

ARBORIST REPORT

(refer also to Tree Inventory & Preservation Plan By Baker Turner Inc., January 2024)

Sunningdale Bend Residential

1667 Sunningdale Bend
Mississauga, Ontario

Prepared By

Baker Turner inc

Landscape Architecture / Site Design
8501 Mississauga Road, Suite 300
Brampton, Ontario L6Y 5G8
Tel. 905-453-9398

Jonathan Woodside, ISA Certified Arborist, ON-1439A



Site Visited: Nov. 2022

Report Issued: July 14, 2021

Revised: February 16, 2023

Revised: January 18, 2024

INTRODUCTION

Site Description, Context and Proposed Project

The site is located 1667 Sunningdale Bend in Mississauga. The site is currently the rear portion of a residential property that faces Meadow Wood Road. This portion of the site is unoccupied, there is a small structure in the middle of the site that is in disrepair. There are 71 trees identified standing on the development parcel. These trees are located at the periphery of the site. The middle of the site has multiple uses with storage, vehicle use, and other ground works throughout the centre of the site.

The site is now proposed for development by dividing up the property into five smaller residential lots.

The properties surrounding the site are residential in character and there is a wooded ravine to the north of the site. 45 trees are located along the property line either straddling that property line (11) or within 6m of the site on a neighbouring lot (33). Another 7 trees are located within the road right of way along Sunningdale Bend where vehicles enter the site and 1 tree straddles the property line between the subject site and the city right-of-way.

From this list one important consideration is the presence of butternut trees on the site and in the adjacent ravine. These trees have been marked on site and described in the tree inventory where they meet the criteria for this list. There are also Butternut trees that were too small to be included in this inventory. Further information regarding the Butternuts will be made available through a butternut assessment that is independent of this report.

