

# 1437 Cabrillo Avenue Burlingame, CA Arborist Report 2026

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*Prepared For:*

**Kieran Woods**

Site: 1437 Cabrillo Ave,  
Burlingame, CA 94010

*Submitted by:*

**David Beckham**

Certified Arborist

WE#10724A

TRAQ Qualified



## KIELTY

**ARBORISTS SERVICES LLC**

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**RECEIVED**

January 8, 2026

**City of Burlingame  
CDD-Planning DIV**

January 5, 2026

Attn: Kieran Woods  
 Subject: Tree protection plan for 1437 Cabrillo Ave, Burlingame, CA 94010

## INTRODUCTION AND OVERVIEW

Kielty Arborists Services LLC visited the property at 1437 Cabrillo Ave, Burlingame, on December 31, 2025, to evaluate the trees present with respect to the proposed construction project. The report below contains an analysis of the site visit. Kieran Woods is planning a remodel to the existing home and the addition of a second story. The site consists of a residential home, driveway, landscaping, and mixed tree species. The findings and recommendations presented in this report are based on the construction plans titled *1437 Cabrillo Ave* by Mark Brand Architecture. These plans were electronically provided to us via email and are dated September 29, 2025. By thoroughly analyzing these plans in conjunction with our field observations, we have developed an accurate and reliable assessment of the tree conditions and how best to mitigate potential impacts.

### Data Summary:

Total Trees	Total Street Trees	Neighboring Trees	Protected Trees		Non-Protected Trees		Overall Condition Rating		
			Total	Proposed for Removal	Total	Proposed for Removal	<50%	50%-69%	70-100%
15	3	4	5	2	10	3	5	3	7

There are 11 trees on the property, 5 of which are protected (#1-3, and 14). Four neighboring trees were included in the survey, one of which is protected (#6). Trees #1, 2, 9, 13, and 15 are proposed for removal, as they are in decline or conflict with proposed project features. Trees #3-8, 10-12, and 14 should be retained and protected as detailed in the recommendations below. With proper protection and cultural practices, all retained trees are expected to survive during and after construction.

## ASSIGNMENT

At the request of Kieran Woods, Kielty Arborists Services LLC conducted a site visit on December 31, 2025, to prepare a comprehensive Tree Inventory Report/Tree Protection Plan for the proposed construction project. This report is a requirement when submitting plans to the City of Burlingame.

The primary focus of this report is as follows:

- Identification and assessment of trees on the construction site that may be affected by the proposed development.
- Determination of potential impacts on tree health and stability, considering factors such as root damage and crown damage.
- Provision of recommendations for tree protection and preservation measures during the construction process to mitigate potential impacts.
- Ensuring compliance with local regulations pertaining to tree preservation, protection, and removal within the construction plans.

Please note that the report will provide specific details regarding tree assessments, impacts, and preservation measures.

## **LIMITS OF THE ASSIGNMENT**

As part of this assessment, it is important to note that Kielty Arborists Services LLC did not conduct an aerial inspection of the upper crown, a detailed root crown inspection, or a plant tissue analysis on the subject trees. Therefore, the information presented in this report does not include data obtained from these specific methods.

Furthermore, it is essential to clarify that no tree risk assessments were completed as part of this report unless stated otherwise. The focus of this assessment primarily centers on tree identification, general health evaluation, and the potential impacts of the proposed construction.

While the absence of these specific assessments limits the scope of the analysis, the findings and recommendations provided within this report are based on available information and observations made during the site visit. Only the site plans specifically referenced in the introduction and overview sections of this report were reviewed as part of this assessment.

## **METHOD OF INSPECTION**

The inspections were conducted from the ground without climbing the trees. No tissue samples or root crown inspections were performed. The trees under consideration were identified based on the provided site plan. To assess the trees, their diameter at 54 inches above ground level (DBH or diameter at breast height) was measured using a D-Tape. For the surveying of multi-trunk trees, our methodology aligns with city ordinances. In cases where the city does not offer specific guidelines for measuring multi-trunk trees, we adhere to the standards outlined in the "Guide for Plant Appraisal, 10th Edition, Second Printing" by the Council of Tree and Landscape Appraisers. Additionally, the protected trees were evaluated for their health, structure, form, and suitability for preservation with the following explanation of the ratings:

## EVALUATION FIELDS

<b>Tree Tag #:</b> Identification number for individual trees.	<b>Protected Tree:</b> Specifies whether the tree is protected by the city or county ordinance.
<b>Height (ft.) / Canopy Spread (ft.):</b> Measures both the height of the tree and the spread of its canopy.	<b>Trunk (in.):</b> Measures the primary trunk's diameter at the required height.
<b>Comments:</b> Any additional notes or observations about the tree.	<b>Tree Picture:</b> A photograph of the tree for visual assessment and record-keeping.
<b>Preserve or Remove:</b> Indicates the recommended action based on the tree's condition.	<b>Common Name / Scientific Name:</b> Specifies the name of the tree, both in common terms and scientific nomenclature.
<b>If more than 1 Trunks, Total Diameter:</b> If the tree has multiple trunks, this field indicates the combined diameter of all trunks.	<b>6,8,10 Times the Diameter (ft.):</b> Provides calculations based on the diameter to assist in various tree protection requirements.
<b>Appraised Value:</b> An unbiased estimate of the tree's worth is performed in accordance with the current edition of the Guide for Plant Appraisal by the Council of Tree and Landscape Appraisers.	

\*Note that not all fields may be provided for every tree. Some might be left blank due to various reasons, such as lack of accessibility to the tree, incomplete data, or the parameter not being applicable for a particular tree.

