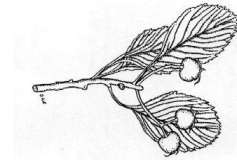


Arborist Report

For **440 to 448 Elgin Street West**
Cobourg, ON (April 21, 2021)



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1. Introduction

The following is an updated arborist report for the property at 440 to 448 Elgin Street West, in Cobourg Ontario. The purpose of this report was to ascertain the potential impacts of proposed construction work on the trees on, and near, the subject site.

This report was written for:

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2. Methods

An on-site inspection was made on May 3, 2019. The sizes of individual trees were measured as diameter at breast height (DBH), breast height being 137 cm from ground level. The locations of these trees are indicated on the modified site plan (Fig. 1). From the data collected plant Condition Rating (CR), Location Rating (LR), Species Rating (SR), and minimum Tree Protection Zones (TPZ), were estimated.^{1,2} The Appraised Values (AV) of road allowance trees were calculated according to the Trunk Method.²

3. Discussion

There are plans to develop the properties at 440 to 448 Elgin Street West, in Cobourg Ontario. Most of the trees on the site would be incompatible with the site plan proposal (Table 1, Fig. 1).

Road Allowance Trees:

All road allowance trees adjacent to the development site could be retained without significant risk of injury. The offsite trees are more than six metres from the site. The trees would be more than their TPZ radii from the development site (Table 1, Fig. 1).

Private Trees:

Over sixty (61) privately owned trees on the site are over 20 cm DBH. Very few of the trees are located such that they could be retained without undue risk of injury. Those trees that could be retained are generally in poor condition (Table 1, Fig. 1).

The native butternut or white walnut (*Juglans cinerea*) is considered an endangered species in Ontario. The species is highly susceptible to the introduced butternut canker fungus. Eurasian walnuts are largely resistant to the canker fungus (Ref. 4 & 5).

There are over twenty (21) walnut trees on the site. These walnut trees do not appear to be the native butternut (*Juglans cinerea*). The bark of the trees most closely resembles the Persian walnut (*J. regia*), i.e. the bark was less smooth than butternuts. Similarly the rounded leaflets were unlike butternut leaflets. The nuts are mostly rounded, and less oblong than butternuts, i.e. more like Japanese walnuts (*J. ailantifolia*). There were a few small nuts with smooth shells, i.e. most like Persian walnuts. All these features suggest that at least some of the trees are Persian walnuts, and that most of the walnuts are hybrids of the butternut and Eurasian species (Ref. 4 & 5). The walnut trees are therefore not the endangered and protected native butternut (Table 1, Fig. 1).

Neighbours' Trees:

All of the trees on neighbouring properties would be retained, with little risk of injury. The trees would be more than their drip-line radii from the worksite and proposed grade changes (Table 1, Fig. 1).

3.2 Tree Protection:

It is necessary to protect all trees designated for preservation during both demolition and construction. This tree protection can be accomplished by protecting the said trees with *tree protection barriers*. The minimum tree protection zone (TPZ) radius is based on the diameter of the tree ($TPZ \approx 0.06_{m/cm} \times DBH_{cm}$). Tree barriers for road allowance areas would be composed of a 1.2 metres (4 ft) high orange plastic web snow fencing secured on 2"x4" wood frames. Usually, tree protection barriers, not on road allowance, are to be 1.2 metres (4 ft) high, and composed of plywood.^{3,4}

Roadside Barriers:

The roadside facing side of the site would be enclosed in a web-fence barriers and/or construction fences (Fig. 1, Table 1).

The neighbouring road allowance trees would be protected by construction fence barriers located near the setbacks (Fig. 1, Table 1).

Backyard Barriers:

Much of the neighbouring ravine areas and properties to the north are down-slope from the site. It would be necessary to protect the ravine areas from sediment runoff with sediment control fences, i.e. 'silt-fences'. Larger construction fences would be placed inside from the sediment control barriers (Fig. 1, Table 1).

3.3 Replacement Trees:

Henry W Chiu Architect is developing a landscape plan for the 440 to 448 Elgin Street West property (Fig. 2).

