



LAYTON TREE CONSULTING, LLC

ARBORIST REPORT

The Reserve
Gig Harbor, WA
Tax Parcels 0222323134 and 0222323135



Report Prepared by:
Bob Layton
Registered Consulting Arborist #670
Certified Arborist #PN-2714A

August 23, 2022
Updated September 27, 2022

It's all about trees.....

Table of Contents

| | |
|-------------------------------------|---|
| Assignment..... | 3 |
| Description..... | 3 |
| Methodology..... | 3 |
| Judging Condition..... | 4 |
| Judging Retention Suitability | 4 |
| Observations | 4 |
| Discussion..... | 5 |
| Tree Protection Measures | 6 |
| Tree Retention Calculation | 6 |
| Arborist Disclosure Statement..... | 8 |

Attachments

Photos, pages 9 - 14

Tree Summary Tables

Tree Locator/Conditions Maps

 West Map

 East Map

Assignment

Layton Tree Consulting, LLC was contacted by CPH Consultants, and was asked to compile an Arborist Report for the proposed 'The Reserve' Subdivision in Gig Harbor, which encompasses tax parcels 0222323134 and 0222323135. My assignment is to inventory and assess the significant trees within the proposed 25-foot perimeter landscape buffers and trees within a proximity of the proposed clearing limits to the east. The purpose of the assessment is to evaluate tree retention feasibility.

The assignment also includes providing an accurate account of all regulated trees on the subject property to determine compliance with Chapter 17.78 of the Gig Harbor Municipal Code.

Date of Field Examination: August 19, 2022

Description

The site is vacant and basically remnant second-growth forest. It appears to have been logged over roughly 25 to 30 years ago where the highest value trees were harvested. There is remnant scattered Pacific madrone, bigleaf maple, red alder, Western hemlock, Western red cedar and Douglas fir scattered across the property. Natural regeneration since the last timber harvest has been mainly red alder and bigleaf maple.

All of the significant trees within the 25-foot landscape buffer and also adjacent to the east clearing limits were assessed. A 'significant' tree is defined as a tree having a trunk diameter of at least six inches as measured 54 inches above grade, excluding red alder and black cottonwood. A dead tree or a tree that has been identified by a qualified arborist as substantially diseased or damaged shall not be considered a significant tree.

A total of 174 trees were assessed. Trees have been identified with a numbered aluminum tag attached to the lower trunk by the surveying crew. These same tag numbers were used for this report and correspond with the attached tree summary tables and maps. Several of the surveyed trees did not have a tag. These were assigned a number and tagged.

Methodology

Each tree in this report was visited. Tree diameters were measured by tape. The tree heights were measured using a Spiegel Relaskop. Each tree was visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown or canopy of the tree is examined for current vigor/health by examining the foliage for appropriate color and density, the vegetative buds for color and size, and the branches for structural form and annual shoot growth; and the overall presence of limb dieback and/or any disease issues.
- The trunk or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insect pests, bleeding or exudation of sap, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects can include but are not limited to excessive or unnatural leans, crooks, forks with V-shaped crotches, multiple attachments.

- The root collar and exposed surface roots are inspected for the presence of decay, insect damage, as well as if they have been injured or wounded, undermined or exposed, or the original grade has been altered.

Based on these factors a determination of condition is made.

Judging Condition

The three condition categories are described as follows:

Good – free of significant structural defects, no disease concerns, minor pest issues, no significant root issues, good structure/form with uniform crown or canopy, foliage of normal color and density, average or normal vigor, will be wind firm if isolated or left as part of a grouping or grove of trees, suitable for its location

Fair – minor to moderate structural defects not expected to contribute to a failure in near future, no disease concerns, moderate pest issues, no significant root issues, asymmetric or unbalanced crown or canopy, average or normal vigor, foliage of normal color, moderate foliage density, will be wind firm if left as part of a grouping or grove of trees, cannot be isolated, suitable for its location

Poor – major structural defects expected to cause fail in near future, disease or significant pest concerns, decline due to old age, significant root issues, asymmetric or unbalanced crown or canopy, sparse or abnormally small foliage, poor vigor, not suitable for its location

Judging Retention Suitability

Not all trees necessarily warrant retention. The three retention suitability categories as described in ANSI A300 Part 5 (Standard Practices for the Management of Trees During Site Planning, Site Development and Construction) are as follows:

Good – trees are in good health condition and structural stability and have the potential for longevity at the site

Fair – trees are in fair health condition and/or have structural defects that can be mitigated with treatment. These trees may require more intense management and monitoring, and may have shorter life-spans than those in the “good” category.

Poor – trees are in poor health condition and have significant defects in structure that cannot be mitigated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess characteristics that are incompatible or undesirable in landscape settings or be unsuited for the intended use of the site.

Observations

The property is undeveloped and comprised of second-growth native forest. Tree species composition is a mix of native coniferous and deciduous species. Oldest trees are estimated at 70 to 80 years of age. Species composition is comprised of Douglas fir, red alder, bigleaf maple, Pacific madrone, Western hemlock and Western red cedar. The property was logged over roughly 25 to 30-years ago. Natural

regeneration since the last timber harvest has been mainly red alder and bigleaf maple. Understory vegetation is comprised primarily of evergreen huckleberry, salmonberry, swordfern, Indian plum and nettles. There are minor components of invasive species of English ivy, clematis and snow-on-the-mountain. These are found on the north and south perimeters where neighbors have dumped yard waste onto the property in the past.