<b>Tree Structure Ratings:</b>  <b>Poor:</b> Major uncorrectable structural flaws present; significant dead wood, decay, or multiple trunks; potentially hazardous lean.  <b>Fair:</b> Structural flaws exist but less severe; issues like slight lean and crowding on trunk; some uncorrectable issues through pruning.  <b>Good:</b> Minor flaws; mainly upright trunk, well-spaced branches; flaws correctable through pruning; symmetrical or mostly symmetrical canopy.	<b>Tree Health Ratings:</b>  <b>Poor:</b> Minimal new growth; significant dieback and pest infestation; expected not to reach natural lifespan.  <b>Fair:</b> Moderate new growth; canopy density 60-90%; potential external threats; not in decline but vulnerable.  <b>Good:</b> Vigorous growth; healthy foliage; 90-100% canopy density; expected natural lifespan.
<b>Suitability for Preservation:</b>  <b>Poor:</b> Adds little to landscape; poor health and potential hazards; unlikely to survive construction impacts.  <b>Fair:</b> Contributes to landscape; survival possible with protection during minor construction impacts.  <b>Good:</b> Valuable landscape asset; likely survival during minor to moderate construction impacts with protection.	<b>Tree Form Ratings:</b>  <b>Poor:</b> Highly asymmetric or abnormal form; visually unappealing; little landscape function.  <b>Fair:</b> Significant asymmetries; deviation from species norm; compromised function or aesthetics.  <b>Good:</b> Near ideal form; minor deviations; consistent aesthetics and function in landscape.

\*Suitability for Preservation: This rating is based solely on the tree itself, irrespective of potential construction impacts.

<b>Overall Condition Ratings:</b>	
Very Poor	1-29
Poor	30-49
Fair	50-69
Good	70-89
Excellent	90-100

The trees were assigned a condition rating based on a combination of existing tree health, tree structure, and tree form using the following scale.

