and condition, six (6) of trees are in poor condition, and one tree was dead. A full list of all the inventoried trees is provided in **Appendix A** 

| Common Name          | Scientific Name          | Fair to Good Health<br>and Condition | Poor Health and<br>Condition | Total |
|----------------------|--------------------------|--------------------------------------|------------------------------|-------|
| American Basswood*   | Tilia americana          | 3                                    | 0                            | 3     |
| Apple                | <i>Malus</i> sp <i>.</i> | 1                                    | 0                            | 1     |
| Black Cherry*        | Prunus serotina          | 4                                    | 0                            | 4     |
| Black Walnut*        | Juglans nigra            | 2                                    | 0                            | 2     |
| Bur Oak*             | Quercus macrocarpa       | 1                                    | 0                            | 1     |
| Colorado Spruce      | Picea pungens            | 17                                   | 1                            | 18    |
| Common Apple         | Malus pumila             | 1                                    | 0                            | 1     |
| Eastern White Cedar* | Thuja occidentalis       | 23                                   | 1                            | 24    |
| Eastern White Pine*  | Pinus strobus            | 11                                   | 0                            | 11    |
| English Walnut       | Juglans regia            | 1                                    | 1                            | 2     |
| Freeman's Maple*     | Acer freemanii           | 1                                    | 0                            | 1     |
| Green Ash*           | Fraxinus pennsylvanica   | 0                                    | 1 poor, 1 dead               | 2     |
| Honey Locust         | Gleditsia triacanthos    | 1                                    | 0                            | 1     |
| Northern Catalpa     | Catalpa speciosa         | 1                                    | 0                            | 1     |
| Norway Maple         | Acer platanoides         | 8                                    | 0                            | 8     |
| Norway Spruce        | Picea abies              | 54                                   | 1                            | 55    |
| Pine                 | Pinus sp.                | 1                                    | 0                            | 1     |
| Red Maple*           | Acer rubrum              | 2                                    | 0                            | 2     |
| Red Oak*             | Quercus rubra            | 5                                    | 0                            | 5     |
| Red Pine*            | Pinus resinosa           | 1                                    | 0                            | 1     |

#### Table 2.Summary of Tree Inventory

#### Memorandum

| Common Name      | Scientific Name  | Fair to Good Health<br>and Condition | Poor Health and<br>Condition | Total |
|------------------|------------------|--------------------------------------|------------------------------|-------|
| Scots Pine       | Pinus sylvestris | 14                                   | 1                            | 15    |
| Siberian Elm     | Ulmus pumila     | 1                                    | 0                            | 1     |
| Sugar Maple*     | Acer saccharum   | 10                                   | 0                            | 10    |
| Weeping Willow   | Salix babylonica | 1                                    | 0                            | 1     |
| White Spruce*    | Picea glauca     | 6                                    | 0                            | 6     |
| Willow Salix sp. |                  | 1                                    | 0                            | 1     |
| Total            |                  | 171                                  | 7                            | 178   |

\*Native species

#### 4.2 Trees to be Retained

An assessment of trees to be retained has been completed based on the proposed grading and development plans. A total of 107 of the inventoried trees are identified to be retained (**Table 3**). This includes 103 trees in fair to good health and condition and four (4) trees in poor health and condition. The majority of trees to be retained (75 trees, 70%) are non-native species, most of which are Norway Spruce.

| Common Name         | Scientific Name        | Fair to Good Health | Poor Health and | Total |
|---------------------|------------------------|---------------------|-----------------|-------|
|                     |                        | and Condition       | Condition       |       |
| American Basswood*  | Tilia americana        | 3                   | 0               | 3     |
| Apple               | Malus sp.              | 1                   | 0               | 1     |
| Black Cherry*       | Prunus serotina        | 4                   | 0               | 4     |
| Black Walnut*       | Juglans nigra          | 1                   | 0               | 1     |
| Bur Oak*            | Quercus macrocarpa     | 1                   | 0               | 1     |
| Colorado Spruce     | Picea pungens          | 6                   | 1               | 7     |
| Eastern White Pine* | Pinus strobus          | 3                   | 0               | 3     |
| English Walnut      | Juglans regia          | 0                   | 1               | 1     |
| Green Ash*          | Fraxinus pennsylvanica | 0                   | 1 poor, 1 dead  | 2     |
| Northern Catalpa    | Catalpa speciosa       | 1                   | 0               | 1     |
| Norway Maple        | Acer platanoides       | 6                   | 0               | 6     |
| Norway Spruce       | Picea abies            | 45                  | 0               | 45    |
| Pine                | Pinus sp.              | 1                   | 0               | 1     |
| Red Oak*            | Quercus rubra          | 5                   | 0               | 5     |
| Red Pine*           | Pinus resinosa         | 1                   | 0               | 1     |
| Scots Pine          | Pinus sylvestris       | 11                  | 0               | 11    |
| Siberian Elm        | Ulmus pumila           | 1                   | 0               | 1     |
| Sugar Maple*        | Acer saccharum         | 10                  | 0               | 10    |
| White Spruce*       | Picea glauca           | 2                   | 0               | 2     |
| Willow              | Salix sp.              | 1                   | 0               | 1     |
| Total               |                        | 103                 | 4               | 107   |

#### Table 3.Trees to be Retained

\*Native species



#### 4.3 Trees to be Removed

A total of 71 trees will need to be removed to accommodate the proposed development (**Table 4**). This includes 68 trees in fair to good health and condition and three (3) trees in poor health and condition. All of the trees proposed to be removed are located within the proposed grading area for the development works and servicing access routes (**Figure 2**). Currently, trees within the proposed Open Space Land Use (inset area of **Figure 2**) are proposed for removal due to watermain servicing and creation of a trail. Just over half the trees proposed to be removed are native species (40 trees, 56%), most of which are Eastern White Cedar. Some trees along the southern property boundary may partially be located on an adjacent private residential property. If any part of the tree trunk is located on more than one lot, written consent of the impacted property will be required.