Trees have developed typical form for the species and growing environment. Several of the trees assessed are dead, substantially diseased or in vast decline. These are considered non-significant.

The red alder inside the perimeter buffer is mostly over-mature. These are in poor condition due to age and inevitable decline. Many have dead and/or broken tops and major dieback of upper crown components.

The Douglas fir is in fair to good condition for the most part. There is a root disease pocket in the northwest corner of the site, outside of the landscape buffer. Laminated root rot is suspected. Some trees have recently died in this area and others have been blown down in the past. The landscape buffer does not appear to be impacted at this time.

The bigleaf maple ranges in condition. Age class varies from older specimens to younger naturally regenerated specimens. These have developed typical defects for the species like cavities from large branch/stem failures and forked tops. Overall vigor is fairly good.

The western red cedar is in good condition for the most part. Vigor is fairly good despite past summer drought conditions over the last several years.

The Pacific madrone is in fair to poor condition. Several have died and failed within the last decade or so. Many are significantly impacted by madrone canker disease and are in gradual decline.

Discussion

Of the 174 significant trees assessed, 149 exist within the 25-foot landscape buffer. 99 are recommended for retention. These can be expected to remain viable for the foreseeable future. 29 are considered non-significant due to mortality, disease or a declining condition. Another 21 are within a proximity of the landscape buffer edge and will be compromised by future site work. The attached tree summary tables provide the retention feasibility rating and recommendations for all assessed trees. The attached maps show the condition rating of assessed trees at the site.

No significant impacts are expected for neighboring trees and/or retained trees within the proposed perimeter landscape buffers and open-space tract to the east. The clearing of trees from the property is not expected to create any hazardous tree conditions. Some trees within the open-space tract may be exposed to unfamiliar wind-loading which could cause failure. Trees would be expected to fall downhill to the east away from the proposed development. A re-assessment of tree condition and risk for retained trees in the landscape buffer, particularly on the north side of the site, is recommended after site clearing.

Per GHMC 17.78.092, areas of native vegetation which are designated as landscape or buffer areas shall be subject to a 10-foot wide no construction zone and shall be protected by a barrier as described within the code. The final site plan has been reviewed. The proposed impacts within this 10-foot protection zone are not expected to have adverse impacts on tree health or stability so long as work is carried out diligently and the tree protection measures as outlined below and under the municipal code are adhered to. The tree protection barrier shall be set in place prior to any site grading. The project arborist should inspect the protection barrier location prior to any site work to ensure trees proposed for retention have the adequate space to remain viable.

Tree Protection Measures

The following guidelines are recommended to ensure that the designated space set aside for the retained trees is protected and construction impacts are kept to a minimum. Standards have been set forth under GHMC 17.78.092 Protection of significant trees and existing native vegetation. Please review these standards prior to any development activity.

- A tree protection barrier shall be erected prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid unnecessary root damage and compaction of soils within tree protection zones.
- No construction activities shall take place within the dripline of a tree to be retained without extra precautions as recommended by a qualified arborist.
- City-authorized or approved excavation within the drip-lines of retained trees shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts.
- To establish sub grade for foundations, curbs and pavement sections near the trees, soil should be removed parallel to the roots or away from tree trunks and not at 90-degree angles to avoid breaking and tearing roots that lead back to the trunk within the dripline. Any roots damaged during these excavations should be exposed to sound tissue and cut cleanly with a saw. Cutting tools should be sterilized with alcohol.
- Areas excavated within the dripline of retained trees shall be thoroughly irrigated weekly during dry periods.
- Preparations for final landscaping shall be accomplished by hand within the driplines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times.

Tree Retention Calculation

A minimum retention of 25% of the significant trees is required.

Based on the provided survey, there is a total of roughly 663 significant trees within the property boundaries. A minimum of 166 trees are required for retention. 324 trees to be retained exist within the critical area/open space tract on the east side of the property. An additional 99 significant trees will

be retained within the landscape buffers and another 25 trees near the proposed eastern clearing limits that have been assessed as part of this report will be retained. This results in 67.5% retention of the significant trees on the property.

The total diameter (DBH) of trees to be removed from within the landscape buffer is 250-inches, requiring replacement of 375 diameter inches (250 x 1.5). Normally, this would require the planting of 188 new 2-inch diameter trees within the landscape buffer. Unfortunately, the landscape buffer areas are not large enough to support this number of new trees. There is already significant tree cover within most these areas. Trees would quickly become overstocked and develop poor form and structure under heavy competition for sunlight and space.

An Alternate Landscape Option is being proposed to plant 97 native tree seedlings (+/- 3-foot height) and native shrubs in the available openings within the buffer. It is my understanding this will result in a tree density within the buffer of 1 per 150 sf which exceeds the code required density of 1 per 200 sf. This figure also does not take into account all of the non-significant (< 6-inches) trees that will remain or be protected within the landscape buffer.

