



Item No. 17 Town of Atherton

CITY COUNCIL – REGULAR AGENDA

TO: HONORABLE MAYOR AND CITY COUNCIL

THROUGH: GEORGE RODERICKS, CITY MANAGER

**FROM: STEPHANIE B. DAVIS, AICP SENIOR PLANNER
SALLY BENTZ-DALTON, TOWN ARBORIST**

DATE: MARCH 20, 2019

**SUBJECT: DISCUSSION ON AMENDMENTS TO ATHERTON MUNICIPAL CODE
CHAPTER 8.10 “REMOVAL OF AND DAMAGE TO HERITAGE TREES”,
INCLUDING AMENDING THE TREE PRESERVATION GUIDELINES,
STANDARDS AND SPECIFICATIONS**

RECOMMENDATION

It is recommended that the City Council receive a report from staff on amendments to the Town’s Municipal Code Chapter 8.10 “Removal of and Damage to Heritage Trees”, including amendments to the Town’s *Tree Preservation Guidelines, Standards, and Specifications*, and provide direction to staff.

BACKGROUND

In March 2016 staff received direction from the Tree Committee to evaluate the existing heritage tree regulations both within Chapter 8.10 “Removal of and Damage to Heritage Trees (“Heritage Tree Ordinance”) and the *Tree Preservation Guidelines Standards and Specifications* (“*Guidelines*”), which is implemented through the Municipal Code, as it was found that the amount of heritage trees within Town that are dying has greatly increased due to construction impacts and the drought. An Ad-Hoc Committee was created with appointment of two members of the Planning Commission and two members of the Tree Committee which met over a series of meetings from September 2016 to February 2017 with their final recommendations presented to the Planning Commission.

The Planning Commission conducted three study sessions in April, July and December 2017 and a public hearing in February 2018, adopting a resolution recommending City Council approval of a series of amendments related to heritage trees.

In May and July 2018, the Council received the Planning Commission recommendation and reports from staff on amendments to the Town’s Heritage Tree Ordinance, including the *Guidelines*, and provided specific feedback to staff.

On October 10, 2018 the City Council and Planning Commission conducted a joint study session to further evaluate and discuss the following, seven amendment topics under consideration. Final joint City Council / Planning Commission direction is offered following each topic.

1. Incorporation of American National Standards Institute (ANZI) standards and Best Management Practices (BMPs).

- Council / Commission direction:
 - Incorporate amendments including industry standard language pertaining to common tree activities such as tree pruning, topping, lions, tailing, etc. not currently addressed.

2. Revise the current definition of a heritage tree

- Council / Commission direction:
 - Begin measurement of a heritage tree at 4.5 feet above the natural grade instead of 4 feet.
 - Add multi-trunk trees measuring 15.2 inches in diameter or greater, measured where the stems begin. Multi-trunk trees would include circumstances of both split trunk and multi-stemmed trees.
 - Add redwood trees 15.2” in diameter or greater as an additional protected tree in the buildable area. Currently, oak trees are the only protected species in the buildable area.
 - Assure any tree species that does not require permit for removal is also included on list of trees not recommended as a replanting species.

3. Reduce the Tree Protection Zone (TPZ) for heritage trees from the current standard.

- Council / Commission direction:
 - Reduce the TPZ (or “buffer area” around every heritage tree to protect the tree and roots from any disturbance) from 12 times (12x) the diameter of the tree, to 10 times (10x) for most development in the R-1A Zoning District unless otherwise specified. For new driveways, reduce the TPZ to 8x.
 - Reduce the TPZ from 12x the diameter of the tree, to 6x for most development in the R-1B Zoning District, and/or smaller lots in the R1-A Zoning District unless otherwise specified.
 - For CMU walls, reduce the TPZ from 12x to 6x.
 - For metal and/or wood fences, reduce the TPZ 12x to 5x.
 - For the replacement of existing driveways and/or new, proposed compacted surfaces, allow for replacement in the existing location, but in no cases shall be less than 3x.
 - That any amendments should carefully consider regulations that are consistent and fair and not overly restrictive making people unable to build and/or deprive substantial use of property.

4. Provide greater specification of what kind of work is prohibited and permitted within the TPZ.

- Council / Commission direction:
 - Provide specificity on any activities pre, during, and post-construction to capture all instances.
 - Provide specificity of regulations related to hardscape, drainage, irrigation and landscaping improvements.

5. Exception requests to the TPZ standards and/or to move a heritage tree.

- Council / Commission direction:
 - Staff level exception process for the following scenarios not meeting the TPZ standards based on specific, measurable criteria.
 - ❖ A TPZ exception in the R1-A from 10x the diameter, down to a minimum of 8x the diameter, for all development types unless otherwise specified.
 - ❖ A TPZ exception in the R1-A from 6x the diameter, down to a minimum of 3x the diameter, for lots in the R1-B, or lots 10,000 square feet or less in the R1-A.
 - ❖ A TPZ exception for CMU walls from 6x the diameter, down to 3x the diameter.
 - Any staff level exception request to a TPZ denied based on prescribed, measurable criteria, could be appealed to the Planning Commission.
 - Any request to move a heritage tree would require Planning Commission review.

6. Require a tree inventory with photos and appraisal prior to site demolition permit issuance.

- Council / Commission direction:
 - Document the exact condition and value of tree prior to any site work.
 - Heritage trees on neighboring properties should only include those in immediate proximity to proposed development and should not impede unreasonably upon a neighbor.

7. Other textual additions.

- Council / Commission direction:
 - Enhance definitions with current industry standard language.
 - Add Eucalyptus trees to the non-heritage list given their high fire dangers.
 - Address landscape screening, detention/retention systems in the context of protecting trees.
 - Stronger monetary penalties considering actual appraised value of a heritage tree violations.
 - Language to address instances where trees were removed illegally (if only stump remains at time of assessment).

- More clearly articulated decision standards for tree removal requests both administratively and at the Planning Commission and/or City Council level.

In addition to the direction provided by Council and Planning Commission, the City Attorney's Office reviewed the Heritage Tree Ordinance in light of ongoing issues related to enforcement and clarity. It was determined that the Ordinance was problematic on several practical levels, in particular: 1) lack of a failsafe to prevent an inadvertent "taking" of private property through overly restrictive rules; 2) Town's inability to deem a tree "Heritage" when it had already been removed; 3) uncertain and potentially inconsistent penalties; and 4) unclear process and rights of appeal. The City Attorney's office felt it would be highly advisable to address these legal concerns concurrently with the other revisions. Many of these revisions simply clarify existing law. Where the revision involves a matter of policy, it has been carefully noted below for Council consideration.

ANALYSIS

Staff has taken the direction as noted in the BACKGROUND section above, and incorporated it into associated text amendments within both the Ordinance and the "Guidelines". A tracked change version of both the Ordinance and "Guidelines", as well as clean amended versions, have been provided in Attachments 1-4, respectively. The amendments incorporated to both the Ordinance and "Guidelines" have been reviewed by, and include comments of, the City Attorney's office. These are discussed further below.

Additional City Attorney Comments on Amendments

In light of the legal concerns identified in the "BACKGROUND" section above, the City Attorney's Office has recommended the following series of additional amendments:

1. Failsafe to prevent a "taking" of private property

Restrictions cannot legally prohibit all reasonable use of private property. Section 8.10.040 (D)(5) of the Municipal Code mandates that the Planning Commission *shall* grant a tree removal permit where there is no demonstrated feasible alternative to the removal to allow reasonable enjoyment of property. This is not intended to change status quo, as the Planning Commission has never reached such a draconian result, but merely to codify what is already a consideration.

2. "Heritage" defined in the absence of a tree

The current code defines "Heritage" based on the measurement of a tree trunk. The Town has struggled to penalize illegal removal of a heritage tree where the trunk has already been removed. Section 8.10.020 (A)(3) allows the Town to use evidence such as stump size or age, photographs, and similar trees in the area to create a rebuttable presumption that the tree was Heritage. This presumption can be rebutted, with an appeal to the Planning Commission and then Council, similar in process to other staff decisions.

3. Violations- Penalties

Under existing Ordinance, there is a substantial amount of staff discretion in determining penalties, including whether an already large penalty amount would be doubled. This has created a burden for staff as many violators contested the amount of the penalty. Within Section 8.10.060 (A) and (B), staff recommends a draft to set the penalty for disturbing/damaging a tree at ½ the appraised value of the tree and the penalty for illegal removal at 2x the appraised value. These draft, recommended penalties are intended to be a placeholder and can be adjusted by Council at this time. Removing staff discretion will provide better warning to potential violators, remove the burden of arguing over the amount, and ensure consistency.

4. Process and appeal

The primary goal of this Ordinance is to protect Heritage trees. This requires a clear, easily understood process, which staff felt was lacking in the current version. To that end, the language has been changed in Section 8.10.040 to reflect what process sequencing is already happening; that an application is first reviewed at the staff level, then Planning Commission, then Council as warranted. The process itself is not recommended to be changed. Similarly, the appeal process has been made clearer in Section 8.10.070, but not changed.

In addition to these larger areas of revision, the City Attorney's Office has expanded definitions to provide additional clarity ("Heritage" and "Disturb/Damage" in particular), added definitions to provide better warning to potential violators, corrected errors in the current version, and added a requirement to maintain replacement plantings, at 8.10.040 (F), to strengthen enforceability to a requirement that already exists.

Addition of Redwood Trees as a Protected Tree within the Buildable Area

There was substantial discussion at the joint City Council/Planning Commission meeting regarding the topic as to whether or not to add redwood trees as an additional protected tree in the buildable area (currently only oaks are protected in the buildable area). The current draft Ordinance (Attachments 1-2), includes amendment language to now include redwood trees. However, an alternative approach could be to not include redwood trees as a new, additional tree species to be protected in the buildable area at this point in the process, however, for staff to log the amount of redwood trees removed within the buildable area as a result of proposed new construction over a defined period time (i.e. over 6 months or 1 year) and report back to the Council. This evaluation approach may allow for more specific analysis on both the magnitude of redwood trees which are affected in the buildable area and their potential impact on future development.

Comparison of Other Jurisdiction Regulations

There was also discussion about what the TPZ related regulations are within neighboring jurisdictions compared the proposed TPZ amendments by the Town (See Attachment 5 for a summary of these jurisdiction regulations). Conclusions of this research indicate that there is a wide extent of different regulations / practices followed by other jurisdictions, with no consistent TPZ standard followed. Some jurisdictions have no adopted TPZ standards at all.

Some of these regulations indicate an allowance for the TPZ zone to be discretionary, however staff determined many of these jurisdictions have multiple staff and/or consultant arborists to assist in the processing of such applications. It is further noted that a TPZ of 10x is noted in several jurisdictions as a distance that preserves tree roots during construction.

Based on discussions at prior Council meetings, staff proposes to generally remove the discretionary approach of determining a TPZ on a parcel by parcel/project by project basis as has been done in the past.

POLICY FOCUS

Any proposed amendments should consider the balance between protecting heritage trees in Town and protecting the rights of private property owners. Any future amendments should not overly restrictive and prevent too much use of private property. The adopted Heritage Tree Ordinance begins by stating that the Town is endowed and forested by oaks, bays and other trees, and that the preservation of these trees is essential to the health, welfare and quality of life of the citizens of the Town to meet a series of objectives. Similarly, the Land Use and Open Space and Conservation Elements of the General Plan contain policies pertaining specifically to heritage trees and proposed development:

- Open Space Policy 4.310: Trees shall be preserved to the maximum extent feasible.
- Land Use Goal 1.210: To preserve the Town's character as a scenic, rural, thickly wooded residential area with abundant open space.
- Land Use Goal 1.223: To retain the high quality of maintenance and living environment existing in the Town's residential neighborhoods.

FISCAL IMPACT

The cost associated with the preparation of the draft ordinance amendment is included within the annual Planning Department budget. The cost to implement the ordinance will be paid for by the applicants for development projects. Additional support services for the Town Arborist in the enforcement and implementation of the ordinance amendments will result; the cost of which would be evaluated by staff and would be paid for the applicants for each applicable development project.

PUBLIC NOTICE

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service providers (water, power, and sewer), and regional elected officials. Additionally, interested parties that were notified of prior Planning Commission and City Council meetings were also notified via email of tonight's meeting.

COMMISSION/COMMITTEE FEEDBACK/REFERRAL

This item has or has not been before a Town Committee or Commission.

Audit/Finance Committee (meets every other month)

Bicycle/Pedestrian Committee (meets as needed)

Civic Center Advisory Committee (meets as needed)

Environmental Programs Committee (meets every other month)

Park and Recreation Committee (meets each month)

Planning Commission (meets each month) – 4/2017, 7/2017, 12/2017, 2/2018

Rail Committee (meets every other month)

Transportation Committee (meets every other month)

Tree Committee (meets each month)

ATTACHMENTS

1. Revised DRAFT CH. 8.10 Removal of And Damage to Heritage Trees, tracked changes
2. Revised DRAFT CH. 8.10 Removal of And Damage to Heritage Trees, clean
3. Revised DRAFT *Tree Preservation Guidelines Standards and Specifications*, tracked changes
4. Revised DRAFT *Tree Preservation Guidelines Standards and Specifications*, clean
5. Summary – Heritage Tree Guidelines in Other Jurisdictions

Chapter 8.10

REMOVAL OF AND DAMAGE TO HERITAGE TREES

Sections:

- [8.10.010](#) Statement of findings and purpose.
- [8.10.020](#) Definitions.
- [8.10.030](#) Prohibitions and protections.
- [8.10.040](#) Permit process.
- [8.10.050](#) Request for Exceptions to the TPZ.
- [8.10.060](#) State tree care license.
- [8.10.070](#) Violation—Penalties and remedies.
- [8.10.080](#) Appeal.

8.10.010 Statement of findings and purpose.

The Town finds and declares as follows:

- A. The Town is endowed and forested by oaks, redwood, bay and other trees.
- B. The preservation of these trees is essential to the health, welfare and quality of life of the citizens of the Town to:
 - 1. Preserve the scenic beauty of the Town and to ensure the privacy of its citizens;
 - 2. Maintain ecological balance;
 - 3. Prevent erosion of topsoil;
 - 4. Protect against the hazards of floods and the risk of landslides;
 - 5. Counteract air pollutants and oxygenate the air;
 - 6. Absorb noise;
 - 7. Maintain the climatic and microclimatic balance; and
 - 8. Decrease high wind velocities.

C. The Town establishes the policies, regulations and standards within this Chapter with purpose and intent to:

1. Establish policies and procedures for the protection of Heritage trees and criteria for their removal.

2. Prevent the indiscriminate removal of Heritage trees within the Town.

3. Prohibit activities that damage and/or disturb Heritage trees.

4. Preserve and maintain trees in the attempt to mitigate hazards using the most current and applicable arboricultural standards.

5. Provide for the enforcement and administration of tree protection and preservation.

D. The Town's Tree Preservation Standards and Specifications document provides guidance on interpretation and implementation of the policies, regulations, and standards within this Chapter.

8.10.020 Definitions.

As used in this Chapter:

A. "Heritage tree" means:

1. A tree meeting any of the following conditions:

a. An oak tree (Quercus lobata, Quercus agrifolia or Quercus douglasii) or redwood tree (Sequoia sempervirens) located anywhere on a lot, that has a minimum trunk circumference of forty-eight (48) inches or diameter of fifteen point two (15.2) inches, as measured at fifty-four (54) inches above the Natural Grade.