| Common Name          | Scientific Name              | Fair to Good Health<br>and Condition | Poor Health and<br>Condition | Total |
|----------------------|------------------------------|--------------------------------------|------------------------------|-------|
| Black Walnut*        | Juglans nigra                | 1                                    | 0                            | 1     |
| Colorado Spruce      | Picea pungens                | 11                                   | 0                            | 11    |
| Common Apple         | Malus pumila                 | 1                                    | 0                            | 1     |
| Eastern White Cedar* | Thuja occidentalis           | 23                                   | 1                            | 24    |
| Eastern White Pine*  | White Pine* Pinus strobus    |                                      | 0                            | 8     |
| English Walnut       | English Walnut Juglans regia |                                      | 0                            | 1     |
| Freeman's Maple*     | Acer freemanii               | 1                                    | 0                            | 1     |
| Honey Locust         | Gleditsia triacanthos 1      |                                      | 0                            | 1     |
| Norway Maple         | Acer platanoides             | 2                                    | 0                            | 2     |
| Norway Spruce        | Picea abies                  | 9                                    | 1                            | 10    |
| Red Maple*           | Acer rubrum                  | 2                                    | 0                            | 2     |
| Scots Pine           | Pinus sylvestris             | 3                                    | 1                            | 4     |
| Weeping Willow       | Salix babylonica             | 1                                    | 0                            | 1     |
| White Spruce*        | Picea glauca                 | 4                                    | 0                            | 4     |
| Total                |                              | 68                                   | 3                            | 71    |

#### Table 4.Trees to be Removed

\*Native species

## 5. Tree Protection Plan

General and tree-specific tree protection measures are outlined below. The specifications for protection of retained trees are detailed on the Tree Protection Plan (**Figure 2**), including the locations of required tree protection fencing. The Tree Protection Plan is intended to act in concert with this Arborist Report; it is expected that the recommendations of both instruments be implemented for the project. Trees proposed to be retained will be primarily protected by tree protection fencing, as per the City's *Tree Preservation Hoarding* Specification (**Appendix B**).



#### 5.1 Tree Protection Fencing

Certain trees to be retained are located in close proximity to the limits of development or on adjacent private property. The implementation of tree protection measures is recommended to protect tree limbs from mechanical damage and the root systems from compaction during construction activities.

Framed hoarding is to be installed and inspected to the satisfaction of the Urban Forestry section encompasses the entire dripline area (**Figure 2**). The tree protection fencing should be installed per The City's Detail 02830-6 for plastic snow fence framed hoarding and signage should be displayed (**Appendix B**). The plastic snow fence framed hoarding is to consist of 1.2 m high plastic orange snow fence secured to steel T-bars with wire ties and 2" x 4" timber rails along the top and bottom.

Signage measuring 40 cm x 60 cm to be mounted to the construction side of each TPZ barrier (**Photo 1**). Signage to indicate that work including grading, construction access and material storage is prohibited within the boundaries of the TPZ. No other signage is permitted to be fixed onto any tree protection hoarding.



#### Photo 1: Example of TPZ signage

For a City Tree hoarding inspection, please contact Ryan Cormier at 905-615-3200 x 4580. No construction activity is permitted within the tree preservation zones (TPZ). Should you need to remove or alter the hoarding at any time during construction, please advise City of Mississauga Forestry prior to doing so. All tree protection measures must be implemented and installed prior to the commencement of construction and maintained until all construction related activities are complete.



## 5.2 Felling and Grinding

Trees to be removed will be felled into the Subject Property by a qualified arborist using good arboricultural practices. Tree protection fencing shall be installed for trees to be retained prior to tree removal unless the fencing will directly interfere with undertaking of approved tree removal.

For removals adjacent to trees to be retained, it is recommended that they be stumped and grinded as required rather than root removal (e.g., stump pulling), as root pulling has the potential to adversely affect trees to be retained.

## 5.3 Pruning

Pruning is not anticipated to be required for this project, as removals are to occur on discrete tablelands. However, any roots or limbs of trees to be retained that extend beyond the tree protection fencing may require pruning. Pruning should be carried out as specified by an ISA certified arborist.

Trees can typically withstand up to 30% encroachment into their TPZ. The City of Mississauga prohibits many activates within the TPZ but may approve excavation for root pruning. Any pruning of tree roots and branches of trees necessary to accommodate the fencing or nearby construction work should be completed by a qualified arborist using best arboricultural practices. Various methods are deemed acceptable (i.e., Air Spade) by the City and must be either conducted or supervised by a Certified Arborist.

Prune limbs utilizing pruning shears, pruning saw, or chain saw. Root systems of protected trees that are exposed or damaged by construction work, shall be trimmed neatly by a Qualified Arborist in accordance to good arboricultural practices and the area is to be back filled with appropriate material to maintain moisture/prevent desiccation. Roots should be excavated using a low pressure airspade. Roots should be pruned in a similar fashion as branches, taking care to maintain the integrity of the root bark ridge, where present.

## 6. Management and Monitoring Phase

#### 6.1 **Pre-Construction Phase**

To avoid an offence under the *Migratory Bird Convention Act, 1994 (MBCA)* for the destruction of active nests and/or eggs during bird nesting periods, it is recommended that all vegetation (including tree) removal works are conducted between September 1 and March 31 of any given year. Should tree removal during bird nesting season be unavoidable, a qualified biologist should conduct a nesting survey immediately before any vegetation removal is conducted, as defined by the *Act*.

