Appendix D TREE INVENTORY AND ASSESSMENT

SQARE ONE DRIVE EXTENSION, MISSISSAUGA, ONTARIO

ARBORIST REPORT

Prepared for:
City of Mississauga
300 City Centre Drive
Mississauga, ON
L5B 3C1

Prepared by:
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Project No. 1650-11005

June 27, 2017

Sign-off Sheet

This document entitled Square One Drive Extension, Mississauga, Ontario, Arborist Report was prepared by Stantec Consulting Ltd. ("Stantec") for the account of The City of Mississauga (the "Client"). The material in it reflects Stantec's best judgment with the best information available at the time of preparation.

Prepared by  (signature)

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Stantec

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1.0 INTRODUCTION

Stantec Consulting Limited (Stantec) has been retained by The City of Mississauga to prepare an Arborist Report and Tree Preservation Plan (TPP) for the Square One Drive Extension in Mississauga, Ontario. The TPP has been prepared to support the Class EA study and preparation of the preliminary project design.

This report outlines the trees that will be impacted by the design of the road extension and associated round about, and multi-use trail.

1.1 EXISTING SITE

The project area is located west of the existing Square One Drive adjacent to a condominium property, and extends past Zonta Meadows Park to Rathburn Road West. The proposed work area includes City park trees, City street trees and trees on private property.

2.0 METHODOLOGY

The tree inventory and assessment was conducted by Ms. Jennifer Koskinen, HBESfcon, Certified Arborist, on April 26th, and 27th, 2016. The tree inventory and assessment included the trees located within the project boundary that may be impacted by the project design.

The inventory data included tree species, general health condition, diameter at breast height (DBH), and dripline radius. The trees greater than 10cm DBH were tagged with a numbered steel tree tag (i.e., trees #654, #655 etc.), while trees <10cm DBH were identified in the inventory as 'A', 'B', 'C' etc. There were some areas that were dense with trees or located on adjacent property where access was not available, these areas were identified as vegetation Units 'A', 'B', and 'C'. Tree data has been compiled into Table 1. Detailed Tree Inventory, located on Drawing L-901 in Appendix 'A'.

Trees were located through legal survey provided by the City. Trees that were included in the inventory but not on the survey were located onsite using landmarks and field measurements, these locations are approximate and may need to be surveyed prior to the completion of final design. The tree locations have been identified on the Tree Preservation Plan, Drawing L-900, located in Appendix 'A', along with the preliminary design. The tree data and locations were reviewed in conjunction with the preliminary project design to identify trees recommended for removal and trees to be retained.

2.1 TREE CONDITION RATING

Outlined below are the detailed guidelines utilized for the classification of condition rating:

Excellent: (Vigour Class 6: Healthy)
No major branch mortality: crown is reasonably normal with less than 10% branch or twig mortality; no signs of decay.

Good: (Vigour Class 5: Light Decline)
Branch mortality, twig dieback in 11-25% of the crown: broken branches or crown missing based on presence of old snags is less than 26%; minor evidence of decay.

Fair: (Vigour Class 4: Moderate Decline)
Branch mortality, twig dieback in 26-50% of the crown: broken branches or crown area missing based on presence of old snags is 50% or less; decay evident.

Poor: (Vigour Class 3: Severe Decline)
Branch mortality, 50% or more of the crown dead: broken branches or crown area missing based on presence of old snags in more than 50%; decay resulting in high hazard assessment.

Dead: (Vigour Class 2: Dead due to Natural Causes)
Tree is dead, either standing or down: phloem under bark has brown streaks: few epicormic shoots may be present.

Dead: (Vigour Class 1: Dead due to Human Causes)
Tree removed: tree has been sawed or girdled by human activity.

3.0 OBSERVATIONS AND ANALYSIS

3.1 OBSERVATIONS

The study area contained predominantly nonnative trees species that were landscape plantings for the City park, streetscape, and within the condo property. The trees were predominantly mature and in good condition. Tree species included in the inventory are:

> Fir sp. (*Abies sp.*), Norway Maple (*Acer platanoides*), Red Maple (Acer rubrum), Hackberry (*Celtis occidentalis*), Ash (*Fraxinus sp.*), Honeylocust (*Gleditsia triacanthos 'inermis'*), Apple sp. (*Malus sp.*), White Spruce (*Picea glauca*), Colorado Blue Spruce (*Picea pungens 'glauca'*), Cherry sp. (*Prunus sp.*), Austrian Pine (*Pinus nigra*), Pear sp. (*Pyrus sp.*), English Oak (*Quercus robur*), Red Oak (*Quercus rubra*),European Buckthorn (*Rhamnus cathartica*), Staghorn Sumac (*Rhus typhina*), Willow sp. (*Salix sp.*), Eastern White Cedar (*Thuja occidentalis*), and Littleleaf Linden (*Tilia cordata*).

3.1.1 Rare and Endangered Species Review

There were no rare or endangered species within the project area.

3.2 ANALYSIS

3.2.1 Tree Impacts

The following is a summary of the total inventoried trees located within the project area; trees to be retained; trees to be removed; and trees included in the removals that are ash.

- Trees to be retained = 121
- Trees to be removed = 61
- Trees to be removed on City property = 56
- Trees to be removed on private property = 5
- Trees affected by Rathburn Road West realignment = 40

Trees #852 to #860 are located on City property; however, they are a part of a line of trees that border the condo property from the new road extension. The preliminary design identifies a 3.5m multi-use trail located adjacent to these trees. It is recommended that these trees be retained, and during detail design the stem locations be surveyed and the potential grading impacts and mitigation recommendations be reviewed.

3.2.2 Tree Protection Fencing

Proposed Tree Protection Fencing (TPF) has been identified on the Tree Protection Plan (TPP) drawing to protect trees to be retained during construction.

