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August 24, 2022

ARBORIST REPORT
1062 & 1074 Cooke Boulevard, Burlington, Ontario

BACKGROUND

MHBC was retained to conduct an inventory of the existing trees within the boundaries of the property known as 1062 & 1074 Cooke Boulevard, as they pertain to the City of Burlington Tree By-laws. This investigation examined 66 trees within and around the subject property. Field work was completed July 26, 2022, this report relates to the condition of the trees at that time.

PROCEDURE

The on-site inventory of existing trees was carried out using the current survey of the property and relies on the accuracy of this survey. The inventory includes all trees within the site boundary, all trees within 6.0 metres of the site boundary and all Town owned trees along the adjacent boulevards.

This inventory is summarized graphically in the Tree Inventory Plan TI-1, which shall always be read in conjunction with this report and shall form part of this report. For the purposes of this report, trees and groupings of trees are identified in terms of species, size, condition, and recommendations.

The following rating system was used in describing the general condition of the trees inventoried:

Good: Indicates a condition of vigor and no major concerns.
Fair: Indicates an adequate tree, which may have some minor issues.
Poor: Indicates declining health, bad form, or other more serious issues.
Dead: Indicates a dead tree that should be removed.

ASSUMPTIONS AND LIMITING CONDITIONS

- Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible and is assumed to be correct; however MHBC can neither guarantee nor be responsible for the accuracy of information provided by others.
- It is assumed that the properties are not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.
- Unless otherwise required by law, possession of this report or a copy thereof does not imply right of publication or use for any purpose in whole or in part by any other than the person or company by whom it was commissioned.
- The use of excerpts from this report or alterations to this report, without the authorization of MHBC Planning will invalidate the entire report. This report may not be used for any purpose other than its intended purpose as outlined.

- Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination or accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies in the plants inventoried may not arise in the future.
- The determination of ownership of any subject tree(s) is the responsibility of the owner and any civil or common-law issues, which may exist between property owners with respect to trees, must be resolved by the owner. The recommendation to remove or maintain any tree(s) does not grant authority to encroach in any manner onto adjacent private properties.

SUMMARY OF TREES INVENTORIED

Tree #	Common Name	Botanical Name	DBH (CM)	Condition	Comments	Recommendation
41	Norway Maple	Acer platanoides	23	F		Remove due to construction
42	Norway Maple	Acer platanoides	29	F		Remove due to construction
43	Norway Maple	Acer platanoides	30	P/D	Significant deadwood in canopy, tree is in decline	Remove due to construction
44	Norway Maple	Acer platanoides	34	F	Minor deadwood in canopy	Remove due to construction
45	Honey Locust	Gleditsia triacanthos	20	P/D	Significant deadwood in canopy, tree is in decline	Remove due to construction
46	Honey Locust	Gleditsia triacanthos	22	F		Remove due to construction
47	Honey Locust	Gleditsia triacanthos	31	F	Minor deadwood in canopy	Remove due to construction
48	Norway Maple	Acer platanoides	34	F		Remove due to construction
49	Norway Maple	Acer platanoides	33	F		Remove due to construction
50	Norway Maple	Acer platanoides	30	F		Remove due to construction
51	Norway Maple	Acer platanoides	33	P	Significant deadwood in canopy	Remove due to construction
52	Norway Maple	Acer platanoides	23	F		Remove due to construction
53	Honey Locust	Gleditsia triacanthos	25	F/P	Moderate deadwood in canopy	Remove due to construction
54	Honey Locust	Gleditsia triacanthos	27	F/P	Moderate deadwood in canopy	Remove due to construction
55	Honey Locust	Gleditsia triacanthos	23	F/P	Moderate deadwood in canopy	Remove due to construction
56	Colorado Blue Spruce	Picea pungens var. glauca	~33	F		Retain
57	Colorado Blue Spruce	Picea pungens var. glauca	~35	F		Retain

