



Arborist Report

Title: Safeway Expansion – Arlington
Tree Inventory and Assessment

Prepared for: PM Design
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Reviewed by: Paul Hans Thompson, Managing Consultant

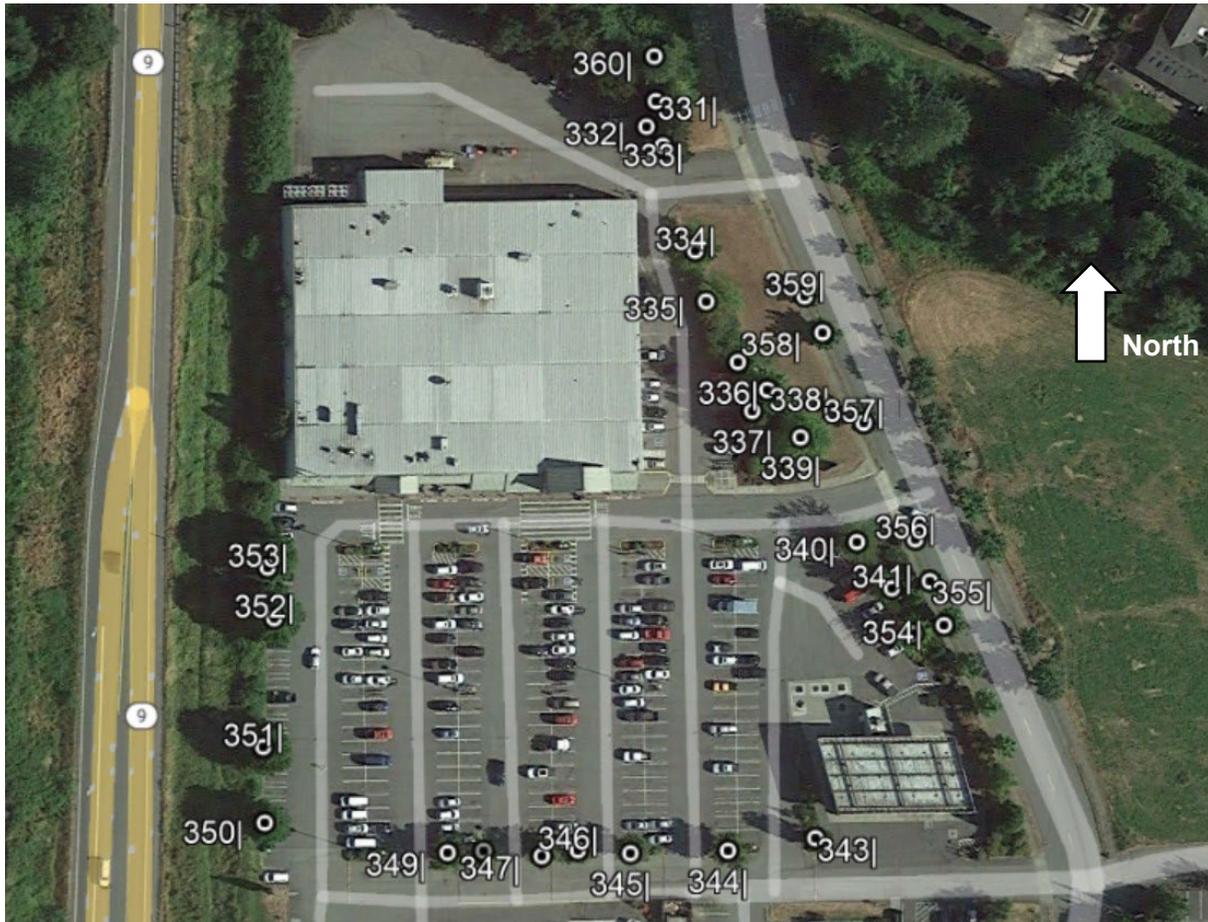
Date: March 8, 2022

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Summary

Thirty (30) trees on the Safeway property and adjacent right of way on Olympic Place in Arlington, Washington were included in an inventory and assessment. All but one of the trees were viable. All the trees had a low risk rating. Six (6) ornamental trees planted in islands within the parking area had roots uplifting the surrounding asphalt. Six (6) young trees in the narrow planting strip between the street and sidewalk are expected to outgrow their space. General tree protection measures are provided.



Map 1. The Safeway on Olympic Place in Arlington with the trees assessed in this report. The numbers correspond to tree identification numbers in this report and the attached Tree Assessment Site Plan. Base map from Google Earth 2022.