The TPF details conform to the current City of Mississauga standard details and have been provided on drawing L-900. Detailed information for TPF maintenance, installation and tree protection recommendations has been identified in Section 4.0 of this report. Refer to Drawing L-900 in Appendix 'A' for locations of the trees to be retained and proposed locations of Tree Protection Fencing.

3.3 PERMIT APPLICATION

The City of Mississauga BY-LAW 254-12(amended by 13-13), identifies tree removal and injuries will require a permit. The permit is required for trees greater than 15cm DBH, and trees that are in poor condition may be exempt. Ash trees are exempt under the By-law, however a separate form is required to be submitted to expedite the removal process for ash trees.

4.0 CONSTRUCTION MITIGATION AND MANAGEMENT

4.1 CONSTRUCTION IMPACT

4.1.1 Potential Construction Impacts to Trees

Trees are living organisms that react to changes in their environment. Trees can be damaged during construction without showing signs of damage until some years later. Most of the impacts relate to the removal of roots that results in the slow death of the tree because of its inability to absorb sufficient water and nutrients. Contained within this section are descriptions of the potential impacts this project may have on the trees, and impact mitigation methods that are intended to aid in the design and construction process.

4.1.2 Soil Compaction and Root Damage

The leading cause of construction damage to trees is compaction of the soil around the roots or within the Tree Protection Zone (TPZ). The TPZ is the area around the tree or group of trees in which no grading or construction activity may occur (Harris 1992). Equipment entering a TPZ compresses the air pockets around the roots inhibiting the tree from absorbing nutrients and water. This damage ultimately reduces the health of the tree. Accordingly, during the removal stage, equipment use within the preservation zones should be restricted to ensure that the tree's roots are not disturbed, thereby, assisting in maintaining their continued health. The TPZ is protected and delineated by the TPF.

4.1.3 Mechanical Damage

Equipment can physically damage the trees through striking the trunk, limbs and/or roots. Felled trees can also cause damage during the tree removal stage of construction. Some damage is unavoidable due to proximity of adjacent trees; however, using proper equipment and Best Management Practices (BMP) the damage can be minimized. The Contractor should be held responsible for all avoidable damage to the trees during all stages of development. Note: trees shall be felled away from adjacent trees to be retained.

4.1.4 Root Damage

The success of tree preservation is dependent not only on protecting the root zone from compaction and damage, it is also contingent upon the ability to ensure that the structural roots within the root zone are not disturbed. Impacts to this area may result in the structural failure of these trees.

Excavating soil 1 m outside a tree's dripline, or within a dripline if approved by an Arborist, can damage roots by tearing and splitting back to the stem. This damage can later lead to rot, which can kill the tree. When excavating the top 30-60 cm of soil adjacent to trees, care must be taken. Excavation should cleanly sever the roots prior to stripping and removal of soil. Exposed roots, greater than 2.5 cm diameter, shall be pruned back to the soil face to prevent damage to the tree.

4.2 PROTECTING AND MANAGING TREES DURING CONSTRUCTION

The following recommendations are presented to provide appropriate tree protection and management during the construction for this project.

1. Tree protection fencing shall be installed to protect trees identified for preservation. TPF installation must conform to details and City of Mississauga standards identified on drawing L-900 located in Appendix 'A'. Upon installation of the tree protection fencing, the Contractor shall contact the Project Arborist to review and approve the fencing and its location prior to commencement of any site work. This shall be coordinated with City staff for approval. The protection fencing shall remain intact throughout the entire protection. The fencing will be inspected weekly and, if required, repaired. The fencing shall be removed at the completion of all site works.

2. Upon receiving the necessary project approvals and prior to the commencement of tree removals, all trees designated for preservation must be flagged in the field. All designated preservation areas must be left standing and undamaged during site works. Removals are to be completed outside of migratory bird nesting season from April 1 to August 31. Removals may take place during this restricted time only if the requirements of the Migratory Birds Convention Act are met and nesting activity is routinely monitored by qualified individuals (i.e., Wildlife Biologists).

3. The TPZ is the area around a retained tree that is to be protected by tree protection fencing. The TPZ is not to be used for any type of storage (e.g. storage of debris, construction material, surplus soils, and construction equipment). No trenching or tunneling for underground services shall be located within the TPZ. Construction equipment shall not be allowed to idle or exhaust within the TPZ.

4. Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas. Furthermore, no contaminants shall be dumped or flushed where they may come into contact with the feeder roots of the trees. If roots from retained trees are exposed, or if it is necessary to remove limbs or portions of trees after construction has commenced, the Project Arborist shall be informed and the proper actions conforming to City Policies and By-laws shall be carried out.

5. Upon completion of the tree removals, all felled trees are to be removed from the site. No lumber or brush from the clearing is to be stored on the site. Any chipping, cutting or brush cleanup are to be completed outside of the bird nesting season. These works may take place during this restricted time only if the requirements of the Migratory Birds Convention Act are met and nesting activity is routinely monitored by qualified individuals (i.e., Wildlife Biologists.

6. The following is the process that shall be carried out if tree removals are requested during the restricted time indicated in the Migratory Birds Convention Act:

    - Contact a qualified individual (i.e., Wildlife Biologist) to determine if nesting birds are within the tree removal disturbance area. Stantec has a qualified bird specialist on staff that can be contacted

    - If the bird specialist has determined that there are nesting birds onsite, there will be no tree removals/chipping conducted within the boundary set out by the specialist. Tree removals can resume within this area at the end of the nesting season, August 31, or if the migratory bird specialist has determined the birds have left

    - If the bird specialist determines there are no migratory birds nesting within the disturbance area, the contractor has 3 days to conduct removals. At the end of 3 days, if removals and chipping is not complete, the bird specialist will return to the site and proceed with another assessment. If there are still no birds, work can resume for another 3 days. This process will continue until all removals and chipping is complete.