**TREE INVENTORY SURVEY**

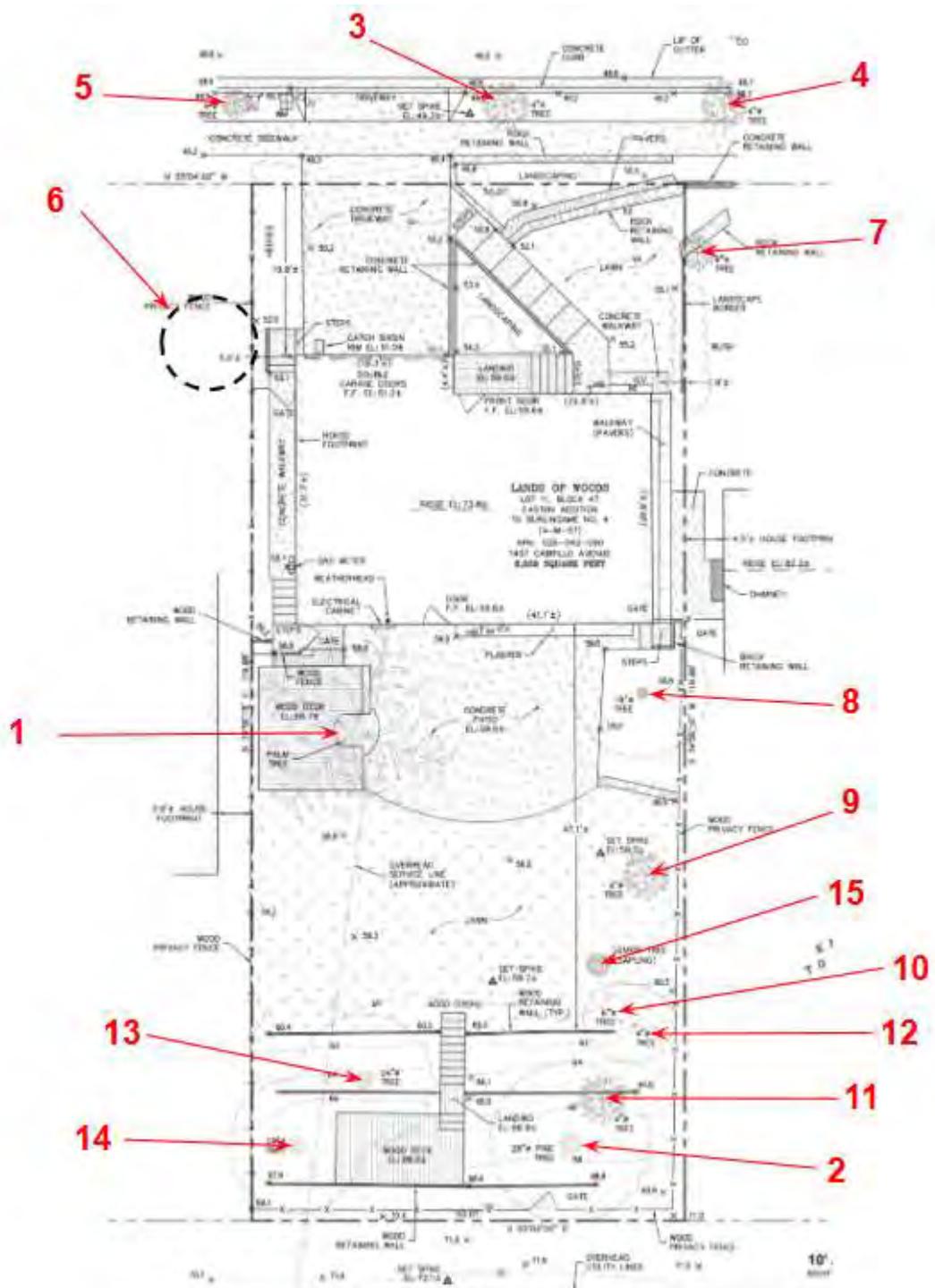

Tree Tag Number	Protected Tree Status	Preservation or Removal Recommendation	Common Name / Botanical Name	Trunk Diameter at Breast Height (DBH, inches)	Individual Trunk Diameters (for Multi-Trunk Trees)	Tree Height (ft.) / Canopy Spread (ft.)	Overall Health Assessment	Structural Integrity Assessment	Form and Aesthetic Quality	Preservation Suitability Rating	Overall Condition Score (0-100%)	Arborist Observations and Tree Notes	Tree Picture #1
1	Yes	(R)	Canary Island date palm <i>Phoenix canariensis</i>	31.7	-	45/25	Good	Good	Good	Fair	65%	In backyard, approximately 10 feet from existing home. Tree has been maintained in the past but an abundance of dead fronds is present. Tree is surrounded by patio hardscape and deck.	
2	Yes	(R)	Douglas-fir <i>Pseudotsuga menziesii</i>	25.9	-	70/25	Good	Poor	Fair	Poor	55%	On terrace area above backyard. Multiple codominant leaders about 45 feet above grade. Flat top, top failed in past. Curvature of main stem towards home on site and neighboring home. Lean corrected. Irregular crown, pruned away from neighbors property boundary.	
3	Yes	(P)	trident maple <i>Acer buergerianum</i>	4.5	-	18/12	Good	Good	Fair	Good	80%	Street tree. In planting strip. Pruned away from street side for vehicle clearance. No leaf during survey.	
4*	No	(P)	thornless honey locust <i>Gleditsia triacanthos</i> var. <i>inermis</i>	4	-	24/15	Good	Good	Good	Good	80%	Neighboring street tree. In planting strip. No leaf during survey.	
5*	No	(P)	purple-leaf plum <i>Prunus cerasifera</i>	6	-	22/18	Good	Good	Good	Good	70%	Neighboring street tree. In planting strip. No leaf during survey. Large surface roots in contact with sidewalk. Fire hydrant 1 foot from base of tree.	
6*	Yes	(P)	Brisbane box <i>Lophostemon confertus</i>	16	-	40/20	Good	Good	Good	Good	70%	Neighboring tree. 1.5 feet from property boundary. Codominant at 8 feet. Branches in contact with existing home on site.	
7*	No	(P)	Japanese maple <i>Acer palmatum</i>	1"x6	7	9/7	Good	Good	Fair	Good	70%	Neighboring tree. 1.5 feet from property boundary. Codominant at grade. Heading cuts, topiary pruning.	
8	No	(P)	cheesewood <i>Pittosporum tobira</i>	5,4,4, 3,3,3	12	15/10	Fair	Fair	Good	Fair	50%	Codominant at grade. Missing and cracked bark along laterals. Decay and frass noted. Deadwood in crown. Heading cuts. 3 feet from patio hardscape.	

**TREE INVENTORY SURVEY**
**KIELTY**  
ARBORISTS SERVICES LLC

Tree Tag Number	Protected Tree Status	Preservation or Removal Recommendation	Common Name / Botanical Name	Trunk Diameter at Breast Height (DBH, inches)	Individual Trunk Diameters (for Multi-Trunk Trees)	Tree Height (ft.) / Canopy Spread (ft.)	Overall Health Assessment	Structural Integrity Assessment	Form and Aesthetic Quality Assessment	Preservation Suitability Rating	Overall Condition Score (0-100%)	Arborist Observations and Tree Notes	Tree Picture #1
9	No	(R)	Loquat <i>Eriobotrya japonica</i>	3.2,2.7, 2.2,3.6	8	18/15	Good	Fair	Good	Good	75%	2.5 feet from property boundary. Codominant at 8". Minor deadwood.	
10	No	(P)	cherry plum <i>Prunus cerasifera</i>	7	-	15/8	Good	Fair-Poor	Fair-Poor	Fair-Poor	40%	In terraced area of backyard. Topping cuts, heading cuts. No leaf during survey. Decay and fungi on main stem. <b>Undesirable species.</b>	
11	No	(P)	cherry plum <i>Prunus cerasifera</i>	6	-	10/8	Good	Fair-Poor	Fair-Poor	Fair-Poor	40%	In terraced area of backyard. Topping cuts, heading cuts. No leaf during survey. <b>Undesirable species.</b>	
12	No	(P)	cherry plum <i>Prunus cerasifera</i>	5	-	10/10	Good	Fair-Poor	Fair-Poor	Fair-Poor	40%	In terraced area of backyard. Topping cuts, heading cuts. No leaf during survey. <b>Undesirable species.</b>	
13	No	(R)	cherry plum <i>Prunus cerasifera</i>	6	-	15/10	Good	Fair-Poor	Fair-Poor	Fair-Poor	40%	In terraced area of backyard. Topping cuts, heading cuts. No leaf during survey. <b>Undesirable species.</b>	
14	Yes	(P)	cherry plum <i>Prunus cerasifera</i>	9,9	17	18/20	Good	Fair-Poor	Fair-Poor	Fair-Poor	40%	In terraced area of backyard. Topping cuts, heading cuts. No leaf during survey. Vine growing in crown. <b>Undesirable species.</b>	
15	No	(R)	lemon <i>Citrus limon</i>	.5"x4	2.5	5/5	Good	Fair	Good	Good	70%	Shrub-like. Codominant at grade.	

An (\*) appearing next to the tree tag number indicates a neighboring tree

## TREE MAP



## OBSERVATIONS

### Species List:

11 trees were surveyed on the property, and consist of the following species:

- Canary Island date palm - *Phoenix canariensis*
- Douglas-fir - *Pseudotsuga menziesii*
- trident maple - *Acer buergerianum*
- cheesewood - *Pittosporum tobira*
- Loquat - *Eriobotrya japonica*
- (5) cherry plum - *Prunus cerasifera*
- lemon - *Citrus limon*

4 trees included in the survey are located on neighboring property, and consist of the following species:

- thornless honey locust - *Gleditsia triacanthos* var. *inermis*
- purple-leaf plum - *Prunus cerasifera*
- Brisbane box - *Lophostemon confertus*
- Japanese maple - *Acer palmatum*

### Trees Proposed For Removal:

Total Removed Trees	Significant / Protected Trees	Non-Protected Trees
5	2	3

**Protected trees to be removed:****Tree Assessment and Removal Justifications:**Tree tag #1 - Canary island date palm (*Phoenix canariensis*)

Diameter: 31.7 inches, measured 54" above grade

Height/Canopy spread: 45/25

Overall condition rating: 65



Canary Island date palm #1 was assigned a fair condition rating. Tree Health, Structure, and Form were rated good overall, while Suitability for Preservation was rated fair. The tree is located in the backyard, approximately 10 feet from the existing home. Maintenance has occurred in the past throughout its lifespan, but an abundance of lower dead fronds is present. The tree is surrounded by patio hardscape and a wooden deck. Cracking is noted on the adjacent hardscape where the root fiber mass is growing on top of the concrete. The tree is also proposed for removal as a part of the development plan, as an outdoor kitchen/BBQ area is proposed within its footprint.

