



February 21, 2025

Mr. John Shank

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Re: Emil Kolb Pkwy & Harvest Moon Drive – Bolton - Arborist Report and TPP

Mr. Shank,

As per your request, I have completed a site visit to Emil Kolb Pkwy & Harvest Moon Drive - Bolton, in preparation for an arborist report and tree preservation with regard to the proposed townhouse complex.

The enclosed report inventories all trees > 10cm DBH located on and within 6.0m of the subject site. This inventory will include individual tag #s for individual trees with both common and botanical names, DBH, condition and recommendations. Additionally, it will determine if any regulated trees are to be negatively impacted by the proposed development.

Thirty-seven trees have been inventoried as part of this project, eleven of which are Town owned. Four Town owned trees, and twenty-three privately owned trees located on the subject site are in conflict with the proposed grading and are to be removed. Authorization from the Town of Caledon is required prior to the removal of twenty-seven trees.

I trust this report meets your needs, if you have any questions or concerns feel free to contact me at cgavin@canopyconsulting.ca.

Regards,

Cletus Gavin *B.Sc. Earth Science & Biology*

President & Consulting Arborist
ASCA Registered Consulting Arborist #613
ISA Certified Arborist (ON-1576A)
Butternut Health Assessor # 439
TRAQ Certified



Arborist Report
&
Tree Protection Plan

Emil Kolb Parkway & Harvest Moon Drive
Bolton, ON

Prepared for:
Mr. John Shank



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INTRODUCTION:

I have been commissioned by Mr. John Shank of Landscape Planning Landscape Architects., to complete an arborist report and tree protection plan for the proposed townhouse complex located at Emil Kolb Pkwy & Harvest Moon Drive - Bolton. The report will identify all trees on and within 6.0m of the work area, provide a preservation strategy with recommendations (if possible) and a tree protection plan depicting the trees locations, the existing conditions and any proposed work. All field work and data collection were completed by Cletus Gavin, RCA #613 on June 28, 2024.

HISTORY AND ASSIGNMENT:

Mr. Shank has provided a site plan illustrating the proposed townhouse complex as per the Tree Protection Plan – TPP-1 in Appendix I. Upon the request of the client or municipality, *Canopy Consulting*, can be further retained beyond the current scope of work to provide on-site monitoring services and to provide any remedial actions deemed necessary.

Scope of work:

1. Inventory all trees >10cm located on and within 6m of the work area. The inventory will include a tag #, species, DBH, condition, comments and recommendations.
2. Determine if any regulated trees are to be negatively impacted by the proposed development.
3. Provide a preservation strategy for all trees recommended for preservation.

ASSUMPTION AND LIMITING CONDITIONS:

1. Care has been taken to obtain all information from reliable sources. *Canopy Consulting* can neither guarantee nor be responsible for the accuracy of information provided by others.
2. This report may not be used for any expressed purpose other than its intended purpose and alteration of any part of this report invalidates the report. Excerpts or alterations to the report, without the authorization of the author or his company invalidates its intent and/or implied conclusions.
3. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection; and 2) the inspection was made using accepted arboricultural practices and is limited to visual examination of accessible items without climbing, dissection, probing or coring and detailed root examination involving excavation. While reasonable efforts have been made to assess trees outlined in this report, there is no warranty or guarantee, expressed or implied, that problems or deficiencies with the tree(s) or any part(s) of them may not arise in the future. All trees should be inspected and reassessed periodically.
4. The determination of ownership of any subject tree(s) is the responsibility of the owner and any civil or common-law issues, which may exist between property owners with respect to trees, must be resolved by the owner. A recommendation to remove or maintain tree(s) does not grant authority to encroach in any manner onto adjacent private properties.

TREE SURVEY AND RECOMMENDATIONS:

See TPP-1 plan in Appendix I for tree location, Table #1 for species identification, condition, and recommendations and Appendix II for corresponding Digital Images.

