

TREE INVENTORY, ASSESSMENT, AND TREE PRESERVATION PLAN

PROJECT:

**623 Yonge Street and 515 Big Bay Point Road
(D28-039-2023)
Barrie, ON**

CLIENT:

**Suncor
c/o
I.G.P. Realty Advisors Inc.
19 Galsworthy Avenue
Scarborough, ON
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21 December 2023, revised 21 February 2024



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INTRODUCTION

This Tree Inventory, Assessment, and Preservation Plan was completed for 623 Yonge Street and 515 Big Bay Point Road in Barrie, Ontario. The subject area is located north of Yonge Street and south of Big Bay Point Road. Removal, retention and protection of trees within the subject area will be discussed in accordance to City of Barrie's by-laws and guidelines. The following by-laws and policies are applicable to the subject area:

- Public Tree By-law 2014-116
- Tree Preservation By-law 2014-115
- Tree Protection Manual (Version 4, revised January 2019)

Existing Conditions

The subject property is an existing gas bar with store and car wash. The 623 Yonge Street property is zoned as 'C4 – General Commercial' and the 515 Big Bay Point Road property is zoned as 'R1 – Residential Single Detached Dwelling First Density'. Tree resources consist of landscape trees in manicured lawn, and naturally regenerated trees in unmanicured open areas. Refer to the Tree Preservation Plan (TP-1) for the existing conditions (topographic survey).

Proposed Works

The proposed works include the re-development of the gas bar with a new commercial building with drive-through, driveway re-alignments, and associated parking. Refer to the Tree Preservation Plan (TP-1) for the proposed site plans.

METHODOLOGY

Tree Inventory

Field assessments to collect tree inventory data were completed on 8 October 2023. Trees greater than 10 cm in diameter and on private property were included in this inventory. No trees were found within the City road allowance.

Trees were numbered 1 to 43. Groups of trees (tree polygons) that could not be individually located were identified with a prefix 'P'. Trees were located using the topographic survey provided or aerial photo interpretation and estimations made in the field. Species, diameter at breast height (DBH), health, condition, dripline, and relevant comments were recorded for each of the trees. All assessments were limited to ground survey. Neighbouring trees were assessed to the greatest extent possible from subject property limits.

Tree Preservation

A combination of the dripline of trees and the City of Barrie's minimum Tree Protection Zones (mTPZs) for Trees On or Adjacent to a Municipal Right-of-Way, were utilized to determine suitability of the trees for preservation. Trees were assigned a "high, "medium" or "low" preservation value and a Level 1, Level 2 or Level 3 preservation recommendation, as per the Tree Protection Manual guidelines.

RESULTS

Tree Inventory

A total of 41 individual trees, and two tree polygons were included in the tree inventory. All trees were located on the subject property, with the exception of Trees 13, 16, 29, 31, 32, 34, and 35.

Species found include: Red Maple (*Acer rubrum*), Sugar Maple (*Acer saccharum*), Fir species (*Abies* sp.), Norway Maple (*Acer platanoides*), Blue Spruce (*Picea pungens*), White Spruce (*Picea glauca*), Black Walnut (*Juglans nigra*), Balsam Fir (*Abies balsamea*), Manitoba Maple (*Acer negundo*), Eastern Red Cedar (*Juniperus virginiana*), Bur Oak (*Quercus macrocarpa*), Eastern White Cedar (*Thuja occidentalis*), Austrian Pine (*Pinus nigra*), Apple species (*Malus* sp.), and Freeman Maple (*Acer x freemanii*).

Refer to Table 1 for the detailed tree inventory, Appendix A for photos of the trees and the Tree Preservation Plan (TP-1) for the locations of the trees.

ANALYSIS AND DISCUSSION

Tree Removal

The removal of 26 trees and one tree polygon will be required to accommodate the proposed development. The removal of Trees 1 to 3 will be required to accommodate the proposed drive-through. The removal of Tree 4 will be required to accommodate a storm water pipe. The removal of Trees 5 to 7 will be required to accommodate the proposed building and associated landscaping. Trees 8 to 11, 21 to 27, 30, and tree polygon P28 will be required to accommodate new paved areas and the installation of a new wood fence. The removal of Tree 12 will be required to accommodate the proposed pylon sign. The removal of Tree 14 will be required to accommodate the proposed EVC switchboard. The removal of Tree 17 will be required to accommodate the proposed vent stack. Tree 42 is dead and recommended for removal. The removal of Tree 43 will be removed to accommodate a proposed concrete walkway.