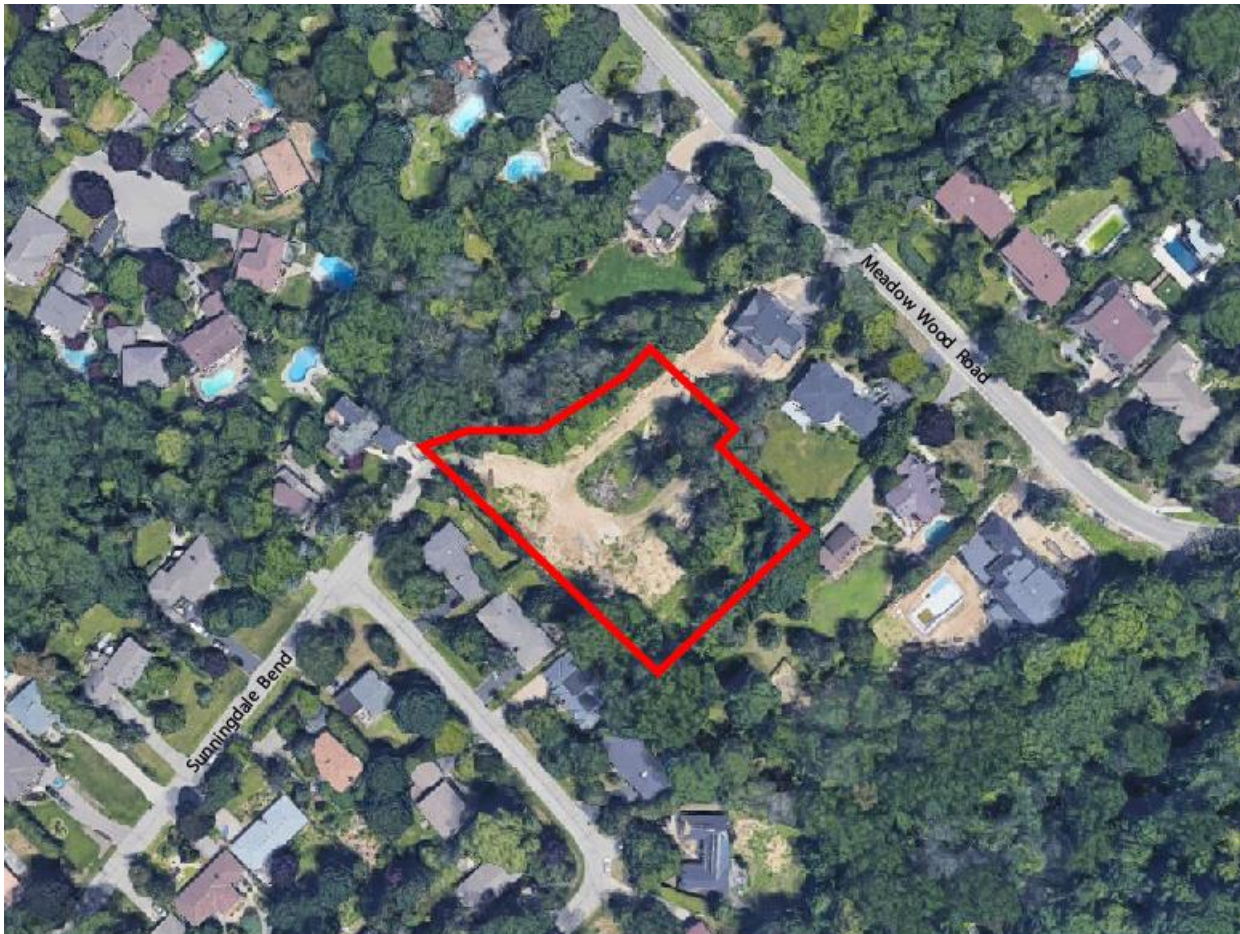


Figure 1: Context Plan.

Assignment

Baker Turner Inc. was retained to complete an inventory of the site/city trees and subsequently prepare an Arborist Report and a Tree Inventory & Preservation Plan. Trees were measured for approximate canopy width and trunk diameter at breast height (DBH), and assessed for structural and biological condition. Please refer to the inventory provided on the tree inventory & preservation plan for details.

TREE INVENTORY

Table 1: Tree Inventory Table

DBH - Diameter of tree at breast height (1.37m) measured in centimeters.

Canopy Diameter (m) - Approximate diameter of canopy in meters.

Biological Health

H (High Quality) - Desirable urban tree species with vigorous growth and no apparent symptoms of disease or pests.

MH (Medium-High Quality) - Desirable urban tree species with moderate growth or minor symptoms of disease that are aesthetic only and less than 5% dieback.

M (Medium Quality) – Any species with moderate growth and minor dieback of less than 20% of canopy and/or minor symptoms of disease or pests.

ML (Medium-Low Quality) - Low vigour, with dieback of 15% - 50% of canopy and/or major symptoms of disease or pests.

L (Low Quality) - More than 50% of the canopy is dead.

Structural Condition

H (High Quality) - No apparent defects to root crown, trunk, leader, or major limbs.

MH (Medium-High Quality) - Only insignificant defects to root crown or trunk and minor defects to canopy including limbs.

M (Medium Quality) - Minor defects to root crown, trunk and major limbs.

ML (Medium-Low Quality) – Major defects to long-term structure particularly at root crown, trunk and major limbs.

L (Low Quality) - Major defects that have an immediate risk of failure.

Recommended Action

P – Preserve; R - Remove for poor condition; RC - Remove for Construction; R* - Remove with Neighbours Approval

Location

C – City-owned boulevard; S – Subject Site; N – Neighbouring private property; B – Tree straddles property boundary

Tree No.	Species	DBH (cm)	Combined DBH (cm)	Measure to Drip Line diameter (m)	Biological Health	Structural Condition	Comments	Recommended Action	Location
1	Picea abies	14		4	H	MH	Grape	RC	S
2	Picea abies	11		3	H	MH	Grape	RC	S
3	Thuja occidentalis	56		6	M	M	Only 30% Canopy. Also tagged 412.	RC	S
4	Acer platanoices	32		9	M	M	Growing from base of cut tree. Also tagged 413.	RC	S
5	Picea abies	22.5		3	H	MH	Only top 1/3 in leaf. Also tagged 410.	RC	S
6	Pinus sylvestris	33.5		5	D	D	Dead. Also tagged 409.	R	B
7	Pinus sylvestris	24		4	D	D	Dead	R	S
8	Pinus sylvestris	39		7	M	M	2L Approx. 20 lower dead branch stubs	RC	S

