Environmental Approvals

Fisheries & Aquatic Ecology

Terrestrial & Wetland Ecology

Environmental Engineering

Hydrogeology & Contaminant Hydrogeology

Arborist Services

Environmental Site Assessment

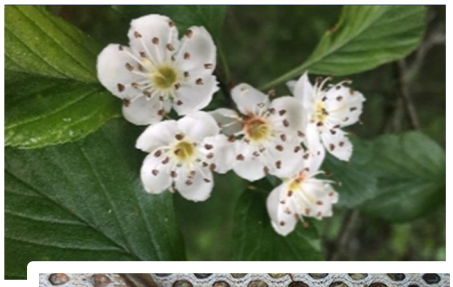
Species at Risk

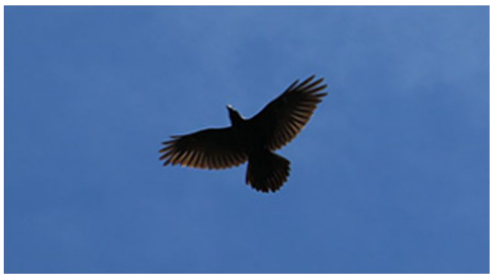
Project Management

Environmental Impact Assessment

Water and Wastewater Engineering

Environmental Site Inspection / Construction Monitoring





Arborist Report and Preservation Plan

Phase 1 Lands (Indig02)

452 Raglan Street

Town of Collingwood

Prepared for Eden Oak (Raglan) Inc.

AEC Project No. 17-169 | February 2026

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

February 20, 2026 AEC 17-169

Eden Oak (Raglan) Inc.
1443 Hurontario St.
Mississauga, Ontario L5G 3H5

Re: **Arborist Report and Tree Preservation Plan, Phase 1 Lands (Indig02), 452 Raglan Street, Town of Collingwood, County of Simcoe**

Mr. Kartavicius:

Azimuth Environmental Consulting, Inc. (Azimuth) is pleased to submit our Arborist Report and Tree Preservation Plan for the proposed residential development located at 452 Raglan Street, Town of Collingwood.

This report includes the results of our tree inventory for the abovementioned property. This report focuses on the individual trees and tree groupings within the anticipated areas of construction impacts associated with Phase 1 works. Included information pertains to existing tree size, species and health classifications for all trees inventoried, along with recommended measures to protect and preserve trees adjacent to the proposed development limits during construction.

Should you have any questions or require additional information please do not hesitate to contact the undersigned.

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

David d'Entremont, H.B.Sc.
ISA Certified Arborist

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1.0 INTRODUCTION

Azimuth Environmental Consulting, Inc. (Azimuth) was retained by Eden Oak (Raglan) Inc. to complete an Arborist Report and Tree Preservation Plan for the proposed residential development located at 452 Raglan Street in the Town of Collingwood (the "Town"; Figure 1).

The subject property is approximately 9.0 hectares (ha) in area. The majority of the property consists of agricultural field and lands associated with the former residential dwelling. The other areas consist of treed and/or forested land. Adjacent land use consists of existing residential to the north, forest to the south, the Clearview Collingwood Rail Trail to the west and the Pretty River and associated valleyland to the east.

The proposed development includes the demolition of the existing dwelling on the property (already completed) and the construction of 20 single detached homes, 108 townhouse units, and one (1) stormwater management (SWM) area. Additionally, an internal road network consisting of public roads (Street 'A', 'B', 'C' and 'D'), one (1) parkland block and three (3) open space blocks are also proposed. Access to the site will be provided by extensions from the existing Williams Street and Peel Street, north of the site, as well as a connection (Street D) to the Eden Oak Indigo Estates subdivision (Kirby Avenue) at the southwest corner of the site (Figure 2). The existing driveway and bridge that currently cross over the Pretty River will be decommissioned as the bridge is currently deemed not to be safe for use.

Azimuth completed an Arborist Report and Tree Preservation Plan for the subject property in February 2022 (Azimuth, 2022), as well as an arborist Addendum Letter in February 2023 (Azimuth, 2023a). However, these reports were produced prior to the creation of the current grading plan, stormwater management and footpath details, the limits of which are now included in Figure 2. The proposed disturbance footprint of the site plan now extends beyond the footprint assumed in Azimuth's previous reporting, and has necessitated the review of additional treed features at the edges of the site plan before a comprehensive Arborist Report and Tree Preservation Plan can be produced for the entire site.

In order to facilitate a degree of tree clearing and grading efforts in prior to April 2026, a phased approach has been proposed for tree clearing activities. Phase 1 of the proposed clearing (Figure 2) is limited to key areas within the north portion of the subject lands where the 2022 Tree Inventory was comprehensive. This report will focus on the Phase 1 lands, using existing data and information from the 2022 and 2023 reports. A subsequent report will be produced for the Phase 2 lands (*i.e.* remainder of property) following the completion of additional tree inventory work

The scope of work for this report was prepared in recognition of the Town of Collingwood By-law No. 2012-084 (Schedule 'A').

2.0 METHODOLOGY

A tree inventory was completed on January 19, 2022 by Drew West, ISA Certified Arborist (ON-1429A). There was no construction activity on the site at the time of the field study. All trees with a diameter at breast height (DBH) of 15 centimetres (cm) or greater located within the potential areas of tree impacts were included in the inventory. This field inventory included the following elements:

- Inventory of all trees and/or tree groupings located within the anticipated limits of site disturbance understood at the time of the inventory (January 2022), including all trees with a DBH of at least 15cm. Trees located on neighbouring properties within approximately 5 metres (m) of the subject site were also included in the inventory, but were assessed visually at the property line. Trunk diameter measurements were taken at approximately 1.4 m (4.5 feet) above ground surface at the base of each tree.
- Recorded species (common and scientific names), DBH (cm) and condition/health status of all applicable trees. Tree health assessments were graded as either 'Good', 'Fair', 'Poor' or 'Dead' based on factors such as percentage of live crown, evidence of internal trunk rot/damage, tree structure/form and disease.
- Recorded location of each tree inventoried using a hand-held GPS unit (accuracy +/- 3 m) to plot tree locations relative to the proposed limits of disturbance.

Using all field data gathered during the inventory and assessment process, tree inventory tables for Phase 1 (Table 1 and Table 2) were created including the following information:

- The estimated Tree Protection Zone (TPZ) for trees recommended for preservation, in metres, as calculated using an International Society of Arboriculture (ISA) approved methodology. This methodology provides 1 foot of root protection radius for every 1 inch of trunk DBH. These values were then converted to metric.
- Proposed action based on the location of each tree, its TPZ area and the proposed site plan features. As a general rule, any tree with a TPZ to be impacted more than 25% is recommended for removal as the chances for these trees to survive following construction are perceived as low.
- General notes describing characteristics of the tree.

Activities associated with development beyond the Phase 1 lands depicted in Figure 2 will be evaluated in a subsequent Arborist Report and Tree Preservation Plan for the Phase 2 lands, which will include supplemental tree inventory data based on the current extent of proposed grading.

2.1 Tree Impact Assessment

A total of 138 individual trees and approximately 120 trees within tree groupings (totaling approximately 258 trees) were included in the 2022 tree inventory for the subject property. This number includes, at minimum, all trees within 5m of the Phase 1 lands. All trees within the Phase 1 lands are recommended for removal based on the proposed site plan, as well as several trees in very close proximity to the Phase 1 lands with potential to be impacted by works in the Phase 1 lands. These trees will require removal because features such as roads, dwellings, driveways and lot grading associated with the final design concept will impact trees in this area. Of the approximately 258 trees included in the inventory, 203 trees are recommended for removal for works associated with the Phase 1 lands. The remaining 55 trees identified in the 2022 inventory would be preserved or at least temporarily preserved, and have been designated as "Temporarily Preserved – To Be Addressed in Phase 2".

It should be noted that the above Tree Inventory is not comprehensive of the expanded grading limits beyond the Phase 1 lands. Any additional trees not included within this inventory, that may be found within 5m of the proposed grading within the Phase 2 lands (but which are beyond the expected impacts of works within Phase 1 lands), are also considered "Temporarily Preserved – To Be Addressed in Phase 2" and will be addressed within the Phase 2 Tree Inventory and subsequent Arborist Report and Tree Preservation Plan.

The individual trees and woodland on the property currently encompass approximately 3.5 ha of the total 9.0 ha of site area. With the removal of 203 trees and associated canopy for Phase 1, only approximately 1.1 ha or 30.4% of the total canopy would be removed from the site for Phase 1. Several of the trees recommended for removal are of poor quality (invasive species) and the ecologically significant features within the site are being retained (*i.e.,* woodland, valleyland, fish habitat, *etc.*). It should be noted that future tree compensation plantings, if required, are feasible within the buffers for the identified significant features and would be expected to contribute towards mitigating this loss of existing tree canopy.

As can be seen in Figure 2, development associated with Phase 1 accommodates the preservation of trees within woodland, valleyland and hedgerow features on the property. The long-term preservation of trees appears feasible within woodland and valleyland features

within the subject property, although given that Phase 1 does not encompass the majority of the east, south and west limits of development, the full extent of retained trees will only be evident following the Phase 2 Tree Inventory and subsequent Arborist Report and Tree Preservation Plan. The eastern portion of the site has multiple setback requirements resulting from Azimuth's Scoped Environmental Impact Study (2021) which are beyond the scope of this report; however, these are largely expected to preserve the majority of treed features within the woodland and valleyland areas noted above.

The Tree Preservation Plan (Figure 2) illustrates all individual trees and tree groupings proposed for removal as a result of the Phase 1 site works, as well as the recommended locations for tree protection fencing for Phase 1 site works. At this time, all trees and tree groupings marked on Figure 2 to be addressed in Phase 2 are considered temporarily preserved. These trees, as well as any additional trees identified within 5m of the comprehensive limits of development, will be reviewed as part of the Arborist Report and Tree Preservation Plan for Phase 2; in the interim, impacts to these trees will be avoided. Where Phase 1 works are proposed in close proximity to temporarily preserved trees, tree protection fencing has been recommended as depicted on Figure 2. This fencing should consist of tree hoarding as detailed in the Town of Collingwood Standard Drawing (STD No. 1110; see Appendix A). The tree protection fencing will prevent inadvertent encroachment into the temporarily preserved trees, protecting the root zones and canopies of the retained tree resources, until such time as the Phase 2 assessment can account for the comprehensive impacts of the full limits of development.

2.2 Endangered Species/Species at Risk (Butternut)

A total of 22 Butternut trees were documented on the property during the completion of Azimuth's original Environmental Impact Study in 2017-2018 (see Appendix B). Additional Butternut trees not included in this total were also observed on adjacent lands to the south of the property. The province requires that a Butternut Health Assessment (BHA) occurs prior to any development or site alteration that may impact Butternut. BHAs were completed for the 21 trees in proximity to the proposed development on the property by Azimuth staff on August 14, 2018 and August 9, 2021. The BHAs concluded that there were a total of nine (9) Category 1 trees (removable), seven (7) Category 2 trees (retainable) and five (5) Category 3 trees (archivable) as illustrated on Figure 2 of Azimuth's 2023 EIS Report Addendum Letter (Azimuth, 2023b; see Appendix C). The BHA was submitted to the Ministry of Natural Resources and Forestry (MNRF)/Ministry of Environment, Conservation and Parks (MECP) on September 5, 2018 and August 12, 2021 respectively and both subsequently accepted. A record of this submission is provided in Appendix B.