5.0 DISCLAIMER

The assessment of the trees presented within this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay, evidence of insect presence, discoloured foliage, the general condition of the trees and the surrounding site, as well as the proximity of property and people. None of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

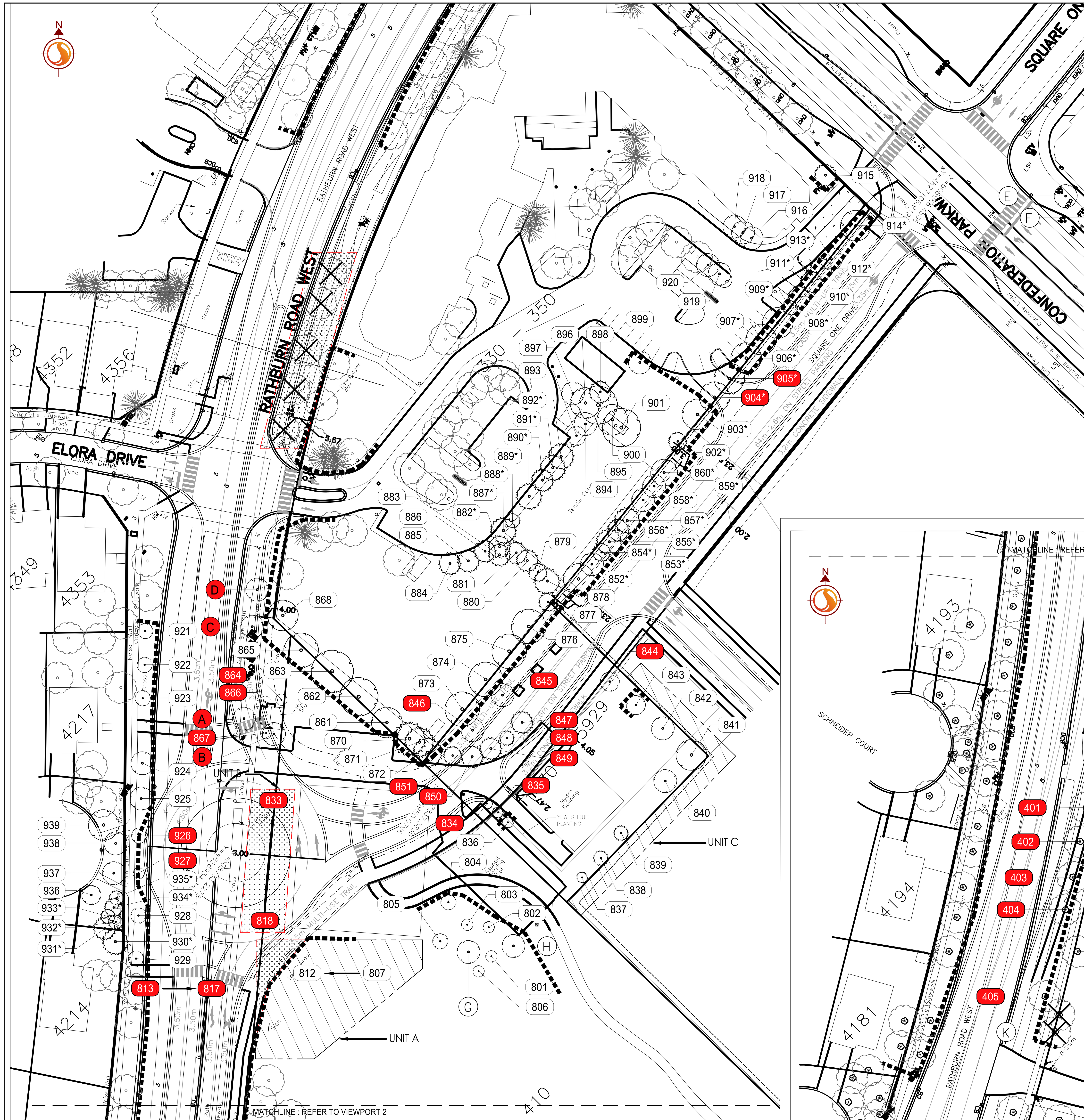
Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms and their health and vigour is constantly changing. They are not immune to changes in site conditions or seasonal variations in the weather.

While reasonable efforts have been made to ensure the trees recommended for retention are healthy, no guarantees are offered or implied, that these trees or any part of them will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behavior of any single tree or group of trees in all circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure if provided with the necessary combinations of stresses and elements. This risk can only be eliminated if the tree is removed.

