the mbtw group

ARBORIST REPORT

DATED: NOVEMBER 8, 2023

1315 SILVER SPEAR ROAD
CITY OF MISSISSAUGA

MBTW PROJECT NO: SIS001

First Inspection date: October 06, 2017
By: Stanley Luk, ISA # ON-0994A

Second Inspection date: August 24, 2023
By: Mike Hukezalie, ISA # ON-2408A

INTRODUCTION:

This Arborist Report has been prepared by the MBTW Group in support of the Re-Zoning Application for 1315 Silver Spear Road in the City of Mississauga. The Site at 1315 Silver Spear Road consists of a 9 storey high-rise apartment complex with underground and surface parking areas and sodded open space with tree clusters. The building is situated on the south limit of the site along Silver Spear Road and the parking lot is located along the north limit of the property facing Burnhamthorpe Road East. The existing tree clusters are located primarily on the north and east side of the site with isolated trees documented along the south and east property boundary. In the proposed site plan, an infill residential townhouse and associated underground parking lot is proposed on the north limit of the site between the existing high rise and the south side of Burnhamthorpe Road East. The proposed construction work will require the reconfiguration of the existing parking lot on the west and north limit of the property and the removal of existing trees. This Arborist Report was conducted to provide the condition of existing trees and information of existing trees that will be impacted by the redevelopment, governed under the City of Mississauga By-law (0254-2012).

NATURE OF WORK:

The purpose of this report is to provide an inventory and assessment of all trees located on the 1315 Silver Spear Road property. This Arborist Report provides the following information:

1. Identification of vegetative species / groupings;
2. Identification of general condition and trunk diameter size of both individual trees and vegetative groupings;
3. Provide site specific vegetative mapping (in the form of a Tree Protection Plan) which illustrates the location of individual trees and boundaries of vegetative groupings;
4. An assessment of the quality of each unit with consideration for the general condition, health and size;
5. An assessment of the potential for preservation (based on land use objectives);
6. Recommendations (if required) for preservation requirements related to site development and construction.

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OVERVIEW OF FIELD WORK AND MAPPING PROCEDURES:

Base information for this report has been obtained from a site survey (digital mapping indicating existing topography and vegetation within the immediate and surrounding site), and reconnaissance field investigations. At the time of the Arborist inspection, a total of 72 privately owned trees were identified on site and on the shared property line with Burnhamthorpe Library to the east and the #1275 Silver Spear Road apartment complex to the west.

DETAILED TREE INVENTORY

The initial Arborist inspection was conducted on October 06, 2017, with a second inspection conducted on August 24, 2023 to obtain updated information on the existing trees on site. The trees on site were tagged and measured at 1.4m from grade to obtain the trunk diameter at breast height (dbh) with a tape caliper measurer. The trees were tagged with an identification number, identified as to their species and ranked as being good, fair, poor, terminal decline, hazardous or dead, in reference to their health and structural condition. Please refer to drawing TP-1 for tree location information, tree protection fencing location and the Tree Inventory Table in Appendix A for detailed information of tree species, size and condition information.

TREES LOCATED ON DEVELOPMENT PROPERTY

The site at 1315 Silver Spear Road is a high-rise apartment complex with an existing underground and surface parking structure. The tree clusters documented on site are established in sod located in the open spaces throughout the site. The dominant tree species on site consist of Sugar Maple and Red Oak trees with the Sugar Maple forming 42% and the Red Oak forming 21% of the total tree species composition on site. Other tree species were observed to occur as isolated trees that are scattered in species clusters either form natural or planted origins.

In the proposed site plan the driveway realignment and associated underground parking lot is proposed on the west limit of the site and an infill townhouse complex proposed along the north frontage of the site facing onto Burnhamthorpe Road. The trees located outside of the proposed infill development will be preserved and protected.

In order to facilitate the construction of the proposed parking and infill apartment building, a total of 36 trees in good to poor condition, located on the subject property will require removal. Additionally, 3 dead trees (#502, 506, and 556) and 2 trees in terminal decline (#570 and 550) will also require removal.