**Discussion on species**

While often less problematic than the typical root systems of deciduous trees, palm tree roots, though fibrous and less robust, can still pose a threat to concrete surfaces. As they expand, these root systems can exert significant pressure, leading to cracking, lifting, and ultimately, damage to patios, foundations, and other concrete structures. This is particularly relevant when palm trees are planted in close proximity to hardscapes, restricting their natural root spread and potentially hindering the tree's overall health and mature size.

It is important to note that not all palm species have identical root systems. There is a considerable degree of variation among different types of palms root architecture, depth, and spread. Understanding the mature size and typical root characteristics of a palm leads to informed planting decisions and mitigates potential

conflicts with existing infrastructure.

To reduce the risk of root-related damage to concrete structures, general guidelines for planting distances should be followed. For larger palm tree species, a minimum distance of 15-20 feet from the edge of a patio, foundation, or other concrete surface is generally recommended. This spacing allows ample room for the palm's root system to develop naturally without impinging on nearby hardscapes, promoting both the tree's health and the longevity of concrete installations.

Along with appropriate planting distances, the use of a root barrier can provide an additional layer of protection, particularly in situations where space is limited or where a highly vigorous palm species is being planted. Root barriers are designed to physically direct root growth downwards and away from concrete surfaces. This proactive measure can significantly reduce the likelihood of root-induced cracking and lifting, preserving integrity of hardscapes and minimizing future maintenance or repair. When implementing root barriers, appropriate installation depth and distance from both the tree and the structure must be observed to ensure effectiveness.

The tree's position on the landscape and condition issues jeopardize its health, stability and structural integrity, making it a high-risk tree for the property owner. Failure of the tree fronds could result in injury to residents and damage to the home. Removal of the palm is recommended and aligns with the following tree removal criteria set forth by the City of Burlingame:

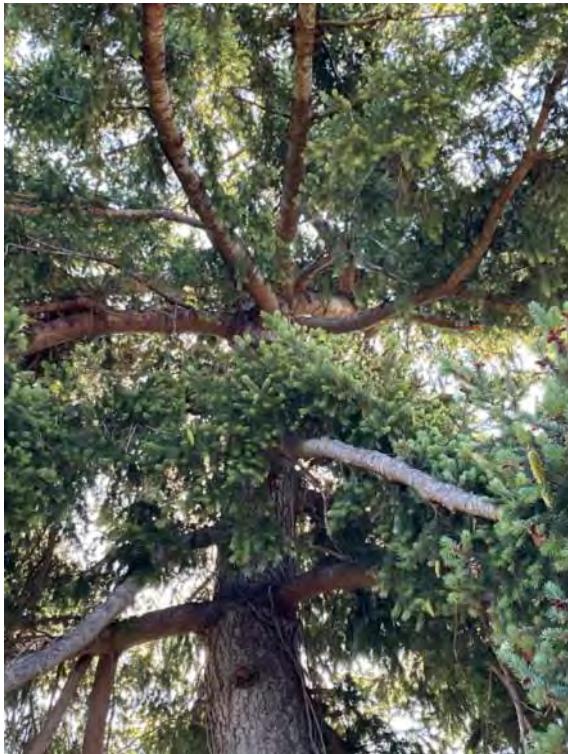
- 1) ***The condition of the tree(s) with respect to: Disease, decay, structure, form and vigor, likelihood and consequences of failure and impact, proximity to existing or proposed structures, yards, driveways and other trees, infrastructure and growing space constraints, utilities and improvement conflict, species desirability and age of the tree relative to average urban life span typical of the species.***
- 3) ***That the tree or its roots are causing, or threatening to cause, damage to any main structure on the property or on any adjacent property and there are no reasonable alternative means to mitigate the damage or threatened damage. Reasonable alternative means of mitigation include, but are not limited to, cutting tree roots, trimming the tree canopy, or installing a root barrier. Removing, relocating, or in any way altering any main structure on the property shall not be considered a reasonable alternative means of mitigation for the purposes of this Section***

**Tree tag #2 - douglas-fir (*Pseudotsuga menziesii*)**

Diameter: 29.5 inches, measured 54" above grade

Height/Canopy spread: 70/25

Overall condition rating: 55



Douglas-fir #2 was assigned a fair condition rating. Tree Health was rated good, with Structure rated poor, and Form rated fair. Suitability for Preservation was rated poor. The tree is located on a slope above the backyard. Multiple codominant leaders originate from the main stem about 45 feet above grade. A flat top is visible due to main stem failure in the past. Curvature of the main stem extends towards the existing home on site, and towards the neighboring home. Lean has been corrected. The irregularly shaped crown has been pruned away from the neighbor's property boundary.

**Discussion on species**

A coniferous tree exhibiting a codominant top, particularly one that has developed as a consequence of a prior structural failure, presents challenges regarding its long-term structural integrity and overall health. Codominant stems are problematic due to the weak points created at their junctions. Codominant stems share a common attachment point, which leads to structural instability. This weakness makes the tree highly susceptible to failure, especially when subjected to environmental stressors such as storms and high winds. The presence of included bark further exacerbates this structural vulnerability.

Beyond the immediate structural risks, the development of codominant stems can lead to an overcrowded and top-heavy crown. When the canopy becomes excessively dense and heavy, the root system may be unable to provide proper support for the tree. This imbalance between the crown and the root system can place immense stress on the entire tree, especially at the weak points where the codominant stems originate.

