

File Number: 1170A

File Name: 2441 Lakeshore Road West Oakville, Ontario

Canopy Cover Target: 15%

Tree #	Species	Stature (s,m,l)	Soil Volume per Tree (m³)	Canopy Area (m²)	Canopy Area Subtotal (m²)
Proposed Canopy On Site					
A	Ivory Silk Lilac	S	14.85	28	
B	Tulip Tree	L	23.2	399	
C	Sugar Maple/Tulip Tree	L	22.5	682	
D	Pyramidal English Oak	S	7.1	49	
E	Bradford Pear	M	17.4	59	
F	Ginkgo/ Bradford Pear	M	10.7	452	
G	Ginkgo	M	15.5	175	
H	Tulip Tree	L	86.4	366	
I	Sugar Maple/Tulip Tree	L	46	680	
J	Sugar Maple	L	46	346	
K	Sugar Maple	L	46	575	
L	Ginkgo/ Bradford Pear	M	13.08	670	
Subtotal of Proposed Canopy					4481
Existing Canopy on Site					
Multiplied by bonus factor of 1.5					
Existing Canopy Overhanging Site					
3	Silver Maple	L		2	
13-14	Norway Maple	L		36	
Subtotal of Existing Canopy					38

Total # of Trees
71

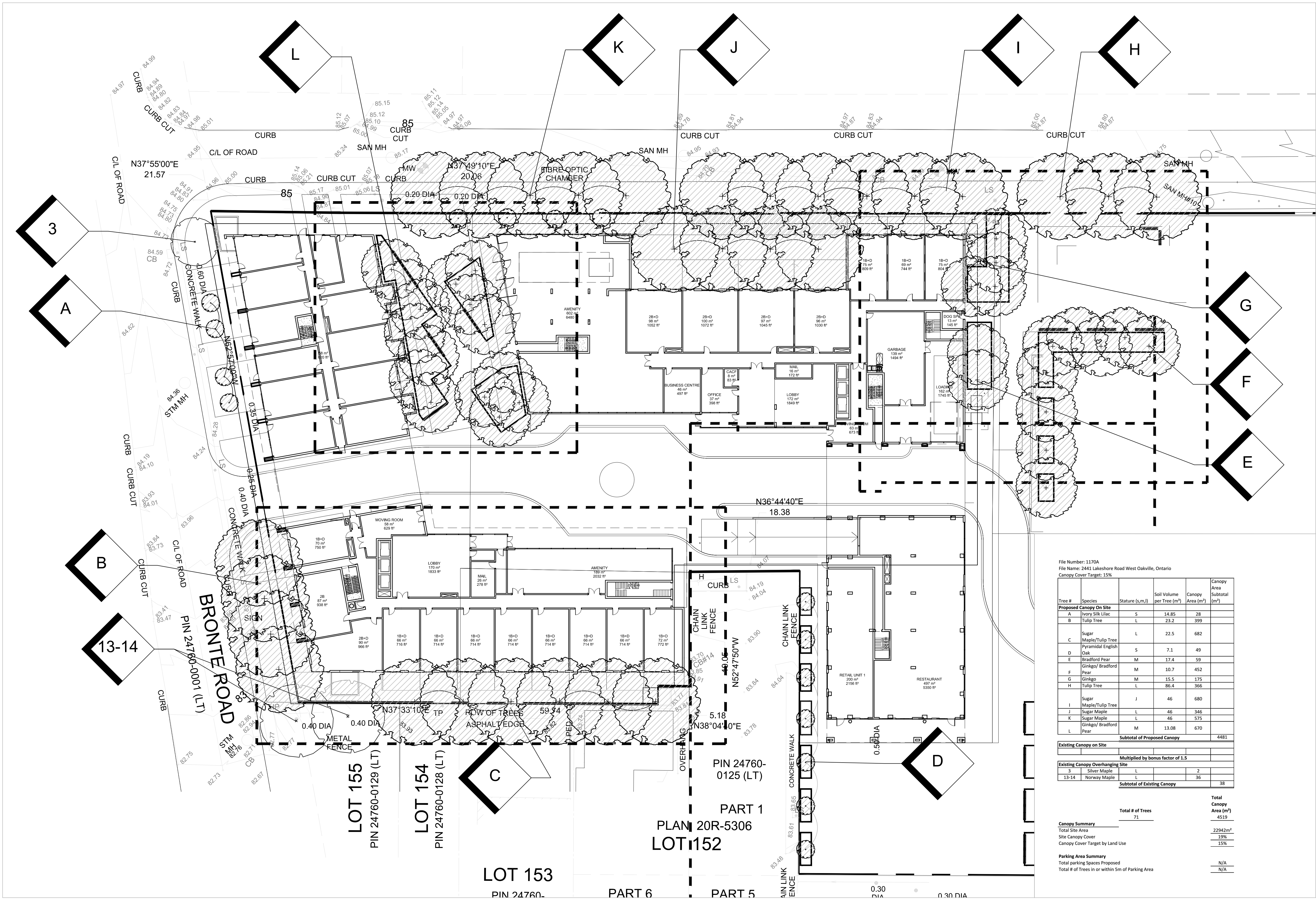
**Total
Canopy
Area (m²)**
4519

Canopy Summary

Total Site Area	<u>22942m²</u>
Site Canopy Cover	<u>19%</u>
Canopy Cover Target by Land Use	<u>15%</u>

Parking Area Summary

Total parking Spaces Proposed	<u>N/A</u>
Total # of Trees in or within 5m of Parking Area	<u>N/A</u>



LEGEND

