Heartwood Consulting Arborists

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-----ARBORIST REPORT-----

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RE: TREE PRESERVATION - 728 NEWHALL ROAD, BURLINGAME, CALIFORNIA

Site Visit: May 12 and May 19, 2025

Report Date: May 22, 2025

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Summary

This report provides the results of a tree inventory and construction impact assessment for the property located at **728 Newhall Road, Burlingame**, where a new two-story single-family residence with an attached accessory dwelling unit (ADU), garage, and driveway is proposed. A total of **nine (9) trees** were evaluated, including **six (6) protected trees** as defined under the City of Burlingame's tree ordinance.

Two protected trees—a coast redwood (Tree #2) and a coast live oak (Tree #6)—are proposed for removal due to unavoidable and direct conflicts with essential building footprints. Preservation was considered; however, no feasible design alternatives were identified that would allow these trees to remain without significantly compromising project viability or adversely impacting other protected trees.

Several trees are proposed for retention, including two mature coast redwoods that may be eligible for credit toward the City's reforestation requirements. A detailed **Tree Preservation Plan (Sheet T-1.1)** has been prepared to guide construction activities and minimize impacts to trees proposed for preservation. Site-specific measures, including hand excavation, root pruning protocols, and limited grading depths, have been developed in coordination with the project design team.

Reforestation requirements have been calculated based on total habitable space, with credit proposed for both new plantings and retained mature trees. If required plantings exceed available planting space, the remaining obligation may be satisfied through the City's in-lieu fee program.

Photographs of all protected trees are provided in Appendix A to support documentation of current conditions and assist with permit review.

Assignment

The scope of this assignment included the following tasks:

Tree Inventory and Assessment

All trees measuring 6 inches or greater in trunk diameter (DBH) were identified and evaluated. For each tree, species, DBH, general condition, protection status, and other relevant observations were recorded.

Tree Inventory Table and Mapping

Collected data were compiled into a tree inventory table and coordinated with a site plan showing the location of each tree, proposed disposition (removal or preservation), and justification for removal, where applicable.

Root Zone Impact Analysis and Trenching Oversight

Exploratory trenching was conducted near Trees #4 and #5 to evaluate potential construction impacts. Findings were used to develop site-specific protection measures.

Review of Construction Documents

Construction plans were reviewed to identify potential conflicts with trees and to inform the development of tree protection strategies.

Development of Tree Preservation Specifications

General and site-specific tree protection guidelines were prepared to avoid or minimize construction-related impacts to trees proposed for preservation.

Preparation of Narrative Report

This report summarizes arborist findings, proposed tree removals, and protection measures. It also includes tree preservation drawings (Sheet T-1.1/T-1.2) for incorporation into the final plan set, as well as reforestation calculations and recommendations based on city code.

Plans Reviewed

- Preliminary Boundary and Topographic Survey prepared by SMP Engineers, dated November 21, 2024
- Proposed Site Plan (Sheet A1.0A) prepared by BNDS, dated February 25, 2025
- Area Calculations (Sheet A1.0B) prepared by BNDS, dated February 25, 2025
- Master Planting Plan (Sheet L1) prepared by Jeffrey Heid, dated April 1, 2025
- Irrigation Plan (Sheet L3) prepared by Jeffrey Heid, dated April 3, 2025

Project Description

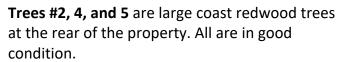
Demolition of the existing residence and construction of a new two-story single-family home with an attached accessory dwelling unit (ADU) and a two-car garage. The project also includes the installation of a new driveway and the removal of two protected trees.

Tree Inventory Summary

The tree inventory conducted on May 12, 2025, identified nine trees, six of which are classified as protected per Burlingame Municipal Code Chapter 11.06.¹

Protected Trees

Tree #1 is a Norway Maple (red/purple cultivar) street tree in poor condition.





¹ https://ecode360.com/44510900 (last accessed 22 May 2025)

Tree #9 is a sweetgum on the neighboring property that has been severely headed to address conflict with the overhead utility lines.



Refer to the *Tree Inventory and Assessment Table* for all tree attributes collected.

Refer to Appendix A for a photo of each protected tree.

Potential Conflicts

Tree #2 is located well within the footprint of the proposed ADU and **is proposed for removal.**

Tree #3 falls within the footprint of the proposed ADU deck and is proposed for removal.