The tree's position on the landscape and condition issues jeopardize its health, stability and structural integrity, making it a high-risk tree for the property owner. Failure of the tree or branches could result in severe injury to residents and damage to adjacent homes. Tree removal is also proposed to allow a new retaining wall to be built as the property is sloped. This will make the backyard of the home more functional for use. Removal of the tree is recommended and aligns with the following tree removal criteria set forth by the City of Burlingame:

*1) The condition of the tree(s) with respect to: Disease, decay, structure, form and vigor, likelihood and consequences of failure and impact, proximity to existing or proposed structures, yards, driveways and other trees, infrastructure and growing space constraints, utilities and improvement conflict, species desirability and age of the tree relative to average urban life span typical of the species.*

*3) That the tree or its roots are causing, or threatening to cause, damage to any main structure on the property or on any adjacent property and there are no reasonable alternative means to mitigate the damage or threatened damage. Reasonable alternative means of mitigation include, but are not limited to, cutting tree roots, trimming the tree canopy, or installing a root barrier. Removing, relocating, or in any way altering any main structure on the property shall not be considered a reasonable alternative means of mitigation for the purposes of this Section.*

### Non-Protected Trees to be Removed:

Loquat (tag #9) and lemon (tag #15) trees were rated in good condition. These trees are located along the property boundary and exhibit condition issues such as crown deadwood, and main stem codominance. Cherry plum (tag #13) was rated in fair condition, and is located in a terraced area of the backyard. Poor past maintenance is observed in the form of heavy topping cuts and crown reduction cuts. This plant is classified as potentially invasive in specific areas of California by the California Invasive Plant Council.

Proposed site improvements, including vegetable planters and a privacy screen hedge featuring English laurel (*Prunus laurocerasus*), are planned for installation on either side of the current location of trees #9 and #15. Given the location of these new features, the area surrounding the trees will be subject to excavation, grading, and soil compaction, which is expected to result in root damage, soil disturbance, and potential decline in overall tree health. A new retaining wall is proposed for installation directly adjacent to the main stem of tree #13. Significant excavation and root damage is expected to result in a decline in tree health. Given the expected impact of these proposed improvements, the removal of all affected trees is recommended.

### Replacement Tree Plan:

*Landscape Plan L-1* by Robert Mowat Associates, dated September 29, 2025 outlines replacement trees consisting of:

- (1) 24" BOX Japanese maple - *Acer palmatum*
- (1) 24" BOX Strawberry tree - *Arbutus 'Marina'*
- (1) 24" BOX Grecian laurel - *Laurus nobilis*
- (1) 24" BOX crape myrtle - *Lagerstroemia indica*
- (1) 24" BOX 'Little Gem' magnolia - *Magnolia grandiflora 'Little Gem'*

### *Replacement Requirements for private Protected Tree removals;*

*1) A tree replacement plan for private Protected Trees located on lots that include single or two-unit dwellings must provide for replacement as follows:*

**TRUNK DIAMETER (DSH) – REPLACEMENT LANDSCAPE TREE**

*14 inches to 29 inches: One – 24 Inch Box; or Two – 15 Gallon Containers*

*30 inches to 45 inches: One – 36 Inch Box; Two – 24 Inch Box; or Four – 15 Gallon Containers*

*45 inches: Two – 36 Inch Box; or Three – 24 Inch Box*

**PROJECT PLAN REVIEW**

The following report's recommendations are contingent upon the contractor adhering to the stated responsibilities. It is the contractor's responsibility to contact the project arborist to schedule all required inspections promptly. Failure to schedule these inspections as needed may result in fines or stop work orders from the city.

Construction plans titled *1437 Cabrillo Ave* by Mark Brand Architecture, dated September 29, 2025, were reviewed for the findings in this report. Work proposed for the site will consist of a 1st story remodel and a 2nd floor addition. Construction impacts on retained protected trees are expected to be non-existent to minor; however, tree protection measures are necessary to ensure tree health and integrity during construction activity.

**Street Trees (#3, #4, and #5)**

The three street trees within the planting strip at the front of the property boundary exhibit good vigor and form. A new curb, gutter, driveway, and sidewalk is proposed. This work will take place within their tree protection zones. The primary potential risk is root damage, soil compaction and mechanical injury from vehicular traffic or construction equipment. The removal of the curb, gutter, driveway, and sidewalk will need to be done by hand under the direction of the project arborist. All concrete material must be removed by breaking the material with a jackhammer and then being removed by hand. Any excavation needed for new base rock material must be done by hand in combination with an air knife. If possible existing baserock shall be reused. All encountered roots during this process including demolition must be kept moist by wrapping/covering roots in layers of wetted down burlap. It is the contractor's responsibility to wet down the burlap daily while exposed. Roots observed within the new baserock layer must be retained within the new baserock layer. Base rock shall be hand tampered around tree roots with the new concrete poured on top of the root zones without the need to cut tree roots. If roots are to be cut for any reason they shall first be showed to the project arborist for documentation and direction. Impacts are expected to be minor to moderate. The landscape strip where the trees are located shall be irrigated every other week during the dry season with enough clean water to penetrate the top 18" of soil. By providing supplemental irrigation to the trees, impacts will be mitigated.

Type II Tree Protection Fencing shall be installed in a way that completely fences off the entire landscape strip in front of the property. No storage of materials, equipment, or soil stockpiling shall occur within these fenced areas. Periodic monitoring will ensure ongoing compliance.

**Neighboring tree #6**

All excavation activities performed within 13 feet of the main stem (10x the tree diameter) shall be performed by hand using non-mechanized tools such as air knives, rotary hammers equipped with clay spade attachments, and shovels, and must be conducted under the direct supervision of the Project Arborist. This requirement ensures that excavation is carried out in a manner that preserves root integrity and prevents irreversible damage to the tree's structural and absorbing root systems.

All roots 1.5 inches in diameter or greater encountered during excavation must be preserved in place for arborist inspection prior to any pruning. Once assessed and deemed appropriate for removal, roots shall be cleanly cut on the side opposite the tree using sterilized hand tools, such as sharp handsaws or loppers. The cut surfaces, especially those on the tree side, shall be immediately protected with three layers of thoroughly wetted burlap to prevent desiccation. The contractor is responsible for maintaining moisture in the burlap coverings by wetting them daily for the duration of exposure.