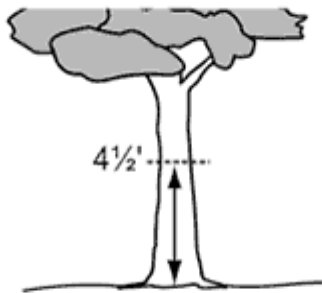
b. A tree located outside the Main Buildable Area, that has a minimum trunk circumference of forty-eight (48) inches or diameter of fifteen point two (15.2) inches, as measured at fifty-four (54) inches above the Natural Grade.

b-c. A split trunk or low-branching tree located outside the Main Buildable Area, that has a minimum trunk circumference of forty-eight (48) inches or diameter of fifteen point two (15.2) inches, as measured at fifty-four (54) inches above the

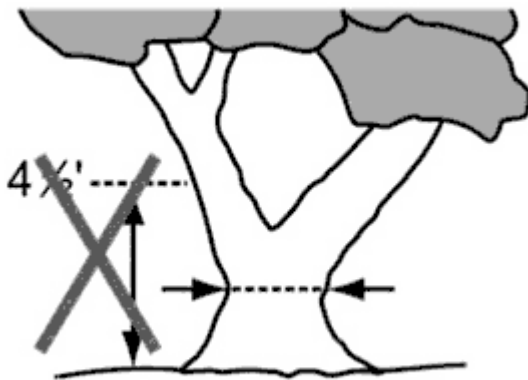
Natural Grade. If the trunk branches or splits below this point, the smallest circumference or diameter below the lowest branch shall be measured.

A multi-stemmed tree located outside the Main Buildable Area, that has a total trunk circumference of forty-eight (48) inches or total diameter of fifteen point two (15.2) inches when calculated as follows: considering at all the branches at fifty-four (54) inches above Natural Grade, add the measurement of the largest branch to one-half the measurement of each additional branch. Reference the Guide for Plant Appraisal authored by representatives to the Council of Tree and Landscape Appraisers

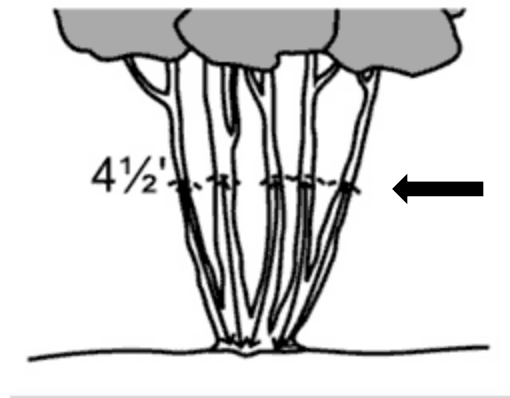
Measuring Tree Size for Existing Trees



Measuring Split Trunk Tree



Measuring Multi-stemmed Trees



2. A tree so designated by the City Council, based upon findings that the particular tree is unique and of importance to the public due to its unusual age, appearance, location or other factors;

3. A tree that has been removed without a permit that cannot be measured pursuant to subsection A(1), above, will be presumed to have been a Heritage tree if it meets any of the following criteria. Anyone so cited for removing a Heritage tree without a permit may rebut this presumption by providing substantial evidence to the contrary to the satisfaction of the Town Arborist.

- a. the tree has a stump of at least seventeen and three-quarters inches (17 ³/₄") in diameter as measured at the Natural Grade;
- b. the tree is a native oak with a minimum of 75 years of age;
- c. the tree is a Redwood with a minimum age of 30 years of age;
- d. the tree is any other species of tree with a minimum of 45 years of age.
- e. In the absence of remaining physical evidence, photographs and other circumstantial evidence of characteristics, including but not limited to height, canopy dimensions, and similar trees in the immediate area may be used to create a presumption that the tree was a Heritage tree.

4. Exemptions: The trees listed below shall not be classified as Heritage trees, regardless of their size or age, nor shall they be used for replacement plantings:

- a. Acacia baileyana—Bailey Acacia
- b. Albizia julibrissin - Mimosa
- c. Acacia decurrens—Green Wattle
- d. Acacia melanoxylon—Black Acacia
- e. Ailanthus altissima—Tree of Heaven
- f. Eucalyptus—any species

B. “Tree preservation area” means the area outside the Buildable Area of the lot, as defined in Section 17.60.020 of this code.

C. “Disturbance and/or damage to a Heritage tree” refers to demolition, construction, sub terrain grading activities, landscaping improvements, other development activities and/or any other action, as determined by the Building Official or Town arborist, which may cause damage to the health of a Heritage tree. Examples include, but are not limited to, excess pruning, topping, cutting, girdling, poisoning, over-watering, unauthorized relocation or transportation of a tree, trenching, excavating, altering the grade, compaction or paving near the tree, screwing anything in the tree (for example, but not limited to, signs, mailboxes and or treehouses).

D. “Tree Protection Zone (TPZ)” is the designated protection area sufficiently large enough to protect a Heritage tree and its roots from disturbance and/or damage as defined in Section 8.10.020 C. The TPZ shall be determined and shall meet all provisions as detailed in the Town’s current Tree Preservation Standards and Specifications document.

E. “Dead or Dangerous Tree” means dead or dying trees, dead parts of live trees, or unstable live trees (due to structural defects or other factors) that are within striking distance of people or property, as determined by the Town Arborist.

F. “Certified arborist” means an individual who has demonstrated knowledge and competency through obtainment of the current International Society of Arboriculture arborist certification.

G. “Cutting” means the detaching or separating from a protected tree any limb, branch, or root. Cutting shall include pruning and trimming.

H. “Injury” - means bruising, scarring, tearing or breaking of roots, bark, trunk, branches or foliage, herbicide or poisoning, or any other action that is likely to cause the death or permanent damage and/or disturbance to a tree.

I. “Mechanical Injury” - means a noninfectious injury which often leads to poor growth, a damaged appearance or death to the tree. Common causes of mechanical injury are landscape maintenance equipment, staking damage, vehicles, vandalism, weather, insects and animals.

J. “Irreparable Damage” means any action undertaken foreseeably leading to the death or permanent injury of the tree, or which places the tree in a hazardous condition or an irreversible state of decline. The includes, but is not limited to, cutting, topping, girdling, poisoning, vandalizing, trenching or excavating within the dripline, altering the grade, paving in excess of fifty percent (50%) of the dripline, excessive watering of oak trees, and excessive pruning.

K: “Dripline” means the outermost edge of the tree’s canopy. When depicted on a map, the dripline will appear as an irregularly shaped circle that follows the contour of the tree’s branches as seen from overhead.

L. “Excessive Pruning” - means removing in excess of 25 percent (25%) per year of the functioning leaf, stem, or root area of a tree. Excessive Pruning is considered disturbance and/or damage to the tree and is prohibited unless approval is granted by the Town Arborist prior to initiating the work. The percentage and distribution of foliage to be removed shall be adjusted according to the plant’s species, age, health, and site. Topping and lion’s tailing shall be considered prohibited pruning practices for trees.

a. Lion’s tailing - the removal of an excessive number of inner and/or lower lateral branches from parent branches.

b. Topping- Reduction of tree size using intermodal cuts without regard to tree health or structural integrity.

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K. “Remove” or “removal” means any act that leaves the tree unviable, removes it from its location, or renders it “dead or dangerous” as determined by a Certified Arborist.

L. “Person” means anyone having a property interest in a tree. Property owners are liable under this Chapter for all violations, whether they were done directly by the property owner or someone acting on their property with or without specific authorization, including but not limited to contractors, gardeners, and maintenance persons.

M. “Disfavored Tree” means any of the following species:

- a. Acacia baileyana—Bailey Acacia
- b. Acacia decurrens—Green Wattle
- c. Acacia melanoxylon—Black Acacia
- d. Ailanthus altissima—Tree of Heaven
- e. Any species of Eucalyptus
- f. Pinus radiata—Monterey Pine
- g. Albizia julibrissin – Mimosa

It is strongly recommended that these trees not be planted in the Town of Atherton.

N. “Tree Appraisal” means a method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood or community. The Certified Project Arborist shall determine the Tree Appraisal value as part of the required Tree protection Plan by adjusting the tree’s basic value by its pre-existing condition, location, and species using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

O. “Appraised Value” means the value of a tree as determined by the Town Arborist using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

P. "Main Buildable Area" is the area defined by applicable setbacks in which primary development is allowed under the Atherton Municipal Code.

Q. "Natural Grade" is the grade, as determined by the Town arborist, unaffected by construction techniques such as fill, landscaping, or a berm.

8.10.030 Prohibitions and protections.

A. No Person shall remove a Heritage tree unless a permit has first been issued in accordance with Section 8.10.040.

B. All Heritage trees must be shown and designated on every plot map that may be required by the Town in connection with any application for subdivision, variance, use permit, special structures permit, or building permit. In addition, a Heritage tree protection and preservation plan may be required with each application, as determined by the Town Arborist. The Heritage tree protection and preservation plan shall adhere to the specifications found in the Town's current Tree Preservation Standards and Specifications document.

C. No Person shall damage and/or disturb a Heritage tree by any means whatever, including, without limitation, those actions defined in Section 8.10.020(C), or conduct any prohibited activities within the defined TPZ as specified in the Town's current Tree Preservation Standards and Specifications document, without obtaining proper permission from the Town. Staff-level decisions about the TPZ may be appealed to the Planning Commission within ten (10) days of the decision in writing to the Town.

D. The provisions of this chapter shall not be deemed to repeal or otherwise affect the provisions of Chapter 8.08 of this code, relating to Dead or Dangerous trees. (Ord. 547 § 1, 2004; Ord. 533 § 2, 2002; Ord. 522 § 1, 2001; Ord. 444 § 3, 1989)

8.10.040 Permit process.

A. The application for a Heritage tree removal permit shall be filed with the building department on a prescribed form. The building department may require the applicant, at the applicant's expense, to furnish a written report from a licensed arborist acceptable to the Building Department.

B. If the tree which is the subject of the application meets the requirements as set forth in this section and is determined by staff to be a Dead or Dangerous tree as defined in Section 8.10.020 F and pursuant to Chapter 8.08 of this code, based upon a review of the permit application and the inspection report, then the Building Department shall grant the permit and attach reasonable conditions to ensure compliance with the intent and purpose of this chapter such as, but not limited to, requiring replacement of the tree or trees removed with plantings acceptable to the Building Department.

C. If the Building Department determines that the tree does not meet the requirements of a Dead or Dangerous tree, the application shall be referred to the Planning Commission for consideration at a public meeting, noticed in accordance with Section 17.06.080B of this code. Each application for a Heritage tree removal permit shall be accompanied by a fee in an amount as set by resolution of the City Council sufficient to cover all costs of processing the permit. The application for Planning Commission review shall contain all requested information in order to be deemed complete.

D. Planning Commission shall hear all evidence presented, and shall grant the Heritage tree removal permit unless it finds that the removal of the subject tree would be contrary to the purpose and intent of the general plan of the Town, while considering the following criteria:

1. The probability of failure which is a function of tree and site conditions such as, but not limited to, structural defects, presence of disease, species history, age or remaining life span, and varying weather conditions.
2. The probability of a public safety hazard, personal injury or significant property damage as a function of proximity to existing structures and objects of value and interference with utility services;
3. The number, species, size and location of existing trees in the area and the effect of the requested removal upon shade, noise buffers, protection from wind damage, air pollution, historic value, scenic beauty, health, safety and general welfare of the area and Town as a whole;

4. Good forestry practices such as, but not limited to, the [age and/or](#) number of healthy trees a given parcel of land will support [and/or the long term benefits of a proposed reforestation plan relative to existing site conditions](#); and

5. [The necessity to remove the tree\(s\) to allow reasonable use or other enjoyment of the property when there is no demonstrated feasible alternative to the removal while meeting other adopted goals and policies of the General Plan to the greatest extent feasible.](#)

E. At the discretion of the [Planning Commission](#), for each [Heritage](#) tree permitted to be removed the permittee may be required to plant three trees of fifteen-gallon container size, or two trees of twenty-four-inch box container size, or one tree of fifteen-gallon container size and one tree of thirty-six-inch container size. [Replacement trees shall not be those listed as Disfavored Trees above.](#) Where [Heritage oak and redwood](#) trees are allowed to be removed from within the [Buildable Area](#), they shall each be replaced with one or more trees of forty-eight-inch container size of oak [or redwood](#) species at a location approved by the [Planning Commission](#). The [Planning Commission](#) may also attach other reasonable conditions to ensure compliance with the intent and purpose of this chapter.

F. Any Person required to plant replacement trees pursuant to this section shall maintain such trees in a good and healthy condition to ensure permanent establishment of said trees, to the satisfaction of the Town [Arborist](#). Such Person shall execute a maintenance agreement with the Town and post a maintenance bond or security deposit equal to the Appraised Value of the each tree, which shall be returned at permittee's request at the end of one (1) calendar year, subject to the approval of the Town [Arborist](#). If the condition of the replacement planting(s) is not satisfactory to the Town [Arborist](#) at this time, the Town may take additional steps to ensure permanent establishment of replacement trees, including planting of new trees and/or an extension of the bond/security deposit.

G. The decision of the [Planning Commission](#) on any application for a [Heritage](#) tree removal permit may be appealed to the [City Council](#) in accordance with the procedures contained in Chapter [17.06](#) of this code.

8.10.050 Request for Exceptions to the TPZ.

Any request for an exception to the TPZ standards shall be processed in accordance with the Towns current Tree Preservation Standards and Specifications document.

8.10.060 State tree care license.

Except for the property owner, no person shall perform any removal of any Heritage tree for hire within the Town of Atherton without a valid state tree care license as required by the state of California. (Ord. 484 § 1(E), 1994)

8.10.070 Violation—Penalties and remedies.

A. Any Person causing a Heritage tree to be disturbed or damaged in violation of this chapter shall submit an amount equal to half (1/2) the Appraised Value of the tree as a civil penalty in addition to the penalties as outlined in Chapter 1.20. If a tree that has been disturbed or damaged dies within one (1) year of the date of the citation, it will be presumed that the disturbance or damage caused the death and the penalties set forth in subsection B, immediately below, shall apply instead of those herein.

B. Any person causing a Heritage tree to be removed in violation of this chapter shall submit an amount equal to two (2) times the Appraised Value as a civil penalty in addition to the penalties as outlined in Chapter 1.20.

C. Pursuant to 1.20.020 of this Code, a civil action may be commenced to abate, enjoin, or otherwise compel the cessation of violation of any provision in this chapter. In a civil action brought pursuant to this chapter in which the Town prevails, the court may award to the Town all costs of investigation and preparation for trial, the costs of trial, reasonable expenses including overhead and administrative costs incurred in prosecuting the action, and reasonable attorney fees.

D. Where there has been a violation, violator shall obtain a retroactive tree removal permit for the previously conducted unlawful activity, subject to the full range of requirements and conditions as specified in 8.10.040 above.