In my opinion, the planting of seedlings is desirable over the planting of 2-inch diameter trees. Seedlings are much quicker to establish new roots and generate healthy root systems that can withstand drought for longer periods of time. Given our current trend of hotter and drier summers, seedlings are preferable over larger stock. Larger planting stock takes longer to become established and will require supplemental irrigation for a longer period of time if they are to survive. Odds are that after construction is complete, these new trees will no longer be watered and many will perish. I support the plantings of tree seedlings and native shrubs. For this site, species that are not highly susceptible to Laminated root rot are recommended. These might include shore pine, Western red cedar, coast redwood, giant sequoia, Alaska cedar, incense cedar, bigleaf maple and vine maple.

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training and experience to examine and assess trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risks associated with living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that grow, respond to their environment, mature, decline and sometimes fail in ways we do not fully understand. Conditions are often hidden within trees and below ground.

Arborists cannot guarantee that a tree will be healthy and/or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed. Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Photo Documentation

Southeast corner of property



West perimeter of property



Northwest corner of property



Root disease area in northwest corner of site



Upper crowns of trees pictured above



North perimeter



Northeast portion of buildable area above slope break



Trees Y and Z near slope break in northeast portion of property



Looking south to southeast portion of buildable area



Looking west down south perimeter, Tree #164 in center



Southwest portion of property



Southwest portion of property





Layton Tree Consulting LLC

For: CPH Consultants
Site: The Reserve - Gig Harbor

Tree Summary Table

Date: 8/19/2022

| Tree/ Tag # | Species | DBH (inches) | Height (feet) | Avg. Dripline Radius (feet) | Condition | Retention Suitability | Comments | Recommendation |
|----------------|-------------------|-----------------|------------------|--------------------------------------|-----------|--------------------------|--|----------------|
| | | | | N | | | | |
| 101 | Douglas fir | 19 | 85 | 12 | Good | CBC | good form and vigor | Remove |
| 102 | Pacific madrone | 7 | 20 | X | Dead | Poor | older dead | Remove |
| 103 | Pacific madrone | 15 | 45 | X | Poor | Poor | diseased, major die back, lean to road | Remove |
| 104 | Western hemlock | 11 | 45 | X | Dead | Poor | older dead | Remove |
| 105 | Douglas fir | 17 | 70 | 10 | Good | CBC | good form, decent vigor | Remove |
| 110 | Douglas fir | 9 | 55 | 8 | Fair | Fair | small live crown | Remove |
| 106 | Pacific madrone | 13 | 30 | 10 | Fair | CBC | poor form, major lean over roadway | Remove |
| 107 | Pacific madrone | 14 | 50 | X | Poor | Poor | large basal canker, major lean to roadway | Remove |
| 205 | Douglas fir | 12 | 45 | X | Poor | Poor | broken top, very small live crown | Remove |
| 206 | Douglas fir | 22 | 80 | 12 | Fair-Good | Good | minor crook, decent vigor | Retain |
| 207 | Douglas fir | 14 | 75 | 8 | Fair-Good | Fair | small live crown | Retain |
| 209 | Western red cedar | 16 | 45 | 14 | Good | Good | good form and vigor | Retain |
| 210 | Douglas fir | 6 | 35 | 4 | Poor | Poor | poor taper, weak structure | Remove |
