

220 BRADFORD STREET RESIDENTIAL DEVELOPMENT

TREE INVENTORY, ANALYSIS AND PRESERVATION REPORT



FEBRUARY 2020

CITY of BARRIE

OUR FILE: LA 439-19

PREPARED BY:



LANDSCAPE ARCHITECTURE & CONSULTING ARBORISTS

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1.0 Scope/Assignment:

The Landmark Environmental Group Ltd. (LEG) (J. Hosick, J. Grice) was retained by Chayell Hospitality Group (A. Rehman) to provide Consulting Arboricultural services to lands generally on the west side of Bradford St, south of Brock St in the City of Barrie. The assignment is to prepare a Tree Inventory, Analysis, Preservation Report and Plan in support of a residential redevelopment of the site which is to assess the existing trees on the subject site, indicate those trees that can be preserved and the methods for protecting the same. Further, those trees that cannot be preserved either by poor or declining health, structural deficiencies or to facilitate the proposed development on the site, are indicated to be removed.

Specifically, LEG was assigned to provide the following services:

- Review site data including survey, site plan drawings, tree preservation policies as they relate to the subject site, to provide for a site visit and correspond with City staff as applicable;
- Conduct a field review to inventory tree specimens, tree groupings, boundary trees visually assessing and identifying the type, location, size and quality of any trees on site within the developable area and indicating the presence of any Butternut (in accordance with the *Endangered Species Act 2007*);
- Provide a Tree Inventory, Analysis, Preservation Plan, Landscape Plan and Details that set out the methodology, observations, criteria, analysis and conclusions of our review and area conditions;
- Indicate on a Tree Inventory and Protection Plan, those trees that are suitable for preservation or removal and providing the methods of protecting the same;

It is the intent in the undertaking of this Report, to comply with the City of Barrie tree preservation policies and any requirements of the Lake Simcoe Region Conservation Authority.

2.0 Proposed Development:

As noted above, the subject site is located on the west side of Bradford Street, south of Brock Street in the City of Barrie and municipally described 220 Bradford Street. The site is 3,442.4m² (.34 ha) in total area. The Owners are proposing to construct a new fourteen (14) storey, 121-unit apartment dwelling on the site. The existing trees are shown to be mostly distributed along the perimeter of the current lot lines as seen on **Plan ARB-1 in Appendix B**.

The subject property is bounded by single-detached residential units to the north and west, the Barrie Wastewater Treatment Facility and Kempenfelt Bay beyond Bradford Street to the east, a commercial building to the south-east and City-owned vacant land with residential uses beyond to the south.

The limits of the Arborist study are confined to the area within the lot boundaries and any offsite trees with canopies that extend into the subject site (see **ARB-1 in Appendix B**). A copy of the proposed Site Plan can be seen **Appendix A**.

This Tree Inventory, Analysis, Preservation Report and Plan is submitted in support of and intended to accompany applications for a minor variances and Site Plan Approval submitted to the City of Barrie for their review for the development of the site.

A portion of the subject property is regulated under O.Reg 179/06 within the jurisdiction of the Lake Simcoe Region Conservation Authority.

LEG staff also undertook a Level 1 structural ISA TRAQ risk assessment for trees on the site in the areas proposed to be developed and within three (3) metres of the developed portion of the property.

Below, is an air photo illustrating the location of the subject site (red lines show the site boundaries):



Figure 1 Airphoto of Subject Site (Boundary Highlighted) and Surrounding Area (Courtesy, Simcoe GIS)

3.0 Method:

A summary of the inventory, observations and assessments that were determined in the field can be found in **Appendix C** at the end of this Report.

The tree assessments were identified in accordance with the detailed typical criteria used in best arboricultural practices to indicate the merits of tree preservation including the species (*Latin* and common names), size diameter at breast height (dbh), maturity, biological health, structural concerns (if any), condition rating and recommendations for preservation or removal of existing specimen trees.

Condition ratings applied to overall tree assessments using the above-noted criteria range from 1 (poor) to 5 (excellent). Typically, those trees being assessed a condition rating of 1-3 are recommended for removal while those trees being assessed a condition rating of 4-5 are recommended for preservation unless there are extenuating circumstances regarding the development of the site. The criterion is also applied to assist in assessment of their potential for survival in-situ post-construction.

For the purposes of this Report, only those woody plants over 10cm dbh were captured. No ornamental shrubs or low understory perennials were captured in the data.

Each tree was assigned a key number (1-52) and observations relating to each tree were tabulated in the Tree Inventory (**Appendix C**) and in the Observations section below. Each tree was also located on a Tree Inventory and Preservation Map corresponding to the number assigned and can be seen in the Tree Inventory, Assessment and Preservation Plan (**ARB-1 & ARB-2**) as shown in **Appendix B**.

