

June 12, 2018

Community Services Department, Forestry Section

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Land Art Design Landscape Architects Inc.

Attn: Mr. Audric Montuno
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Re: 3480 Havenwood Dr and 1480 Williamsport Dr (Ward 3)

Arborist Report – Construction/Tree Protection

Central Tree Care Ltd. has been retained by Land Art Design Landscape Architects Inc. to provide an arborist report related to the proposed construction at 3480 Havenwood Drive and 1480 Williamsport Drive. The nature of the proposed work includes the demolition of an existing parking lot, walkway, and pool; followed by construction of a new multi-storey residence, parking lot, underground parking lot, wooden privacy fence, access ramp, curb cuts, and landscaping.

To facilitate the construction:

- **5 City-owned trees require encroachment into the Tree Protection Zones (TPZs)**
- **14 privately-owned trees require encroachment into the Tree Protection Zones**
- **3 City-owned trees require a permit to be removed**
- **32 privately-owned trees require a permit to be removed, and**
- **7 privately-owned trees are proposed for removal due to infestation with Emerald Ash Borer (EAB).**

This arborist report and attached protection plan assumes that no additional trees will be injured or removed.

LIMITATIONS

Inspection of the trees on site was limited to a visual assessment from the ground only, unless stated otherwise. No inspection via climbing, exploration below grade, probing, or coring were conducted. Any observations and data collected from site are based on conditions at the time of inspection. Diameters of trees located on neighbouring properties were estimated to avoid trespassing.

TREE INVENTORY

An inventory of all trees (over 25 cm and city trees of all sizes) on or within six meters of the work area was conducted on July 24, 2017; all trees were inspected from the ground only. See Appendix 1 for the complete tree inventory.

EXPECTED IMPACT TO EXISTING TREES

Modification of Existing Walkways

Trees #210 and 211 are located on private property, south of the existing 9-storey residential building on the southwestern end. The existing walkway, which is currently located 1.5m away from the base of tree 210 and 0.5 from the base of tree 211, will be modified to accommodate the new underground parking lot. All portions matching the existing footprint will remain as is throughout the construction process.

With the existing portions of the walkway remaining unchanged during the construction process, it is expected that tree 210 will tolerate encroachment within its TPZ if all recommendations are adhered to. Although the modified walkway occurs away from the critical root zone, tree 211 is in poor condition with approximately 60% of its canopy lost to Diplodia Tip Blight; for this reason, tree 211 is proposed for removal.

Construction of new Multi-Storey Residence

A new multi-storey residence is proposed within the centre of the property, between the existing buildings at 1485 Williamsport Drive and 3480 Havenwood Dr. The excavation associated with the new building is expected to extend at least 4.0m beyond the proposed building footprint and will exceed 3.0m in depth. **Trees #207 – 209, 214, 215, 230, and 231** are located within the excavation footprint, and will require permits for removal. In addition, tree 214 is in poor condition, and is recommended for removal on this basis.

Construction of new Wooden Privacy Fence

Along the southwestern property line, a new wooden privacy fence is proposed. It is expected that excavation to a depth of 1.2m will occur at multiple intervals within the footprint of the fence line. The proposed footprint encroaches up to the base of **trees 204, 205, and 206**; at this distance, all recommendations must be adhered to if the trees are slated for preservation.

Trees #209B, 209C, 209D, 209E, 209K, and 209L are located adjacent to the subject property, on privately-owned property. The bases of the subject trees are located within 0.5m of the potential excavation footprint for the new wooden privacy fence; to preserve the subject trees, all recommendations must be adhered to. See 'Recommendations for Fence Installation' for more details.

Construction of new Parking Lot and Access Ramp

A new parking lot with underground parking is proposed adjacent to the south and eastern sides of the new multi-storey building. Excavation associated with the proposed underground parking is expected to extend at least 1.0m beyond the footprint and will exceed 3.0m in depth. **Trees #203, 212, 213, 216, 217 – 222, 229 - 240** fall within the excavation footprint of the new parking lot and will require a permit to be removed. In addition, tree 238 is in poor condition, and is recommended for removal on this basis.

Across from 1480 Williamsport Drive, a new access ramp is proposed on the south side of the proposed building. The excavation associated with the new access ramp will encroach up to 0.5m from the base of **trees #216A and 216B**. At this distance, it is expected that structural roots would be encountered, which will cause destabilization if the roots were to be severed. Trees 216A and 216B require permits to be removed.

Construction of new Walkway for Existing Northern Building

On the eastern side of the existing building at 3480 Havenwood Dr, a new walkway is proposed. The excavation associated with the new walkway will encroach up to the base of **tree #229A**; at this distance, it is expected that structural roots would be encountered, which would cause destabilization if severed. Tree 229A requires a permit to be removed.

On the southeastern side of the existing building at 3480 Havenwood Dr, the existing walkway is proposed to shift closer towards **tree #228**; it is expected that the new sidewalk will encroach up to 2.0m from the base of the subject tree. At this distance, it is expected that the tree will tolerate the encroachment if all the recommendations are adhered to; refer to "Recommendations for Hoarding" and "Recommendations for Excavation" for preserving tree 228.

Construction of new Curbs and Sidewalk along Williamsport Drive and Havenwood Drive

Four access routes are proposed on the property, which will connect to the proposed multi-storey residence. It is expected that all the proposed access routes will require excavation to a depth of at least 0.5m, for the new curb cuts. It is also expected that the sidewalk panels closest to the new curb cuts will be repaved. All sections that are located significantly away from the curb cuts are assumed to remain as is and undisturbed throughout the construction process. Two new loading zones are proposed, with one located on the north side close to Williamsport Drive, and the other zone located on the southeast side close to Havenwood Drive.