Table #1: Emil Kolb Pkwy & Harvest Moon Drive - Bolton

Tree #	Species Common Name (Biological Name)	D ¹ B H (cm)	Condition ²	Category ³	Comments	Recommendation ⁴	Replacement Ratio	M ⁵ T P Z (M)
406	Juniper <i>Juniperus spp.</i>	24	F	1	- deadwood, poor union - in conflict with proposed grading	R	2	1.8
407	Norway Spruce <i>Picea abies</i>	36	F	1	- deadwood - in conflict with proposed grading	R	3	2.4
408	Sugar Maple <i>Acer saccharum</i>	22	G	1	- in conflict with proposed grading	R	2	1.8
409	Norway Maple <i>Acer platanoides</i>	18	G	1	- in conflict with proposed grading	R	1	1.8
410	Norway Maple <i>Acer platanoides</i>	21	G	1	- in conflict with proposed grading	R	2	1.8
411	Corkscrew Willow <i>Salix matsudana</i>	54	F	1	- deadwood, poor union with included bark - in conflict with proposed grading	R	4	3.6
412	Crab Apple <i>Malus baccata</i>	19	F	1	- deadwood, rust - in conflict with proposed grading	R	1	1.8
413	Sugar Maple <i>Acer saccharum</i>	50	F	1	- deadwood, poor union - in conflict with proposed grading	R	3	3.6
414	Siberian Elm <i>Ulmus pumilla</i>	49	P	1	- deadwood, in decline, multiple large storm breaks - in conflict with proposed grading	R	0	3.0
415	Honey Locust <i>Gleditsia triacanthos</i>	19	G	1	- in conflict with proposed grading	R	1	1.8

¹ **DBH:** Diameter at Breast Height is a measurement in centimeters, using a caliper tape, of the tree stem at 1.37 meters above existing grade.

² **Condition:** A rating of **Hazardous/Dead/Poor/Fair/Good/Excellent** was determined for each tree by visually assessing all the above ground components of the tree, using acceptable arboricultural procedures as recommended in the “*Guide for Plant Appraisal*”, prepared under contract by the “*Council of Tree & Landscape Appraisers (CTLA)*”, an official publication of the *International Society of Arboriculture (I.S.A.)*, 9th Edition, 2000”.

³ **Category #:**

1. Trees with diameters of 10 cm or more, situated on private property on the subject site.
2. Trees with diameters of 10 cm or more, situated on private property, within 6 m of the subject site.
3. Trees of all diameters situated on Town owned parkland within 6 m of the subject site.
4. Trees of all diameters situated within the Municipal road allowance adjacent to the subject site.

⁴ **Recommendation:** Preserve (**P**), Preserve with Injury (**PI**), Remove (**R**), Transplant (**T**)

⁵ **MTPZ:** Minimum tree protection zone distance as mandated by Canopy Consulting.

Tree #	Species Common Name (Biological Name)	D B H (cm)	Condition	Category	Comments	Recommendation	# of Replacement trees	M T P Z (M)
416	Norway Maple <i>Acer platanoides</i>	27	F	1	- split at union, deadwood - in conflict with proposed grading	R	2	1.8
417	Red Maple <i>Acer rubrum</i>	42	F	1	- deadwood, poor union with included bark - in conflict with proposed grading	R	3	3.0
418	Little Leaf Linden <i>Tilia cordata</i>	25	F	1	- weak union, deadwood - in conflict with proposed grading	R	2	1.8
419	Pear <i>Pyrus spp.</i>	15	F	1	- cavity in leader, deadwood - in conflict with proposed grading	R	1	1.8
420	Apple <i>Malus spp.</i>	27	F	1	- deadwood - in conflict with proposed grading	R	2	1.8
421	Cherry <i>Prunus spp.</i>	46	F	1	- weak union, deadwood - in conflict with proposed grading	R	3	3.0
422	Black Walnut <i>Juglans nigra</i>	14	G	1	- in conflict with proposed grading	R	1	1.8
423	Norway Maple <i>Acer Platanoides</i>	18	G	1	- in conflict with proposed grading	R	1	1.8
424	Mulberry <i>Morus alba</i>	20	F	1	- ornamental - in conflict with proposed grading	R	1	1.8
425	Norway Maple <i>Acer Platanoides</i>	21	F	1	- deadwood - in conflict with proposed grading	R	2	1.8
426	White Spruce <i>Picea Glauca</i>	11	F	1	- deadwood - in conflict with proposed grading	R	1	1.8
427	Little Leaf Linden <i>Tilia cordata</i>	24	P	1	- 90% dead - in conflict with proposed grading	R	0	1.8
428	Siberian Elm <i>Ulmus pumilla</i>	32	F	1	- deadwood, in decline, multiple large storm breaks - in conflict with proposed grading	R	2	2.4
C1	Juniper <i>Juniperus spp.</i>	20	F	4	- deadwood, poor form - in conflict with proposed grading	R	N/A	1.8
C2	Choke Cherry <i>Prunus virginiana</i>	6	F	4	- deadwood, poor form - in conflict with proposed grading	R	N/A	1.2
C3	Trembling Aspen <i>Populus tremuloides</i>	21	F	4	- deadwood, poor union - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.8
C4	Trembling Aspen <i>Populus tremuloides</i>	8	F	4	- deadwood, poor union - in conflict with proposed grading	R	N/A	1.2
C5	Trembling Aspen <i>Populus tremuloides</i>	12	F	4	- deadwood, poor form - in conflict with proposed grading	R	N/A	1.8
C6	Honey Locust <i>Gleditsia triacanthos</i>	4	G	4	- clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.2

