Arborist Report (Updated)
10568 Islington Avenue
City of Vaughan (Kleinburg)
Regional Municipality of York

Prepared for:
Portside Developments

Prepared by:
Azimuth Environmental
Consulting, Inc.

December 2019

AEC 15-347

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

December 9, 2019 AEC 15-347

Portside Developments
495 Deerhurst Drive
Brampton, Ontario
L6T 5K3

Attention: Mr. Daniel Montagner

Re: Arborist Report (Updated)
10568 Islington Avenue, City of Vaughan, Region of York

Dear Mr. Montagner:

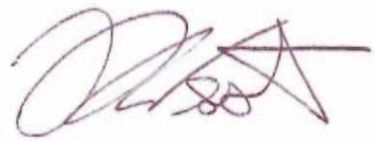
Azimuth Environmental Consulting, Inc. (Azimuth) is pleased to submit our updated Arborist Report for the proposed development located at 10568 Islington Avenue, in the City of Vaughan (Kleinburg), Regional Municipality of York.

This report includes the results of our tree inventory completed for all trees on the property with a Diameter at Breast Height (DBH) =/>10cm, a list of all trees located on neighbouring properties anticipated to be impacted by the proposed development, and tree replacement recommendations for the trees to be removed. A species at risk (SAR) screening was also completed to address the City of Vaughan's comment regarding this potential issue.

If you have any questions pertaining to the information within this report, please do not hesitate to contact myself directly.

Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.



Drew West, A.Sc.T.
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Jim Broadfoot, H. B.Sc.
Terrestrial Ecologist

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Table of Contents

List of Figures

List of Tables

List of Appendices

1.0 INTRODUCTION

Azimuth Environmental Consulting, Inc. was retained to complete an Arborist Report for the proposed residential development located at 10568 Islington Avenue, in the City of Vaughan (Kleinburg), Regional Municipality of York (see Figure 1). The purpose of this study was to assess and inventory the existing trees on the subject property, as the proponent wishes to remove all trees on-site to accommodate the proposed multi-building development. The original inventory and report was completed in 2015, and the original report has been updated follow comments from the City of Vaughan.

The following report documents the findings of our field investigation and describes a recommended compensation plan for the proposed tree removals.

2.0 SCOPE OF FIELD INVENTORY WORK

To comply with the requirements of the City of Vaughan, a tree inventory was completed on November 16th, 2015. This field visit included the following duties:

- Completed an inventory of all trees located on the property or within an expected zone of impact with a DBH equal to or greater than 10 cm. DBH was taken at 1.37 metres (4.5') above ground surface at the base of each tree; and
- Recorded species, DBH (cm), and condition/health status of all applicable trees. Tree health assessments were graded on a scale ranging from Dead, Poor, Fair and Good based on general health characteristics (trunk integrity, canopy structure and canopy vigour).

The majority of inventoried tree locations have been surveyed to accurately plot on the proposed site plan (see Figure 3). The trees which were not surveyed have been included in the plan using UTM coordinates collected using a GPS unit.

3.0 TREE INVENTORY RESULTS

A total of 56 trees with a DBH =/>10cm were documented either on or within 5 metres of the subject property during the inventory process. The site primarily contained planted landscape and/or invasive tree species. Overall, the residential site is composed of a mixed community containing the following species:

Table A: Tree Species Composition

Tree Species	Percentage on Site
Colorado Blue Spruce (*Picea pungens)*	32%
Norway Maple (*Acer platanoides*)	16%
Eastern White Cedar (*Thuja occidentalis)*	14%
White Spruce (*Picea glauca*)	12%
Norway Spruce (*Picea abies*)	11%
Black Locust (*Robinia pseudoacacia)*	7%
Scotch Pine (*Pinus sylvestris*)	2%
White Ash (*Fraxinus americana*)	2%
Sugar Maple (*Acer saccharum*)	2%
Manitoba Maple (*Acer negundo*)	2%

The subject property contains trees primarily around the perimeter, with immature spruce and cedar hedging in the middle. The site also contains multiple structures including two dwellings and a separate garage structure.