- DECIDUOUS TREE - TO BE RETAINED
- CONIFEROUS TREE - TO BE RETAINED
- TREE IDENTIFICATION KEY
- CANOPY COVERAGE

General Notes

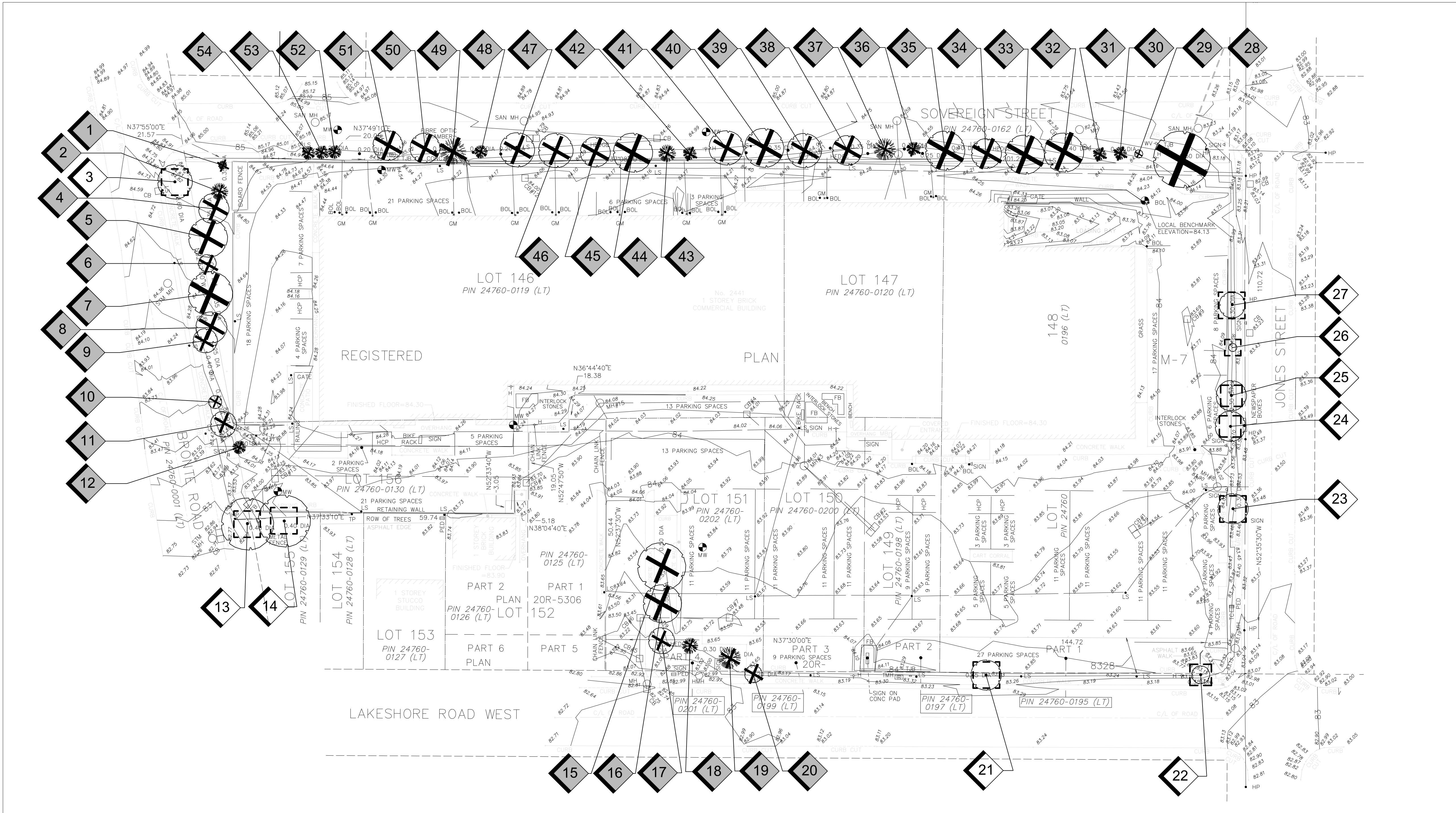
- Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
- This drawing is to be read in conjunction with the site plan and architectural drawings prepared by the Architect, and engineering drawings prepared by the Civil, Mechanical, and Electrical Engineers.
- The tree inventory includes assessment of on site trees >20cm DBH. The trees have been assessed based on species, size and condition.
- The contractor is to have required Municipality Tree Removal Permits in hand prior to the removal of any trees.
- The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
- The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
- This drawing is to be used for development approval only.
- Do not leave any holes open overnight.
- Keep area outside construction zone clean and useable by others at all times. Contractor shall thoroughly clean areas surrounding the construction zone at the end of each work day.
- Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
- This drawing is Copyright MHBC, 2017.