| 211 | Pacific madrone | 20 | 65 | 10 | Fair | CBC | major lean south | Remove |
| 212 | Douglas fir | 13 | 55 | 10 | Fair-Good | Good | decent form and vigor | Retain |
| 213 | Pacific madrone | 30 | 90 | 16 | Fair-Good | CBC | decent form and vigor, cable embedded in trunk | Remove |
| 214 | Pacific madrone | 11 | 45 | 10 | Fair | CBC | major lean over roadway | Remove |
| 215 | Douglas fir | 19 | 75 | 12 | Fair-Good | CBC | old broken top | Remove |
| 216 | Douglas fir | 8 | 50 | 8 | Fair | CBC | poor stem taper | Remove |
| 217 | Douglas fir | 10 | 40 | 10 | Fair-Good | CBC | unusual trunk development, good vigor | Remove |
| 218 | Pacific dogwood | 8 | 28 | 10 | Fair | CBC | asymmetric canopy, lean to roadway | Remove |
| 219 | Pacific madrone | 26 | 90 | 18 | Fair | Fair | trunk forks at 8 feet, smaller north stem dead | Retain |
| 220 | Douglas fir | 20 | 80 | 14 | Good | Good | good form and vigor | Retain |
| 221 | Pacific dogwood | 12,5 | 45 | 12 | Fair-Good | Good | mild anthracnose | Retain |
| 222 | Pacific madrone | 10 | 50 | X | Poor | Poor | dead top, major decline | Remove |
| 223 | Douglas fir | 8 | 45 | 6 | Fair | Fair | crooked top, small live crown | Retain |
| 224 | Western red cedar | 8 | 20 | 12 | Good | Good | good form and vigor | Retain |
| 225 | Douglas fir | 11 | 65 | 8 | Fair | Fair | crooked top, small live crown | Retain |
| 226 | Douglas fir | 16 | 75 | 10 | Good | Good | good form and vigor | Retain |
| 227 | Douglas fir | 20 | 85 | 12 | Fair-Good | Good | decent form and vigor | Retain |
| 228 | red alder | 8 | 40 | X | Poor | Poor | poor form, major lean over roadway | Remove |
| 229 | Douglas fir | 15 | 60 | 8 | Fair | Good | decent form and vigor | Retain |
| 230 | Douglas fir | 13 | 60 | 8 | Fair | Fair | leans NE, decent vigor | Retain |
| 231 | Western red cedar | 11 | 40 | 12 | Good | Good | good form and vigor | Retain |
| 232 | Douglas fir | 13 | 55 | 8 | Fair | Good | old broken top | Retain |
| 233 | Western hemlock | 13 | 45 | 12 | Fair | Fair | old broken top, decent vigor | Retain |
| 234 | Douglas fir | 18 | 90 | 12 | Fair-Good | Good | decent form and vigor | Retain |
| 235 | Douglas fir | 20 | 85 | 12 | Good | Good | recent cambial rupture | Retain |
| 236 | Douglas fir | 11 | 40 | 10 | Good | Good | good form and vigor | Retain |
| 237 | Douglas fir | 14 | 80 | 8 | Fair | Fair | sparse foliage, lacking vigor | Remove |
| 238 | Western hemlock | 15 | 75 | 12 | Fair | Fair | decent form and vigor | Retain |
| 239 | Pacific madrone | 8 | 45 | X | Dead | Poor | older dead | Remove |
| 240 | bingleaf maple | 21 | 75 | 18 | Good | Good | good form and vigor | Retain |
| A | Douglas fir | 7 | 45 | X | Poor | Poor | suppressed by maple, in decline | Remove |
| 242 | Douglas fir | 32 | 90 | 16 | Fair-Good | CBC | top foliage somewhat sparse | Remove |
| 243 | Pacific madrone | 18 | 55 | 12 | Fair-Good | Fair | significant lean north | Retain |
| 241 | Pacific madrone | 18,7 | 70 | 12 | Fair | Fair | major lean south | Retain |
| 244 | Douglas fir | 19 | 55 | 12 | Good | Good | old broken top, good vigor | Retain |
| 248 | Douglas fir | 15 | 65 | 10 | Good | CBC | decent form and vigor | Remove |
| 249 | Douglas fir | 17 | 75 | 10 | Good | CBC | good form and vigor | Remove |
| 250 | Douglas fir | 16 | 70 | 8 | Good | CBC | decent form and vigor | Remove |
| 247 | Douglas fir | 23 | 90 | 12 | Good | Good | good form and vigor | Retain |
| 252 | Douglas fir | 11 | 50 | 4 | Fair-Poor | Poor | old broken top, small live crown | Remove |
| 253 | Douglas fir | 14 | 60 | 6 | Fair | Fair | somewhat suppressed | Retain |