Tree Preservation

The preservation of all remaining trees may be possible with the use of appropriate tree preservation measures, as described in this report and shown on the Tree Preservation Plan (TP-1).

Trees 15, 16, 29, 31 to 41, and tree polygon P33, will be protected by the proposed tree preservation fence as indicated on the Tree Preservation Plan (TP-1), as per Detail BSD-1232. A fence is proposed within the driplines and/or mTPZs of Trees 13, 15, 16, and 29. Any fence installation, including post hole digging, within the driplines and/or mTPZs of these trees should be completed during the final landscaping phase of construction (subsequent to building completion). Any work within the driplines of these trees should be completed by hand or using light equipment and under supervision of a Certified Arborist, Landscape Architect, or Registered Professional Forester (R.P.F.).

Bi-monthly Tree Preservation Fencing inspections must be conducted and reports submitted to the City of Barrie during the period of active construction on the site.

Tree preservation fencing should be installed prior to construction and remain in place throughout the construction process, as specified in the Tree Preservation Plan (TP-1). No grade changes, storage of materials or equipment are permitted within the tree protection zone (TPZ), unless specified above. The driplines, tree preservation fencing locations, details BSD-1230, BSD-1231, BSD-1232, BSD-1234, BSD- 1235, BSD-1236 and tree preservation notes, are shown on the Tree Preservation Plan (TP-1). Driplines and mTPDs are shown in Table 1.

CONCLUSION

A total of 41 individual trees, and two tree polygons were included in the tree inventory. All trees were located on the subject property, with the exception of Trees 13, 16, 29, 31, 32, 34, and 35.

The removal of 26 trees and one tree polygon will be required to accommodate the proposed development. One (1) tree is dead and recommended for removal. The preservation of all remaining trees may be possible with the use of appropriate tree preservation measures, as discussed in this report.

Tree preservation measures should be installed prior to any construction work, as discussed in this report. Tree preservation fencing should be implemented at driplines distances or mTPDs noted in Table 1 and/or shown in the Tree Preservation Plan (TP-1) and maintained throughout the construction process.

Sincerely,



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REFERENCES

City of Barrie. January 2019. Tree Protection Manual, Version 4.

Council of Tree and Landscape Appraisers. 2019. Guide for Plant Appraisal, 10th edition.
International Society of Arboriculture, Champaign, IL. 181pp.

The City of Barrie. Public Tree By-law 2014-116.

The City of Barrie. Tree Preservation By-law 2014-115.