Tree #	Species Common Name (Biological Name)	D B H (cm)	Condition	Category	Comments	Recommendation	# of Replacement trees	M T P Z (M)
C7	Honey Locust <i>Gleditsia triacanthos</i>	4	F	4	- deadwood - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.2
C8	Honey Locust <i>Gleditsia triacanthos</i>	4	F	4	- deadwood - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.2
C9	Sugar Maple <i>Acer saccharum</i>	12	F	4	- injury at base - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.8
C10	Ginkgo <i>Ginkgo Biloba</i>	5	F	4	- deadwood, in decline - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.2
C11	Freeman Maple <i>Acer freemanii</i>	11	G	4	- clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.2
N1	Red Maple <i>Acer rubrum</i>	15	F	2	- deadwood, poor form - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	1.8
N2	Corkscrew Willow <i>Salix matsudana</i>	56	F	2	- deadwood, poor form - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	3.6
N3	Silver Maple <i>Acer saccharinum</i>	56	F	2	- deadwood - clear of proposed construction - shall retain its prescribed TPZ	P	N/A	3.6

Discussion:

Town Owned Trees:

- As listed above, there are thirty-seven trees involved with this project, eleven of which are located within the Town road allowance, trees no. C-C11. Trees no. C3 and C6-C11 are clear of the proposed development, shall retain their prescribed TPZs and as such, will not be disturbed during construction.
- Trees C1, C2, C4 and C5 are in conflict with the proposed grading and are to be removed. Authorization from the Town is required prior to the removal of these four trees.

Privately Owned Trees Located within 6.0m of the Subject Site:

- There are three regulated trees located on adjacent private property within 6.0m of the subject site being Trees no. N1-N3. All three trees are clear of the proposed development, shall retain their prescribed TPZs and as such, will not be disturbed during construction. Tree protection hoarding is not required for these trees as no part of their TPZs encroach upon the subject site.

Privately Owned Trees Located on the Subject Site:

- There are twenty-three regulated trees located on the subject site, being trees no. 406-428. All twenty-three trees are in conflict with the proposed grading and as such are to be removed. Authorization from the Town is required prior to the removal of these twenty-three trees.

2. Tree Replacement Chart for Healthy Private Trees

Tree size	Trees scheduled for removal	Ratio of tree replacement	# of trees
10-20	409, 412, 415, 419, 422, 423, 424, 426	1:1	8
21-35	406, 408, 410, 416, 418, 420, 425, 428	2:1	16
36-50	407, 413, 417, 421	3:1	12
51-65	411	4:1	4
>65		5:1	0
		Total	40