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13-14	Norway Maple	L		36	
Subtotal of Existing Canopy					38
Total # of Trees					71
Total Canopy Area (m²)					4519
Total Site Area					22942m²
Site Canopy Cover					19%
Canopy Cover Target by Land Use					15%
Parking Area Summary					
Total parking Spaces Proposed					N/A
Total # of Trees in or within 5m of Parking Area					N/A

1 Tree Canopy Cover Plan
TC-1 Scale 1:300

1	August 03, 2017	Issued for SPA	DC
Revision No.	Date	Issued / Revision	By
 PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE 230-7050 WESTON ROAD WOODBRIDGE, ON, L4L 8G7 P: 905.761.5338 F: 905.761.5339 WWW.MHBCPLAN.COM			
Seal			
Date	August 2017		
Drawn By	D.C.		
Plan Scale	as noted		
File No.	1770A		
Checked By	N.M.		
Other			
Project	3171 Lakeshore Rd W OAKVILLE, ONTARIO		
File Name	TREE CANOPY COVER PLAN		
Dwg No.	TC-1		



1 TREE INVENTORY PRESERVATION AND REMOVAL PLAN
Scale 1:500

General Note:
Prior to the commencement of any site activity the tree protection barriers specified on this plan must be installed and written notice provided to Urban Forestry. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. Where required, signs as specified in the Arborist Report "Tree Protection Zone" must be attached to all sides of the barrier. Written notice must be provided to Urban Forestry prior to the removal of the tree protection barriers.

ARBORICULTURAL WORK:
Any roots or branches which extend beyond TPZ indicated on this plan which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree roots and branches must be in accordance with good arboricultural standards. Roots located outside the TPZ that have received approval from Urban Forestry to be pruned must first be exposed by hand digging or by using a low pressure hydro vac method. This will allow a proper pruning cut and minimize rearing of the roots. The Arborist/tree professional retained to carry out crown or root pruning must contact Urban Forestry no less than 48 hours prior to conducting any specified work.

THE TREE PROTECTION ZONE:
The following chart is showing minimum required distances for determining a Tree Protection Zone (TPZ) for Town-owned trees located on a Town Street, in parks and trees on private property subject to either the Ravine and Natural Feature Protection By-law or the Private tree By-law. Some trees and some site conditions may require a larger TPZ.