58	Austrian Pine	Pinus nigra	~44	F		Remove due to construction
59	Austrian Pine	Pinus nigra	43	F		Remove due to construction
60	Austrian Pine	Pinus nigra	46	P	Significant deadwood in canopy, tree is in decline, ground cover growing up tree and suffocating trunk	Remove due to condition
61	Austrian Pine	Pinus nigra	52	F		Remove due to construction
62	Colorado Blue Spruce	Picea pungens var. glauca	~26	F/G		Retain
63	Colorado Blue Spruce	Picea pungens var. glauca	~20	P	Significant deadwood in canopy, tree is in decline	Retain
64	Colorado Blue Spruce	Picea pungens var. glauca	~24	F	Growing in adjacent tree canopy, minor/moderate deadwood in canopy	Retain
65	Norway Maple	Acer platanoides	22	F	Minor deadwood in canopy	Retain
66	Honey Locust	Gleditsia triacanthos	32	P	Moderate/significant deadwood in canopy, tree is in decline, ground cover growing up tree and suffocating trunk	Remove due to construction
67	Honey Locust	Gleditsia triacanthos	21	F	Moderate deadwood in canopy	Remove due to construction
68	Honey Locust	Gleditsia triacanthos	29	F	Minor deadwood in canopy	Remove due to construction
69	Poplar Sp.	Populus Sp.	22	F	Multi-stem at base, growing out of rock	Retain
70	Spruce Sp.	Picea Sp.	~20	F		Remove due to construction
71	Colorado Blue Spruce	Picea pungens var. glauca	~10	F		Remove due to construction
72	Spruce Sp.	Picea Sp.	~12	F/G		Remove due to construction
73	Colorado Blue Spruce	Picea pungens var. glauca	~13	F/G		Remove due to construction
74	Spruce Sp.	Picea Sp.	~15	F/G		Remove due to construction
75	Colorado Blue Spruce	Picea pungens var. glauca	~14	F/G		Remove due to construction
76	Spruce Sp.	Picea Sp.	~16	F	Minor deadwood in canopy	Remove due to construction
77	Colorado Blue Spruce	Picea pungens var. glauca	~20	F	Minor deadwood in canopy	Remove due to construction
78	Austrian Pine	Pinus nigra	55	F		Remove due to construction
79	Honey Locust	Gleditsia triacanthos	40	F	Minor/moderate deadwood in canopy	Remove due to construction

80	Siberian Elm	Ulmus pumila	23	P/D	Major past limb failure, bottom half of trunk remains	Remove due to condition
81	Siberian Elm	Ulmus pumila	35	F	Minor deadwood in canopy	Retain
82	Siberian Elm	Ulmus pumila	26	F	Minor deadwood in canopy	Retain
83	Siberian Elm	Ulmus pumila	23	F/P	Minor deadwood in canopy	Retain
84	Siberian Elm	Ulmus pumila	21	F	Minor deadwood in canopy	Retain
85	Siberian Elm	Ulmus pumila	24	P	Major past limb failure, 2 stem at 0.3 metres, minor deadwood in canopy	Retain
86	Siberian Elm	Ulmus pumila	16	F	Minor deadwood in canopy	Retain
87	Siberian Elm	Ulmus pumila	30	F	Minor deadwood in canopy	Retain
88	Siberian Elm	Ulmus pumila	28	F	Minor deadwood in canopy	Retain
89	Siberian Elm	Ulmus pumila	30	F	Minor deadwood in canopy	Retain
90	Siberian Elm	Ulmus pumila	24	F	Minor deadwood in canopy	Retain
91	Siberian Elm	Ulmus pumila	39	F	Minor deadwood in canopy	Retain
92	Siberian Elm	Ulmus pumila	32	F	Minor deadwood in canopy	Retain
93	Siberian Elm	Ulmus pumila	33	F		Retain
94	Siberian Elm	Ulmus pumila	36	F		Retain
95	Siberian Elm	Ulmus pumila	29	F	Minor deadwood in canopy	Retain
96	Siberian Elm	Ulmus pumila	21	F	Minor deadwood in canopy	Retain
97	Siberian Elm	Ulmus pumila	40	F	Minor deadwood in canopy, 2 stem at 1.2 metres	Retain
98	Siberian Elm	Ulmus pumila	50	F		Retain
99	Siberian Elm	Ulmus pumila	26	F	2 stem at 0.7 metres	Retain
100	Siberian Elm	Ulmus pumila	29	F		Retain
101	Siberian Elm	Ulmus pumila	20	F/P		Retain
102	Siberian Elm	Ulmus pumila	28	F/P		Retain
103	Siberian Elm	Ulmus pumila	31	F	Minor deadwood in canopy, 3 stem at 0.5 metres	Retain
104	Siberian Elm	Ulmus pumila	20	F		Retain
105	Siberian Elm	Ulmus pumila	45	F	Minor deadwood in canopy, 4 stem at 0.2 metres	Retain
106	Siberian Elm	Ulmus pumila	23	F	Minor deadwood in canopy, mild lean, growing through chain-link fence	Retain

The above table summarizes the on-site trees. The trees shown with a tone are recommended for removal. The remaining trees will be subject to tree protection per City of Burlington standards as outlined on drawing 2-TI-1. It is noted that not all trees marked for retention require tree protection hoarding. Refer to TI-1 for size and layout of tree protection hoarding.