The new curb cut along Havenwood Drive will encroach up to the base of **tree #224A**; at this distance, it is expected that structural roots will be encountered, which will cause destabilization if severed. Tree 224A will require a permit to be removed.

The new curb cuts along the north half of Williamsport Drive will encroach up to 0.5m from the base of **tree #243D and 201A**; at these distances, it is expected that structural roots will be encountered, which will cause destabilization if severed. Trees 243D and 201A will require a permit to be removed.

Trees #201B, 201C, 243C, 256A, 256B, 256C, and 256D are located on City property, along the road allowance adjacent to Williamsport Drive. The existing sidewalk, which is currently located approximately 1.0m away from the base of all the subject trees, will remain as is throughout the construction process, with the exception of a few panels to be replaced to accommodate the new curb cuts on Williamsport Drive. Where the sidewalk is slated to remain as is during construction, it is expected that the trees will tolerate the encroachment if all recommendations are adhered to.

Tree #243B and 243A are located within the subject property. The proposed driveway turnout close to Williamsport Drive is currently located approximately 2.0m away from the base of tree 243B and 1.0m from the base of tree 243A. At this distance, tree 243A cannot be preserved, as it is expected that structural roots would be encountered; an exploratory excavation must be conducted to determine whether tree 243B can be preserved. Tree 243A requires a permit to be removed.

Trees Proposed for Removal due to Emerald Ash Borer (EAB)

Trees #223 – 227, 241, and 242 are located within the subject property. The subject trees are Ash trees that have succumbed to Emerald Ash Borer (EAB) infestation and will require a permit to be removed.

RECOMMENDATIONS

Recommendations for Hoarding

Hoarding must be installed by a qualified contractor and put in place as accurately as possible using the scale plan as the reference. It must conform to the recommendation put forth by the City of Mississauga and recommendations within this report. All the protective fencing must be maintained throughout the construction project and its removal must be approved by the Forestry planner. All hoarding must be installed before demolition or construction commences and approved by the Forestry planner.

The TPZ is established on construction sites to help protect the trees from

- Alteration of existing grades
- Changes in grade by excavating and scraping
- Movement of construction vehicles and people
- Disposal of foreign materials
- Storage of waste of construction materials

Tree protection signage:

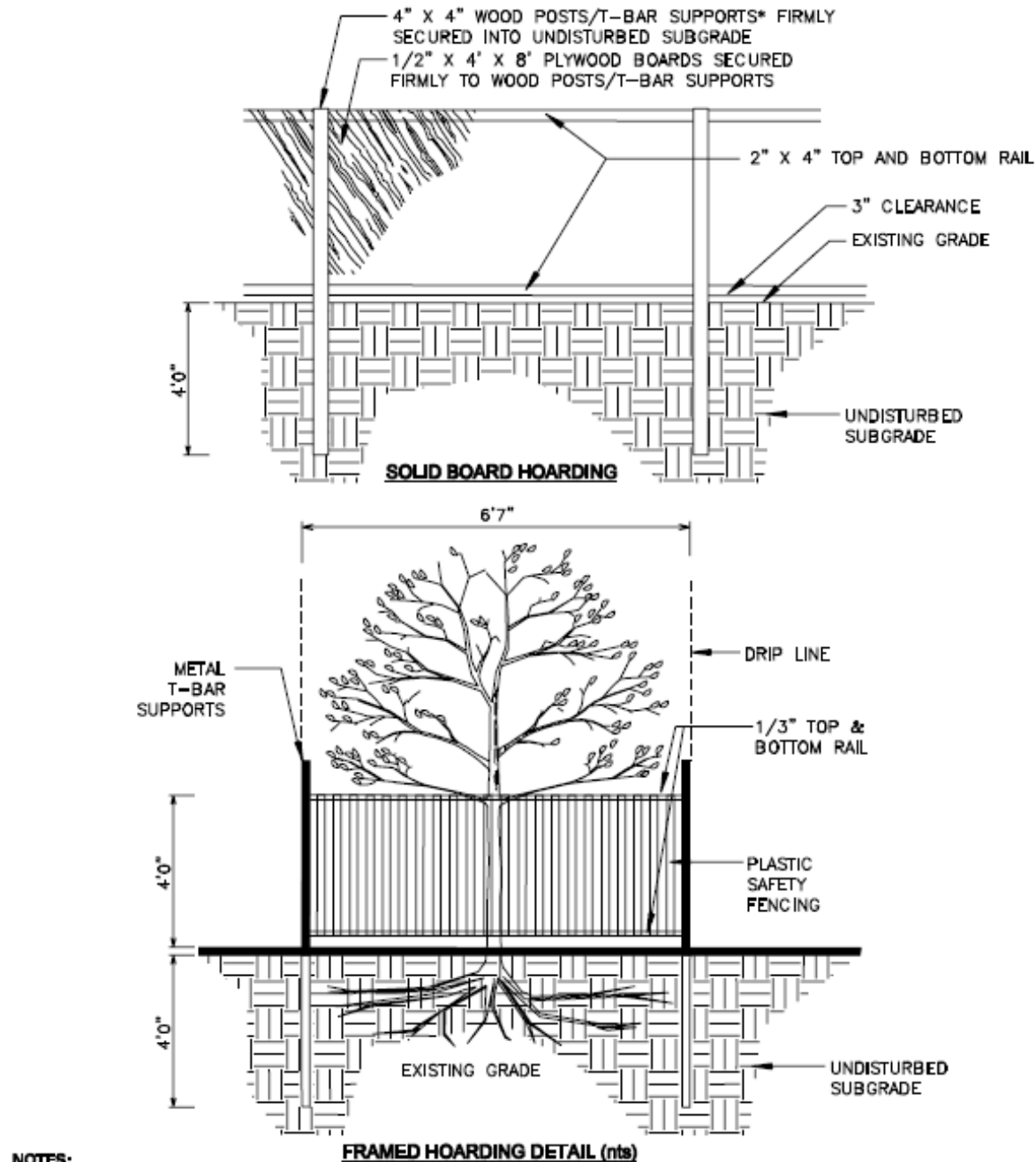
- This sign will be mounted on each TPZ, and should be a minimum of 40cm x 60cm and made on white gator board.
- The sign must say in bold letters as a heading: Tree Protection Zone (TPZ) the rest of the text is as follows: No grade changes, storage of materials or equipment is permitted within this TPZ. Tree protection barriers must not be removed without written authorization of the City of Mississauga, Forestry Department Services. For info call Forestry Department Services at 905-615-4311, or the project consultant at 613-219-4625.