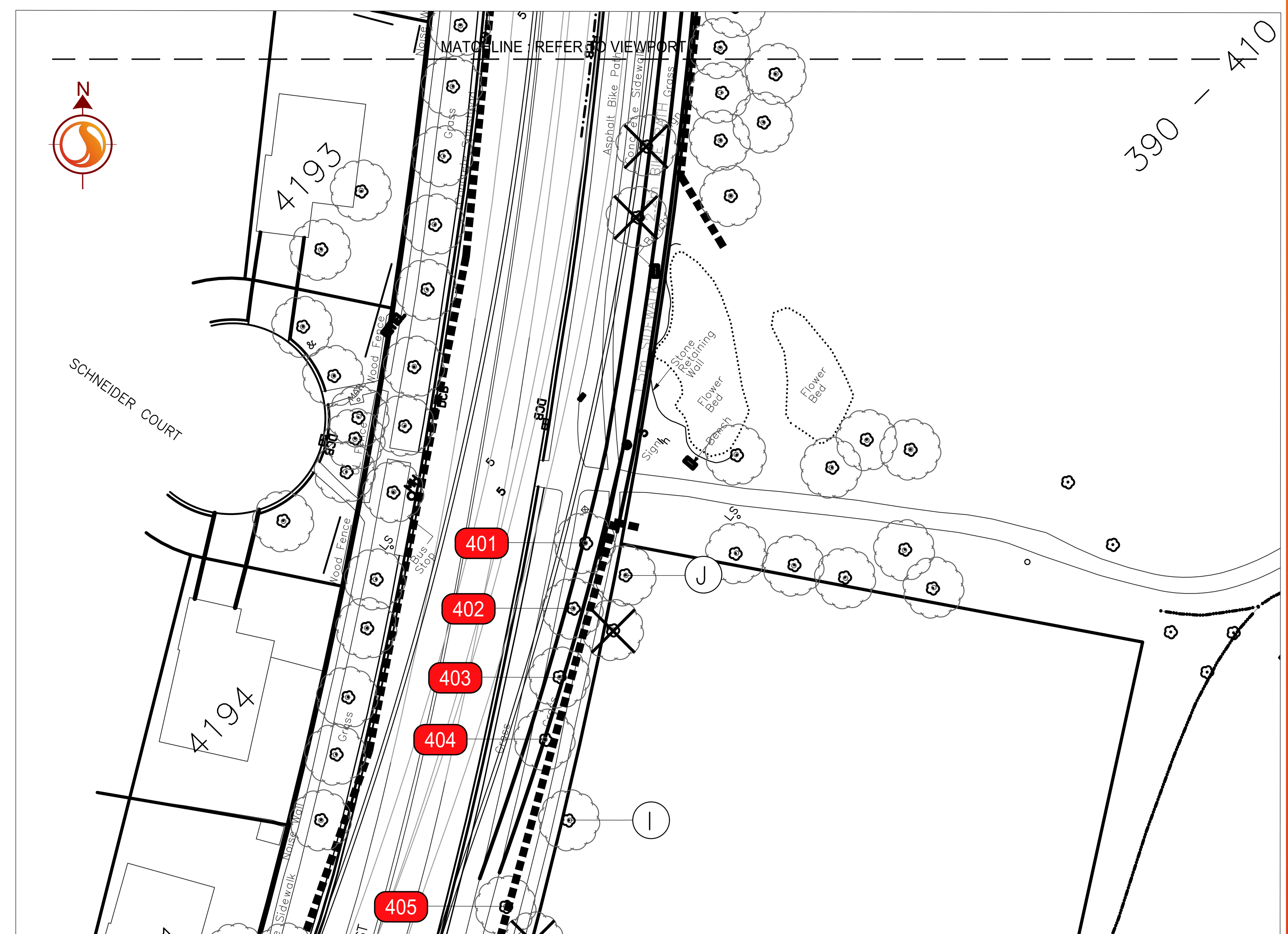
Every effort has been made to ensure that this assessment is reasonably accurate and the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