Trees #4 and #5 have multiple ground disturbances within their ideal Tree Protection Zones (TPZs). Specifically, the foundations of both the ADU and the detached garage encroach into the Tree Protection Zones (TPZs) of these trees. Additionally, an irrigation mainline is proposed to run through the TPZ of Tree #4.

Tree #6 is located approximately one foot from the proposed garage wall and foundation. Retention of this tree is not practical due to the direct conflict between the trunk, buttress roots, and the side of the structure. Even if root impacts were somehow tolerated, significant crown reduction would be required to accommodate the garage, compromising tree health and structure. **This tree is proposed for removal.**

Trees #7 and #8 are situated within the footprint of the proposed driveway and **are proposed for removal.**

Tree #9 will be impacted by the proposed driveway, which passes through a portion of its TPZ.

Root Exploration – Trees #4 and 5

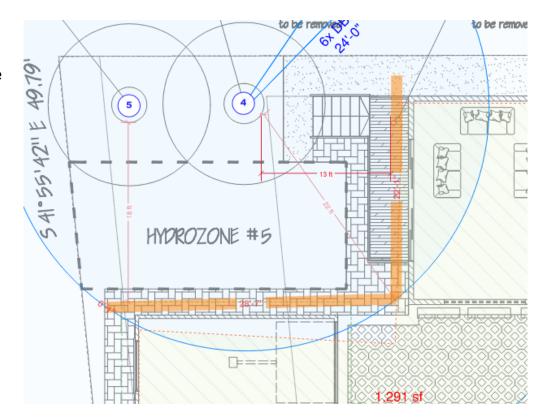
To evaluate potential impacts of the ADU and garage foundations on Trees #4 and #5, an L-shaped exploratory trench was manually excavated just outside the proposed foundation limits, on the side closest to the trees. The trench was dug to a minimum depth of 24 inches below the organic soil layer (Photo 1).

On the leg of the trench adjacent to the proposed ADU, no roots from Trees #4 or #5 were encountered. One large root was discovered and determined to belong to Tree #2, based on its orientation and taper relative to the three redwoods (Photo 2). No disturbance is permitted below 24 inches in this area to avoid impacting the root zones of Trees #4 and #5.

On the leg of the trench adjacent to the proposed garage, multiple roots were uncovered, with two roots (approximately 4 inches and 5 inches in diameter) located within the top 12 inches of soil, the anticipated depth of excavation for the garage foundation. Given the size of these roots, their distance from the tree trunks, and the species' known tolerance to root severance, I conclude that these roots can be cleanly cut to allow for construction, provided that no disturbance occurs deeper than 12 inches below existing grade in this area.

Additionally, the proposed irrigation mainline near Tree #4 should be relocated farther from the tree, if feasible, and must be excavated by hand regardless of final placement to minimize root disturbance.

The orange line indicates the location of the exploratory excavation.



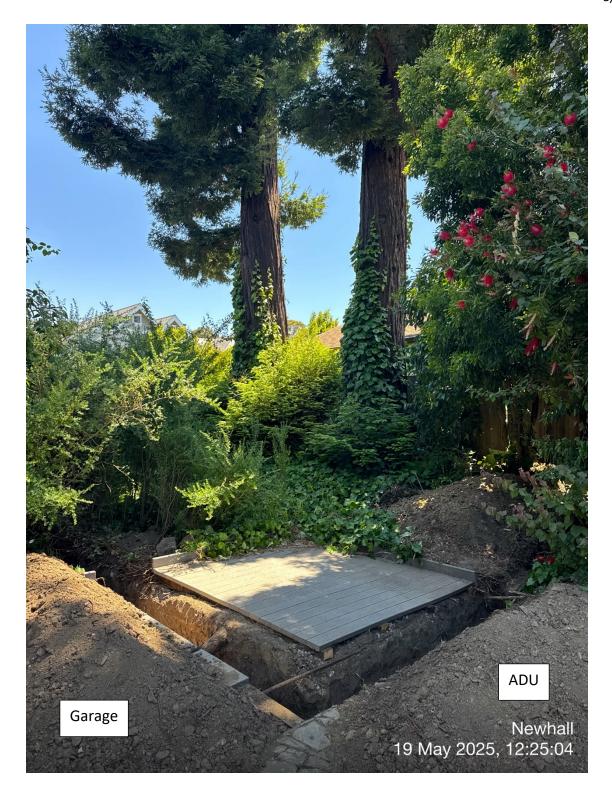


Photo 1. Root exploration for Trees #4 (right) and #5.