The erection of tree protection fencing (**Figure 2**) as per the Site Plan is to be conducted under the supervision of an ISA Certified Arborist, prior to the commencement of site clearance, demolition, or any other type of construction. Any pruning or trimming of trees to accommodate the fencing will be completed by a Certified Arborist using best industry practices. All trees to be removed will be felled into the proposed development area as to avoid damage to the adjacent trees. Fencing must remain intact through the completion of construction.



#### 6.2 Construction Phase

Tree protection fencing will be regularly inspected for damage and proper function by construction personnel. Any damage will be reported to the construction supervisor and repaired immediately. Protective fencing shall remain in place throughout the duration of construction and shall not allow traffic, vehicles, foot traffic or equipment to compact soil within the TPZ. Any build up of sediments at tree bases will be removed as part of fencing repairs.

Periodic monitoring of the Site during demolition, excavation and construction may be required to ensure tree protection measures are performed or remain in place throughout the duration of the construction. If required, monitoring will be performed by the developer's Consulting Arborist.

#### 6.3 Post-Construction Phase

The removal of tree protection barriers will only be initiated once all construction activities have been completed and landscaping has been implemented. The TPZ barriers and any additional tree care measures must remain in place until approval is given by the City of Mississauga.

Planting of trees as per Section 7 will be initiated as part of landscaping and be completed by nursery professionals or a Certified Arborist. Planting will occur solely during the spring or fall planting seasons; being April 15 - July 1, and September 15 – November 15 respectively.

Monitoring of tree establishment should be completed for a minimum of two growing seasons post-planting. Monitoring will be designed to assess the growth and establishment of the planted trees, ensuring that the conditions any nursery guarantees are met.

## 7. Replacement Trees

The City's by-law states that replacement plantings are required when individual healthy trees (good to fair condition) which are greater than 15 cm DBH, including both native and non-native species. A tree replacement is required for every 15 cm (6 inches) of diameter of the tree removed (City of Mississauga, 2023).

Of the inventoried trees to be removed, three (3) trees are in poor condition and will not require replacement. The trees proposed to be removed range between 15 and 124 cm DBH, thus requiring a wide range of replacement trees. A total of 175 trees must be planted in compensation for the removal of the 68 trees on site (**Table 5**).

|   | Trees<br>15-29<br>cm DBH<br>(1:1) | Trees<br>30-44<br>cm<br>DBH<br>(2:1) | Trees<br>45-59<br>cm<br>DBH<br>(3:1) | Trees 60 –<br>74 cm<br>DBH (4:1) | Trees<br>75-89<br>cm DBH<br>(5:1) | Trees 90-<br>104 cm<br>DBH (6:1) | Trees 105-<br>119 cm<br>DBH (7:1) | Trees 120-<br>134 cm<br>DBH (8:1) | Total |
|---|-----------------------------------|--------------------------------------|--------------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-------|
| Total number of removals                | 10                                | 30                                   | 20                                   | 3                                | 1                                 | 1                                | 2                                 | 1                                 | 68    |
| Total number of<br>replacement<br>trees | 10                                | 60                                   | 60                                   | 12                               | 5                                 | 6                                | 14                                | 8                                 | 175   |

## Table 5.Tree Replacement Requirement

All replacement trees must be native and common the Credit River Watershed. The replacement trees must be at least 1.8 m tall for a coniferous tree or at least 6 cm in diameter for a deciduous tree in accordance with the City's By-law (City of Mississauga, 2023). The Credit Valley Conservation Authority (CVC) has previously completed restoration plantings on the site. To continue this relationship, Argo Sherwood Forrest Limited proposes to continue to work with CVC to provide for the appropriate compensation plantings. Once servicing is installed, the replacement plantings are proposed to first target the abandoned lane on the north side of the subject property. The species and locations will be determined by a Landscape Architect.

# 8. Conclusion

In summary, a total of 183 trees were inventoried, although 178 trees are currently present and assessed in this report due to the natural falling of five trees (deadfall). Of these, 72 (40%) are native species, and 103 (57%) are non-native species, and three identified to genus only. It is estimated that 71 trees are proposed to be removed within the redevelopment area and 107 trees are proposed to be retained.

The trees to be retained should be protected by pruning overhanging limbs (where applicable such as tree in close proximity to the construction works), by pruning exposed roots, and installing tree protection fencing around the limit of development and/or beyond the tree protection zone of the tree.

A total of 68 trees are to be replaced with 175 replacement trees. Replacement plantings should solely be comprised of species that are native to the Credit River watershed.





# 9. Certification

This memorandum was prepared and reviewed by the undersigned:

Prepared By:

l'olle Hoyles

Carly Houghton, B.E.S. Ecologist, ISA Certified Arborist ON-2346A

**Reviewed By:** 

Austin adams

Austin Adams, M.Sc., EP Senior Ecologist, Certified Arborist ON-2000A

#### References

City of Mississauga. (2017). *Tree Protection and Preservation Standards*. Retrieved from mississauga.ca: https://www.mississauga.ca/wp-content/uploads/2020/07/16113507/Mississauga-Tree-