APPENDIX A

Tree Inventory and Preservation Plan, drawings L-900 and L-901



VIEWPORT 1

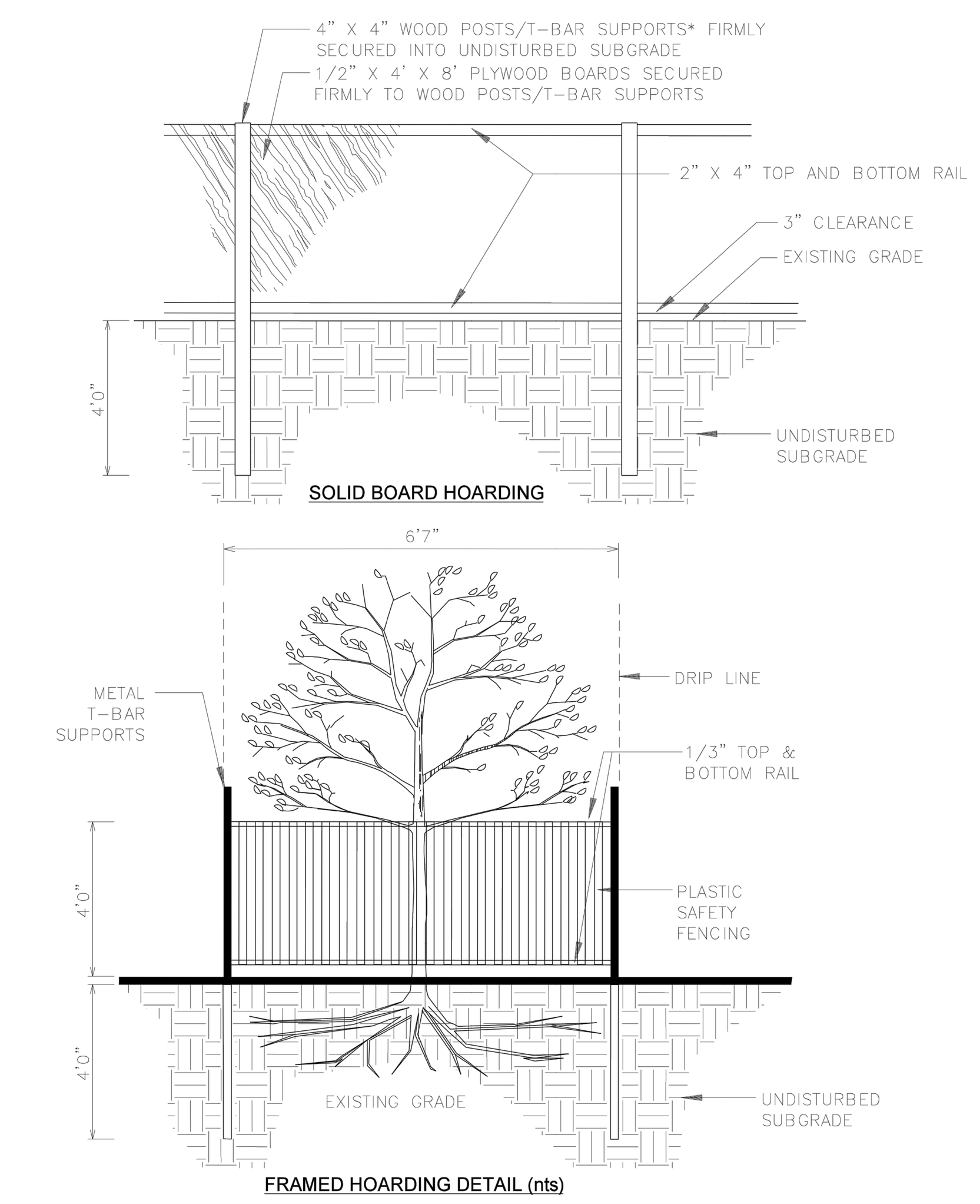


VIEWPORT 2

Notes:
Trees will be replaced at 2:1 ratio along both the Square One Drive extension and Rathburn Road West, as well as within Zonta Meadows Park.

Removal Summary:
Total # of Trees to be Removed: 61
Total # of Trees to be Retained: 121
Total # of Trees to be Removed on City Property: 56
Total # of Trees to be Removed on Private Property: 5
Total # of Trees affected by Rathburn Road West Realignment: 40

DEVELOPMENT & DESIGN CONSTRUCTION HOARDING



NOTES:
1. HOARDING DETAILS TO BE DETERMINED FOLLOWING INITIAL SITE INSPECTION.
2. HOARDING TO BE APPROVED BY DEVELOPMENT AND DESIGN.
3. HOARDING MUST BE SUPPLIED, INSTALLED AND MAINTAINED BY THE APPLICANT THROUGHOUT ALL PHASES OF CONSTRUCTION, UNTIL APPROVAL TO REMOVE HOARDING IS OBTAINED FROM DEVELOPMENT AND DESIGN.
4. DO NOT ALLOW WATER TO COLLECT AND POND BEHIND OR WITHIN HOARDING.
* T-BAR SUPPORTS FOR SOLID HOARDING WILL ONLY BE ALLOWED WITH PRE APPROVAL FROM DEVELOPMENT AND DESIGN.

MISSISSAUGA Development and Design

SCALE: N.T.S.
DATE: JAN, 2008

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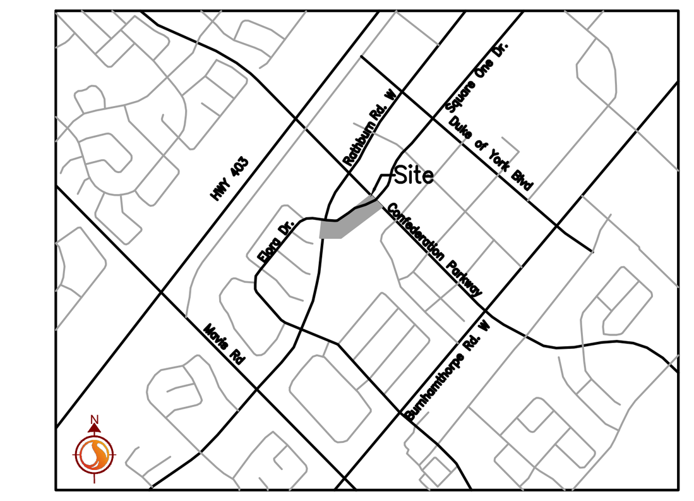
Key Map



NTS

Legend
- Existing Deciduous Tree
- Existing Coniferous Tree
- 000* Tree to be Retained and Protected Identification Key - Tree Located using Aerial Imagery
- 0000 Tree to be Retained and Protected Identification Tag - Tree Located using City Topography
- 000* Tree to be Removed Identification Tag - Tree Located using Aerial Imagery
- 0000 Tree to be Removed Identification Tag - Tree Located using City Topography
- Proposed Tree Protection Fencing
- Existing Tree to be Retained and Protected, Not Inventoried
- Dead Standing Tree
- Existing Vegetation Unit to be Retained and Protected
- Existing Vegetation Unit to be Removed
- (A) Tree <10cm DBH or not tagged to be Retained and Protected
- (A) Tree <10cm DBH to be Removed

Revision	By	Appd.	YY.MM.DD
File Name: 165011005_L-TM.dwg	EH Dwn.	JK Chkd.	EH Dsgn.
			16.05.05 YY.MM.DD

Permit-Seal

CERTIFIED ARBORIST ISA
JENNIFER KOSKINEN
ON-1234A

Client/Project
CITY OF MISSISSAUGA

SQUARE ONE DRIVE EXTENSION CLASS EA

Mississauga, ON

Title
Tree Preservation Plan

Project No. 165011005
Scale 1:500 (0 5 15 25m)

Drawing No. L-900
Sheet 1 of 2
Revision 0

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ORIGINAL SHEET - ARCH D

TABLE 1. Detailed Tree Inventory, Square One Drive Extenstion Class EA, Mississauga, Ontario.
Data Collected: April 26th and 27th, 2016.

