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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

January 19, 2023

Gino J. Aiello
GJA Inc.
110 Didsbury Road Unit #9
Ottawa, ON
K2T 0C2

RE: TREE CONSERVATION REPORT FOR 1509 MERIVALE ROAD

Dear Gino,

This report details a pre-construction tree conservation report (TCR) for the above-noted property located in Ottawa. The need for this TCR is related to the proposed demolition of a commercial building and construction of two nine-storey residential buildings, each with associated below grade parking.

The need for this report is related to trees protected under the City of Ottawa's Tree Protection By-law (By-law No. 2020-340). Under this by-law tree conservation reports are required for all site plan control applications for properties on which trees of 10 centimetres (cm) in diameter or greater are present. The approval of this TCR by the City of Ottawa authorizes site clearing activities, including the removal of any 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. Further, if any trees fully on or shared with adjacent properties are to be removed permission from affected landowners must first be obtained.**

The inventory in this report details the assessment of several groupings (*i.e.* hedges) and individual trees on and adjacent to the subject property which meet the 10cm diameter threshold. All healthy trees on the subject property and all those on adjacent private and City of Ottawa property will be preserved. Field work for this report was completed in November 2021.

METHODOLOGY

A reconnaissance survey of the property was conducted to determine the composition of existing vegetation. Trees were assessed for species, size (diameter) and general health condition. Any significant trees, as based on species or size were also noted. Importantly, several trees large enough to be considered 'distinctive' under the Tree Protection By-law (*i.e.* those 30cm in diameter and greater) were present on this inner urban area property.



This information was then compiled so that the grouping of trees could be broadly described and delineated (see the tree conservation plan on page 5 of this report).

TREE INVENTORY

The trees found on lands adjacent to the subject property were all obviously planted – either for amenity purposes or for their utility (*i.e.* screening). Two mature little-leaf lindens (*Tilia cordata*) located on 1533 Merivale Road were obviously planted as amenity features at the back of this commercial property. The cedar hedges (*Thuja occidentalis*) on private property at 42 Kerry Crescent, on City lands along Kerry Crescent and on the north side of the subject property would have likely been planted for their ability to screen the rear of the commercial building from adjacent properties.

Due to a lack of maintenance all of trees and hedges were in poor to fair condition only, therefore not optimizing the intended purpose behind their original planting. However, with minimal on-going maintenance the hedges in particular could be restored to the point that they could achieve a good degree of screening. In all cases the condition of the hedges have degraded as a result of invasion by little-leaf linden, Manitoba maple (*Acer negundo*), Siberian elm (*Ulmus pumila*), Norway maple (*Acer platanoides*), common buckthorn (*Rhamnus cathartica*) and glossy buckthorn (*Frangula alnus*) – the latter three of which are introduced invasive species. Where these trees have seeded and grown, they have shaded the cedars thereby reducing their density and screening potential. No signs or symptoms of major pests or diseases were observed having an impact on tree health.

Table 1 below details the groupings and individual trees found on the site that are considered worthy of note. The TCR plan on page 5 shows each tree/grouping by number.

Table 1. Trees of note at 1509 Merivale Road

Tree No.	Tree Species	Owner -ship	DBH ¹ (cm)	Tree Condition, Age Class, Tree Condition Notes & Status (to the removed or retained)
1	Little-leaf linden	Neighbour	29	Poor; maturing; tri-stemmed at 2.5-3m from grade; mature basal sprouts (all topped); poor annual growth increment (vigour); introduced species; to be retained
2	Little-leaf linden	Neighbour	32	Poor; mature; central dominant stem with suppressed lateral on east; fair annual growth increment; introduced species; to be retained
3	White cedar	Neighbour	12 avg.	Fair; maturing; invasion of Manitoba maple and buckthorn degrading screening potential; native species; to be retained
4	White cedar	City	17 avg.	Fair; mature; invasion of Manitoba maple, little-leaf linden and buckthorn degrading screening potential; native species; to be retained (with the exception of a small portion at the southern end for a pedestrian walkway leading to Kerry Crescent)