TABLE 1. DETAILED TREE INVENTORY

Location: 623 Yonge Street and 515 Big Bay Point Road, Barrie

Date: 8 October 2023 Surveyors: AC/KA

Location	Tree #	Common Name	Scientific Name	Diameter at Breast Height (DBH)	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection distance (radius)	Comments	Preservation Value - High, Medium or Low	Preservation Recommendation - Level	Proposed Action
				(cm)	Good (G), Fair (F), Poor (P)			%	(m)	(m)		(H, M, L)	(1, 2, 3)	
623 Yonge Street	1	Red Maple	<i>Acer rubrum</i>	20.5	FG	FG	FG		2	1.5	Minor lean, minor epicormic branching	M	3	Remove
623 Yonge Street	2	Red Maple	<i>Acer rubrum</i>	13	FG	F	FG		2	1.5	Moderate asymmetrical crown, minor epicormic branching, minor lean	M	3	Remove
623 Yonge Street	3	Red Maple	<i>Acer rubrum</i>	15	FG	F	FG		2	1.5	Moderate asymmetrical crown, moderate epicormic branching, minor lean	M	3	Remove
623 Yonge Street	4	Sugar Maple	<i>Acer saccharum</i>	14	F	F	F	20	2	1.5	Small root flare, moderate epicormic branching	L	3	Remove
623 Yonge Street	5	Fir species	<i>Abies</i> sp.	10	F	F	F	5	1	1	Minor chlorosis	L	3	Remove
623 Yonge Street	6	Fir species	<i>Abies</i> sp.	8	F	PF	F	10	1	1	Dead leader, minor chlorosis, crook	L	3	Remove
623 Yonge Street	7	Red Maple	<i>Acer rubrum</i>	20.5	FG	FG	FG		2.5	1.5	Moderate epicormic branching	M	3	Remove
623 Yonge Street	8	Fir species	<i>Abies</i> sp.	10	P	P	P	90	1	1	Almost dead	L	3	Remove
623 Yonge Street	9	Fir species	<i>Abies</i> sp.	17	F	F	F	30	2	1.5	Double leader, chlorosis	L	3	Remove
623 Yonge Street	10	Norway Maple	<i>Acer platanoides</i>	5-10	F	F	F		2	1	Union at base, minor lean	L	3	Remove
623 Yonge Street	11	Sugar Maple	<i>Acer saccharum</i>	~22	FG	F	FG		3	1.5	Small root flare, moderate epicormic branching	M	3	Remove
515 Big Bay Point Road	12	Blue Spruce	<i>Picea pungens</i>	55	G	G	G		3	2.5	Minor vine competition	M	3	Remove
517 Big Bay Point Road	13	Norway Maple	<i>Acer platanoides</i>	~45	FG	FG	FG		4	2.5	Moderate girdling root, minor pruning wounds	M	3	Preserve
515 Big Bay Point Road	14	White Spruce	<i>Picea glauca</i>	48	FG	FG	F		4	2.5		M	3	Remove
515 Big Bay Point Road	15	White Spruce	<i>Picea glauca</i>	47	FG	FG	F	10	4	2.5		M	3	Preserve

Location	Tree #	Common Name	Scientific Name	Diameter at Breast Height (DBH)	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection distance (radius)	Comments	Preservation Value - High, Medium or Low	Preservation Recommendation - Level	Proposed Action
				(cm)	Good (G), Fair (F), Poor (P)			%	(m)	(m)		(H, M, L)	(1, 2, 3)	
517 Big Bay Point Road	16	Black Walnut	<i>Juglans nigra</i>	15	FG	FG	F		1.5	1.5	Moderate vine competition	L	3	Preserve
515 Big Bay Point Road	17	Balsam Fir	<i>Abies balsamea</i>	43	FG	FG	FG		3	2.5	Minor stem wound with decay, minor broken branches, moderate vine competition	M	3	Remove
515 Big Bay Point Road	18	Blue Spruce	<i>Picea pungens</i>	41	F	F	FG		3	2.5	Moderate vine competition, minor bow	L	3	Remove
515 Big Bay Point Road	19	Manitoba Maple	<i>Acer negundo</i>	12.5	F	F	F		3.5	1.5	Moderate lean	L	3	Remove
515 Big Bay Point Road	20	Eastern Red Cedar (Juniper)	<i>Juniperus virginiana</i>	34	FG	F	F	40	3	2	Sparse, minor lean	L	3	Remove
515 Big Bay Point Road	21	Sugar Maple	<i>Acer saccharum</i>	44	FG	F	FG		5	2.5	Minor epicormic branching, moderate vertical scaffold limbs with included bark	M	3	Remove
623 Yonge Street	22	Sugar Maple	<i>Acer saccharum</i>	30,19,36,24,19 [59]	PF	PF	F		5	2.5	Small root flare, union near base with heavily included bark, vertical scaffold limbs with moderate included bark, moderate pruning wounds with decay, moderate pruning wounds, moderate asymmetrical crown due to competition	L	3	Remove
623 Yonge Street	23	Norway Maple	<i>Acer platanoides</i>	39,59.5,27 [76]	PF	PF	F		4	3	Moderate epicormic branching, union at 0.25m with moderate included bark, deadwood with fruiting bodies, seam, moderate crack	L	3	Remove
623 Yonge Street	24	Fir species	<i>Abies</i> sp.	9	FG	FG	FG		1	1		M	3	Remove
623 Yonge Street	25	Fir species	<i>Abies</i> sp.	9	F	F	PF	60	1	1		L	3	Remove
623 Yonge Street	26	Bur Oak	<i>Quercus macrocarpa</i>	19.5	G	FG	FG		2	1.5	Minor epicormic branching	M	3	Remove
623 Yonge Street	27	Blue Spruce	<i>Picea pungens</i>	37	FG	F	FG		3	2	Moderate vine competition	M	3	Remove
623 Yonge Street	P28	Eastern White Cedar	<i>Thuja occidentalis</i>	6.5-16	F	F	F		1	1.5	~21 trees, significant vine competition, ~13 trees with raised crowns	L	3	Remove