Tag #	*Botanical Name*	Common Name	Diameter at Breast Height DBH (cm)	Dripline Radius (m)	Condition				Property Location	Action
					Trunk Integrity	Crown Structure	Crown Vigour	Overall Condition		
801	*Acer rubra*	Red Maple	11	1.5	P	G	G	F	City	Retain
802	*Acer rubra*	Red Maple	12	1.5	P	G	G	F	City	Retain
803	*Acer plat anoides*	Norway Maple	15	1.5	P	F	G	P	City	Retain
804	*Acer plat anoides*	Norway Maple	13	2	G	F	G	F	City	Retain
805	*Acer plat anoides*	Norway Maple	14	2	P	F	G	F	City	Retain
806	*Acer rubra*	Red Maple	10	1.5	P	G	G	F	City	Retain
807	*Quercus Rubra*	Red Oak	19	2.5	G	G	G	G	City	Retain
808	*Fraxinus sp.*	Ash sp.	10,11	3	G	G	G	G	City	Retain
809	*Fraxinus sp.*	Ash sp.	(3)11	3.5	G	G	G	G	City	Retain
810	*Acer plat anoides*	Norway Maple	23	4	G	G	G	G	City	Retain
811	*Abies sp.*	Fir sp.	10	1.5	G	G	G	G	City	Retain
812	*Fraxinus sp.*	Ash sp.	<10,10,11	3	G	G	G	G	City	Retain
813	*Abies sp.*	Fir sp.	10	1.5	F	G	G	G	City	Remove
814	*Fraxinus sp.*	Ash sp.	16	3	G	G	G	G	City	Remove
815	*Picea pungens*	Colorado Spruce	22	3	F	G	G	G	City	Remove
816	*Picea pungens*	Colorado Spruce	21	2.5	G	G	G	G	City	Remove
817	*Pinus nigra*	Austrian Pine	30	4	G	G	G	G	City	Remove
818	*Tilia cordat a*	Littleleaf Linden	14	1.5	P	F	G	F	City	Remove
819	*Tilia cordat a*	Littleleaf Linden	22	2.5	P	G	G	P	City	Remove
820	*Tilia cordat a*	Littleleaf Linden	15	3	P	F	F	P	City	Remove
821	*Tilia cordat a*	Littleleaf Linden	15	2	F	F	G	F	City	Remove
822	*Picea pungens*	Colorado Spruce	18	2.5	G	F	F	F	City	Remove
823	*Pinus nigra*	Austrian Pine	40	3.5	G	G	G	G	City	Remove
824	*Picea pungens*	Colorado Spruce	17	1.5	F	F	G	F	City	Remove
825	*Pinus nigra*	Austrian Pine	41	4	G	G	G	G	City	Remove
826	*Salix sp.*	Willow sp.	65,48,40	7	F	G	G	G	City	Remove
827	*Salix sp.*	Willow sp.	23	4	G	F	F	F	City	Remove
828	*Malus spp.*	Apple sp.	17	5	G	G	G	G	City	Remove
829	*Pinus nigra*	Austrian Pine	45	5	G	G	G	G	City	Remove
830	*Acer negundo*	Manitoba Maple	14	4	G	G	G	G	City	Remove
831	*Pinus nigra*	Austrian Pine	40	4	G	G	G	G	City	Remove
832	*Thuja occident alis*	Eastern White Cedar	13	1.5	G	G	G	G	City	Remove
833	*Thuja occident alis*	Eastern White Cedar	15	2	G	G	G	G	City	Remove
834	*Picea pungens*	Colorado Spruce	11	1.5	P	P	P	P	Private	Remove
835	*Picea pungens*	Colorado Spruce	14	1.5	G	F	F	F	Private	Remove
836	*Picea pungens*	Colorado Spruce	16	1.5	G	F	G	G	Private	Retain
837	*Picea pungens*	Colorado Spruce	18	1.5	F	G	G	G	Private	Retain
838	*Picea pungens*	Colorado Spruce	18	2	F	G	G	G	Private	Retain
839	*Picea pungens*	Colorado Spruce	19	2	F	G	G	G	Private	Retain
840	*Acer plat anoides*	Norway Maple	20	3	G	G	G	G	Private	Retain
841	*Acer plat anoides*	Norway Maple	24	4	G	G	G	G	Private	Retain
842	*Acer plat anoides*	Norway Maple	20	3	F	G	G	F	Private	Retain
843	*Acer plat anoides*	Norway Maple	17	2.5	G	G	G	G	Private	Retain
844	*Acer plat anoides*	Norway Maple	16	2.5	F	G	G	G	Private	Remove
845	*Acer plat anoides*	Norway Maple	16	3	G	G	G	G	City	Remove
846	*Acer plat anoides*	Norway Maple	17	3	G	G	G	G	City	Remove
847	*Pinus nigra*	Austrian Pine	28	3	G	G	G	G	City	Remove
848	*Pinus nigra*	Austrian Pine	20	2	G	G	G	G	City	Remove
849	*Pinus nigra*	Austrian Pine	22	3	G	G	G	G	City	Remove
850	*Pinus nigra*	Austrian Pine	29	3	G	G	G	G	City	Remove
851	*Pinus nigra*	Austrian Pine	23	2.5	G	G	G	G	City	Remove
852	*Tilia spp.*	Linden	38	4	G	G	G	G	City	Retain
853	*Tilia spp.*	Linden	35	3	G	G	G	G	City	Retain
854	*Pinus nigra*	Austrian Pine	24	2.5	G	G	G	G	City	Retain
855	*Pinus nigra*	Austrian Pine	33	3.5	G	G	G	G	City	Retain
856	*Pinus nigra*	Austrian Pine	26	3	G	G	G	G	City	Retain
857	*Pinus nigra*	Austrian Pine	24	3.5	G	G	G	G	City	Retain
858	*Tilia spp.*	Linden	30	3	G	G	G	G	City	Retain
859	*Tilia spp.*	Linden	28	3	G	G	G	G	City	Retain
860	*Tilia spp.*	Linden	32	3.5	G	G	G	G	City	Retain
861	*Acer plat anoides*	Norway Maple	34	4	G	G	G	G	City	Retain
862	*Acer plat anoides*	Norway Maple	37	5	G	G	G	G	City	Retain
863	*Acer plat anoides*	Norway Maple	38	5.5	G	G	G	G	City	Retain
864	*Acer plat anoides*	Norway Maple	10	1.5	G	G	G	G	City	Remove
865	*Acer plat anoides*	Norway Maple	32	4.5	G	G	G	G	City	Retain
866	*Tilia spp.*	Linden	10	1.5	P	F	G	P	City	Remove
867	*Acer plat anoides*	Norway Maple	10	1.5	G	G	G	G	City	Remove
868	*Acer plat anoides*	Norway Maple	35	4	P	G	G	P	Private	Retain
869	*Acer plat anoides*	Norway Maple	10	1.5	G	G	G	G	City	Retain
870	*Pinus nigra*	Austrian Pine	32	4.5	G	G	G	G	Private	Retain
871	*Pinus nigra*	Austrian Pine	36	4	G	P	P	F	Private	Retain
872	*Pinus nigra*	Austrian Pine	33	4	G	F	F	F	Private	Retain
873	*Acer plat anoides*	Norway Maple	34	4.5	G	G	G	G	Private	Retain
874	*Acer plat anoides*	Norway Maple	33	4.5	G	G	G	G	Private	Retain
875	*Acer plat anoides*	Norway Maple	31	4.5	G	G	G	G	Private	Retain
876	*Acer plat anoides*	Norway Maple	38	4.5	G	G	G	G	Private	Retain
877	*Picea glauca*	White Spruce	20	2.5	G	F	G	G	Private	Retain