Implementation of protection:

- All TPZ must be erected before any type of construction commences on the subject site.
- Before construction begins the TPZ must be inspected by city forestry staff and the consulting arborist.
- Before any digging commences around a tree subject to injury by permit, the consulting arborist must be informed.
- To dig near a tree subject to injury by permit the consulting arborist must be on site to supervise the excavation.
- Hoarding cannot be removed until all construction is finished

The tree protection barriers can be constructed from:

- 4ft. high plywood hoarding that can be lowered around limbs, with the supports on the outside
- 4ft. high orange plastic snow fence supported by metal t-bars; this is recommended where visibility is an issue, typically for city roadside trees
- If fill or excavates are going to be placed near the plastic fence a plywood barrier must be used to stop these materials from entering the TPZ.
- For minimizing compaction within the TPZ, horizontal plywood hoarding may be used. Horizontal hoarding consists of landscape fabric applied to grade, 30cm layer of mulch, and two layers of plywood secured together above the mulch.
- For more information on the construction of a tree protection zone please see the City of Mississauga's forestry's web site and go to By-laws and Policies.



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.



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

DEVELOPMENT & DESIGN CONSTRUCTION HOARDING

Figure 1: Hoarding detail for vertical tree protection

Exploratory Excavation

Under the current plan, exploratory excavation is required within the minimum Tree Protection Zone (TPZ) of **Tree #243B** for the installation of the new driveway turnout to assess impact to the root system.

The following recommendations must be followed to minimize the damage to the tree:

- A qualified arborist must be on site for the complete duration of each dig. It is the arborist's duty to instruct the laborers and minimize damage to the trees.
- The arborist is also responsible for all root pruning, and to promote 'working around' roots whenever possible.
- All excavation/digging is to be done by hand down to a depth of 0.45m
- Roots with a diameter 4cm and under may be pruned according to proper arboricultural standards – clean cuts with sharp and sanitized tools; exposed root end to be covered with soil
- If roots with a minimum diameter of 5cm or a plethora of roots are encountered during the excavation, the garage must be redesigned to accommodate the roots
- All excavation within the TPZ of a protected tree is to be documented; a report of the findings should then be submitted to Urban Forestry

Recommendations for Excavation

Excavation is required within the minimum Tree Protection Zone (TPZ) of **tree 228** for the new sidewalk. To facilitate the work, excavation is required to a depth that matches the existing underground parking lot. The excavation within the TPZ is to be conducted by hand under the supervision of a qualified arborist. Only roots 4cm in diameter or less may be pruned by a qualified arborist according to proper arboricultural techniques – clean cuts with sharp, sanitized tools, and exposed cut ends re-covered with existing soil. If structural or significant roots are encountered during the excavation, work must stop, and Forestry Department be contacted before proceeding.

The following recommendations must be followed to minimize the damage to the tree:

- A qualified arborist must be on site for the complete duration of the excavation. It is the arborist's duty to instruct the laborers and minimize damage to the tree.
- The arborist is also responsible for all root pruning, and to promote 'working around' roots whenever possible.
- All excavation/digging is to be done by hand down to a depth of at least 15cm to 30cm (or down to the required depth to facilitate the work).
- All excavation within the TPZ of a protected tree is to be documented; a report of the findings should then be submitted to Forestry Department.

Recommendations for Fence Installation

An exploratory excavation must be conducted by hand to a depth of 1.21m (4ft) for the proposed locations of the fence posts prior to installation. No fence post shall come within 4ft from the base of the subject trees.

Pending exploratory excavation approval, installation of the fence must be completed by hand within the tree protection zone (TPZ) of **trees 204, 205, 206, 209B, 209C, 209D, 209E, 209K, and 209L** with care to minimize the disturbance below grade. If any roots measuring 2cm or greater are encountered, root pruning and documentation must be conducted by a qualified arborist. If significant roots are encountered, the post location shall be adjusted to accommodate the roots. After the completion of the fence, it is recommended that the subject trees receive deep root fertilization as remedial care.

REPLACEMENT PLANTING

As required by the City of Mississauga, the replacement ratio for each private tree removed is based on the criteria mentioned in the chart below. A total of 39 replacements are required to be planted; all replacement trees will be planted on the property.

Quantity	Category	Required Action	Applicable Tree-by-law	Required replacement tree ratio	Total Replacements
7	DBH > 14cm	<i>Permit to remove (EAB/ trees in decline)</i>	Private Tree Protection By-Laws (Construction)	0	0
31	14cm < DBH < 50cm	<i>Permit to remove</i>	Tree Protection By-Laws (Construction)	1:1	31
4	DBH = 50cm or greater	<i>Permit to remove</i>	Private Tree Protection By-Laws (Construction)	2:1	8

Tree replacements on private property need to be a large shade growing tree, with a minimum of 60mm in caliper for deciduous trees, and 175cm height for coniferous trees. Recommended replacement planting:

Quantity	Type	Common Name	Botanical Name
6	60mm tree	Ginkgo	<i>Ginkgo biloba</i>
6	60mm tree	Ironwood	<i>Ostrya virginiana</i>
7	60mm tree	Kentucky Coffee Tree (Espresso)	<i>Gymnocladus dioica</i> 'Espresso'
7	175cm tree	White Spruce	<i>Picea glauca</i>
7	175cm tree	Douglasfir	<i>Pseudotsuga menziesii</i>

Please refer to site plan "L-100" for approximate tree planting locations.

