



Dendron Forestry Services

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Tree Conservation Report Addendum

Submitted as part of Site Plan Control Application

Address: 29 Russell
Date of Report: Dec 22, 2023
Date of Site Visit: Dec 15, 2023
Prepared by: Astrid Nielsen, RPF, ISA Certified Arborist ®
Client: Smart Living Properties, Corey Kou, corey@smartlivingproperties.ca

This Report must be read in its entirety, including the Assumptions and Limiting Conditions attached herein.

Purpose of the Report

This Tree Conservation Report Addendum has been prepared for Corey Kou from Smart Living Properties, as partial requirements for the Site Plan Control Application submitted to the City of Ottawa. The objectives of this Tree Conservation Report are to provide additional information to the Tree Conservation Report prepared by James B., Lennox & Associates Inc. last updated on August 2, 2023. This information was requested by the City of Ottawa during a fourth review of the file dated December 1, 2023, as follows:

4. [City 3rd Review, Comment 18] The 7 Manitoba maples owned by 312 Laurier are expected to have >30% excavation within their CRZs. Consideration should be given to reducing the extent of excavation needed in this area, reducing tree impacts. If this cannot be done a report from a Registered Professional Forester (RPF) will be required indicating that the trees will be safely retained and are expected to survive construction.

[Fotenn response dated October 17, 2023] Acknowledged.

City (December 2023) – The comment has not been adequately addressed. It was indicated in the response to the 2nd submission that >30% of the CRZ of adjacently owned trees would be impacted by the project. This is not an acceptable level of impact under best management practices. As noted in the previous comment, reduce the impact or have a registered professional forester sign off on the current plans as being an acceptable retention plan. No revised plan and/or evidence of reduced impact was provided nor has a registered professional forester signed off on the current plans as being an acceptable retention plan.

Proposed Development and Conserved Vegetation

A site visit was conducted on December 15 to assess the health of the trees in question as well as the impacts by the proposed construction. The following chart summarizes the trees and their health:



Tree Inventory

Tree ¹	Species	Diameter at breast height (dbh)	Ownership ^{2,3}	Condition
1	Manitoba maple (<i>Acer negundo</i>)	38 cm	312 Laurier	Poor; cavity at main union that extends through the trunk
2	Manitoba maple (<i>Acer negundo</i>)	62 cm	312 Laurier	Poor; large cavity in main limb
3	Manitoba maple (<i>Acer negundo</i>)	32 cm	312 Laurier	Fair
4	Manitoba maple (<i>Acer negundo</i>)	35 cm	312 Laurier	Poor; growing around fence
5	American elm (<i>Ulmus americana</i>)	40 cm	312 Laurier	Fair; growing around fence
6	Manitoba maple (<i>Acer negundo</i>)	43 cm	312 Laurier	Fair/poor; large cavity and poor main union
7	Manitoba maple (<i>Acer negundo</i>)	29 cm	312 Laurier	Fair; heavy lean to the north

¹ Please refer to the enclosed Tree Conservation Report map for tree numbers. Note that this map includes a tree layer added to the site plan (in pdf format) provided by the client. This layer includes only information about the trees and the original site plan is not altered in this process.

²Ownership of the tree in this report is based on the information provided and should not be used as a determination of ownership. For ownership disputes, a survey should be relied on. For boundary trees, consent from the adjacent property owner is required for removal as part of the application.

The trees have limited optimal rooting space with an asphalt parking lot to the north on the adjacent property and a compacted gravel parking lot on the subject property. The attached map shows the limit of the critical root zones (CRZ) of the trees, as defined by the City of Ottawa Tree Protection (By-law No. 2020-340) on the site. The CRZ is an area around the trunk with a radius equivalent to 10 times the diameter of the trunk. This does not take into account infrastructure such as buildings and asphalt and it assumed the tree has no restrictions on root growth. The yellow line on the map indicates the extent of excavation for the proposed new addition. Calculations were completed to determine the extent of the rooting areas that would be lost based on the CRZ as defined in the by-law and are shown in the table on the map.

Based on these calculations, rooting loss ranges from 0-15% with the exception of tree 2 which may have up to 29% root loss. 0-15% root loss may result in some tree health decline but will be unlikely be the sole reason to cause decline in these trees. Investments into mitigations to reduce root loss for tree 2 is not recommended as the tree is already in poor condition. Both **Trees 1 and 2** are in poor condition, and removal, or reduction pruning should be considered by the property owner to reduce the risk of failures onto the parking lot.