A full tree inventory and assessment table is presented in Appendix A.

4.0 IDENTIFICATION OF POTENTIAL TREE IMPACTS

All of the 56 trees (=/> 10cm DBH) found on-site are recommended for removal due to the proposed development encompassing the entire property. Factors such as grading, excavations, paving, retaining walls and building construction will impact all trees on-site (see Figure 3). For these reasons, tree preservation is not recommended in this scenario.

Trees are not likely to thrive if major disruptions occur in their micro-environment. Significant changes in grade, drainage and wind pattern are all factors that can contribute to a tree's decline and eventual death. This can result in future falling hazards and very costly removal fees once the development is constructed. Thus, the removal of any tree anticipated to be impacted by the development is recommended.

Of the 56 trees inventoried, 12 were either found to be located on adjacent land (within 5 metres of property boundary) or directly on the property boundary. Trees #22 (see Figure 2) is located on the neighbouring property to the south which should be preserved. Trees #47 - #56 are located on City property (Islington Avenue right-of-way). These trees will require permission from the City to be removed. Considering Tree #22 is close on

neighbouring lands and close to the property boundary, a Certified Arborist should be onsite to supervise excavations in proximity to this tree. If roots of Tree #22 are exposed during excavations, the Arborist should be present to perform root pruning to minimize damage to the tree.

5.0 TREE COMPENSATION RECOMMENDATIONS

A total of 55 (Tree #22 only tree recommended for preservation) trees are recommended for removal, of which 44 require compensation (based on City of Vaughan Tree Replacement Tree Requirements policy). According to this policy, all trees 20cm or greater require compensation, with the required compensation amount based on current DBH (diameter at breast height) of the trees to be removed. The compensation requirements are stated below:

20cm – 30cm = 1 replacement tree
31cm – 40cm = 2 replacement trees
41cm – 50cm = 3 replacement trees
50cm or greater = 4 replacement trees

Using the ratios stated above, the removal of 55 trees within the subject site will require a total of 76 replacement trees to be planted. Considering the small scale nature of the site and lack of open space within the site plan, a portion of the replacement trees would have to be planted off-site or a cash-in-lieu payment could be added to fulfill the City's compensation requirement. As per the City's Tree Replacement Requirements policy, replacement trees should be native species and be at least 200 cm (6.5 ft.) tall for coniferous species and have a caliper of 60mm (2.3in) for deciduous species.

6.0 SPECIES AT RISK SCREENING

The Ministry of the Environment, Conservations and Parks (MECP) assumed responsibility for the administration of the Endangered Species Act, 2007 (ESA) in April 2019. The MECP's Client's Guide to Preliminary Screening for Species at Risk (MECP Species at Risk Branch, Permissions and Compliance, DRAFT - May 2019) directs proponents to "initiate species at risk screenings and seek information from all applicable information sources identified in this guide prior to contacting Government of Ontario ministry offices for further information or advice". Section 2.0 of the Guide outlines steps to follow indicating that the range of data sources providing species at risk related information and directing proponents to review and "determine whether any species at risk or their habitat exist or are likely to exist at or near their proposed activity, and

whether their proposed activity is likely to contravene the ESA. If the preliminary species at risk screening indicates potential species at risk concerns, proponents may contact the MECP for advice on whether the proposed activity is deemed to require ESA permitting or if species at risk concerns can be avoided. As per MECP guidance, it is the responsibility of the proponent/landowner to comply with the ESA.

6.1 Preliminary Species At Risk Screening

Given the urban landscape setting of the subject and adjacent lands (i.e., no natural cover, wetlands, watercourses or other habitat features normally supporting species at risk), the following information sources were consulted:

- Natural Heritage Information Centre (online)
- The Breeding Bird Atlas (online)

6.2 Results

The results of the preliminary species at risk search are listed below.