Tree No.	Species	DBH (cm)	Combined DBH (cm)	Measure to Drip Line diameter (m)	Biological Health	Structural Condition	Comments	Recommended Action	Location
9	Thuja occidentalis	24		4	M L	M	Only top 1/4 in leaf. Also tagged 406.	RC	S
10	Thuja occidentalis	22		4	M L	M	Only top 1/4 in leaf. Also tagged 405.	RC	S
11	Picea abies	65		11	H	H	Also tagged 404.	RC	S
12	Magnolia sp.	20.5, 18.5	20	8	H	H	ML	RC	S
13	Thuja occidentalis	43		7	M	ML	Top broken, ML, 1 hanging branch	RC	B
14	Picea abies	44.5		7	H	H	PU(1m). Also tagged 342.	RC	S
15a	Thuja occidentalis	16.5, 10,13	20	9	M L	L	MI, topped and regrown	R	B
15b	Thuja occidentalis	13, 13	16	3	M L	L	MI, topped	R	B
16	Picea pungens	51		7	H	H		I	B
17	Picea glauca	19.5		4	M	M	Buried under soil pile	P	S
18	Tsuga canadensis	15		5	H	H	-	P	N
19	Juglans nigra	107		16	M	M	MS DBS medium-large (5% of canopy)	I	N
20	Thuja occidentalis	18		3	L	L	regrown in - leans 10°E, nearly 100% canopy dead	R	S
21	Thuja occidentalis	23		3	L	L	Leans 10°E, nearly 100% canopy dead	R	S
22	Thuja occidentalis	21.5		3	L	L	Leans 10°E, nearly 100% canopy dead	R	S
23	Juglans cinerea	54		14	M	M	>10 Large DBS, 10% canopy dead. Also tagged 350.	I	S
24	Pinus strobus	18		4	M	M	Grape, crack to 2m. Also tagged 351.	RC	S
25	Thuja occidentalis	19		3	M	M	2L, IB, Virginia Creeper in canopy	RC	S
26	Pinus strobus	18		4	M	M	Virginia Creeper in canopy. Suppressed by #27	RC	S
27	Juglans nigra	33		8	M	M	Virginia creeper in canopy, leans 10°E Many medium DBS	I	S
28	Juglans nigra	50.5		9	M	M	Large BB UB(E)	I	S
29	Juglans nigra	100		22	M	M	>5 long piece cuts of branch stubs	I	N
30	Acer platanoides	20		7	M	M		P	N
31	Prunus serotina	36		7	L	L	large 25%trunk damage @ 0-5m, large BB, leans 20° S	I	N
32	Pinus sylvestris	47		10	M	M	Wounds from growing into fence, grape in canopy, weak growth.	I	B

Tree No.	Species	DBH (cm)	Combined DBH (cm)	Measure to Drip Line diameter (m)	Biological Health	Structural Condition	Comments	Recommended Action	Location
33	Acer platanoides	15.5		4	M	M	UB(w)	P	S
34	Acer platanoides	11.5, 23, 23.5	24	4	M	M	ML, leans S 10° UB(S)	P	N
35	Acer platanoides						No longer present.		
36	Acer platanoides						No longer present.		
37	Acer platanoides						No longer present.		
38	Acer platanoides	61		9	M L	P	2 large holes @1-4m, large DB (50% of canopy), crack to 2m height, large hanging branch. Also tagged #365.	R	S
39	Acer platanoides	21.5		6	M	ML	Leans 10°S, UB(S), suppressed. Also tagged #366.	I	S
40	Acer platanoides	20.5		6	M	M	garbage piled at base. Also tagged #367.	P	S
41	Acer platanoides	20		6	M	M	Leans 10°S UB(s), garbage piled at base	P	S
42	Acer platanoides	20.5		6	M	ML	UB(E), Leans 20°(east). Also tagged #368.	P	S
43	Acer platanoides	17		5	M	H		I	S
44	Fraxinus pennsylvanica	31		3	D	D	Dead 90% with epicormic sprouts. EAB present. Also tagged #370.	R	S
45	Acer platanoides	15.5, 13.5		4	D	D	Dead. Also tagged #369.	R	B
46	Acer platanoides	16		6	M	ML	Grown through wire fence, Suppressed	P	B
47	Juniperus virginiana	19		6	M L	ML	suppressed.	I	S
48	Acer platanoides	16		6	M	M	Grape	P	S
49	Picea abies	19.5, 10	17	4	M	M	2L, Grage	P	S
50	Picea pungens	36.5		7	M	M		I	N
51	Acer negundo	21, 21, 32.5	27	9	M	ML	ML, leans away from centre. Also tagged #378.	I	B
52	Ailanthus altissima	18		5	M	M		I	S
53	Ulmus pumila	46		9	M	M	10 large DB stubs, barb wire fence	I	B
54	Pinus sylvestris	30		7	M	M		P	N
55	Pinus sylvestris	30		7	M	M	-	P	N
56	Pinus sylvestris	27, 24	23	6	L	MP	2L weak growth, large pruned limbs	R	S