Preservation-Protection-Standards.pdf

- City of Mississauga. (2019, April). *City of Mississauga Terms of Reference*. Retrieved from Terms of Reference: Arborist Reports, Tree Inventory/Survey & Tree Preservation Plans : https://www7.mississauga.ca/documents/Business/Arborist\_Report\_Tree\_Inventory\_\_Tree\_Pres ervation\_Plans\_-\_Terms\_of\_Reference.pdf
- City of Mississauga. (2019, November 22). City of Mississauga Official Plan (November 22, 2019 Consolidation). Retrieved from City of Mississauga: http://www.mississauga.ca/portal/residents/mississaugaofficialplan
- City of Mississauga. (2022). *Private Tree Protection By-law 0021-2022*. Retrieved from City of Mississauga: https://www.mississauga.ca/wp-content/uploads/2018/09/30121717/Private-Tree-Protection-Bylaw-0021-2022.pdf
- City of Mississauga. (2023). Request to injure or remove trees. Retrieved from missisauga.ca: https://www.mississauga.ca/services-and-programs/forestry-and-environment/trees/request-toinjure-or-remove-trees/
- Government of Canada. (1994). Migratory Birds Convention Act, 1994 (S.C. 1994, c. 22). Retrieved from http://laws-lois.justice.gc.ca/eng/acts/m-7.01/







**Tree Inventory** 

**Palmer**...

| Tree ID | Common Name   | Scientific Name | DBH (cm)         | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|---------------|-----------------|------------------|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 75      | Norway Spruce | Picea abies     | 42               | 42                    |              | F                                    | 3       | Retain          |
| 76      | Norway Spruce | Picea abies     | 51               | 51                    |              | F                                    | 3.6     | Retain          |
| 77      | Norway Spruce | Picea abies     | 34.4             | 34.4                  |              | F                                    | 2.4     | Retain          |
| 78      | Norway Spruce | Picea abies     | 38               | 38                    |              | F                                    | 2.4     | Retain          |
| 79      | Norway Spruce | Picea abies     | 20.8             | 20.8                  |              | F                                    | 1.8     | Retain          |
| 80      | Norway Spruce | Picea abies     | 28               | 28                    |              | F                                    | 1.8     | Retain          |
| 81      | Norway Spruce | Picea abies     | 34.5             | 34.5                  |              | F                                    | 2.4     | Retain          |
| 82      | Norway Spruce | Picea abies     | 38.2             | 38.2                  |              | F                                    | 2.4     | Retain          |
| 83      | Norway Spruce | Picea abies     | 52               | 52                    |              | F                                    | 3.6     | Retain          |
| 84      | Norway Spruce | Picea abies     | 42.5             | 42.5                  |              | F                                    | 3       | Retain          |
| 85      | Norway Spruce | Picea abies     | 23.4             | 23.4                  |              | F                                    | 1.8     | Retain          |
| 86      | Norway Spruce | Picea abies     | 33.6             | 33.6                  |              | F                                    | 2.4     | Retain          |
| 87      | Norway Spruce | Picea abies     | 21               | 21                    |              | F                                    | 1.8     | Retain          |
| 88      | Norway Spruce | Picea abies     | 36.7             | 36.7                  |              | F                                    | 2.4     | Retain          |
| 89      | Norway Spruce | Picea abies     | 18.2             | 18.2                  |              | F                                    | 1.5     | Retain          |
| 90      | Norway Spruce | Picea abies     | 30.4             | 30.4                  |              | F                                    | 2.4     | Retain          |
| 91      | Norway Spruce | Picea abies     | 22.8             | 22.8                  |              | F                                    | 1.8     | Retain          |
| 92      | Norway Spruce | Picea abies     | 14.2, 11.2, 26.5 | 32                    |              | F                                    | 2.4     | Retain          |
| 93      | Norway Spruce | Picea abies     | 30.8             | 30.8                  |              | F                                    | 2.4     | Retain          |
| 94      | Norway Spruce | Picea abies     | 21.5             | 21.5                  |              | F                                    | 2.4     | Retain          |
| 95      | Deadfall tree |                 |                  |                       |              |                                      |         |                 |
| 96      | Norway Spruce | Picea abies     | 23.4             | 22                    |              | F                                    | 1.8     | Retain          |
| 97      | Norway Spruce | Picea abies     | 16               | 23.4                  |              | F                                    | 1.8     | Retain          |
| 98      | Norway Spruce | Picea abies     | 40.7             | 16                    |              | F                                    | 1.5     | Retain          |

## Appendix A: Tree Inventory



| Tree ID | Common Name         | Scientific Name    | DBH (cm)   | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|---------------------|--------------------|--|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 99      | Norway Spruce       | Picea abies        | 22   | 40.7                  |              | F                                    | 3       | Retain          |
| 100     | Norway Spruce       | Picea abies        | 40.2   | 40.2                  |              | F                                    | 3       | Remove          |
| 101     | Deadfall tree       |                    |  | <u>.</u>              |              |                                      |         | •               |
| 102     | Norway Spruce       | Picea abies        | 37.9   | 37.9                  |              | F                                    | 2.4     | Remove          |
| 103     | Norway Spruce       | Picea abies        | 26.8   | 26.8                  |              | F                                    | 1.8     | Remove          |
| 104     | Norway Spruce       | Picea abies        | 37   | 37                    |              | Р                                    | 2.4     | Remove          |
| 105     | Norway Spruce       | Picea abies        | 51   | 51                    |              | F                                    | 3.6     | Remove          |
| 106     | Scots Pine          | Pinus sylvestris   | 49.7   | 49.7                  |              | Р                                    | 3       | Remove          |
| 107     | Scots Pine          | Pinus sylvestris   | 39   | 39                    |              | F                                    | 2.4     | Remove          |
| 108     | Norway Spruce       | Picea abies        | 35.5   | 35.5                  |              | F                                    | 2.4     | Remove          |
| 109     | Weeping Willow      | Salix babylonica   | 105  | 105                   |              | F                                    | 6.3     | Remove          |
| 110     | English Walnut      | Juglans regia      | 52   | 52                    |              | F                                    | 3.6     | Remove          |
| 111     | English Walnut      | Juglans regia      | 92   | 92                    |              | Р                                    | 6       | Retain          |
| 112     | Sugar Maple         | Acer saccharum     | 36, 35.2, 48.9, 24,<br>19.6  | 77                    |              | G                                    | 4.8     | Retain          |
| 113     | Deadfall tree       |                    |  |                       |              |                                      |         |                 |
| 114     | Eastern White Cedar | Thuja occidentalis | 6.5, 7, 8.5, 10.4, 16, 7,<br>10, 19.3, 10, 8, 8.3                        | 30                    |              | F                                    | 1.8     | Remove          |
| 115     | Eastern White Cedar | Thuja occidentalis | 16.5, 8.4, 20, 8, 9, 10  | 30                    |              | F                                    | 1.8     | Remove          |
| 116     | Eastern White Cedar | Thuja occidentalis | 28, 26.6, 16, 7, 8   | 43                    |              | F                                    | 3       | Remove          |
| 117     | Eastern White Cedar | Thuja occidentalis | 10, 6.5, 13,16.7, 22, 5,<br>20.5, 5, 4, 4, 17, 5, 19,<br>9.4, 4, 3, 7, 7 | 39                    |              | F                                    | 2.4     | Remove          |