NHIC:

- Redside Dace (*Clinostomus elongates*)
- Rapids Clubtail (*Gomphus quadricolor*)
- Butternut (*Juglans cinerea*)
- Rusty-patched Bumble Bee (*Bombus affinis*)

OBBA:

- Chimney Swift (Threatened)
- Barn Swallow (Threatened)
- Bank Swallow (Threatened)
- Bobolink (Threatened)
- Eastern Meadowlark (Threatened)
- Eastern Wood-pewee (Special Concern)
- Wood Thrush (Special Concern)
- Grasshopper Sparrow (Special Concern)

6.3 Discussion

Ontario's ESA protects individuals and habitat of Endangered and Threatened species but not Special Concern species. Redside Dace (fish) and Rapids Clubtail (dragonfly) are aquatic species and hence not relevant to the proposed development. Rusty-patched Bumble Bee is a meadow species and as the subject lands are urban-residential and treed,

they provide no habitat for this species. Bobolink and Eastern Meadowlark are grassland breeding birds and as the subject lands are developed and urban, they provide no habitat for these species. Bank Swallow have specific requirements for eroding slopes (generally associated with watercourses or sand/gravel pits) and/or large fill piles – habitat not present on or adjacent to the property. Barn Swallow typically nest in barns or other built features (culverts, bridges, etc.) in rural environments. Given the highly urbanized nature of the subject and adjacent lands the proposed development is unlikely to impact Barn Swallow. Chimney Swift nest in chimneys and other built features providing openings for ingress/egress and often frequent urban areas. Built structures on-site are relatively new and hence do not provide old brick chimneys characteristics of those inhabited by Chimney Swift and hence the proposed development is unlikely to impact Chimney Swift. The results of the tree inventory revealed no Butternut on or adjacent to the subject lands.

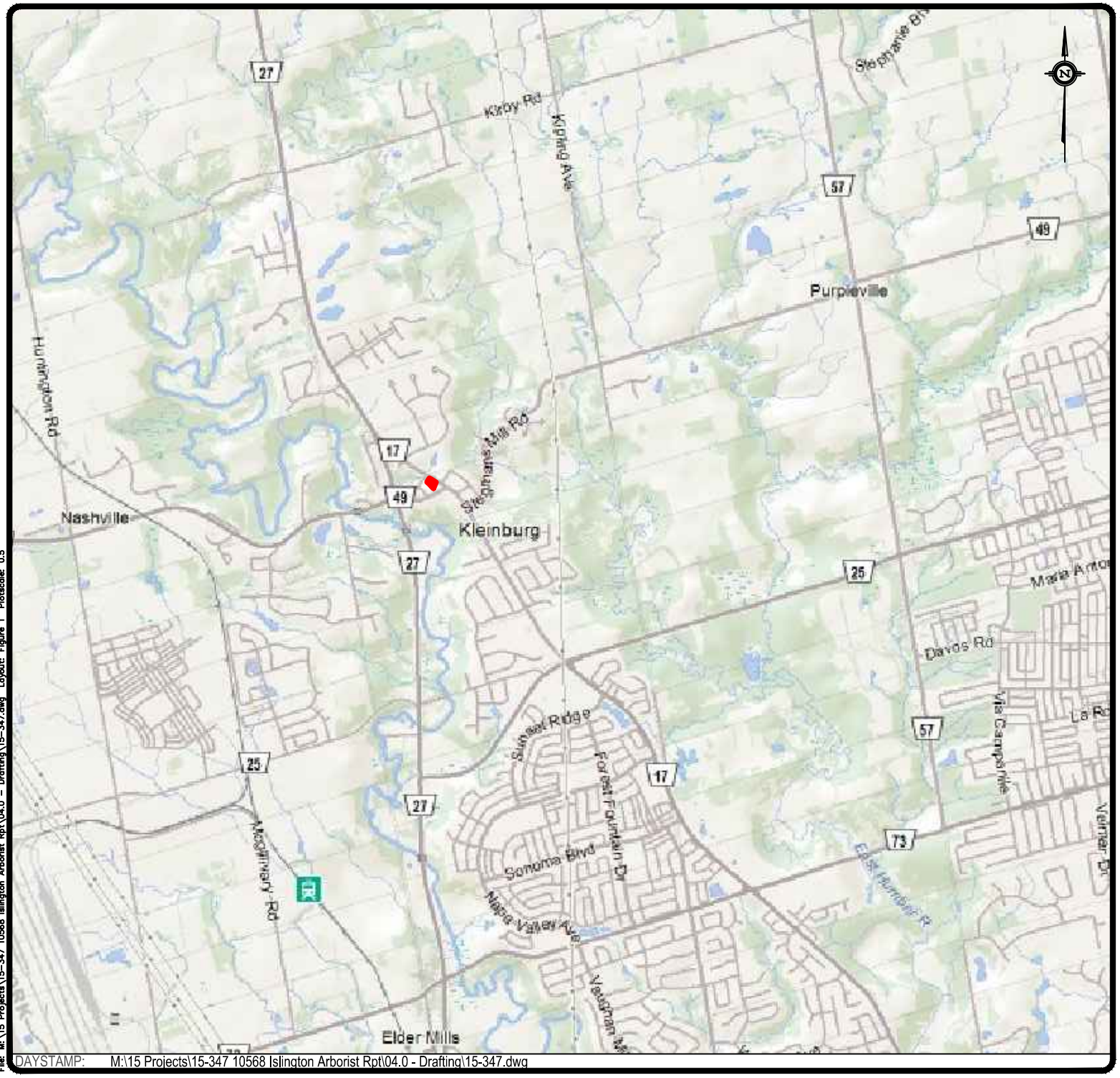
The species at risk assessment indicates no particular species at risk concerns associated with the proposed development. Therefore, MECP consultation with respect to avoidance and/or ESA permitting appears warranted.

