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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

August 30, 2021

Kamyar Abbasi, OALA CSLA
Associate Landscape Architect
Fotenn Planning & Design
396 Cooper Street, Suite 300
Ottawa, ON
K2P 2H7

RE: TREE CONSERVATION REPORT FOR 2571 LANCASTER ROAD, OTTAWA

Dear Kamyar,

This report details a pre-construction tree conservation report (TCR) for the above-noted property in Ottawa. The need for this TCR is related to the proposed construction of an operations centre and surrounding surface parking.

Tree conservation reports are required for all properties subject to site plan control applications on which trees of 10 centimetres in diameter or greater are present. The approval of this TCR by the City of Ottawa and the issuing of a permit by them authorize the removal of approved trees. **Importantly, although this report may be used to support the application for a City tree removal permit, it does not by itself constitute permission to remove trees or begin site clearing activities. No such work should occur before a tree removal permit is issued by the City of Ottawa.**

The inventory in this report details the assessment of all individual trees on and directly adjacent to the subject property. All trees currently on the subject property conflict with the proposed building and parking areas and so are slated for removal. The removal of trees on adjacent private property is not considered necessary in terms of constructing the proposed development. However, in two instances adjacent trees threaten those using the subject property and so are recommended for removal. Several other trees need to be pruned as they encroach far over the shared property line. Only one tree is present on nearby City of Ottawa lands. Like all other healthy nearby trees, this tree will be retained. Field work for this report was completed in July and August of 2021.

INDIVIDUAL PLANTED TREE SPECIES, CONDITION, SIZE AND STATUS

Tables 1 and 2 on pages 2 through 7 detail the species, condition, size (diameter), ownership and status of each individual planted trees and treed areas on and adjacent to the subject property. Each of these trees/treed areas are referenced by the numbers plotted on the accompanying tree conservation plan.

Table 1. Species, condition, size (diameter) and status of individual trees at 2571 Lancaster Rd.

Tree No.	Tree species	Condition (VP→E)	DBH[1] (cm)	Owner-ship	Age class, tree condition notes & **preservation status** (to be removed or preserved and protected)
1	Eastern cottonwood *(Populus deltoides)*	Good	43	Private	Maturing; central dominant stem with suppressed laterals starting at 2m from grade; native species; **to be removed**
2	Russian-olive *(Elaeagnus angustifolia)*	Fair	30	Private	Mature; co-dominant leaders; divergent; introduced invasive species; **to be removed**
3	Manitoba maple *(Acer negundo)*	Fair	35	Private	Mature; divergent form; originated from seed; naturalized species; **to be removed**
4	Balsam poplar *(Populus balsamifera)*	Fair	30	Private	Maturing; upright form; competing leaders; native species; **to be removed**
5	Balsam poplar	Fair	25	Private	Maturing; upright form; competing leaders; **to be removed**
6	Eastern cottonwood	Good	76	Private	Mature; central stem with competing lateral on east at 4m and suppressed at 2.5m on west; **to be removed**
7	Golden weeping willow *(Salix alba* var. *vitellina)*	Very poor	>100	Neigh-bour	Overmature; double-stemmed from grade; north stem topped at +/-10m, south stem multi-stemmed at 2m – one dead, one broken; tree is senescent; cultivar; **to be preserved and protected** (but should be pruned from over 2571)
8	Golden weeping willow	Poor	+/-60	Neigh-bour	Mature; tri-stemmed at 1m – one dead towards 2571, one broken and hung up in crown; **to be preserved and protected** (but should be pruned from over 2571)
9	Golden weeping willow	Poor	+/-100	Neigh-bour	Overmature; multiple co-dominant stems at 2.5m – one dead towards 2571; **to be preserved and protected** (but should be pruned from over 2571)
10	Norway maple *(Acer platanoides)*	Poor	+/-40	Neigh-bour	Mature; central stem dead, lateral towards south now dominant; introduced invasive species; **to be preserved and protected**