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The only other conflict to note is within the crown of the elm, **Tree 5**. There is a large branch hanging over the subject property that will likely require clearance pruning to avoid conflict with the new building and construction.

Other mitigation measures include reducing impact to tree roots as much as possible during the excavation for the new foundation. This could include cleanly severing by hand any roots larger than 1" and keeping any exposed roots moistened as much as possible; this could be accomplished by covering them with soil or covering the wounds with a moist organic material such as burlap. The tree protection area will likely need to be accessed during the construction, but the ground is already heavily compacted, so additional foot traffic is unlikely to cause further damage. The area immediately around the trees, however, should be avoided and fenced off to avoid construction material and machinery from damaging the trees directly.

The undersigned personally inspected the property and issues associated with this report on December 15, 2023. On Behalf of Dendron Forestry Services,



Astrid Nielsen, MFC, RPF (Registered Professional Forester)

ISA Certified Arborist®, ON-1976

ISA Tree Risk Assessment Qualified

Principal, Dendron Forestry Services

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Figure 1: Image showing the compacted soil on the subject property



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Figure 2: Image showing trees looking from the adjacent property



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Figure 3 Trees 4 and 5 growing around the fence



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ASSUMPTIONS AND LIMITING CONDITIONS

Intended Use of the Report

This Report was prepared by Dendron Forestry Services (hereafter "Dendron") at the request of the Client. The results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report are to be used solely for the purposes outlined within this Report. All other uses are impermissible and unintended, unless specifically stated in writing in the Report.

Intended User of the Report

This Report was prepared by Dendron for the exclusive use of the Client and may not be used or relied upon by any other party. All other users are unintended and unauthorized, unless specifically stated in writing in the Report.

Limitations of this Report

This Report is based on the circumstances and on-site conditions as they existed at the time of the site inspection and the information provided by the Client and/or third parties to Dendron. On-site conditions may limit the extent of the on-site inspection(s) conducted by Dendron, including weather events such as rain, flooding, storms, winds, tornados, snowfall, snow cover, hail; obstructions including fencing, dwellings, buildings, sheds, plants, and animals; lack of access to the entire perimeter of the tree due to adjacent properties; the shape of the tree; and accessibility of the tree crown, branches, trunk, or roots for examination.

In the event that information provided by the Client or any third parties, including but not limited to documents, records, site and grading plans, permits, or representations or any site conditions are updated or change following the completion of this Report, this Report is no longer current and valid and cannot be relied upon for the purpose for which it was prepared. Dendron and its agents, assessors, and/or employees are not liable for any damages, injuries, or losses arising from amendments, revisions, or changes to the documents, records, site and grading plans, permits, representations, or other information upon which Dendron relied in preparing this Report.

No assessment of any other trees or plants has been undertaken by Dendron. Dendron and its agents, assessors, and/or employees are not liable for any other trees or plants on or around the subject Property except those expressly identified herein. The results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report apply only to the trees identified herein.

Trees and plants are living organisms and subject to change, damage, and disease, and the results, observations, interpretations, analysis, recommendations, and conclusions as set out in this Report are valid only as at the date any inspections, observations, tests, and analysis took place. No guarantee, warranty, representation, or opinion is offered or made by Dendron as to the length of the validity of the results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report. As a result the Client shall only rely upon this Report as representing the results, observations, interpretations, analysis, recommendations, and conclusions that were made as at the date of such inspections, observations, tests, and analysis. The trees discussed in this Report should be re-assessed periodically and at least within one year of the date of this Report.

No Opinion regarding ownership of the Tree

This Report was not prepared to make a determination as to ownership of the subject tree(s). Where ownership of the subject tree(s) is identified within this Report, said identification is based on the information provided by the Client and third parties, including surveys, permits, and site and grading plans and may not be relied upon as a guarantee, warranty, or representation of ownership.

Assumptions

This Report is based on the circumstances and conditions as they existed at the time of the site inspection and the information provided by the Client and/or third parties to Dendron. Where documents, records, site and grading plans, permits, representations, and any other information was provided to Dendron for the purpose of preparing this Report, Dendron assumed that said information was correct and up-to-date and prepared this Report in reliance on that information. Dendron and its agents, assessors, and/or employees, are not responsible for the veracity or accuracy of such information. Dendron and its agents, assessors, or employees are not liable for any damages, injuries, or losses arising from inaccuracies, errors, and/or omissions in the documents, records, site and grading plans, permits, representations, or other information upon which Dendron relied in preparing this Report.