7.0 REFERENCES

Ministry of the Environment, Conservation and Parks. 2019. Client's Guide to Preliminary Screening for Species at Risk. MECP Species at Risk Branch, Permissions and Compliance – DRAFT.

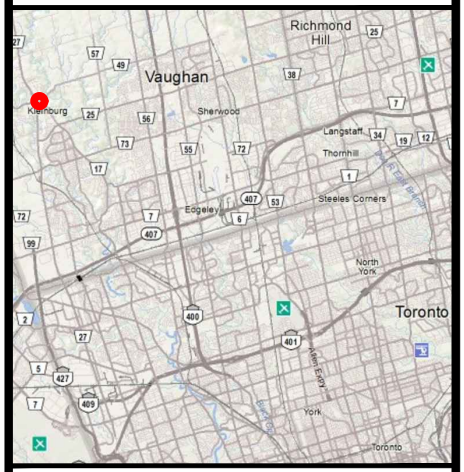
Natural Heritage Information Centre (NHIC) internet web page. 2019. Government of Ontario, Ministry of Natural Resources (www.mnr.on.ca/MNR/nhic).

Breeding Birds Atlas internet web page. 2019. (http://www.birdsontario.org/atlas/index.jsp?lang=en)



LEGEND:

Approx. Property Boundary



REG MAP

600m 0 1200m

HORIZONTAL SCALE 1: 40,000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Study Area Location

10568 Islington Ave.,
Kleinburg, ON

DATE ISSUED: *December 2015*	Figure No.
CREATED BY: *JLM*	1
PROJECT NO.: *15-347*	
REFERENCE: *MNRF*	

DAYSTAMP: M:\15 Projects\15-347 10568 Islington Arborist Rpt\04.0 - Drafting\15-347.dwg