Table 1. Con't

Tree No.	Tree Species	Owner -ship	DBH ¹ (cm)	Tree Condition, Age Class, Tree Condition Notes & Status (to the removed or retained)
5	White cedar	Private	15 avg.	Multiple remnant trees heavily shaded by invasive growth; native species; to be removed (conflicts with construction access and proposed walkways)
	Manitoba maple	Private	+/-80	Single overmature tree is hazardous and should be removed; naturalized species; to be removed (as above)
	Siberian elm	Private	29-47	Five mature trees with multiple stems generally in fair condition; some with heavy vine growth, others heavily pruned by Hydro; introduced invasive species; to be removed (as above)
	White elm (<i>Ulmus americana</i>)	Private	22 & 35	Two mature trees in good condition – no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); one tree with heavy vine growth into crown; native species; to be removed (as above)

¹Diameter at breast height, or 1.4m from grade.

The individual and groupings of trees on and adjacent to the subject property are shown in Pictures 1 through 4 on pages 7, 8 and 9 of this report.

FEDERAL AND PROVINCIAL REGULATIONS

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

- 1) Endangered Species Act (2007): No butternuts (*Juglans cinerea*) were identified on the subject or adjacent properties. This species of tree is listed as threatened under the Province of Ontario's Endangered Species Act (2007) and so is protected from harm.
- 2) Migratory Bird Convention Act (1994): In the period between April and August of each year nest surveys must 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

All trees on adjacent private and City of Ottawa property will be preserved. The measures intended to ensure their preservation will focus on avoiding damage during construction – in particular avoiding damage to roots. The following measures are the minimum required by the City of Ottawa to ensure tree survival during and following construction:

1. Erect a fence at the critical root zone (CRZ¹) of trees (see City of Ottawa tree protection specification on page 6).
2. Do not place any material or equipment within the CRZ of the tree.
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 when digging within the CRZ of a 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 The critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimetre of trunk Diameter at breast height (DBH). The CRZ is calculated as DBH x 10 cm.