E. All remedies provided in this section shall be cumulative and are not exclusive.

8.10.080 Appeal

DRAFT AMENDMENTS, MARCH 2019

Decisions by staff pursuant to this Chapter are appealable to the Planning Commission and decisions by the Planning Commission are appealable to City Council. All requests for appeal must be made in writing to Town within ten (10) days of the date of the contested decision and in accordance with the procedures contained in Chapter 17.06 of this Code.

Chapter 8.10

REMOVAL OF AND DAMAGE TO HERITAGE TREES

Sections:

- [8.10.010](#) Statement of findings and purpose.
- [8.10.020](#) Definitions.
- [8.10.030](#) Prohibitions and protections.
- [8.10.040](#) Permit process.
- [8.10.050](#) Request for Exceptions to the TPZ.
- [8.10.060](#) State tree care license.
- [8.10.070](#) Violation—Penalties and remedies.
- 8.10.080 Appeal.

8.10.010 Statement of findings and purpose.

The Town finds and declares as follows:

- A. The Town is endowed and forested by oaks, redwood, bay and other trees.
- B. The preservation of these trees is essential to the health, welfare and quality of life of the citizens of the Town to:
 - 1. Preserve the scenic beauty of the Town and to ensure the privacy of its citizens;
 - 2. Maintain ecological balance;
 - 3. Prevent erosion of topsoil;
 - 4. Protect against the hazards of floods and the risk of landslides;
 - 5. Counteract air pollutants and oxygenate the air;
 - 6. Absorb noise;
 - 7. Maintain the climatic and microclimatic balance; and
 - 8. Decrease high wind velocities.

C. The Town establishes the policies, regulations and standards within this Chapter with purpose and intent to:

1. Establish policies and procedures for the protection of Heritage trees and criteria for their removal.
2. Prevent the indiscriminate removal of Heritage trees within the Town.
3. Prohibit activities that damage and/or disturb Heritage trees.
4. Preserve and maintain trees in the attempt to mitigate hazards using the most current and applicable arboricultural standards.
5. Provide for the enforcement and administration of tree protection and preservation.

D. The Town's Tree Preservation Standards and Specifications document provides guidance on interpretation and implementation of the policies, regulations, and standards within this Chapter.

8.10.020 Definitions.

As used in this Chapter:

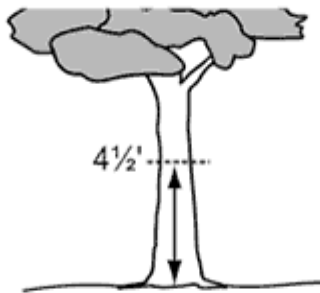
A. "Heritage tree" means:

1. A tree meeting any of the following conditions:
 - a. An oak tree (*Quercus lobata*, *Quercus agrifolia* or *Quercus douglasii*) or redwood tree (*Sequoia sempervirens*) located anywhere on a lot, that has a minimum trunk circumference of forty-eight (48) inches or diameter of fifteen point two (15.2) inches, as measured at fifty-four (54) inches above the Natural Grade.
 - b. A tree located outside the Main Buildable Area, that has a minimum trunk circumference of forty-eight (48) inches or diameter of fifteen point two (15.2) inches, as measured at fifty-four (54) inches above the Natural Grade.
 - c. A split trunk or low-branching tree located outside the Main Buildable Area, that has a minimum trunk circumference of forty-eight (48) inches or diameter of fifteen point two (15.2) inches, as measured at fifty-four (54) inches above the

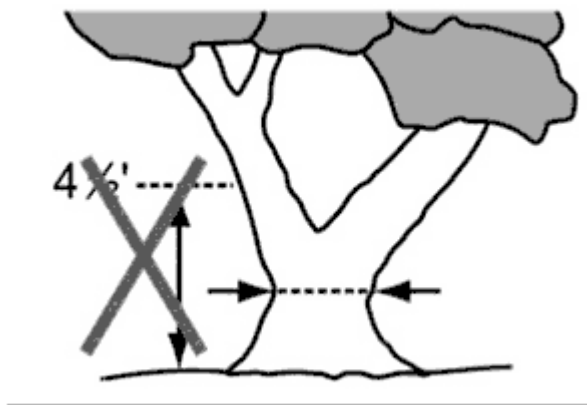
Natural Grade. If the trunk branches or splits below this point, the smallest circumference or diameter below the lowest branch shall be measured.

A multi-stemmed tree located outside the Main Buildable Area, that has a total trunk circumference of forty-eight (48) inches or total diameter of fifteen point two (15.2) inches when calculated as follows: considering at all the branches at fifty-four (54) inches above Natural Grade, add the measurement of the largest branch to one-half the measurement of each additional branch. Reference the Guide for Plant Appraisal authored by representatives to the Council of Tree and Landscape Appraisers

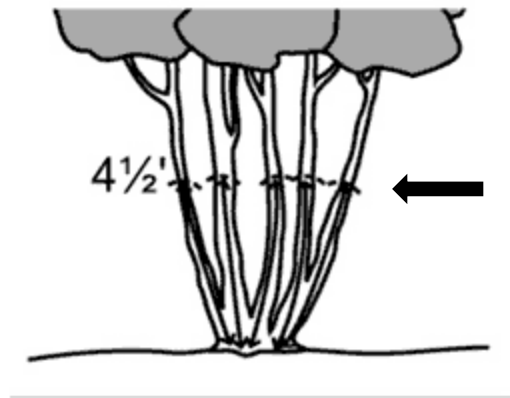
Measuring Tree Size for Existing Trees



Measuring Split Trunk Tree



Measuring Multi-stemmed Trees



2. A tree so designated by the City Council, based upon findings that the particular tree is unique and of importance to the public due to its unusual age, appearance, location or other factors;

3. A tree that has been removed without a permit that cannot be measured pursuant to subsection A(1), above, will be presumed to have been a Heritage tree if it meets any of the following criteria. Anyone so cited for removing a Heritage tree without a permit may rebut this presumption by providing substantial evidence to the contrary to the satisfaction of the Town Arborist.

- a. the tree has a stump of at least seventeen and three-quarters inches ($17 \frac{3}{4}$ " in diameter as measured at the Natural Grade;
- b. the tree is a native oak with a minimum of 75 years of age;
- c. the tree is a Redwood with a minimum age of 30 years of age;
- d. the tree is any other species of tree with a minimum of 45 years of age.
- e. In the absence of remaining physical evidence, photographs and other circumstantial evidence of characteristics, including but not limited to height, canopy dimensions, and similar trees in the immediate area may be used to create a presumption that the tree was a Heritage tree.

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4. Exemptions: The trees listed below shall not be classified as Heritage trees, regardless of their size or age, nor shall they be used for replacement plantings:

- a. *Acacia baileyana*—Bailey Acacia
- b. *Albizia julibrissin* - Mimosa
- c. *Acacia decurrens*—Green Wattle
- d. *Acacia melanoxylon*—Black Acacia
- e. *Ailanthus altissima*—Tree of Heaven
- f. *Eucalyptus*—any species

B. “Tree preservation area” means the area outside the Buildable Area of the lot, as defined in Section [17.60.020](#) of this code.

C. “Disturbance and/or damage to a Heritage tree” refers to demolition, construction, sub terrain grading activities, landscaping improvements, other development activities and/or any other action, as determined by the Building Official or Town arborist, which may cause damage to the health of a Heritage tree. Examples include, but are not limited to, excess pruning, topping, cutting, girdling, poisoning, over-watering, unauthorized relocation or transportation of a tree, trenching, excavating, altering the grade, compaction or paving near the tree, screwing anything in the tree (for example, but not limited to, signs, mailboxes and or treehouses).

D. “Tree Protection Zone (TPZ)” is the designated protection area sufficiently large enough to protect a Heritage tree and its roots from disturbance and/or damage as defined in Section 8.10.020 C. The TPZ shall be determined and shall meet all provisions as detailed in the Town’s current Tree Preservation Standards and Specifications document.

E. “Dead or Dangerous Tree” means dead or dying trees, dead parts of live trees, or unstable live trees (due to structural defects or other factors) that are within striking distance of people or property, as determined by the Town Arborist.

DRAFT AMENDMENTS, MARCH 2019

F. "Certified arborist" means an individual who has demonstrated knowledge and competency through obtainment of the current International Society of Arboriculture arborist certification.

G. "Cutting" means the detaching or separating from a protected tree any limb, branch, or root. Cutting shall include pruning and trimming.

H. "Injury" - means bruising, scarring, tearing or breaking of roots, bark, trunk, branches or foliage, herbicide or poisoning, or any other action that is likely to cause the death or permanent damage and/or disturbance to a tree.

I. "Mechanical Injury" - means a noninfectious injury which often leads to poor growth, a damaged appearance or death to the tree. Common causes of mechanical injury are landscape maintenance equipment, staking damage, vehicles, vandalism, weather, insects and animals.

J. "Irreparable Damage" means any action undertaken foreseeably leading to the death or permanent injury of the tree, or which places the tree in a hazardous condition or an irreversible state of decline. This includes, but is not limited to, cutting, topping, girdling, poisoning, vandalizing, trenching or excavating within the dripline, altering the grade, paving in excess of fifty percent (50%) of the dripline, excessive watering of oak trees, and excessive pruning.

K: "Dripline" means the outermost edge of the tree's canopy. When depicted on a map, the dripline will appear as an irregularly shaped circle that follows the contour of the tree's branches as seen from overhead.

L. "Excessive Pruning" - means removing in excess of 25 percent (25%) per year of the functioning leaf, stem, or root area of a tree. Excessive Pruning is considered disturbance and/or damage to the tree and is prohibited unless approval is granted by the Town Arborist prior to initiating the work. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site. Topping and lion's tailing shall be considered prohibited pruning practices for trees.

a. Lion's tailing - the removal of an excessive number of inner and/or lower lateral branches from parent branches.

b. Topping- Reduction of tree size using intermodal cuts without regard to tree health or structural integrity.

DRAFT AMENDMENTS, MARCH 2019

K. “Remove” or “removal” means any act that leaves the tree unviable, removes it from its location, or renders it “dead or dangerous” as determined by a Certified Arborist.

L. “Person” means anyone having a property interest in a tree. Property owners are liable under this Chapter for all violations, whether they were done directly by the property owner or someone acting on their property with or without specific authorization, including but not limited to contractors, gardeners, and maintenance persons.

M. “Disfavored Tree” means any of the following species:

- a. *Acacia baileyana*—Bailey Acacia
- b. *Acacia decurrens*—Green Wattle
- c. *Acacia melanoxylon*—Black Acacia
- d. *Ailanthus altissima*—Tree of Heaven
- e. Any species of *Eucalyptus*
- f. *Pinus radiata*—Monterey Pine
- g. *Albizia julibrissin* – Mimosa

It is strongly recommended that these trees not be planted in the Town of Atherton.

N. “Tree Appraisal” means a method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood or community. The Certified Project Arborist shall determine the Tree Appraisal value as part of the required Tree protection Plan by adjusting the tree’s basic value by its pre-existing condition, location, and species using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

O. “Appraised Value” means the value of a tree as determined by the Town Arborist using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

P. "Main Buildable Area" is the area defined by applicable setbacks in which primary development is allowed under the Atherton Municipal Code.

Q. "Natural Grade" is the grade, as determined by the Town arborist, unaffected by construction techniques such as fill, landscaping, or a berm.

8.10.030 Prohibitions and protections.

A. No Person shall remove a Heritage tree unless a permit has first been issued in accordance with Section [8.10.040](#).

B. All Heritage trees must be shown and designated on every plot map that may be required by the Town in connection with any application for subdivision, variance, use permit, special structures permit, or building permit. In addition, a Heritage tree protection and preservation plan may be required with each application, as determined by the Town Arborist. The Heritage tree protection and preservation plan shall adhere to the specifications found in the Town's current Tree Preservation Standards and Specifications document.

C. No Person shall damage and/or disturb a Heritage tree by any means whatever, including, without limitation, those actions defined in Section [8.10.020\(C\)](#), or conduct any prohibited activities within the defined TPZ as specified in the Town's current Tree Preservation Standards and Specifications document, without obtaining proper permission from the Town. Staff-level decisions about the TPZ may be appealed to the Planning Commission within ten (10) days of the decision in writing to the Town.

D. The provisions of this chapter shall not be deemed to repeal or otherwise affect the provisions of Chapter [8.08](#) of this code, relating to Dead or Dangerous trees. (Ord. 547 § 1, 2004; Ord. 533 § 2, 2002; Ord. 522 § 1, 2001; Ord. 444 § 3, 1989)

8.10.040 Permit process.

A. The application for a Heritage tree removal permit shall be filed with the building department on a prescribed form. The building department may require the applicant, at the applicant's expense, to furnish a written report from a licensed arborist acceptable to the Building Department.

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B. If the tree which is the subject of the application meets the requirements as set forth in this section and is determined by staff to be a Dead or Dangerous tree as defined in Section 8.10.020 F and pursuant to Chapter 8.08 of this code, based upon a review of the permit application and the inspection report, then the Building Department shall grant the permit and attach reasonable conditions to ensure compliance with the intent and purpose of this chapter such as, but not limited to, requiring replacement of the tree or trees removed with plantings acceptable to the Building Department.

C. If the Building Department determines that the tree does not meet the requirements of a Dead or Dangerous tree, the application shall be referred to the Planning Commission for consideration at a public meeting, noticed in accordance with Section 17.06.080B of this code. Each application for a Heritage tree removal permit shall be accompanied by a fee in an amount as set by resolution of the City Council sufficient to cover all costs of processing the permit. The application for Planning Commission review shall contain all requested information in order to be deemed complete.

D. Planning Commission shall hear all evidence presented, and shall grant the Heritage tree removal permit unless it finds that the removal of the subject tree would be contrary to the purpose and intent of the general plan of the Town, while considering the following criteria:

1. The probability of failure which is a function of tree and site conditions such as, but not limited to, structural defects, presence of disease, species history, age or remaining life span, and varying weather conditions.
2. The probability of a public safety hazard, personal injury or significant property damage as a function of proximity to existing structures and objects of value and interference with utility services;
3. The number, species, size and location of existing trees in the area and the effect of the requested removal upon shade, noise buffers, protection from wind damage, air pollution, historic value, scenic beauty, health, safety and general welfare of the area and Town as a whole;

4. Good forestry practices such as, but not limited to, the age and/or number of healthy trees a given parcel of land will support and/or the long term benefits of a proposed reforestation plan relative to existing site conditions; and

5. The necessity to remove the tree(s) to allow reasonable use or other enjoyment of the property when there is no demonstrated feasible alternative to the removal while meeting other adopted goals and policies of the General Plan to the greatest extent feasible.

E. At the discretion of the Planning Commission, for each Heritage tree permitted to be removed the permittee may be required to plant three trees of fifteen-gallon container size, or two trees of twenty-four-inch box container size, or one tree of fifteen-gallon container size and one tree of thirty-six-inch container size. Replacement trees shall not be those listed as Disfavored Trees above. Where Heritage oak and redwood trees are allowed to be removed from within the Buildable Area, they shall each be replaced with one or more trees of forty-eight-inch container size of oak or redwood species at a location approved by the Planning Commission. The Planning Commission may also attach other reasonable conditions to ensure compliance with the intent and purpose of this chapter.