Layton Tree Consulting LLC

For: CPH Consultants
Site: The Reserve - Gig Harbor

Tree Summary Table

Date: 8/19/2022

| Tree/ Tag # | Species | DBH (inches) | Height (feet) | Avg. Dripline Radius (feet) | Condition | Retention Suitability | Comments | Recommendation |
|----------------|-------------------|-----------------|------------------|--------------------------------------|-----------|--------------------------|---|----------------|
| N | | | | | | | | |
| 255 | Douglas fir | 23 | 95 | 12 | Good | Good | good form and vigor | Retain |
| 254 | Douglas fir | 19 | 70 | 8 | Good | Good | good form and vigor | Retain |
| B | Douglas fir | 6 | 30 | 4 | Fair-Poor | Poor | suppressed, small live crown | Remove |
| 256 | Douglas fir | 14 | 55 | 6 | Fair | Fair | somewhat suppressed | Retain |
| 259 | Douglas fir | 7 | 45 | X | Poor | Poor | bent over | Remove |
| 260 | Douglas fir | 26 | 90 | 12 | Good | Good | near potential root rot pocket | Retain |
| 262 | Douglas fir | 11 | 50 | 6 | Fair | CBC | minor broken top, decent vigor | Remove |
| 263 | Western red cedar | 9 | 35 | 12 | Good | CBC | young, good vigor | Remove |
| 264 | Douglas fir | 14 | 65 | 8 | Fair-Good | Good | decent form and vigor | Retain |
| 265 | Douglas fir | 27 | 80 | 10 | Good | Good | good form and vigor | Retain |
| 266 | Douglas fir | 19 | 70 | 10 | Fair-Good | Good | decent form and vigor | Retain |
| 267 | Douglas fir | 18 | 70 | X | Poor | Poor | very sparse foliage, in decline | Remove |
| C | Douglas fir | 8 | 35 | 8 | Fair | Good | decent form and vigor | Retain |
| 268 | Douglas fir | 23 | 85 | 12 | Good | Good | good form and vigor | Retain |
| 269 | Douglas fir | 13 | 40 | 6 | Fair | Fair | trunk covered in ivy, cut large vine | Retain |
| 270 | Western red cedar | 23 | 70 | 14 | Good | Good | good form and vigor | Retain |
| 271 | Western red cedar | 12 | 35 | 10 | Fair | Fair | poor form, partially uprooted | Retain |
| D | Western red cedar | 7 | 35 | 8 | Good | CBC | young, good vigor | Remove |
| E | Western red cedar | 17 | 55 | 14 | Good | Good | good form and vigor | Retain |
| F | Douglas fir | 8 | 50 | 6 | Fair | Fair | decent form and vigor | Retain |
| G | bigleaf maple | 8 | 30 | 10 | Fair-Good | Good | old broken top, good vigor | Retain |
| H | Douglas fir | 23 | 90 | 14 | Fair-Good | Good | decent form and vigor | Retain |
| I | Douglas fir | 15 | 75 | 10 | Fair-Good | Good | decent form and vigor | Retain |
| J | bigleaf maple | 16 | 50 | 14 | Fair-Good | Good | asymmetric canopy, lean to south | Retain |
| K | red alder | 12 | 50 | 12 | Fair | Fair | decent form and vigor | Retain |
| 287 | Douglas fir | 17 | 65 | 10 | Fair-Good | Good | decent form and vigor | Retain |
| 289 | Pacific madrone | 14 | 65 | 8 | Fair | Fair | major lean west, decent vigor | Retain |
| 290 | Pacific madrone | 16 | 75 | 10 | Fair-Good | Fair | decent form and vigor | Retain |
| L | red alder | 13 | 70 | X | Poor | Poor | basal decay, leans west | Remove |
| M | Western hemlock | 17 | 65 | 10 | Fair | Fair | decent form and vigor | Retain |
| 296 | red alder | 18,17 | 70 | 16 | Fair-Poor | Poor | mature, incipient decline | Remove |
| N | bigleaf maple | 33 | 90 | 20 | Good | Good | sound, good vigor | Retain |
| 298 | Western hemlock | 20 | 65 | 14 | Fair | Fair | large frost seam, suspect moderate decay | Retain |
| O | red alder | 15 | 80 | 12 | Fair-Poor | Poor | mature, incipient decline | Remove |
| P | Western hemlock | 29 | 90 | 14 | Good | Good | sound, good vigor | Retain |
| Q | red alder | 22 | 55 | 14 | Fair-Poor | Poor | broken top, mature, incipient decline | Remove |
| R | bigleaf maple | 14 | 50 | 18 | Good | Good | good form and vigor | Retain |
| S | bigleaf maple | 9 | 30 | 12 | Fair | Fair | old broken top, good vigor | Remove |
| 188 | red alder | 11 | 60 | X | Poor | Poor | dying top, in decline | Remove |
| 190 | bigleaf maple | 29 | 90 | 24 | Good | Good | good form and vigor | Retain |
| 191 | Western red cedar | 7 | 20 | 8 | Fair-Poor | Fair | poor form, suppressed | Retain |
| T | Western red cedar | 26 | 80 | 14 | Fair | Fair | top foliage somewhat sparse | Retain |
| U | Western red cedar | 11 | 45 | 10 | Fair | Fair | forked top, weak structure | Retain |
| V | Western red cedar | 27 | 85 | 12 | Fair | Fair | moderate decay column, sparse top foliage | Retain |
| W | bigleaf maple | 12 | 60 | 14 | Fair-Good | Good | old broken top, good vigor | Retain |
| X | Western red cedar | 10 | 30 | 10 | Fair | Good | old broken top, decent vigor | Retain |
| Y | bigleaf maple | 24 | 90 | 18 | Good | Good | sound, good vigor | Retain |
| Z | bigleaf maple | 22 | 85 | 16 | Good | Good | asymmetric canopy south, good vigor | Retain |
| AA | Western red cedar | 11 | 35 | 10 | Good | Good | somewhat suppressed | Retain |
| AB | Western red cedar | 8 | 35 | 10 | Good | Good | somewhat suppressed | Retain |
| AC | Western hemlock | 16 | 65 | 10 | Fair | Fair | slight lean downhill, decent vigor | Retain |
| AD | Western red cedar | 8 | 30 | 12 | Good | Good | young, good vigor | Retain |
| AE | Western red cedar | 20 | 70 | 12 | Fair-Good | Good | subdominant fork, good vigor | Retain |
| AF | bigleaf maple | 17 | 80 | 16 | Good | Good | decent form and vigor | Retain |