Photo 2. ADU side of "L" shaped excavation. One large root (red circle) was discovered and determined to belong to Tree #2, based on its orientation and taper relative to the three redwoods.



Photo 3. Garage side of "L" shaped excavation. Two roots (circles) in the top 12" of the soil profile must be severed to allow garage construction. Anticipated impact is minimal. Root at the bottom right is from Tree #2 (proposed for removal).

Feasibility of Design Alternatives to Avoid Removal of Protected Trees

A protected coast live oak (Tree #6) and a protected coast redwood (Tree #2) are proposed for removal due to direct conflicts with planned improvements. Based on the arborist's site evaluation and review of the proposed site layout, no feasible design alternatives were identified that would allow for preservation of these trees without significantly compromising project viability or increasing impacts to other protected trees.

Tree #2 - Coast Redwood

Tree #2 is located entirely within the footprint of the proposed ADU. Adjusting the ADU footprint to avoid the tree would require a substantial redesign, likely resulting in the loss of functional space. Given the tree's location and the scale of the proposed structure, preservation is not considered feasible without fundamentally altering the project's core objectives.

Tree #6 – Coast Live Oak

Tree #6 is located approximately one foot from the foundation wall of the proposed garage. Retention of this tree would result in unavoidable conflicts between the buttress roots and the garage foundation. Even if root conflicts could be managed, the crown of the tree would require significant pruning to accommodate the building footprint, compromising both its structure and long-term viability.

Additionally, relocating the garage farther from Tree #6 to facilitate preservation would require shifting it closer to Trees #4 and #5. This would reduce the available area for root preservation associated with those two protected coast redwoods and could result in new or increased impacts to their root zones.

In summary, both trees are proposed for removal only due to unavoidable and direct conflicts with essential building footprints. While preservation was considered, no feasible design changes were identified that would allow these protected trees to remain without significant loss of function, adverse impacts to other protected trees, or project infeasibility. Further exploration of site planning alternatives or building layout modifications is within the purview of the applicant and their design team and falls outside the professional expertise of the arborist.

Tree Preservation

Tree Protection Zones (TPZs) are areas where activities are restricted to minimize tree harm. Sheet T-1.1 shows the proposed fencing locations designed to minimize impacts to trees being preserved.

Fencing must be installed prior to demolition and may only be removed after construction is complete.

Any work within a TPZ, including demolition, requires prior consultation with the Project Arborist.

Sheets T-1.1/1.2, included with this report and to be incorporated into the construction plan set, illustrate the TPZ locations and required fencing.

The fencing locations and adherence to the tree protection requirements (T1.2) are sufficient to protect all trees from significant impacts.

See Tree Preservation Plan sheet (T-1.1/1.2).

Site-Specific Tree Preservation Measures

The following site-specific protection measures shall be implemented in accordance with Sheet T-1.1 of the Tree Preservation Plan:

1. Tree #4 - ADU Footprint Area

On the side of the ADU closest to Trees #4 and #5, no disturbance is permitted below 24 inches from the existing grade. This measure is required to preserve deeper roots that were not encountered in exploratory trenching.

2. Tree #4 – Irrigation Mainline Installation

The proposed irrigation mainline near Tree #4 shall be relocated farther from the tree if feasible, and must be excavated by hand, regardless of final placement, to avoid unnecessary root disturbance.

3. Trees #4 and #5 - Garage Footing Excavation

At the edge of the proposed garage footing adjacent to Trees #4 and #5, excavation shall be performed by hand to the full depth of the footing.

Roots encountered within the top 12 inches of the soil profile shall be cleanly cut using a sharp handsaw or reciprocating saw. Roots shall not be crushed or torn.

No disturbance is permitted below 12 inches in this area to avoid damaging critical structural roots.

4. Tree #9 – Driveway Edge Root Management

At the edge of the new driveway adjacent to Tree #9, all demolition and excavation activities shall be performed by hand, to the full planned depth of the driveway, including subbase.

All roots encountered shall be cleanly cut using a sharp handsaw or reciprocating saw. Roots shall not be crushed or torn.