4.0 Observations

In January 2020, LEGroup staff J. Grice (ISA Certified Arborist ON-2562A) visited the subject site with the intent to inventory and assess individual tree species existing within the subject site. LEGroup staff also made a cursory review of existing trees exterior to the subject property to visually assess the quality of the vegetation and review the canopy crossover onto the subject site.

LEGroup staff observed that the site ground was relatively flat with a slight incline towards the northern arm of the property. In addition, there appeared to be minor soil filling along the south fenceline close to Sanford Street (see **Photo 10, Appendix D**). A small tributary identified as Hotchkiss Creek is located on the lands immediately south of the subject site, flowing toward Lake Simcoe.

The interior/frontage of the site is relatively bare, with very little vegetation (see **Photo, front cover page**). The existing trees are shown to be mostly distributed around the perimeter of the site with no trees captured at the interior towards the centre. The trees on the site have not been subject to pruning or other maintenance practices. There are both wood and non-wood privacy and chain link fences of varying heights/materials observed along the north and western boundary adjacent to existing residences (see **Photos 1-5, 6-10 in Appendix D**) and many of these fences are observed to be affecting the health of perimeter trees (see **Photos 2, 9, 10 & 11 in Appendix D**).

The following woody plant species were observed on the subject site during fieldwork:

Latin Name	Common Name	% of Total Trees
<i>Acer negundo</i>	Manitoba Maple	42.4%
<i>Acer platanoides</i>	Norway Maple	17.3%
<i>Juglans nigra</i>	Black Walnut	7.7%
<i>Populus balsamifera</i>	Balsam Poplar	1.9%
<i>Robinia pseudoacacia</i>	Black Locust	28.8%
<i>Ulmus rubra</i>	Slippery Elm	1.9%
Total Trees (rounded)		100%

Table 1 List of Observed Woody Plant Species on the Subject Site

A total of 52 trees were observed at a DBH (diameter breast height) of equal to or greater than 10cm on the subject site and are recorded in **Appendix C**.

As shown in Table 1 above, Manitoba Maple (Tree Nos. 11-20, 23, 26, 36, 38, 40-43, 45, 48-50), Black Locust (Tree Nos. 9, 10, 24, 25, 28-35, 39, 46, 47) and Norway Maple (Tree Nos. 2-8, 51, 52) make up the largest composition of the trees on the subject site at 42%, 28% and 17% respectively (see **Photos, Appendix D**). The next largest tree composition that were identified included Black Walnut (7.7%), Balsam Poplar (1.9%), and Slippery Elm (1.9%)

LEGroup staff observed that the trees appear to be mature, in varying states of decline/poor condition with generally poor form (Tree Nos. 3,4, 7-11, 13-20, 23-43, 48, 49) **Photos 6-11, Appendix D**. Many of these trees had grown through the chain-link and paige wire fencing in various locations on the site, girdling the trunks of the trees from an early age which has contributed to their decline and poor condition. The trees that had grown through this chain-link fence and featured significant portions of the fence embedded deeply within their trunks (Tree Nos. 3, 4, 7, 11, 15, 17, 25-36, 40, 41, 43, 48-51) also showed a number of characteristics

of stress and decline including cavities, dieback, broken branches, bark necrosis, and basal decay (see **Tree Inventory Chart in Appendix C**). Where there was higher density clustering of trees (eg southern fence-line of the site-see **Photos 4 & 5, Appendix D**) including Tree Nos. 12-17 and nearby offsite trees, we observed trees had corrected leans, growing on a significant angle in search of sunlight.

A number of the trees observed appear to be structurally uncertain with suspected interior basal decay, overreaching offset canopies and included bark. Trees Nos. 48-51 are assessed to be in poor condition and are located within target zone of static (homes) and moveable (autos) targets (see **Photo 10, Appendix D**). With the assessed poor health, these trees appear to be of a greater likelihood of failure as a result of a storm event.

Further it was noted that Riverbank Grape (*Vitus riparia*), an aggressive high-climbing woody parasitic vine that competes for light with the host tree, is found on nearly all of the trees on the site and negatively affects the health of the host tree.

Boundary Trees

In addition to the assessment of the on-site trees noted above, LEGroup staff reviewed trees adjacent to the boundaries to see whether there would be potential impacts to the development lands or whether the development could potentially impact the boundary trees exterior to the site.

LEGroup staff observed thirty-eight (38) significant off-site trees (Manitoba Maples, Norway Maples, Eastern White Cedars and Black Locusts) which are located along all fence-lines of the site except for the eastern Bradford St. frontage, and labeled as **A-AL** on **ARB-1, ARB-2, and ARB-3, Appendix B**. The addresses of the sites from which the trees originated includes the naturalized area within the floodplain for Hotchkiss Creek on the property to the immediate south (known as 240 Bradford St), 212, 214, and 218 Bradford St. and 149, 153, 157 and 163 Sanford St.. Staff noted that the canopies (and therefore roots) cross-over ranged between 4.6m and 1.0m from the fence-line, all of which were in minimal conflict with the proposed development.