2 TREE PROTECTION NOTES

Table 1 – Tree Protection Zones:			
Trunk Diameter DBH*	Minimum Protection Distances Required** Town-owned and Private Trees	Minimum Protection Distances Required Trees in Areas Protected by the Ravine and Natural Feature Protection By-law Whichever of the two is greater:	
<10cm	1.8m	The drip line****or 1.2m	
10–30cm	2.4m	The drip line or 3.6m	
31–50cm	3.0m	The drip line or 4.8	
51–60cm	3.6m	The drip line or 6.0m	
61–70cm	4.2m	The drip line or 8.4m	
71–80cm	4.8m	The drip line or 9.6m	
81–90cm	5.4m	The drip line or 10.8m	
91–100cm	6.0m	The drip line or 12.0m	
1. For trees over 100 cm. DBH, add 10cm. to the TPZ for every one centimeter of DBH. 2. Roots can extend from the trunk to 2–3 times the distance of the drip line (See Detail 3, TP–2) 3. Diameter at breast height (DBH) measurement of tree trunk taken at 1.37 metres above ground. 4. Tree Protection Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work.			

*Diameter at breast height (DBH) measurement of tree trunk taken at 1.4 metres above the ground.
** Tree Protection Zone distances are to be measured from the outside edge of the tree base.
*** Diameter (30cm) at which the trees qualify for protection under the private tree by-law.
**** The drip line is defined as the area beneath the outer most branch tips of the tree.
***** Converted from ISA Arborists' Certification Study Guide, general guideline for tree protection barriers of 1 foot of diameter from the stem for each inch of stem diameter.

Within a TPZ there must be:

- no construction;
- no altering of grade by adding fill, excavating, trenching, scraping, dumping or disturbance of any kind.
- no storage of construction materials, equipment, soil, construction waste or debris.
- no disposal of any liquids e.g. concrete sleuth, gas, oil, paint.
- no movement of vehicles, equipment, or pedestrians.
- no parking of vehicles or machinery.
- directional micro-tunneling and boring may be permitted with the limits of a TPZ subject to approval by Urban Forestry.
- open face cuts outside a TPZ that are consistent with an approved plan and that require root pruning, require the services of a qualified arborist or approved tree professional. An exploratory dig, either by hand or using low water pressure hydro vac method, must be completed prior to commencing with open face cuts outside the TPZ.

The above mentioned requirements are for area(s) designated as a TPZ. These requirements should also be implemented outside the TPZ in areas where tree roots are located. The roots of a tree can extend from the trunk to approximately 2–3 times the distance of the dripline.

LEGEND

CONIFEROUS TREE - TO BE RETAINED

DECIDUOUS TREE - TO BE RETAINED

CONIFEROUS TREE - TO BE REMOVED

DECIDUOUS TREE - TO BE REMOVED

TREE IDENTIFICATION KEY
TREE TO BE RETAINED

TREE IDENTIFICATION KEY
TREE TO BE REMOVED

TREE PROTECTION ZONE PER TOWN OF OAKVILLE STANDARDS.
THE FINAL LOCATION OF THE EXTENT OF PROPOSED TREE PROTECTION FENCING WILL BE CO-ORDINATED BETWEEN WITH THE PROJECT ARBORIST AND PROJECT ENGINEER TO ENSURE THAT DAMAGE TO EXISTING TREES IS MINIMIZED DURING CONSTRUCTION.

- General Notes
1. Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.

2. This drawing is to be read in conjunction with the site plan and architectural drawings prepared by the Architect, and engineering drawings prepared by the Civil, Mechanical, and Electrical Engineers.

3. The tree inventory includes assessment of all on site trees. The trees have been assessed based on species, size and condition.

4. The contractor is to have required Municipality Tree Removal Permits in hand prior to the removal of any trees.

5. The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.

6. The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.

7. This drawing is to be used for development approval only.

8. Do not leave any holes open overnight.

9. Keep area outside construction zone clean and useable by others at all times. Contractor shall thoroughly clean areas surrounding the construction zone at the end of each work day.

10. Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.

11. This drawing is Copyright MHBC, 2017.

3 AUGUST 03, 2017 ISSUED FOR SPA DC

2 JULY 11, 2017 ISSUED FOR REVIEW DC

1 JUNE 1, 2017 ISSUED FOR REVIEW DC

Revision No. Date Issued / Revision By

PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE
230-7050 WESTON ROAD WOODBRIDGE, ON, L4L 8G7 | P: 905.761.5588 F: 905.761.5589 | WWW.MHBCPLAN.COM

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All drawings and specifications are instruments of service and will remain the property of MHBC Planning and must be returned at the completion of the work. This drawing shall not be used for construction purposes unless the drawings are marked "Issued for Construction" and the professional seal is signed and dated by the landscape architect.