F. Any Person required to plant replacement trees pursuant to this section shall maintain such trees in a good and healthy condition to ensure permanent establishment of said trees, to the satisfaction of the Town Arborist. Such Person shall execute a maintenance agreement with the Town and post a maintenance bond or security deposit equal to the Appraised Value of the each tree, which shall be returned at permittee's request at the end of one (1) calendar year, subject to the approval of the Town Arborist. If the condition of the replacement planting(s) is not satisfactory to the Town Arborist at this time, the Town may take additional steps to ensure permanent establishment of replacement trees, including planting of new trees and/or an extension of the bond/security deposit.

G. The decision of the Planning Commission on any application for a Heritage tree removal permit may be appealed to the City Council in accordance with the procedures contained in Chapter [17.06](#) of this code.

8.10.050 Request for Exceptions to the TPZ.

Any request for an exception to the TPZ standards shall be processed in accordance with the Towns current Tree Preservation Standards and Specifications document.

8.10.060 State tree care license.

Except for the property owner, no person shall perform any removal of any Heritage tree for hire within the Town of Atherton without a valid state tree care license as required by the state of California. (Ord. 484 § 1(E), 1994)

8.10.070 Violation—Penalties and remedies.

A. Any Person causing a Heritage tree to be disturbed or damaged in violation of this chapter shall submit an amount equal to half (1/2) the Appraised Value of the tree as a civil penalty in addition to the penalties as outlined in Chapter [1.20](#). If a tree that has been disturbed or damaged dies within one (1) year of the date of the citation, it will be presumed that the disturbance or damage caused the death and the penalties set forth in subsection B, immediately below, shall apply instead of those herein.

B. Any person causing a Heritage tree to be removed in violation of this chapter shall submit an amount equal to two (2) times the Appraised Value as a civil penalty in addition to the penalties as outlined in Chapter [1.20](#).

C. Pursuant to 1.20.020 of this Code, a civil action may be commenced to abate, enjoin, or otherwise compel the cessation of violation of any provision in this chapter. In a civil action brought pursuant to this chapter in which the Town prevails, the court may award to the Town all costs of investigation and preparation for trial, the costs of trial, reasonable expenses including overhead and administrative costs incurred in prosecuting the action, and reasonable attorney fees.

D. Where there has been a violation, violator shall obtain a retroactive tree removal permit for the previously conducted unlawful activity, subject to the full range of requirements and conditions as specified in 8.10.040 above.

F. All remedies provided in this section shall be cumulative and are not exclusive.

8.10.080 Appeal

DRAFT AMENDMENTS, MARCH 2019

Decisions by staff pursuant to this Chapter are appealable to the Planning Commission and decisions by the Planning Commission are appealable to City Council. All requests for appeal must be made in writing to Town within ten (10) days of the date of the contested decision and in accordance with the procedures contained in Chapter 17.06 of this Code.

TOWN OF ATHERTON

Tree Preservation **Guidelines** Standards and Specifications



February 2004 , 2019

TOWN OF ATHERTON

TREE PRESERVATION ~~GUIDELINES~~ STANDARDS AND SPECIFICATIONS

SECTION 1.00 DEFINITIONS

For the purpose ~~of these Guidelines~~ and interpretation of the standards and specifications, the following definitions shall apply:

1.1 ~~**Main Building Buildable Area** - (front, interior side, street side, and/or rear) of a lot is the horizontal plane between the minimum setbacks of the respective yard.~~
~~means the area of a parcel upon which, under applicable zoning regulations, a main dwelling unit may be built without a variance~~

1.2 **Building Official** - means the Director of Building and Planning or the Director's designee.

1.3 ~~**Certified Arborist** – is an individual who has demonstrated knowledge and competency through obtainment of the current International Society of Arboriculture arborist certification.~~

~~1.3.1.4~~ **Dead or Dangerous Tree** - ~~is dead or dying trees, dead parts of live trees, or unstable live trees (due to structural defects or other factors) that are within striking distance of people or property, as determined by Town Arborist. means a tree that is dead or that has been damaged beyond repair or is in an advanced state of decline as determined by a certified arborist.~~ If the tree has been determined to be dead or dangerous, removal is permitted under Section 8.10 of the Atherton Municipal Code.

~~1.4.1.5~~ **Development Project** - means any construction activity including demolition, grading, hardscape and drainage improvements, new construction of main house or accessory buildings/structures, subterrain grading activities, added square footage to existing main house or accessory buildings/structures, site preparation and landscaping.

~~1.5.1.6~~ **Diameter at Breast Height** – measurement of trunk diameter taken at ~~4.5-5~~ feet (or ~~5454~~ inches) off the ground. The diameter may be calculated by using the following formula:

$$DBH = \text{circumference at } ~~4.5-5~~ \text{ feet} \div 3.142$$

~~1.7~~ **Disturbance and/or Damage** - ~~refers to construction or development activities that may damage trees~~ refers to demolition, construction, subterrain grading activities, landscaping improvements, other development activities and/or any

other action, as determined by the Building Official or Town arborist, which will cause damage to its health including, by way of example, but not limited to, excess pruning, topping, cutting, girdling, poisoning, over-watering, unauthorized relocation or transportation of a tree, or trenching, excavating, altering the grade, compaction or paving near the tree, screwing anything in the tree (for example, but not limited to, signs, mailboxes and or treehouses).

— **Dripline** - means the width of the tree, as measured by the lateral extent of the canopy. The

~~1.61.8 Tree dripline. The dripline is the guide measurement used to prevent unnecessary damage to trees during construction works. It is defined as the outermost circumference of the tree's canopy, from which water drips onto the ground.~~

1.9 Pruning – The selective removal of plant parts to meet the specific goals and objectives of ANSI A300 (Part 1).

1.10

Excessive Pruning - means removing in excess of 25 percent of the functioning leaf branch. Pruning in excess of 25 percent ~~is is injurious to the tree and is prohibited considered disturbance and/or damage to the tree as defined in Section 1.10-7 and is prohibited.~~ Pruning in excess of twenty-five percent (25%) is injurious to the tree and is prohibited unless approval is granted by the Town Arborist prior to initiating the work. Not more than 25 percent of the foliage shall be removed within an annual growing season. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site. Topping and lion's tailing shall be considered prohibited pruning practices for trees. ANSI A300 (Part 1).

- Lion's tailing - the removal of an excessive number of inner and/or lower lateral branches from parent branches. Lion's tailing is a prohibited practice. ANSI A300 (Part 1).

- Topping- Reduction of tree size using intermodal cuts without regard to tree health or structural integrity. Topping is a prohibited pruning practice. ANSI A300 (Part 1).

- Unbalanced crown - Removal of leaf or stem area predominantly on one side.

- Roots – Excessive pruning may include the cutting of any root 2 inches or greater in diameter and/or severing in excess 25% of the roots.

1.11 A. "Heritage tree" means:

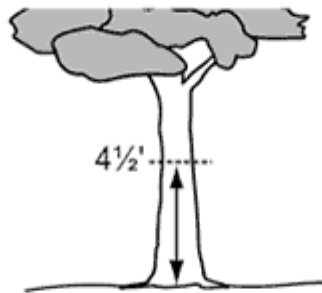
1. A tree meeting any of the following conditions:

a. A tree located outside the Main Building Area, that has a minimum trunk circumference of forty-eight (48) inches in circumference or fifteen point two (15.2) inches in diameter, as measured at fifty-four (54) inches above the natural grade.

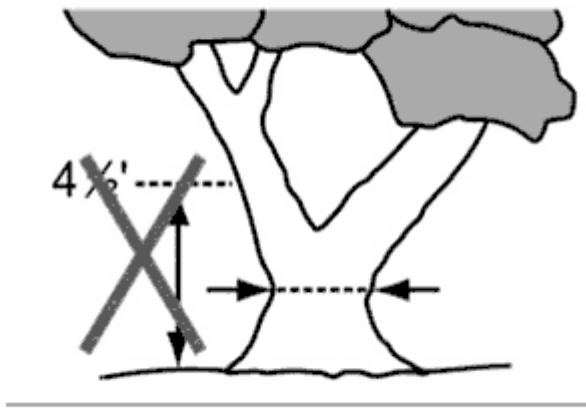
b. An oak tree (*Quercus lobata*, *Quercus agrifolia* or *Quercus douglasii*) or redwood tree *Sequoia sempervirens* located anywhere on a lot, that has a minimum trunk circumference of forty-eight (48) inches or fifteen point two (15.2) inches, as measured fifty-four (54) inches above the natural grade.

c. Any split trunk tree located outside the Main Building Area measuring fifteen point two (15.2) inches in diameter, as measured at fifty-four (54) inches above the natural grade. If the trunk branches or splits less than four point five (4.5) feet from the ground, the smallest circumference below the lowest branch shall be measured. For multi-stemmed trees, measure all trunks at 4.5 feet, then add the total diameter of the largest trunk to one-half the diameter of each additional trunk. Ex: largest branch is 4" plus 3", 3", 2", 3", 2", 3" You take 4 (largest branch) x 1.5' x 1.5" x 1" x 1.5" x 1" x 1.5" (half of all branches) = 20" diameter tree. Reference the Guide for Plant Appraisal authored by representatives to the Council of Tree and Landscape Appraisers.

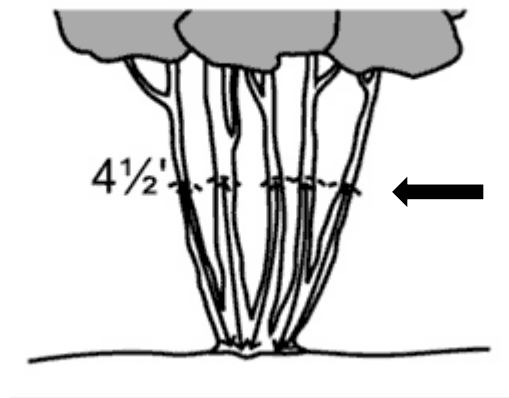
Measuring Tree Size for Existing Trees



Measuring Split Trunk Tree



Measuring Multi-stemmed Trees



2. A tree so designated by the City Council, based upon findings that the particular tree is unique and of importance to the public due to its unusual age, appearance, location or other factors;

3. A tree that has been removed without a permit that cannot be measured pursuant to subsection (a), above, will be presumed to have been a Heritage tree if it meets any of the following criteria. Anyone so cited for removing a Heritage tree without a permit may rebut this presumption by providing substantial evidence to the contrary to the satisfaction of the Town Arborist.

a. the tree has a stump of at least seventeen and three-quarters inches (17 3/4") as measured at the natural grade;

- b. the tree is a native oak with a minimum of 75 years of age;
- c. the tree is a Redwood with a minimum age of 30 years of age;
- d. the tree is any other species of tree with a minimum of 45 years of age.
- e. In the absence of remaining physical evidence, photographs and other circumstantial evidence, including but not limited to height, canopy dimensions, and similar trees in the immediate area may be used to create a presumption that the tree was a Heritage tree.

4. Exemptions: The trees listed below shall not be classified as Heritage trees, regardless of their size or age:

- a. Acacia baileyana—Bailey Acacia
- b. Albizia julibrissin - Mimosa
- c. Acacia decurrens—Green Wattle
- d. Acacia melanoxylon—Black Acacia
- e. Ailanthus altissima—Tree of Heaven
- f. Eucalyptus—any species

1.12

~~1.10 — **Heritage Tree** means a tree 48 inches or more in circumference (15.2 inches dbh), measured at 48 inches above natural grade, located outside of the Buildable Area on the parcel AND any native oak (Quercus agrifolia, Q. lobata, Q. kelloggii) greater than 48 inches in circumference located anywhere on the parcel.~~

Injury - means bruising, scarring, tearing or breaking of roots, bark, trunk, branches or foliage, herbicide or poisoning, or any other action which is likely to cause the death or permanent damage and/or disturbance to a tree.

1.13

Mechanical Injury - means a noninfectious injury which often leads to poor growth, a damaged appearance or death to the tree. Common causes of mechanical injury

are landscape maintenance equipment, staking damage, vehicles, vandalism, weather, insects and animals.

1.14 Monthly Inspection Report - means a monthly written report prepared by the Project Arborist as detailed in Section 1.18 (B).

~~1.14~~**1.15 Project Arborist** - means a private certified arborist retained by the owner for the purpose of overseeing on-site activity involving the welfare of the trees to be retained.

~~1.15~~**1.16 Protective Tree Fencing** - means a temporary enclosure erected around a tree to be protected at the boundary of the Tree Protection Zone as defined by 8.10.020 C of the Atherton Municipal Code and Section 2.2 -of this document. The fence serves three primary functions: 1) to keep the foliage, crown, branch structure and trunk clear from direct contact and damage by equipment, materials or disturbances; 2) to preserve roots and soil in an intact and non-compacted state; and 3) to identify the tree protection zone in which no soil disturbance is permitted and activities are restricted. (See detail, Appendix I)

~~1.16~~**1.17 Root Buffer** - means a temporary layer of material to protect the soil texture and roots. The buffer shall consist of a base course of tree chips spread over the root area, keeping one foot clear of the trunk clear, to a 4"- 6" depth, capped by a base course of 3/4-inch quarry gravel to stabilize the 3/4" plywood on top.

1.18 Tree Protection and Preservation Plan – Prepared by a private certified arborist and required for all development projects (Demo, Grading & Drainage and Building Permits), including any site improvements at grade or sub terrain, and shall include the following minimum information:

A. Site Plan - means a set of drawings (e.g. preliminary drawings, grading, demolition, building, utilities, landscape, irrigation, tree survey, etc.) that show existing site conditions and proposed landscape improvements, including trees to be removed, relocated or to be retained. Site plans shall include the following minimum information that may impact trees:

1. The site plan shall be scaled at 1" = 10' or 1" = 20' as necessary to clearly detail tree protection requirements, depending on the scope and complexity of the project and include all existing and proposed buildings and structures.
2. Include the **Tree Protection Zone (TPZ)**, as defined in Section 2.2, measurement on the plans, which identifies the area to protect the tree and roots from disturbance and mulch to be applied within the TPZ.

~~4.3.~~ Surveyed location, species, size/trunk diameter, dripline area of existing heritage trees (including trees located on neighboring property that overhang the project site) and street trees within 30-feet of the project site within the public right-of-way. Show trees on neighboring 15' from the property line.

~~2.4.~~ Paving, concrete, excavation, trenching, irrigation lines and/or grade change located within the **Tree Protection Zone (TPZ)**, as defined in Section 2.2.

~~5.~~ All proposed and existing hardscape, including but not limited to, driveways, slabs, walkways, etc. Identify proposed materials, impervious and semi-impervious surfaces.

~~6.~~ Existing and proposed utility pathways with detail on the location, depth and materials for all proposed underground utilities, including, but not limited to, sewer, water, electrical, water retention tanks, etc.

~~7.~~ The location of any areas where hand digging is proposed. Significant root cutting (over 2") will require a letter from the site arborist which will include mitigation measures. The Town Arborist shall review any and all proposed hand digging, significant root cutting and mitigation measures within required tree protection areas and plan approval is required prior to starting such work.

~~3.8.~~ Surface and subsurface drainage and aeration systems to be used.

~~4.9.~~ Walls, tree wells, retaining walls and grade change barriers, both temporary and permanent.

Landscaping, irrigation and lighting within ~~dripline~~ the TPZ of all heritage trees. Show Landscape Screening 3x away from all heritage trees.

~~5.10.~~ All of the final approved site plan sheets shall reference tree protection instructions.