Three (3) of the above-noted Butternut were documented within proximity to the Phase 1 lands, all evaluated as Category 1 (removable), and all associated with the north edge of the property (Appendix C). These include Butternut #616 (1cm DBH), Butternut #617 (15cm DBH) and Butternut #618 (14cm DBH). Discussion relating to these Butternut was originally deferred to the EIS documents, which were submitted in tandem with Azimuth's arborist reporting for this property. However, it should be noted that since the MECP did not elect to reach out to audit these BHAs within the 30-day post-submission waiting period, all three of these Butternut are no longer considered protected under the *Endangered Species Act*, 2007.

Resulting from the changes to the ESA made by the Protect Ontario by Unleashing our Economy Act, 2025 (Bill 5), Section 2 (1) (b) of the ESA now states that "habitat" for vascular plant species is now considered to be the critical root zone (CRZ) surrounding a member of the species. According to the MECP's most current guidance, the newest means of estimating the CRZs for vascular plant species is to calculate them directly by multiplying the maximum DBH of the stem by 18, rounding up to the nearest metre, and using this as the radius of the CRZ. Azimuth notes that this consideration distance exceeds the ISA standard of 1 foot of TPZ per inch of DBH, which in metric equates to multiplying the DBH (in cm) by 12, and using that measurement as the radius of the TPZ.

Azimuth notes that of the remaining 19 Butternut observed on-site, the largest Butternut was 63cm DBH. Using the above calculation as recommended by MECP, the CRZ for the largest Butternut observed would be 12m. Apart from the three (3) Category 1 Butternut located within 5m of the Phase 1 works, all remaining 19 Butternut identified within Azimuth's EIS as occurring on the property are located >20m from all Phase 1 site works. As such, the proposed works associated with Phase 1 are not anticipated to result in impacts to Butternut protected under the ESA. Please refer to Azimuth's Scoped Environmental Impact Study (2021) for further details regarding the on-site Butternut trees. These remaining 19 Butternut are considered at least temporarily preserved and will be reviewed as part of the Arborist Report and Tree Preservation Plan for Phase 2.

3.0 TREE PRESERVATION AND PROTECTION

3.1 Trees Recommended for Preservation

In total, approximately ten (10) individual trees, two (2) tree groupings comprised of a total of 40 trees, and part of a tree grouping including an additional five (5) trees have been recommended for temporary preservation and should be re-addressed in the Phase 2 Arborist Report and Tree Preservation Plan (55 trees total). Additionally, the Hedgerow following the west property edge and the Deciduous Forest associated with the south property edge, comprising an unknown quantity of trees, are recommended for temporary preservation and

should also be re-addressed in the Phase 2 reporting. These trees include trees located both on and off of the subject property.

Trees #42 - #46 are located within the northwestern corner of the property and Trees N1 – N5 are located fully on neighboring lands. All of these temporarily preserved individual trees have TPZs that are fully protected by tree protection fencing; as such, these trees are not expected to be impacted by Phase 1 works.

Part of Tree Grouping #3 and all of Tree Groupings #4 and #5 are also recommended for temporary preservation. Tree Protection Fencing has been proposed to protect the edge of the dripline (at minimum) of Tree Grouping #4 where it abuts Phase 1 works, and as such this feature is not expected to be impacted during phase 1 works. Tree Protection Fencing is also proposed at the limit of Phase 1 to protect the remaining trees in Grouping #1 from impacts. Grouping #5 is located >30m from Phase 1 works and would not be expected to be impacted by these works.

3.2 Tree Protection Recommendations

It is understood that as a result of the phased approach taken by this project, further tree removals beyond those contemplated for Phase 1 may be required as a result of the proposed development. However, until a comprehensive inventory of tree resources inclusive of the entire footprint of site alteration can be completed, and until a fulsome assessment of impacts to tree resources is completed, trees recommended to be addressed in Phase 2 (*i.e.* temporarily preserved trees) are recommended to be protected from harm until the Phase 2 assessment is complete. Until temporarily preserved trees are confirmed for removal by Phase 2 reporting, they should be treated as if they will be permanently retained, protected and preserved.

The following measures should be implemented to ensure protection of temporarily preserved tree resources outside and adjacent to the development limits:

1. TPZ should be established adjacent to the tree resources identified for retention. The following actions are not permitted within the TPZs:
    a. Alteration or disturbance to existing grade of any kind;
    b. Changes to the grade by adding fill, excavating or scraping;
    c. Storage of construction materials or equipment;
    d. Storage of soil, construction waste or debris;
    e. Disposal of any deleterious materials e.g., concrete sleuth, gas, oil, paint; and;
    f. Movement of vehicles, equipment or pedestrians

2. A TPZ is identified as the limit of site disturbance along the periphery of the proposed development, along the tree resources to be retained post-development.

3. The TPZs must be delineated by:
    a. Tree Protection fencing comprised of the materials and standard stated in the Town of Collingwood Standard Drawing STD No. 1110 (see Appendix A).
    b. The TPZs should be established along the periphery of the development limits across the portions of the site where tree preservation will occur.

4. TPZ signage (minimum 11"x17") must be posted on the tree preservation fencing at appropriate spacing.

5. All trees within the TPZ identified for removal (if applicable) should be removed immediately prior to the installation of the tree protection fencing using low impact tree removal methods. Tree removals within the development envelope may proceed once the protection fencing has been installed.

6. Pruning of branches and roots (where necessary) to facilitate construction activities should be completed under the direction of a qualified Arborist or tree professional in accordance with good arboriculture standards.

7. If branch, bark or trunk damage occurs on any retained trees, the project Arborist and/or Town should be contacted within 24 hours.

8. Replace any trees identified for protection and damaged during construction on a per caliper basis to the satisfaction of the Town.

3.3 Tree Compensation Planting

In the event that tree compensation planting is necessary for the removal of the approximately 203 trees, it is assumed the Town's By-law 2012-084 (Sections 7.3 and 12.1) would be applicable. These sections state that the Director of Planning Services may impose compensation planting requirements based on his/her discretion. It should be noted to the Director that a total of 54 trees recommended for removal are either considered invasive (Manitoba Maple, Scots Pine), ash species (likely to be impacted by the Emerald Ash Borer) or a hazard tree (currently posing a risk to adjacent residential lots). These 54 trees should not be considered in the tree compensation calculations as removal of these trees would benefit the local area from both ecological and public safety standpoints.

It is understood that additional compensation plantings may be required pending the results of the Phase 2 investigation, should additional trees be identified for removal. An updated number of trees suitable for compensation should be produced as part of subsequent reporting for Phase 2 works.

4.0 CONCLUSIONS

Azimuth has completed a Tree Preservation Plan for the proposed residential development property located at 452 Raglan Street in the Town of Collingwood. Through this study, Azimuth has determined that the vegetation communities to be preserved on-site will continue to thrive post development if the recommended tree protection and mitigation strategies are employed (*i.e.,* installation of tree protection fencing). Of the approximately 258 trees included in the inventory, 203 trees are recommended for removal. Trees beyond the impacts of Phase 1 works (see Phase 1 boundaries illustrated on Figure 2) will require additional evaluation to determine which trees can be retained or removed as the proposed development advances.

The individual trees and woodland on the property currently encompass approximately 3.5 ha of the total 9.0 ha of site area. With the removal of 203 trees and associated canopy, only approximately 1.1 ha or 30.4% of the total canopy would be removed from the site. As stated previously, several of the trees recommended for removal are of poor quality (invasive species) and the ecologically significant features within the site are being retained (*e.g.* woodland, valleyland, *etc.*). It should be noted that future tree compensation plantings, should these be required, may be completed within the buffers associated with ecologically significant features and would contribute towards mitigating this loss of existing tree canopy.

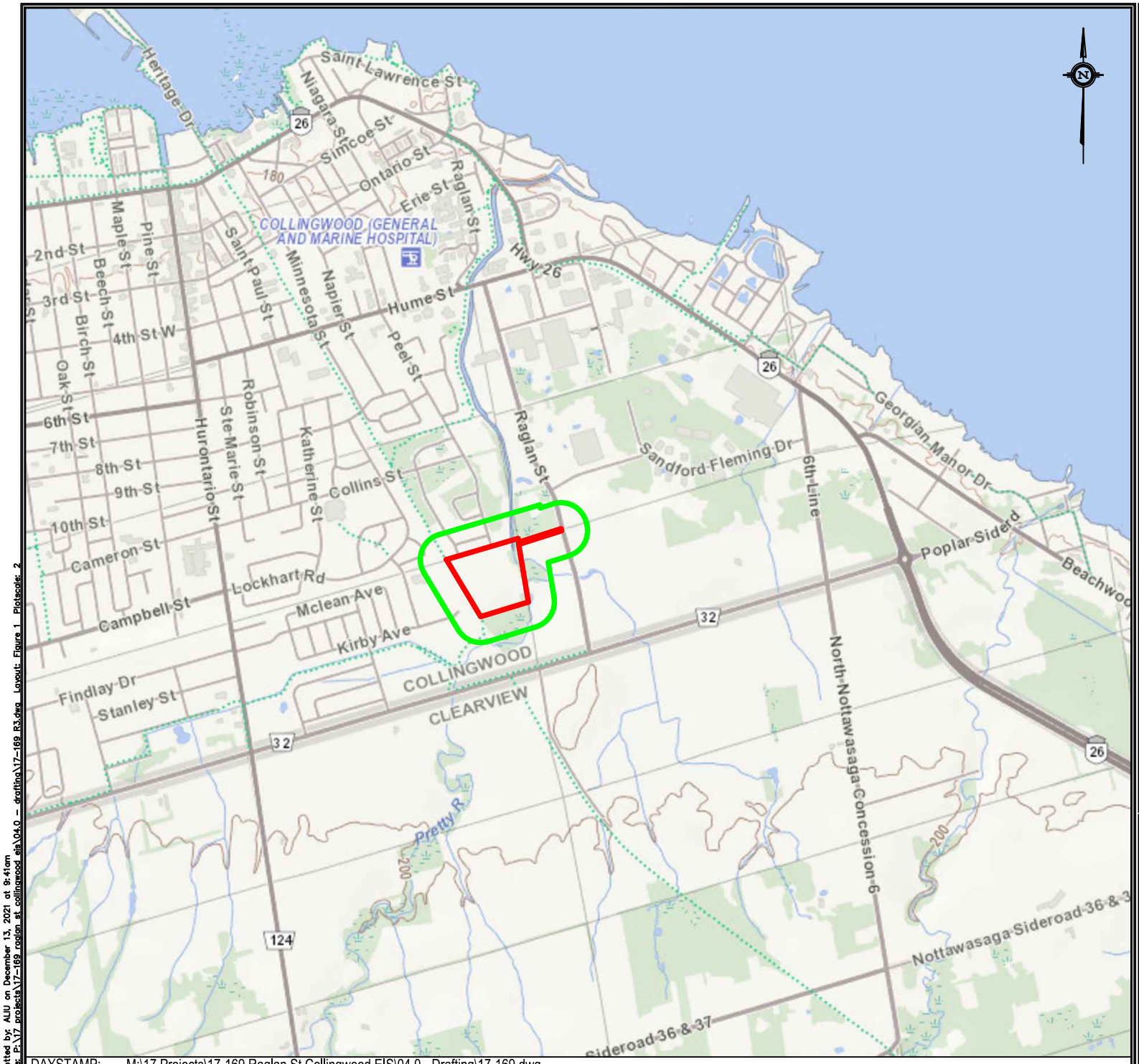
5.0 REFERENCES

Azimuth Environmental Consulting, Inc. (Azimuth). 2021. 452 Raglan Street Scoped Environmental Impact Study.