Layton Tree Consulting LLC

For: CPH Consultants
Site: The Reserve - Gig Harbor

Tree Summary Table

Date: 8/19/2022

| Tree/ Tag # | Species | DBH (inches) | Height (feet) | Avg. Dripline Radius (feet) | Condition | Retention Suitability | Comments | Recommendation |
|----------------|-------------------|-----------------|------------------|--------------------------------------|-----------|--------------------------|--|----------------|
| AG | Western red cedar | 13 | 40 | 10 | Fair-Good | Good | moderate trunk sweep, good vigor | Retain |
| AH | Western hemlock | 12 | 35 | X | Poor | Poor | very sparse foliage, in decline | Remove |
| AI | bigleaf maple | 31 | 100 | 20 | Good | Good | subdominant fork, good vigor, sound | Retain |
| AJ | bigleaf maple | 9 | 45 | 10 | Fair-Good | Good | asymmetric canopy west, minor forked top | Retain |
| AK | bigleaf maple | 17 | 80 | 16 | Fair-Good | Good | decent form and vigor | Retain |
| AL | Douglas fir | 32 | 110 | 14 | Fair-Good | Good | sound, old broken top | Retain |
| AM | bigleaf maple | 11 | 55 | 10 | Fair | Fair | foliage somewhat sparse, small | Retain |
| AN | bigleaf maple | 15 | 50 | 12 | Fair | Fair | forked trunk, asymmetric canopy south | Retain |
| AO | bigleaf maple | 15 | 65 | 12 | Fair | Fair | forked top, ivy on trunk | Retain |
| 166 | Douglas fir | 33 | 120 | 16 | Good | CBC | sound, good vigor | Remove |
| AP | bigleaf maple | 6 | 45 | X | Poor | Poor | very poor stem taper, weak structure | Remove |
| 165 | bigleaf maple | 6 | 45 | X | Poor | Poor | very poor stem taper, weak structure | Remove |
| 164 | Douglas fir | 22 | 25 | X | Dead | Poor | broken by dense ivy | Remove |
| AQ | bigleaf maple | 10 | 45 | 10 | Fair | Fair | lean, asymmetric crown south | Retain |
| 161 | Douglas fir | 16 | 45 | 6 | Poor | Poor | broken top, small live crown, low risk | Remove |
| 160 | Douglas fir | 10 | 40 | X | Dead | Poor | recent dead | Remove |
| 162 | Douglas fir | 10 | 35 | X | Poor | Poor | bent top, heavy lean south | Remove |
| 159 | bigleaf maple | 12 | 45 | 12 | Fair | Fair | forked trunk, asymmetric canopy south | Retain |
| 157 | Pacific madrone | 13 | 50 | 12 | Fair | Fair | lean, asymmetric crown southeast | Retain |
| 158 | Douglas fir | 32 | 125 | 14 | Good | Good | sound, good vigor | Retain |
| AR | Douglas fir | 30 | 125 | 14 | Good | CBC | sound, good vigor | Remove |
| AS | Douglas fir | 18 | 80 | 12 | Fair | CBC | moderate crook | Remove |
| 154 | Douglas fir | 16 | 50 | 10 | Fair | Fair | poor form, low risk | Retain |
| AT | bigleaf maple | 6,6 | 30 | 8 | Fair | Fair | suppressed, asymmetric crown south | Retain |
| 153 | Douglas fir | 27 | 125 | 14 | Good | Good | recent cambial rupture | Retain |
| 149 | bigleaf maple | 32,30,13 | 85 | 30 | Fair | Fair | some top dieback, decent vigor | Retain |
| 150 | bigleaf maple | 17 | 75 | 18 | Fair | Fair | forked top, codominant stems | Remove |
| AU | bigleaf maple | 8,8 | 40 | 12 | Fair | Fair | decent form and vigor | Retain |
| AV | Douglas fir | 28 | 115 | 14 | Good | Good | good form and vigor | Retain |
| 147 | Douglas fir | 14 | 30 | 12 | Good | Good | suppressed, good vigor | Retain |
| 146 | Pacific madrone | 34,19,11 | 75 | 18 | Fair | Fair | moderate disease, typical form | Retain |
| AW | Douglas fir | 16 | 70 | 10 | Fair-Good | Good | decent form and vigor | Retain |
| AX | bigleaf maple | 7 | 25 | 12 | Fair | Good | suppressed, good vigor | Retain |
| 145 | Douglas fir | 29 | 95 | 16 | Fair-Good | Good | decent form and vigor | Retain |
| 144 | Douglas fir | 18 | 75 | 12 | Fair-Good | Good | bent top, somewhat suppressed | Retain |
| 143 | Pacific madrone | 22 | 75 | 10 | Fair | Fair | significant crown dieback | Retain |
| 140 | Pacific madrone | 22 | 70 | 12 | Fair | Fair | asymmetric canopy south, decent vigor | Retain |
| 141 | Douglas fir | 22 | 120 | 12 | Fair-Good | Good | decent form and vigor | Retain |
| 139 | Douglas fir | 7 | 30 | X | Dead | Poor | recent dead | Remove |
| 138 | Douglas fir | 30 | 120 | 14 | Good | Good | good form and vigor | Retain |
| AY | bigleaf maple | 11 | 60 | 8 | Fair | Fair | forked top, codominant stems | Remove |
| AZ | bigleaf maple | 8 | 55 | 8 | Fair | Fair | poor stem taper | Remove |
| 135 | bigleaf maple | 17 | 75 | 10 | Fair | Fair | forked top, codominant stems | Retain |
| 133 | Pacific madrone | 16 | 80 | 12 | Fair | Fair | lean, asymmetric crown south | Retain |
| AAA | bigleaf maple | 30,22,20 | 90 | 20 | Fair | Fair | large previous crown failures | Retain |
| 130 | Pacific madrone | 14 | 60 | 12 | Fair-Good | Fair | decent form and vigor | Remove |
| 129 | Douglas fir | 15 | 70 | 10 | Good | Good | good form and vigor | Remove |
| 128 | Scoulers willow | 18 | 50 | X | Poor | Poor | extensive trunk decay | Remove |
| 126 | Pacific madrone | 11 | 35 | 8 | Fair | Fair | leans SE off property | Retain |
| 127 | bitter cherry | 7 | 40 | 8 | Fair | Fair | asymmetric crown east, decent vigor | Retain |
| 125 | Douglas fir | 14 | 75 | 8 | Good | Good | good form and vigor | Retain |
| 121 | Douglas fir | 28 | 90 | 12 | Good | Good | good form and vigor | Retain |
| 122 | Douglas fir | 16 | 70 | 10 | Good | Good | good form and vigor | Retain |
| AAB | bitter cherry | 8,8,7 | 45 | 10 | Fair | Fair | asymmetric canopy south | Retain |