Tree No.	Species	DBH (cm)	Combined DBH (cm)	Measure to Drip Line diameter (m)	Biological Health	Structural Condition	Comments	Recommended Action	Location
57	Abies balsamea	17.5		3	M L	M	Virginia creeper in canopy, weak growth	RC	S
58	Picea glauca	53		8	H	H		RC	S
59	Picea glauca	58		8	H	H	grape, 3 large BB	RC	S
60	Pinus strobus	53		8	M	M	grape 50% covered	RC	S
61	Taxus sp.	20		4	M L	M	wound at 50cm, grape covers 50%	RC	S
62	Abies balsamea	27		5	M	M	virginia creeper and grape in canopy	RC	S
63	Juglans nigra	34		9	M	M		RC	S
64	Ailanthus altissima	22,19,17,17	27	9	M	M	1B UB(w)	RC	S
65	Picea glauca	36.5		5	M	M	UB (sw)	RC	S
66	Picea glauca	33		5	M	M	wound at 1.5m, UB(nw)	RC	S
67	Picea pungens	38		5	M	M	UB (NE), >5 med.DBs	RC	S
68	Thuja occidentalis	18		3	M L	M	wounds 25% base to 1.5m, UB(SE)	RC	S
69	Picea glauca	34		5	M	M	top 50% canopy only. Also tagged #387.	RC	S
70	Picea pungens	15		2	D	D	Dead	R	S
71	Picea pungens	32		5	M	M	top 33% canopy only	RC	S
72	Picea pungens	18		2	M	M	top 33% canopy only	RC	S
73	Picea pungens	31.5		5	M	M	top 33% canopy only	I	S
74	Picea pungens	17.5		3	M	M	top 50% canopy only	P	S
75	Acer platanoides	21		6	M	M	Also tagged #380.	P	S
76	Acer platanoides	18		6	M	M	leans 10° (se)	P	S
77	Acer platanoides	40.5		7	M	M	grape in lower canopy, 10 medium sized DBs. Also tagged #381.	P	S
78	Picea abies	18		3	M	M	UB(E)	P	B
79	Picea abies	24		4	M	M	Also tagged #388.	P	S
80	Picea abies	84		13	H	H	Also tagged #389.	I	S
81	Picea abies	32.5		5	M	M		RC	S
82	Thuja occidentalis grove	8		6	P	P	4 dead	R	S
83	Abies balsamea	59.5		8	M	M	>10 red DB	RC	S
84	Abies balsamea	20.5		4	H	H		RC	S
85	Abies balsamea	15		2	M	M	UB (s)	RC	S
86	Tsuga canadensis	19.5		3	M L	M	Suppressed, 40% dieback.	P	N