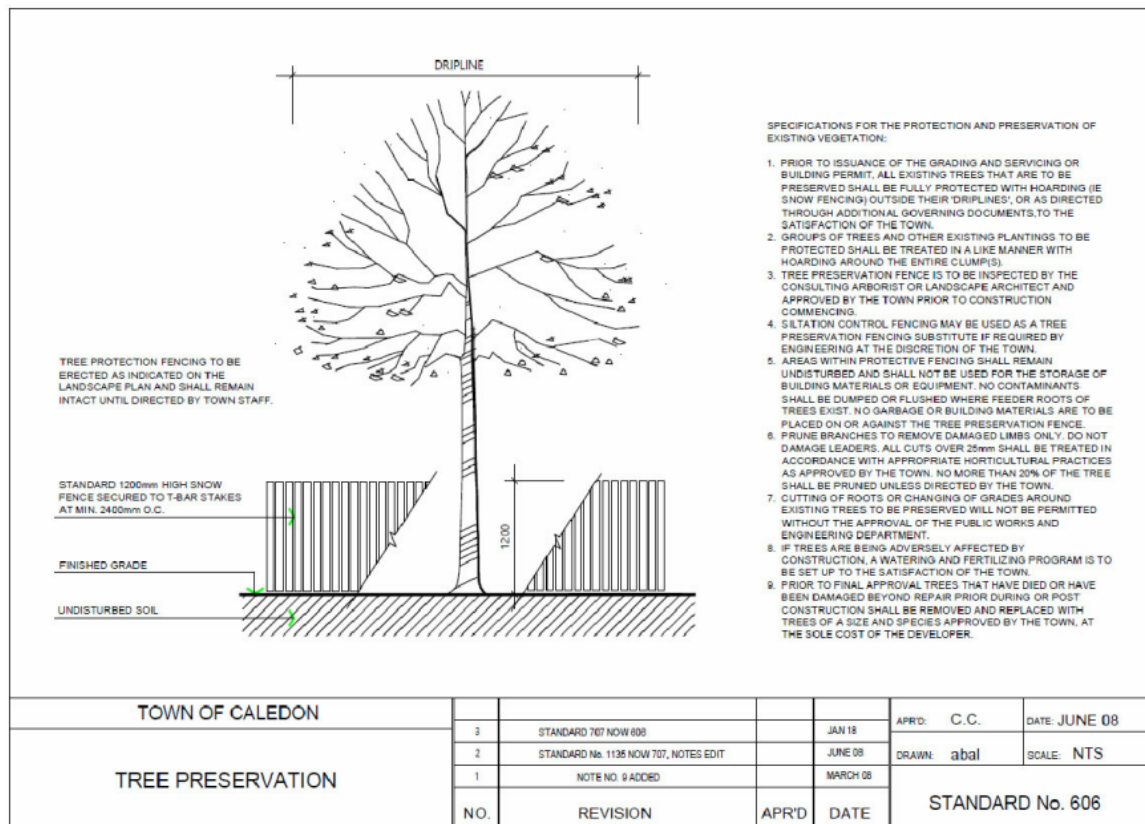
3. To further protect each tree scheduled for preservation from the potential of construction disturbance, it is recommended that the below listed tree preservation recommendations are implemented.

ESTABLISH TREE PROTECTION ZONE

The purpose of the tree protection zone (TPZ) is to prevent root damage, soil compaction and soil contamination. Workers and machinery shall not disturb the tree protection zone in any way. To prevent access, the following is required:

- 1.1 Install hoarding as per attached Tree Protection Plan in Appendix I.

- 1.2 Hoarding shall consist of the following:



SPECIFICATIONS					
A. General					
The following Tree Preservation and Protection Measures will be undertaken to help eliminate and/or significantly reduce construction injury to all trees recommended for preservation. All temporary tree protection measures cited for retained trees must comply with the Town of Caledon Tree Protection Specifications and Details. Any variation from the standard tree protection measures must be approved in writing by the Town of Caledon.					
B. Pre-Construction Phase					
1. Prior to construction, the trees to be preserved shall be protected with a Tree Protection Barrier. The barrier shall consist of 1.2m (4ft) high orange plastic snow fence wired to T-bars (see Town of Caledon Tree Preservation Fencing, STD 606).					
2. If applicable, attach a filter cloth 600mm high to the construction side of the hoarding to act as sediment control. Sediment control fencing shall meet or exceed OPD-219.110, and be installed to the satisfaction of the Town of Caledon.					
3. All supports and bracing used to safely secure the barrier should be located outside the Tree Protection Zone (TPZ). All supports and bracing should minimize damage to roots.					
4. The TPZ fence is to be installed along the edge of the tree protection zones. This hoarding is to remain in place and remain in good condition throughout the entire duration of the project. Dismantling the tree protection barrier prior to approval by the Town of Caledon staff may constitute a contravention.					
5. The applicant shall notify the Town of Caledon and the consulting certified arborist or landscape architect to confirm that the tree protection barriers are in place.					
6. Where fill or excavated material must be temporarily located near a TPZ, a wooden barrier must be used to ensure no material enters the TPZ.					
7. Remove any garbage and foreign debris from the tree protection zones, daily.					
8. For the trees that were recommended for removal and/or crown pruning that are within the TPZ limits, these activities are to be performed by a qualified ISA certified arborist prior to the installation of the Tree Protection Zone barriers and prior to the commencement of any construction activities. Install the Tree Protection Zone barrier as per Tree Preservation Fencing, STD 606 at the limits shown on the tree inventory and protection plan after the tree removal, whichever is greater, and crown pruning activities are completed.					
9. A Tree Protection Zone sign must be mounted on all sides of the tree protection barrier for the duration of site construction. The sign should be a minimum of 40cm x 60cm and made of white gator board or equivalent material.					
10. The sign must be similar to the illustration shown below, or as directed by the Town of Caledon.					
<div style="border: 1px solid black; padding: 5px; text-align: center;">TREE PROTECTION ZONE No work is permitted in the Tree Protection Zone This includes construction works, grading, storage of trash or materials. The tree protection barrier must not be removed without written authorization of the Town of Caledon.</div>					
11. All contractors and site visitors should be informed of the tree preservation and protection measures at a pre-construction meeting.					
specifications continued on next panel...					
TOWN OF CALEDON					APRD: B.B. DATE: AUGUST 17
TREE PRESERVATION STANDARD NOTES - PART 1					DRAWN: B.M. SCALE: NTS
	NO.	REVISION	APR'D	DATE	STANDARD No. 710

SPECIFICATIONS <small>continued from previous panel</small>					
C. During Construction Phase					
1. All areas within the TPZ shall remain undisturbed for the duration of construction. There will be no grade changes, dumping, and storage of any materials, structures or equipment within these areas. The Tree Protection Barrier must not be removed without the written authorization of the Town of Caledon.					
2. Minor grading works will be permitted at the edge of the preservation zone as required to correct localized depressions, and blend to existing grades. This work is to be undertaken under the direct supervision of an ISA certified arborist.					
3. A certified ISA arborist will undertake proper root pruning in accordance with acceptable arboriculture practices when and if roots of retained trees are to be exposed, damaged, or severed by construction work. The exposed roots will be backfilled with appropriate material as soon as possible to prevent desiccation. Root pruning prior to excavation will help prevent necessary damage to tree roots. The use of low pressure hydrovac to expose roots is recommended, at no additional cost.					
4. The Town of Caledon must be notified for all work that impacts the TPZ for temporary removal of a section of hoarding to gain access for fine grading or other works. All works are to be supervised by the Town of Caledon.					
5. No cables, wire or ropes of any kind shall be wrapped around or installed in trees to be preserved.					
6. No contaminants will be dumped or flushed in the TPZ areas or where feeder roots of trees exist (generally beyond the TPZ areas).					
7. Irrigate tree protection zones during drought conditions, June to September to reduce drought stress.					
8. Inspect the site daily to ensure hoarding is in place and in good condition. Inspect trees to monitor condition.					
D. Post Construction Phase					
1. Following the completion of all site works including landscaping, and after review and approval by the Town of Caledon staff, the protective hoarding may be removed.					
2. After removal of the protective hoarding, the Tree Preservation Zones shall be inspected by the Town of Caledon staff. Any remaining dead, diseased, or hazardous limbs or trees are to be removed by an ISA certified arborist as directed by the consulting arborist or Town of Caledon staff.					
end of specifications					
TOWN OF CALEDON					APRD: B.B. DATE: AUGUST 17
TREE PRESERVATION STANDARD NOTES - PART 2					DRAWN: B.M. SCALE: NTS
	NO.	REVISION	APR'D	DATE	STANDARD No. 711

- 1.3 Upon approval from the Town of Caledon, substitute wooden and/or orange plastic web snow fencing hoarding with a page wire fence supported by T-bars.