Azimuth Environmental Consulting, Inc. (Azimuth). 2022. Arborist Report and Tree Preservation Plan, 452 Raglan Street, Town of Collingwood (Indig02).

Azimuth Environmental Consulting, Inc. (Azimuth). 2023a. Raglan Street (Collingwood) Residential Development Arborist Report/Tree Preservation Plan Addendum Letter.

Azimuth Environmental Consulting, Inc. (Azimuth). 2023b. 452 Raglan Street, Town of Collingwood (IndigO2), Scoped Environmental Impact Study, Addendum Letter.



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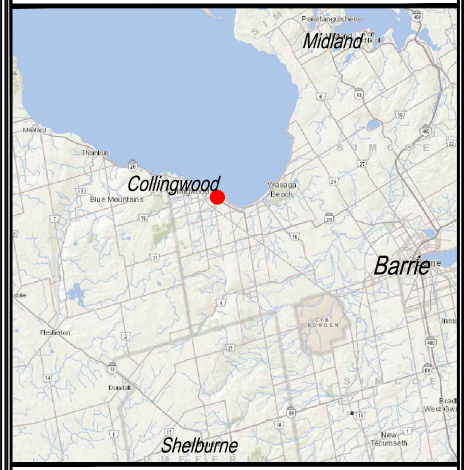
Plotted by: ALU on December 13, 2021 at 9:41am
File: P:\17 projects\17-169 raglan st collingwood eis\04.0 - drafting\17-169 R3.dwg Layout: Figure 1 Plotscale: 2

LEGEND:

- Approx. Property Boundary
- Approx. Study Area



REG MAP

250m 0 750m

HORIZONTAL SCALE 1:25,000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Study Area Location

452 Raglan St.
Town of Collingwood, ON

DATE ISSUED: *December 2021*	Figure No.
CREATED BY: *JLM*	
PROJECT NO.: *17-169*	1
REFERENCE: *MNRF*	

TREE GROUPING #4
(PRESERVE – SUBJECT TO GRADING WITHIN PHASE 1 LIMITS

TREE GROUPING #3
(REMOVE ONLY TREES IMPACTED BY PHASE 1 WORKS)

TREE GROUPING #2
(REMOVE)

TREE GROUPING #1
(REMOVE)

PHASE 1

DECIDUOUS/CONIFEROUS HEDGEROW
(TO BE ADDRESSED IN PHASE 2)

TREE GROUPING #5
(TO BE ADDRESSED IN PHASE 2)

ASH/MAPLE DECIDUOUS FOREST (TO BE ADDRESSED IN PHASE 2)

PRETTY RIVER

WEST

LEGEND:

- Approx. Property Boundary
- Watercourse
- Existing Bridge
- 10m Rail Trail Setback
- Tree Location (To Be Addressed in Phase 2)
- Tree Location (To Be Removed in Phase 1)
- Tree Grouping
- Tree Protection Zone
- TPF — Tree Protection Fencing
- Phase Boundary
- Limit of Proposed Grading (All Phases)

15m 0 30m

HORIZONTAL SCALE 1:1,250

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Tree Preservation Plan

452 Raglan St.
Town of Collingwood, ON

DATE ISSUED:	February 2026	Figure No.
CREATED BY:	JLM, AL	2
PROJECT NO.:	17-169	
REFERENCE:	Simcoe County Maps	

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Table 1: Phase 1 Individual Tree Inventory and Assessment Table

Tree #	Common Name	Scientific Name	DBH (cm)	TPZ (m)	Health Condition	Action	Observations
1	White Ash	*Fraxinus americana*	18	-	Good	Remove	Good overall health condition
2	Common Apple	*Malus pumila*	25	-	Poor	Remove	Significant amount of crown dieback, multistemmed
3	Common Apple	*Malus pumila*	41	-	Good	Remove	Good overall health condition
4	White Ash	*Fraxinus americana*	23+22	-	Fair	Remove	Crown covered in wild grape vine, 2 stems
5	Manitoba Maple	*Acer negundo*	65	-	Poor	Remove	Tree leaning significantly, almost on ground
6	White Ash	*Fraxinus americana*	16	-	Good	Remove	Good overall health condition
7	Manitoba Maple	*Acer negundo*	35	-	Poor	Remove	Tree leaning signficantly
8	White Ash	*Fraxinus americana*	18	-	Good	Remove	Good overall health condition
9	White Ash	*Fraxinus americana*	22	-	Fair	Remove	Some crown dieback
10	White Ash	*Fraxinus americana*	16	-	Good	Remove	Good overall health condition
11	White Ash	*Fraxinus americana*	19	-	Poor	Remove	Significant amount of crown dieback
12	White Ash	*Fraxinus americana*	21	-	Fair	Remove	Some crown dieback
13	White Ash	*Fraxinus americana*	22	-	Fair	Remove	Some crown dieback
14	White Ash	*Fraxinus americana*	19	-	Fair	Remove	Some crown dieback
15	White Ash	*Fraxinus americana*	25	-	Good	Remove	Good overall health condition
16	Manitoba Maple	*Acer negundo*	28	-	Fair	Remove	Some crown dieback, leaning
17	Manitoba Maple	*Acer negundo*	35	-	Fair	Remove	Some crown dieback, leaning
18	Manitoba Maple	*Acer negundo*	35	-	Poor	Remove	Tree leaning signficantly
19	Manitoba Maple	*Acer negundo*	26	-	Good	Remove	Good overall health condition
20	Manitoba Maple	*Acer negundo*	22	-	Poor	Remove	Significant amount of crown dieback
21	White Ash	*Fraxinus americana*	26+21	-	Fair	Remove	Some crown dieback, 2 stems
22	White Ash	*Fraxinus americana*	21	-	Good	Remove	Good overall health condition
23	White Ash	*Fraxinus americana*	19	-	Good	Remove	Good overall health condition
24	Manitoba Maple	*Acer negundo*	40	-	Good	Remove	Good overall health condition
25	Manitoba Maple	*Acer negundo*	34	-	Fair	Remove	Tree leaning, multistemmed
26	White Ash	*Fraxinus americana*	24	-	Good	Remove	Good overall health condition
27	White Ash	*Fraxinus americana*	20	-	Good	Remove	Good overall health condition
28	Manitoba Maple	*Acer negundo*	33	-	Poor	Remove	Tree leaning signficantly
29	White Ash	*Fraxinus americana*	21+18	-	Fair	Remove	Some crown dieback, 2 stems
30	White Ash	*Fraxinus americana*	22	-	Poor	Remove	Significant crown dieback, crown covered in wild grape vine
31	White Ash	*Fraxinus americana*	23	-	Poor	Remove	Significant crown dieback, crown covered in wild grape vine
32	White Ash	*Fraxinus americana*	40	-	Poor	Remove	Significant crown dieback, crown covered in wild grape vine
33	White Ash	*Fraxinus americana*	24	-	Fair	Remove	Some crown dieback
34	White Ash	*Fraxinus americana*	24	-	Fair	Remove	Some crown dieback
35	White Ash	*Fraxinus americana*	16	-	Fair	Remove	Some crown dieback
36	White Ash	*Fraxinus americana*	27	-	Good	Remove	Good overall health condition
37	White Ash	*Fraxinus americana*	28	-	Poor	Remove	Significant crown dieback, crown covered in wild grape vine
38	American Basswood	*Tilia americana*	45+42	-	Good	Remove	Good overall health condition, 2 stems
39	White Ash	*Fraxinus americana*	23	-	Good	Remove	Good overall health condition
40	American Basswood	*Tilia americana*	55	-	Good	Remove	Good overall health condition
41	Crack Willow	*Salix fragilis*	65	-	Good	Remove	Good overall health condition
42	Trembling Aspen	*Populus tremuloides*	33	3.9	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition

Table 1: Phase 1 Individual Tree Inventory and Assessment Table

Tree #	Common Name	Scientific Name	DBH (cm)	TPZ (m)	Health Condition	Action	Observations
43	Trembling Aspen	*Populus tremuloides*	32	3.8	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition
44	Trembling Aspen	*Populus tremuloides*	25	2.9	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition
45	Trembling Aspen	*Populus tremuloides*	28	3.3	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition
46	Trembling Aspen	*Populus tremuloides*	40	2.1	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition
50	White Ash	*Fraxinus americana*	36	-	Poor	Remove	Significant amount of crown dieback
51	Eastern White Cedar	*Thuja occidentalis*	17	-	Good	Remove	Good overall health condition
52	American Elm	*Ulmus americana*	23+20	-	Fair	Remove	Poor crown structure, 2 stems
53	Trembling Aspen	*Populus tremuloides*	34	-	Fair	Remove	Tree leaning, some crown dieback
54	White Ash	*Fraxinus americana*	21	-	Poor	Remove	Significant amount of crown dieback
55	Balsam Poplar	*Populus balsamifera*	65	-	Fair	Remove	Some crown dieback
56	Balsam Poplar	*Populus balsamifera*	76	-	Fair	Remove	Some crown dieback
57	Balsam Poplar	*Populus balsamifera*	56	-	Good	Remove	Good overall health condition
58	Trembling Aspen	*Populus tremuloides*	39	-	Good	Remove	Good overall health condition
59	American Basswood	*Tilia americana*	65	-	Poor	Remove	Significant amount of crown dieback
60	Sugar Maple	*Acer saccharum*	29	-	Fair	Remove	Poor crown structure
61	American Basswood	*Tilia americana*	31	-	Fair	Remove	Poor crown structure
62	American Basswood	*Tilia americana*	31	-	Poor	Remove	Significant amount of crown dieback
63	American Basswood	*Tilia americana*	31	-	Fair	Remove	Some crown dieback, tree leaning
64	Ironwood	*Carpinus caroliniana*	20	-	Good	Remove	Good overall health condition
65	Black Walnut	*Juglans nigra*	67	-	Fair	Remove	Some crown dieback
66	Black Walnut	*Juglans nigra*	54	-	Fair	Remove	Some crown dieback
67	Manitoba Maple	*Acer negundo*	30	-	Poor	Remove	Significant amount of crown dieback
68	White Ash	*Fraxinus americana*	61	-	Good	Remove	Good overall health condition
69	Sugar Maple	*Acer saccharum*	41	-	Fair	Remove	Poor crown structure
70	Sugar Maple	*Acer saccharum*	41	-	Poor	Remove	Main stem is dead, one live branch in crown
71	Manitoba Maple	*Acer negundo*	20	-	Good	Remove	Good overall health condition
72	Crack Willow	*Salix fragilis*	62	-	Poor	Remove	Leaning toward neighbouring property, hazard tree
73	Crack Willow	*Salix fragilis*	63	-	Fair	Remove	Some crown dieback
74	Crack Willow	*Salix fragilis*	56	-	Poor	Remove	Leaning toward neighbouring property, hazard tree
75	Sugar Maple	*Acer saccharum*	34	-	Good	Remove	Good overall health condition
76	Sugar Maple	*Acer saccharum*	46+43	-	Poor	Remove	One of two stems is dead
77	Sugar Maple	*Acer saccharum*	43	-	Poor	Remove	Tree leaning significantly
78	Manitoba Maple	*Acer negundo*	25	-	Fair	Remove	Some crown dieback
79	Manitoba Maple	*Acer negundo*	45	-	Poor	Remove	Tree leaning significantly
80	Sugar Maple	*Acer saccharum*	43	-	Good	Remove	Good overall health condition
81	Sugar Maple	*Acer saccharum*	38	-	Good	Remove	Good overall health condition
82	Manitoba Maple	*Acer negundo*	26+21	-	Good	Remove	Good overall health condition, 2 stems
83	Manitoba Maple	*Acer negundo*	27	-	Poor	Remove	Tree leaning significantly
84	Balsam Poplar	*Populus balsamifera*	95+70	-	Fair	Remove	Some crown dieback, 2 stems