Table 1. Con't

11	Colorado spruce *(Picea pungens)*	Poor	32	Private	Mature; leader dead; fair crown density, growth increment and needle colour below; restricted rooting area; introduced species; **to be removed**
12	Colorado spruce	Poor	30	Private	Mature; leader dead; fair density, increment and colour below; restricted rooting area; **to be removed**
13	Colorado spruce	Good	26	Private	Mature; narrow, upright form; good density, increment and colour; **to be removed**
14	Colorado spruce	Good	34	Private	Mature; lower crown asymmetric; good density, increment and colour; **to be removed**
15	Colorado spruce	Fair	35	Private	Mature; planting ropes still present; poor density, fair increment and colour; **to be removed**
16	Colorado spruce	Fair	25	Private	Mature; lower crown asymmetric; fair density, good increment and colour; **to be removed**
17	Colorado spruce	Good	32	Private	Mature; lower crown thin due to intercompetition for sunlight; good density, increment and colour above; **to be removed**
18	Colorado spruce	Fair	31	Private	Mature; fair crown density, growth increment and needle colour; restricted rooting area; **to be removed**
19	Colorado spruce	Fair	29	Private	Mature; fair crown density, growth increment and needle colour; restricted rooting area; **to be removed**
20	Colorado spruce	Fair	35 (at 0.5m)	Private	Mature; double stemmed at 1.4m; lower crown thin due to intercompetition; good density, increment and colour above; **to be removed**
21	Colorado spruce	Fair	31	Private	Mature; lower crown thin due to intercompetition; good density, increment and colour above; **to be removed**

Table 1. Con't

22	Colorado spruce	Fair	33 (at 0.5m)	Private	Mature; double stemmed at 1.3m; fair density, increment and colour; restricted rooting area; **to be removed**
23	Colorado spruce	Fair	30	Private	Mature; fair density, increment and colour; scattered dead branches due to Cytospora canker *(Cytospora kunzei* var. *picea)*; restricted rooting area; **to be removed**
24	Colorado spruce	Good	29	Private	Mature; good density, increment and colour; restricted rooting area; **to be removed**
25	Colorado spruce	Poor	22	Private	Mature; leader dead; many scattered dead branches due to cytospora canker; poor density, fair increment and colour; restricted rooting area; **to be removed**
26	Colorado spruce	Fair	23 & 25	Private	Mature; double stemmed at grade; good density, increment and colour; lower crown asymmetric; fair density, increment and colour; **to be removed**
27	Colorado spruce	Fair	34	Private	Mature; co-dominant leaders at 4m; many scattered dead branches due to cytospora canker; poor density, fair increment and colour; **to be removed**
28	Red maple *(Acer rubrum)*	Fair	23	Private	Mature; thin crown with chlorotic foliage; very restricted and compacted rooting area; fair density, increment and colour; native species; **to be removed**
29	Colorado spruce	Fair	34 (at 0.2m)	Private	Mature; tri-stemmed at 0.7m - central stem with two competing laterals; fair density, increment and colour; restricted rooting area; **to be removed**
30	Colorado spruce	Fair	35 (at 1m)	Private	Mature; double stemmed at 1.4m; scattered dead branches due to cytospora canker; fair density, good increment and colour; **to be removed**

Table 1. Con't

31	Colorado spruce	Poor	30	Private	Mature; very poor density (only holding 50 percent living foliage), fair increment and colour; restricted rooting area; **to be removed**
32	Colorado spruce	Fair	27	Private	Mature; fair density, increment and colour; crown asymmetric; restricted rooting area; **to be removed**
33	Colorado spruce	Fair	30	Private	Mature; leader dead; fair density, increment and colour; divergent towards southwest; **to be removed**
34	Colorado spruce	Poor	26	Private	Mature; leader dead; many scattered dead branches due to cytospora canker; poor density, fair increment and colour; **to be removed**
35	White elm *(Ulmus americana)*	Good	54	City	Mature; tri-dominant stems at 3m; lower crown asymmetric towards southwest; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species; **to be preserved and protected**
36	Norway maple	Fair	+/-30	Neigh-bour	Mature; single dominant stem for most of height; crown asymmetric towards southeast; **to be preserved and protected**
37	Manitoba maple	Dead	+/-70	Neigh-bour	Mature; has grown through chain link fence; **recommended for removal** (hazardous)
38	Norway maple	Fair	+/-40	Neigh-bour	Mature; central stem with two competing laterals at 1.5 and 2m on south; **to be preserved and protected**
39	Honey-locust *(Gleditsia triacanthos)*	Good	+/-40	Neigh-bour	Mature; co-dominant leaders at 3m with competing laterals at 2m, broad, asymmetric crown towards south; introduced species; **to be preserved and protected**
40	Honey-locust	Fair	+/-30	Neigh-bour	Mature; central stem with competing laterals starting at 1.5m; generally symmetric crown; **to be preserved and protected**