| Tree ID | Common Name         | Scientific Name       | DBH (cm)   | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|---------------------|-----------------------|--|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 118     | Eastern White Cedar | Thuja occidentalis    | 37, 16, 27, 7, 22, 18.5,<br>8, 7, 22.6, 9, 15, 12,<br>22, 5, 5, 5, 5, 5, 5, 7.5,<br>13, 18 | 55                    |              | G                                    | 3.6     | Remove          |
| 119     | Eastern White Cedar | Thuja occidentalis    | 5, 14.5, 5, 18.6, 22,<br>18.3, 30, 4, 5, 6, 3,<br>22.5                                     | 48                    |              | F                                    | 3       | Remove          |
| 120     | Eastern White Cedar | Thuja occidentalis    | 20, 4, 12, 18, 6, 6, 21,<br>6, 5.3, 16.6, 14, 3, 3, 5,<br>6, 17, 22, 16                    | 42                    |              | F                                    | 3       | Remove          |
| 121     | Eastern White Cedar | Thuja occidentalis    | 20, 6, 13, 5, 11, 5, 18,<br>14, 19, 6.5, 19  | 40                    |              | F                                    | 2.4     | Remove          |
| 122     | Eastern White Pine  | Pinus strobus         | 51   | 51                    |              | G                                    | 3.6     | Remove          |
| 123     | Norway Maple        | Acer platanoides      | 45.4   | 45.4                  |              | G                                    | 3       | Remove          |
| 124     | Honey Locust        | Gleditsia triacanthos | 51   | 51                    |              | F                                    | 3.6     | Remove          |
| 125     | Eastern White Cedar | Thuja occidentalis    | 20.5, 14   | 25                    |              | F                                    | 1.8     | Remove          |
| 126     | Eastern White Cedar | Thuja occidentalis    | 17.5, 9.5, 15, 10  | 27                    |              | G                                    | 1.8     | Remove          |
| 127     | Eastern White Cedar | Thuja occidentalis    | 15.5, 20, 18.5, 7, 15.5  | 36                    |              | G                                    | 2.4     | Remove          |
| 128     | Eastern White Cedar | Thuja occidentalis    | 18, 11, 16, 12, 20   | 49                    |              | G                                    | 3       | Remove          |
| 129     | Eastern White Cedar | Thuja occidentalis    | 15.5   | 15.5                  |              | F                                    | 1.5     | Remove          |
| 130     | Eastern White Cedar | Thuja occidentalis    | 28   | 28                    |              | G                                    | 1.8     | Remove          |
| 131     | Eastern White Cedar | Thuja occidentalis    | 19.5, 35,16, 18  | 47                    |              | G                                    | 3       | Remove          |
| 132     | Eastern White Cedar | Thuja occidentalis    | 16   | 16                    |              | G                                    | 1.5     | Remove          |
| 133     | Eastern White Cedar | Thuja occidentalis    | 17   | 17                    |              | G                                    | 1.5     | Remove          |
| 134     | Eastern White Cedar | Thuja occidentalis    | 17.5   | 17.5                  |              | G                                    | 1.5     | Remove          |
| 135     | Eastern White Cedar | Thuja occidentalis    | 16   | 16                    |              | G                                    | 1.5     | Remove          |
| 136     | Eastern White Cedar | Thuja occidentalis    | 16, 17, 16.5, 7, 7, 17,<br>5.8, 12, 5, 6, 16.5   | 37                    |              | F                                    | 2.4     | Remove          |