No Butternut (*Juglans cinerea*) was observed on the subject parcels during the on-site review in accordance with the requirements of the *Endangered Species Act, 2007*.

5.0 Study Criteria

Tree observations were recorded individually, as set out in the Tree Inventory and Assessment Table (**Appendix C**), in accordance with the criteria established by common arboricultural practice including:

- ✓ Latin/Common Name of tree;
- ✓ Size (mm cal);
- ✓ Condition/Comments; and
- ✓ Recommendation for Preservation or Removal

Tree locations are on the Tree Inventory and Preservation Plan were recorded and adjusted however, the locations are approximate as shown on **Drawing ARB-1 in Appendix B**.

6.0 Analysis and Recommendations

The following analysis criteria were generally applied to measure the merits of tree preservation:

- Species (including native & non-native)
- Size/Maturity
- Structure

- Health
- Location
- Areas of proposed development.

These criteria were applied to the tree assessments to determine the extent of preservation and removal. In addition, the criterion is applied to assist in assessment of their potential for survival in-situ post construction. All trees to be preserved are to be protected using tree preservation fencing installed in accordance with the Tree Preservation Detail, as shown on **Drawing D-1 in Appendix B**.

We note that there is a total of fifty-two (52) trees on the subject site, most of which were assessed to be in marginal to poor condition as set out in **Tree Inventory Assessment Table in Appendix C**.

Many of the perimeter trees including Tree Nos. 1, 2, 4-11, 18-22, 24, 26-28, 37-39, 44-48, and 52 are recommended to be preserved (see **Tree Inventory Table in Appendix C**). These trees comprised of Norway Maple, Manitoba Maple, Balsam Poplar, Black Walnut, Black Locust and Slippery Elm. The retention of these trees represents existing tree buffer /screening opportunities between the existing residents and the proposed new development. These trees are recommended to be protected with tree preservation fencing at their dripline or as far as practical from the trunk (see **ARB-2, ARB-3 in Appendix B**). In addition, trees to be retained will need to be maintained (ie limbed up where required) and monitored on an ongoing basis by qualified personnel for continued good health and structural soundness, especially those assessed as poor (**Appendix C**).

The remaining trees that are recommended to be removed include Tree Nos. 3, 9-10, 13-14, 16-17, 23, 25, 29-36, 40-43 & 49-51 (see **Tree Inventory Table in Appendix C**). It is expected that the origin of these trees are 'fly-ins' and considered to be a weak-wooded species of less intrinsic value. These trees are assessed to be in poor health due to their significant leans, branch dieback, trunk wounds, embedded fence fabric/posts and infestation with Riverbank Grape. Often these defects along with their offset tree canopies, contribute to the compromise of their structural integrity. Many are observed to have deformations in the trunk suggesting internal decay is present. Lower branch dieback also means less buffering capacity between existing residences and new adjacent uses. It is therefore anticipated that these trees noted above are not suitable for retention.

Two (2) of the trees noted above (Nos. 9 & 10) (Black Locust) are identified adjacent to the location of proposed stormwater management facilities and due to its proposed installation location and depth, are expected to compromise these two existing trees. We would therefore recommend that these two trees be removed to accommodate the stormwater management construction works.

6.1 Summary and Recommendations

In summary, as a result of a site plan application for the residential development of the subject parcel at 220 Bradford Street in Barrie, the City of Barrie is requiring a Tree Inventory, Assessment and Preservation Plan to review the proposed tree to be retained and/or removed.

The following is a summary of our recommendations made to ensure the existing trees are retained and protected during the development works:

1. Preservation and protection of inventoried trees on the subject site as set out in the Tree Inventory Table (**Appendix C**) and drawings **ARB-2** and **ARB-3** in accordance with Tree Preservation measures established in **Drawing D-1, Appendix B**. The remaining trees are to be removed due to their poor health and structure;
2. Trees located exterior to the subject site are to be preserved within their tree protection zone to the extent possible.

3. Tree Nos. 48, 49, 50 & 51 be removed to eliminate the risk of failure of these next to home/auto within the target zone. As a minimum, we would recommend that a Level 2 or Level 3 TRAQ assessment be completed on these trees as soon as possible;
4. Provide tree preservation fencing at the dripline of each tree which represents the tree preservation zone. Where tree preservation fencing cannot be established at the dripline, the tree preservation fence should be installed as far as practical from the trunk. The Arborist/Landscape Architect or qualified personnel shall be on site during the erection of the tree preservation fencing and excavation works for guidance;
5. That all preserved trees be monitored during and post-construction to ensure ongoing health is maintained;
6. No equipment storage or refueling is to take place within the tree preservation zones as established by the preservation fencing;
7. Tree preservation fencing is to remain in place for the duration of the construction until all equipment has been removed from the site;
8. Existing tree branching that interferes with the development works may be lightly pruned by qualified personnel;
9. For other preservation methods, please refer to the Tree Preservation Notes on drawing **D-1** in **Appendix B**.