Date June 2017

Drawn By DC

Plan Scale as noted

File No. 1770A

Checked By NM

Other

Project

BRONTE DEVELOPMENT
2441 LAKESHORE ROAD WEST
OAKVILLE, ONTARIO

File Name

TREE INVENTORY, PRESERVATION AND REMOVAL PLAN

Dwg No.

TI-1

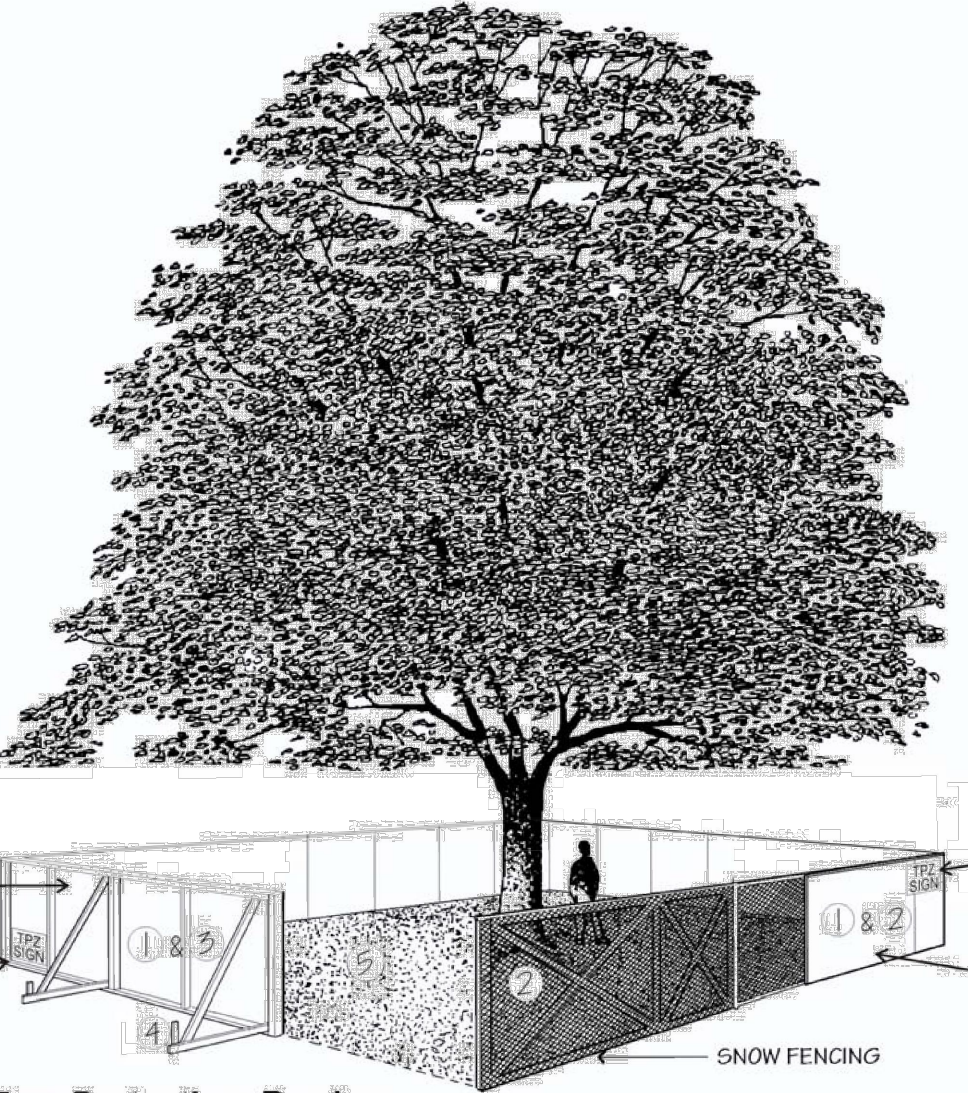
TREE INVENTORY NOTES

Tree No.	Common Name	Botanical Name	Owner	DBH (CM)	Cond.	Structure	Canopy Diameter (m)	Comments	Recommendation
1	Spruce sp.	Picea sp.	P	27	F	F	2	Some deadwood in canopy	Remove - due to construction
2	Spruce sp.	Picea sp.	P	24	F	F	4	Some deadwood in canopy	Remove - due to construction
3	Silver Maple	Acer saccharinum	M	43,36	F	F-P	8	Co- dominant stems, light to moderate deadwood throughout tree.	Retain
4	Norway Maple	Acer platanoides	P	29	F	F	7	Light deadwood throughout tree.	Remove - due to construction
5	Norway Maple	Acer platanoides	P	34	F	F	9	Some dieback at ends.	Remove - due to construction
6	Norway Maple	Acer platanoides	P	20	F-P	F-P	4	Dieback at crown, calloused wound at base, some evidence of decay.	Remove - due to construction
7	Norway Maple	Acer platanoides	P	37	F	F	10	Dieback in crown evident, Tree is beginning to decline.	Remove - due to construction
8	Norway Maple	Acer platanoides	M	31	F-P	F-P	7	Moderate to severe dieback in crown.	Remove - due to construction
9	Ash sp.	Fraxinus sp.	M	37	F-P	F-P	5.5	Tree struggling with EAB, approx 50% foliage dead, calloused wound at base.	Remove - due to construction
10	Ash sp.	Fraxinus sp.	M	20,20,11	P	P	3	Tree struggling with EAB, Co-dominant stems, City marked tree with 'X'.	Remove - due to construction/health
11	Ash sp.	Fraxinus sp.	M	25	P	F-P	6	Tree struggling with EAB, City marked tree with 'X'.	Remove - due to construction/health