Introduction

The Safeway at 20500 Olympic Place in Arlington, Washington is planned to be expanded. The City of Arlington requested an inventory of trees on the property and in the adjacent right of way that could be impacted by the expansion. The project manager, Amanda Martin of PM Design contacted our office in January 2022, to request assistance with a tree inventory and tree protection plan in compliance with Arlington Municipal Code (AMC).

Chapter 20.76 of the code requires no disturbance within the critical root zone (CRZ) of significant trees, where feasible. Significant trees are defined as a deciduous species with a minimum 8-inch trunk diameter or conifer with a minimum 12-inch trunk diameter. New impervious surfaces are not permitted within a 12.5-foot radius of significant trees on private property. Tree protection fencing must be installed prior to the start of construction. Any trees removed for construction must be replaced at a 3:1 ratio.

The purpose of this inventory is to identify the size and species of trees that could be impacted by the expansion project. Tree protection guidelines are also included for the retention of significant trees.

Methods

This preliminary report includes significant trees, and a few smaller trees close to the threshold size. The subject trees were initially identified from a survey by BBA Land Surveying dated December 23, 2021, that was provided by the client. The survey does not include all the trees next to the Safeway building and parking area. I assessed additional trees that were not on the survey but were close to the parking area. Property boundaries were not marked on-site at the time of my site visit. Nor was a plan with the proposed site changes provided by the client at the time of this report.

The 30 trees assessed for this preliminary arborist report were marked with numbered aluminum tags from #331 through 360. Each tree was observed following protocol for an ISA Level 2 Basic Tree Risk Assessment. The assessment involves looking at the trees for structural defects, signs and symptoms of disease or insect activity, and any other indicators related to the likelihood of failure. All sides of the tree are observed from the ground. The site is also assessed for wind exposure, location and type of targets that would be struck by a failed tree or tree part, and the potential consequences of failure. The assigned risk rating is a function of the likelihood of failure, likelihood of striking a target, and the sustained damage or injury from a tree strike.

Trunk diameter was measured at 4.5 feet above grade with diameter tape and dripline radius in each cardinal direction estimated. The structure of the tree was categorized from Poor to Good depending on the form and likelihood of failure. A tree was considered non-viable if it showed symptoms of decline, such as very poor vigor, extensive crown dieback, or signs of advanced decay.

Observations in the field were made February 10, 2022. The time frame for this assessment is five years from the date of the site visit. The approximate locations of assessed trees are

provided in the attached *Tree Assessment Site Plan*. The Site Plan uses the surveyed tree locations provided by the property owner and estimated locations from additional trees not surveyed.

Limits of the Assignment

The tree assessment was performed from the ground for visual conditions. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.

Illustrations, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports nor surveys.

Information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plans or property in question may not arise in the future.

Observations

The property is a commercial property with a single large building and a paved parking area. Trees are on the property perimeter in planting islands within the asphalt parking area or in planting areas along the perimeter (Photo 1 and 2). There is a stand of trees north of the building that was not included in this assessment (Photo 3). Street trees adjacent to the property are in a row along the west side of Olympic Place (Photo 4).

There were 20 significant trees and three smaller conifers assessed on the property. Eight (8) species were represented, including ash (*Fraxinus* species), Austrian pine (*Pinus nigra*), flowering crab apple (*Malus* species), incense cedar (*Calocedrus decurrens*), linden (*Tilia* species), Norway maple (*Acer platanoides*), red maple (*Acer rubrum*), and spruce (*Picea* species).

The trees on the property were all viable, except for tree #335, a red maple with a cavity and decay in its trunk. The flowering crab apple trees #346 through 349 were healthy but their roots were uplifting the asphalt next to their planting islands (Photo 5). Trees #332 and #353 had at least one weakly attached codominant stem with a higher likelihood of failure (Photo 6). All the trees had a low likelihood of causing significant damage or injury. They were a low risk at the time of the site visit.

There were seven deciduous trees assessed in the right of way, which ranged in trunk diameter from 5.4 to 12.2 inches. All were Norway maple, except for tree #360, which was a linden. All the right of way trees were healthy and had a low risk rating. The Norway maple trees #354 through #359 were growing in a narrow 3-foot wide planting strip between the sidewalk and street curb.

A full description of each tree assessed for this report is provided in the attached *Tree Assessment Table*.

Discussion

Twenty-nine (29) of 30 assessed trees were viable and had a low risk rating.