Table 1: Phase 1 Individual Tree Inventory and Assessment Table

Tree #	Common Name	Scientific Name	DBH (cm)	TPZ (m)	Health Condition	Action	Observations
85	Balsam Poplar	*Populus balsamifera*	55	-	Fair	Remove	Some crown dieback
86	Manitoba Maple	*Acer negundo*	31+30	-	Poor	Remove	Tree leaning significantly, 2 stems
87	Balsam Poplar	*Populus balsamifera*	69	-	Good	Remove	Good overall health condition
88	Balsam Poplar	*Populus balsamifera*	78	-	Good	Remove	Good overall health condition
89	Balsam Poplar	*Populus balsamifera*	76+61	-	Fair	Remove	Some crown dieback, 2 stems
90	Balsam Poplar	*Populus balsamifera*	90	-	Dead	Remove	Dead Tree
91	Manitoba Maple	*Acer negundo*	37	-	Poor	Remove	Tree leaning significantly, crown dieback
92	Manitoba Maple	*Acer negundo*	20	-	Poor	Remove	Tree leaning, some crown dieback
93	Crack Willow	*Salix fragilis*	49	-	Poor	Remove	Leaning toward neighbouring property, hazard tree
94	American Basswood	*Tilia americana*	34	-	Good	Remove	Good overall health condition
95	American Basswood	*Tilia americana*	34	-	Good	Remove	Good overall health condition
96	American Basswood	*Tilia americana*	42	-	Good	Remove	Good overall health condition
97	American Basswood	*Tilia americana*	31	-	Good	Remove	Good overall health condition
98	American Basswood	*Tilia americana*	33	-	Good	Remove	Good overall health condition
99	American Basswood	*Tilia americana*	23	-	Good	Remove	Good overall health condition
100	American Basswood	*Tilia americana*	25	-	Good	Remove	Good overall health condition
101	American Basswood	*Tilia americana*	36	-	Good	Remove	Good overall health condition
102	Balsam Poplar	*Populus balsamifera*	42	-	Good	Remove	Good overall health condition
103	Manitoba Maple	*Acer negundo*	25	-	Fair	Remove	Tree leaning, some crown dieback
104	Balsam Poplar	*Populus balsamifera*	60	-	Good	Remove	Good overall health condition
105	American Basswood	*Tilia americana*	30	-	Good	Remove	Good overall health condition
106	Crack Willow	*Salix fragilis*	35	-	Poor	Remove	Multistemmed, some stems dead
107	American Basswood	*Tilia americana*	23	-	Fair	Remove	Poor crown structure
108	American Basswood	*Tilia americana*	40	-	Good	Remove	Good overall health condition
109	American Elm	*Ulmus americana*	21	-	Good	Remove	Good overall health condition
110	American Basswood	*Tilia americana*	35	-	Good	Remove	Good overall health condition
111	Eastern White Cedar	*Thuja occidentalis*	21	-	Good	Remove	Good overall health condition
112	Scots Pine	*Pinus sylvestris*	19	-	Poor	Remove	Significant amount of crown dieback
113	Scots Pine	*Pinus sylvestris*	21	-	Poor	Remove	Significant amount of crown dieback
114	White Birch	*Betula papyrifera*	29	-	Good	Remove	Good overall health condition
115	White Birch	*Betula papyrifera*	20	-	Good	Remove	Good overall health condition
116	White Birch	*Betula papyrifera*	15	-	Good	Remove	Good overall health condition
117	White Birch	*Betula papyrifera*	30	-	Good	Remove	Good overall health condition
118	White Birch	*Betula papyrifera*	21	-	Good	Remove	Good overall health condition
119	Balsam Poplar	*Populus balsamifera*	27	-	Good	Remove	Good overall health condition
120	Balsam Poplar	*Populus balsamifera*	31	-	Good	Remove	Good overall health condition
121	Crack Willow	*Salix fragilis*	33	-	Fair	Remove	Some crown dieback
122	Blue Spruce	*Picea pungens*	22	-	Good	Remove	Good overall health condition
123	Blue Spruce	*Picea pungens*	28	-	Good	Remove	Good overall health condition
124	Blue Spruce	*Picea pungens*	36	-	Good	Remove	Good overall health condition
125	Balsam Poplar	*Populus balsamifera*	60	-	Good	Remove	Good overall health condition
126	Balsam Poplar	*Populus balsamifera*	44	-	Good	Remove	Good overall health condition
127	Balsam Poplar	*Populus balsamifera*	51	-	Good	Remove	Good overall health condition

Table 1: Phase 1 Individual Tree Inventory and Assessment Table

Tree #	Common Name	Scientific Name	DBH (cm)	TPZ (m)	Health Condition	Action	Observations
128	Balsam Poplar	*Populus balsamifera*	53	-	Good	Remove	Good overall health condition
129	Balsam Poplar	*Populus balsamifera*	33	-	Good	Remove	Good overall health condition
130	Balsam Poplar	*Populus balsamifera*	61	-	Good	Remove	Good overall health condition
131	Balsam Poplar	*Populus balsamifera*	43	-	Good	Remove	Good overall health condition
132	Balsam Poplar	*Populus balsamifera*	60	-	Good	Remove	Good overall health condition
133	Trembling Aspen	*Populus tremuloides*	16	-	Good	Remove	Good overall health condition
134	Balsam Poplar	*Populus balsamifera*	69	-	Good	Remove	Good overall health condition
135	Trembling Aspen	*Populus tremuloides*	41	-	Good	Remove	Good overall health condition
136	Crack Willow	*Salix fragilis*	22	-	Poor	Remove	Significant amount of crown dieback, tree leaning
N1	White Birch	*Betula papyrifera*	19	2.2	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition, on neighbouring property
N2	White Birch	*Betula papyrifera*	19	2.2	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition, on neighbouring property
N3	White Birch	*Betula papyrifera*	28	3.3	Fair	**Temporarily Preserved - To Be Addressed in Phase 2**	Tree leaning, some crown dieback
N4	Trembling Aspen	*Populus tremuloides*	40	4.7	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition
N5	Ironwood	*Carpinus caroliniana*	21	2.5	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Good overall health condition

Table 2: Phase 1 Tree Grouping Inventory and Assessment Table

Grouping #	Dominant Species	DBH range (cm)	General Health Condition	Action	Observations
1	Balsam Poplar	15 to 25	Good	Remove	Dense grouping of approx. 30 Balsam Poplar trees
2	Eastern White Cedar	15 to 25	Good	Remove	Dense hedge of approx. 20 Cedar trees
3	White Spruce	30 to 40	Good	**25 Trees Removed** **5 Trees Temporarily Preserved - To Be Addressed in Phase 2**	Hedgerows of 30 Spruce trees
4	Eastern White Cedar	15 to 20	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Dense hedge of approx. 25 Cedar trees
5	Eastern White Pine / White Spruce	20 to 30	Good	**Temporarily Preserved - To Be Addressed in Phase 2**	Dense grouping of approx. 15 Pine/Spruce trees, part of a plantation

APPENDICES

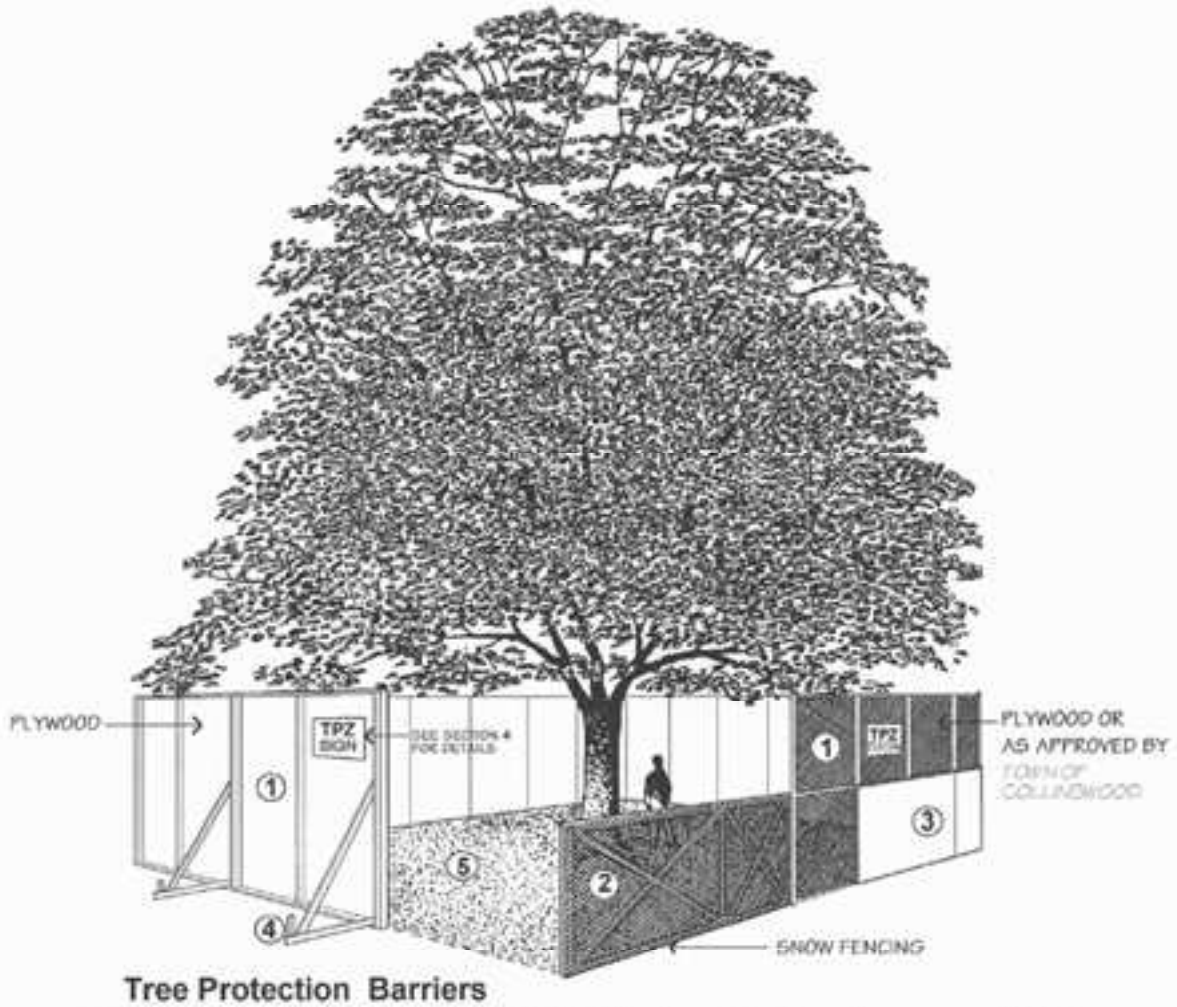
Appendix A: Town of Collingwood Standard Drawing (STD No. 1110)