12	Spruce sp.	Picea sp.	P	24	F	F	3	Light deadwood throughout tree.	Remove - due to construction
13	Norway Maple	Acer platanoides	M1	38	F	F	12	Light deadwood in canopy.	Retain
14	Norway Maple	Acer platanoides	M1	48	F	F	12	Light deadwood in canopy.	Retain
15	Norway Maple	Acer platanoides	P	33,32,28,29	F-P	F	11	Co-dominant stems, Moderate to severe deadwood, Canopy dieoff at tips, Tree is in decline.	Remove - due to construction
16	Norway Maple	Acer platanoides	P	36,35,16	P	F-P	9	Half of tree is dead, Other half has moderate to severe dieback in crown.	Remove - due to construction
17	Norway Maple	Acer platanoides	M	33	F-P	F	6	Moderate dieback at branch ends (approaching severe).	Remove - due to construction
18	Spruce sp.	Picea sp.	M	40	F	F	3.5	Moderate deadwood throughout tree.	Remove - due to construction
19	Spruce sp.	Picea sp.	M	45	F-P	F-P	5	Moderate to severe deadwood throughout tree, Leader broken off.	Remove - due to construction
20	Norway Maple	Acer platanoides	M	23	F-P	F	4	Moderate to severe dieoff.	Remove - due to construction
21	Ash sp.	Fraxinus sp.	M	34	F	F	7	Beginning signs of EAB, Tree has been treated.	Retain
22	Amur Maple	Acer ginnala	M	26	F	F	4	Moderate dieback in crown.	Retain
23	Norway Maple	Acer platanoides	M	33	F	F	7	Old trunk split is healing, moderate dieback.	Retain
24	Norway Maple	Acer platanoides	M	30	F-P	F-P	7	Central leader dead, severe dieback in lower crown, fruiting bodies present, mechanical damage at base attempting to heal.	Retain
25	Norway Maple	Acer platanoides	M	26	F	F	7	Some dieback beginning.	Retain
26	Ivory Silk Lilac	Syringa reticulata	M	4	F-P	F	2	Moderate dieback in canopy, signs of urban stress.	Retain