Layton Tree Consulting LLC

For: CPH Consultants
Site: The Reserve - Gig Harbor

Tree Summary Table

Date: 8/19/2022

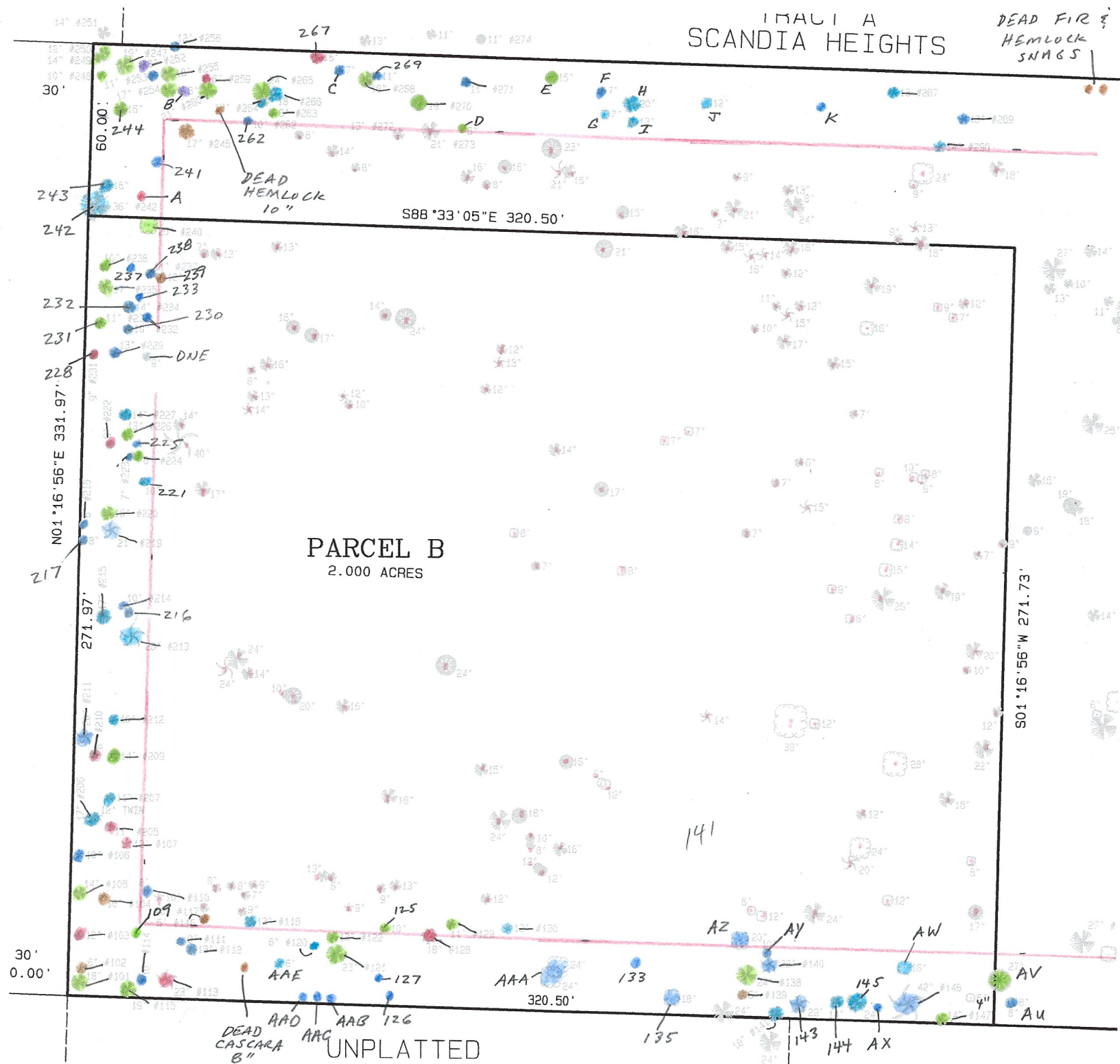
| Tree/ Tag # | Species | DBH (inches) | Height (feet) | Avg. Dripline Radius (feet) | Condition | Retention Suitability | Comments | Recommendation |
|----------------|-----------------|-----------------|------------------|--------------------------------------|-----------|--------------------------|-------------------------------|----------------|
| | | | | N | | | | |
| AAC | bitter cherry | 8 | 45 | 8 | Fair | Fair | asymmetric canopy south | Retain |
| AAD | bitter cherry | 9,7 | 40 | 10 | Fair | Fair | asymmetric canopy south | Retain |
| 120 | Pacific madrone | 6 | 25 | 8 | Fair-Good | Fair | decent form and vigor | Retain |
| AAE | Pacific madrone | 6 | 25 | 8 | Fair-Good | Fair | decent form and vigor | Retain |
| 118 | Douglas fir | 16 | 70 | 10 | Fair-Good | Good | old trunk wounds | Retain |
| 116 | Douglas fir | 5 | 30 | X | Dead | Poor | recent dead | Remove |
| 111 | Douglas fir | 11 | 70 | 8 | Fair | Fair | suppressed by madrone | Retain |
| 112 | Douglas fir | 15 | 80 | 8 | Fair | Fair | trunk covered with ivy | Retain |
| 113 | Pacific madrone | 30 | 90 | X | Poor | Poor | mostly dead, heavily diseased | Remove |
| 114 | Douglas fir | 12 | 70 | 8 | Fair | Good | somewhat suppressed | Retain |
| 115 | Douglas fir | 25 | 105 | 14 | Good | Good | good form and vigor | Retain |
| 109 | Douglas fir | 16 | 70 | 12 | Good | CBC | decent form and vigor | Remove |
| | | | | | | | | |
| | | | | | | | | |