7.0 Arborist's Declaration

It is the policy of Landmark Environmental Group Ltd to attach the following clause regarding the limitations:

The Consulting Arborist's visual assessment and recommendations, made in this Report, have been completed based on accepted arboricultural practices and represents a fair and accurate assessment of the number, type, size and condition of trees on the subject property. Such visual assessments of all tree components could include scars, bark damage, external decay, insect infestations, discoloured foliage, crown dieback, an excessive degree of lean from the vertical and above-ground root defects. In addition, environmental conditions, which could affect overall health of the trees such as damaging maintenance practices, have also been taken into consideration where appropriate. However, no tree was dissected, cored or rooting systems assessed through excavation.

I hereby certify that I, James Hosick have:

- Personally performed a visual inspection of the trees and property referred to in this letter report and have stated my findings accurately in accordance with accepted arboricultural practices without personal interest or bias;
- No current or prospective interest in the property that is the subject of this Report and have no personal interest or bias with respect to the parties involved;
- That my analysis, opinions and conclusions stated are my own and based on commonly accepted arboricultural practices;
- That my compensation is not contingent on the reporting of a predetermined conclusion that favours the client; and
- That I am a member in good standing with the International Society of Arboriculture (ISA), the American Association of Consulting Arborists (ASCA) and the Ontario Association of Landscape Architects (OALA).

I trust the above-noted recommendations are of assistance. If there are any questions regarding the proposed Residential Development at 220 Bradford Street in Barrie, please do not hesitate to contact our Firm at (705) 796-1122.

Prepared by,



Jim Hosick, OALA, RPP
Landscape Architect-Principal,
ISA Certified Arborist No. 1098-A
Tree Appraisal Qualified TPAQ
MNR Butternut Health Assessor # 451
Landmark Environmental Group Ltd

Prepared by,



Jared Grice, BLA, ISA
OALA Associate Member
ISA Certified Arborist No. ON-2562A
Landscape Architect Intern
Landmark Environmental Group Ltd



8.0 Glossary of Arboricultural Terms

Arboriculture – practice and study of the care of trees and other woody plants in the landscape.

Bleeding – flow of sap from plant wounds, injuries, or pathogen invasion.

Branch – stem arising from a larger stem. A subdominant stem.

Branch Collar – area where a branch joins another branch or trunk that is created by the overlapping vascular tissues from both the branch and the trunk.

Canopy – collective branches and foliage of a tree or a group of trees' crowns.

Cavity – open or closed hollow within a tree stem, usually associated with decay.

Codominant branches/stems – forked branches nearly the same size in diameter, arising from a common junction and lacking a normal branch union.

Conk – fruiting body or non-fruiting body (sterile conk) of a fungus. Often associated with decay.

Critical Root Zone – area of soil around a tree where the majority of the roots are located and provide stability as well as uptake of water and minerals. Often based on the drip-line.

DBH – acronym for tree diameter at breast height. Measured 1.4 meters above ground.

Dieback – condition in which the branches in the tree crown die from the tips toward the centre.

Drip-line – imaginary line defined by the branch spread of a single plant or group of plants.

Epicormic Shoot – Shoot arising from a latent or adventitious bud (growth point).

Frost Crack – vertical split in the wood of a tree, generally near the base of the bole, caused by internal stresses and low temperatures.

Gall – abnormal swelling of plant tissues caused by gall wasps, mites, nematodes, and various insects and less commonly by fungi or bacteria.

Girdling – restriction or destruction of the vascular system within a root, stem, or branch that causes an inhibition of the flow of water and photosynthates in the phloem.