A total of 20 trees will are proposed be retained but it is anticipated that they will be injured due to proposed excavation and/or other construction-related activity located within the dripline of their canopy. The majority of these trees are located at the south-east portion of the site, where a proposed granular pathway is to be installed. It is recommended that tree root pruning and any canopy reduction be conducted by an ISA Certified Arborist using best arboricultural practices prior to construction so that the likelihood for machinery damage to the tree roots and canopy can be reduced. Tree preservation fencing shall be installed in accordance with the TP-1 plan prepared by The MBTW Group.

The remaining 16 trees are to be preserved and protected.

TREES LOCATED ON SHARED PROPERTY LINE

A total of 5 boundary trees were documented to be growing along the shared property line with 1275 Silver Spear Road. Of these 5 trees, 2 are dead. 2 Will require injury, and 1 will be maintained. A total of 3 boundary trees were documented to be growing along the shared property line with the Public Library. All 3 of these trees will be preserved, with 1 requiring injury.

The removal and/or injury of any trees located on the shared property boundary must be coordinated with the adjacent land owner. A letter of consent must be provided by the adjacent landowner to with the approval for the removal of trees located on the shared property boundary due to the proposed construction.

STREET TREES LOCATED ON CITY PROPERTY

No trees were documented on City owned Right of Way in association with the proposed infill development at 1315 Silver Spear Road.

TREE MAINTENANCE PROGRAM

Pre-Construction

- Ensure that Tree Protection Zone (TPZ) as identified in Tree Protection Plan, TP-1, is provided. Install tree protection fence according to the approved Tree Protection Plan TP-1 and details.
- Ensure that no personnel, materials, equipment or garbage are allowed within TPZ during construction.
- For any root pruning and/or canopy reduction required, it is recommended that a hydrovac excavator be used to construct a trench along the line of excavation to identify the tree roots that are in conflict with the proposed construction. The exposed roots should be cut cleanly at the limit of excavation by a Certified Arborist to prevent damage to the tree from the excavation process. Any wayward branches that extend over the construction area that can be damaged by construction equipment should be pruned off by a Certified Arborist.
- The removal of all trees located on the shared property boundary must be coordinated with the adjacent land owner. A letter of consent signed by the adjacent land owner must be made available to the City to confirm that the adjacent land owner provides consent for the removal of trees located on the shared property line.

During Construction

- Provide irrigation to protected trees to compensate for root loss during periods of drought. Top up soil moisture level with irrigation to provide the equivalent of 5cm depth of natural rainfall per week during May to September.
- Provide a one year slow release low nitrogen fertilizer such as 8-30-30 to promote root regeneration and plant vigor. Apply fertilizer during the active growing season from April to end of July. Do not apply additional fertilizer from August onwards to prevent formation of soft new growth that will be damaged by cold weather.
- Root and canopy reduction pruning should be conducted under the supervision of a ISA certified arborist. The root and canopy pruning exercise is required to remove roots and branches that may be damage by excavation or other construction equipment.
- Backfill excavated trenches located adjacent to tree protection zones with good quality topsoil to encourage the establishment of new roots following root pruning operations.

Post -Construction

- Ensure that the tree protection fences are intact until the completion of the project.
- Provide a one year slow release low nitrogen fertilizer such as 8-30-30 to promote root regeneration and plant vigor. Apply fertilizer during the active growing season from April to end of July. Do not apply additional fertilizer from August onwards to prevent formation of soft new growth that will be damaged by cold weather.
- The contractor should ensure that the trees are irrigated weekly so that they are provided with evenly moist soil throughout the growing season (between the months of April to the end of October) during the 2 year warranty period. Irrigation should be provided at least once a week if rain fall is insufficient to ensure an adequate soil moisture level to allow for root establishment. Irrigation twice a week may be required in periods of extreme drought and heat.

CONCLUSIONS

Due to the proposed construction of the infill apartment and underground parking lot, a total of 36 permit and non-permit sized trees will require removal, 3 trees in Terminal Decline, as well as 3 dead trees. A total of 20 trees will be injured due to the proposed excavation and other construction related activities. The majority of the trees identified for removal are located between the existing parking lot and Burnhamthorpe Road.