Additionally, soil compaction from equipment or foot traffic must be avoided within the TPZ, and trenching for utilities must be avoided within the TPZ, and trenching for utilities must either follow existing disturbed corridors or be accomplished via trenchless technology (e.g., directional boring) where conflicts with roots are likely. The arborist should document all findings, and verify that the completed work does not undermine the structural stability or health of the protected trees.

To further mitigate potential stress resulting from minor root disturbance, the Tree Protection Zone (TPZ) between the tree and the proposed construction shall be irrigated biweekly during the dry season. Irrigation shall be sufficient to saturate the upper 18 inches of soil, promoting recovery and maintaining adequate soil moisture for remaining roots.

#### **Pre And Post-Construction Care:**

If the project is approved, a comprehensive soil test is recommended to assess and address any nutrient deficiencies for trees where construction is to be located within the tree protection zones. The soil test shall take place before the start of construction.

#### **Pre-Construction Care:**

In the pre-construction phase, it is critical to prepare the trees for the upcoming stress and disturbances. Implementing a deep watering schedule is foundational, ensuring trees receive adequate moisture deep within their root zones. Depending on the recommended soil test analysis, fertilizing may be needed. Within the tree protection zones, it is recommended that an inline drip emitter system be installed in a grid-like manner to provide deep irrigation during the dry season. The irrigation system should be placed on top of the existing grade and require no excavation. The irrigation system shall be turned on by the project arborist as seen fit during the required monthly inspections. Regardless of the soil test results, the use of NutriRoot is still strongly advisable for trees that will be impacted by construction activities. The stresses caused by construction, such as root disturbance, soil compaction, and changes in water availability, can severely affect a tree's health. NutriRoot provides essential nutrients, promotes root growth, and enhances water management, helping trees withstand and recover from these stresses. Importantly, NutriRoot is low in macronutrients, which means it should not cause issues associated with over-fertilization, such as nutrient runoff or root burn. This makes it a safe and effective option for supporting the resilience and vitality of trees during and after construction, ensuring their long-term health and stability.

#### **Post-Construction Care:**

Following the completion of construction activities, it's vital to continue supporting the trees' recovery and growth. Annual inspections by a Certified Arborist are recommended to ensure the tree remains in good health. Maintaining the deep watering schedule will ensure that trees remain adequately hydrated. A post-construction application of NutriRoot is advised to sustain soil moisture control and support ongoing root health. It is also

pertinent to reintroduce microbial inoculants to restore beneficial microbial communities that may have been disrupted during construction. Additional applications of soil amendments like Biochar and HydraHume will continue to enhance soil structure, fertility, and water-holding capacity, supporting the trees' long-term health and resilience. Employing air spading techniques can also be advantageous to aerate the soil and gently introduce these amendments without causing root damage.

By adopting this dual-phase approach, (pre- and post-construction) leveraging a combination of deep watering, nutritional support, and soil health enhancement, the strategy aims to not only protect the trees during construction but also promote their recovery and thriving in the post-construction landscape. This holistic care plan underscores a commitment to sustainable tree management, ensuring that the trees remain a valuable and vibrant part of the ecosystem for years to come.

## **TREE PROTECTION PLAN**

### **Detailed Tree Protection Plan**

For the aforementioned tree protection plan, this detailed guide has been designed by Kielty Arborists Services LLC. The following section offers an in-depth perspective on the recommended tree preservation guidelines. The aim is to ensure the conservation, vitality, and beauty of trees during construction and developmental endeavors, mitigating any potential detrimental effects. Adherence to these guidelines is essential to uphold both the ecological significance and visual allure of trees within the designated project vicinity. Effective tree protection during construction or development projects requires the use of fencing to demarcate and protect sensitive areas around trees. Should you have any questions or require further clarification, please contact Kielty Arborists Services directly.

#### **Fencing Specifications:**

The tree protection fencing should be established and maintained throughout the entire length of the project. It's essential that no equipment, materials, or debris are stored or cleaned inside these protection zones. The zones should remain free from human activity unless explicitly authorized. The choice of fencing type depends on the tree's location and the nature of the surrounding environment.

#### **Type I Tree Protection:**

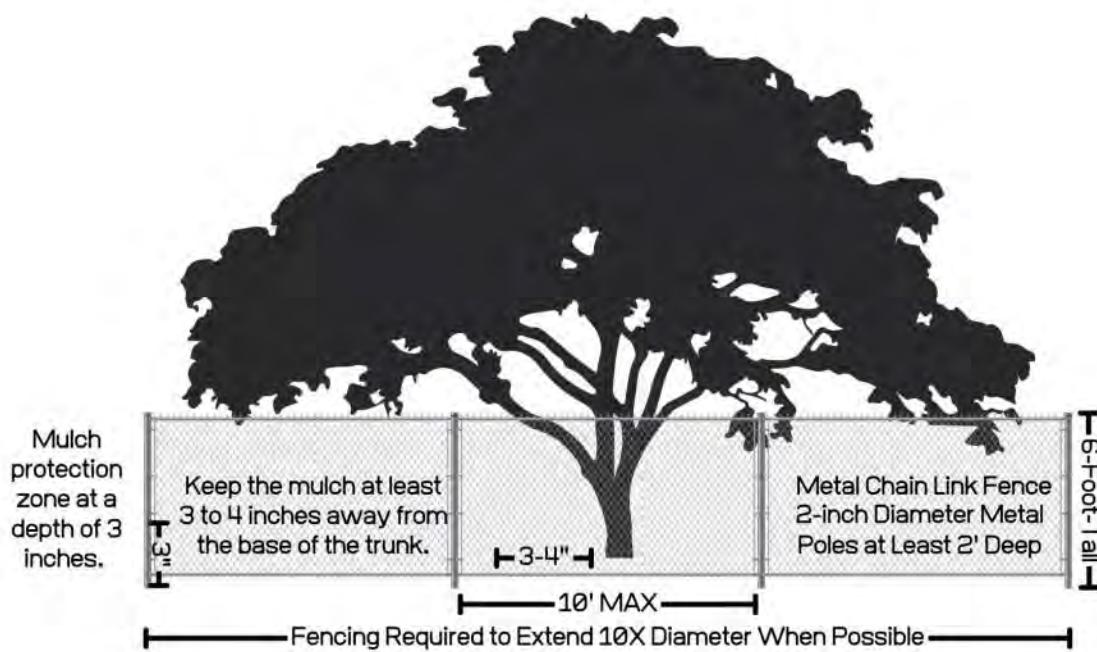
**Description:** This is the most comprehensive form of tree protection fencing. It encompasses the full canopy dripline or Tree Protection Zone (TPZ) of trees designated for preservation.