- Tree #335 is expected to eventually succumb to the trunk decay and not survive.
- Weakly attached codominant stems on #332 and 353 can be managed while still retaining the tree.

The most relevant issue with the trees is the limited soil volume and growing space. Roots from the flowering crab apple trees were already uplifting the surrounding asphalt. Their roots would need to be pruned to repave at the same grade. There are some design alternatives, such as enlarging the planting areas or raising the grade to go over the existing roots. A similar issue will eventually occur with the Norway maples in the narrow planting strip next to the sidewalk. Maple trees can grow relatively large with large surface roots that can uplift concrete sidewalks.

I was not able to evaluate the potential impacts of the proposed expansion on the trees in this report. I will be able to provide specific tree protection measures for individual trees after receiving a site plan with the clearing and grading limits. General tree protection guidelines are provided in the recommendations below.

Recommendations

- Retain 29 of 30 of the assessed trees.
- Remove non-viable tree #335 and replace it with one new tree. The City code requires replacing healthy and lower risk trees at a ratio of 3:1. Given that this tree is not viable, it has a 9.2-inch trunk diameter, and its removal is not related to construction, replacing it with a single tree is expected to achieve its original ecological function.

General Tree Protection Guidelines:

- Erect tree protection fencing at the edge of the dripline for trees near new construction, heavy machinery access, and any work areas. If no changes will be made to the paved hardscapes within the CRZ of retained trees, tree protection fencing can be at the edge of the planting area. Keep all materials, vehicles, and people out of the protection areas.
- The CRZ is equal to one foot in radius for every inch in trunk diameter.
- Prune any overextended branches hanging over work areas to avoid accidentally breaking branches. Prune less than 25 percent of the crown in a year. All pruning should be done by an ISA Certified Arborist® following the most recent ANSI-A300 standards for pruning.
- Place a 3-inch layer of wood chip mulch over the planting area protected by fencing.
- Water all protected trees from May through September during construction. Saturate the soil to a depth of 12 inches at two-week intervals with a slow-release method, such as soaker hoses.

If you have any questions about my observations or recommendations, please contact me:

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Miles Becker

Photographs



Photo 1. A group of trees (#334 through 339) on the east side of the Safeway parking area.



Photo 2. Four trees (#350 through 353) on the west side of the Safeway parking area.



Photo 3. A stand of trees north of the Safeway building that were not assessed in this report.



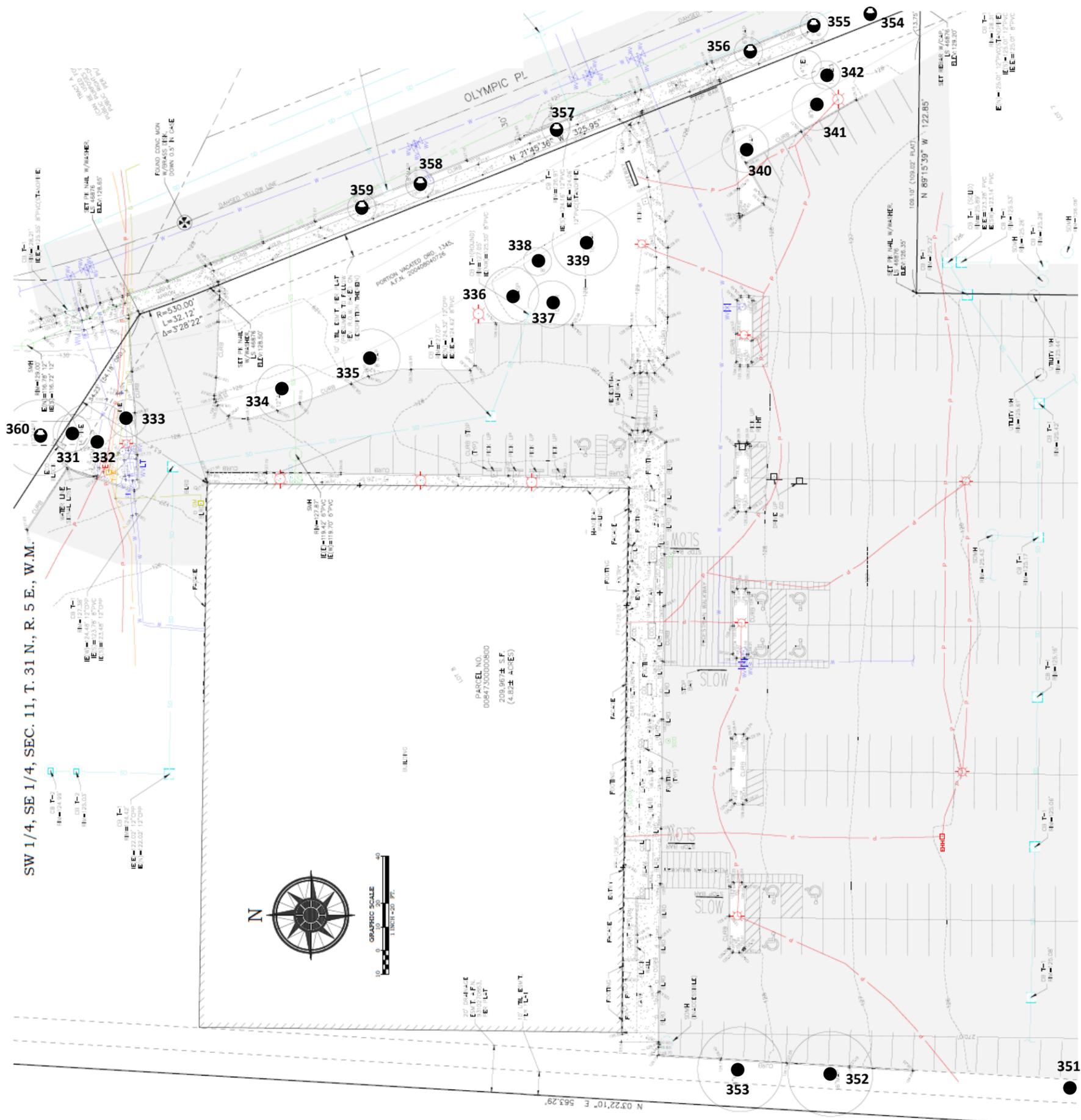
Photo 4. A row of street trees in a narrow planting strip next to Olympic Place.