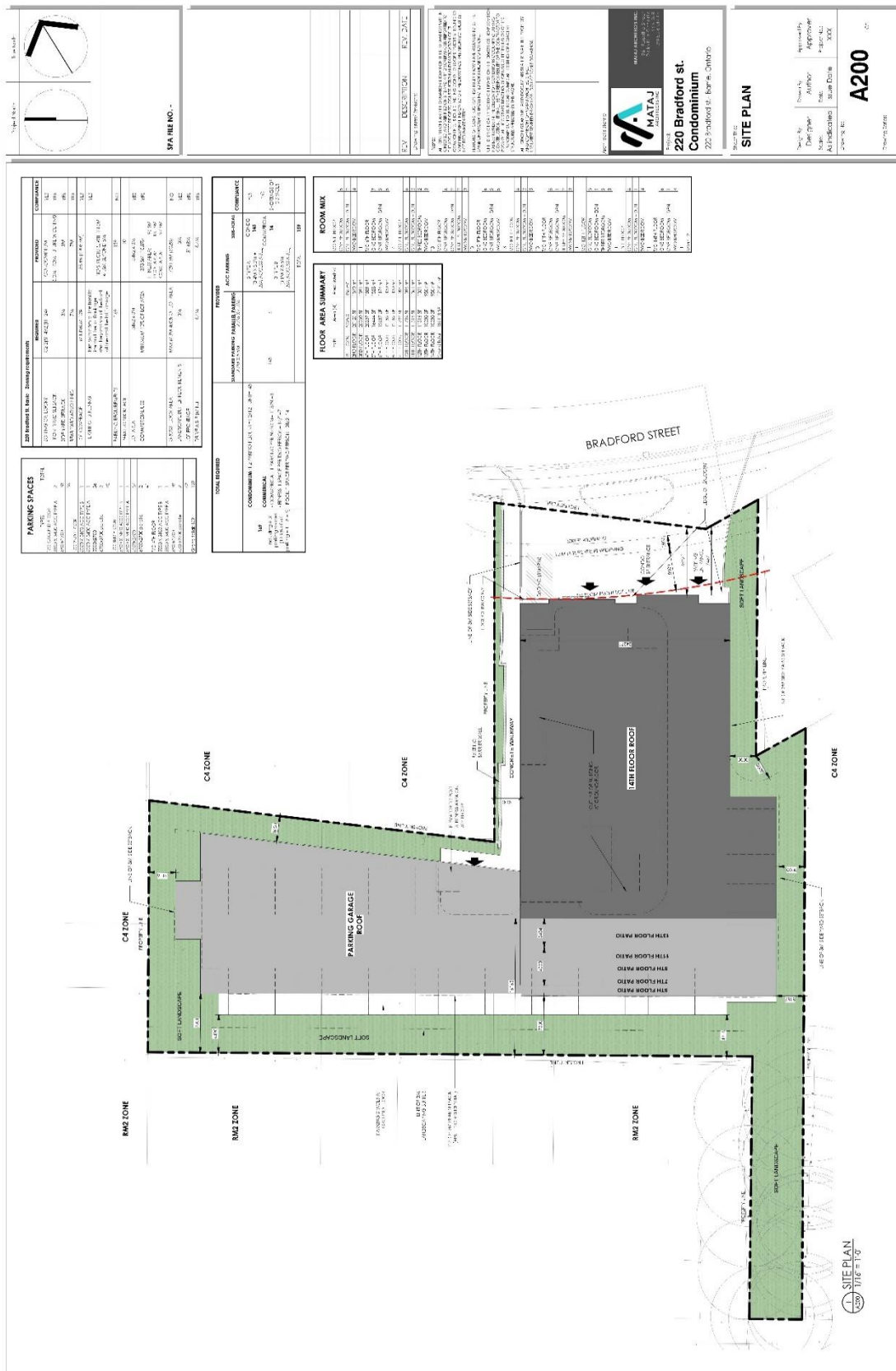
Included Bark – bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure.

Leader – primary terminal shoot or trunk of a tree. Large, usually upright stem. A stem that dominates a portion of the crown by suppressing lateral branches.

Pruning – removing branches from a tree or other plants to achieve a specified objective.

Tree Protection Zone (TPZ) – Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

Appendix A: Site Plan for the Subject Site



GENERAL NOTES

1. THE PROPOSED DEVELOPMENT IS SHOWN ON THE ATTACHED AERIAL PHOTOGRAPH.
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APPROVAL

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CLIENT
CHAYELL HOSPITALITY GROUP
78.5 KENT BLVD, DOCKVILLE

PROJECT
220 BRADFORD STREET
DOCKVILLE

SCALE
1" = 100'