SUMMARY

The property owner of 3480 Havenwood Drive and 1480 Williamsport Drive is proposing the demolition of an existing parking lot, walkway, and pool; followed by construction of a new multi-storey residence, parking lot, underground parking lot, wooden privacy fence, access ramp, curb cuts, and landscaping.

In order to facilitate the construction:

- **5 City-owned trees require encroachment into the Tree Protection Zones (TPZs)**
- **14 privately-owned trees require encroachment into the Tree Protection Zones**
- **3 City-owned trees require a permit to be removed**
- **32 privately-owned trees require a permit to be removed, and**
- **7 privately-owned trees are proposed for removal due to infestation with Emerald Ash Borer (EAB).**

If all recommendations are adhered to, we expect the trees slated for preservation to tolerate the proposed impacts related to the construction work. For the loss of 35 permit-sized trees, 39 replacement trees are required to be planted on the property; all trees will be planted on the property.

If there are any questions, please contact me at 613-219-4625.

Thank you,

Mike Spencley ON-1379A
 Central Tree Care Ltd.
 c/o Alexandria Leung ON-2194A



ON-1379A

Appendix I: Tree Inventory

Tree #	Species	Latin Name	Health	Structure	Category	DBH (cm)	TPZ (m)	Comments	Recommended Action
201A	Hackberry	<i>Celtis occidentalis</i>	Fair	Fair	3	16	1.8	Leaf galls, trunk wound (sealing) short leaf progression, some decay.	Requires permit to be removed , due to new curb cut.
201B	Hackberry	<i>Celtis occidentalis</i>	Fair	Good	3	15	1.8	Pruned, Leafgall.	Tree requires encroachment into TPZ and is slated for preservation.
201C	Hackberry	<i>Celtis occidentalis</i>	Fair	Fair	3	11	1.8	Wounds at base. Dieback throughout.	Tree requires encroachment into TPZ and is slated for preservation.
201	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Good	2	33	2.4	Small deadwood throughout.	Fully protect
202	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	35	2.4	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds.	Fully protect
203	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	48.5	3.0	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds.	Requires permit to be removed , due to new underground parking
204	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	36	2.4	Topped, Diplodia Tip Blight, small dead wood throughout. Leaning a bit.	Tree requires encroachment into TPZ and is slated for preservation.
205	Austrian Pine	<i>Pinus nigra</i>	Fair-Poor	Fair	2	33	2.4	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds. Blight has infected most of the canopy.	Tree requires encroachment into TPZ and is slated for preservation.
206	Austrian Pine	<i>Pinus nigra</i>	Fair-Poor	Fair	1	48	3.0	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds. Blight has infected most of the canopy.	Tree requires encroachment into TPZ and is slated for preservation.
207	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	38	2.4	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds. Blight has infected most of the canopy.	Requires permit to be removed , due to new multi-storey building
208	Austrian Pine	<i>Pinus nigra</i>	Poor	Fair	1	46	3.0	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds. Blight has infected most of the canopy. Blight at 90%.	Requires permit to be removed , due to new multi-storey building
209	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	34	2.4	Topped, Diplodia Tip Blight, small dead wood throughout. Sap seeping from old wounds. Blight has infected most of the canopy. Blight at 90%.	Requires permit to be removed , due to new multi-storey building
209A	Norway Maple	<i>Acer platanoides</i>	Fair	Fair	2	34	2.4	Raised, Sparse	Not affected by proposed construction
209B	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	2	30	2.4	Leans, some top dieback, Epicormic	Tree requires encroachment into TPZ and is slated for preservation.
209C	Manitoba Maple	<i>Acer negundo</i>	Fair	Fair	2	42	3.0	Cracks, small dead weood throughout, dieback, old failures, included bark	Tree requires encroachment into TPZ and is slated for preservation.
209 D	Manitoba Maple	<i>Acer negundo</i>	Fair-Poor	Fair	2	18	1.8	Sparse, lots of seeds base suckers	Tree requires encroachment into TPZ and is slated for