Photo 5. A few of the flowering crab apple trees in planting islands at the south end of the Safeway parking area.

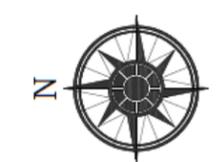


Photo 6. The trunk of tree #353 has two codominant stems with a weak attachment.



SW 1/4, SE 1/4, SEC 11, T. 31 N., R. 5 E., W.M.

PARCEL NO.
008473000000000
200.987 ± SF
(4.02 ± AC(ES))



GRAPHIC SCALE
1 INCH = 20 FEET

Tree #	DBH (in)	Species
331	15.1	Austrian pine
332	16.8	Linden
333	14.1	Austrian pine
334	12.4	Norway maple
335	9.2	Red maple
336	12.9	Red maple
337	10.6	Sitka spruce
338	8.5	Spruce
339	16.8	Red maple
340	10.0	Red maple
341	8.0	Red maple
342	9.3	Incense cedar
343	14.4	Incense cedar
344	12.6	Flowering crab apple
345	9.6	Flowering crab apple
346	9.0	Flowering crab apple
347	10.5	Flowering crab apple
348	10.9	Flowering crab apple
349	13.7	Flowering crab apple
350	14.8	Ash
351	13.2	Ash
352	18.8	Ash
353	18.1	Ash
354	8.5	Norway maple
355	7.1	Norway maple
356	5.4	Norway maple
357	7.6	Norway maple
358	8.2	Norway maple
359	6.6	Norway maple
360	12.2	Linden

ARBORIST MAP SYMBOL KEY:

- 255 TREE NUMBER
- ON-SITE TREE
- OFF-SITE/RIGHT OF WAY TREE

Base Image Source: BBA Land Surveying



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Tree Assessment Site Plan
Safeway Expansion—Arlington
 20500 Olympic Place, Arlington, WA

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 These documents have been prepared specifically for the above-named project. They are not suitable for use on other projects, or in other locations, and/or without the approval and participation of the Bartlett Tree Expert Company.