Table 1. Con't

41	Honey-locust	Fair	+/-25	Neigh-bour	Mature; asymmetric towards southeast/southwest due to shading from nearby maple; physical injury to lower crown from piling of snow; **to be preserved and protected**
42	Norway maple	Fair	+/-50	Neigh-bour	Mature; central stem with competing laterals on south and west; physical injury to lower crown from piling of snow; **to be preserved and protected**
43	Norway maple	Poor	+/-30	Neigh-bour	Mature; central stem dead, lateral on northwest now dominant; physical injury to stem and lower crown from piling of snow; **to be preserved and protected**
44	Norway maple	Poor	+/-25	Neigh-bour	Mature; branch cluster at 2m – central stem dead, laterals dominant; **to be preserved and protected**
45	Norway maple	Fair	+/-25	Neigh-bour	Mature; co-dominant stems at 2m with two suppressed stems; generally upright form; physical injury to stem and lower crown from piling of snow; **to be preserved and protected**
46	Norway maple	Fair	+/-25	Neigh-bour	Mature; co-dominant stems at 3m – central with competing lateral on southeast; **to be preserved and protected**
47	White cedar *(Thuja occidentalis)*	Poor - Fair	+/10	Neigh-bour	Mature; hedge form; seeded deciduous trees and restricted rooting area causing trees to decline; native species; **to be preserved and protected**
48	Ash species *(Fraxinus* spp.*)*	Dead	31	Shared	Mature; dead due to emerald ash borer *(Agrilus planipennis)*; native species; **recommended for removal** (hazardous)

[1] diameter at breast height, or 1.4m from grade (unless otherwise indicated); average diameters indicate multi-stemmed trees

FORMER RAILWAY RIGHT OF WAY

A survey of the abandoned railway was completed through a total of twenty-four, 50m^2 sample plots placed at set intervals along transect lines. In each plot all trees 10cm and greater in

diameter were assessed for species, size (average diameter) and general health condition. General notes on species composition of the shrub layer within each plot were also recorded.

This information was then compiled so that 'stands' (areas of similar tree age and species composition) could be delineated. In this instance it became apparent early in the inventory that the vast majority of trees present within the former railway are below the 10cm-diameter threshold required of TCRs. In fact, in almost half of the twenty four plots no trees greater than 10cm were present. Further, it became obvious a single stand type was present – one which is dominated by early-successional native and invasive species. None of these trees were planted. Instead, they would have arisen from seed and root sprouts originating from parent trees on adjacent properties.

Table 2. Species, condition, size (diameter) and status of treed area within former railway ROW at 2571 Lancaster Rd.

Treed Area No.	Tree species	Condition (VP→E)	DBH[1] (cm)	Owner -ship	Age class, tree condition notes & **preservation status** (to be removed or preserved and protected)
49	Mixed species: ash *(Fraxinus* spp.*)*, willow, white elm, Manitoba and amur maple *(Acer tataricum* subsp. *ginnala)*, trembling aspen *(Populus tremuloides)*	Good to Poor	>10	Private	Immature to maturing; tree composition primarily trembling aspen and ash (45 and 35 percent respectively by stem count) - aspen generally in good condition, ash mostly infested with emerald ash borer; shrub layer mainly buckthorn *(Rhamnus* spp.*)*, ash, dogwood *(Cornus* spp.*)* and honeysuckle *(Lonicera* spp.*)*; **entire area to be cleared of vegetation**

[1] diameter at breast height, or 1.4m from grade (unless otherwise indicated); average diameters indicate multi-stemmed trees

Pictures 1 to 8 on pages 9 through 12 of this report show selected trees and treed areas on and adjacent to the subject property.