Plotted by: JMCCARTNEY on December 3, 2015 at 3:11pm
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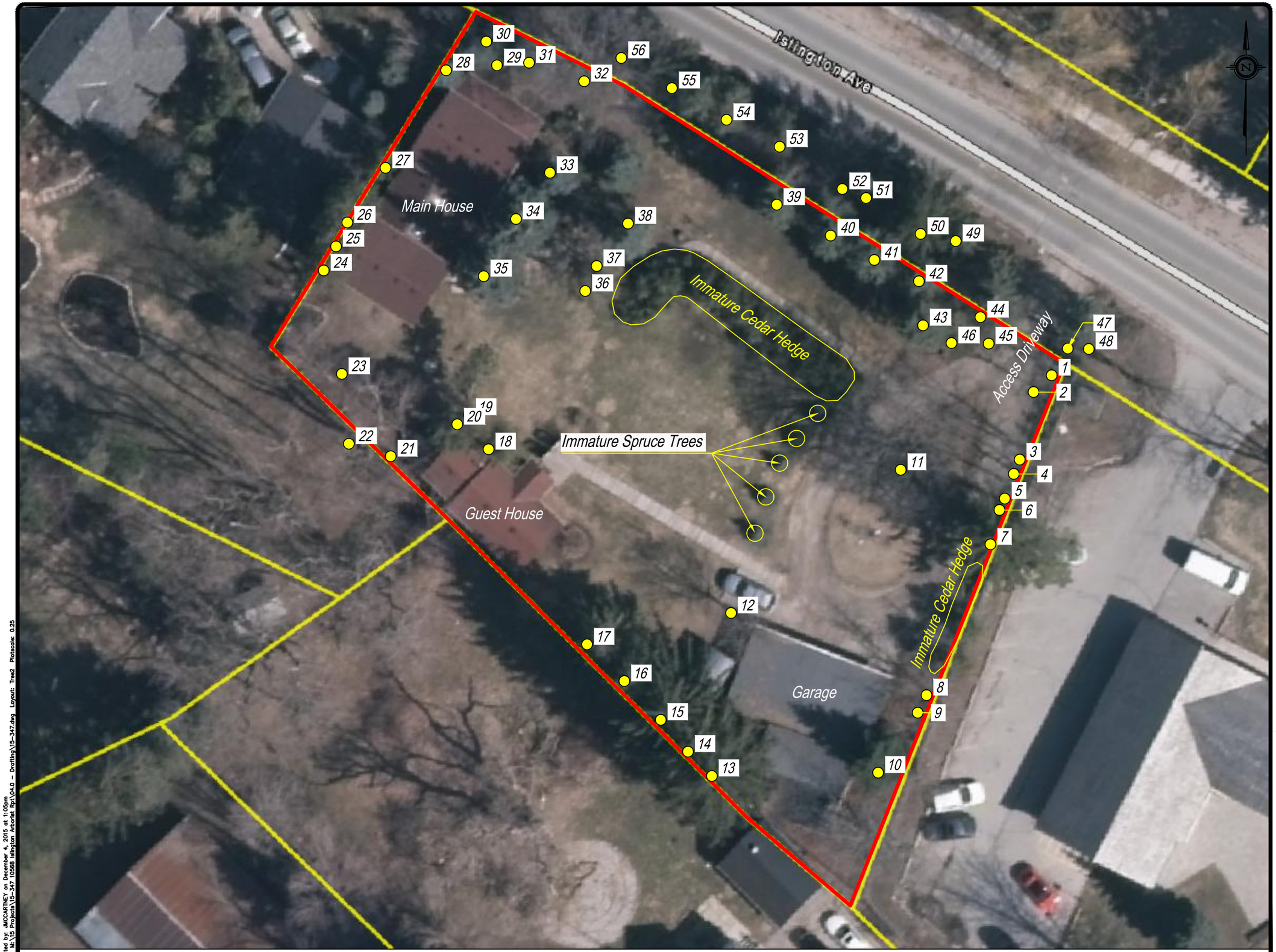

LEGEND:

- Approx. Property Boundary
- Tree Locations
- Immature Tree Locations

5m 0 10m

HORIZONTAL SCALE 1: 300

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Tree Locations

10568 Islington Ave.,
Kleinburg, ON

DATE ISSUED:	December 2015	Figure No. 2
CREATED BY:	JLM	
PROJECT NO.:	15-347	
REFERENCE:	First Base Solutions	

DAYSTAMP: M:\15 Projects\15-347 10568 Islington Arborist Rpt\04.0 - Drafting\15-347.dwg

Plotted by: JMCCARTNEY on December 4, 2015 at 1:05pm
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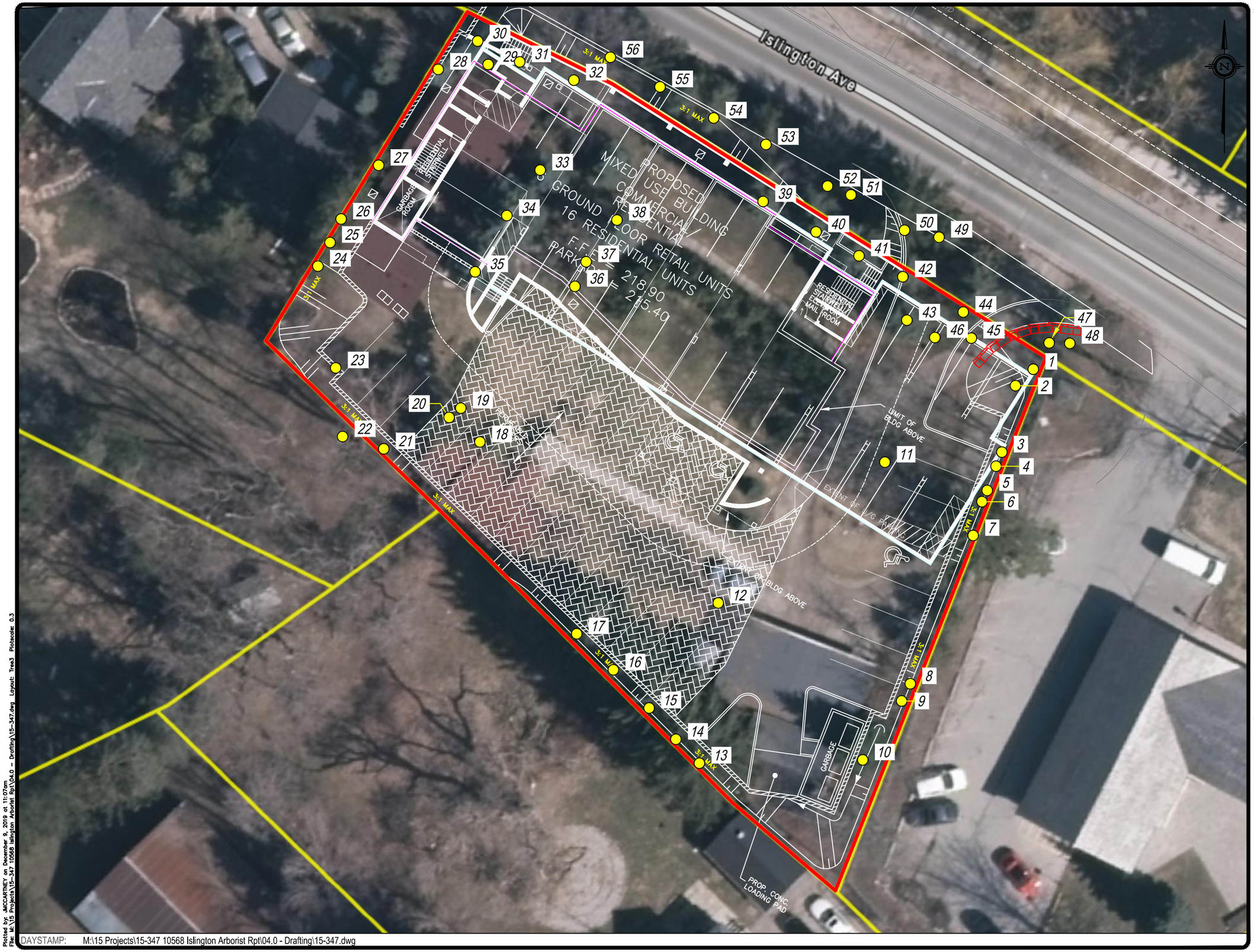