In order to satisfy the conditions required *on* the issuance of a Tree Removal Permit, the planting of 31 new trees will be required to replace all non-hazardous/diseased trees to be removed due to development. The three dead trees and two trees less than 15cm DBH are exempt from requiring a permit and compensation. The minimum size of the replacement trees should be at and above 60mm in dbh and be balled and burlapped. All trees to be maintained and irrigated for a minimum of 2 years until the end of the warranty period. Any compensation trees that cannot be installed will be compensated in the form of payment to the City of Mississauga's replacement tree planting fund.

LIMITATIONS OF ARBORIST INSPECTION REPORT

The trees identified in the Arborist Inspection Report has been made using accepted ISA arboricultural techniques including visual review of above ground parts, defects, scars, decay, fungal fruiting bodies, foliage color, insect damage, lean of tree canopy, visible root structures and condition of the trees in conjunction with the tree location, land use, site users and context. Except where noted, trees in this arborist report have not been cored, probed, excavated or climbed during the assessment process.

Notwithstanding the observations and recommendations in this report, it must be noted that trees are living organisms that react to their environment, and their conditions will change over time. It is recommended that trees should be re-assessed periodically. The tree assessment information presented in this report is representative of the tree conditions at the time of inspection. Note: For site photos and locations, refer to plan TP-1 prepared by The MBTW Group

REPORT PREPARED BY:

Mike Hukezalie
ISA Certified Arborist No. ON-2408A
THE MBTW GROUP

November 8, 2023

Appendix A – Tree Inventory Table

	TAG #	BOTANICAL NAME	COMMON NAME	DBH (cm)	SPR (m)	CONDITION	REMARKS	STATUS	LOCATION	TPZ (m)
1	**614**	Quercus rubra	Red Oak	115	18	Good	Tree is in good condition	**Injure**	West Property Line	9
2	**502**	Malus domestica	Common Apple	12,14	4	**DEAD**	2 Trunk clump. Canopy dieback-boundary tree	**Remove**	West Property Line	N/A
3	**503**	Acer platanoides	Norway Maple	30,18	6	Poor	2 Trunk clump. Boundary Tree. Tree growing through chain link fence. Trunk girdled.	**Remove**	West Property Line	N/A
4	**504**	Acer saccharum	Sugar Maple	12	4	Fair	Tree girdled by chainlink fence. Boundary Tree	**Remove**	West Property Line	N/A
5	**505**	Quercus rubra	Red Oak	55	8	Good	Boundary tree. Trunk originates on neighboring property. Canopy form good. Foliage exhibits anthracnose fungal damage.	Preserve	West Property Line	3.6
6	**506**	Fraxinus americana	White Ash	12	6	**DEAD**	EAB damage. Tree leaning east.	**Remove**	West Property Line	N/A
7	**507**	Acer saccharum	Sugar Maple	28,27	6	Poor	2 trunk clump. South trunk exhibits cavity decay, top 75% of canopy dead. North trunk in good condition. Included bark.	**Remove**	West Property Line	N/A
8	**508**	Acer saccharum	Sugar Maple	32	6	Fair	Bark decay on N.W side of trunk. Canopy lopsided. Favouring North side of trunk.	**Remove**	North West Corner	N/A
9	**509**	Carya cordiformis	Bitternut Hickory	49	12	Good	Sugar maple sapling growing at North Side of trunk.	**Remove**	North West Corner	N/A
10	**510**	Acer saccharum	Sugar Maple	31	6	Good		**Remove**	North West Corner	N/A
11	**511**	Acer saccharum	Sugar Maple	50	10	Good	Canopy leaning east.	**Remove**	North West Corner	N/A
12	**615**	Acer saccharum	Sugar Maple	28	6	Poor	Severe cavity decay. Top 50% of canopy is dead.	**Remove**	North West Corner	N/A
13	**616**	Pinus nigra	Austrian Pine	28	3	Fair	Slight lean SW. Canopy lopsided due to shade from adjacent trees.	**Remove**	North West Corner	N/A
14	**617**	Acer saccharum	Sugar Maple	36	6	Good	2 Co-dominant leaders	**Remove**	North West Corner	N/A
15	**515**	Acer saccharum	Sugar Maple	34	6	Good	Canopy on South and East side only.	**Remove**	North West Corner	N/A
16	**516**	Acer saccharum	Sugar Maple	28	6	Fair	Minor cavity decay in trunk. Canopy health good.	**Remove**	North West Corner	N/A
17	**618**	Acer saccharum	Sugar Maple	28	6	Good		**Remove**	North side of site.	N/A
18	**518**	Acer saccharum	Sugar Maple	28	6	Good	Slight lean south.	**Remove**	North side of site.	N/A