**Application:** Typically used in areas where trees are a significant distance away from construction activity or when trees have a large canopy spread.

#### **Specifications:**

The fencing shall remain intact throughout the duration of the project or until activities within the TPZ are finalized. Tree protection fencing should be a 6-foot-tall metal chain link type supported by 2-inch thick diameter metal posts pounded into the ground to a depth of no less than 2 feet, ensuring stability even in challenging conditions. Poles should be spaced no more than 10 feet apart from center to center, providing a consistent and strong barrier. For trees near existing hardscapes or structures, tree protection fencing shall be placed as close as possible while still allowing access. Sensitive areas may require a landscape barrier if fencing needs to be reduced for access reasons. The location for tree protection fencing for the protected trees on site should be placed at 10x the tree diameters where possible (TPZ). All other non-protected trees are

recommended to be protected by fencing placed at the drip line. No equipment or materials should be stored or cleaned inside protection zones. Apply mulch to the tree protection zones at a depth of 3 inches. Spread the mulch evenly throughout the designated area, ensuring it extends to, but does not touch, the tree trunk. Keep the mulch at least 3 to 4 inches away from the base of the trunk to prevent moisture buildup and potential rot. This will provide the necessary benefits of mulching, such as moisture retention and temperature regulation, while helping to maintain tree health. Signs should be placed on fencing signifying "Tree Protection Zone - Keep Out". If fencing needs to be reduced for access or any other reasons, the non-protected areas must be protected by a landscape buffer. All tree protection and inspection schedule measures, design recommendations, watering, and construction schedules shall be implemented in full by the owner and contractor. Trees #8 and #13 are to be protected by Type I Tree Protection Fencing.



**Type I Fencing**

### Type II Tree Protection:

**Description:** This fencing type is specifically designed for trees located within narrow planting strips generally between a sidewalk and street.

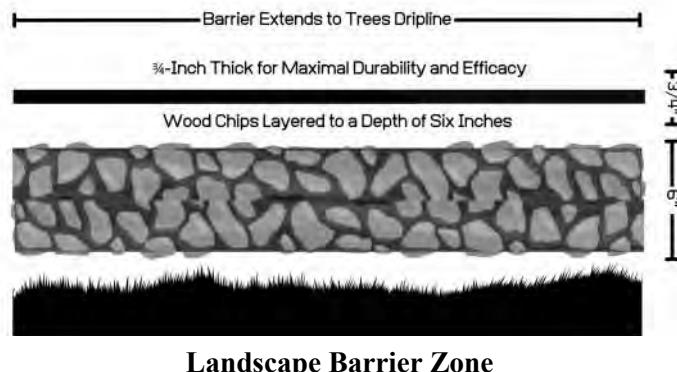
**Application:** It is best suited for urban areas where trees are sandwiched between sidewalks and roads, allowing pedestrian and vehicular movement while protecting the tree.

**Specifications:** The fencing specifications shall be identical to that of Type I in terms of the material used and installation method. The 6-foot-tall metal chain link fence should be installed in a way that completely encloses the planting strip between the sidewalk and street when within the TPZ. This will keep the sidewalk and street open for public use. Trees #3, 4, 5 are required to be protected by Type II Tree Protection Fencing.

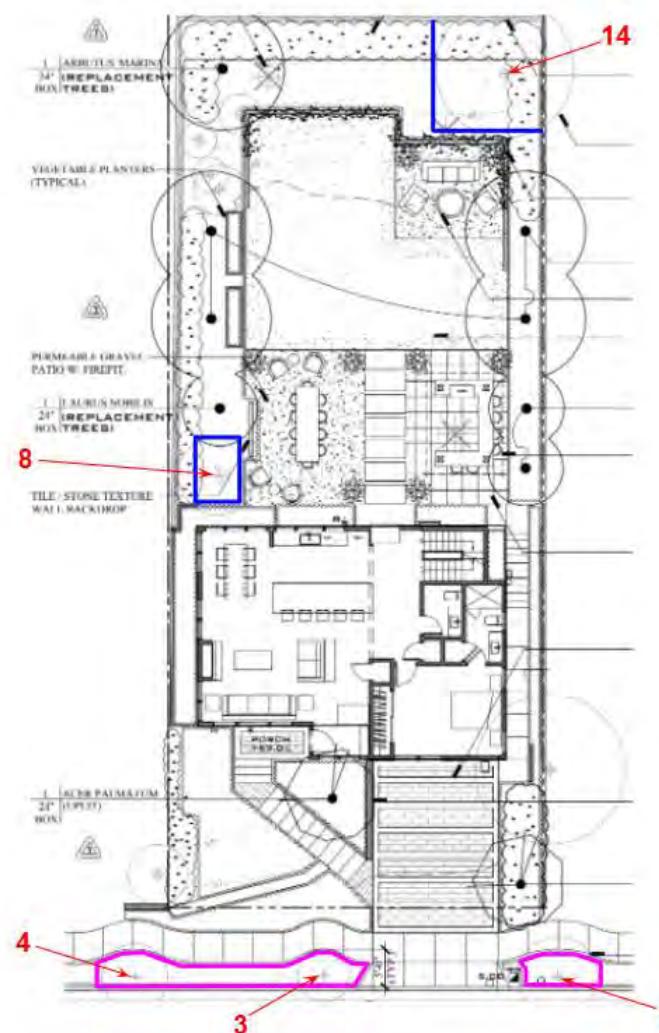
### Landscape Barrier Zone

If for any reason a smaller tree protection zone is needed for access, a landscape buffer should be used, composed of wood chips layered to a depth of six inches, complemented by plywood atop the wood chips

where tree protection fencing would typically be situated. The plywood should be  $\frac{3}{4}$ -inch thick for maximal durability and efficacy. This landscape buffer plays a crucial role in mitigating soil compaction within the tree's vulnerable root zone. For optimum stability, it is advisable to securely join the plywood boards, thus preventing any unwanted shifts in the plywood or underlying wood chips.