LEGEND:

- Approx. Property Boundary
- Tree Locations

5m 0 10m

HORIZONTAL SCALE 1:300

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Proposed Development Plan

10568 Islington Ave.,
Kleinburg, ON

DATE ISSUED:	December 2015	Figure No. 3
CREATED BY:	JLM	
PROJECT NO.:	15-347	
REFERENCE:	First Base Solutions	

DAYSTAMP: M:\15 Projects\15-347 10568 Islington Arborist Rpt\04.0 - Drafting\15-347.dwg

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File: M:\15 Projects\15-347 10568 Islington Arborist Rpt\04.0 - Drafting\15-347.dwg Layout: Tree3 Plotscale: 0.3

Appendix A: Tree Inventory and Assessment Table

Tree Inventory and Assessment Table

Tree #	Common Name	Scientific Name	DBH (cm)	Replacement Value	Comments	Action
1	Norway Maple	*Acer platanoides*	23	1	Good Overall Health - Invasive Species	Remove
2	Norway Maple	*Acer platanoides*	23	1	Good Overall Health - Invasive Species	Remove
3	Norway Maple	*Acer platanoides*	29	1	Good Overall Health - Invasive Species	Remove
4	Norway Maple	*Acer platanoides*	21	1	Fair Health - Poor Crown Structure - Hazard Tree	Remove
5	Norway Maple	*Acer platanoides*	21	1	Poor Health - Crown Dieback - Hazard Tree	Remove
6	Scot's Pine	*Pinus sylvestris*	38	2	Poor Health - Crown Dieback/Leaning - Hazard Tree	Remove
7	Norway Maple	*Acer platanoides*	47	3	Good Overall Health - Invasive Species	Remove
8	Black Locust	*Robinia pseudoacacia*	20	1	Good Overall Health - Invasive Species	Remove
9	Black Locust	*Robinia pseudoacacia*	14	0	Good Overall Health - Invasive Species	Remove
10	White Spruce	*Picea glauca*	25	1	Good Overall Health	Remove
11	Norway Maple	*Acer platanoides*	70	4	Good Overall Health - Invasive Species	Remove
12	Norway Maple	*Acer platanoides*	34	2	Good Overall Health - Invasive Species	Remove
13	Norway Spruce	*Picea abies*	62	4	Good Overall Health	Remove
14	Norway Spruce	*Picea abies*	42	3	Good Overall Health	Remove
15	Norway Spruce	*Picea abies*	52	4	Good Overall Health	Remove
16	Norway Spruce	*Picea abies*	35	2	Good Overall Health	Remove
17	Norway Spruce	*Picea abies*	42	3	Good Overall Health	Remove
18	Eastern White Cedar	*Thuja occidentalis*	24	1	Good Overall Health	Remove
19	Eastern White Cedar	*Thuja occidentalis*	23	1	Poor Health - Extreme Lean - Hazard Tree	Remove
20	Eastern White Cedar	*Thuja occidentalis*	25	1	Good Overall Health	Remove
21	White Ash	*Fraxinus americana*	18	0	Tree on Property Boundary	Remove
22	Black Locust	*Robinia pseudoacacia*	60	0	Tree on Neighbouring Property - Invasive Species	**Preserve**
23	Black Locust	*Robinia pseudoacacia*	33	2	Fair Health - Invasive Species	Remove
24	Eastern White Cedar	*Thuja occidentalis*	27	1	Good Overall Health	Remove
25	Eastern White Cedar	*Thuja occidentalis*	30	1	Good Overall Health	Remove
26	Eastern White Cedar	*Thuja occidentalis*	32	2	Good Overall Health	Remove
27	Eastern White Cedar	*Thuja occidentalis*	15	0	Poor Health - Poor Crown Structure - Hazard Tree	Remove
28	Colorado Blue Spruce	*Picea pungens*	14	0	Good Overall Health	Remove
29	Colorado Blue Spruce	*Picea pungens*	13	0	Good Overall Health	Remove
30	Colorado Blue Spruce	*Picea pungens*	10	0	Good Overall Health	Remove
31	Colorado Blue Spruce	*Picea pungens*	11	0	Good Overall Health	Remove
32	Sugar Maple	*Acer saccharum*	78	4	Good Overall Health - Large, Very Mature	Remove