| Tree ID | Common Name         | Scientific Name    | DBH (cm)                                   | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|---------------------|--------------------|--|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 137     | Eastern White Cedar | Thuja occidentalis | 8, 15, 18.5, 10.6, 20,<br>6, 3, 5, 16, 9.2 | 34                    |              | F                                    | 2.4     | Remove          |
| 138     | Red Maple           | Acer rubrum        | 46.5, 32.5, 50, 48                         | 89                    |              | F                                    | 5.4     | Remove          |
| 139     | Scots Pine          | Pinus sylvestris   | 50   | 50                    |              | F                                    | 3       | Remove          |
| 140     | Scots Pine          | Pinus sylvestris   | 43   | 43                    |              | F                                    | 3       | Remove          |
| 141     | Norway Spruce       | Picea abies        | 91   | 91                    |              | G                                    | 6       | Remove          |
| 142     | Norway Spruce       | Picea abies        | 52   | 52                    |              | G                                    | 3.6     | Remove          |
| 143     | Norway Spruce       | Picea abies        | 60   | 60                    |              | G                                    | 3.6     | Remove          |
| 144     | Norway Spruce       | Picea abies        | 66.5                                       | 66.5                  |              | G                                    | 4.2     | Remove          |
| 145     | Eastern White Pine  | Pinus strobus      | 40.2                                       | 40.2                  |              | F                                    | 3       | Remove          |
| 146     | Eastern White Pine  | Pinus strobus      | 35   | 35                    |              | G                                    | 2.4     | Remove          |
| 147     | Eastern White Pine  | Pinus strobus      | 50   | 50                    |              | G                                    | 3       | Remove          |
| 148     | Eastern White Pine  | Pinus strobus      | 42.7                                       | 42.7                  |              | F                                    | 3       | Remove          |
| 149     | Eastern White Pine  | Pinus strobus      | 50   | 50                    |              | G                                    | 3       | Remove          |
| 150     | Eastern White Pine  | Pinus strobus      | 40.5                                       | 40.5                  |              | F                                    | 3       | Remove          |
| 151     | Eastern White Pine  | Pinus strobus      | 34   | 34                    |              | F                                    | 2.4     | Remove          |
| 152     | Deadfall tree       |                    |  | •                     |              |                                      |         | •               |
| 153     | Deadfall tree       |                    |  |                       |              |                                      |         |                 |
| 154     | Colorado Spruce     | Picea pungens      | 32.8, 35                                   | 48                    |              | G                                    | 3       | Remove          |
| 155     | White Spruce        | Picea glauca       | 30, 31                                     | 43                    |              | G                                    | 3       | Remove          |
| 156     | Colorado Spruce     | Picea pungens      | 42   | 42                    |              | G                                    | 3       | Remove          |
| 157     | Colorado Spruce     | Picea pungens      | 30.3                                       | 30.3                  |              | G                                    | 2.4     | Remove          |
| 158     | Freeman's Maple     | Acer freemanii     | 124  | 124                   |              | F                                    | 7.4     | Remove          |
| 159     | Colorado Spruce     | Picea pungens      | 40   | 40                    |              | G                                    | 2.4     | Remove          |
| 160     | Colorado Spruce     | Picea pungens      | 50   | 50                    |              | G                                    | 3       | Remove          |
| 161     | White Spruce        | Picea glauca       | 40.5                                       | 40.5                  |              | G                                    | 3       | Remove          |
| 162     | Colorado Spruce     | Picea pungens      | 40.1                                       | 40.1                  |              | G                                    | 3       | Remove          |
| 163     | Common Apple        | Malus pumila       | 43.5                                       | 43.5                  |              | G                                    | 3       | Remove          |

| Tree ID | Common Name         | Scientific Name    | DBH (cm)             | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|---------------------|--------------------|----------------------|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 164     | Eastern White Cedar | Thuja occidentalis | 41, 30.6, 22.4       | 56                    |              | F                                    | 3.6     | Remove          |
| 165     | Eastern White Cedar | Thuja occidentalis | 21.1                 | 21.1                  |              | F                                    | 1.8     | Remove          |
| 166     | Eastern White Cedar | Thuja occidentalis | 50, 26.7             | 57                    |              | Р                                    | 3.6     | Remove          |
| 167     | Black Walnut        | Juglans nigra      | 60                   | 60                    |              | F                                    | 3.6     | Remove          |
| 168     | White Spruce        | Picea glauca       | 38.6                 | 38.6                  |              | F                                    | 2.4     | Remove          |
| 169     | White Spruce        | Picea glauca       | 50                   | 50                    |              | F                                    | 3       | Remove          |
| 170     | Red Maple           | Acer rubrum        | 51                   | 51                    |              | F                                    | 3.6     | Remove          |
| 171     | Colorado Spruce     | Picea pungens      | 49                   | 49                    |              | G                                    | 3       | Remove          |
| 172     | Colorado Spruce     | Picea pungens      | 39.4                 | 39.4                  |              | G                                    | 2.4     | Remove          |
| 173     | Colorado Spruce     | Picea pungens      | 44                   | 44                    |              | G                                    | 3       | Remove          |
| 174     | Colorado Spruce     | Picea pungens      | 41                   | 41                    |              | G                                    | 3       | Remove          |
| 175     | Colorado Spruce     | Picea pungens      | 49.2                 | 49.2                  |              | G                                    | 3       | Remove          |
| 176     | Norway Maple        | Acer platanoides   | 108                  | 108                   |              | F                                    | 6.5     | Remove          |
| 177     | Black Cherry        | Prunus serotina    | 43.8                 | 43.8                  | 6            | G                                    | 3       | Retain          |
| 178     | Red Oak             | Quercus rubra      | 51                   | 51                    | 12           | G                                    | 3.6     | Retain          |
| 179     | Bur Oak             | Quercus macrocarpa | 45                   | 45                    | 8            | F                                    | 3       | Retain          |
| 180     | Red Oak             | Quercus rubra      | 18.8                 | 18.8                  | 6            | G                                    | 1.5     | Retain          |
| 181     | Black Cherry        | Prunus serotina    | 33.2, 37.9           | 50                    | 8            | F                                    | 3       | Retain          |
| 182     | Black Cherry        | Prunus serotina    | 33                   | 33                    | 8            | F                                    | 2.4     | Retain          |
| 183     | Eastern White Pine  | Pinus strobus      | 51.5                 | 51.5                  | 4            | G                                    | 3.6     | Retain          |
| 184     | Black Cherry        | Prunus serotina    | 45.8, 28.8           | 54                    | 6            | F                                    | 3.6     | Retain          |
| 185     | American Basswood   | Tilia americana    | 55                   | 55                    | 6            | F                                    | 3.6     | Retain          |
| 186     | Norway Spruce       | Picea abies        | 49                   | 49                    | 3.5          | G                                    | 3       | Retain          |
| 187     | American Basswood   | Tilia americana    | 14.2, 31.8, 35.7, 34 | 61                    | 5            | G                                    | 4.2     | Retain          |
| 188     | Norway Maple        | Acer platanoides   | 41.7                 | 41.7                  | 5            | F                                    | 3       | Retain          |
| 189     | Norway Spruce       | Picea abies        | 52                   | 52                    | 5            | G                                    | 3.6     | Retain          |
| 190     | Norway Spruce       | Picea abies        | 25.5                 | 25.5                  | 3            | F                                    | 1.8     | Retain          |
| 191     | Red Oak             | Quercus rubra      | 62                   | 62                    | 6            | F                                    | 4.2     | Retain          |