DATE
JAN 11, 2020

DESIGNED BY
LANDMARK ARCHITECTS

DRAWN BY
LANDMARK ARCHITECTS

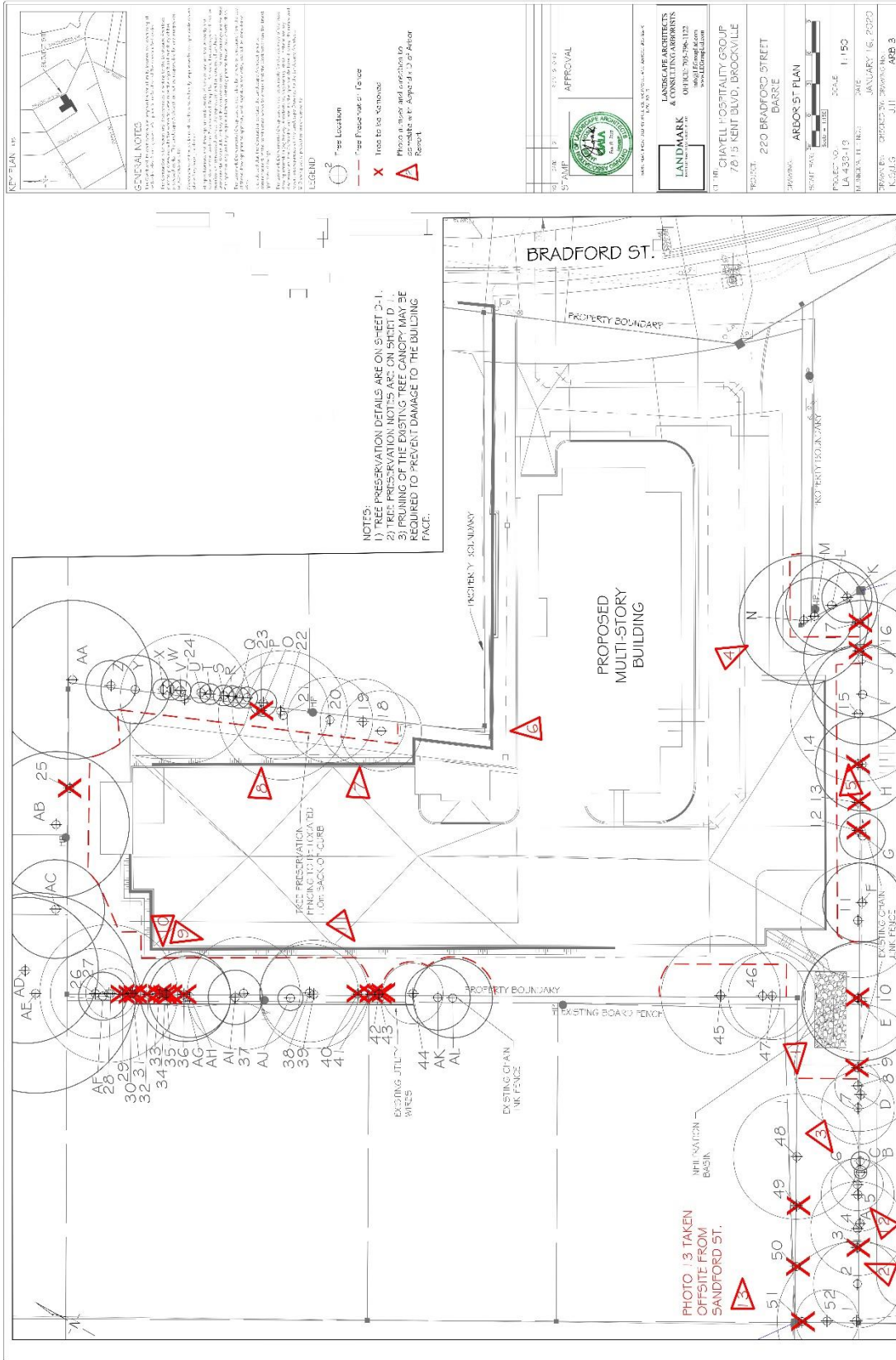
CHECKED BY
LANDMARK ARCHITECTS

APPROVED BY
LANDMARK ARCHITECTS

Arbor Plan (ARB-2)



Arbor Plan (ARB-3)



TREE PRESERVATION AREA

NO UNAUTHORIZED TREE CUTTING, REMOVALS, OR DISTURBANCE IS PERMITTED IN THIS AREA

1. TREE PRESERVATION AREA SHALL BE MAINTAINED AS SUCH.

2. SIGNAGE SHALL BE MAINTAINED AND NOT REMOVED OR ALTERED.

3. ANY TREE REMOVAL SHALL BE THE RESPONSIBILITY OF THE PROJECT OWNER. APPROVAL.

4. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TREE PRESERVATION AREA.

5. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TREE PRESERVATION AREA.

The City of BARRIE STANDARD DETAIL	SHEET NO.	DATE	APPROVED
	1	JAN 1, 2011	[Signature]
TREE PRESERVATION AREA TEMPLATE		BSD-1231	

TREE PRESERVATION NOTES

- THE PURPOSE OF THIS TREE PRESERVATION AREA IS TO PROTECT AND MAINTAIN THE EXISTING TREE PRESERVATION AREA AND TO PREVENT ANY UNAUTHORIZED REMOVALS OR DISTURBANCE OF THE TREE PRESERVATION AREA.
- ANY TREE REMOVAL SHALL BE THE RESPONSIBILITY OF THE PROJECT OWNER. APPROVAL.
- ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TREE PRESERVATION AREA.
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LANDMARK ENGINEERING & CONSULTING	OFFICE 305-966-1122 info@landmark.ca www.landmark.ca
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Appendix C: Tree Inventory and Assessment Table