Urban Forestry Services

BARTLETT CONSULTING

Divisions of The F.A. Bartlett Tree Expert Company

TREE ASSESSMENT TABLE

Safeway Expansion - 20500 Olympic Place

Arlington, WA

Prepared for PM Design

March 7, 2022

Tree #	DBH (in)	Species	Status	Location	Dripline Radius (ft)	Structure
331	15.1	Austrian pine	Significant	Property	13	Fair
332	16.8	Linden	Significant	Property	16	Fair to Good
333	14.1	Austrian pine	Significant	Property	11	Fair
334	12.4	Norway maple	Significant	Property	17	Fair to Good
335	9.2	Red maple	Significant	Property	14	Poor to Fair
336	12.9	Red maple	Significant	Property	13	Fair to Good
337	10.6	Sitka spruce	Small	Property	12	Good
338	8.5	Spruce	Small	Property	9	Good
339	16.8	Red maple	Significant	Property	21	Fair to Good
340	10.0	Red maple	Significant	Property	12	Fair to Good
341	8.0	Red maple	Significant	Property	12	Good
342	9.3	Incense cedar	Small	Property	6	Fair
343	14.4	Incense cedar	Significant	Property	6	Fair
344	12.6	Flowering crab apple	Significant	Property	12	Fair to Good
345	9.6	Flowering crab apple	Significant	Property	10	Good
346	9.0	Flowering crab apple	Significant	Property	8	Good
347	10.5	Flowering crab apple	Significant	Property	10	Good
348	10.9	Flowering crab apple	Significant	Property	11	Good
349	13.7	Flowering crab apple	Significant	Property	12	Good
350	14.8	Ash	Significant	Property	14	Fair to Good
351	13.2	Ash	Significant	Property	14	Good
352	18.8	Ash	Significant	Property	14	Fair to Good
353	18.1	Ash	Significant	Property	15	Fair
354	8.5	Norway maple	ROW	ROW	10	Fair to Good
355	7.1	Norway maple	ROW	ROW	8	Fair to Good
356	5.4	Norway maple	ROW	ROW	8	Good
357	7.6	Norway maple	ROW	ROW	10	Fair to Good
358	8.2	Norway maple	ROW	ROW	11	Fair to Good
359	6.6	Norway maple	ROW	ROW	10	Fair to Good
360	12.2	Linden	ROW	ROW	14	Good



Tree Risk Assessment Level Descriptions

The tree risk assessment process is based on factors present at the time of assessment. Because trees are living, growing things that change in size and condition over time, the tree assessment process must also recognize and anticipate where and when future assessments should be performed. The Tree Risk Assessment Qualification (TRAQ) training and methodology, developed and administered by the International Society of Arboriculture is the best available methodology for tree risk assessment at this time. There are three levels of assessment that may be considered and employed according to the expectations of the owner or manager, conditions of the site and of the trees involved:

Level 1 Limited Visual Assessment: Includes a broad overview of an individual tree or group of trees near specified targets, conducted to identify obvious defects or other conditions of concern. A limited visual assessment typically focuses on identifying trees with imminent and/or probable likelihood of failure. Level 1 assessments do not always meet the criteria for a "risk assessment" if they do not include documented analysis and evaluation of individual trees. This level is typically used for large populations of trees as a means to quickly identify trees with imminent and/or probable likelihood of failure, at a specified schedule and/or immediately after storms.

Level 1 assessments may be done as walk-by, drive-by or aerial patrols as requested by the tree owner or manager. They may not provide enough information to develop risk mitigation recommendations. They can help identify specific areas and/or trees for further inspection at Level 2 or 3. Trees found to require a Level 2 Basic Assessment are assessed, mapped and documented at the higher level at this time. Trees determined to need a Level 3 Advanced Tree Assessment are documented and recommended for additional testing and analysis. The owner is notified with options discussed.

Level 2 Basic Assessment: This is a detailed visual inspection of a tree and its surrounding site, and a synthesis of the information collected. It requires that a tree risk assessor walk completely around the tree, looking at the site, buttress roots, trunk, and branches. This basic assessment may include the use of simple tools to gain additional information about the tree or defects. Our Level 2 Basic Assessment Trees are all typically tagged, mapped and information gathered and retained for each tree. Risk mitigation recommendations may be derived from this level of inspection. Defects found in a Level 2 Basic Tree Assessment may require a Level 3 assessment for further testing and analysis. The owner is notified with options discussed.

Level 3 Advanced Assessment: Advanced assessments are performed to provide more highly detailed information about specific tree components, defects, targets or site conditions. An advanced assessment is performed in conjunction with or after a Level 2 Basic Assessment if the assessor determines the need for (requires) additional information. This level is particularly useful where there are concerns about trees that may otherwise be of high value, or to obtain better information on how serious or extensive a particular defect is. The Level 3 Advanced Tree assessment may include but not be limited to a root crown inspection with air spade, Resistograph or Tomograph use to determine sound wood or an aerial crown inspection.

The preliminary Level 1 Limited Visual Assessment if requested would help determine where field assessments at Level 2 and Level 3 will be needed.

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