REPLACEMENT TREE PLANTING OR COMPENSATION

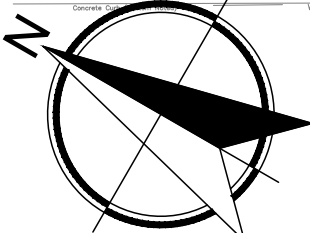
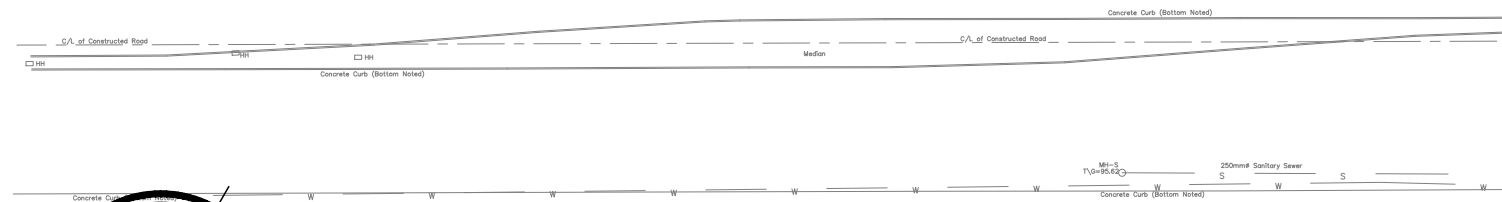
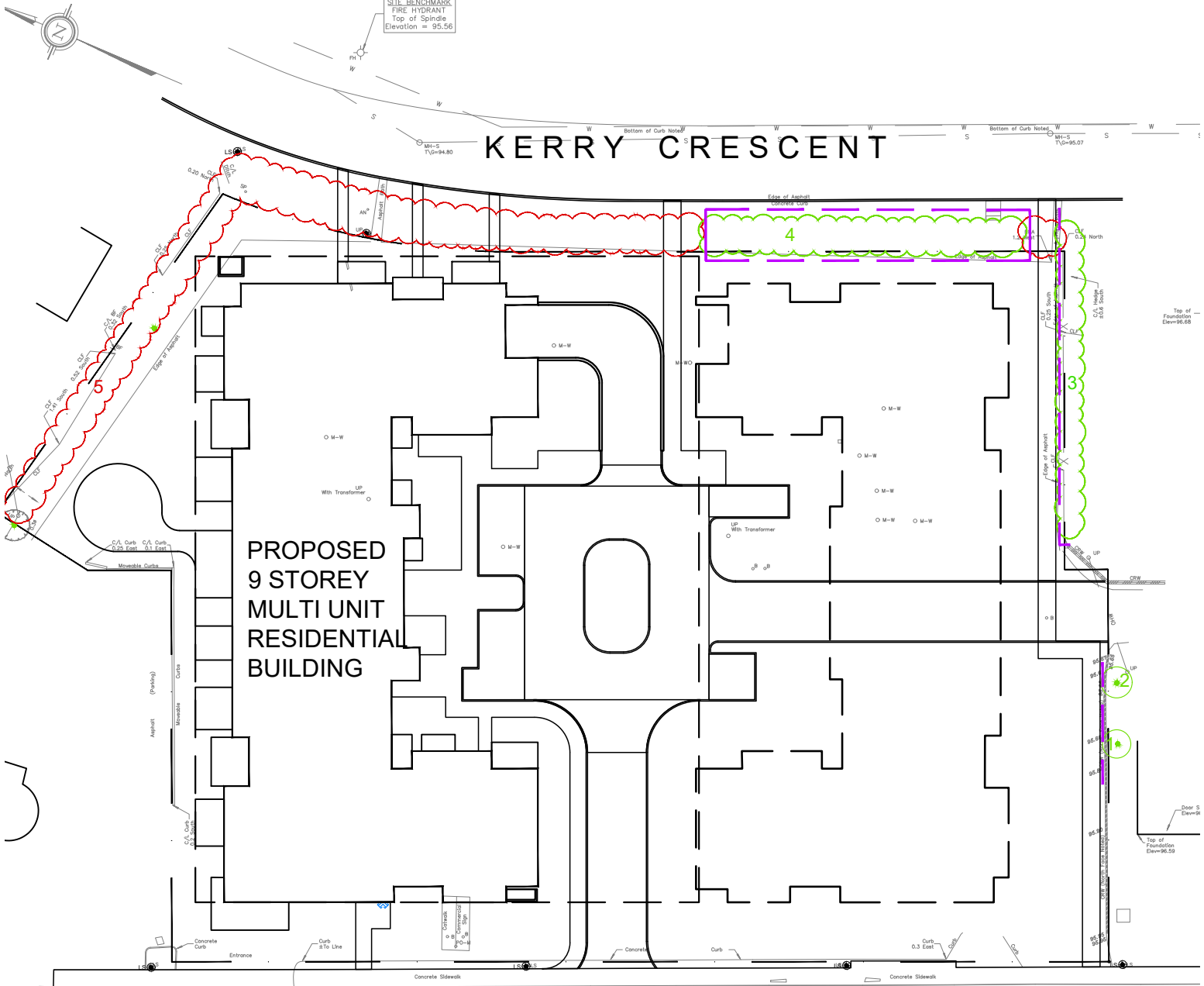
As shown on the landscape plan, numerous trees are proposed for planting within the new landscape. As only a small portion of hedge on City lands is projected to be lost, it is likely no monetary compensation will be required.