Key	Latin Name	Common Name	DBH (cm)	Comments	Assessment	Canopy Radius (m)	Preserve /Remove
1	<i>Populus balsamifera</i>	Balsam Poplar	48	minor lean, lower branch dieback	2 Marginal	7.6	Preserve
2	<i>Acer platanoides</i>	Norway Maple	17.9	dual leader, lower branch dieback, twisted trunk, gall, wounded trunk	2 Marginal	4.2	Preserve
3	<i>Acer platanoides</i>	Norway Maple	24.8	embedded chain-link fence, branch dieback, minor lean, on slope	1 Poor	4.4	Remove
4	<i>Acer platanoides</i>	Norway Maple	18.4	embedded chain link fence, dual leader, branch dieback	1 Poor	4.5	Preserve
5	<i>Acer platanoides</i>	Norway Maple	15.1	wounded trunk from chain link fence, branch dieback	2 Marginal	3.5	Preserve
6	<i>Acer platanoides</i>	Norway Maple	19.8	lower branch dieback, dual leader	2 Marginal	2.5	Preserve
7	<i>Acer platanoides</i>	Norway Maple	20.9	embedded chain link fence, dual leader, enlarged branch collars	1 Poor	3.5	Preserve
8	<i>Acer platanoides</i>	Norway Maple	17.6	twisted trunk, branch dieback, blackened bark	1 Poor	2.2	Preserve
9	<i>Robinia pseudoacacia</i>	Black Locust	41.1	dual leader, several broken branches, bark necrosis, cavity	1 Poor	6.1	Remove
10	<i>Robinia pseudoacacia</i>	Black Locust	42	on slope, lean, branch dieback, bark necrosis	1 Poor	5.2	Remove
11	<i>Acer negundo</i>	Manitoba Maple	39.1	embedded chain link fence, significant lean, dieback, severely wounded basal flare, offset canopy	1 Poor	5.5	Preserve
12	<i>Acer negundo</i>	Manitoba Maple	17.9, 15	dual trunk, significant leans, lower branch dieback, offset canopy	2 Marginal	6.9	Remove
13	<i>Acer negundo</i>	Manitoba Maple	17.8	significant lean, lower branch dieback, offset canopy	1 Poor	6.9	Remove
14	<i>Acer negundo</i>	Manitoba Maple	15	lean, vines, lower branch dieback	1 Poor	5.1	Remove
15	<i>Acer negundo</i>	Manitoba Maple	18.7	embedded chain link fence, lean, vines	1 Poor	6.5	Preserve
16	<i>Acer negundo</i>	Manitoba Maple	10.7, 12.7, 11.8	large mass of trees, embedded chain link fence in basal flare, lean, dieback	1 Poor	5.3	Remove
17	<i>Acer negundo</i>	Manitoba Maple	12.8, 10.2	joined at base with 16, embedded chain link fence, vines	1 Poor	3.4	Remove
18	<i>Acer negundo</i>	Manitoba Maple	32.2	significant lean, broken branches, vines, cavity	1 Poor	7.8	Preserve
19	<i>Acer negundo</i>	Manitoba Maple	25.7	multiple leaders, cavities, riverbank grape, lower branch dieback, pruning	1 Poor	4.1	Preserve
20	<i>Acer negundo</i>	Manitoba Maple	10	lean, broken branches, riverbank grape, dieback, basal decay	1 Poor	4.3	Preserve
21	<i>Juglans nigra</i>	Black Walnut	27.6	one sided branching, lower branch dieback, branch crossover	2 Marginal	6.2	Preserve
22	<i>Juglans nigra</i>	Black Walnut	29	lower branch dieback, one sided branching	2 Marginal	4.6	Preserve
23	<i>Acer negundo</i>	Manitoba Maple	27, 47.9	dual trunk, multiple leaders, wounded trunk, cavities, dieback, lean, suspected interior decay	1 Poor	7.5	Remove
24	<i>Robinia pseudoacacia</i>	Black Locust	13.2, 27.9,	triple trunk, dieback, bark necrosis, vines, broken branches	1 Poor	6.2	Preserve
25	<i>Robinia pseudoacacia</i>	Black Locust	61.5	significant lean, dual leader, cavities, dieback, embedded fence, broken branches, suspected interior decay, offset canopy, utility wires	1 Poor	8	Remove
26	<i>Acer negundo</i>	Manitoba Maple	10.3	corrected lean, embedded chain link fence, dieback, offset canopy	1 Poor	4.3	Preserve
27	<i>Ulmus rubra</i>	Slippery Elm	33.9	embedded chain link fence, dieback, enlarged basal flare, leader absent	1 Poor	6.6	Preserve
28	<i>Robinia pseudoacacia</i>	Black Locust	11.3, 9.1	embedded chain link fence, dual trunk, dieback, bark necrosis	1 Poor	2.4	Preserve
29	<i>Robinia pseudoacacia</i>	Black Locust	12	significant interior decay, dieback, lean, offset canopy	1 Poor	3.6	Remove
30	<i>Robinia pseudoacacia</i>	Black Locust	30.8	embedded chain link fence, basal injury, dieback, epicormic shoots	1 Poor	4.1	Remove
31	<i>Robinia pseudoacacia</i>	Black Locust	21.7	embedded chain link fence, basal injury, lean, vines, dieback, epicormic growth, offset canopy	1 Poor	1.5	Remove