A root barrier is recommended along the driveway edge to reduce the potential for future root encroachment.

5. General Root Protection – Disturbance Depth Limits

Within the area of Sheet T-1.1 designated for special root protection, no disturbance is permitted below 24 inches from the existing grade.

Any roots greater than 2 inches in diameter encountered during work shall be left intact and undamaged until the Project Arborist can evaluate them.

Work in this area shall proceed cautiously and under arborist oversight as needed

6. Vegetation Management – Green Zone Root Protection

Within the green-shaded area shown on Sheet T-1.1, mechanical tilling is strictly prohibited. All vegetation removal and replanting shall be performed by hand, taking care not to damage any roots greater than 2 inches in diameter.

11.060.100 - Reforestation

Per city requirements, one 24-inch box replacement tree is required for every 1,000 square feet of habitable space. The proposed development includes a primary residence with **4,016.8 square feet** of habitable space and an attached accessory dwelling unit (ADU) measuring **756.2 square feet**. When rounded to the nearest thousand, the total habitable space is either **4,000 square feet** (excluding the ADU) or **5,000 square feet** (if the ADU is included). Clarification from the City is needed to determine whether the ADU counts toward the total.

Based on these values, the project is required to plant either **four (4)** or **five (5)** 24-inch box replacement trees.

The landscape plan proposes two (2) new 24-inch box western redbuds, and two (2) mature coast redwoods on site are being retained. If the retained trees are accepted by the City as qualifying landscape trees, the project would receive credit for four total trees—resulting in a net reforestation requirement of either zero (0) or one (1) additional 24-inch box tree, depending on how the ADU is counted.

Available planting space on the site is limited due to structural and hardscape constraints, which significantly restrict opportunities for additional in-ground tree planting. If the City determines that more replacement trees are required beyond those proposed and credited, the remaining obligation must be satisfied through payment into the City's in-lieu fee program, in accordance with the applicable tree replacement fee schedule.

Recommendations

1. Obtain Tree Removal and Encroachment Approvals

Secure all necessary permits from the City of Burligame for the removal of protected trees and for construction activities within the Tree Protection Zones (TPZs) of trees proposed for retention.

2. Incorporate the Tree Preservation Plan (Sheet T-1.1)

Ensure the final construction drawing set includes Sheet T-1.1, which outlines tree locations, protection measures, and required preservation actions. All site work shall conform to this plan.

3. Install Tree Protection Fencing

Prior to the start of demolition, grading, or construction, install chain-link fencing at the limits of the TPZs as shown on Sheet T-1.1. Fencing shall remain in place and undisturbed for the duration of construction unless modified with approval from the Project Arborist and City staff.

4. Implement Site-Specific Preservation Measures

Follow all site-specific measures outlined in the "Site-Specific Tree Preservation Measures" section of this report, including hand excavation requirements, root pruning protocols, restricted grading depths, and irrigation recommendations.

5. Avoid Unauthorized Disturbance in Root Protection Areas

No excavation, trenching, grading, or material storage shall occur within protected root zones unless explicitly described in this report and monitored by the Project Arborist.

6. Coordinate Utility and Irrigation Routing

Where utilities or irrigation lines must pass through TPZs, alignments should be reviewed by the Project Arborist. All excavation in these areas shall be performed by hand or with minimally invasive techniques.

7. Monitor and Document Tree Protection Compliance

Schedule pre-construction and periodic site visits with the Project Arborist to confirm that tree protection measures are in place and functioning as intended. Maintain records of these inspections for city review.

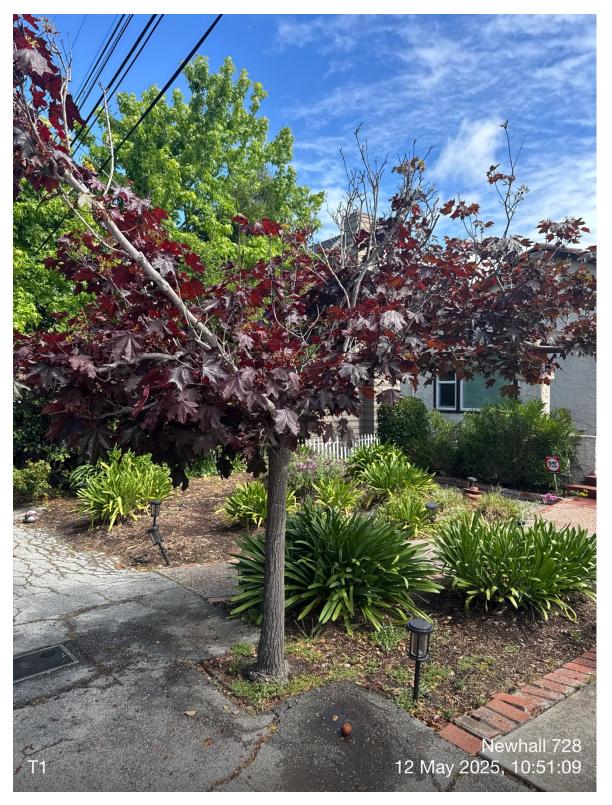
8. Ensure Contractor Awareness and Compliance