Tree No.	Species	DBH (cm)	Combined DBH (cm)	Measure to Drip Line diameter (m)	Biological Health	Structural Condition	Comments	Recommended Action	Location
87	Tsuga canadensis	14.5		3.5	M	M	Multiple leaders with included bark from base to 30cm, hanging branch in canopy.	P	N
88	Quercus rubra	78		16	H	H	2 cracks from base to 60cm ht. minor dieback in canopy.	P	N
89	Picea glauca	21.5		4	M	M	Bottom 30% has died back.	P	N
90	Quercus rubra	53.5		12	M	ML	40% of trunk damaged from base to 2.5m t. with rot showing. Approx. 5 large dead branches. Also leans 10° (N)	P	N
91	Picea glauca	30.5		4.5	H	H	Also tagged #411	P	N
92	Acer platanoides	19.5		5	M	M		P	N
93	Fraxinus pennsylvanica	50.5		6	D	D	Dead.	P	N
94	Picea glauca	15.5		2	M	M	Bottom 80% of canopy is died back.	P	N
95	Picea glauca	14.5		2	M	M	Animal markings on trunk, suppressed, UB(W), bottom 80% of canopy is diedback.	P	N
96	Picea glauca	19		3	M	M	Bottom 80% of canopy is died back.	P	N
97	Picea glauca	30		3	M L	M	Bottom 80% of canopy is died back. UB (w)	P	N
98	Picea glauca			3	D	D	Dead.	P	N
99	Thuja occidentalis	14.5		5	P	P	95% canopy died back and 90° lean (s).	P	N
100	Acer platanoides	13		4	M	M	UB(s)	P	N
101	Thuja occidentalis	29		3	M L	M	Grape in canopy, suppressed, UB(s), and 10°L(s)	P	S
102	Thuja occidentalis	25		3	M L	M	Suppressed, supporting dead leaning tree, UB (e).	P	B
103	Thuja occidentalis	21.5		2.5	M	M	Tips browning.	P	N
104	Picea glauca	49		6	H	H	Lower 30% canopy diedback	P	N
105	Acer platanoides	19, 9.5	17	4	M	M	Co-dominant leaders, supports dead leaning tree	P	N
106	Acer negundo	21.5, 28.5	22	8	M	L	Co-dominant leaders, leans 45°(s), has IB and canopy 15% dead.	P	N
107	Pinus strobus	32		6	M	M	Grape in canopy.	P	N
108	Juglans nigra	16		5	H	H		P	N
109	Juglans nigra	15		5	H	M	Co-dominant leaders and wound at main union.	P	N

Tree No.	Species	DBH (cm)	Combined DBH (cm)	Measure to Drip Line diameter (m)	Biological Health	Structural Condition	Comments	Recommended Action	Location
110	Juglans nigra	16		5	H	H	UB (east)	I	S
111	Pinus strobus	34		6	H	MH	Vine in canopy	RC	S
112	Juglans nigra	14.5		3	M	M	Large wound with rot at main union, slightly suppressed.	I	S
113	Acer platanoides	14.5		3	H	H		P	S
114	Acer platanoides	11.5, 14	16	4	M	M	2L, 2 large wounds of 20%TD. Trunks fused at 3m.	I	S
115	Ailanthus altissima	13, 19	18	4	H	H		RC	S
116	Ulmus pumila	40		6	H	MH	Post embedded in trunk.	RC	S
117	Juglans cinerea	18.5		6	M	M	UB(east), large number of wounds ot 10%TD on south side, Massive wound at base.	P	N
118	Acer sacharum	23.5		7	H	H		P	N
119	Betula papyrifera	25, 27	23	6	M L	ML	2L and IB, 50%D, 4 large DB.	P	C
120	Abies balsamea	39		6	M	M	top leans because suppressed, 10% dieback	P	C
121	Abies balsamea	42		6	M H	H	15% of canopy is browning	P	C
122	Abies balsamea	51		7	H	H		P	C
123	skipped								
124	Picea omorika	23		5	H	H		RC	C
125	Picea omorika	~30		6	H	H		P	C
126	Betula papyrifera	29, 30, 42	32	12	M H	M	ML, mature tree but not declining yet.	P	C

Images



Figure 2: View to East at Site Access at Sunningdale Bend



Figure 3: View to North of Naturalized Slope



Figure 4: View to Southeast at Centre of Site.