Appendix B: Butternut Submission to MECP (Azimuth, 2021)

Appendix C: Figure 2, 452 Raglan Street, Town of Collingwood (IndigO2), Scoped Environmental Impact Study, Addendum Letter (Azimuth, 2023b)

APPENDIX A

Town of Collingwood Standard Drawing (STD No. 1110)



Tree Protection Barriers

1. Tree protection barriers must be 2.4m (8ft) high, plywood clad hoarding or an equivalent approved by Town of Collingwood.
2. Tree protection barriers for trees situated on road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of orange plastic web snow fencing on a wood frame made of 2"x 4"s .
3. Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.
4. All supports and bracing should be outside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.
5. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

NO.	REVISION	APR'D	DATE

TOWN OF COLLINGWOOD	APR'D: EDH	DATE: JAN/03
	DRAWN:	SCALE: NTS
TREE PROTECTION	STD. No. 1110	

APPENDIX B

Butternut Submission to MECP

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)
5. Map showing approximate locations of Butternut trees

Ministry of Natural Resources and Forestry

Species At Risk
P.O. Box 7000, 300 Water Street
Peterborough ON K9J 8M5

Ministère des Richesses naturelles et des Forêts

Espèces en péril
C.P. 7000, 300, rue Water
Peterborough ON K9J 8M5

The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: http://www.ontario.ca/environment-and-energy/butternut-trees-your-property.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the "Notice of Butternut Impact" form on the MNRF Registry **after the 30 day period has elapsed**.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:
http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):
http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:
https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices

Butternut Health Assessor's Report Number: 450-012

Lisa Moran, BHA # 450
C/O Azimuth Environmental Consulting Inc.
642 Welham Road
Barrie, Ontario
L4N 9A1
(705) 721-8451 x202
lisa@azimuthenvironmental.com

Pat Giglio
Urban Pro Developments
1885 Wilson Ave Suite
Toronto, Ontario
M9M 1A2
zuccstoronto@gmail.com

Site location: 452 Raglan Street, Town of Collingwood

Date(s) of Butternut health assessment: August 14, 2018
Date BHA Report prepared: August 29, 2018

Map datum used: ☒ NAD83 ☐ WGS84

Total number of trees assessed in this BHA Report: 21

The assessed trees were numbered on site using white paint &/or orange flagging tape plus numbered tree tag – attached with single staple. The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Note to BHAs: add/remove table rows as necessary

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category[1] *(1, 2, or 3[2])*	dbh[3] (cm)	Cultivated? *(Y/N)*	Proposed to be: *(enter one: unknown[4], killed, harmed or taken)*	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:

[1] The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.
[2] Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.
[3] dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)
[4] In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category[1] (1, 2, or 3[2])	dbh[3] (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown[4], killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
682	563837 4926298	1	2	N	Unknown	
681	5638394 4926301	2	7	N	Unknown	
601	563908 4926197	2	17	N	Unknown	
602	563893 4926239	2	17	N	Unknown	
603	563901 4926234	2	44	N	Unknown	
604	563843 4926283	2	4	N	Unknown	
605	563896 4926187	2	1	N	Unknown	
606	563892 4926187	1	2	N	Unknown	
607	563904 4926109	2	45	N	Unknown	
608	563887 4926090	3	44	N	Unknown	
609	563884 4926083	3	30	N	Unknown	
610	563853 4926072	3	63	N	Unknown	
611	563824 4926071	3	23	N	Unknown	
612	563722 4926038	2	15	N	Unknown	
613	563719 4926037	3	34	N	Unknown	
614	563686 4926049	1		N	Unknown	
615	563664 4926096	1		N	Unknown	
616 a	563618 4926162	1	32	N	Unknown	
616 b	563778 4926358	1	1	N	Unknown	
617	563662 4926313	1	15	N	Unknown	
618	563658 4926322	1	14	N	Unknown	

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Table 3: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	8	• A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Category 1 trees may be killed, harmed or taken **after** the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007”*.
Category 2	8	• A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Activities that may kill, harm or take up to a **maximum of ten (10)** Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. • Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm • Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	5	• A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. • Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. • Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated	0	• An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. • Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. • The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	• Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor's Comments:

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

0cm 3cm 15cm

Butternut Data Collection Form 1 - 2010 Edition

Surveyor ID or BHA # 0450

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy) 14 - 08 - 2018

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact
First: LISA Last: MORAN
Email: LISA@AZIMUTHENVIRONMENTAL.COM
Telephone (705) 721-8451 Telephone Other ( ) - x

Property Owner (check if same as surveyor) ☐
First: Last:
or Company: URBAN PRO DEVELOPMENTS INC
Email: ZUCCSTORONTO@GMAIL.COM
Telephone ( ) - Telephone Other ( ) - x

Property Owner's Mailing address
Address: 1885 WILSON AVE SUITE 202 Postal Code: M9M1A2 Prov.: ON
City: TORONTO

Tree Location *(if different from mailing address)*
Address/(911#): 452 RAGLAN STREET
Township: Lot: Con:
City: COLLINGWOOD

Directions

☒ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?
☒ Yes ☐ No Site visits OK? (prior arrangments will always be made for a site vist)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space; write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers	:: 04	:: 04	:: 03	:: 05
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem	00	: 02	•• 02	• 01
Dead	00	00	00	00

Historically, do some trees produce seeds? ☒ Y ☐ N ☐ Unkown

Estimated area containing butternut for properties > 1 acre (0.4 hectares): 009 ☐ Acres ☒ Hectares

Overall Property Description (area(s) containing Butternut)
☐ Rolling Upland ☐ Bottomland
☐ Valley Slope ☐ Variable
☒ Tableland ☐ Unknown

Vegetation Community/ies
☐ Open ☒ Fencerow
☒ Shrubland ☐ Roadside
☒ DeciduousForest ☐ Quary
☐ ConiferForest ☐ UrbanYard
☐ MixedForest ☐ UrbanPark

Other

Soil Drainage
☒ Well Drained
☐ Moderately Drained
☐ Poorly Drained
☐ Unknown

Soil Texture
☐ Clay ☐ Sand
☐ Clay Loam ☐ Variable
☐ Loam ☒ Unknown
☐ Loamy Sand

Soil Depth
☐ > 1metre
☐ 30 - 99cm
☐ < 30cm
☐ Variable
☒ Unknown

Please enter matching numerical page link code on forms 1 and 2

Page Link 563837

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
Forest Gene Conservation Association
Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Shaded fields are mandatory for Butternut Health Assessments

Fill when Form 1 indicates canker is well established. The information opn Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...):

Surveyor ID or BHA #: 450

Surveyor Last Name: MORAN

Date (dd/mm/yyyy): 14 - 08 - 2018

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree #: 682 **Zone:** 17 **Easting:** 563837 **Northing:** 4926298

Crown Class: 4 | Live Crown %: 100 | Main Stem Length(m) Below crown: 02

Twig Dieback: ☒ | Branch Dieback: ☐ | Defoliation: ☒ | Discolouration: ☒

#Stems: 1 | DBH(cm): 002

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 00	00
00 # Callused Wounds	=<2m 00	02
	>2m 00	00

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: JUGLCIN | ACERNEG

Tree #: 681 **Zone:** 17 **Easting:** 563839 **Northing:** 4926311

Crown Class: 4 | Live Crown %: 100 | Main Stem Length(m) Below crown: 02

Twig Dieback: ☐ | Branch Dieback: ☐ | Defoliation: ☐ | Discolouration: ☒

#Stems: 1 | DBH(cm): 007

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 00	00
00 # Callused Wounds	=<2m 00	00
	>2m 00	00

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: CORNALT | ACERNEG

Tree #: 601 **Zone:** 17 **Easting:** 563908 **Northing:** 4926197

Crown Class: 2 | Live Crown %: 080 | Main Stem Length(m) Below crown: 08

Twig Dieback: ☒ | Branch Dieback: ☐ | Defoliation: ☒ | Discolouration: ☐

#Stems: 1 | DBH(cm): 017

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
01 #Epic-Dead		
S Bark Type	Root 01	05
01 # Callused Wounds	=<2m 00	00
	>2m 01	00

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: TILIAME | CORNALT

Tree #: 602 **Zone:** 17 **Easting:** 563893 **Northing:** 4926239

Crown Class: 2 | Live Crown %: 100 | Main Stem Length(m) Below crown: 04

Twig Dieback: ☒ | Branch Dieback: ☐ | Defoliation: ☐ | Discolouration: ☒

#Stems: 1 | DBH(cm): 017

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 00	02
00 # Callused Wounds	=<2m 00	01
	>2m 01	03

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: TILIAME | ACERSAS | FRAXAME

Tree #: 603 **Zone:** 17 **Easting:** 563901 **Northing:** 4926234

Crown Class: 2 | Live Crown %: 080 | Main Stem Length(m) Below crown: 12

Twig Dieback: ☒ | Branch Dieback: ☒ | Defoliation: ☐ | Discolouration: ☐

#Stems: 1 | DBH(cm): 044

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
D Bark Type	Root 01	01
01 # Callused Wounds	=<2m 00	01
	>2m 00	00

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: TILIAME | POPUTRE

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Fill when Form 1 indicates canker is well established. The information opn Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...):

Surveyor ID or BHA #: 0450

Surveyor Last Name: MORAN

Date (dd/mm/yyyy): 14 - 08 - 2018

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # 604

Zone 17 | Easting 563843 | Northing 4926283

Crown Class: 4 | Live Crown %: 100 | Main Stem Length(m) Below crown: 01

Twig Dieback ☒ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 004

Butternut Origin: Natural ☒ | Planted ☐ | Unknown ☐

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☒

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type		
00 # Callused Wounds		
Root	00	00
=<2m	00	00
>2m		

Metres from badly cankered tree: < 40 ☐ | > 40 ☐ | None Found ☒

Competing Species: SALIX RHAMCAT

Tree # 605

Zone 17 | Easting 563896 | Northing 4926187

Crown Class: 1 | Live Crown %: 100 | Main Stem Length(m) Below crown: 01

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 001

Butternut Origin: Natural ☒ | Planted ☐ | Unknown ☐

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☒

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type		
00 # Callused Wounds		
Root	00	00
=<2m	00	00
>2m		

Metres from badly cankered tree: < 40 ☐ | > 40 ☐ | None Found ☒

Competing Species: JUGLCIN VITIRIP

Tree # 606

Zone 17 | Easting 563892 | Northing 4926187

Crown Class: 2 | Live Crown %: 100 | Main Stem Length(m) Below crown: 01

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 002

Butternut Origin: Natural ☒ | Planted ☐ | Unknown ☐

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☒

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type		
00 # Callused Wounds		
Root	00	00
=<2m	01	00
>2m		

Metres from badly cankered tree: < 40 ☐ | > 40 ☐ | None Found ☒

Competing Species: FRAXAME PINUSTR TILIAME

Approx. 2m tall.

Tree # 607

Zone 17 | Easting 563904 | Northing 4926109

Crown Class: 1 | Live Crown %: 080 | Main Stem Length(m) Below crown: 15

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 045

Butternut Origin: Natural ☒ | Planted ☐ | Unknown ☐

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☒

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
D Bark Type		
00 # Callused Wounds		
Root	02	02
=<2m	00	01
>2m	01	02

Metres from badly cankered tree: < 40 ☐ | > 40 ☐ | None Found ☒

Competing Species: ACERSAS

Unable to properly assess crown. View obstructed.