All new trees planted on the site would be of large calliper nursery grown stock. The trees would be transplanted as according to municipal codes and bylaws.^{4,5}

- (1) Minimum 50 mm calliper (2-inch wide stem) for deciduous trees
- (2) Minimum 1.75-2.5 m height for coniferous trees

Trees would best be transplanted during the spring or autumn. Mid-summer transplanting should be avoided. These trees are to be maintained in good condition. Supplemental watering may be required during the drier periods of the year, especially during the first two or three years after their transplantation.³

4. Conclusions

There are plans to develop the properties at 440 to 448 Elgin Street West, in Cobourg Ontario. Most of the trees on the site would be incompatible with the site plan proposal (Table 1, Fig. 1).

Over sixty (61) privately owned trees on the site are over 20 cm DBH. Very few of the trees are located such that they could be retained without undue risk of injury. Those trees that could be retained are generally in poor condition (Table 1, Fig. 1).

There are over twenty (21) walnut trees on the site. These walnut trees do not appear to be the native butternut (*Juglans cinerea*). Most of the walnuts on the site are hybrids of the butternut and Eurasian species. The walnut trees are therefore not the endangered and protected native butternut (Table 1, Fig. 1).

Trees on adjacent neighbouring properties and the park would be protected by construction fences and sediment control fences (Table 1, Fig. 1).

D. Andrew White M. Sc.



April 21, 2021

5. Tree Data

Table 1: Tree number (No); tree species; diameter at breast height (DBH); Condition Rating (CR); Tree Category (TC); and Status.

No.	Tree Species	DBH (cm)	Comments	CR (%)	TC	Status
#1	Norway maple	52	tag #664	65	Private '440	Remove
#2	black locust	19	SE side	70	Private '440	Remove
#3	Norway maple	37	tag #660	70	Private '440	Remove
#4	white cedar	15-29	SE side	60	Private '440	Remove
#5	white cedar	28	SE side	60	Private '440	Remove
#6	white cedar	22-24	SE side	60	Private '440	Remove
#7	buckthorn	2-5	SE side	0	Private '440	Removed
#8	buckthorn	2-5	SE side	0	Private '440	Removed
#9	black locust	12	SE side	65	Private '440	Removed
#10	black locust	12	SE side	65	Private '440	Remove
#11	black locust	14	SE side	65	Private '440	Remove
#12	black locust	12	SE side	65	Private '440	Remove
#13	walnut	45	tag #663	60	Private '440	Remove
#14	walnut	42-48	E side	60	Private '440	Remove
#15	walnut	45	tag #662	55	Private '440	Remove
#16	Manitoba maple	21	E side	65	Private '440	Remove
#17	buckthorn	18	E side	65	Private '440	Remove
#18	walnut	48	E side	60	Private '440	Remove
#18b	white cedar	24-28	NE side	65	Private '440	Remove
#19	Manitoba maple	52	NE side	60	Private '440	Remove
#20	Manitoba maple	14-18	NE side	60	Private '440	Remove
#21	walnut	26	NE side	50	Private '440	Remove
#22	walnut	42	NE side	60	Private '440	Remove
#23	walnut	79	NE side	60	Private '440	Remove
#24	walnut	82	tag #146	55	Private '440	Remove
#25	white cedar	18	N side	60	Private '440	Remove
#26	white cedar	56	N side	60	Private '444	Remove
#27	white cedar	58-62	N side	60	Private '444	Remove
#28	white cedar	28	N side	60	Private '444	Remove
#29	white cedar	22-24	N side	60	Private '444	Remove