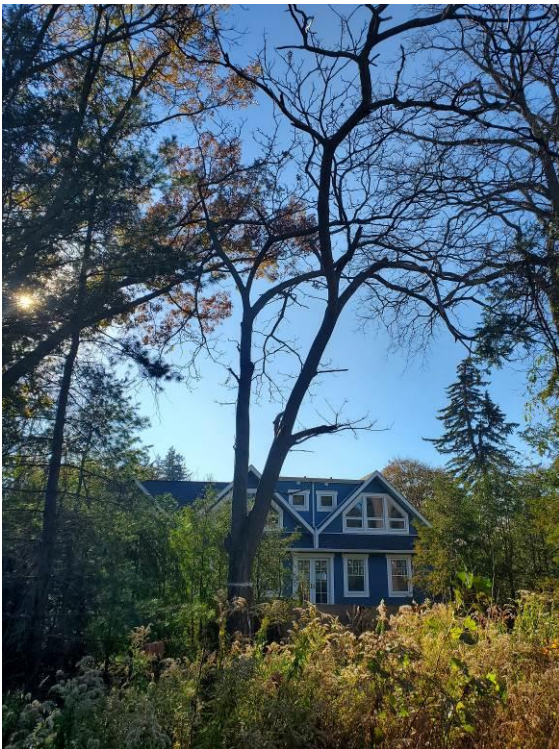


Figure 5: Butternut on site (Tree 23)



Figure 6: Trunks in Southeast Corner of the Site.

RECOMMENDATIONS

Healthy Trees for Removal: #1-5, 8-14, 24-26, 57-69, 71, 72, 81, 83-85, 111, 115, 116, and 124.

- Thirty-five (37) trees are in this category.
- Thirty-one (33) trees are on the subject site and over 15cm DBH (2 trees are below 15cm DBH)
- One (1) tree is a boundary tree bordering the city right-of-way
- One (1) trees is on the city right-of-way.

Additional Trees in Poor Condition or that are Dead for Removal: #6, 7, 15a, 15b, 20-22, 38, 44, 45, 56, 70, and 82.

- Thirteen (13) trees are in this category.
- Nine (9) trees are on the subject site.
- Three (4) trees are on the property boundary.

Preserve trees #16-19, 23, 27-34, 39-43, 46-55, 58, 59, 73-80, 86-110, 112-114, 117-123, 125 and 126.

- Twenty-nine (29) trees are on the subject site.
- Six (6) trees are on the public right-of-way.
- Forty (40) trees are on neighbouring properties or straddle the property boundary.
- Among these trees, twenty (20) will have activities within the dripline and are thus categorized as injured trees. These trees include 16, 19, 23, 27, 28, 29, 31, 32, 39, 43, 47, 50, 51, 52, 53, 73, 80, 110, 112, and 114.

Tree Preservation Notes

Where shown on the tree inventory plan, tree protection must be present and in good condition throughout construction. This will be achieved primarily by constructing tree protection hoarding at the limit of work (Figure 2).