Tree # 608

Zone 17 | Easting 563887 | Northing 4926090

Crown Class: 1 | Live Crown %: 080 | Main Stem Length(m) Below crown: 15

Twig Dieback ☒ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐

#Stems: 2 | DBH(cm): 044

Butternut Origin: Natural ☒ | Planted ☐ | Unknown ☐

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☒

Assess below live crown:

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
D Bark Type		
00 # Callused Wounds		
Root	00	01
=<2m	00	01
>2m	00	00

Metres from badly cankered tree: < 40 ☒ | > 40 ☐ | None Found ☐

Competing Species: JUGLCIN ACERSAS

DBH = 30cm & 33cm (2 stems). 30cm from root.

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Site Code(A,B,...Z, AA...) [ ]

Surveyor ID or BHA # 0450

Surveyor Last Name [ ]

Date (dd/mm/yyyy) 14 - 08 - 2018

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree 609

Tree # 609 | Zone 17 | Easting 563884 | Northing 4926083

Crown Class: 1 | Live Crown %: 080 | Main Stem Length(m) Below crown: 15

Seed Signs: [ ] Male Flowers [ ] Female Flowers [ ] Seed Set [X] None

[X] Twig Dieback [ ] Branch Dieback [ ] Defoliation [ ] Discolouration

#Stems: 1 | DBH(cm): 030

Butternut Origin: [X] Natural [ ] Planted [ ] Unknown

Assess below live crown

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 002	
01 # Callused Wounds	=<2m 001	
	>2m 000	

Metres from badly cankered tree: [X] < 40 [ ] > 40 [ ] None Found

Competing Species: JUGLCIN / ACERSAS

Tree 610

Tree # 610 | Zone 17 | Easting 563853 | Northing 4926072

Crown Class: 1 | Live Crown %: 090 | Main Stem Length(m) Below crown: 12

Seed Signs: [ ] Male Flowers [ ] Female Flowers [ ] Seed Set [X] None

[ ] Twig Dieback [ ] Branch Dieback [ ] Defoliation [ ] Discolouration

#Stems: 1 | DBH(cm): 063

Butternut Origin: [X] Natural [ ] Planted [ ] Unknown

Assess below live crown

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 052	
02 # Callused Wounds	=<2m 006	
	>2m 001	

Metres from badly cankered tree: [X] < 40 [ ] > 40 [ ] None Found

Competing Species: ACERSAS

Tree 611

Tree # 611 | Zone 17 | Easting 563824 | Northing 4926071

Crown Class: 2 | Live Crown %: 080 | Main Stem Length(m) Below crown: 08

Seed Signs: [ ] Male Flowers [ ] Female Flowers [ ] Seed Set [X] None

[X] Twig Dieback [ ] Branch Dieback [ ] Defoliation [X] Discolouration

#Stems: 1 | DBH(cm): 023

Butternut Origin: [X] Natural [ ] Planted [ ] Unknown

Assess below live crown

	#Open	#Sooty
02 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 000	
01 # Callused Wounds	=<2m 000	
	>2m 000	

Metres from badly cankered tree: [X] < 40 [ ] > 40 [ ] None Found

Competing Species: ACERSAS / BETUPAP

Tree 612

Tree # 612 | Zone 17 | Easting 563722 | Northing 4926038

Crown Class: 3 | Live Crown %: 080 | Main Stem Length(m) Below crown: 06

Seed Signs: [ ] Male Flowers [ ] Female Flowers [ ] Seed Set [X] None

[X] Twig Dieback [X] Branch Dieback [ ] Defoliation [ ] Discolouration

#Stems: 1 | DBH(cm): 015

Butternut Origin: [X] Natural [ ] Planted [ ] Unknown

Assess below live crown

	#Open	#Sooty
C1 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 012	
00 # Callused Wounds	=<2m 011	
	>2m 000	

Metres from badly cankered tree: [X] < 40 [ ] > 40 [ ] None Found

Competing Species: POPUGRA / JUGLCIN

Tree 613

Tree # 613 | Zone 17 | Easting 563719 | Northing 4926037

Crown Class: 2 | Live Crown %: 090 | Main Stem Length(m) Below crown: 08

Seed Signs: [ ] Male Flowers [ ] Female Flowers [ ] Seed Set [X] None

[ ] Twig Dieback [ ] Branch Dieback [ ] Defoliation [ ] Discolouration

#Stems: 1 | DBH(cm): 034

Butternut Origin: [X] Natural [ ] Planted [ ] Unknown

Assess below live crown

	#Open	#Sooty
00 #Epic-Live		
00 #Epic-Dead		
S Bark Type	Root 002	
02 # Callused Wounds	=<2m 000	
	>2m 000	

Metres from badly cankered tree: [X] < 40 [ ] > 40 [ ] None Found

Competing Species: POPUGRA / ACERSAS

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Butternut Data Collection FORM 2 (2010 Edition)

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Site Code(A,B,...Z, AA...) | Surveyor ID or BHA # 0450

Surveyor Last Name MORAN

Date (dd/mm/yyyy) 14-08-2018

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # 614 | Zone 17 | Easting 563686 | Northing 4926049

Crown Class 2 | Live Crown % 000 | Main Stem Length(m) Below crown | Seed Signs

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems 2 | DBH(cm)

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown: #Epic-Live | #Epic-Dead | Bark Type | # Callused Wounds

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species

Under hydro line. Only 2 stumps with 4 shoots remain (previous maintenance)

Tree # 615 | Zone 17 | Easting 563664 | Northing 4926096

Heavily cankered.

Crown Class | Live Crown % 000 | Main Stem Length(m) Below crown | Seed Signs

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems 2 | DBH(cm)

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☒ Seed Set ☐ None

Assess below live crown: #Epic-Live | #Epic-Dead | Bark Type | # Callused Wounds

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species

Main stems previously cut. Shoots from stump remains. Hydro maintenance

---

Tree # 616 | Zone 17 | Easting 563618 | Northing 4926162

Heavily cankered.

Crown Class 1 | Live Crown % 080 | Main Stem Length(m) Below crown | Seed Signs

☐ Twig Dieback ☐ Branch Dieback ☒ Defoliation ☒ Discolouration | #Stems 1 | DBH(cm) 032

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown: #Epic-Live 00 | #Epic-Dead 00 | Bark Type S | # Callused Wounds 01

	#Open	#Sooty
Root	03	03
=<2m	00	07
>2m	01	01

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species

616a. Appears to have been cut in past due to hydro line.

Tree # 616 | Zone 17 | Easting 563778 | Northing 4926358

Crown Class 3 | Live Crown % 100 | Main Stem Length(m) Below crown | Seed Signs

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems 1 | DBH(cm) 001

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown: #Epic-Live 00 | #Epic-Dead 00 | Bark Type S | # Callused Wounds 00

	#Open	#Sooty
Root	00	00
=<2m	01	00
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: POPUBAB | POPUTRE

616b

Tree # 617 | Zone 17 | Easting 563662 | Northing 4926313

Crown Class 2 | Live Crown % 000 | Main Stem Length(m) Below crown | Seed Signs

☐ Twig Dieback ☐ Branch Dieback ☒ Defoliation ☒ Discolouration | #Stems 1 | DBH(cm) 015

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown: #Epic-Live 02 | #Epic-Dead 00 | Bark Type S | # Callused Wounds 00

	#Open	#Sooty
Root	00	00
=<2m	01	00
>2m	04	00

Metres from badly cankered tree: ☒ < 40 ☐ > 40 ☐ None Found

Competing Species: POPUBAB | ACERNEG

Main stem broken off at top.

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Site Code(A,B,...Z, AA...) | Surveyor ID or BHA # 0450

Surveyor Last Name: MORAN

Date (dd/mm/yyyy): 14 - 08 - 2018

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree 1

Tree #: 6 | Zone: 17 | Easting: 563658 | Northing: 4926322

Crown Class: 2 | Live Crown %: 000 | Main Stem Length(m) Below crown:

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems: 1 | DBH(cm): 014

Butternut Origin: ☑ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live: 00		
#Epic-Dead: 00	Root: 00	00
Bark Type: S	=<2m: 06	04
# Callused Wounds: 00	>2m: 02	01

Metres from badly cankered tree: ☒ < 40 ☐ > 40 ☐ None Found

Competing Species: POPUBAB

Top of main stem broken off. Unable to fully assess root due to vegetation.

Tree 2

Tree #: | Zone: 1 | Easting: | Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree 3

Tree #: | Zone: 1 | Easting: | Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree 4

Tree #: | Zone: 1 | Easting: | Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree 5

Tree #: | Zone: 1 | Easting: | Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration | #Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

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BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	450-012	Assessment Date(s)	14-Aug-18	Total # Butternut Trees in BHA Report	21
BHA ID #	450	BHA Name	Lisa Moran		
Landowner / Client Name			Urban Pro Developments		
Property Location			452 Raglan Street, Town of Collingwood, County of Simcoe		

input field data										automatic calculations from field data						Categories: 1: non-retainable, 2: retainable, 3: archivable				
			# bole cankers				# root flare (RF) cankers													
Tree #	Live Crown %	Tree dbh (cm)	sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)				<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >/= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			S <2 m	S >2 m	O <2 m	O >2 m	RF S	RF O		Circ (cm)	BC (cm)	RC (cm)	BC%	RC%	BRC%					
682	100	2	2	0	0	0	0	0	n	6.28	5.0	0.0	**79.6**	**0.0**	**39.8**	1	1	1	**1**	**1**
681	100	7	0	0	0	0	0	0	n	21.98	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
601	80	17	0	0	0	1	5	1	n	53.38	5.0	17.5	**9.4**	**32.8**	**21.1**	1	1	2	**2**	**2**
602	100	17	1	3	0	1	2	0	n	53.38	15.0	5.0	**28.1**	**9.4**	**18.7**	1	2	1	**2**	**2**
603	80	44	1	0	0	0	1	1	n	138.2	2.5	7.5	**1.8**	**5.4**	**3.6**	1	2	2	**2**	**2**
604	100	4	0	0	0	0	0	0	n	12.56	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
605	100	1	0	0	0	0	0	0	n	3.14	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
606	100	2	0	0	1	0	0	0	n	6.28	5.0	0.0	**79.6**	**0.0**	**39.8**	1	1	1	**1**	**1**
607	80	45	1	2	0	1	2	2	n	141.3	12.5	15.0	**8.8**	**10.6**	**9.7**	1	2	2	**2**	**2**
608	80	44	1	1	0	0	1	0	y	138.2	5.0	2.5	**3.6**	**1.8**	**2.7**	1	2	2	**2**	**3**
609	80	30	1	0	0	0	2	0	y	94.2	2.5	5.0	**2.7**	**5.3**	**4.0**	1	2	2	**2**	**3**
610	90	63	6	1	0	0	2	5	y	197.8	17.5	30.0	**8.8**	**15.2**	**12.0**	1	2	2	**2**	**3**
611	80	23	0	0	0	0	0	0	y	72.22	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**3**
612	80	15	1	0	1	0	2	1	y	47.1	7.5	10.0	**15.9**	**21.2**	**18.6**	1	2	2	**2**	**2**
613	90	34	2	0	0	0	0	2	y	106.8	5.0	10.0	**4.7**	**9.4**	**7.0**	1	2	2	**2**	**3**
614										0	0.0	0.0	#####	#####	#####	####	###	###	##	**#DIV/0!**
615										0	0.0	0.0	#####	#####	#####	####	###	###	##	**#DIV/0!**
616	80	32	7	1	0	1	3	3	n	100.5	25.0	22.5	**24.9**	**22.4**	**23.6**	1	1	1	**1**	**1**
616	100	1	0	0	1	0	0	0	n	3.14	5.0	0.0	**159.2**	**0.0**	**79.6**	1	1	1	**1**	**1**
617	0	15	0	0	1	4	0	0	n	47.1	25.0	0.0	**53.1**	**0.0**	**26.5**	1	1	1	**1**	**1**
618	0	14	4	1	6	2	0	0	n	43.96	52.5	0.0	**119.4**	**0.0**	**59.7**	1	1	1	**1**	**1**