No.	Tree Species	DBH (cm)	Comments	CR (%)	TC	Status
#30	white cedar	28	S side	60	Private '444	Remove
#31	white cedar	15-29	S side	60	Private '444	Remove
#32	buckthorn	1-3	coppice	65-70	Private '444	Remove
#33	lilac	1-2	coppice	70	Private '444	Remove
#34	Manitoba maple	2-5	coppice	65	Private '444	Remove
#35	red elm	2-5	S side	60	Private '444	Remove
#36	Manitoba maple	48	S side	60	Private '444	Remove
#37	walnut	74	tag #649	55	Private '444	Remove
#39	Manitoba maple	29	N side	65	Private '444	Remove
#40	Manitoba maple	29	N side	60	Private '444	Remove
#41	Manitoba maple	24	N side	65	Private '444	Remove
#42	white mulberry	5-8	N side	70	Private '444	Remove
#43	white mulberry	5-8	N side	65	Private '444	Remove
#44	Manitoba maple	12	N side	70	Private '444	Remove
#45	Manitoba maple	32	tag # 650	70	Private '444	Remove
#46	Manitoba maple	10-16	NW side	65	Private '444	Remove
#47	walnut	78	tag #651	55	Private '444	Remove
#48	apple tree	42-58	tag #652	50	Private '444	Remove
#49	Manitoba maple	50-82	fallen tree	20	Private '444	Remove
#50	Manitoba maple	24	NW side	65	Private '444	Remove
#51	Manitoba maple	28	NW side	60	Private '444	Remove
#52	walnut	91	NW side	55	Private '444	Remove
#53	Manitoba maple	28	NW side	65	Private '444	Remove
#54	walnut	72	NW side	55	Private '444	Remove
#55	Manitoba maple	68	NW side	55	Private '446	Remove
#56	apple tree	42-44	tag #658	40	Private '448	Remove
#57	white birch	39	tag #637	60	Private '448	Remove
#58	white birch	59	tag #636	60	Private '448	Remove
#59	walnut	28	NW side	55	Private '448	Remove
#60	Norway maple	38	tag #640	60	Private '448	Remove
#61	Norway maple	62	tag #648	60	Private '448	Remove
#62	apple	44	NW side	40	Private '448	Remove

No.	Tree Species	DBH (cm)	Comments	CR (%)	TC	Status
#63	walnut	30	tag #646	55	Private '448	Remove
#64	walnut	28	tag #647	55	Private '448	Remove
#65	apple	44	NW side	50	Private '448	Remove
#66	walnut	24	NW side	55	Private '448	Remove
#67	walnut	20-24	tag #643	60	Private '448	Remove
#68	silver maple	32-43	tag #642	55	Private '448	Remove
#69	sugar maple	54	SW side	60	Private '448	Remove
#70	Norway maple	38	SW side	60	Private '448	Remove
#71	white spruce	44	tag #632	65	Private '448	Remove
#72	Siberian elm	56	tag #636	55	Private '448	Remove
#73	Siberian elm	36-52	tag #643	55	Private '448	Remove
#74	white spruce	49	W side	60	Private '448	Remove
#75	white birch	24-32	tag #636	60	Private '448	Remove
#76	walnut	56	tag #641	55	Private '448	Remove
#77-78	white spruce	4-5	NW offsite	70	Neighbour	Protect
#79	white cedar	9	NW offsite	65	Neighbour	Protect
#80	black locust	28-34	SE offsite	65	Ravine	Protect
#81	black locust	28	tag #666	65	Ravine	Protect
#82	black locust	27-32	tag #665	60	Ravine	Protect
#83	walnut	24	E offsite	55	Ravine	Protect
#84	walnut	30	E offsite	65	Ravine	Protect
#85	walnut	45	tag #662	60	Ravine	Protect