| Tree ID | Common Name       | Scientific Name  | DBH (cm)   | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|-------------------|------------------|------------|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 192     | Red Oak           | Quercus rubra    | 52, 56     | 76                    | 11           | F                                    | 4.8     | Retain          |
| 193     | Black Walnut      | Juglans nigra    | 43.2       | 43.2                  | 9            | F                                    | 3       | Retain          |
| 194     | Colorado Spruce   | Picea pungens    | 25.4       | 25.4                  | 0.5          | Р                                    | 1.8     | Retain          |
| 195     | Sugar Maple       | Acer saccharum   | 56         | 56                    | 6            | F                                    | 3.6     | Retain          |
| 196     | White Spruce      | Picea glauca     | 31.6       | 31.6                  | 2.5          | F                                    | 2.4     | Retain          |
| 197     | Colorado Spruce   | Picea pungens    | 26         | 26                    | 3            | F                                    | 1.8     | Retain          |
| 198     | Sugar Maple       | Acer saccharum   | 24.5       | 24.5                  | 6            | F                                    | 1.8     | Retain          |
| 199     | Red Oak           | Quercus rubra    | 46.5, 27.9 | 55                    | 7            | F                                    | 3.6     | Retain          |
| 200     | Colorado Spruce   | Picea pungens    | 21.7, 11.9 | 25                    | 2            | F                                    | 1.8     | Retain          |
| 201     | Sugar Maple       | Acer saccharum   | 76         | 76                    | 12           | G                                    | 4.8     | Retain          |
| 202     | Sugar Maple       | Acer saccharum   | 46.2       | 46.2                  | 9            | G                                    | 3       | Retain          |
| 203     | Sugar Maple       | Acer saccharum   | 36.5       | 36.5                  | 9            | F                                    | 2.4     | Retain          |
| 204     | Sugar Maple       | Acer saccharum   | 24, 49.5   | 55                    | 8            | G                                    | 3.6     | Retain          |
| 205     | American Basswood | Tilia americana  | 44.7, 11.6 | 47                    | 6            | G                                    | 3       | Retain          |
| 206     | Sugar Maple       | Acer saccharum   | 50.5       | 50.5                  | 7            | G                                    | 3.6     | Retain          |
| 874     | Norway Maple      | Acer platanoides | 40         | 40                    | 5            | g                                    | 2.4     | Retain          |
| 875     | Willow            | <i>Salix</i> sp. | 21,18,17   | 32                    | 3            | F                                    | 2.4     | Retain          |
| 876     | White Spruce      | Picea glauca     | 51         | 51                    | 5            | F                                    | 3.6     | Retain          |
| 877     | Norway Maple      | Acer platanoides | 48         | 48                    | 7            | G                                    | 3       | Retain          |
| 878     | Norway Maple      | Acer platanoides | 14         | 14                    | 3            | F                                    | 1.5     | Retain          |
| 879     | Colorado Spruce   | Picea pungens    | 30         | 30                    | 2            | F                                    | 1.8     | Retain          |
| 880     | Colorado Spruce   | Picea pungens    | 24         | 24                    | 2            | F                                    | 1.8     | Retain          |
| 881     | Colorado Spruce   | Picea pungens    | 30         | 30                    | 2            | F                                    | 1.8     | Retain          |
| 882     | Colorado Spruce   | Picea pungens    | 16         | 16                    | 2            | F                                    | 1.5     | Retain          |
| 885     | Sugar Maple       | Acer saccharum   | 10         | 10                    | 3            | F                                    | 1.5     | Retain          |
| 886     | Sugar Maple       | Acer saccharum   | 12         | 12                    | 3            | F                                    | 1.5     | Retain          |
| 887     | Northern Catalpa  | Catalpa speciosa | 10         | 10                    | 2            | F                                    | 1.5     | Retain          |