- 1.4 No fill, equipment or supplies are to be stored within the tree protection zone.
- 1.5 Activities, which are likely to injure or destroy tree(s), are not permitted within the TPZ.
- 1.6 No objects may be attached to tree(s) within the TPZ.
- 1.7 Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place in good condition throughout the entire duration of the project.
- 1.8 Once all tree/site protection measures have been installed, you must notify Urban Forestry staff to arrange for an inspection of the site and approval of the site protection requirements.
- 1.9 No Hoarding shall be removed until all construction activity is complete.
- 1.10 A sign that is like the illustration below must be mounted on all sides of a tree protection barrier for the duration of the project. The sign should be a minimum of 40cm X 60cm and made of white gator board, laminates, or equivalent material.

TREE PROTECTION ZONE (TPZ)

No grade change, storage of materials or equipment is permitted within the TPZ. The tree protection barrier must not be removed without the authorization from the Town.

2.0 ROOT PRUNING

Where possible, hand dig areas closest to each tree to prevent any unnecessary tearing or pulling of roots. Removal of roots that are greater than 2.5 centimetres in diameter or roots that are injured or diseased should be performed as follows:

- 2.1 Preserve the root bark ridge (similar in structure to the branch bark ridge). Directional Root Pruning (DRP) is the recommended technique and should be used during hand excavation around tree roots. Roots are like branches in their response to pruning practices. With DRP, objectionable and severely injured roots are properly cut to a lateral root that is growing downward or in a favorable direction.
- 2.2 All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, by a Certified Arborist or by the PCA.
- 2.3 No wound dressings/pruning paint shall be used to cover the ends of each cut.
- 2.4 All roots requiring pruning shall be cut using any of the following tools:

- Large or small loppers
- Hand pruners
- Small hand saws
- Wound scribes

2.5 Avoid prolonged exposure of tree roots during construction - keep exposed roots moist and dampened with mulching materials, irrigation or wrap in burlap if exposed for longer than 4 hours.

a. LANDSCAPING

Any landscaping completed within the tree preservation zones, after construction is completed and hoarding has been removed, cannot cause damage to any of the trees or their roots. The trees must be protected for the same reasons listed above but without using hoarding.

4.1 **No grade changes** are permitted which include adding and/or removing soil.

4.2 **No excavation** is permitted that can cause damage to the roots of the tree.

4.3 **No heavy equipment** can be used to compact the soil within the tree preservation zone.

4.4 Any hard -surface sidewalks, paths, etc. should be constructed using permeable products such as interlocking stone, etc.

SUMMARY TABLE:

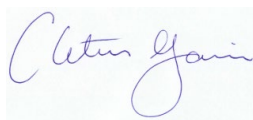
Tree Category	Total	Preserve	Preserve with Injury	Remove	Transplant
1 (Tree located on the subject site)	23	0	0	23	0
2 (Tree located within 6m of the subject site)	3	3	0	0	0
4 (Town owned tree)	11	7	0	4	0
Total	37	10	0	27	0

CONCLUSIONS:

As listed in the Summary Table above, thirty-seven trees have been inventoried as part of this project, eleven of which are Town owned. Four Town owned trees and twenty-three privately owned trees located on the subject site are in conflict with the proposed grading and are to be removed. Authorization from the Town of Caledon is required prior to the removal of twenty-seven trees. Finally, with the above in mind, it is the consultant's opinion that if the above tree preservation recommendations are implemented, proposed construction will not adversely affect the long-term health, safety and/or existing condition of all trees scheduled for preservation.