Key	Latin Name	Common Name	DBH (cm)	Comments	Assessment	Canopy Radius (m)	Preserve /Remove
32	<i>Robinia pseudoacacia</i>	Black Locust	34.5	embedded chain link fence, basal injury/decay, bark necrosis, dieback, vines, broken branches	1 Poor	4.3	Remove
33	<i>Robinia pseudoacacia</i>	Black Locust	22.3	embedded chain link fence, lean, dieback, vines, broken branches, leader absent	1 Poor	3.9	Remove
34	<i>Robinia pseudoacacia</i>	Black Locust	25.3	embedded chain link fence, lean, dieback, vines	1 Poor	5.8	Remove
35	<i>Robinia pseudoacacia</i>	Black Locust	28.1	embedded chain link fence, lean, dieback, basal decay, offset canopy	1 Poor	5.1	Remove
36	<i>Acer negundo</i>	Manitoba Maple	14	might initiate offsite, embedded chain link fence, corrected lean, broken branches, vines, offset canopy	1 Poor	7.4	Remove
37	<i>Juglans nigra</i>	Black Walnut	26.4	included bark, cavity, dieback, vines, utility wires	1 Poor	5.4	Preserve
38	<i>Acer negundo</i>	Manitoba Maple	14.1	significant corrected lean, dieback, bark necrosis, pruned, utility wires	1 Poor	4.7	Preserve
39	<i>Robinia pseudoacacia</i>	Black Locust	25.1, 32	dual trunk, included bark, utility wires, dieback	1 Poor	5.2	Preserve
40	<i>Acer negundo</i>	Manitoba Maple	16.8	embedded chain link fence, lean, utility wires, enlarged basal flare	1 Poor	6.1	Remove
41	<i>Acer negundo</i>	Manitoba Maple	12.5	embedded chain link fence, large shoot, significant corrected lean, dieback, utility wires	1 Poor	6	Remove
42	<i>Acer negundo</i>	Manitoba Maple	11.1	branch crossover, wounded trunk, utility wire contact	1 Poor	3.5	Remove
43	<i>Acer negundo</i>	Manitoba Maple	11	embedded metal bolt, branch crossover, wounded trunk, dieback, utility wires	1 Poor	3.2	Remove
44	<i>Juglans nigra</i>	Black Walnut	18.8	rubbing on chain link fence, lower branch dieback, utility wires	2 Marginal	2.9	Preserve
45	<i>Acer negundo</i>	Manitoba Maple	27.2	lower branch dieback, epicormic growth, multiple leader, pruning, twisted trunk	2 Marginal	5.7	Preserve
46	<i>Robinia pseudoacacia</i>	Black Locust	24.2	rubbing on fence, minor lean, poor branch structure	2 Marginal	4.1	Preserve
47	<i>Robinia pseudoacacia</i>	Black Locust	16.5	poor branch structure, vines, pruned, dieback	2 Marginal	4.2	Preserve
48	<i>Acer negundo</i>	Manitoba Maple	44.8	embedded metal, significant lean, small cavities, bark necrosis, dieback, offset canopy	1 Poor	8.7	Preserve
49	<i>Acer negundo</i>	Manitoba Maple	48	embedded fence, bark necrosis, dieback, fungal growth, lean (target house), offset canopy, suspected interior decay, cavity at basal flare	1 Poor	6.8	Remove
50	<i>Acer negundo</i>	Manitoba Maple	58	embedded fence, galls, significant lean [target house], dieback, offset canopy, included bark, concave cavity, suspected interior decay	1 Poor	3.6	Remove
51	<i>Acer platanoides</i>	Norway Maple	35.1	embedded fence, large frost crack, dieback	1 Poor	3.2	Remove
52	<i>Acer platanoides</i>	Norway Maple	14.3	twisted trunk, lower branch dieback, canopy dieback	2 Marginal	3	Preserve

Appendix D: Selected Site Photos



Photo 1: Looking south-west showing proposed location of the 'soft landscape' area. Showing Trees 1-9 on the left (south) fence-line.



Photo 2: Showing typical growth of trees on southern fence-line; grown through fence.



Photo 3: Showing southern fence-line.



Photo 4: Showing offsite trees with canopies that encroach into the site in the jutting portion of the property line on the south-east fence-line, including Tree nos. 16, 17.



Photo 5: Showing the extent of the overhanging canopies of offsite trees near Tree nos. 16, 17



Photo 6: Photo looking north-east into the northern arm of the site.



Photo 7: Showing Tree no. 19 and presence of Riverbank Grape, typical to this section of the site.



Photo 8: Showing Tree no. 23, a large Manitoba Maple in poor condition along the north-east fence-line.



Photo 9: Showing trees along north-western fence-line, typically in poor condition, growing through chain-link fence with significant girdling.



Photo 10: Showing significant girdling as Tree Nos. 33 & 34 has grown through chain-link fence, embedding the fence & T-bar within the trunk.



Photo 11: Showing Tree nos. 40-44, mostly girdled by chain link fence with corrected leans to encroach further into site.



Photo 12: Showing minor fill along south fence-line at close to Sanford Street.



Photo 13: Showing excessive lean of Tree Nos. 49, 50 & 51 adjacent to 163 Sanford Street.