Location	Tree #	Common Name	Scientific Name	Diameter at Breast Height (DBH)	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection distance (radius)	Comments	Preservation Value - High, Medium or Low	Preservation Recommendation - Level	Proposed Action
				(cm)	Good (G), Fair (F), Poor (P)			%	(m)	(m)		(H, M, L)	(1, 2, 3)	
517 Big Bay Point Road	29	Manitoba Maple	<i>Acer negundo</i>	~30,25 [39]	F	F	F		3	2	Moderate pruning wounds with decay, union near base	L	3	Preserve
623 Yonge Street	30	Manitoba Maple	<i>Acer negundo</i>	14,9	PF	PF	PF		3.5	1.5	Two trees, moderate lean, major stem wound with decay, moderate epicormic branching	L	3	Remove
521 Big Bay Point Road	31	Sugar Maple	<i>Acer saccharum</i>	~10	G	G	G		2	1		M	3	Preserve
521 Big Bay Point Road	32	Sugar Maple	<i>Acer saccharum</i>	~9	G	G	G		2	1		M	3	Preserve
623 Yonge Street	P33	Eastern White Cedar	<i>Thuja occidentalis</i>	5-11	FG	FG	FG		2	1.5	2 trees, minor deadwood, minor lean	M	3	Preserve
649 Yonge Street	34	Red Maple	<i>Acer rubrum</i>	18.5	G	G	G		3.5	1.5		M	3	Preserve
649 Yonge Street	35	Red Maple	<i>Acer rubrum</i>	12	G	G	FG		2	1.5	Minor asymmetrical crown	M	3	Preserve
623 Yonge Street	36	Austrian Pine	<i>Pinus nigra</i>	25	G	G	G		3	1.5		M	3	Preserve
623 Yonge Street	37	Austrian Pine	<i>Pinus nigra</i>	26	FG	FG	FG		2	2	Minor lean	M	3	Preserve
623 Yonge Street	38	Apple species	<i>Malus sp.</i>	12.5,12 [17]	F	F	F		2.5	1.5	Union near base with moderate included bark, moderate epicormic branching, moderate crooks	L	3	Preserve
623 Yonge Street	39	Austrian Pine	<i>Pinus nigra</i>	~14	G	G	G		2	1.5		M	3	Preserve
623 Yonge Street	40	Freeman Maple	<i>Acer x freemanii</i>	25	FG	FG	FG		3.5	1.5	Moderate epicormic branching, minor lean	M	3	Preserve
623 Yonge Street	41	Freeman Maple	<i>Acer x freemanii</i>	23	FG	FG	FG		3	1.5	Minor asymmetrical crown, minor lean, moderate epicormic branching	M	3	Preserve
623 Yonge Street	42	Fir species	<i>Abies sp.</i>	11	DEAD				-	-		L	3	Remove
623 Yonge Street	43	Fir species	<i>Abies sp.</i>	10	G	G	G		1	1		M	3	Remove
END														