~~11.~~ OSHA Cuts: (Occupational Safety and Health administration)

~~:~~

B. Written Inventory

A written inventory is required for demolition, grading and drainage and building permits and at Town Arborist or Building Officials discretion.

A Project Arborist letter report shall include:

1. A written narrative from an ISA Certified Arborist report.
2. Arborist Name, Certification # and company letterhead.

The letter report shall include the following for each tree:

1. Species (common and scientific name)
2. Size (diameter, height and crown spread)
3. Condition (foliage, vigor, structural integrity, etc.)
4. Prognosis (dangerous, imminent hazard, property damage). The Hazard Evaluation Form may be used to rate a dangerous condition. Life expectancy Location diagram (and photograph, if desired).

C. Photo Inventory

Colored photographs all of existing heritage trees on-site and/or within the public right-of-way adjacent to the property prior to any site demolition. These photographs can be integrated into the written inventory.

D. Appraisal

See Section 1.22 “Tree Appraisal and Appraised Value”. Appraise each heritage tree or soon to be heritage tree.

E. Grading & Drainage submittal:

Arborist Report/ Tree Removals / Arborist Letter, shall include but not be limited to:

1. Showing any impact to trees as a result of either grading or the installation of the drainage system.
2. Recommend tree protection and which drainage and utility lines require hand digging.
3. Submit a report by a certified arborist that the removal of the trees indicated on the Plans is in compliance with Town regulations. The Town’s Arborist will need to review the proposed removal.
4. At the beginning of the job, prior to permit issuance, provide a letter signed by the arborist who produced the Arborist Report attesting that they have reviewed the plans and the project is designed in accordance with their recommendations and the project plans are designed in accordance with their recommendations and is accordance with the Town’s Heritage Tree Ordinance and Standards documents to protect heritage trees.

~~1.171.19~~ **Soil Compaction** - means the compression of soil particles that may result from the movement or parking of heavy machinery and trucks, storage of construction materials, structures, paving, etc. within the Tree Protection Zone (TPZ).

~~1.20~~ **Soil Fracturing** - means the loosening of hard or compacted soil around a tree by means of a pneumatic soil probe that allows sudden bursts of air to crack, loosen or expand the soil to improve the root growing environment.

~~1.181.21~~ **Street Tree** - means any tree growing within the street right-of-way, outside of private property. Please note that most trees in the Right of Way are the adjacent property owners maintenance responsibility per Atherton Municipal Code Chapter 12.06.

~~1.22~~ **Tree Appraisal and Appraised Value** - means a method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood or community. The Certified Project Arborist shall determine the Tree Appraisal value as part of the required Tree Protection Plan by adjusting a tree's basic value by its pre-existing condition, location, and species using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers. An "Appraised Value" means the value of a tree as determined by the Town Arborist using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

~~1.21~~ ~~Tree Protection and Preservation Plan~~ - ~~means a plan prepared by a certified arborist that outlines measures to protect and preserve trees~~

~~1.191.23~~ **Tree Protection Zone, (TPZ)** - means, unless otherwise specified by a Project Arborist or Town Arborist, the area of temporary fenced tree enclosure, as set forth in ~~Section 2.03~~ Section 1.262.2 and 2.3.

~~1.201.24~~ **Trenching** - means any excavation to provide irrigation, install foundations, utility lines, services, pipe, drainage or other property improvements below grade.

~~1.241.25~~ **Verification of Tree Protection** - means the Project Arborist shall verify, in writing, that all pre-construction requirements have been met.

~~1.221.26~~ **Vertical Mulching** - means auguring, hydraulic or air excavation of vertical holes within a tree's root zone to loosen and aerate the soil, typically to mitigate soil compaction.

SECTION 2.00 PROTECTION OF TREES DURING CONSTRUCTION

The objective of this section is to reduce the negative impacts of construction on trees. The tree protection regulations are ~~for intended to guide a~~ construction project to insure ~~that the~~ appropriate practices will be implemented in the field to eliminate or mitigate undesirable consequences that may result from construction activities associated with a development project as defined in Section 1.5.

Typical negative impacts that occur during construction may include:

- Mechanical injury to roots, trunk or branches
- Compaction of soil, which degrades the functioning roots, inhibits the development off new ones and restricts drainage
- Changes in existing grade which can cut or suffocate roots
- Alteration of the water table - either raising or lowering
- Sterile soil conditions associated with stripping off topsoil
- Trenching for utilities and irrigation

SECTION 2.01 TREE PROTECTION AND PRESERVATION PLAN

Prior to commencement of a development project, a property owner shall have prepared a Tree Protection and Preservation Plan as defined in Section 2.01 as part of the building permit submittal. ~~if any activity is likely to impact a Heritage Tree as determined by the Town Arborist.~~ The Tree Protection and Preservation Plan ~~will~~ shall be prepared by a certified arborist with detail as specified by the Tree Preservation Standards and Specifications.

~~1.1 to assess impacts to trees, recommend mitigation to reduce impacts to a less than significant level and identify construction guidelines to be followed through all phases of a construction project.~~

1.2.1 Pre-Construction Requirements

The following ~~six steps~~ five components shall be incorporated within the Tree Protection and Preservation Plan prior to grading, demolition or building permit issuance:

A. Site Plan

~~See Section 1.18 Tree Protection and Preservation Plan. On the Tree Protection and Preservation Plan for the project, plot accurate trunk locations and the Dripline of all Heritage Trees. In addition, for Heritage Trees the plans shall accurately show the species, trunk diameter, dripline and clearly indicate the Tree Protection Zone (TPZ) to be enclosed with the specified tree fencing as a bold dashed line.~~

B. Tree Protection Disclosure Statement

A statement signed by the owner of the property and permit applicant, on a form provided by the Town, acknowledging the existence of Heritage Trees on the property ~~(Appendix H)~~ and that the approved Tree Protection

and Preservation Plan shall be implemented and adhered through the finaling of the associated building permit.

C. Verification of Tree Protection

The Project Arborist shall verify, in writing, that all pre-construction requirements have been met as set forth in Section 2.01. Written verification must be submitted to and approved by the Town Arborist prior to demolition, grading or building permit issuance.

D. ~~Pre~~-Construction Meeting

The demolition, grading and general contractors are required to meet with the Project Arborist and the Town Arborist at the site prior to beginning demolition, grading or new construction to review tree protection measures and to establish haul routes, staging areas, etc.

E. Protective Tree Fencing for Heritage Trees or Street Trees

1. Fenced enclosures

Fenced enclosures shall be erected around trees at 8x to be protected to establish the TPZ in which no soil disturbance is permitted and activities are restricted.

~~a.~~

2. Size and type of fence

All trees to be preserved shall be protected with 6 foot high, minimum 12 gauge chain link fence. Fences are to be mounted on 2-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing (See detail, Appendix ~~III~~). This detail shall appear on grading, demolition and building permit plans.

2.3. Duration

Tree fencing shall be erected before any demolition, grading or construction begins and remain in place until the Town Arborist approves the removal.

3.4. "Warning" Signs

Warning signs shall be prominently displayed on each fence side so clearly visible. (See Appendix ~~IV~~). The signs are available at the Building Department.

5. Mulch

A 6" layer of coarse mulch or woodchips is to be placed beneath the dripline of the protected trees. Mulch is to be kept 12" from the trunk.

4.32.2 ~~Tree Protection Zone (TPZ)~~ TREE PROTECTION ZONE (TPZ)

Each Heritage Tree to be protected, including those on neighboring properties, shall have a designated TPZ identifying the area sufficiently large enough to protect the tree and roots from disturbance and/or damage as defined in Section 1.7. Within the TPZ, roots that are critical for tree survival are typically found in the upper three foot soil horizon, and may extend beyond the dripline area. Protecting the roots in the TPZ is necessary to ensure the tree’s survival. The TPZ area can be determined by the formula: One foot per inch of diameter. For example a 20” diameter tree shall have a 20’ radius from the perimeter of the trunk or a 20 foot TPZ. Any deviation in determining the TPZ will require approval by the Town Arborist

Diagram of roots of a typical tree



A. Tree Protection Zone (TPZ)

“Tree Protection Zone (TPZ)” is the designated protection area sufficiently large enough to protect a Heritage tree and its roots from disturbance and/or damage as defined in Section 8.10.020 C of the Atherton Municipal Code and as specified below. Unless otherwise specified below, the TPZ is a radius 10 times the diameter of a tree measured at 4.5.5 feet above grade.

The TPZ shall be determined the following way: the TPZ radius shall be 10 times the DBH (4.5.5”) of the trunk. For example: a 15” DBH = a 12.5 foot radius from the perimeter of the tree, or a 25 foot TPZ. Any deviation in determining the TPZ shall be in accordance with ANSI standards subject to approval by the Town Arborist.

1. R1-A Zoning District:

a. TPZ zone is 10x away from all buildings and structures.

b. New driveways the TPZ is 8x.

2. R1-B Zoning District or lots in the R1-A Zoning District 10,000 square feet or less:

a. TPZ zone is 6x away from all buildings, structures, and new driveways.

2.3. For all lots:

a. CMU walls the TPZ is 6x . For wood or metal fences the TPZ is 5x.

b. Landscaping and Landscape Screening trees and bushes the TPZ is 3x.

c. For replacement of existing driveways and/or new, proposed compacted surfaces, allow for replacement in the existing location, but in no cases shall be less than 3 times (3x).

A.B. Staff Level Exception From the TPZ.

A staff level exception from the TPZ standards noted in Section 2.2 (A) can be considered under any of the following scenarios.

- A TPZ exception in the R1-A from 10x the diameter, down to a minimum of 8x the diameter, for all development types unless otherwise specified.
- A TPZ exception in the R1-A from 6x the diameter, down to a minimum of 3x the diameter, for lots in the R1-B, or lots 10,000 square feet or less in the R1-A.
- A TPZ exception for CMU walls from 6x the diameter, down to 3x the diameter.

1. An application and fee are required to be completed prior to a staff level exception review. Submitting and paying for the application does not guarantee approval to lower the TPZ. If the Town Arborist denies an application submitted for a staff level exception to the TPZ, the application can be appealed to the Planning Commission in accordance with the Atherton Municipal Code for further review.

The application for a staff level exception shall be submitted with payment to The Town of Atherton with a narrative stating why the exception is requested, what the impact to any and all heritage trees would be and any identified mitigation. The following information shall accompany the application and application fee:

- a. A plan showing location of structure and trees with size and species. Show TPZ zones from 5x to 10x on the plan.
 - b. Arborist report – stating what the damage and mitigation would be.
 - c. The percentage of roots to be cut.
 - d. Any utility easements.
 - e. Any supporting letters from Menlo Fire, PG&E and/or other utility providers.
 - f. The Town Arborist can require a meeting with all parties to discuss further.
2. Any application to be submitted shall be reviewed by the Town Arborist for demonstrated compliance with any the following criteria, to the satisfaction of the Town Arborist:
- a. The utility location is required by a utility company and it cannot be moved. ~~per civil~~A confirmation in writing from the utility is required.
 - b. If the species is tolerant of construction based on species, health, size and age from ~~Mathilda and Clark~~ tolerance chart.
~~determined to be tolerant based on species health, size and age.~~
~~25%~~
 - c. There are no roots over 2” that need to be cut.~~No roots over 2” to be cut~~
 - d. Other criteria as may be required by the Town Arborist.

C. Prohibited Activities

Activities prohibited within the TPZ:

1. Storage or parking vehicles, building materials, refuse, excavated spoils or dumping of poisonous materials, including but not limited to, paint, petroleum products, concrete, stucco mix, dirty water, swimming pool and/or spa water, trailer, container boxes, clean up areas, debris boxes,

building materials, trenching, grade changes, tree houses, and soil compaction, OSHA Cut.

2. The use of tree trunks as a winch support, anchorage, as a temporary power pole, sign posts or other similar function.
3. Cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches and other miscellaneous excavation.

4. Landscaping and irrigation improvements.

4.5. Soil disturbance, soil compaction or grade changes.

5.6. Drainage changes, including swimming pool, spa, and/or water features discharge.

7. Any other activities which cause disturbance and/or damage to trees as defined in Section 1.7 -and or as specified in AMC Sec 8.10.030. -

D. Permitted Activities

Activities permitted within the TPZ ~~or required in the TPZ~~:

1. Mulching - During construction, it is recommended that wood chips or similar material be spread within the TPZ to a 4-to 6-inch depth, leaving the trunk clear of mulch.
2. Root Buffer - When areas within the TPZ cannot be fenced, a Root Buffer is required and shall cover the root zone. A root buffer is a temporary layer of material to protect the soil texture and roots. The buffer shall consist of a base of mulch chips spread over the root area to minimum of 6 inches depth, capped by a base course of 3/4th inch quarry gravel to stabilize 3/4th inch plywood on top.
3. Irrigation, aeration, fertilizing or other beneficial practices that have been specifically approved for use by the Project Arborist within the TPZ.

E. Erosion Control

If a tree is adjacent to or in the immediate proximity to a grade slope of 8% (23 degrees) or more, then approved erosion control or silt barriers shall be installed outside the TPZ to prevent siltation and/or erosion within the TPZ.

F. Tunneling and Directional Drilling

If trenching or pipe installation has been approved within the TPZ, then the trench shall be either cut by hand, air spade, or by mechanically boring the tunnel

under the roots with a horizontal directional drill and hydraulic or pneumatic air excavation technology. In all cases, install the utility pipe, immediately backfill with soil and soak within the same day. If boring is set up outside the dripline of a tree and not directly under trunk, the d-Depth of hole should be a minimum of 2 to 3 feet depending on the root depth of the tree. The bore hole should be offset by a distance based on the trees diameter (table below). From Best Management Practices- Managing Trees During Construction.

Minimum distance requirements for boring or auguring underneath tree roots.

<u>Tree Diameter (dbh) (centered on trunk)</u>	<u>Minimum offset distance</u>	<u>Minimum length of bore hole</u>
<u>15 inches</u>	<u>12 feet</u>	<u>15 feet</u>
<u>20 inches</u>	<u>15 feet</u>	<u>20 feet</u>
<u>25 inches</u>	<u>18 feet</u>	<u>25 feet</u>

G. Tree Pruning and Surgery

The most compelling reason to prune is to develop a strong, safe framework and tree structure and to reduce hazards. If the Project Arborist recommends that trees be pruned, the standard pruning shall consist of “crown cleaning” as defined by the ISA Pruning Guidelines.

1. Excessive Pruning

See definition in Section 1.103 above.

~~1. Maximum Pruning Maximum pruning should only occur if approved by the Town Arborist. No more than one fourth (25 percent) of the functioning leaf, branch and stem area may be removed within one calendar year of any Heritage Tree, or removal of foliage so as to cause the unbalancing of the tree. Trees should not be topped.~~

2. Tree Workers

Pruning, as defined in Section 1.9 above, shall not be attempted by construction or contractor personnel, but shall be performed by a qualified tree care specialist or certified tree worker ~~according to specifications contained within these procedures.~~

H. Tree Removal Procedure

When heritage trees are proposed to be removed, tree removal practices ~~apply:~~shall adhere to the procedures as prescribed in Chapter 8.10 of the AMC.