For the purpose of preparing this Report, Dendron and its agents, assessors, and/or employees assumed that the property which is the subject of this Report is in full compliance with all applicable federal, provincial, municipal, and local statutes, regulations, by-laws, guidelines, and other related laws. Dendron and its agents, assessors, and/or employees are not liable for any issues with respect to non-compliance with any of the above-referenced statutes, regulations, bylaws, guidelines, and laws as it may pertain to or affect the property to which this Report applies.

For the purpose of preparing this Report, Dendron and its agents, assessors, and/or employee assumed that there are no hidden or unapparent conditions affecting the results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report.

No Publication

The Client acknowledges and agrees that all intellectual property rights and title, including without limitation, all copyright in this Report shall remain solely with Dendron Forestry. Possession of this Report, or a copy thereof, does not entitle the Client or any third party to the right of publication or reproduction of the Report for any purpose save and except where Dendron has given its prior written consent.



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Neither all nor any part of the contents of this Report shall be disseminated to the public through advertising, public relations, news, sales, the internet or other media (including, without limitation, television, radio, print or electronic media) without the prior written consent of Dendron Forestry.

Implementing the Report Recommendations

Dendron and its agents, assessors, and/or employees accept no responsibility for the implementation of any part of this Report unless specifically requested to provide oversight on the implementation of the recommendations. In the event that inspection or supervision of all or part of the implementation of the within recommendations is requested, that request shall be in writing and the details agreed to in writing by both parties.

Dendron and its agents, assessors, and/or employees are not liable for any damages or injuries arising from the manner in which the recommendations in this Report are implemented, including failure to, incorrect, or negligent implementation of the recommendations.

Further Services

Neither Dendron nor any assessor employed or retained by Dendron for the purpose of preparing or assisting in the preparation of this Report shall be required to provide any further consultation or services to the Client, save and except as already carried out in the preparation of this Report and including, without limitation, to act as an expert witness or witness in any court in any jurisdiction unless the Client has first made specific arrangements with respect to such further services, including, without limitation, providing the payment of the Report's regular hourly billing fees.

Limits of Liability

In carrying out this Report, Dendron and its agents, assessors, and/or employees have exercised a reasonable standard of care, skill, and diligence as would be customarily and normally provided in carrying out this Report. While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or all parts of them will remain standing. It is professionally impossible to predict with absolute certainty the behaviour of any single tree or group of trees, or all their component parts, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential to fall, lean, or otherwise pose a danger to property and persons in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Without limiting the foregoing, no liability is assumed by Dendron for:

- a) any legal description provided with respect to the Property;
- b) issues of title and or ownership respect to the Property;
- c) the accuracy of the Property line locations or boundaries with respect to the Property; and
- d) the accuracy of any other information provided to Dendron by the Client or third parties;
- e) 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
- f) the unauthorized distribution of the Report.

The total monetary amount of all claims or causes of action the Client may have as against Dendron Forestry, including but not limited to claims for negligence, negligent misrepresentation, and breach of contract, shall be strictly limited solely to the total amount of fees paid by the Client to Dendron Forestry pursuant to the Contract for Services dated Dec 11, 2023 for which this Assessment was carried out.

Further, under no circumstance may any claims be initiated or commenced by the Client against Dendron or any of its directors, officers, employees, contractors, agents, assessors, or Assessors, in contract or in tort, more than 12 months after the date of this Report.

No Third Party Liability

This Report was prepared by Dendron exclusively for the Client for the purpose set out in the Report. Any use which a third party makes of this Report, or any reliance on or decisions a third party may make based upon this Report, are made at the sole risk of any such third parties. Dendron Forestry accepts no responsibility for any damages or loss suffered by any third party or by the Client as a result of decisions made or actions based upon the unauthorized use or reliance of this Report by any such party.

General

Any plans and/or illustrations in this Report are included only to help the Client visualize the issues in this Report and shall not be relied upon for any other purpose. This report is best viewed in colour. Any copies printed in black and white may make some details difficult to properly understand. Dendron accepts no liability for misunderstandings due to a black and white copy of the report.