FEDERAL AND PROVINCIAL REGULATIONS

Federal and provincial regulations can be applicable to trees on private and public property. In particular, the following regulations have been considered for this property:

1) Provincial Endangered Species Act (2007): No butternuts *(Juglans cinerea)* were identified on the subject or adjacent properties. This species of tree is native to Eastern Ontario and listed as threatened under the province's Endangered Species Act (2007). Because of this it is protected from harm.

2) Federal Migratory Bird Convention Act (1994): In the period between April and August of each year nest surveys are required to be performed by a suitably trained person no more than five (5) days before trees or other similar nesting habitat are to be removed.

TREE PRESERVATION AND PROTECTION MEASURES

Preservation and protection measures intended to mitigate damage during construction will be applied for the trees to be retained on adjacent properties. The following measures are the minimum required by the City of Ottawa to ensure tree survival during and following construction:

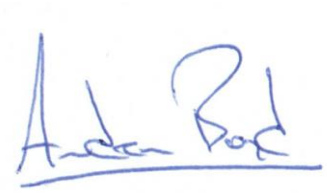
1. As per the City of Ottawa's tree protection barrier specification, erect a fence as close as possible to the CRZ of the tree(s);
2. Do not place any material or equipment within the CRZ of the tree(s);
3. Do not attach any signs, notices or posters to any tree;
4. Do not raise or lower the existing grade within the CRZ without approval;
5. Tunnel or bore instead of trenching within the CRZ of any tree;
6. Do not damage the root system, trunk or branches of any tree;
7. Ensure that exhaust fumes from all equipment are NOT directed towards any tree's canopy.

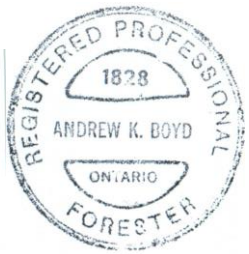
[1] critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimetre of DBH. The CRZ is calculated as DBH x 10 cm.

This report is subject to the attached Limitations of Tree Assessments and Liability to which the reader's attention is directed.

Please do not hesitate to contact the undersigned with any questions concerning this report.

Yours,





Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)
Certified Arborist #ON-0496A and TRAQualified
Consulting Urban Forester

IFS ASSOCIATES

Picture 1. Trees #3 - 6 (right to left) at 2571 Lancaster Road

Picture 2. Neighbouring trees #7 - 10 (right to left) at 2571 Lancaster Road

Picture 3. Trees #28 - 11 (right to left) at 2571 Lancaster Road

Picture 4. Trees #27 - 15 (right to left) at 2571 Lancaster Road

Picture 5. Trees #29 - 34 (left to right) at 2571 Lancaster Road

Picture 6. Neighbouring trees #39 - 47 (right to far left) at 2571 Lancaster Road

Picture 7. Typical conditions within previous railway ROW at 2571 Lancaster Road (looking northwestward)

Picture 8. Typical conditions within previous railway ROW at 2571 Lancaster Road (looking southeastward)

LIMITATIONS OF TREE ASSESSMENTS & LIABILITY

GENERAL

It is the policy of *IFS Associates Inc.* to attach the following clause regarding limitations. We do this to ensure that our clients are clearly aware of what is technically and professionally realistic in assessing trees for retention.

This report was carried out by *IFS Associates Inc.* at the request of the client. The information, interpretation and analysis expressed in this report are for the sole benefit and exclusive use of the client. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the client to whom it is addressed. Unless otherwise required by law, neither all or any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through public relations, news or other media, without the prior expressly written consent of the author, and especially as to value conclusions, identity of the author, or any reference to any professional society or institute or to any initialed designation conferred upon the author as stated in his qualifications.