- ~~1. A permit is required to remove any Heritage Tree. An application can be found at The Town of Atherton's website or at the Town Permit Center.~~
- ~~2. Any tree to be removed that may impact a Heritage Tree shall be done under the supervision of a certified arborist.~~
- ~~3. The removal of trees that extend into the branches or roots of Heritage Trees shall not be attempted by demolition or construction personnel, grading or other heavy equipment. A certified arborist or certified tree worker shall remove, or oversee the removal of the tree in a manner that causes no damage and/or disturbance or below ground to trees that remain.~~

~~I.~~
~~J.I.~~ -Post Tree Protection and Preservation Plan Implementation ~~SECTION 2.04 INJURY MITIGATION~~

A mitigation program is required if ~~the development project, as determined by the Project Arborists required Monthly Inspection Form and/or as determined by the Town Arborist, the approved development~~ will cause drought stress, dust accumulation or soil compaction to trees that are to be protected and preserved. ~~Type saved~~ To help reduce impact injury, one or more of the following mitigation measures shall be implemented and supervised by the Project Arborist.

1. Irrigation Program

Irrigate to wet the soil within the TPZ during the dry season as specified by the Project Arborist.

2. Dust Control Program

During periods of extended drought, or grading, spray trunk, limbs and foliage to remove accumulated construction dust.

3. Soil Compaction Damage

Compaction of the soil is significantly detrimental to the long term viability of trees on construction sites due to suffocation of roots. If compaction to the upper 12-inch soil within the TPZ has occurred, then one or more of the following mitigation measures shall be implemented as recommended by the Project Arborist and/or the Town Arborist.

a. Type 1 Mitigation

If an approved paving, hardscape or other compromising material encroaches within the **TPZ**, an aeration system shall be designed by a certified arborist and used within this area.

b. Type 11 Mitigation

If inadvertent compaction of the soil has occurred within the **TPZ**, the soil shall be loosened by a method approved by the Town Arborist, such as vertical mulching or soil fracturing.

K.J. Disturbance and/or Damage to Trees

1. Reporting

Any disturbance and/or damage or injury to trees, whether accidental or otherwise, as defined in Section 1.7 and as verified by the Town Arborist, shall be reported within 6-hours to the Project Arborist and Town Arborist so that mitigation can take place ~~as soon as possible.~~ All injury to branches, trunk or to roots over 2-inches in diameter shall be reported in the Monthly Inspection Report. Any trenching work 10 x the diameter of the tree is required to be reported in the monthly arborist report

2. Appraised Value

If a tree is damaged, a Certified Arborist determines the Tree Appraisal value by adjusting a tree's basic value by its condition, location, and species using the most recent edition of the *Guide for Plant Appraisal*, published by the Council of Tree and Landscape Appraisers. The formula used should also be noted. Refer to Ssection 1.220.

3. Mitigation

Mitigation for damage or injury to heritage trees will be directed and performed under the project arborist's supervision.

Typical mitigation efforts for disturbance and/or damage may include, but not be limited to, the following:

a. Root injury

If trenches are cut and tree roots 2-inches or larger are encountered they shall be cleanly cut back to a sound wood lateral root under the supervision of the Project Arborist. The end of the root shall be sealed and kept moist. All exposed root areas within the **TPZ** shall be backfilled or covered within one hour. Exposed roots shall be kept from drying out by temporarily covering the roots and draping layered burlap or carpeting over the upper 3-feet of trench walls. The materials shall be kept wet until backfilled to reduce evaporation from the trench walls.

b. Bark or trunk wounding

Current bark tracing and treatment methods shall be performed by a qualified tree care specialist within two days.

c. Scaffold branch or leaf canopy injury

Remove broken or torn branches back to an appropriate branch capable of resuming terminal growth within five days. If leaves are heat scorched from equipment exhaust pipes, consult the Project Arborist within 6 hours.

L.K. Inspection Schedule

The Project Arborist retained by the applicant shall conduct the following required inspections of construction sites containing protected Heritage Trees. Inspections shall verify implementation of the approved Tree Protection and Preservation Plan as defined in Section 2.01.

~~that the type of tree protection is consistent with the standards outlined within these Guidelines. For each required inspection, a monthly inspection report of any change in tree conditions and actions taken shall be provided to the Town of Atherton. Inspection Reports shall be faxed to the Town Arborist at (650) 688-6539 or by e-mail at kanderson@ci.atherton.ca.us.~~

1. Pre -Construction Meeting

Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection and the tree preservation and protections standards and specifications of this document with the job site superintendent, grading equipment operators, Project Arborist, and Town Arborist.

2. Inspection of Protective Tree Fencing

The Town Arborist shall be in receipt of a written statement from Project Arborist verifying that they has conducted a field inspection of the trees and that the protective tree fencing and signage is in place prior to issuance of a demolition, grading, or building permit.

3. Inspection of Rough Grading

The Project Arborist shall perform an inspection during the course of rough grading adjacent to the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the Project Arborist at least 48 hours advance notice of such activity.

4. Monthly Inspections

The Project Arborist shall perform monthly inspections to monitor changing conditions and tree health and submit a written report to the Town Arborist and reference this document to be submitted by the 15th of every month on a form as prescribed by the Town Arborists~~If the 15th falls~~

on a weekend or holiday, the form shall be submitted the next working business day. Form to be emailed to the Town Arborist.

~~E. Special Activities within the Tree Protection Zone Work in this area (TPZ) requires the direct onsite supervision of the Project Arborist.~~

5. Landscape Phase

Tree protection fencing is required to remain in place during the landscape phase as trenching does occur. No trenching for irrigation or plantings should occur near heritage trees. No irrigation should be installed near a heritage Oak tree.

6. Removal of Tree protection fencing

To request removal of the fencing a report from the private project arborist is required to be sent to the Town Arborist for review stating that all work is complete and no equipment or trenching will occur on site.

L. Violation – Penalties and remedies

1. Any Person causing a Heritage tree to be disturbed or damaged in violation of this chapter shall submit an amount equal to half (1/2) the Appraised Value of the tree as a civil penalty in addition to the penalties as outlined in Chapter 1.20 of the Atherton Municipal Code. If a tree that has been disturbed or damaged dies within one (1) year of the date of the citation, it will be presumed that the disturbance or damage caused the death and the penalties set forth in subsection B, immediately below, shall apply instead of those herein.

2. Any person causing a Heritage tree to be removed in violation of this chapter shall submit an amount equal to two (2) times the Appraised Value as a civil penalty in addition to the penalties as outlined in Chapter 1.20 of the Atherton Municipal Code.

3. Pursuant to 1.20.020 of the Atherton Municipal Code, a civil action may be commenced to abate, enjoin, or otherwise compel the cessation of violation of any provision in this chapter. In a civil action brought pursuant to this chapter in which the Town prevails, the court may award to the Town all costs of investigation and preparation for trial, the costs of trial, reasonable expenses including overhead and administrative costs incurred in prosecuting the action, and reasonable attorney fees.

4. Where there has been a violation, violator shall obtain a retroactive tree removal permit for the previously conducted unlawful activity, subject to the full range of requirements and conditions as specified in Section 8.10.040 of the Atherton Municipal Code.
5. All remedies provided in this section shall be cumulative and are not exclusive.

TOWN OF ATHERTON

Tree Preservation Standards and Specifications



____, 2019

TOWN OF ATHERTON

TREE PRESERVATION STANDARDS AND SPECIFICATIONS

SECTION 1.00 DEFINITIONS

For the purpose and interpretation of the standards and specifications, the following definitions shall apply:

- 1.1 **Main Building Area** - (front, interior side, street side, and/or rear) of a lot is the horizontal plane between the minimum setbacks of the respective yard.
- 1.2 **Building Official** - means the Director of Building and Planning or the Director's designee.
- 1.3 **Certified Arborist** – is an individual who has demonstrated knowledge and competency through obtainment of the current International Society of Arboriculture arborist certification.
- 1.4 **Dead or Dangerous Tree** - is dead or dying trees, dead parts of live trees, or unstable live trees (due to structural defects or other factors) that are within striking distance of people or property, as determined by Town Arborist. If the tree has been determined to be dead or dangerous, removal is permitted under Section 8.10 of the Atherton Municipal Code.
- 1.5 **Development Project** - means any construction activity including demolition, grading, hardscape and drainage improvements, new construction of main house or accessory buildings/structures, subterranean grading activities, added square footage to existing main house or accessory buildings/structures, site preparation and landscaping.
- 1.6 **Diameter at Breast Height** – measurement of trunk diameter taken at 4.5 feet (or 54 inches) off the ground. The diameter may be calculated by using the following formula:

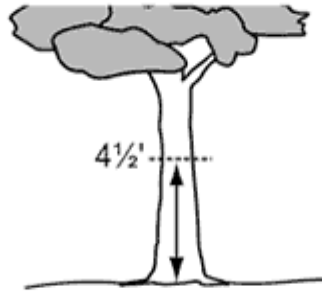
$$\text{DBH} = \text{circumference at 4.5 feet} \div 3.142$$

- 1.7 **Disturbance and/or Damage** - refers to demolition, construction, subterranean grading activities, landscaping improvements, other development activities and/or any other action, as determined by the Building Official or Town arborist, which will cause damage to its health including, by way of example, but not limited to, excess pruning, topping, cutting, girdling, poisoning, over-watering, unauthorized relocation or transportation of a tree, or trenching, excavating, altering the grade, compaction or paving near the tree, screwing anything in the tree (for example, but not limited to, signs, mailboxes and or treehouses).

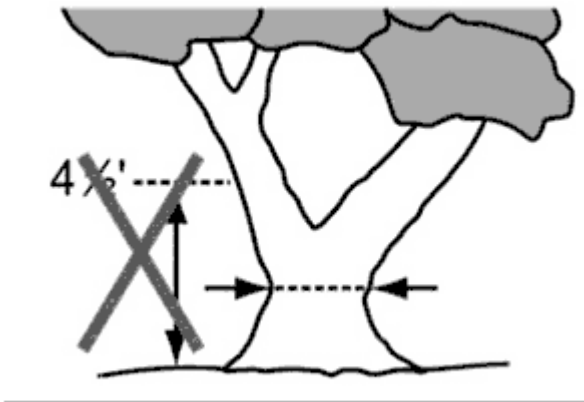
- 1.8 **Dripline** - means the width of the tree, as measured by the lateral extent of the canopy. The tree dripline is the guide measurement used to prevent unnecessary damage to trees during construction works. It is defined as the outermost circumference of the tree's canopy, from which water drips onto the ground.
- 1.9 **Pruning** – The selective removal of plant parts to meet the specific goals and objectives of ANSI A300 (Part 1).
- 1.10 **Excessive Pruning** - means removing in excess of 25 percent of the functioning leaf branch. Pruning in excess of 25 percent considered disturbance and/or damage to the tree as defined in Section 1.7 and is prohibited. Pruning in excess of twenty-five percent (25%) is injurious to the tree and is prohibited unless approval is granted by the Town Arborist prior to initiating the work. Not more than 25 percent of the foliage shall be removed within an annual growing season. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site. Topping and lion's tailing shall be considered prohibited pruning practices for trees. ANSI A300 (Part 1).
- Lion's tailing - the removal of an excessive number of inner and/or lower lateral branches from parent branches. Lion's tailing is a prohibited practice. ANSI A300 (Part 1).
 - Topping- Reduction of tree size using intermodal cuts without regard to tree health or structural integrity. Topping is a prohibited pruning practice. ANSI A300 (Part 1).
 - Unbalanced crown - Removal of leaf or stem area predominantly on one side.
 - Roots – Excessive pruning may include the cutting of any root 2 inches or greater in diameter and/or severing in excess 25% of the roots.
- 1.11 **Heritage tree** means:
1. A tree meeting any of the following conditions:
 - a. A tree located outside the Main Building Area, that has a minimum trunk circumference of forty-eight (48) inches in circumference or fifteen point two (15.2) inches in diameter, as measured at fifty-four (54) inches above the natural grade.
 - b. An oak tree (*Quercus lobata*, *Quercus agrifolia* or *Quercus douglasii*) or redwood tree *Sequoia sempervirens* located anywhere on a lot, that has a minimum trunk circumference of forty-eight (48) inches or fifteen point two (15.2) inches, as measured fifty-four (54) inches above the natural grade.

c. Any split trunk tree located outside the Main Building Area measuring fifteen point two (15.2) inches in diameter, as measured at fifty-four (54) inches above the natural grade. If the trunk branches or splits less than four point five (4.5) feet from the ground, the smallest circumference below the lowest branch shall be measured. For multi-stemmed trees, measure all trunks at 4.5 feet, then add the total diameter of the largest trunk to one-half the diameter of each additional trunk. Ex: largest branch is 4" plus 3", 3", 2", 3", 2", 3" You take 4 (largest branch) x 1.5' x 1.5" x 1" x 1.5" x 1" x 1.5" (half of all branches) = 20" diameter tree. Reference the Guide for Plant Appraisal authored by representatives to the Council of Tree and Landscape Appraisers.

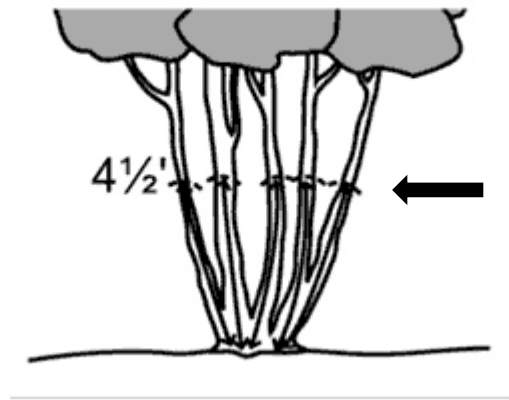
Measuring Tree Size for Existing Trees



Measuring Split Trunk Tree



Measuring Multi-stemmed Trees



2. A tree so designated by the City Council, based upon findings that the particular tree is unique and of importance to the public due to its unusual age, appearance, location or other factors;

3. A tree that has been removed without a permit that cannot be measured pursuant to subsection (a), above, will be presumed to have been a Heritage tree if it meets any of the following criteria. Anyone so cited for removing a Heritage tree without a permit may rebut this presumption by providing substantial evidence to the contrary to the satisfaction of the Town Arborist.

- a. the tree has a stump of at least seventeen and three-quarters inches ($17 \frac{3}{4}$ "') as measured at the natural grade;
- b. the tree is a native oak with a minimum of 75 years of age;
- c. the tree is a Redwood with a minimum age of 30 years of age;
- d. the tree is any other species of tree with a minimum of 45 years of age.
- e. In the absence of remaining physical evidence, photographs and other circumstantial evidence, including but not limited to height, canopy dimensions, and similar trees in the immediate area may be used to create a presumption that the tree was a Heritage tree.