| Tree ID | Common Name        | Scientific Name           | DBH (cm) | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|--------------------|---------------------------|----------|-----------------------|--------------|--------------------------------------|---------|-----------------|
| 888     | Green Ash          | Fraxinus<br>pennsylvanica | 19       | 19                    | 2            | Dead                                 | 1.5     | Retain          |
| AA      | Red pine           | Pinus resinosa            | 30       | 30                    | 3            | G                                    | 1.8     | Retain          |
| AB      | Scots Pine         | Pinus sylvestris          | 35       | 35                    | 3            | G                                    | 2.4     | Retain          |
| AC      | Scots Pine         | Pinus sylvestris          | 20       | 20                    | 3            | G                                    | 1.5     | Retain          |
| AD      | Scots Pine         | Pinus sylvestris          | 25       | 25                    | 3            | G                                    | 1.8     | Retain          |
| AE      | Scots Pine         | Pinus sylvestris          | 20       | 20                    | 2            | G                                    | 1.5     | Retain          |
| AF      | Scots Pine         | Pinus sylvestris          | 22       | 22                    | 4            | G                                    | 1.8     | Retain          |
| AG      | Scots Pine         | Pinus sylvestris          | 18       | 18                    | 2            | G                                    | 1.5     | Retain          |
| AH      | Norway Maple       | Acer platanoides          | 15       | 15                    | 4            | G                                    | 1.5     | Retain          |
| AI      | Scots Pine         | Pinus sylvestris          | 23       | 23                    | 3            | G                                    | 1.8     | Retain          |
| AJ      | Green Ash          | Fraxinus<br>pennsylvanica | 15       | 15                    | 4            | Р                                    | 1.5     | Retain          |
| AK      | Scots Pine         | Pinus sylvestris          | 10       | 10                    | 4            | G                                    | 1.5     | Retain          |
| AL      | Scots Pine         | Pinus sylvestris          | 20       | 20                    | 3            | G                                    | 1.5     | Retain          |
| AM      | Norway Spruce      | Picea abies               | 40       | 40                    | 5            | G                                    | 2.4     | Retain          |
| AN      | Norway Spruce      | Picea abies               | 55       | 55                    | 5            | G                                    | 3.6     | Retain          |
| AO      | Norway Spruce      | Picea abies               | 15       | 15                    | 3            | G                                    | 1.5     | Retain          |
| AP      | Scots Pine         | Pinus sylvestris          | 20       | 20                    | 4            | G                                    | 1.5     | Retain          |
| AQ      | Scots Pine         | Pinus sylvestris          | 20       | 20                    | 2            | F                                    | 1.5     | Retain          |
| AR      | Eastern White Pine | Pinus strobus             | 10       | 10                    | 2            | G                                    | 1.5     | Retain          |
| AS      | Eastern White Pine | Pinus strobus             | 20       | 20                    | 3            | G                                    | 1.5     | Retain          |
| AT      | Pine               | Pinus sp.                 | 30       | 30                    | 2            | G                                    | 1.8     | Retain          |
| AU      | Norway Spruce      | Picea abies               | 60       | 60                    | 5            | G                                    | 3.6     | Retain          |
| AV      | Norway Spruce      | Picea abies               | 40       | 40                    | 5            | G                                    | 2.4     | Retain          |
| AW      | Apple              | Malus sp.                 | 25       | 25                    | 7            | F                                    | 1.8     | Retain          |
| AX      | Norway Spruce      | Picea abies               | 30       | 30                    | 3            | F                                    | 1.8     | Retain          |
| AY      | Norway Spruce      | Picea abies               | 25       | 25                    | 1            | F                                    | 1.8     | Retain          |
| AZ      | Norway Spruce      | Picea abies               | 40       | 40                    | 3            | F                                    | 2.4     | Retain          |



| Tree ID | Common Name   | Scientific Name  | DBH (cm) | Effective DBH<br>(cm) | Dripline (m) | Condition Rating<br>(Good/Fair/Poor) | TPZ (m) | Retain / Remove |
|---------|---------------|------------------|----------|-----------------------|--------------|--------------------------------------|---------|-----------------|
| BA      | Norway Spruce | Picea abies      | 30       | 30                    | 2            | F                                    | 1.8     | Retain          |
| BB      | Norway Spruce | Picea abies      | 30       | 30                    | 3            | F                                    | 1.8     | Retain          |
| BC      | Norway Spruce | Picea abies      | 25       | 25                    | 3            | F                                    | 1.8     | Retain          |
| BD      | Norway Spruce | Picea abies      | 70       | 70                    | 6            | F                                    | 4.2     | Retain          |
| BE      | Norway Spruce | Picea abies      | 25       | 25                    | 4            | F                                    | 1.8     | Retain          |
| BF      | Norway Spruce | Picea abies      | 35       | 35                    | 4            | F                                    | 2.4     | Retain          |
| BG      | Siberian Elm  | Ulmus pumila     | 70       | 70                    | 6            | F                                    | 4.2     | Retain          |
| BH      | Norway Spruce | Picea abies      | 15       | 15                    | 3            | F                                    | 1.5     | Retain          |
| BI      | Norway Spruce | Picea abies      | 30       | 30                    | 4            | F                                    | 1.8     | Retain          |
| BJ      | Norway Spruce | Picea abies      | 15       | 15                    | 3            | F                                    | 1.5     | Retain          |
| ВК      | Norway Spruce | Picea abies      | 40       | 40                    | 5            | F                                    | 2.4     | Retain          |
| BL      | Norway Maple  | Acer platanoides | 25       | 25                    | 4            | G                                    | 1.8     | Retain          |





**Tree Preservation Fencing** 

# (Detail 02830-6)

and

Approved Tree Preservation Sign Specification



10. HOARDED OFF AREA TO REMAIN UNDISTURBED. NO STOCKPILING, STAGING OR MOVEMENT OF VEHICLES TO OCCUR WITHIN PROTECTED AREA. 11. FOR PROTECTION OF TREE'S AND ROOT SYSTEM, CONTRACTOR MAY BE REQUIRED TO PROVIDE WATERING, MULCHING, FERTILIZING, PRUNING

OR OTHER ACTIVITIES TO ENSURE THE HEALTH OF THE TREE(S)

12. ALL MEASUREMENTS IN MILLIMETRES UNLESS NOTED OTHERWISE (E.G. DIMENSIONAL LUMBER).

13. CONTRACTOR RESPONSIBLE FOR LOCATES

Detail: 02830-6

ORIGINAL DATE: Mar 08/18 REVISION DATE: Mar 08/18



N.T.S.