APPENDIX A. PHOTOS OF THE TREES



Photo 1. Tree 1, view looking southeast



Photo 2. Tree 2 (centre), view looking southeast



Photo 3. Tree 3 (centre), view looking southeast



Photo 4. Tree 4, view looking southeast



Photo 5. Tree 5, view looking southeast



Photo 6. Tree 6, view looking southeast



Photo 7. Tree 7, view looking east



Photo 8. Tree 8, view looking east



Photo 9. Tree 9, view looking east



Photo 10. Trees 10 and 11 (left and right), view looking east



Photo 11. Tree 12, view looking east



Photo 12. Tree 13, view looking east



Photo 13. Tree 14, view looking east



Photo 14. Tree 15 (centre), view looking southeast



Photo 15. Tree 16 (centre), view looking southeast



Photo 16. Tree 17, view looking south



Photo 17. Tree 18, view looking south



Photo 18. Trees 19 and 20 (left and right), view looking southwest



Photo 19. Tree 21, view looking southwest



Photo 20. Trees 22 and 23 (left and right), view looking east



Photo 21. Tree 24 (centre), view looking southeast



Photo 22. Tree 25 (centre), view looking southeast



Photo 23. Tree 26 (centre), view looking southeast



Photo 24. Tree 27 (centre), view looking northeast



Photo 25. Tree polygon P28, view looking northeast

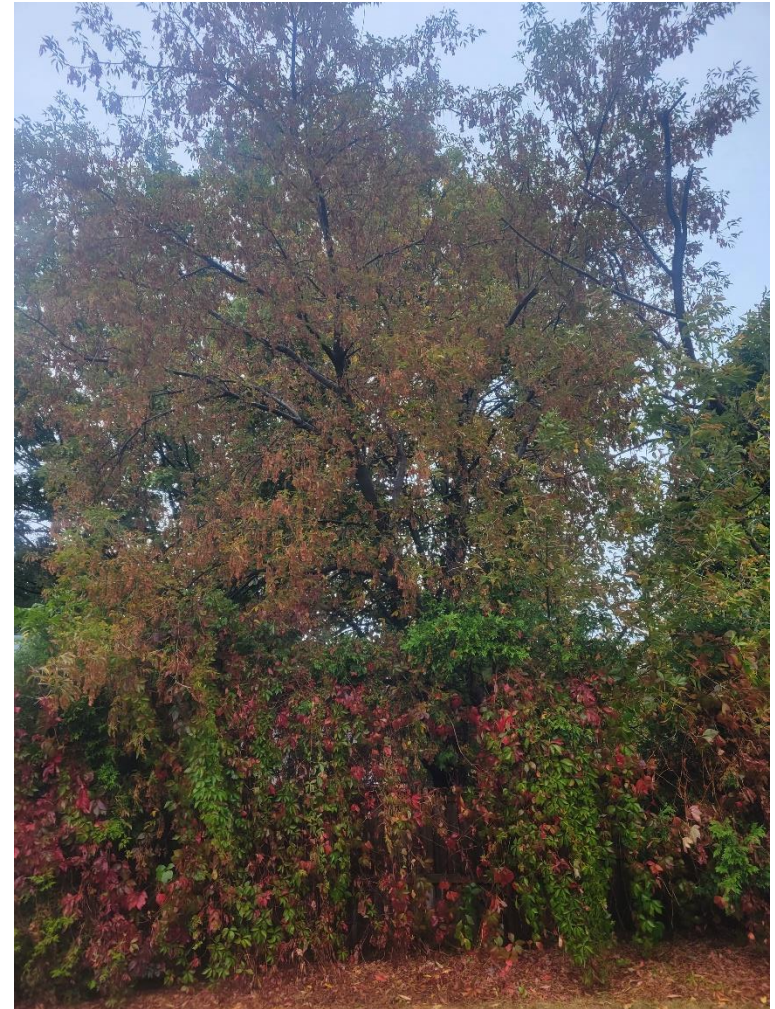


Photo 26. Tree 29, view looking north



Photo 27. Tree 30, view looking northeast



Photo 28. Trees 31 and 32 (left and right, background), view looking northeast



Photo 29. Tree polygon P33, view looking northeast



Photo 30. Tree 34, view looking northeast



Photo 31. Tree 35, view looking northeast



Photo 32. Trees 36 and 37 (foreground and background), view looking southeast



Photo 33. Trees 36 to 38 (background, left to right, and foreground), view looking southeast



Photo 34. Trees 39, view looking southeast



Photo 35. Tree 40, view looking southeast



Photo 36. Tree 41, view looking south



Photo 37. Tree 42, view looking southwest



Photo 38. Tree 43, view looking west