4. Exemptions: The trees listed below shall not be classified as Heritage trees, regardless of their size or age:

- a. Acacia baileyana—Bailey Acacia
 - b. Albizia julibrissin - Mimosa
 - c. Acacia decurrens—Green Wattle
 - d. Acacia melanoxylon—Black Acacia
 - e. Ailanthus altissima—Tree of Heaven
 - f. Eucalyptus—any species
- 1.12 **Injury** - means bruising, scarring, tearing or breaking of roots, bark, trunk, branches or foliage, herbicide or poisoning, or any other action which is likely to cause the death or permanent damage and/or disturbance to a tree.
- 1.13 **Mechanical Injury** - means a noninfectious injury which often leads to poor growth, a damaged appearance or death to the tree. Common causes of mechanical injury are landscape maintenance equipment, staking damage, vehicles, vandalism, weather, insects and animals.
- 1.14 **Monthly Inspection Report** - means a monthly written report prepared by the Project Arborist as detailed in Section 1.18 (B).
- 1.15 **Project Arborist** - means a private certified arborist retained by the owner for the purpose of overseeing on-site activity involving the welfare of the trees to be retained.
- 1.16 **Protective Tree Fencing** - means a temporary enclosure erected around a tree to be protected at the boundary of the Tree Protection Zone as defined by Atherton Municipal Code and Section 2.2 of this document. The fence serves three primary functions: 1) to keep the foliage, crown, branch structure and trunk clear from direct contact and damage by equipment, materials or disturbances; 2) to preserve roots and soil in an intact and non-compacted state; and 3) to identify the tree protection zone in which no soil disturbance is permitted and activities are restricted. (See detail, Appendix I)
- 1.17 **Root Buffer** - means a temporary layer of material to protect the soil texture and roots. The buffer shall consist of a base course of tree chips spread over the root area, keeping one foot clear of the trunk clear, to a 4"- 6" depth, capped by a base course of 3/4-inch quarry gravel to stabilize the 3/4" plywood on top.

- 1.18 **Tree Protection and Preservation Plan** – Prepared by a private certified arborist and required for all development projects (Demo, Grading & Drainage and Building Permits), including any site improvements at grade or sub terrain, and shall include the following minimum information:

A. Site Plan - means a set of drawings (e.g. preliminary drawings, grading, demolition, building, utilities, landscape, irrigation, tree survey, etc.) that show existing site conditions and proposed landscape improvements, including trees to be removed, relocated or to be retained. Site plans shall include the following minimum information that may impact trees:

1. The site plan shall be scaled at 1" = 10' or 1" = 20' as necessary to clearly detail tree protection requirements, depending on the scope and complexity of the project and include all existing and proposed buildings and structures.
2. Include the **Tree Protection Zone (TPZ)**, as defined in Section 2.2, measurement on the plans, which identifies the area to protect the tree and roots from disturbance and mulch to be applied within the TPZ.
3. Surveyed location, species, size/trunk diameter, dripline area of existing heritage trees (including trees located on neighboring property that overhang the project site) and street trees within 30-feet of the project site within the public right-of-way. Show trees on neighboring 15' from the property line.
4. Paving, concrete, excavation, trenching, irrigation lines and/or grade change located within the **Tree Protection Zone (TPZ)**, as defined in Section 2.2.
5. All proposed and existing hardscape, including but not limited to, driveways, slabs, walkways, etc. Identify proposed materials, impervious and semi-impervious surfaces.
6. Existing and proposed utility pathways with detail on the location, depth and materials for all proposed underground utilities, including, but not limited to, sewer, water, electrical, water retention tanks, etc.
7. The location of any areas where hand digging is proposed. Significant root cutting (over 2") will require a letter from the site arborist which will include mitigation measures. The Town Arborist shall review any and all proposed hand digging, significant root cutting and mitigation measures within required tree protection areas and plan approval is required prior to starting such work.
8. Surface and subsurface drainage and aeration systems to be used.

9. Walls, tree wells, retaining walls and grade change barriers, both temporary and permanent.

Landscaping, irrigation and lighting within the TPZ of all heritage trees. Show Landscape Screening 3x away from all heritage trees.

10. All of the final approved site plan sheets shall reference tree protection instructions.
11. OSHA Cuts (Occupational Safety and Health administration)

B. Written Inventory

A written inventory is required for demolition, grading and drainage and building permits and at Town Arborist or Building Officials discretion.

A Project Arborist letter report shall include:

1. A written narrative from an ISA Certified Arborist report.
2. Arborist Name, Certification # and company letterhead.

The letter report shall include the following for each tree:

1. Species (common and scientific name)
2. Size (diameter, height and crown spread)
3. Condition (foliage, vigor, structural integrity, etc.)
4. Prognosis (dangerous, imminent hazard, property damage). The Hazard Evaluation Form may be used to rate a dangerous condition. Life expectancy Location diagram (and photograph, if desired).

C. Photo Inventory

Colored photographs all of existing heritage trees on-site and/or within the public right-of-way adjacent to the property prior to any site demolition. These photographs can be integrated into the written inventory.

D. Appraisal

See Section 1.22 “Tree Appraisal and Appraised Value”. Appraise each heritage tree or soon to be heritage tree.

E. Grading & Drainage submittal:

Arborist Report/ Tree Removals / Arborist Letter, shall include but not be limited to:

1. Showing any impact to trees as a result of either grading or the installation of the drainage system.
 2. Recommend tree protection and which drainage and utility lines require hand digging.
 3. Submit a report by a certified arborist that the removal of the trees indicated on the Plans is in compliance with Town regulations. The Town's Arborist will need to review the proposed removal.
 4. At the beginning of the job, prior to permit issuance, provide a letter signed by the arborist who produced the Arborist Report attesting that they have reviewed the plans and the project is designed in accordance with their recommendations and the project plans are designed in accordance with their recommendations and is accordance with the Town's Heritage Tree Ordinance and Standards documents to protect heritage trees.
-
- 1.19 **Soil Compaction** - means the compression of soil particles that may result from the movement or parking of heavy machinery and trucks, storage of construction materials, structures, paving, etc. within the Tree Protection Zone (TPZ).
- 1.20 **Soil Fracturing** - means the loosening of hard or compacted soil around a tree by means of a pneumatic soil probe that allows sudden bursts of air to crack, loosen or expand the soil to improve the root growing environment.
- 1.21 **Street Tree** - means any tree growing within the street right-of-way, outside of private property. Please note that most trees in the Right of Way are the adjacent property owners maintenance responsibility per Atherton Municipal Code Chapter 12.06.
- 1.22 **Tree Appraisal and Appraised Value** - means a method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood or community. The Certified Project Arborist shall determine the Tree Appraisal value as part of the required Tree Protection Plan by adjusting a tree's basic value by its pre-existing condition, location, and species using the most recent edition of the *Guide for Plant Appraisal*, published by the Council of Tree and Landscape Appraisers. An "Appraised Value" means the value of a tree as determined by the Town Arborist using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.
- 1.23 **Tree Protection Zone, (TPZ)** - means, unless otherwise specified by a Project Arborist or Town Arborist, the area of temporary fenced tree enclosure, as set forth in Section 2.2.
- 1.24 **Trenching** - means any excavation to provide irrigation, install foundations, utility lines, services, pipe, drainage or other property improvements below grade.
- 1.25 **Verification of Tree Protection** - means the Project Arborist shall verify, in writing, that all pre-construction requirements have been met.

- 1.26 **Vertical Mulching** - means auguring, hydraulic or air excavation of vertical holes within a tree's root zone to loosen and aerate the soil, typically to mitigate soil compaction.

SECTION 2.00 PROTECTION OF TREES DURING CONSTRUCTION

The objective of this section is to reduce the negative impacts of construction on trees. The tree protection regulations are for construction project to insure the appropriate practices will be implemented in the field to eliminate or mitigate undesirable consequences that may result from construction activities associated with a development project as defined in Section 1.5.

Typical negative impacts that occur during construction may include:

- Mechanical injury to roots, trunk or branches
- Compaction of soil, which degrades the functioning roots, inhibits the development off new ones and restricts drainage
- Changes in existing grade which can cut or suffocate roots
- Alteration of the water table - either raising or lowering
- Sterile soil conditions associated with stripping off topsoil
- Trenching for utilities and irrigation

SECTION 2.01 TREE PROTECTION AND PRESERVATION PLAN

Prior to commencement of a development project, a property owner shall have prepared a Tree Protection and Preservation Plan as defined in Section 2.01 as part of the building permit submittal. The Tree Protection and Preservation Plan shall be prepared by a certified arborist with detail as specified by the Tree Preservation Standards and Specifications.

2.1 Pre-Construction Requirements

The following five components shall be incorporated within the Tree Protection and Preservation Plan prior to grading, demolition or building permit issuance:

A. Site Plan

See Section 1.18 *Tree Protection and Preservation Plan*.

B. Tree Protection Disclosure Statement

A statement signed by the owner of the property and permit applicant, on a form provided by the Town, acknowledging the existence of Heritage Trees on the property and that the approved Tree Protection and Preservation Plan shall be implemented and adhered through the finaling of the associated building permit.

C. Verification of Tree Protection

The Project Arborist shall verify, in writing, that all pre-construction requirements have been met as set forth in Section 2.01. Written verification must be submitted to and approved by the Town Arborist prior to demolition, grading or building permit issuance.

D. Pre -Construction Meeting

The demolition, grading and general contractors are required to meet with the Project Arborist and the Town Arborist at the site prior to beginning demolition, grading or new construction to review tree protection measures and to establish haul routes, staging areas, etc.

E. Protective Tree Fencing for Heritage Trees or Street Trees

1. Fenced enclosures

Fenced enclosures shall be erected around trees at 8x to be protected to establish the TPZ in which no soil disturbance is permitted and activities are restricted.

2. Size and type of fence

All trees to be preserved shall be protected with 6 foot high, minimum 12 gauge chain link fence. Fences are to be mounted on 2-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing (See detail, Appendix I). This detail shall appear on grading, demolition and building permit plans.

3. Duration

Tree fencing shall be erected before any demolition, grading or construction begins and remain in place until the Town Arborist approves the removal.

4. "Warning" Signs

Warning signs shall be prominently displayed on each fence side so clearly visible. (See Appendix II). The signs are available at the Building Department.

5. Mulch

A 6” layer of coarse mulch or woodchips is to be placed beneath the dripline of the protected trees. Mulch is to be kept 12” from the trunk.

2.2 **TREE PROTECTION ZONE (TPZ)**

Each Heritage Tree to be protected, including those on neighboring properties, shall have a designated TPZ identifying the area sufficiently large enough to protect the tree and roots from disturbance and/or damage as defined in Section 1.7. Within the TPZ, roots that are critical for tree survival are typically found in the upper three foot soil horizon, and may extend beyond the dripline area. Protecting the roots in the TPZ is necessary to ensure the tree's survival.

Diagram of roots of a typical tree



A. Tree Protection Zone (TPZ)

“Tree Protection Zone (TPZ)” is the designated protection area sufficiently large enough to protect a Heritage tree and its roots from disturbance and/or damage as defined in Section 8.10.020 C of the Atherton Municipal Code and as specified below. Unless otherwise specified below, the TPZ is a radius 10 times the diameter of a tree measured at 4.5 feet above grade.

The TPZ shall be determined the following way: the TPZ radius shall be 10 times the DBH (4.5') of the trunk. For example: a 15” DBH = a 12.5 foot radius from the perimeter of the tree, or a 25 foot TPZ. Any deviation in determining the TPZ shall be in accordance with ANSI standards subject to approval by the Town Arborist.

1. R1-A Zoning District:
 - a. TPZ zone is 10x away from all buildings and structures.
 - b. New driveways the TPZ is 8x.
2. R1-B Zoning District or lots in the R1-A Zoning District 10,000 square feet or less:

- a. TPZ zone is 6x away from all buildings, structures, and new driveways.

3. For all lots:

- a. CMU walls the TPZ is 6x . For wood or metal fences the TPZ is 5x.
- b. Landscaping and Landscape Screening trees and bushes the TPZ is 3x.
- c. For replacement of existing driveways and/or new, proposed compacted surfaces, allow for replacement in the existing location, but in no cases shall be less than 3 times (3x).

B. Staff Level Exception From the TPZ.

A staff level exception from the TPZ standards noted in Section 2.2 (A) can be considered under any of the following scenarios.

- A TPZ exception in the R1-A from 10x the diameter, down to a minimum of 8x the diameter, for all development types unless otherwise specified.
 - A TPZ exception in the R1-A from 6x the diameter, down to a minimum of 3x the diameter, for lots in the R1-B, or lots 10,000 square feet or less in the R1-A.
 - A TPZ exception for CMU walls from 6x the diameter, down to 3x the diameter.
1. An application and fee are required to be completed prior to a staff level exception review. Submitting and paying for the application does not guarantee approval to lower the TPZ. If the Town Arborist denies an application submitted for a staff level exception to the TPZ, the application can be appealed to the Planning Commission in accordance with the Atherton Municipal Code for further review.

The application for a staff level exception shall be submitted with payment to The Town of Atherton with a narrative stating why the exception is requested, what the impact to any and all heritage trees would be and any identified mitigation. The following information shall accompany the application and application fee:

- a. A plan showing location of structure and trees with size and species. Show TPZ zones from 5x to 10x on the plan.
- b. Arborist report – stating what the damage and mitigation would be.

- c. The percentage of roots to be cut.
 - d. Any utility easements.
 - e. Any supporting letters from Menlo Fire, PG&E and/or other utility providers.
 - f. The Town Arborist can require a meeting with all parties to discuss further.
2. Any application to be submitted shall be reviewed by the Town Arborist for demonstrated compliance with any the following criteria, to the satisfaction of the Town Arborist:
 - a. The utility location is required by a utility company and it cannot be moved. A confirmation in writing from the utility is required.
 - b. If the species is tolerant of construction based on species, health, size and age from Mathilda and Clark tolerance chart.
 - c. There are no roots over 2” that need to be cut.
 - d. Other criteria as may be required by the Town Arborist.

C. Prohibited Activities

Activities prohibited within the TPZ:

1. Storage or parking vehicles, building materials, refuse, excavated spoils or dumping of poisonous materials, including but not limited to, paint, petroleum products, concrete, stucco mix, dirty water, swimming pool and/or spa water, trailer, container boxes, clean up areas, debris boxes, building materials, trenching, grade changes, tree houses, and soil compaction, OSHA Cut.
2. The use of tree trunks as a winch support, anchorage, as a temporary power pole, sign posts or other similar function.
3. Cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches and other miscellaneous excavation.
4. Landscaping and irrigation improvements.
5. Soil disturbance, soil compaction or grade changes.
6. Drainage changes, including swimming pool, spa, and/or water features discharge.

7. Any other activities which cause disturbance and/or damage to trees as defined in Section 1.7 and or as specified in AMC Sec 8.10.030.

D. Permitted Activities

Activities permitted within the TPZ:

1. Mulching - During construction, it is recommended that wood chips or similar material be spread within the TPZ to a 4-to 6-inch depth, leaving the trunk clear of mulch.
2. Root Buffer - When areas within the TPZ cannot be fenced, a Root Buffer is required and shall cover the root zone. A root buffer is a temporary layer of material to protect the soil texture and roots. The buffer shall consist of a base of mulch chips spread over the root area to minimum of 6 inches depth, capped by a base course of 3/4th inch quarry gravel to stabilize 3/4th inch plywood on top.
3. Irrigation, aeration, fertilizing or other beneficial practices that have been specifically approved for use by the Project Arborist within the TPZ.

E. Erosion Control

If a tree is adjacent to or in the immediate proximity to a grade slope of 8% (23 degrees) or more, then approved erosion control or silt barriers shall be installed outside the **TPZ** to prevent siltation and/or erosion within the **TPZ**.