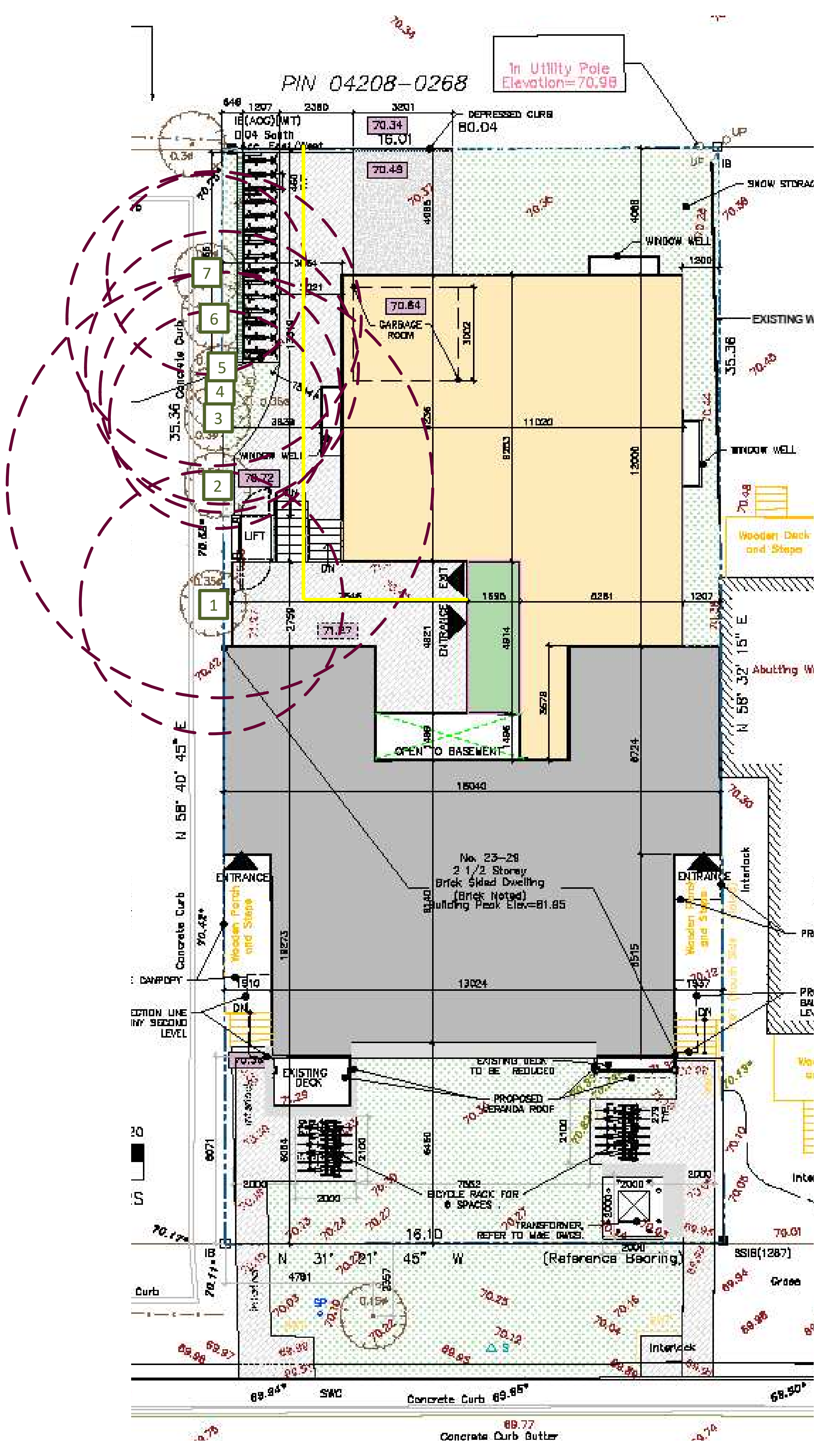
Notwithstanding any of the above, nothing in this Report is taken to absolve the Client of the responsibility of obtaining a new Report in the event that the circumstances of the tree change.