Tree #	Species	Latin Name	Health	Structure	Category	DBH (cm)	TPZ (m)	Comments	Recommended Action
									preservation.
209E	Manitoba Maple	<i>Acer negundo</i>	Fair	Fair	2	24	1.8	Small dead wood throughout, leans over pool, base suckers.	Tree requires encroachment into TPZ and is slated for preservation.
209F	Manitoba Maple	<i>Acer negundo</i>	Good	Fair	0	14, 10	1.8	co-dominant stem with decayed missing leader.	not permit sized
209G	Manitoba Maple	<i>Acer negundo</i>	Poor	Poor	0	14, 6	1.8	Mostly dead and growing on fence.	not permit sized
209H	Norway Maple	<i>Acer platanoides</i>	Fair	Good	0	6	1.2	Sparse.	not permit sized
209I	Norway Maple	<i>Acer platanoides</i>	Fair	Good	0	8	1.2	Sparse.	not permit sized
209J	Norway Maple	<i>Acer platanoides</i>	Poor	Fair	0	13	1.8	Sparse.	not permit sized
209K	Manitoba Maple	<i>Acer negundo</i>	Fair-Poor	Fair	2	20, 22	1.8	Sparse, small dead wood throughout, leans, co-dominant dead leader sucker, co-dominant at base included bark.	Tree requires encroachment into TPZ and is slated for preservation.
209L	Manitoba Maple	<i>Acer negundo</i>	Fair-Poor	Fair	2	37	2.4	Multi Stemmed, dieback throughout, large dead wood throughout	Tree requires encroachment into TPZ and is slated for preservation.
209M	Crabapple	<i>Malus sylvestris</i>	Fair	Fair	2	18	1.8	Twisted branches, potential anthracnose	Not affected by proposed construction
209N	Manitoba Maple	<i>Acer negundo</i>	Fair	Fair	2	20	1.8	Broken Branches, leaning, somewhat sparse.	Not affected by proposed construction
210	Austrian Pine	<i>Pinus nigra</i>	Fair	Good	1	36	2.4	diplodia Tip Blight.	Tree requires encroachment into TPZ and is slated for preservation.
211	Austrian Pine	<i>Pinus nigra</i>	Poor	Fair	1	37	2.4	Large deadwood throughout, about 60% dieback.	Requires permit to be removed , due to resurfacing of existing pathway and poor health
212	Austrian Pine	<i>Pinus nigra</i>	Fair-Poor	Fair	1	40	2.4	Sparse, diplodia, small dead wood throughout.	Requires permit to be removed , due to new parking lot
213	Austrian Pine	<i>Pinus nigra</i>	Poor	Fair	1	55	3.6	Large deadwood throughout, about 60% dieback.	Requires permit to be removed , due to new parking lot
214	Austrian Pine	<i>Pinus nigra</i>	Poor	Fair	1	55	3.6	Sparse, diplodia, small dead wood throughout.	Requires permit to be removed , due to new multi-storey building
215	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	50	3.0	Small deadwood throughout, diplodia.	Requires permit to be removed , due to new multi-storey building
216	Austrian Pine	<i>Pinus nigra</i>	Good	Good	1	47	3.0	Small deadwood throughout, some diplodia.	Requires permit to be removed , due to new parking lot
216A	Austrian Pine	<i>Pinus nigra</i>	Good	Good	1	52	3.6	Healthy	Requires permit to be removed , due to new access ramp
216B	Austrian Pine	<i>Pinus nigra</i>	Good-Fair	Fair	1	25	1.8	Bendy trunk, somewhat sparse, some diplodia.	Requires permit to be removed , due to new access ramp

Tree #	Species	Latin Name	Health	Structure	Category	DBH (cm)	TPZ (m)	Comments	Recommended Action
217	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair-Poor	1	32	2.4	Failures, twisted, base suckers, small dead wood throughout, shoots throughout.	Requires permit to be removed , due to new underground parking lot
218	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	22	1.8	leaning cankers on trunk, shoot throughout.	Requires permit to be removed , due to new underground parking lot
219	Russian Olive	<i>Elaeagnus angustifolia</i>	Good-Fair	Fair	1	38	2.4	Suckers throughout, small dead wood throughout, one removed leader.	Requires permit to be removed , due to new loading area
220	Russian Olive	<i>Elaeagnus angustifolia</i>	Good-Fair	Fair	1	24	1.8	Suckers throughout, small dead wood throughout, one removed leader, leaning.	Requires permit to be removed , due to new loading area
220A	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	0	6, 8	1.2	co-dominant stem, shoots throughout.	not permit sized
221	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair-Poor	1	22	1.8	Leans at 60 degrees, suckers throughout, base suckers.	Requires permit to be removed , due to new loading area
222	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	24, 22	1.8	co-dominant, small deadwood throughout, suckers.	Requires permit to be removed , due to new loading area
223	Ash	<i>Fraxinus sp.</i>	Poor	Fair	1	32	2.4	Mostly dead Emerald Ash Borer infested.	Recommended for removal
224	Ash	<i>Fraxinus sp.</i>	Poor	Fair	1	30	2.4	Mostly dead Emerald Ash Borer infested.	Recommended for removal
224A	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Fair	3	9	1.2	Healthy	Requires permit to be removed , due to new curb cut
225	Ash	<i>Fraxinus sp.</i>	Dead	Poor	1	30	2.4	Dead	Recommended for removal
226	Ash	<i>Fraxinus sp.</i>	Poor	Fair	1	44	3.0	Emerald Ash Borer infested	Recommended for removal
227	Ash	<i>Fraxinus sp.</i>	Poor	Fair	1	34	2.4	Emerald Ash Borer infested	Recommended for removal
228	Norway Maple	<i>Acer platanoides</i>	Good	Good	1	17	1.8	Healthy	Tree requires encroachment into TPZ and is slated for preservation.
229	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	44	3.0	Topped, secondary leader, small dead wood throughout.	Requires a permit to be removed due to new parking lot
229A	Austrian Pine	<i>Pinus nigra</i>	Fair	Good	1	40	2.4	Brown diplodia, small deadwood throughout.	Requires permit to be removed , due to new walkway
230	Austrian Pine	<i>Pinus nigra</i>	Good-Fair	Fair	1	47	3.0	Topped, secondary leader, small dead wood throughout.	Requires permit to be removed , due to new drop-off zone
231	Austrian Pine	<i>Pinus nigra</i>	Good	Fair	1	38	2.4	Topped, multiple leaders.	Requires permit to be removed , due to new drop-off zone
231A	Russian Olive	<i>Elaeagnus angustifolia</i>	Good	Fair	0	13, 8, 5	1.8	Multi Stemmed, small dead wood throughout, included bark, missing leaders, suckers.	not permit sized
232	Russian Olive	<i>Elaeagnus angustifolia</i>	Good	Fair	1	23	1.8	Suckers, small deadwood throughout, dieback, lean.	Requires permit to be removed , due to new underground parking lot