27	Norway Maple	Acer platanoides	M	32	F	F	6	Mild to moderate dieback, tree is in decline.	Retain
28	Honey Locust	Gleditsia triacanthos	M	48	F	F	13		Remove - due to construction
29	Honey Locust	Gleditsia triacanthos	M	5	F	F		Some deadwood in canopy	Remove - due to construction
30	Col. Blue Spruce	Picea pungens	M	27	F	F-P	3	Leader dead, remainder retains needles	Remove - due to construction
31	Spruce sp.	Picea sp.	M	23	F-P	F-P	3	Moderate deadwood throughout tree, suspect leader has broken in past and has re-established.	Remove - due to construction
32	Honey Locust	Gleditsia triacanthos	M	35	F	F	9	Moderate deadwood in canopy.	Remove - due to construction
33	Honey Locust	Gleditsia triacanthos	M	31	F	F	9	Moderate deadwood, some dieback at tips.	Remove - due to construction
34	Honey Locust	Gleditsia triacanthos	M	35	F-P	F	7	Moderate deadwood, moderate dieback in canopy.	Remove - due to construction
35	Honey Locust	Gleditsia triacanthos	M	32	F	F	9	Moderate deadwood, some dieback at tips.	Remove - due to construction
36	Spruce sp.	Picea sp.	M	23	F-P	F-P	3	Moderate to significant dieback throughout tree.	Remove - due to construction
37	Spruce sp.	Picea sp.	M	28	F-P	F-P	5	Broken leader, moderate to severe deadwood, exposed roots.	Remove - due to construction
38	Honey Locust	Gleditsia triacanthos	M	31	F-P	F	7	Moderate deadwood, dieback at tips.	Remove - due to construction
39	Honey Locust	Gleditsia triacanthos	M	35	F-P	F	8	Moderate deadwood, dieback at tips.	Remove - due to construction
40	Honey Locust	Gleditsia triacanthos	M	28	F	F	9	Moderate deadwood, dieback beginning in twigs.	Remove - due to construction
41	Honey Locust	Gleditsia triacanthos	M	35	F	F	8	Some deadwood, some dieback in twigs.	Remove - due to construction
42	Spruce sp.	Picea sp.	M	18	F	F-P	2.5	Moderate bow in trunk, moderate deadwood.	Remove - due to construction
43	Spruce sp.	Picea sp.	M	24	F	F	4	Moderate to heavy deadwood throughout tree.	Remove - due to construction
44	Honey Locust	Gleditsia triacanthos	M	29	F	F	9	Some dieback at tips.	Remove - due to construction
45	Honey Locust	Gleditsia triacanthos	M	28	F	F	7	Some dieback at tips.	Remove - due to construction
46	Honey Locust	Gleditsia triacanthos	M	27	F	F	8	Some dieback at tips, some deadwood.	Remove - due to construction
47	Honey Locust	Gleditsia triacanthos	M	31	F	F	8	Some dieback at tips.	Remove - due to construction
48	Spruce sp.	Picea sp.	M	29	D	D	2.5		Remove - due to construction
49	Spruce sp.	Picea sp.	M	28	F	F-P	6	Lower 2/3 branches are dead.	Remove - due to construction
50	Honey Locust	Gleditsia triacanthos	M	29	F	F	7	Moderate deadwood, dieback at tips.	Remove - due to construction
51	Honey Locust	Gleditsia triacanthos	M	36	F	F	7	Moderate deadwood, dieback at tips.	Remove - due to construction
52	Spruce sp.	Picea sp.	M	20	F	F	2	Some deadwood throughout tree.	Remove - due to construction
53	Spruce sp.	Picea sp.	M	22	F	F	1.5	Some deadwood throughout tree.	Remove - due to construction
54	Spruce sp.	Picea sp.	M	19	F	F	1.5	Some deadwood throughout tree.	Remove - due to construction