TIR Map – 29 Russell Avenue
 Tree layer prepared by
 Dendron Forestry Services
 Version 1.0, December 22, 2023
 For more information, please contact: info@dendronforestry.ca

Tree	DBH (cm)	CRZ Rad (cm)	CRZ area (cm ²)	Segment area (cm ²)	Percentage
1	38	380	453645.9792	22980.6495	5%
2	62	620	1207628.216	344985.686	29%
3	32	320	321699.0877	21121.7674	7%
4	35	350	384845.1001	39745.0584	10%
5	40	400	502654.8246	76734.413	15%
6	43	430	580880.4816	87557.1223	15%
7	29	290	264207.9422	0	0%

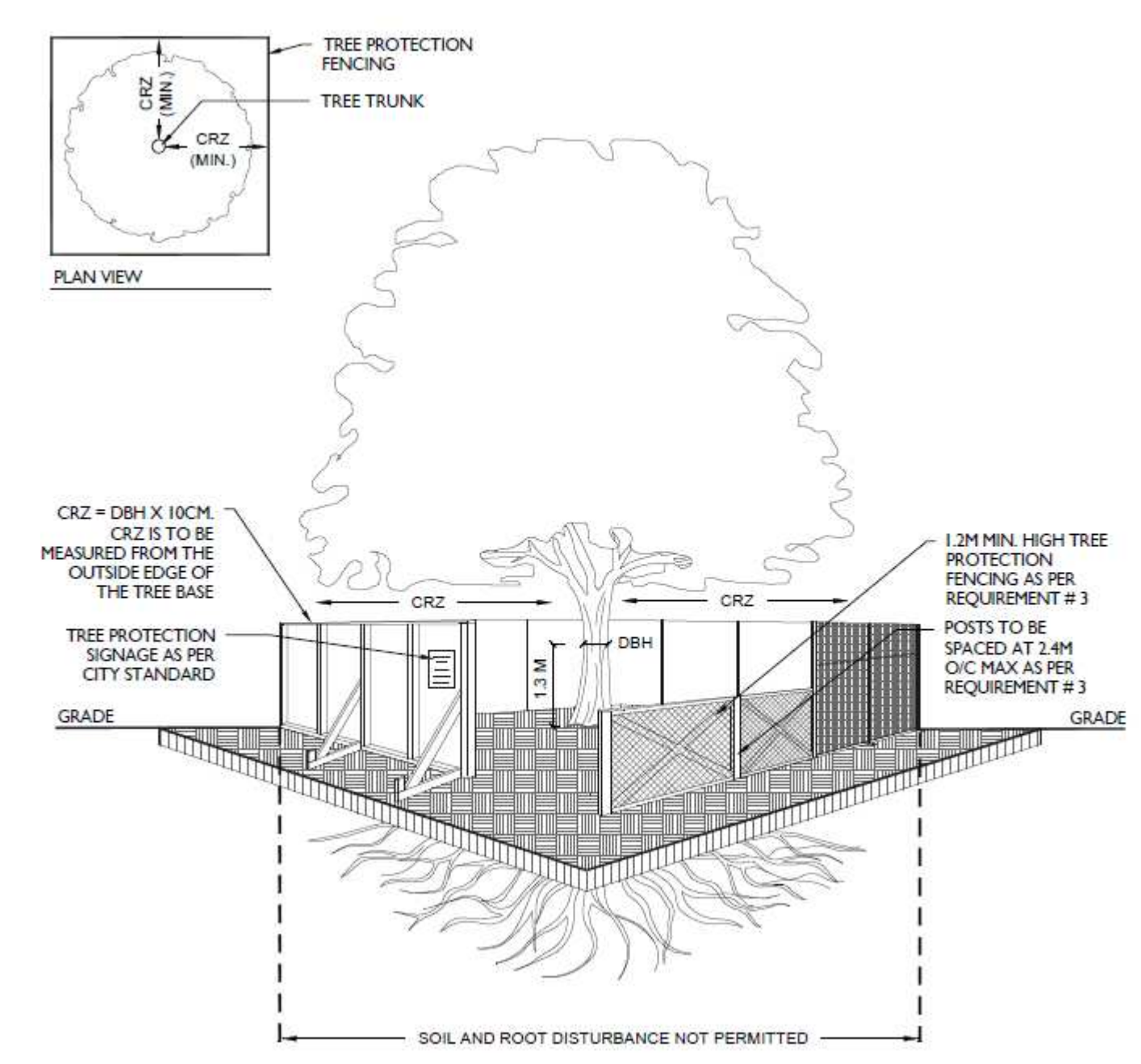
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Note: the tree layer has been added to the original site plan supplied by the client in pdf format. This layer refers to the trees only, and the original plan has not been altered in the process. Refer to the original plan for details as quality is lost when importing the plan into the mapping software used to create the tree layer.

- TREE PROTECTION REQUIREMENTS:**
- 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.
 - 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.
 - 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 MINIMIZE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
 - 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.
 - 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.

Failure to install and maintain fencing as described in this report may result in fines from the city.



Legend

Critical Root Zone