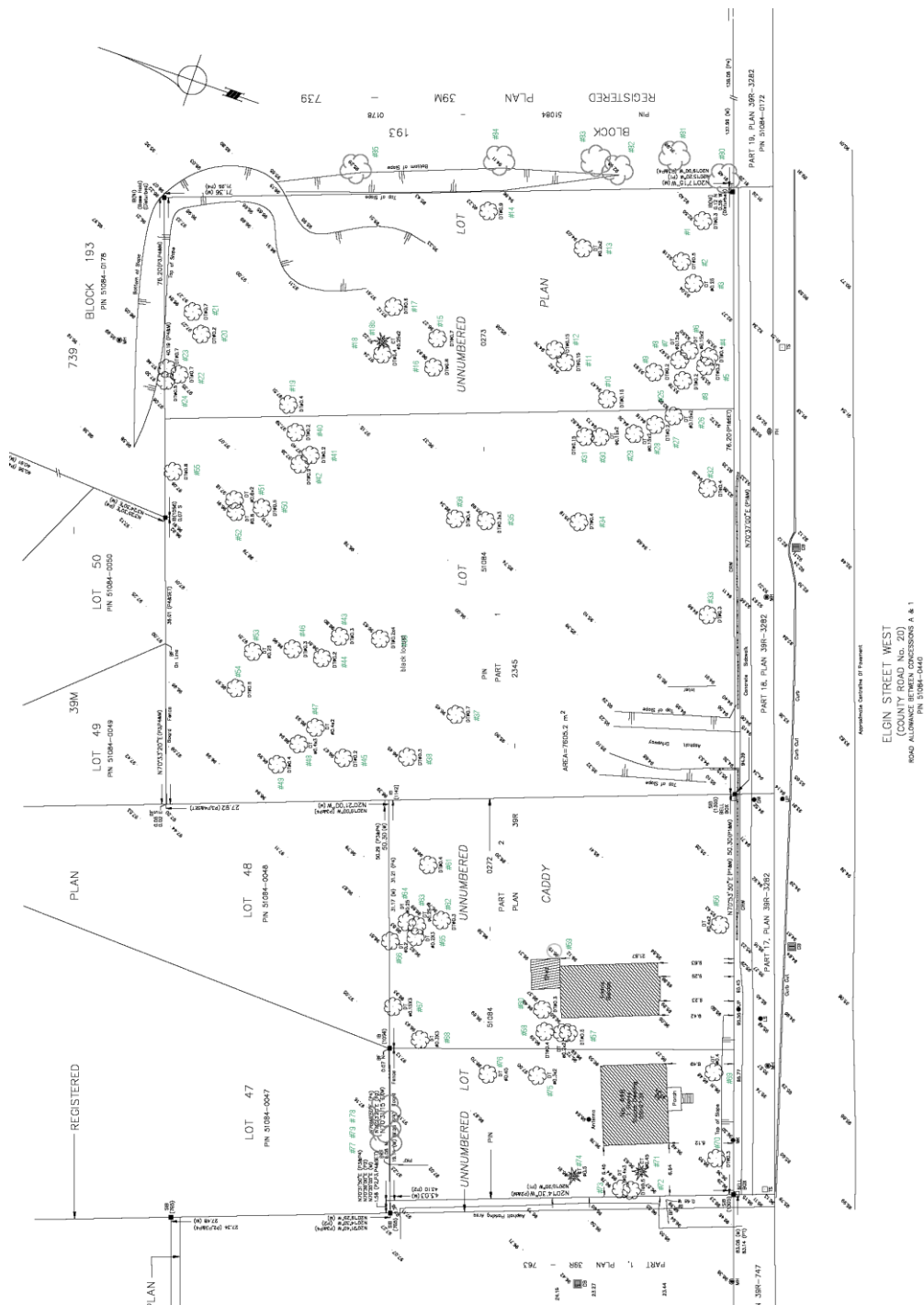


Figure #1: Arborist's Plan and layout of the 440 to 448 Elgin Street West property, with trees are numbered (green).





Photograph #1: Trees #1 to #3, #32, #33, and #56, on the southeast roadside of 440 to 448 Elgin Street West development site.



Photograph #2: Side-yard trees #13 and #14 on southeast side on the 440 to 448 Elgin Street West development site.



Photograph #3: White cedars #4, #5, and #26 to #28, on the south side of the 440 to 448 Elgin Street West development site.



Photograph #4: Trees #45 to #55 on the north side of the 440 to 448 Elgin Street West development site.



Photograph #5: Apple tree #56 on the southwest side of the 440 to 448 Elgin Street West development site.



Photograph #5: Trees #71 to #74 on the southwest roadside of the 440 to 448 Elgin Street West development site.



Photograph #8: Trees #60 to #66 on the northwest side of the 440 to 448 Elgin Street West development site.



Photograph #9: Leaflets and nuts of the walnut trees on the 440 to 448 Elgin Street West development site. The leaflets resemble those of Persian walnuts, and the nuts resemble those of Japanese walnuts (Ref. 4).

6. References

- 1- Council of Tree Landscape Appraisers. 2000. Guide for Plant Appraisal. 9th Edition. International Society of Arboriculture.
- 2- International Society of Arboriculture of Ontario. 1998. Ontario Supplement to Guide for Plant Appraisal 8th Edition. Ontario Chapter, International Society of Arboriculture.
- 3- Town of Cobourg. 2019. Town of Cobourg Trees & Yards website:
<https://www.cobourg.ca/en/my-cobourg/Trees-and-Yards> Parks Department
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- 4- Woeste, K.E., L. Farlee, M.E. Ostry, J.R. McKenna, and S. Weeks. 2009. A Forest Manager's Guide to Butternut. Northern Journal of Applied Forestry. 26(1): 9-14.
- 5- Kerr, Pat. 2008. Keeping the historic Butternut alive in Canada. Tree Service Canada. 2(1): 15.