19	**619**	Acer saccharum	Sugar Maple	33	6	Good		**Remove**	North side of site.	N/A
20	**522**	Acer saccharum	Sugar Maple	30	8	Good	Top of canopy sparse.	**Remove**	North side of site.	N/A
21	**523**	Quercus rubra	Red Oak	80	12	Good		**Remove**	North side of site.	N/A
22	**620**	Quercus rubra	Red Oak	86	12	Poor	Canopy to one side, main leader dead, 50% dieback	**Remove**	North boundary.	N/A
23	**621**	Acer saccharum	Sugar Maple	28	6	Good		**Remove**	North east corner	N/A
24	**527**	Quercus rubra	Red Oak	56	12	Good	Few dead twigs	**Remove**	North east corner	N/A
25	**528**	Acer platanoides	Norway Maple	30	6	Good	Top of crown is missing.	**Remove**	North east corner	N/A
26	**622**	Quercus rubra	Red Oak	76	10	Fair	Dieback at top of canopy.	**Remove**	North east corner	N/A
27	**623**	Robinia pseudoacacia	Black Locust	16,16,8,8	4	Poor	Stump sprout regeneration. Main trunk cut/girdled by chainlink fence.	**Remove**	North east corner	N/A
28	**531**	Acer saccharum	Sugar Maple	24	6	Good		**Remove**	North east corner	N/A
29	**624**	Quercus alba	White Oak	55	12	Good	Canopy growth in good condition. Canopy lean east due to shading of adjacent trees.	**Injure**	North east corner	3.6
30	**533**	Ulmus pumiila	Siberian Elm	35	6	Poor	Tree cut at 1.5m from grade. Stump sprout regeneration.	Preserve	North east corner	2.4
31	**625**	Acer saccharum	Sugar Maple	32	6	Fair	Canoy topped. Minor branch tip dieback.	**Remove**	North east corner	N/A
32	**535**	Quercus rubra	Red Oak	74	12	Good	Canopy health good. Canopy shape lopsided, favouring south side of trunk.	**Remove**	East Boundary	N/A
33	**536**	Acer platanoides	Norway Maple	40	8	Poor	Canopy lopsided. West 1/2 of canopy removed. Severe surface root damage.	**Injure**	East Boundary	2.4
34	**537**	Acer platanoides	Norway Maple	44	8	Poor	Canopy health is good. 2 co-dominant leaders. Large injury on west side of trunk. Severe decay and carpenter ant damage observed in bark.	**Remove**	East Boundary	N/A
35	**627**	Acer platanoides	Norway Maple	25	6	Good	Tree growing at fence line	Preserve	East Boundary	1.8
36	**628**	Acer saccharum	Sugar Maple	51	12	Good	Cavity at SW side of root flare. Canopy growth good	**Injure**	East Boundary	3.6
37	**629**	Pinus nigra	Austrian Pine	41	6	Fair	Leaning north. Sapsucker holes on trunk.	**Remove**	South of parking lot	N/A
38	**542**	Pinus nigra	Austrian Pine	40	6	Fair	Leaning north. Canopy sparse, sapsucker holes on trunk	**Remove**	South of parking lot	N/A
39	**545**	Acer saccharum	Sugar Maple	50	12	Good		**Injure**	North of existing building	3
40	**546**	Acer saccharum	Sugar Maple	38	12	Good		**Injure**	North of existing building	2.4