878	*Picea glauca*	White Spruce	10,13	3.5	F	G	F	F	Private	Retain
879	*Picea pungens*	Colorado Spruce	20	2.5	G	G	G	G	Private	Retain
880	*Picea glauca*	White Spruce	24	3	G	G	G	G	Private	Retain
881	*Picea glauca*	White Spruce	16	3	G	G	G	G	Private	Retain
882	*Picea glauca*	White Spruce	14	3	G	F	G	G	Private	Retain
883	*Picea pungens*	Colorado Spruce	21	3	G	G	G	G	Private	Retain
884	*Malus spp.*	Apple sp.	22	3	F	G	G	G	Private	Retain
885	*Picea pungens*	Colorado Spruce	21	3	F	G	G	G	Private	Retain
886	*Picea pungens*	Colorado Spruce	24	3	F	G	G	G	Private	Retain
887	*Picea pungens*	Colorado Spruce	19	3.5	F	G	G	G	Private	Retain
888	*Picea pungens*	Colorado Spruce	14	2	F	P	P	P	Private	Retain
889	*Pinus nigra*	Austrian Pine	23	3.5	G	G	G	G	Private	Retain
890	*Pinus nigra*	Austrian Pine	22	3	G	G	G	G	Private	Retain
891	*Pinus nigra*	Austrian Pine	26	3.5	G	F	F	P	Private	Retain
892	*Pinus nigra*	Austrian Pine	31	3.5	F	G	G	G	Private	Retain
893	*Tilia cordat a*	Littleleaf Linden	27	2.5	P	G	G	P	Private	Retain
894	*Tilia cordat a*	Littleleaf Linden	29	3	G	G	G	G	Private	Retain
895	*Tilia cordat a*	Littleleaf Linden	38	5	G	G	G	G	Private	Retain
896	*Malus spp.*	Apple	19	4	G	G	G	G	Private	Retain
897	*Malus spp.*	Apple	19	3	G	G	G	G	Private	Retain
898	*Picea pungens*	Colorado Spruce	22	3	G	G	G	G	Private	Retain
899	*Prunus spp.*	Cherry	32	3	G	G	G	G	Private	Retain
900	*Gleditsia triacanthos*	Honey locust	19	4	G	G	G	G	Private	Retain
901	*Gleditsia triacanthos*	Honey locust	30	5	G	G	G	G	Private	Retain
902	*Picea glauca*	White Spruce	18	2.5	G	G	G	G	Private	Retain
903	*Tilia cordat a*	Littleleaf Linden	38	4	G	G	G	G	Private	Retain
904	*Tilia cordat a*	Littleleaf Linden	35	4	G	G	G	G	Private	Remove
905	*Tilia cordat a*	Littleleaf Linden	35	3.5	G	G	G	G	Private	Remove
906	*Tilia cordat a*	Littleleaf Linden	32	4	G	G	G	G	Private	Retain
907	*Tilia cordat a*	Littleleaf Linden	35	4	G	G	G	G	Private	Retain
908	*Tilia cordat a*	Littleleaf Linden	31	4	G	G	G	G	Private	Retain
909	*Picea pungens*	Colorado Spruce	21	2	G	G	G	G	Private	Retain
910	*Picea pungens*	Colorado Spruce	26	3	G	G	G	G	Private	Retain
911	*Picea pungens*	Colorado Spruce	25	3	G	G	G	G	Private	Retain
912	*Picea pungens*	Colorado Spruce	26	3	G	G	G	G	Private	Retain
913	*Malus spp.*	Apple	(3)10,(3)12	3	G	G	F	G	Private	Retain
914	*Malus spp.*	Apple	25	4	G	G	F	G	Private	Retain
915	*Picea pungens*	Colorado Spruce	29	3	G	G	G	G	Private	Retain
916	*Malus spp.*	Apple	20	3	G	G	G	G	Private	Retain
917	*Malus spp.*	Apple	20	3	G	G	G	G	Private	Retain
918	*Malus spp.*	Apple	20	3	G	G	G	G	Private	Retain
919	*Malus spp.*	Apple	18	3	G	G	G	G	Private	Retain
920	*Malus spp.*	Apple	14,11, (3)10	3	G	G	G	G	Private	Retain
921	*Gleditsia triacanthos*	Honey locust	11	2	G	F	F	F	City	Retain
922	*Gleditsia triacanthos*	Honey locust	10	2	G	G	G	G	City	Retain
923	*Gleditsia triacanthos*	Honey locust	10	2	F	F	F	F	City	Retain
924	*Quercus robur*	English Oak	20	3	G	G	G	G	City	Retain
925	*Quercus robur*	English Oak	19	3	P	G	F	P	City	Retain
926	*Tilia cordat a*	Littleleaf Linden	13	2	F	G	G	G	City	Remove
927	*Tilia cordat a*	Littleleaf Linden	14	1.5	F	F	F	F	City	Remove
928	*Gleditsia triacanthos*	Honey locust	10	2	G	F	F	F	City	Retain
929	*Gleditsia triacanthos*	Honey locust	10	2	G	F	F	F	City	Retain
930	*Picea pungens*	Colorado Spruce	29	3.5	G	G	G	G	City	Retain
931	*Picea pungens*	Colorado Spruce	25	3	G	G	G	G	City	Retain
932	*Picea pungens*	Colorado Spruce	23	2	G	G	G	G	City	Retain
933	*Picea pungens*	Colorado Spruce	17	2	G	G	G	G	City	Retain
934	*Picea pungens*	Colorado Spruce	20	2.5	G	G	G	G	City	Retain
935	*Picea pungens*	Colorado Spruce	21	2	G	G	G	G	City	Retain
936	*Prunus spp.*	Cherry	20	2.5	P	P	F	P	City	Retain
937	*Tilia cordat a*	Littleleaf Linden	24	3	G	G	G	G	City	Retain
938	*Tilia cordat a*	Littleleaf Linden	20	3	G	G	G	G	City	Retain
939	*Tilia cordat a*	Littleleaf Linden	23	4	G	G	G	G	City	Retain
401	*Gleditsia triacanthos*	Honey locust	10	3	G	G	G	G	City	Remove
402	*Gleditsia triacanthos*	Honey locust	10	3	G	G	G	G	City	Remove
403	*Gleditsia triacanthos*	Honey locust	11	3	G	G	G	G	City	Remove
404	*Acer plat anoides*	Norway Maple	<10	2	P	P	P	P	City	Remove
405	*Acer plat anoides*	Norway Maple	10	2	P	P	P	P	City	Remove
A	*Gleditsia triacanthos*	Honey locust	9	2	F	F	F	F	City	Remove
B	*Picea pungens*	Colorado Spruce	<10	0.5	P	P	P	P	City	Remove
C	*Gleditsia triacanthos*	Honey locust	9	2	F	F	F	F	City	Remove
D	*Gleditsia triacanthos*	Honey locust	9	2	F	F	F	F	City	Remove
E	*Celtis occident alis*	Hackberry	<10	1	G	G	G	G	City	Retain
F	*Celtis occident alis*	Hackberry	<10	1	G	G	G	G	City	Retain
G	*Pyrus sp.*	Pear sp.	<10	NA	P	F	G	F	City	Retain
H	*Pyrus sp.*	Pear sp.	<10	NA	P	F	G	F	City	Retain
I	*Acer plat anoides*	Norway Maple	15	2.5	F	F	F	F	Private	Retain
J	*Acer plat anoides*	Norway Maple	<10	2	G	G	G	G	Private	Retain
K	*Fraxinus sp.*	Ash sp.	14		P	P	P	P	Private	Retain