F. Tunneling and Directional Drilling

If trenching or pipe installation has been approved within the **TPZ**, then the trench shall be either cut by hand, air spade, or by mechanically boring the tunnel under the roots with a horizontal directional drill and hydraulic or pneumatic air excavation technology. In all cases, install the utility pipe, immediately backfill with soil and soak within the same day. If boring is set up outside the dripline of a tree and not directly under trunk, the depth of hole should be a minimum of 2 to 3 feet depending on the root depth of the tree. The bore hole should be offset by a distance based on the trees diameter (table below). From Best Management Practices- Managing Trees During Construction.

Minimum distance requirements for boring or auguring underneath tree roots.

Tree Diameter (dbh) (centered on trunk)	Minimum offset distance	Minimum length of bore hole
15 inches	12 feet	15 feet
20 inches	15 feet	20 feet
25 inches	18 feet	25 feet

G. Tree Pruning and Surgery

The most compelling reason to prune is to develop a strong, safe framework and tree structure and to reduce hazards. If the Project Arborist recommends that trees be pruned, the standard pruning shall consist of “crown cleaning” as defined by the ISA Pruning Guidelines.

1. Excessive Pruning

See definition in Section 1.10 above.

2. Tree Workers

Pruning, as defined in Section 1.9 above, shall not be attempted by construction or contractor personnel, but shall be performed by a qualified tree care specialist or certified tree worker

H. Tree Removal Procedure

When heritage trees are proposed to be removed, tree removal practices shall adhere to the procedures as prescribed in Chapter 8.10 of the AMC.

I. Post Tree Protection and Preservation Plan Implementation

A mitigation program is required if, as determined by the Project Arborists required Monthly Inspection Form and/or as determined by the Town Arborist, the approved development will cause drought stress, dust accumulation or soil compaction to trees that are to be protected and preserved. To help reduce impact injury, one or more of the following mitigation measures shall be implemented and supervised by the Project Arborist.

1. Irrigation Program

Irrigate to wet the soil within the TPZ during the dry season as specified by the Project Arborist.

2. Dust Control Program

During periods of extended drought, or grading, spray trunk, limbs and foliage to remove accumulated construction dust.

3. Soil Compaction Damage

Compaction of the soil is significantly detrimental to the long term viability of trees on construction sites due to suffocation of roots. If compaction to the upper 12-inch soil within the TPZ has occurred, then one or more of the following mitigation measures shall be implemented as recommended by the Project Arborist and/or the Town Arborist.

a. Type 1 Mitigation

If an approved paving, hardscape or other compromising material encroaches within the **TPZ**, an aeration system shall be designed by a certified arborist and used within this area.

b. Type 11 Mitigation

If inadvertent compaction of the soil has occurred within the **TPZ**, the soil shall be loosened by a method approved by the Town Arborist, such as vertical mulching or soil fracturing.

J. Disturbance and/or Damage to Trees

1. Reporting

Any disturbance and/or damage or injury to trees, whether accidental or otherwise, as defined in Section 1.7 and as verified by the Town Arborist, shall be reported within 6-hours to the Project Arborist and Town Arborist so that mitigation can take place. All injury to branches, trunk or to roots over 2-inches in diameter shall be reported in the Monthly Inspection Report. Any trenching work 10 x the diameter of the tree is required to be reported in the monthly arborist report

2. Appraised Value

If a tree is damaged, a Certified Arborist determines the Tree Appraisal value by adjusting a tree's basic value by its condition, location, and species using the most recent edition of the *Guide for Plant Appraisal*, published by the Council of Tree and Landscape Appraisers. The formula used should also be noted. Refer to Section 1.22.

3. Mitigation

Mitigation for damage or injury to heritage trees will be directed and performed under the project arborist's supervision.

Typical mitigation efforts for disturbance and/or damage may include, but not be limited to, the following:

a. Root injury

If trenches are cut and tree roots 2-inches or larger are encountered they shall be cleanly cut back to a sound wood lateral root under the supervision of the Project Arborist. The end of the root shall be sealed and kept moist. All exposed root areas within the **TPZ** shall be backfilled or covered within one hour. Exposed roots shall be kept from drying out by temporarily covering the roots and draping layered burlap or carpeting over the upper 3-feet of trench walls. The materials shall be kept wet until backfilled to reduce evaporation from the trench walls.

b. Bark or trunk wounding

Current bark tracing and treatment methods shall be performed by a qualified tree care specialist within two days.

c. Scaffold branch or leaf canopy injury

Remove broken or torn branches back to an appropriate branch capable of resuming terminal growth within five days. If leaves are heat scorched from equipment exhaust pipes, consult the Project Arborist within 6 hours.

K. Inspection Schedule

The Project Arborist retained by the applicant shall conduct the following required inspections of construction sites containing protected Heritage Trees. Inspections shall verify implementation of the approved Tree Protection and Preservation Plan as defined in Section 2.01.

1. Pre -Construction Meeting

Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection and the tree preservation and protections standards and specifications of this document with the job site superintendent, grading equipment operators, Project Arborist, and Town Arborist.

2. Inspection of Protective Tree Fencing

The Town Arborist shall be in receipt of a written statement from Project Arborist verifying that they has conducted a field inspection of the trees and that the protective tree fencing and signage is in place prior to issuance of a demolition, grading, or building permit.

3. Inspection of Rough Grading

The Project Arborist shall perform an inspection during the course of rough grading adjacent to the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the Project Arborist at least 48 hours advance notice of such activity.

4. Monthly Inspections

The Project Arborist shall perform monthly inspections to monitor changing conditions and tree health and submit a written report to the Town Arborist and reference this document to be submitted by the 15th of every month on a form as prescribed by the Town ArboristsIf the 15th falls

on a weekend or holiday, the form shall be submitted the next working business day. Form to be emailed to the Town Arborist.

5. Landscape Phase

Tree protection fencing is required to remain in place during the landscape phase as trenching does occur. No trenching for irrigation or plantings should occur near heritage trees. No irrigation should be installed near a heritage Oak tree.

6. Removal of Tree protection fencing

To request removal of the fencing a report from the private project arborist is required to be sent to the Town Arborist for review stating that all work is complete and no equipment or trenching will occur on site.

L. Violation – Penalties and remedies

1. Any Person causing a Heritage tree to be disturbed or damaged in violation of this chapter shall submit an amount equal to half (1/2) the Appraised Value of the tree as a civil penalty in addition to the penalties as outlined in Chapter 1.20 of the Atherton Municipal Code. If a tree that has been disturbed or damaged dies within one (1) year of the date of the citation, it will be presumed that the disturbance or damage caused the death and the penalties set forth in subsection B, immediately below, shall apply instead of those herein.
2. Any person causing a Heritage tree to be removed in violation of this chapter shall submit an amount equal to two (2) times the Appraised Value as a civil penalty in addition to the penalties as outlined in Chapter 1.20 of the Atherton Municipal Code.
3. Pursuant to 1.20.020 of the Atherton Municipal Code, a civil action may be commenced to abate, enjoin, or otherwise compel the cessation of violation of any provision in this chapter. In a civil action brought pursuant to this chapter in which the Town prevails, the court may award to the Town all costs of investigation and preparation for trial, the costs of trial, reasonable expenses including overhead and administrative costs incurred in prosecuting the action, and reasonable attorney fees.
4. Where there has been a violation, violator shall obtain a retroactive tree removal permit for the previously conducted unlawful activity, subject to

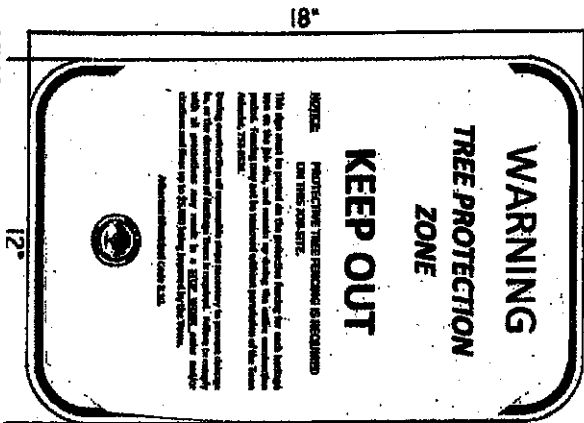
the full range of requirements and conditions as specified in Section 8.10.040 of the Atherton Municipal Code.

5. All remedies provided in this section shall be cumulative and are not exclusive.

Warning" Sign

A warning sign shall be prominently displayed on each fence. The signs are available at the Building Department.

Fencing to be placed at dripline or 6 x diameter whichever is greater



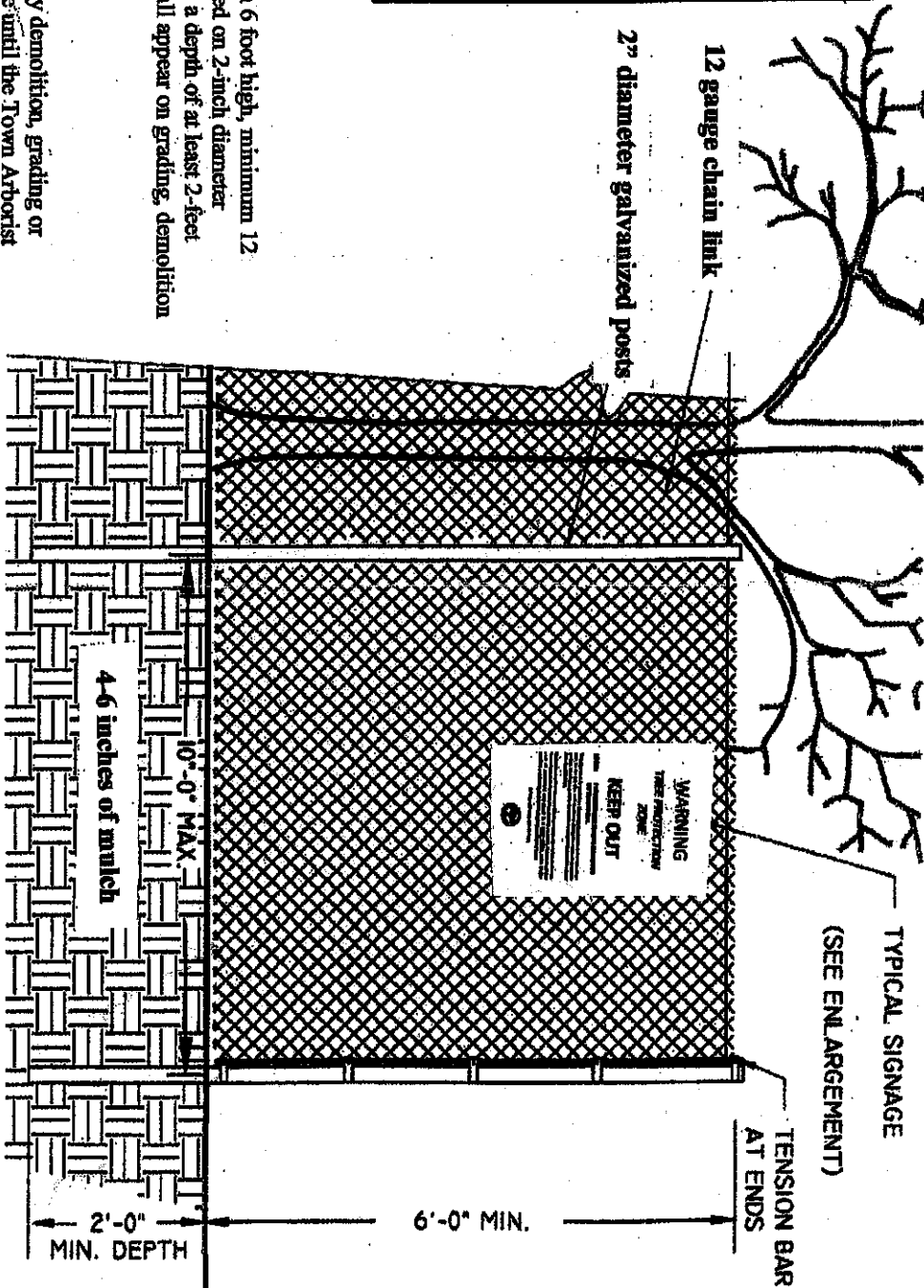
NOTES:

Size and type of fence

All trees to be preserved shall be protected with 6 foot high, minimum 12 gauge chain link fence. Fences are to be mounted on 2-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. This detail shall appear on grading, demolition and building permit plans.

Duration

Tree fencing shall be erected before any demolition, grading or construction begins and remain in place until the Town Arborist approves the removal.



6' CHAIN LINK TREE PROTECTION FENCE

Activities prohibited within the TPZ include:

Storage or parking vehicles, building materials, refuse, excavated spoils or dumping of poisonous materials, cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches, soil disturbance, soil compaction, grade changes, and drainage changes.



WARNING

TREE PROTECTION

ZONE

KEEP OUT

**NOTICE: PROTECTIVE TREE FENCING IS REQUIRED
ON THIS JOB SITE.**

This sign must be posted on the protective fencing for each heritage tree on the job site, and remain up during the entire construction period. Fencing may not be removed without permission of the Town Arborist, 752-0526.

During construction all reasonable steps necessary to prevent damage to, or the destruction of Heritage Trees is required. Failure to comply with all precautions may result in a STOP WORK order and/or citations and fines up to \$5,000 being imposed by the Town.

Atherton Municipal Code 8.10.



HERITAGE TREE REGULATIONS

OTHER JURISDICTIONS SUMMARY

1. **Palo Alto** – 10x dbh. If work is proposed within this TPZ, the applicant must provide a tree protection report by a Certified Arborist that discusses the potential impacts of the proposed work on these trees, and proposed mitigation measures to prevent damage or decline of the tree. The reviewer must then use their judgement to decide whether the project arborist has provided sufficient scientific evidence to support their claims, and if the work will be safe enough for the trees to remain. If the reviewer determines that more evidence must be provided, they can request a report with advanced assessment measures.
2. **Menlo Park** – No TPZ regulation. City ordinance requires any person who conducts grading, excavation, and demolition or construction activity on a property to do so in a manner that does not threaten the health or viability or cause the removal of any heritage tree. Any work performed within an area 10 times the diameter of the tree (i.e., the tree protection zone) requires the submittal of a tree protection plan for approval by the City before issuance of any permit for grading or construction. Can allow for substantial staff interpretation on case by case basis. Ordinance currently under revision.
3. **Hillsborough** – Based on project arborist report.
4. **Woodside** – A TPZ chart based on dbh, species and age. Utilize an industry standard document (Matheny and Clark) which evaluates mature species of trees based on dbh, species and age. Specifically, Valley Oak's to be 12x, Redwoods to be 8x, and Coast Live Oaks to be 8x.
5. **San Mateo**- staff level decisions regarding exceptions to the TPZ are discretionary. Municipal Code contains a list of tree protection measures for protecting trees during construction. The TPZ is the radial distance of 10 times the trunk diameter measured at four feet above grade. A protected tree outside that TPZ does not require a tree protection plan. For construction operations within that TPZ, a tree protection plan from the project arborist is required. For those operations that are within six times the trunk diameter (from the ISA Best Management Practices) staff requires a very detailed tree protection plan for a protected tree or trees that will be impacted. Those measures may require providing citations from research experts and structural drawings depending on the recommended mitigation measures provided by the project arborist.