This report is subject to the attached Limitations of Tree Assessments to which the reader's attention is directed. Please do not hesitate to contact the undersigned with any questions concerning this report.

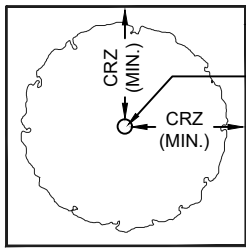
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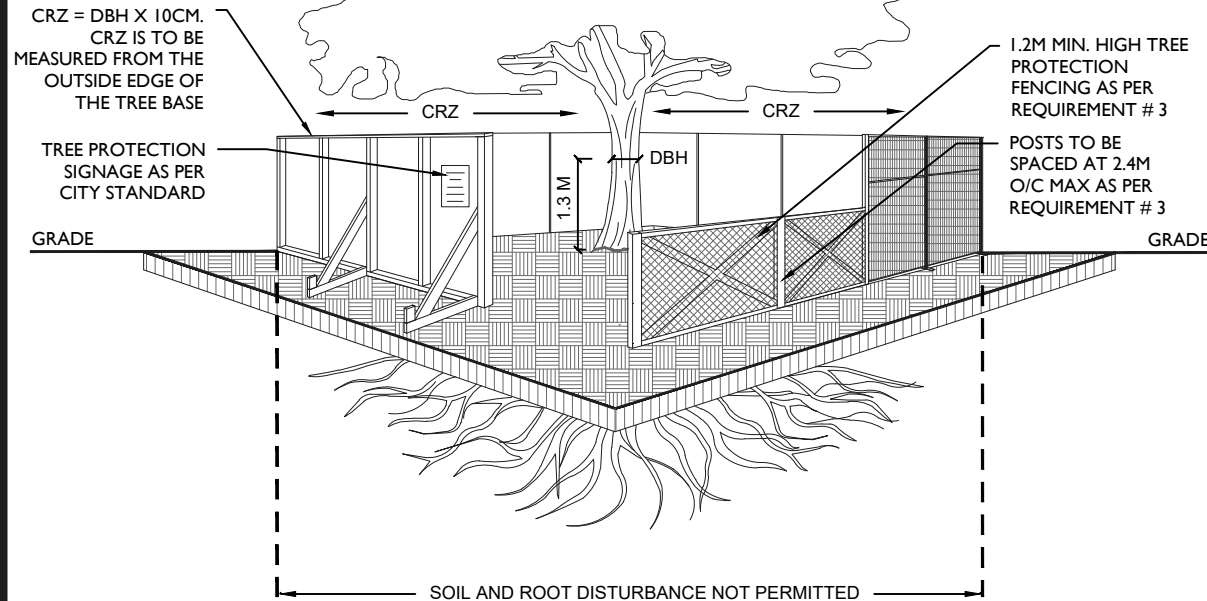
Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)
Certified Arborist #ON-0496A and TRAQualified
Consulting Urban Forester



KATASA
9 STOREY Residential Development
 1509 Merivale Road Nepear



PLAN VIEW



TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
 - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
 - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
 - DO NOT RAISE OR LOWER THE EXISTING GRADE;
 - TUNNEL OR BORE WHEN DIGGING;
 - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
 - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
 - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
3. TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
4. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
5. IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST



TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE: NTS

DATE: MARCH 2021

DRAWING NO.: 1 of 1



Picture 1. Trees #1 and 2, Little-leaf lindens located on adjacent property at 1533 Merivale Road



Picture 2. Cedar hedge #3, located on adjacent property at 42 Kerry Crescent (note impact Manitoba maple on right is having on growth of nearby cedars)



Picture 3. Cedar hedge #4, located on adjacent City of Ottawa property (note invasive growth between and below cedars)



Picture 4. Tree grouping #5 on the subject property – Siberian elms on right and left (still in leaf), hazardous Manitoba maple (leafless, centre left) and white elm (leafless, centre)

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 activities 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.