Dripline measurements from face of trunk

CBC - Compromised by Construction

THE RESERVE - WEST MAP

TREE LOCATOR / CONDITIONS MAP



TREE CONDITIONS

- - GOOD
- - FAIR-to-GOOD
- - FAIR
- - FAIR-to-POOR
- - POOR
- - DEAD

— 25-FOOT LANDSCAPE BUFFER

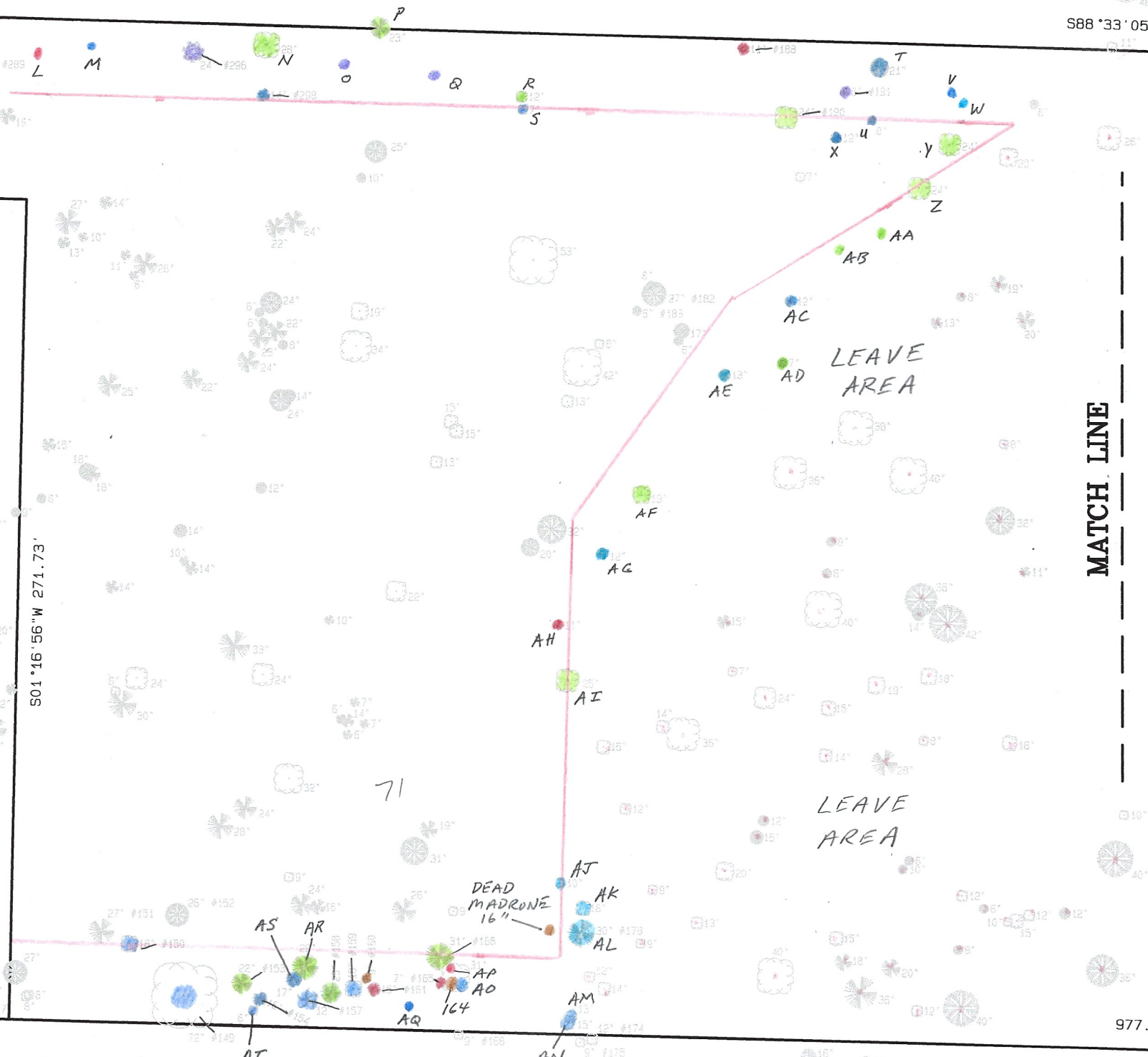
APPROX. SCALE
1" = 46'

THE RESERVE - EAST MAP

TREE LOCATOR / CONDITIONS MAP



S88°33'05"



TREE CONDITIONS

- - GOOD
- - FAIR - to - GOOD
- - FAIR
- - FAIR - to - POOR
- - POOR
- - DEAD

UNPLATTED

— - 25- FOOT LANDSCAPE BUFFER /
APPROX. CLEARING LIMITS

APPROX. SCALE
1" = 45.7'

MATCH LINE

N88°35'41"W 12'