PHOTO RECORD



Tree 41



Tree 42



Trees 43 - 44



Tree 45



Tree 46



Tree 47



Tree 48



Tree 49



Tree 50



Tree 51



Tree 52



Tree 53



Trees 54 - 55



Trees 56 - 57



Tree 58



Tree 59



Tree 60



Tree 61



Trees 62 - 63



Trees 64 - 65



Tree 66



Trees 67 - 68



Tree 69



Tree 70



Trees 71 - 72



Trees 73 - 74



Trees 75 - 77



Tree 78



Tree 79



Trees 80 - 82



Trees 83 - 85



Trees 86 - 94



Trees 95 - 106

TREE PROTECTION RECOMMENDATIONS

The following standards shall apply to any trees that are identified to be retained. Where the municipality enforces its own standards, those of the governing municipality shall supersede the recommendations contained herein. In all other instances, the following recommendations shall be treated as minimum standards for tree protection and retention.

1.0 ESTABLISH A TREE PROTECTION ZONE

The purpose of the tree protection zone is to prevent root damage, soil compaction and soil contamination during construction activities. Workers and machinery shall not disturb the tree protection zone in any way. In order to prevent access, the following recommendations are offered.

- Install tree protection hoarding as per City of Burlington detail 2-TI-1.
- Allow no fill, equipment, supplies, or waste within the tree protection zone.
- Maintain the tree protection hoarding in good condition for the duration of construction.
- Tree protection hoarding is not to be removed until all construction activities have been completed.

2.0 ROOT PRUNING

Where possible, hand dig areas closest to each tree to prevent any unnecessary tearing or pulling of roots. Removal of roots that are greater than 2.5 centimeters in diameter or roots that are injured or diseased should be performed as follows:

- Preserve the root bark ridge (similar in structure to the branch bark ridge). Directional Root Pruning (DRP) is the recommended technique and should be employed during hand excavation around tree roots. Roots are similar to branches in their response to pruning practices. With DRP, objectionable and severely injured roots are properly cut to a lateral root that is growing downward or in a favorable direction.
- All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, by a Certified Arborist.
- No wound dressings or pruning paint shall be used to cover the ends of each cut.
- All roots requiring pruning shall be cut using any of the following tools:
  Large or small loppers, Hand pruners, Small hand saws, Wound scribers
- Avoid prolonged exposure of tree roots during construction - keep exposed roots moist and dampened with mulching materials, irrigation or wrap in burlap if exposed for longer than 4 hours.

3.0 FERTILIZATION AND IRRIGATION

The following measures are recommended:

- Aeration and deep root fertilize to ensure that all trees receive the appropriate nutrients for healthy growth.
- Fertilizer must be a low nitrogen formula such as *5-30-30* to promote root growth rather than shoot growth.
- If construction occurs during July and / or August, roots must be irrigated during conditions of drought.

4.0 ESTABLISH MAINTENANCE PROGRAM

Pre-Construction:

- Prune all trees to remove any deadwood and obstruction prune as required.

During Construction:

- Irrigate tree preservation zones during drought conditions (June through September), in an attempt to reduce the effects of drought stress.
- Inspect the site every month to ensure that all tree protection fence / hoarding is in place and in good condition, inspect the trees to monitor condition.

Post-Construction:

- Prune crowns to remove any newly developed deadwood only. Do not remove any live growth.
- Inspect the trees three times per year (May, July, and September) to monitor condition for a minimum period of 2 additional years.

5.0 LANDSCAPING

Any landscaping completed within the tree preservation zones, after construction is completed and tree protection fencing / hoarding has been removed, is to be carried out in such a way that it will not cause damage to any of the trees or their roots. The trees must be protected to the same standards listed earlier in this report, but without the use of tree protection fence or hoarding.

The following guidelines are recommended:

- **No grade changes** are permitted which include adding and/or removing soil.
- **No excavation** is permitted that can cause damage to the roots of the tree.
- **No heavy equipment** can be used to compact the soil within the tree preservation zone.
- Where possible, hard surface paving around trees to be protected should be constructed using permeable products such as interlocking stone. Areas to be paved must be hand dug when encroaching within the tree protection zone.

CONCLUSIONS

Based on our investigations, we are of the opinion that thirty-two (32) trees will need to be removed to accommodate the proposed development or due to condition. No tree shall be harmed or removed prior to applying for and receiving the requisite permits from the City of Burlington.

Trees which are to remain shall be protected according to the tree protection details and the required protection hoarding shall be installed, inspected and approved prior to the commencement of any construction activities.

It is our opinion that the trees slated for retention can be successfully retained by following the recommendations set out in this report.

Should you have any questions regarding this report, please contact the undersigned directly.

Respectfully submitted,
MHBC Planning, Urban Design & Landscape Architecture



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