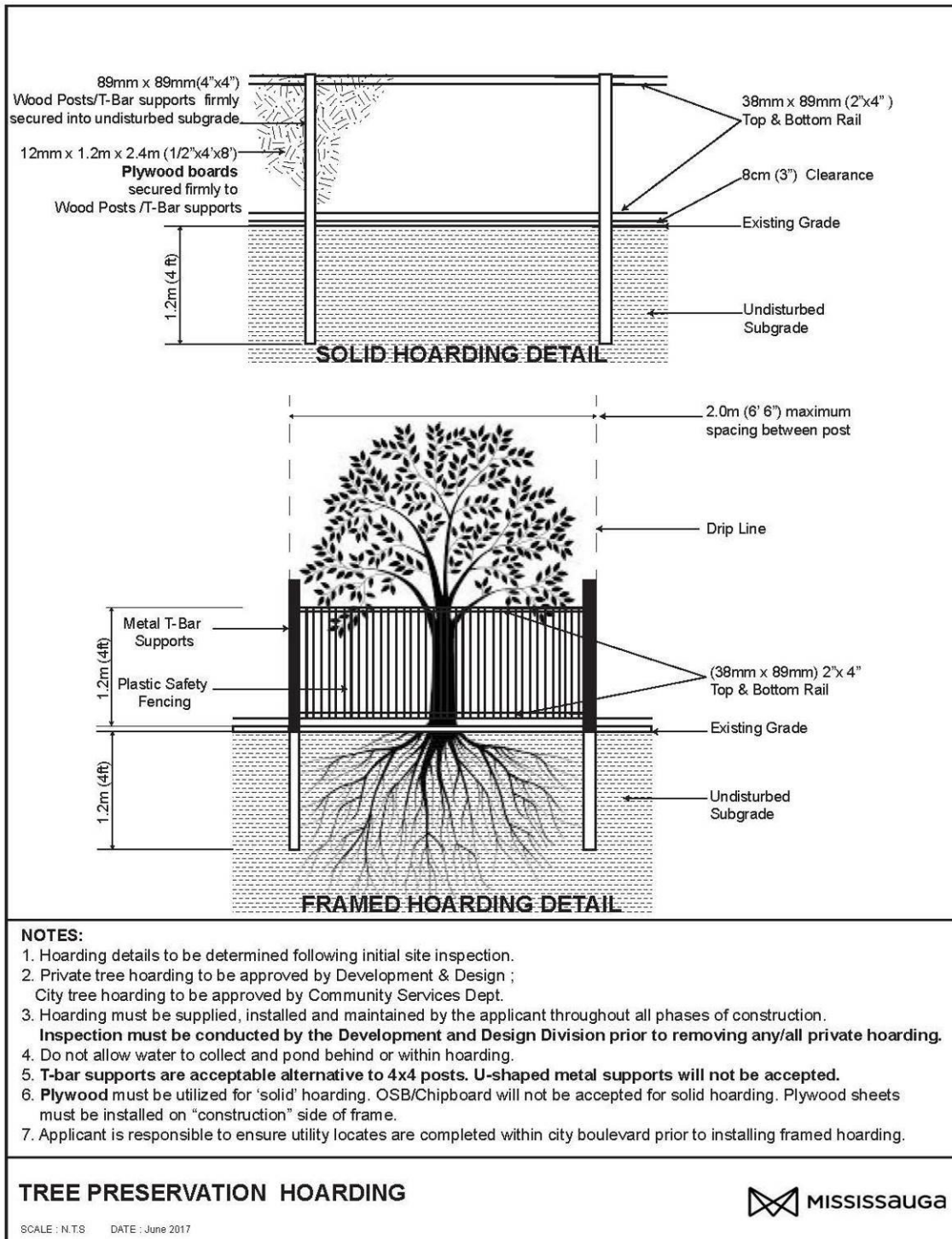


Figure 2: Mississauga Tree Protection Hoarding – Solid and Framed

Additionally, within the tree protection zone there may be no:

- Demolition, construction, replacement or alteration of permanent or temporary buildings or structures.
- Installation of large stones, boulders or additional hard surface treatment
- Altering grade by adding or removing soil or fill, excavating, trenching, topsoil or fill scraping, compacting soil or fill, dumping or disturbance of any kind
- Storage of construction materials, equipment, wood, branches, leaves, soil or fill, construction waste or debris of any sort
- Application, discharge or disposal of any substance or chemical that may adversely affect the health of a tree e.g. concrete sluice, gas, oil, paint, pool water or backwash water from a swimming pool
- Causing or allowing water or discharge, to flow over slopes or through natural areas
- Access, parking or movement of vehicles, equipment or pedestrians related to construction activities.
- Cutting, breaking, tearing, crushing, exposing or stripping tree's roots, trunk and branches.
- Nailing or stapling into a tree, including attachment of fences, electrical wires or signs
- Stringing of cables or installing lights on trees
- Soil remediation, removal of contaminated fill
- Excavating for directional or micro-tunneling and boring

Prior to construction:

When tree removals are completed for those trees that have been approved by the city, pruning should also take place to remove deadwood, broken branches in protected trees that may be unsafe during construction. Where tree branches conflict with construction activities and clearance for vehicles, pruning should be identified on site with both the contracting arborist and general contractor present.

All Pruning must be completed by a qualified arborist following standard ISA procedures and must take place prior to the start of construction.