Tree #	Species	Latin Name	Health	Structure	Category	DBH (cm)	TPZ (m)	Comments	Recommended Action
233	Russian Olive	<i>Elaeagnus angustifolia</i>	Good -Fair	Fair	1	18	1.8	Suckers, small deadwood throughout, dieback, lean.	Requires permit to be removed , due to new underground parking lot
233A	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	0	11	1.8	Sparse.	
234	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	15	1.8	Suckers, small deadwood throughout, dieback.	Requires permit to be removed , due to new underground parking lot
235	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	24	1.8	Lean at 80 degrees, suckers throughout, dieback.	Requires permit to be removed , due to new underground parking lot
236	Russian Olive	<i>Elaeagnus angustifolia</i>	Good -Fair	Fair	1	16	1.8	Leans, suckers throughout on stem	Requires permit to be removed , due to new underground parking lot
237	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	18	1.8	Sparse, deadwood throughout, dieback, base suckers, suckers throughout	Requires permit to be removed , due to new underground parking lot
238	Russian Olive	<i>Elaeagnus angustifolia</i>	Poor	Poor	1	20	1.8	Tree growing into this one; very sparse	Requires permit to be removed , due to new underground parking lot
239	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	28	1.8	Leaning into tree 238, small dead wood throughout and dieback	Requires permit to be removed , due to new underground parking lot
240	Russian Olive	<i>Elaeagnus angustifolia</i>	Fair	Fair	1	33	2.4	Small dead wood throughout, suckers throughout, base swelling.	Requires permit to be removed , due to new underground parking lot
241	Ash	<i>fraxinus sp.</i>	Dead	Dead	1	35	2.4	Dead	Recommended for removal
242	Ash	<i>Fraxinus sp.</i>	Dead	Dead	1	29	1.8	Dead	Recommended for removal
243A	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	42	3.0	Topped, some diplodia, small dead wood throughout	Requires permit to be removed , due to new curb cut
243B	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	47	3.0	Topped, small dead wood throughout	Tree requires encroachment into TPZ and is slated for preservation.
243C	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Fair	3	17	1.8	Recent failures, trunk wounds	Tree requires encroachment into TPZ and is slated for preservation.
243D	Hackberry	<i>Celtis occidentalis</i>	Fair	Fair	3	15	1.8	Wounds at base. dieback throughout. Small dead wood throughout	Requires permit to be removed , due to new curb cut
243E	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Good	3	15	1.8	Small dead wood throughout	Fully protect
243F	Ash	<i>Fraxinus sp.</i>	Good	Good	3	18	1.8	Healthy, holes Emerald Ash Borer infested	Fully protect
243G	Honey Locust	<i>Gleditsia triacanthos</i>	Fair-Poor	Good	3	9	1.2	Sparse, small dead wood throughout	Fully protect

Tree #	Species	Latin Name	Health	Structure	Category	DBH (cm)	TPZ (m)	Comments	Recommended Action
243	Norway Maple	<i>Acer platanoides</i>	Good -Fair	Fair	1	57	3.6	Girdling, Small dead wood throughout, some large deadwood	Fully protect
244	Austrian Pine	<i>Pinus nigra</i>	Good -Fair	Fair	1	50	3.0	Sparse, small dead wood throughout, leaning	Not affected by proposed construction
245	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	42	3.0	Sparse, small dead wood throughout, leaning, diplodia	Not affected by proposed construction
245A	Mulberry	<i>Morus Nigra</i>	Good	Good	0	14.5	1.8	Healthy	not permit sized
245B	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Fair	3	44	3.0	Vertical seam, small dead wood throughout	Not affected by proposed construction
245C	Ash	<i>Fraxinus sp.</i>	Fair	Good	3	12	1.8	Base wound, top dieback, bark peeling, leaves are unusually shaped, Emerald Ash Borer infested	Not affected by proposed construction
245D	Ash	<i>Fraxinus sp.</i>	Good -Fair	Good	3	14	1.8	Bark peeling, Emerald Ash Borer infested	Not affected by proposed construction
245E	Cherry tree	<i>Prunus</i>	Good	Good	0	13	1.8	Small dead wood throughout	not permit sized
246	Austrian Pine	<i>Pinus nigra</i>	Good -Fair	Fair	1	50	3.0	Leans, some diplodia, small dead wood throughout	Not affected by proposed construction
247	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	38	2.4	Sparse, leans, topped, small dead wood throughout	Not affected by proposed construction
248	Austrian Pine	<i>Pinus nigra</i>	Fair-Poor	Fair	1	38	2.4	Sparse, half of canopy missing, small dead wood throughout	Not affected by proposed construction
248A	Ash	<i>Fraxinus sp.</i>	Good	Fair	3	11	1.8	base wound, maybe Emerald Ash Borer infested	Not affected by proposed construction
248B	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Good	3	18	1.8	Small dead wood throughout	Not affected by proposed construction
249	Austrian Pine	<i>Pinus nigra</i>	Good -Fair	Good	1	39	2.4	Shaded, competition with #250	Fully protect
250	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	46	3.0	shaded by #249; canopy sparse, some diplodia	Fully protect
251	Crabapple	<i>Malus sylvestris</i>	Fair	Fair	1	24, 16, 19	1.8	Multi stemmed, suckers throughout, sparse, leafspots, dead leader, included bark	Not affected by proposed construction
252	Manitoba Maple	<i>Acer negundo</i>	Good -Fair	Fair	1	63	4.2	Leans, suckers throughout, sparse, lots of cracks, old failures	Not affected by proposed construction
252A	Hackberry	<i>Celtis occidentalis</i>	Good	Good	3	8	1.2	Healthy	Not affected by proposed construction
253	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	44	3.0	co-dominant stem, small dead wood throughout	Not affected by proposed construction
253A	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Good	3	8	1.2	Healthy	Not affected by proposed construction
254	Austrian Pine	<i>Pinus nigra</i>	Poor	Fair	1	34	2.4	sparse, about 80% dieback, diplodia	Not affected by proposed construction
255	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	58	3.6	Twisted Base, sparse, small dead wood throughout, two leaders	Not affected by proposed construction