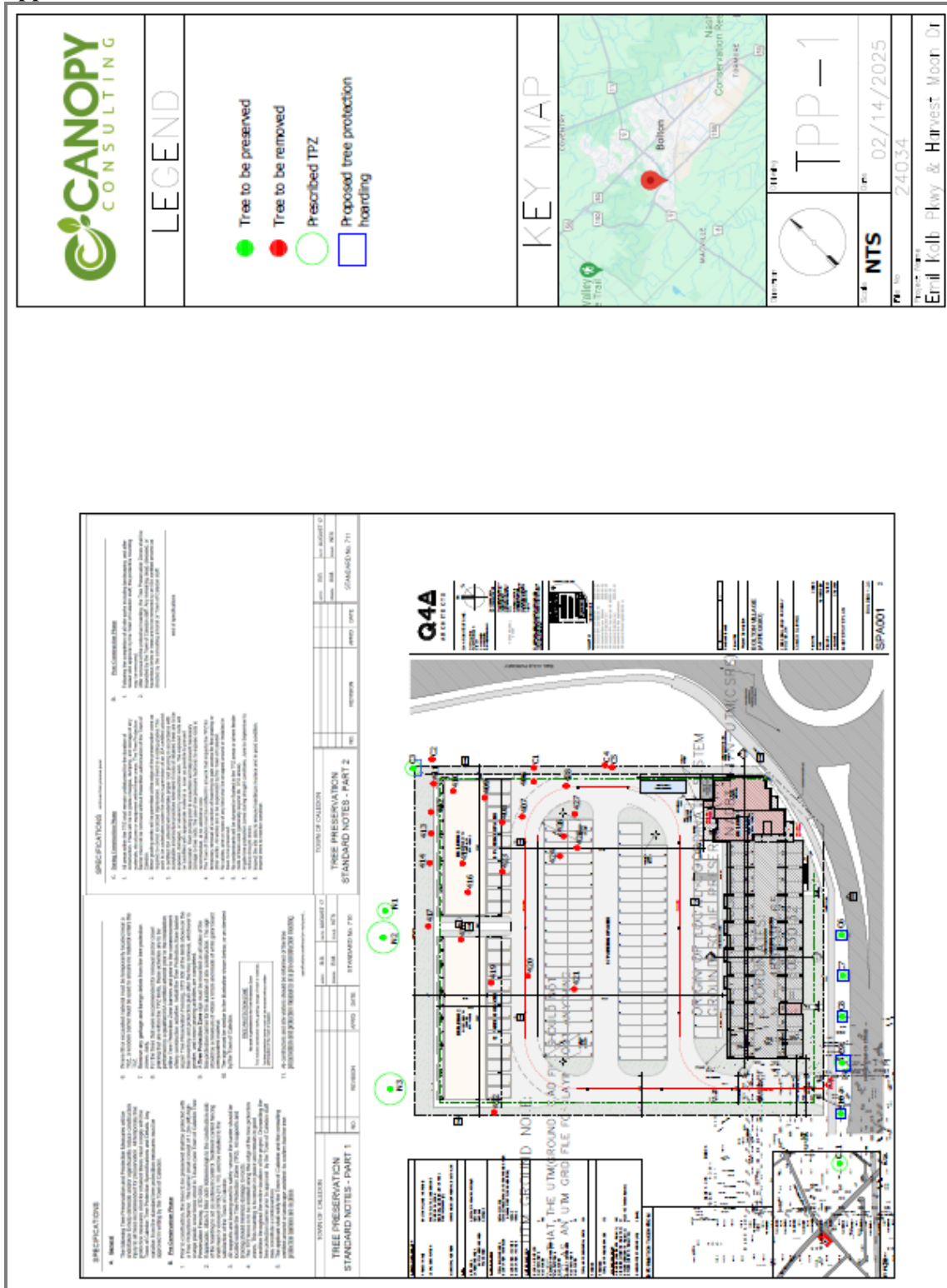
Trusting this report meets your needs. For further information, you may contact me directly at (416) 300-2957 or by email at cgavin@canopyconsulting.ca.

Sincerely,



Cletus Gavin *B.Sc. Earth Science & Biology*
President & Consulting Arborist
ASCA Registered Consulting Arborist #613
ISA Certified Arborist (ON-1576A)
Butternut Health Assessor # 439
TRAQ Certified

Appendix I: Tree Protection Plan – TPP-1



Appendix II: Digital Images



Photo #1: Trees no. 406-408 and C1 looking southwest.



Photo #2: Trees no. 409-413 and C2-C3 looking northwest.



Photo #3: Trees no. 414-418 looking southwest.



Photo #4: Trees no. 419-420 looking east.



Photo #5: Tree no. 423 looking southwest.



Photo #6: Trees no. 424-427 looking west.



Photo #7: Trees no. 428 and C4-C5 looking northwest.



Photo #8: Trees no. C6-C10 looking northeast.