# of trees	*Botanical Name*	Common Name	Diameter at Breast Height DBH (cm)	NA	Condition				Property Location	Action
					Trunk Integrity	Crown Structure	Crown Vigour	Overall Condition		
UNIT A										
1	*Fraxinus sp.*	Ash sp.	<10	NA	G	G	G	G	City	Retain
1	*Fraxinus sp.*	Ash sp.	<10	NA	G	G	G	G	City	Retain
9	*Thuja occident alis*	Eastern White Cedar	<10	NA	G	G	G	G	City	Retain
3	*Rhamnus cat hartica*	European Buckthorn	<10	NA	G	G	G	G	City	Retain
Multi	*Rhus t yphina*	Staghorn Sumac	<10	NA	F	F	P	F-P	City	Retain
UNIT B										
25	*Thuja occident alis*	Eastern White Cedar	0-10cm	NA	G	G	G	G-F	City	Retain
UNIT C										
Multiple	*Fraxinus sp.*	Ash sp.	10 to 20	NA	G	G	G	G-F	Private	Retain
Multiple	*Fraxinus sp.*	Ash sp.	20 to 30	NA	G	G	G	G-F	Private	Retain
Multiple	*Rhamnus cat hartica*	European Buckthorn	<10	NA	G	G	G	G	Private	Retain
Multiple	*Rhus t yphina*	Staghorn Sumac	<10	NA	G	G	G	G	Private	Retain
Multiple	*Salix sp.*	Willow sp.	<10	NA	G	G	G	G	Private	Retain

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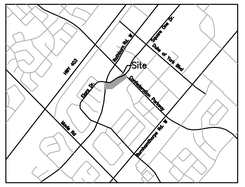
Notes



Revision	By	Appd.	YY.MM.DD
File Name: 165011005_L-TM.dwg	EH Dwn.	JK Chkd.	EH Dsgn.	16.05.05 YY.MM.DD

Permit-Seal

CERTIFIED ARBORIST ISA
JENNIFER KOSKINEN
0N-1234A

Client/Project
CITY OF MISSISSAUGA

SQUARE ONE DRIVE EXTENSION CLASS EA

Mississauga, ON

Title
Tree Preservation Plan

Project No. 165011005
Scale
Drawing No. L-901
Sheet 2 of 2
Revision 0

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2017/05/08 4:46 PM By: Hoekl, Erin

ORIGINAL SHEET - ARCH D