This report and any values expressed herein represent the opinion of the author; his fee is in no way contingent upon the reporting of a specified value, a stipulated result, nor upon any finding to be reported. Details obtained from photographs, sketches, *etc.*, are intended as visual aids and are not to scale. They should not be construed as engineering reports or surveys. Although every effort has been made to ensure that this assessment is reasonably accurate, the tree(s) should be reassessed at least annually. The assessment presented in this report is valid at the time of the inspection only. The loss or alteration of any part of this report invalidates the entire report.

LIMITATIONS

The information contained in this report covers only the tree(s) in question and no others. It reflects the condition of the assessed tree(s) at the time of inspection and was limited to a visual examination of the accessible portions only. *IFS Associates Inc.* has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the forestry and arboricultural professions, subject to the time limits and physical constraints applicable to this report. The assessment of the tree(s) presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground portions of each tree for structural defects, scars, cracks, cavities, external indications of decay such as fungal fruiting bodies, evidence of insect infestations, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of people and property. Except where specifically noted in the report, the tree(s) examined were not dissected, cored, probed or climbed to gain further evidence of their structural condition. Also, unless otherwise noted, no detailed root collar examinations involving excavation were undertaken.

While reasonable efforts have been made to ensure that the tree(s) proposed for retention are healthy, no warranty or guarantee, expressed or implied, are offered that these trees, or any parts of them, will remain standing. This includes other trees on or off the property not examined as part of this assignment. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or groups of trees or their component parts in all circumstances, especially when within construction zones. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure in the event of root loss due to excavation and other construction-related impacts. This risk can only be eliminated through full tree removal.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions, or seasonal variations in the weather. It is a condition of this report that *IFS Associates Inc.* be notified of any changes in tree condition and be provided an opportunity to review or revise the recommendations within this report. Recognition of changes to a tree's condition requires expertise and extensive experience. It is recommended that *IFS Associates Inc.* be employed to re-inspect the tree(s) with sufficient frequency to detect if conditions have changed significantly.

ASSUMPTIONS

Statements made to *IFS Associates Inc.* in regards to the condition, history and location of the tree(s) are assumed to be correct. Unless indicated otherwise, all trees under investigation in this report are assumed to be on the client's property. A recent survey prepared by a Licensed Ontario Land Surveyor showing all relevant trees, both on and adjacent to the subject property, will be provided prior to the start of field work. The final version of the grading plan for the project will be provided prior to completion of the report. Any further changes to this plan invalidate the report on which it is based. *IFS Associates Inc.* must be provided the opportunity to revise the report in relation to any significant changes to the grading plan. The procurement of said survey and grading plan, and the costs associated with them both, are the responsibility of the client, not *IFS Associates Inc.*

LIABILITY

Without limiting the foregoing, no liability is assumed by *IFS Associates Inc.* for: 1) any legal description provided with respect to the property; 2) issues of title and/or ownership with respect to the property; 3) the accuracy of the property line locations or boundaries with respect to the property; 4) the accuracy of any other information provided by the client or third parties; 5) any consequential loss, injury or damages suffered by the client or any third parties, including but not limited to replacement costs, loss of use, earnings and business interruption; and, 6) the unauthorized distribution of the report.

INDEMNIFICATION

An applicant for a permit or other approval based on this report shall agree to indemnify and save harmless *IFS Associates Inc.* from any and all claims, demands, causes of action, losses, costs or damages that affected private landowners and/or the City of Ottawa may suffer, incur or be liable for resulting from the issuance of a permit or approval based on this report or from the performance or non-performance of the applicant, whether with or without negligence on the part of the applicant, or the applicant's employees, directors, contractors and agents.

Further, under no circumstances may any claims be initiated or commenced by the applicant against *IFS Associates Inc.* or any of its directors, officers, employees, contractors, agents or assessors, in contract or in tort, more than 12 months after the date of this report.

ONGOING SERVICES

IFS Associates Inc. accepts no responsibility for the implementation of any or all parts of the report, unless specifically requested to supervise the implementation or examine the results of activates recommended herein. In the event that examination or supervision is requested, that request shall be made in writing and the details, including fees, agreed to in advance.