Tree #	Common Name	Scientific Name	DBH (cm)	Replacement Value	Comments	Action
33	Colorado Blue Spruce	*Picea pungens*	21	1	Fair Health - Poor Crown Structure - Hazard Tree	Remove
34	Colorado Blue Spruce	*Picea pungens*	34	2	Fair Health - Poor Crown Structure - Hazard Tree	Remove
35	Colorado Blue Spruce	*Picea pungens*	31	2	Good Overall Health	Remove
36	Colorado Blue Spruce	*Picea pungens*	22	1	Fair Health - Poor Crown Structure - Hazard Tree	Remove
37	Colorado Blue Spruce	*Picea pungens*	15	0	Fair Health - Poor Crown Structure - Hazard Tree	Remove
38	Colorado Blue Spruce	*Picea pungens*	20	1	Good Overall Health	Remove
39	Colorado Blue Spruce	*Picea pungens*	39	2	Fair Health - Poor Crown Structure - Hazard Tree	Remove
40	Colorado Blue Spruce	*Picea pungens*	39	2	Fair Health - Poor Structure/Dieback - Hazard Tree	Remove
41	Colorado Blue Spruce	*Picea pungens*	32	2	Fair Health - Poor Structure/Dieback - Hazard Tree	Remove
42	Colorado Blue Spruce	*Picea pungens*	30	1	Fair Health - Poor Structure/Dieback - Hazard Tree	Remove
43	Colorado Blue Spruce	*Picea pungens*	32	2	Fair Health - Poor Structure/Dieback - Hazard Tree	Remove
44	Colorado Blue Spruce	*Picea pungens*	16	0	Fair Health - Poor Structure/Dieback - Hazard Tree	Remove
45	Colorado Blue Spruce	*Picea pungens*	33	2	Fair Health - Poor Structure/Dieback - Hazard Tree	Remove
46	Eastern White Cedar	*Thuja occidentalis*	18	0	Fair Health - Crown Dieback - Hazard Tree	Remove
47	Norway Maple	*Acer platanoides*	28	1	Tree on City Property (Islington Ave.)	Remove
48	Colorado Blue Spruce	*Picea pungens*	28	1	Tree on City Property (Islington Ave.)	Remove
49	White Spruce	*Picea glauca*	24	1	Tree on City Property (Islington Ave.)	Remove
50	Norway Spruce	*Picea abies*	47	3	Tree on City Property (Islington Ave.)	Remove
51	White Spruce	*Picea glauca*	25	1	Tree on City Property (Islington Ave.)	Remove
52	Manitoba Maple	*Acer negundo*	24	1	Tree on City Property (Islington Ave.)	Remove
53	White Spruce	*Picea glauca*	20	1	Tree on City Property (Islington Ave.)	Remove
54	White Spruce	*Picea glauca*	28	1	Tree on City Property (Islington Ave.)	Remove
55	White Spruce	*Picea glauca*	15	0	Tree on City Property (Islington Ave.)	Remove
56	White Spruce	*Picea glauca*	22	1	Tree on City Property (Islington Ave.)	Remove