Lisa Moran

From: TrackingUpdates@fedex.com
Sent: September 5, 2018 4:49 PM
To: Lisa Moran
Subject: FedEx Shipment 773125109961 Delivered

Your package has been delivered

Tracking # 773125109961

Ship date:
Tue, 9/4/2018

Azimuth Environmental
AZIMUTH ENVIRONMENTAL
BARRIE, ON L4N9A1
CA

Delivered

Delivery date:
Wed, 9/5/2018 4:43 pm

Shawn Carey
MNRF - MIDHURST
2284 NURSERY ROAD
MINISTRY OF NATURAL RESOURCES & FOR
MIDHURST, ON L0L1X0
CA

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	773125109961
Status:	Delivered: 09/05/2018 4:43 PM Signed for By: C.GAGNON
Reference:	17-169
Signed for by:	C.GAGNON
Delivery location:	Midhurst, ON
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	9/5/2018 by 5:00 pm

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 3:48 PM CDT on 09/05/2018.

All weights are estimated.

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Thank you for your business.

Romas Kartavicius
Eden Oak (McNabb) Inc.
1443 Hurontario Street
Mississauga ON L5G 3H5

August 9, 2021

Dear Mr. Kartavicius:

As requested, I completed an updated Butternut Health Assessment (BHA) on a Butternut tree located on your lands located at 452 Raglan Street, Town of Collingwood.

A copy of this BHA report will be submitted to the Ministry of Environment, Conservation and Parks.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records.

If you have questions or require additional information please do not hesitate to contact me.

Lisa Moran, BHA # 450
C/O Azimuth Environmental Consulting Inc.
642 Welham Road
Barrie, Ontario
L4N 9A1

c.c. Kory Chisholm, MHBC Planning, Urban Design and Landscape Architecture

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms (electronic)
4. Electronic copies of the Excel data spreadsheet (BHA Tree Analysis)
5. Map showing approximate location of Butternut tree

Ministry of Natural Resources and Forestry

Species At Risk
P.O. Box 7000, 300 Water Street
Peterborough ON K9J 8M5

Ministère des Richesses naturelles et des Forêts

Espèces en péril
C.P. 7000, 300, rue Water
Peterborough ON K9J 8M5

The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: http://www.ontario.ca/environment-and-energy/butternut-trees-your-property.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the MNRF Registry **after the 30 day period has elapsed**.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:
http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):
http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:
https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices

Butternut Health Assessor's Report Number: 450-016

Lisa Moran, BHA # 450
C/O Azimuth Environmental Consulting Inc.
642 Welham Road
Barrie, Ontario
L4N 9A1
(705) 721-8451 x202
lisa@azimuthenvironmental.com

Romas Kartavicius
Eden Oak (McNabb) Inc.
1443 Hurontario Street
Mississauga ON L5G 3H5

August 9, 2021

Site location: 452 Raglan Street, Town of Collingwood

Date(s) of Butternut health assessment: August 9, 2021
Date BHA Report prepared: August 9, 2021

Map datum used: ☒ NAD83 ☐ WGS84

Total number of trees assessed in this BHA Report: 1

The assessed trees were numbered on site using white paint &/or orange flagging tape plus numbered tree tag – attached with single staple. The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Note to BHAs: add/remove table rows as necessary

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category[1] *(1, 2, or 3[2])*	dbh[3] (cm)	Cultivated? *(Y/N)*	Proposed to be: *(enter one: unknown[4], killed, harmed or taken)*	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:

[1] The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.
[2] Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.
[3] dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)
[4] In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category[1] (1, 2, or 3[2])	dbh[3] (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown[4], killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
681	5638394 4926301	1	9	N	Unknown	

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Table 3: Summary of Assessment Results

Result:	**Total #:**	**Important information for persons planning activities that may affect Butternut:**
Category 1	1	• A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Category 1 trees may be killed, harmed or taken **after** the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007”*.
Category 2	0	• A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Activities that may kill, harm or take up to a **maximum of ten (10)** Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation.

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		• Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm • Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	0	• A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered "archivable". • Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. • Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated	0	• An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. • Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. • The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	• Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor's Comments:

Original assessment completed in 2018 BHA #450-012 where Tree # 681 was assessed as a Category 2 tree.

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

0cm 3cm 15cm

Butternut Data Collection Form 1 - 2010 Edition

Surveyor ID or BHA #: 0450

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy): 09 - 08 - 2021

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact

First: LISA Last: MORAN

Email: LISA@AZIMUTHENVIRONMENTAL.COM

Telephone: (705) 721-8451 Telephone Other: ( ) - x

Property Owner (check if same as surveyor) ☐

First: Last:

or Company: EDEN OAK (MCNABB) INC.

Email: ROMAS@EDENOAK.COM

Telephone: ( ) - Telephone Other: ( ) - x

Property Owner's Mailing address

Address: 1443 HURONTARIO ST Postal Code: L5G3H5 Prov.: ON

City: MISSISSAUGA

Tree Location (if different from mailing address)

Address/(911#): 452 RAGLAN STREET

Township: Lot: Con:

City: COLLINGWOOD

Directions:

☒ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?

☒ Yes ☐ No Site visits OK? (prior arrangments will always be made for a site vist)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space; write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers				
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem		01		
Dead				

Historically, do some trees produce seeds? ☐ Y ☐ N ☐ Unkown

Estimated area containing butternut for properties > 1 acre (0.4 hectares): 009 ☐ Acres ☒ Hectares

Overall Property Description (area(s) containing Butternut)

☐ Rolling Upland ☐ Bottomland
☐ Valley Slope ☐ Variable
☒ Tableland ☐ Unknown

Vegetation Community/ies

☐ Open ☐ Fencerow
☒ Shrubland ☐ Roadside
☐ DeciduousForest ☐ Quary
☐ ConiferForest ☐ UrbanYard
☐ MixedForest ☐ UrbanPark

Other

Soil Drainage

☒ Well Drained
☐ Moderately Drained
☐ Poorly Drained
☐ Unknown

Soil Texture

☐ Clay ☐ Sand
☐ Clay Loam ☐ Variable
☐ Loam ☒ Unknown
☐ Loamy Sand

Soil Depth

☐ > 1metre
☐ 30 - 99cm
☐ < 30cm
☐ Variable
☒ Unknown

Please enter matching numerical page link code on forms 1 and 2

Page Link: 563839

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
Forest Gene Conservation Association
Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Shaded fields are mandatory for Butternut Health Assessments

Fill when Form 1 indicates canker is well established. The information opn Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...) | Surveyor ID or BHA # 0450 | Date (dd/mm/yyyy) 09-08-2021

Surveyor Last Name: MORAN

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree 1

Tree # 681 | Zone 17 | Easting 563839 | Northing 4926301

Crown Class: 4 | Live Crown %: 100 | Main Stem Length(m) Below crown: 03

Seed Signs: ☐ None

☒ Twig Dieback | ☒ Branch Dieback | ☑ Defoliation | ☐ Discolouration | #Stems: 1 | DBH(cm): 009

Butternut Origin: ☒ Natural | ☐ Planted | ☐ Unknown

☐ Male Flowers | ☐ Female Flowers | ☐ Seed Set

Assess below live crown:

	#Open	#Sooty
#Epic-Live: 00		
#Epic-Dead: 02	Root: 00	00
Bark Type: S	=<2m: 03	08
# Callused Wounds: 01	>2m: 00	03

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☒ None Found

Competing Species: CORNALT / ACERNEG

Tree 2

Tree # | Zone 1 | Easting | Northing

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs: ☐ None

☐ Twig Dieback | ☐ Branch Dieback | ☐ Defoliation | ☐ Discolouration | #Stems | DBH(cm)

Butternut Origin: ☐ Natural | ☐ Planted | ☐ Unknown

☐ Male Flowers | ☐ Female Flowers | ☐ Seed Set | ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree 3

Tree # | Zone 1 | Easting | Northing

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs: ☐ None

☐ Twig Dieback | ☐ Branch Dieback | ☐ Defoliation | ☐ Discolouration | #Stems | DBH(cm)

Butternut Origin: ☐ Natural | ☐ Planted | ☐ Unknown

☐ Male Flowers | ☐ Female Flowers | ☐ Seed Set | ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree 4

Tree # | Zone 1 | Easting | Northing

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs: ☐ None

☐ Twig Dieback | ☐ Branch Dieback | ☐ Defoliation | ☐ Discolouration | #Stems | DBH(cm)

Butternut Origin: ☐ Natural | ☐ Planted | ☐ Unknown

☐ Male Flowers | ☐ Female Flowers | ☐ Seed Set | ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree 5

Tree # | Zone 1 | Easting | Northing

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs: ☐ None

☐ Twig Dieback | ☐ Branch Dieback | ☐ Defoliation | ☐ Discolouration | #Stems | DBH(cm)

Butternut Origin: ☐ Natural | ☐ Planted | ☐ Unknown

☐ Male Flowers | ☐ Female Flowers | ☐ Seed Set | ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	
Bark Type	=<2m	
# Callused Wounds	>2m	

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Please enter matching page link code on forms 1 and 2

Page Link: 563839

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
Forest Gene Conservation Association
Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	450-016	Assessment Date(s)	09-Aug-21	Total # Butternut Trees in BHA Report	1
BHA ID #	450	BHA Name	Lisa Moran		
Landowner / Client Name			Eden Oak (McNabb) Inc		
Property Location			452 Raglan Street, Town of Collingwood, County of Simcoe		

input field data										automatic calculations from field data						Categories: 1: non-retainable, 2: retainable, 3: archivable				
			# bole cankers				# root flare (RF) cankers													
Tree #	Live Crown %	Tree dbh (cm)	sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)				<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >/= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			S <2 m	S >2 m	O <2 m	O >2 m	RF S	RF O		Circ (cm)	BC (cm)	RC (cm)	BC%	RC%	BRC%					
										0	0.0	0.0	#####	#####	#####	####	###	###	##	#DIV/0!
681	100	9	8	3	3	0	0	0	n	28.26	42.5	0.0	**150.4**	**0.0**	**75.2**	1	1	1	**1**	**1**


Raglan Street, Collingwood ON
Butternut Health Assessment
Legend
Butternut 681
Peel St
Lynden St
Train Trail
Butternut 681
Google Earth
© 2021 Google
N
200 m

Lisa Moran

From: Species at Risk (MECP) [SAROntario@ontario.ca]
Sent: August 13, 2021 3:31 PM
To: Lisa Moran
Subject: RE: BHA Report 450-016 - Town of Collingwood

Dear Lisa,
Thank you for submitting your BHA to the Ministry. Please use this email as receipt of your submission, dated August 12, 2021.