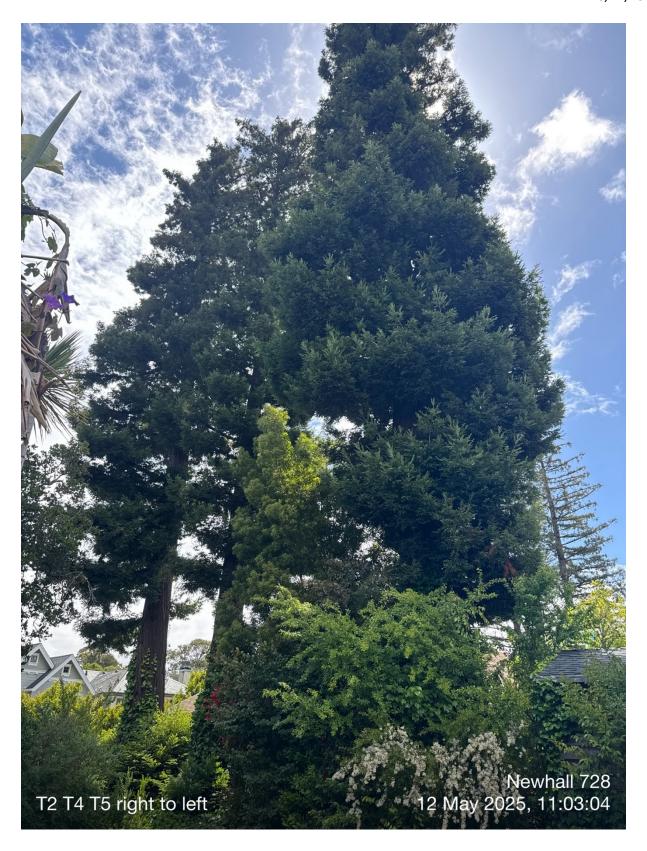
Provide this report to all contractors, subcontractors, and relevant project personnel. The property owner is responsible for ensuring all parties working onsite are aware of and adhere to the tree protection requirements.