Root sensitive excavation:

Trees do not stop their roots at a consistent distance from the trunk. Roots may extend beyond the canopy limit of the tree by several multiples. For this reason, it is impossible to avoid all damage to existing trees. In order to mitigate the risks of injuries to following protocol should be used for excavation.

For excavation within the minimum tree protection zone, root pruning should be performed before excavation. Root pruning can be performed by digging a trench where identified on the tree preservation plan. All roots along the outer edge should be cut to the depth of excavation or 1 m in depth, whichever is less. Roots should be cut with a clean, sharp blade or saw perpendicular to the direction of the root. Hydrovacating is recommended as the preferred method for excavation.

Excavation taking place at a distance greater than 1 m from tree protection hoarding may make use of equipment such as a backhoe. Where roots greater than 2.5cm in diameter are encountered that likely come from a tree to be protected, large equipment must be stopped and any roots encountered should be exposed by removing soil by hand tools. Roots must be unearthed to the limit of excavation at which point they may be cut cleanly with a clean, sharp blade or saw perpendicular to the direction of the root. No pulling or tugging on roots with machinery or blunt equipment is permitted on the site.

Tree to have root sensitive excavation within the dripline: 16, 19, 23, 27, 28, 29, 31, 32, 39, 43, 47, 50, 51, 52, 53, 73, 80, 110, 112, and 114.

Once construction begins:

Additional monitoring and maintenance may be required. At regular intervals during construction, at the close of construction and one year after the close of construction all preserved trees should be assessed for potential pests and signs of injuries from construction. Injuries from construction weaken trees and provide a vector for infection. A pest management approach may then be initiated where required.

Supplemental irrigation may be required throughout construction. Irrigate tree roots during drought conditions by deep root watering once per month throughout the growing season and the following year after work has been completed.

However, Before watering ensure that soil is not already overly saturated by removing a handful of soil from 5cm below grade within the root zone. If the soil has a sour smell, do not water in that area and check any irrigation system that may be overwatering the area. When taking soil bear in mind micro variations in the root zone such as depressions where water may be settling. Multiple samples may be required to gauge the need for additional watering.

All applications of water should be a minimum of 2.5cm applied over the protected root zone. Watering must be done slowly to ensure that water does not run away from the root zone and to ensure soil around the root system of the tree is well saturated. Additional supplemental watering is required for some trees and detailed in the tree maintenance recommendations.

After Construction is Complete:

Supplements of fertilizer may be helpful after activities to supplement deficiencies however it should not be considered a cure-all. At times fertilizer may spur growth at the expense of tree functions that are defensive in nature.

Fertilizer should not be applied to preserved trees from the start of construction activities to one year after the close of construction. One year after the close of construction trees must be re-assessed and soil tested. In cases where soil tests indicate a nutrient deficiency, a fertilizer regime may be required.

LIMITING CONDITIONS

This tree inventory was derived from data gathered on the site using accepted arboricultural practices. This includes a visual examination of all above ground parts of the tree for structural defects and signs of health and vigour. All examination took place from the ground plane and no trees were cored, probed or climbed. There was also no detailed inspection of the root crown where excavation would have been required.

This inventory describes the health, structural stability and identifies potential hazards of the trees to a reasonable extent. Where dead branches or other are identified in the notes it is the owner's responsibility to take action. This inventory does not provide or imply a guarantee that these trees or branches will remain standing intact. The stability of any tree or branches of a tree cannot be predicted with absolute certainty under all circumstances.

There is, likewise, no guarantee of survival for those trees to be preserved during construction but which are subject to injury. Tree preservation guidelines that are provided in this report are generally suitable for the tree as determined by the visual assessment. However, there is no guarantee that these guidelines will be followed throughout construction unless an arborist is retained for complete supervision of the site at all times. Even with complete supervision, roots in an urban environment are unpredictable. Guidelines that suppose an even distribution of roots may not be effective in cases where roots have clustered in small areas.

The assessment in this inventory is valid only at the time of inspection.

All field data was collected and report prepared by Kendra Cheeseman and Jon Woodside, ISA Certified Arborists.



A handwritten signature in blue ink, appearing to read "JW".

Jon Woodside
Baker Turner Inc.
ISA Certified Arborist, ON-1439A