If you are proposing to rely on section 23.7 of the Regulation 242/08 for the Category 1 trees identified, please note that you are eligible to do so 30 days after August 12, 2021.

Thanks,
Ratna Timsina

From: Lisa Moran <Lisa@Azimuthenvironmental.Com>
Sent: August 12, 2021 5:56 PM
To: Species at Risk (MECP) <SAROntario@ontario.ca>
Subject: BHA Report 450-016 - Town of Collingwood

Good afternoon,

Please find attached a BHA report for a single Butternut in the Town of Collingwood.

Regards,

Lisa Moran
Terrestrial Ecologist

Azimuth Environmental Consulting, Inc
642 Welham Road
Barrie, ON, L4N 9A1
ph: (705) 721-8451 ext 202
cell: (705) 331-1479
lisa@azimuthenvironmental.com
www.azimuthenvironmental.com

*Providing services in **hydrogeology**, **terrestrial** and **aquatic ecology** & **environmental engineering***

At this time, I am working remotely. The Azimuth office is currently closed to the public but I can be reached on my cell or email.

Lisa Moran

From: Species at Risk (MECP) [SAROntario@ontario.ca]
Sent: January-19-21 2:21 PM
To: Lisa Moran
Subject: RE: Butternut Inquiry (Town of Collingwood)

Hi Lisa,

Thanks for providing the BHA and additional map.

A couple of additional questions:

1. What is proposed for the 10m dripline setback area? Will this area be left natural or even planted?
2. What will be the final land use after development within the 25m buffer areas? For example, are these planned for rear yards or paved areas? Will any permanent structures be placed within the 25m buffer area?
3. Is it possible to mitigate impacts during construction within the 25m buffer area to avoid disturbance to roots, soil compaction, etc.?

Cheers,

Kathleen Buck
Permissions & Compliance, Species at Risk Branch
Ministry of the Environment, Conservation & Parks

Learn more about Ontario's Species at Risk: *https://www.ontario.ca/page/species-risk*

From: Lisa Moran <Lisa@Azimuthenvironmental.Com>
Sent: January 18, 2021 1:42 PM
To: Species at Risk (MECP) <SAROntario@ontario.ca>
Subject: RE: Butternut Inquiry (Town of Collingwood)

Hi Kathleen,

Thank-you for the information. I have attached the BHA that was submitted to MNRF.

Within this email is a figure where you can see the location of the 6 Butternut discussed in my original email. The black line in the figure represents the 10m setback from the dripline of the woodland.

A 25m buffer will remain to the E, S and W of the three Butternuts. There is development potential within about 16m to the north of the three individuals (category 2 and 2 category 3).

Regards,

Lisa

From: Species at Risk (MECP) [mailto:SAROntario@ontario.ca]
Sent: January-18-21 1:10 PM
To: Lisa Moran
Subject: RE: Butternut Inquiry (Town of Collingwood)

Hi Lisa,

Though you are correct in your assessment that the active agriculture field would not likely provide habitat for regeneration, the potential development may harm the roots of the butternut trees (depending on what is proposed). Would you be able to provide the BHA that was completed (including DBHs of each tree) and an aerial map showing the location of each tree and the 25m buffer zone?

As a general rule, the 25m buffer zone around a Butternut is protected. The Ministry considers this to be the Critical Root Zone, where critical roots that support the growth and life functions of the tree are located. This area is considered to have the lowest threshold for alterations.

The Ministry also protects the 25m-50m buffer around the tree, as this is the area that Butternut individuals depend upon for nut dispersal and seedling establishment, two critical components of successful reproduction. However, this buffer is consider to have a moderate threshold to alterations.

Thank you,

Kathleen Buck
Permissions & Compliance, Species at Risk Branch
Ministry of the Environment, Conservation & Parks

Learn more about Ontario's Species at Risk: *https://www.ontario.ca/page/species-risk*

From: Lisa Moran <Lisa@Azimuthenvironmental.Com>
Sent: January 7, 2021 2:39 PM
To: Species at Risk (MECP) <SAROntario@ontario.ca>
Cc: Scheifley, Jody (MNRF) <Jody.Scheifley@ontario.ca>
Subject: Butternut Inquiry (Town of Collingwood)

Good afternoon,

I wanted to touch base with MECP for some direction related to Butternut.

We are currently working on a property within the Town of Collingwood. Several Butternuts have been identified within a woodlot. A BHA has been conducted for each of the trees which has been submitted and accepted by the province.

In this particular situation, we have five Category 3 trees and one Category 2 tree that are located within the woodlot. Adjacent to the woodlot is active agriculture (i.e. corn). At this point, the proponent is contemplating potential development within 10m of the woodlot (*i.e.* a 10m buffer will be provided adjacent to the woodland). I would like to provide them with direction as it pertains to the Butternut.

Based on this information, there will be a buffer of approximately 15m-16m to two of the Category 3 trees. There will be a setback of at least 25m (or greater) to the other three Category 3 trees. Based on my knowledge of the *ESA*, the Category 3 trees will be adequately protected (no direct harm to the tree) and no habitat will be lost (lands beyond woodland within 25m of the Category 3 trees are active agriculture and do not represent potential regeneration habitat). Therefore, the proposed development within 10m of the woodland (or 15-16m of the Category 3) would not contravene the *ESA*.

My interpretation related to the Category 2 tree would align with the as well – development within approximately 15m from the Category 2 tree will ensure protection of the tree. No registration would be required.

If you could please confirm the above interpretation, it would be appreciated. Do not hesitate to call to discuss.

Regards,

Lisa Moran
Terrestrial Ecologist

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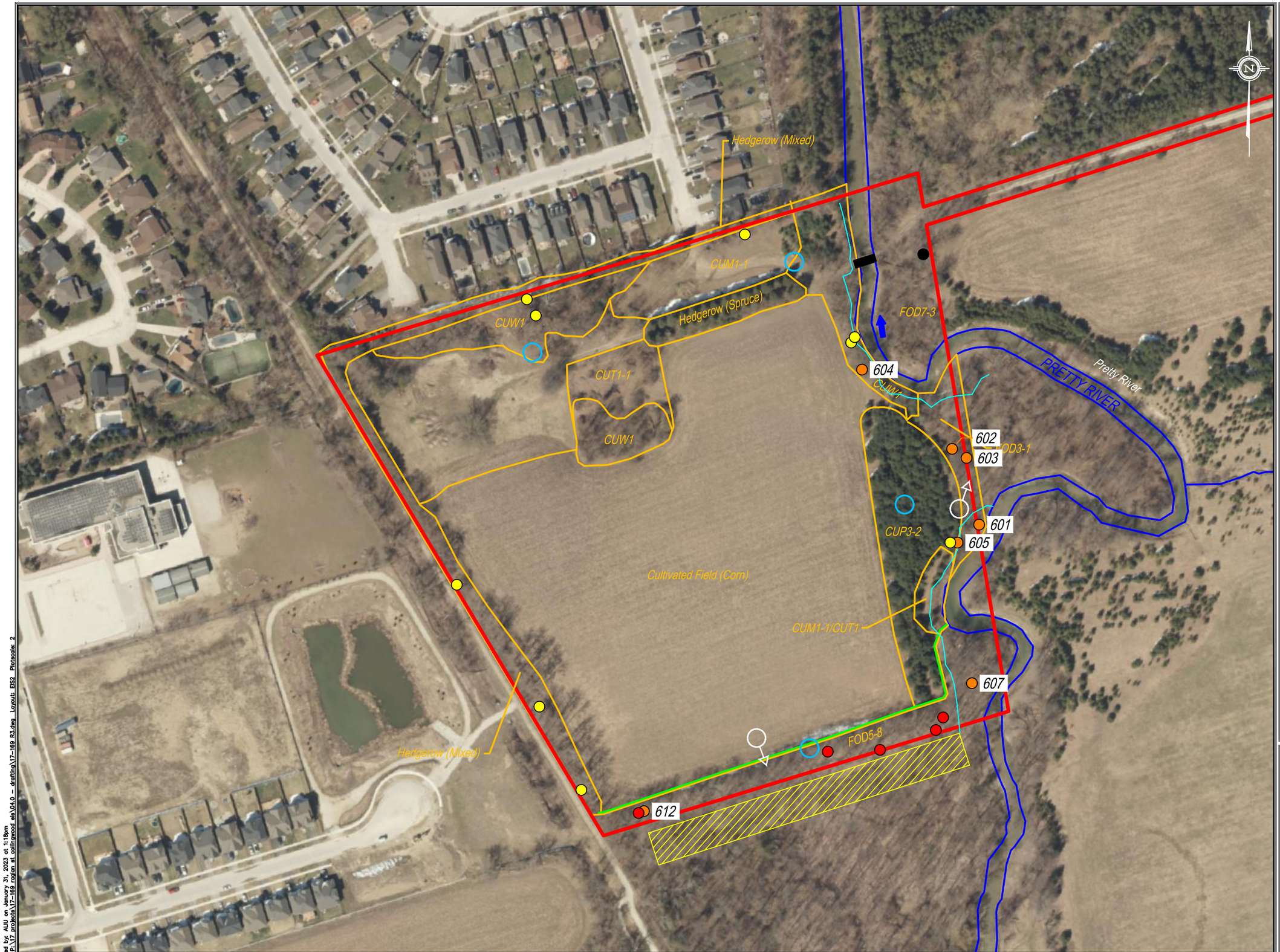
*Providing services in **hydrogeology**, **terrestrial** and **aquatic ecology** & **environmental engineering***

At this time, I am working remotely. The Azimuth office is currently closed to the public but I can be reached on my cell or email.

APPENDIX C

Figure 2, 452 Raglan Street, Town of Collingwood (IndigO2), Scoped Environmental Impact Study, Addendum Letter (Azimuth, 2023b)



LEGEND:

- Approx. Property Boundary
- Watercourse
- Flow Direction
- Breeding Bird Point Count Station
- Amphibian Stations and Direction (white)
- Category 1 Butternut Locations
- Category 2 Butternut Locations
- Category 3 Butternut Locations
- Unassessed Butternut Locations
- Adjacent Property Butternuts
- Significant Woodland Dripline (Category 1 Woodland) [Confirmed with NVCA]
- Top of Bank (TOB, confirmed with NVCA)
- Existing Bridge
- Vegetation Communities

CUM1-1	Dry-Moist Old Field Meadow Type
CUP3-2	White Pine Coniferous Plantation Type
CUT1	Mineral Cultural Thicket Ecosite
CUT1-1	Sumac Cultural Thicket Type
CUW1	Mineral Cultural Woodland Ecosite
FOD3-1	Dry Fresh Poplar Deciduous Forest Type
FOD5-8	Dry-Fresh Sugar Maple-White Ash Deciduous Forest Type
FOD7-3	Fresh-Moist Willow Lowland Deciduous Forest Type

30m 0 60m

HORIZONTAL SCALE 1:2,000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Features

452 Raglan St.
Town of Collingwood, ON

DATE ISSUED:	February 2023	Figure No. 2
CREATED BY:	JLM, AL	
PROJECT NO.:	17-169	
REFERENCE:	Simcoe County Maps	

DAYSTAMP: M:\17 Projects\17-169 Raglan St Collingwood EIS\04.0 - Drafting\17-169.dwg

Plotted by: AUU on January 31, 2023 at 1:18pm
File: P:\17 projects\17-169 raglan st collingwood eis\04.0 — drafting\17-169 R3.dwg Layout: EIS2 Plotscale: 2