Tree #	Species	Latin Name	Health	Structure	Category	DBH (cm)	TPZ (m)	Comments	Recommended Action
255A	Kentucky Coffee Tree	<i>Gymnocladus dioicus</i>	Good	Good	3	5	1.2	Small dead wood	Fully protect
256	Paper Birch	<i>Betula papyrifera</i>	Fair	Fair	1	24, 25, 20	1.8	Multi stemmed, Sign on one stem, small dead wood throughout, dieback, some sparse areas	Fully protect
256A	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Good	3	38	2.4	small dead wood throughout, co-dominant stem	Tree requires encroachment into TPZ and is slated for preservation.
256B	Hackberry	<i>Celtis occidentalis</i>	Good	Good	1	15	1.8	Small dead wood throughout	Tree requires encroachment into TPZ and is slated for preservation.
256C	Hackberry	<i>Celtis occidentalis</i>	Good	Good	1	16	1.8	Healthy	Tree requires encroachment into TPZ and is slated for preservation.
256 D	Honey Locust	<i>Gleditsia triacanthos</i>	Good	Fair	3	10, 9	1.8	Multi stemmed, pushing branch of Austrian Pine	Tree requires encroachment into TPZ and is slated for preservation.
257	Austrian Pine	<i>Pinus nigra</i>	Fair	Fair	1	48	3.0	Topped, sparse on inner canopy, diplodia	Fully protect

Category #: 0. Tree NOT regulated under City of Mississauga by-laws

1. Trees with diameters of 15cm or more, situated on private property on the subject site.
2. Trees with diameters of 15cm or more, situated on private property, within 6m of subject site.
3. Trees of all diameters situated within the City road allowance adjacent to the subject site.
4. Trees of all diameters situated within the City road allowance adjacent a neighbouring property.

Colour Legend

	Permit sized trees that require encroachment into their TPZ and are slated for preservation
	Permit sized trees that are less than 50cm in DBH and require permit for removal
	Permit sized trees that are 50cm or greater in DBH and require permit for removal
	Permit sized trees that are requested for removal due to Emerald Ash Borer (EAB)

Appendix II: Site Photos

Photo 1: (Left to right) Trees 201, 201C, 201B, and 201A.



Photo 2: (Left to right) Trees 205, 204, 203, and 202.



Photo 3: (Left to right) Trees 208, 207, and 206.



Photo 4: (Left to right) Trees 231 and 209.



Photo 5: (Left to right) Trees 230 and 231.



Photo 6: (Left to right) Trees 209L, 209K, 209J, 209I, 209H, 209G, 209F, 209E, 209D, 209C, and 209B.



Photo 7: (Left to right) Trees 215 and 214.



Photo 8: (Left to right) Trees 212, 210, and 211.



Photo 9: (Left to right) Trees 216, 213, and 212.



Photo 10: (Left to right) Trees 216B, 216A, and 216.



Photo 11: (Left to right) Trees 218 and 217.



Photo 12: (Left to right) Trees 222, 221, 220A, 220, 219, 218, and 217.



Photo 13: (Left to right) Trees 224, 223, and 222.



Photo 14: (Left to right) Trees 227, 225, and 226.



Photo 15: (Left to right) Trees 229 and 229A.



Photo 16: (Left to right) Trees 209A, 208, 209, 231, and 229.