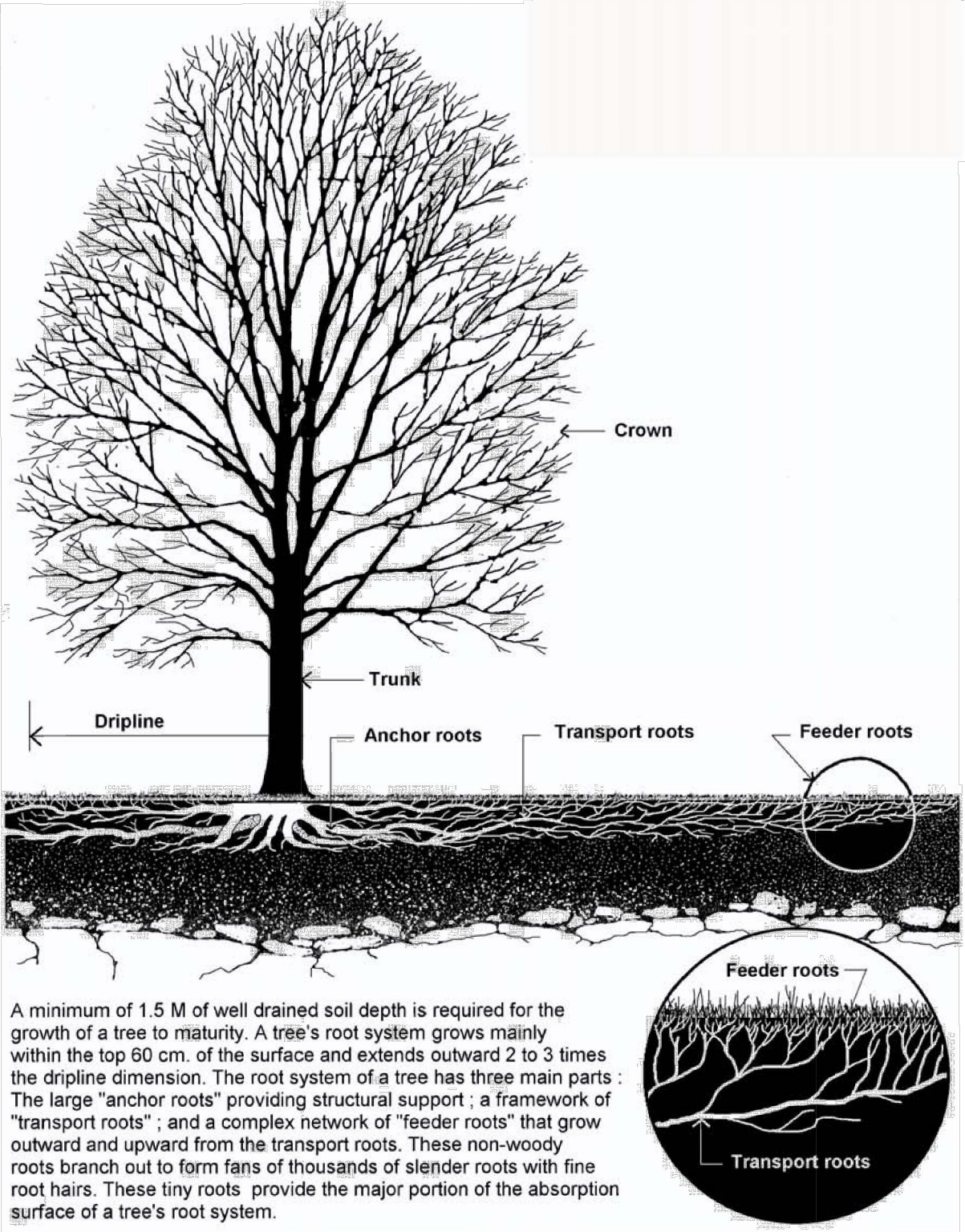
OAKVILLE



**SCHEDULE 1
TREE PROTECTION BARRIER**

Tree Protection Barriers

- Tree protection barriers must be 1.2m (4ft) high, waferboard hoarding or an equivalent approved by Urban Forestry Services.
- Tree protection barriers for trees situated on the Town road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of plastic web snow fencing on a wood frame made of 2"x 4"s .
- Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.
- All supports and bracing should be outside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.
- No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.



A minimum of 1.5 M of well drained soil depth is required for the growth of a tree to maturity. A tree's root system grows mainly within the top 60 cm. of the surface and extends outward 2 to 3 times the dripline dimension. The root system of a tree has three main parts : The large "anchor roots" providing structural support ; a framework of "transport roots" ; and a complex network of "feeder roots" that grow outward and upward from the transport roots. These non-woody roots branch out to form fans of thousands of slender roots with fine root hairs. These tiny roots provide the major portion of the absorption surface of a tree's root system.

Note: Graphic and technical information supplied by: The City of Toronto, Urban Forestry Services

3	AUGUST 03, 2017	ISSUED FOR SPA	DC
2	JULY 11, 2017	ISSUED FOR REVIEW	DC
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PLANNING
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& LANDSCAPE
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