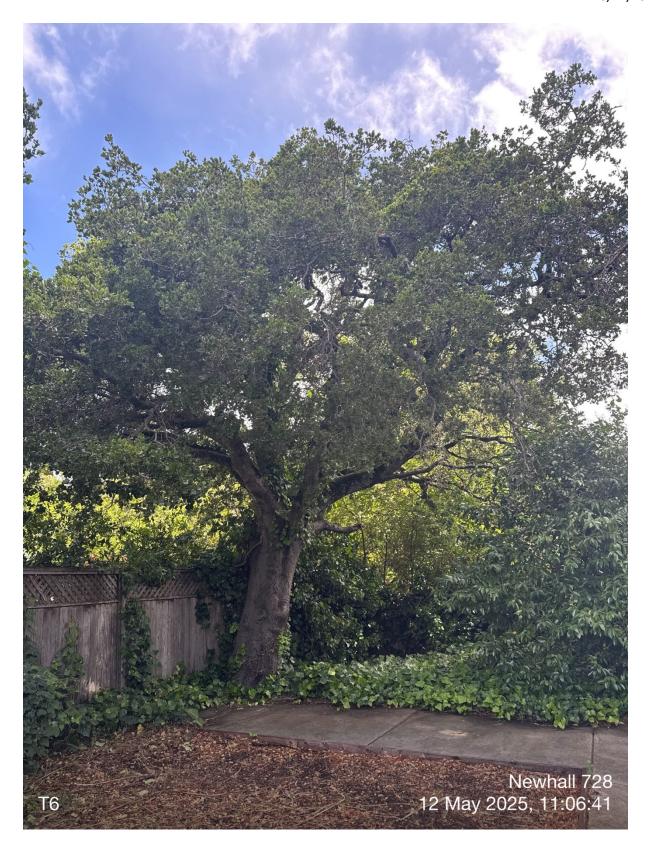
9. Address Reforestation Requirements

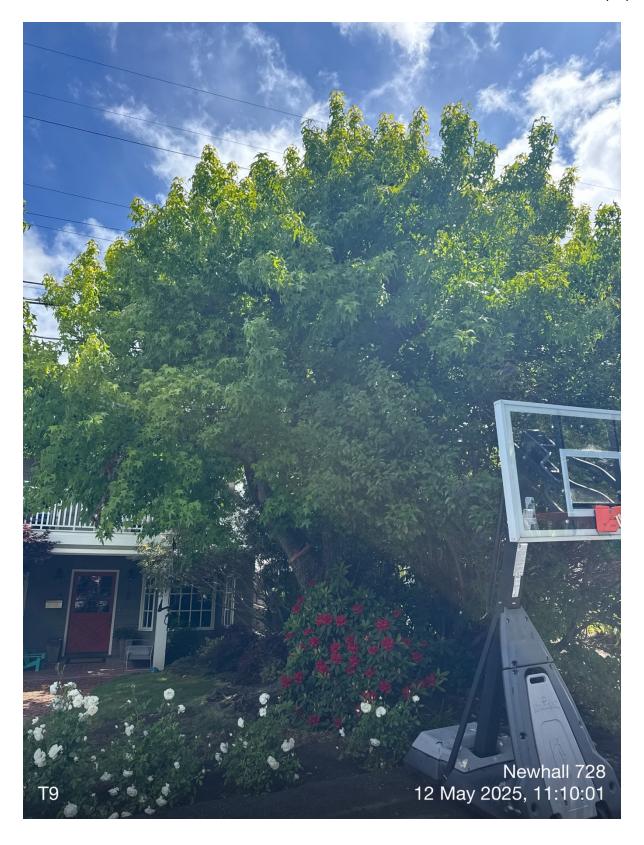
Satisfy reforestation obligations by planting the required number of 24-inch box replacement trees or, if planting space is limited, by paying in-lieu fees per the City's adopted schedule. Final requirements may vary depending on City interpretation of habitable space and credit for retained trees.

APPENDIX A: Protected Tree Photos









Tree Inventory and Assessment

Tree #	Protected	Preserve / Remove	Species	Trunk dia. (in.)	Health	Structure	Impact Level	Comments
1	Yes	Remove	Norway maple Acer platanoides	4	Poor	Poor	NA	Red/puple cultivar
2	Yes	Remove	Coast redwood Sequoia sempervirens	62	Good	Good	NA	
3	No	Remove	Black acacia Acacia melanoxylon	6, 5, 4, 4,	Good	Poor	NA	Stump sprout origin
4	Yes	Preserve	Coast redwood Sequoia sempervirens	50	Good	Good	Low	DBH estimated due to access restrictions
5	Yes	Preserve	Coast redwood Sequoia sempervirens	48	Good	Good	Low	DBH estimated due to access restrictions
6	Yes	Remove	Coast live oak Quercus agrifolia	32	Good	Good	NA	
7	No	Remove	Giant dracaena Cordyline australis	8, 8	Fair	Fair	NA	
8	No	Remove	Sweetgum Liquidambar styraciflua	8	Good	Fair	NA	Codominant at 5 ft
9	Yes	Preserve	Sweetgum Liquidambar straciflua	28	Good	Poor	Low/ Moderate	Offsite tree topped for overhead lines.

Certification of Performance

I, Matthew Fried, certify:

- That I have personally inspected the tree(s) and/or the property referred to in this report and have stated my findings accurately. The extent of the evaluation and appraisal is stated in the attached report and the Terms of Assignment;
- That I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions, and conclusions stated herein are my own;
- That my analysis, opinions, and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I further certify that I am Registered Consulting Arborist® #651 with the American Society of Consulting Arborists, and acknowledge, accept, and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Certified Arborist and have been involved in the practice of arboriculture and the study of trees for over fifteen years.

Matthew Fried

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