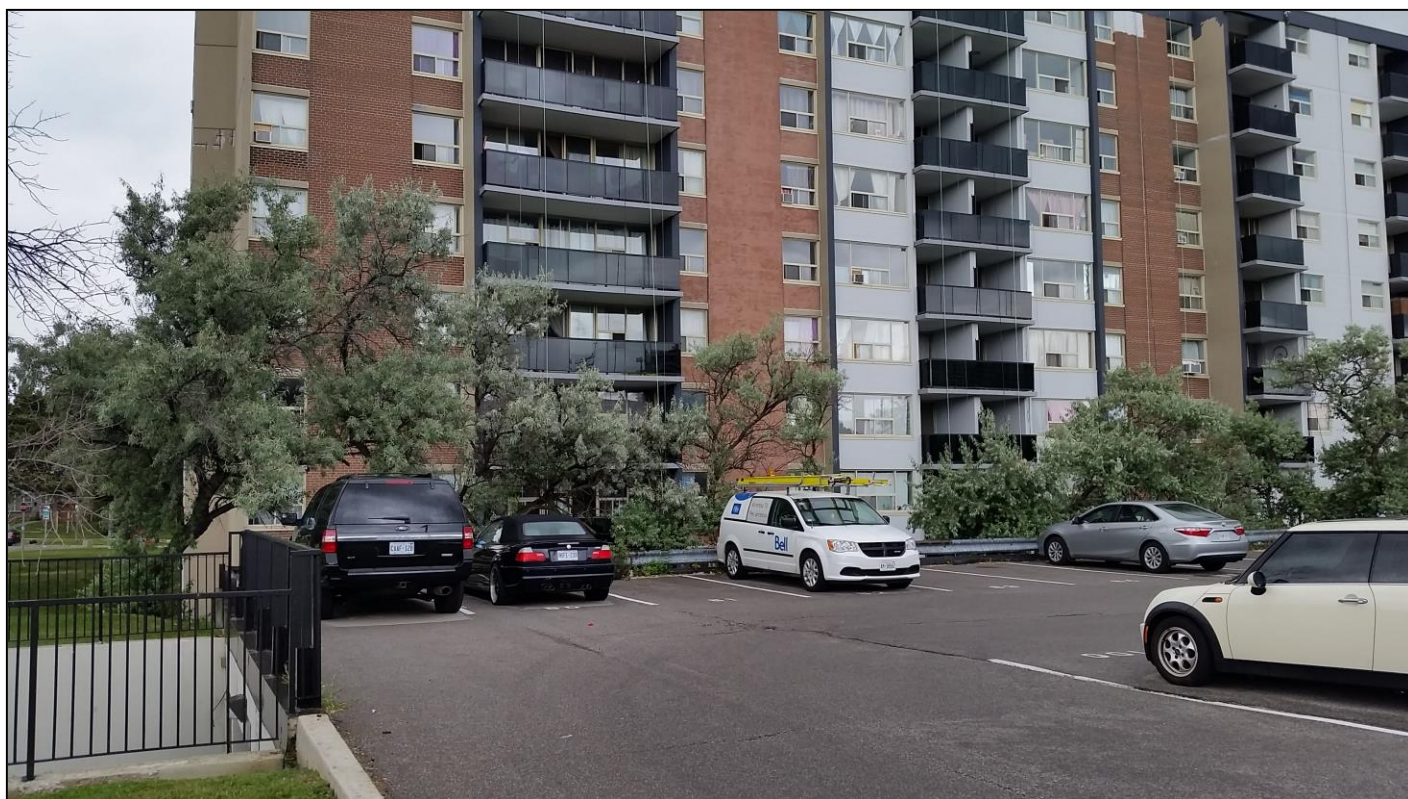


Photo 17: (Left to right) Trees 240, 239, 238, 237, 236, 235, 234, 234A, 233, 232, and 231A.



Photo 18: (Left to right) Trees 242, 241, and 240.



Photo 19: (Left to right) Trees 243D, 243C, 243B, and 243A.



Photo 20: (Left to right) Trees 256D and 256C.



Photo 21: (Left to right) Trees 256C, 256B, 256A, and 256.



Photo 22: (Left to right) Trees 256 and 257.



Photo 22: (Left to right) Trees 255A, 253, 255, 254, and 252.



Photo 23: (Left to right) Trees 253A, 252A, 249, 250, 251, and 253.



Photo 24: (Left to right) Trees 245C, 245D, 245E, 246, 248A, 248, and 248B.

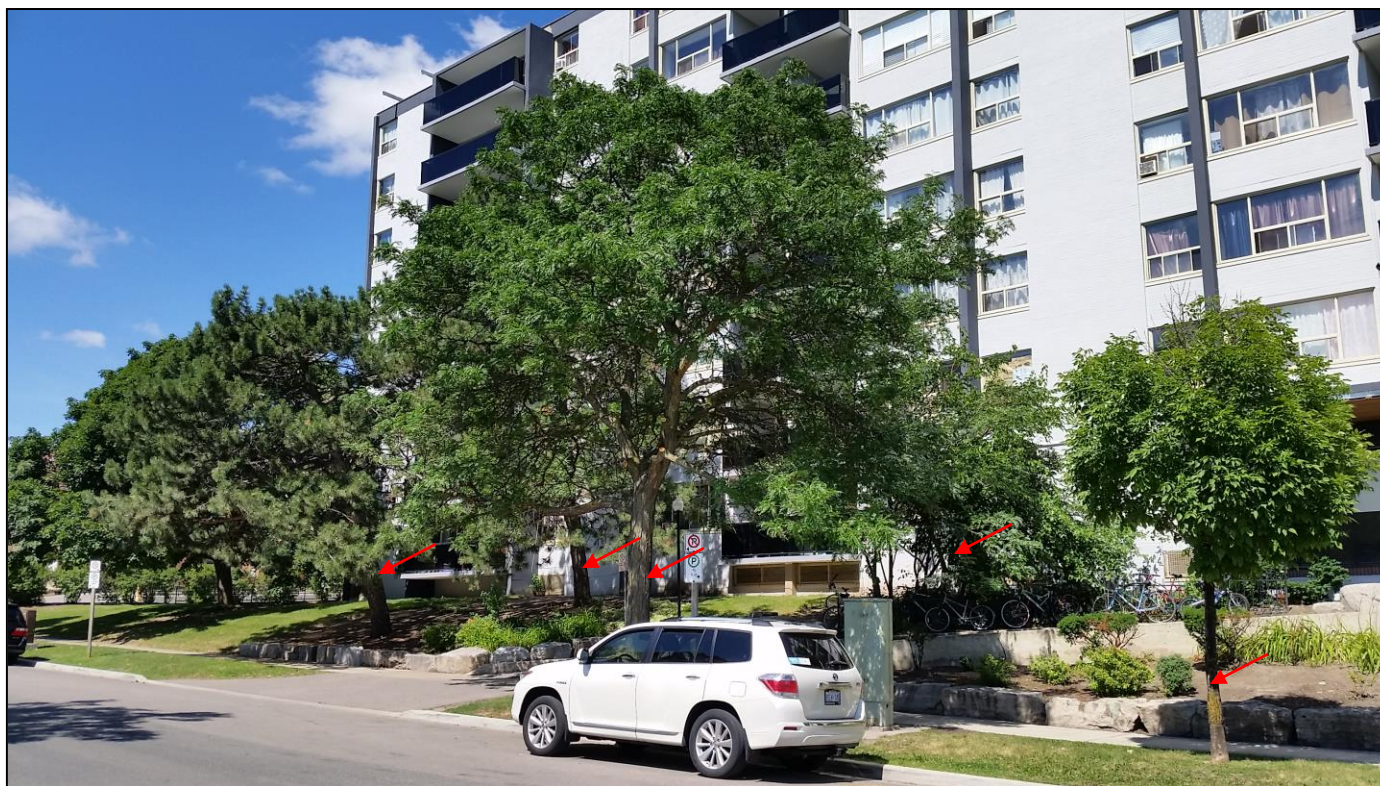


Photo 25: (Left to right) Trees 244, 245, 245B, 245A, and 245C.



Photo 26: (Left to right) Trees 243E, 243F, 243G, and 243.