41	**630**	Acer saccharum	Sugar Maple	46	10	Good		**Injure**	East Boundary	3
42	**631**	Acer saccharum	Sugar Maple	46	10	Good	Canopy leaning south.	**Injure**	East Boundary	3
43	**632**	Acer saccharum	Sugar Maple	22	6	Good		**Injure**	East open space	1.8
44	**550**	Fagus grandifolia	American Beech	38	8	Terminal Decline	Advanced Beech bark disease. Canopy dieback	**Injure**	East open space	2.4
45	**633**	Acer saccharum	Sugar Maple	46	8	Good	Canopy favouring east side of trunk.	**Injure**	East open space	3
46	**552**	Fagus grandifolia	American Beech	64	12	Fair	Minor Beech bark disease damage. Canopy is in good condition.	**Injure**	East open space	4.2
47	**634**	Fagus grandifolia	American Beech	39	12	Fair	Minor Beech bark disease.	**Injure**	East open space	2.4
48	**635**	Acer saccharum	Sugar Maple	30	8	Good	Trunk leaning south east	**Injure**	East open space	4
49	**636**	Quercus rubra	Red Oak	90	16	Good	Canopy lopsided favouring east side of trunk.	**Injure**	East Boundary	5.4
50	**556**	Fagus grandifolia	American Beech	27	4	**DEAD**	Severe Beech bark disease; canopy dieback.	**Remove**	East open space	N/A
51	**557**	Fagus grandifolia	American Beech	28	6	Fair	Minor Beech bark disease, canopy growth in in good condition.	**Injure**	East open space	1.8
52	**637**	Acer saccharum	Sugar Maple	40	8	Good		**Injure**	East open space	2.4
53	**638**	Acer saccharum	Sugar Maple	38	6	Good		Preserve	East open space	2.4
54	**639**	Quercus rubra	Red Oak	76	8	Good	Canopy growth narrow. Minor branch tip dieback. Slime flux at frost crack	**Injure**	East open space	4.8
55	**640**	Acer saccharum	Sugar Maple	52	10	Good		**Injure**	East Boundary	3.6
56	**641**	Quercus rubra	Red Oak	100	12	Good		**Injure**	East open space	6
57	**642**	Quercus rubra	Red Oak	85	10	Good	Canopy lopsided. Favouring south and west side of trunk.	Preserve	South east corner of existing building	5.4
58	**643**	Acer saccharum	Sugar Maple	32		Good	2 co-dominant leaders in canopy	Preserve	South east corner of existing building	0
59	**644**	Quercus rubra	Red Oak	95	12	Good		Preserve	East Boundary	6
60	**645**	Acer saccharum	Sugar Maple	40	8	Good	Adjacent tree.	Preserve	Neighboring east boundary	4
61	**646**	Pinus nigra	Austrian Pine	40	6	Fair	Minor diplodia tip blight damage.	**Remove**	North west of existing building.	N/A

62	**569**	Tilia cordata	Little Leaf Linden	36	6	Good		**Remove**	South of existing parking lot	N/A
63	**570**	Tilia cordata	Little Leaf Linden	14	4	Terminal Decline	Severe canker infection on bark, canopy decline	**Remove**	South of existing parking lot	N/A
64	**647**	Quercus rubra	Red Oak	100	10	Good		Preserve	South west corner of existing building	6
65	**648**	Tilia cordata	Little Leaf Linden	48	8	Good	Trunk is leaning slightly south	**Remove**	South of existing building	N/A
66	**649**	Tilia cordata	Little Leaf Linden	42	6	Fair	Canopy sparse. Root flare severely injured by lawn care equipment. Slight canopy decline	Preserve	Main entrance to existing building	3
67	**650**	Tilia cordata	Little Leaf Linden	35	6	Good	Canopy health is good. Tree is leaning South east.	Preserve	South of existing building	2.4
68	**651**	Tilia cordata	Little Leaf Linden	40	8	Poor	Canopy decline. Heartwood decay. Surface root damage.	Preserve	South of existing building	2.4
69	**652**	Quercus rubra	Red Oak	85	10	Fair	Tree topped. Branch dieback observed at top of canopy.	Preserve	South east corner	5.4
70	**653**	Quercus rubra	Red Oak	80	10	Good		Preserve	South east corner	4.8
71	**654**	Acer saccharum	Sugar Maple	42	12	Fair	Canopy lopsided. Favouring east side of trunk. Damage at base	Preserve	South east corner	3
72	**655**	Quercus rubra	Red Oak	90	12	Good		Preserve	South east corner	5.4