## TREE PROTECTION MAP



Approximate placement area of Type I Tree Protection Fencing outlined in **BLUE**, and Type II Tree Protection outlined in **MAGENTA**.

## **Staging**

All tree protection measures must be in place before the start of construction. An inspection prior to the start of construction is often required by the town. All vehicles must remain on paved surfaces if possible. Existing pavement should remain and should be used for staging. If vehicles are to stray from paved surfaces, 6 inches of chips shall be spread, and plywood laid over the mulch layer. This type of landscape buffer will help reduce the compaction of desired trees. Parking will not be allowed off the paved surfaces

## **Root Cutting**

If for any reason roots are to be cut, the work shall be monitored and documented. Large roots (over 2 inches in diameter) or large masses of roots to be cut must be inspected by the site arborist. The site arborist, at this time, may recommend irrigation or fertilization of the root zone. All roots needing to be cut should be cut clean with a saw or lopper. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist.

## **Trenching/excavation**

Trenching or excavation for irrigation, drainage, electrical, foundation, or any other reason shall be done by hand when inside the dripline of a protected tree. Hand digging and the careful placement of pipes below or besides protected roots will significantly reduce root loss, thus reducing trauma to the tree. All trenches shall be backfilled with native materials and compacted to near their original level, as soon as possible. Trenches to be left open for a period of time (24 hours), will require the covering of all exposed roots with burlap and be kept moist. The trenches will also need to be covered with plywood to help protect the exposed roots.

## **Grading**

All existing grades underneath the dripline of a protected tree shall remain as is where possible. Grading within the dripline of a protected tree is required to be done under the supervision of the project arborist.

## **Irrigation**

**Non native trees-** Irrigating the retained mature trees in the landscape is important to ensure their health and vitality. Proper watering can help the trees continue to thrive. Deep irrigation is recommended to take place every other week during the dry season. During the dry season, trees typically need deep, infrequent watering. Watering every 2 weeks is sufficient for the retained trees on this site. Applying water slowly and consistently until it penetrates at least 12-18 inches into the soil is recommended. Avoid spraying water directly on the trunks, as this can lead to disease and decay. Mulch is recommended to be maintained with mulch added over time, as needed. Mulch helps retain soil moisture, regulates temperature, and prevents weeds, which can compete with the tree for water. The use of soaker hoses or an inline drip emitter system set up in a grid like manner to provide deep irrigation during the dry season is recommended. The irrigation system should be placed on top of grade and require no excavation. This will help to keep the trees healthy.

## **Tree Pruning**

Tree pruning during construction is not just about aesthetics and safety; it's also about adhering to best practices and standards set by professional bodies like the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI A300 Pruning Standards) . The ISA sets rigorous standards to ensure trees are cared for sustainably and scientifically. Under these guidelines, and for the well-being of trees during construction, it's imperative to have an expert arborist oversee any pruning. Their knowledge guarantees that only the necessary branches are removed, ensuring both safety and tree health. The guideline to prune no more than 25% of the tree's total foliage is grounded in sound arboricultural practices. This safeguards the tree's photosynthetic capability, reduces undue stress, and preserves the balance between its roots and canopy. Homeowners should be aware of these standards and ensure they are being met,

trusting in the expertise of their arborist and keeping open communication about their tree care decisions. This approach not only ensures the tree's compatibility with new construction aesthetics but also its long-term health and vitality.

### **Traffic Within TPZs**

Strictly prohibit driving vehicles or heavy foot traffic on bare soil within the TPZs of protected trees. Such activities can crush roots directly and compact the soil, impeding oxygen and water infiltration. In areas without existing pavement, use temporary anti-compaction materials, such as wood chips covered with plywood, to prevent damage to tree roots (landscape barrier). Temporary pathways or boardwalks can be constructed to facilitate access while minimizing soil compaction within the TPZ.

### **Chemical and Material Handling**

Store chemicals and construction materials away from TPZs to prevent accidental spills or exposure that may harm tree health. Follow proper handling and disposal procedures for chemicals to ensure compliance with environmental regulations. Minimize the use of toxic materials near trees and opt for environmentally friendly alternatives whenever possible.

### **Monitoring and Inspection**

Regularly monitor and inspect the tree protection measures throughout the construction process to ensure their effectiveness and compliance with the Tree Preservation Plan. Assign a qualified individual, such as a project arborist or certified arborist, to conduct periodic inspections and provide recommendations for any necessary adjustments or improvements. Maintain detailed records of inspections, including dates, findings, and any actions taken.

### **Post-Construction Maintenance**

After construction is completed, continue monitoring the health and condition of preserved trees to address any potential issues promptly. Implement post-construction maintenance practices such as watering, mulching, pruning, and fertilization as needed to support the recovery and long-term health of the trees. Regularly assess the trees for signs of stress, disease, or structural instability and take appropriate measures, including consulting with a certified arborist if necessary.

### **Compliance with Environmental Laws**

Ensure full compliance with all applicable local, state, and federal environmental laws, regulations, and permit requirements pertaining to tree protection during construction. Familiarize yourself with specific regulations regarding tree preservation in your jurisdiction and consult with local authorities or arborists for guidance if needed.

### **Responsibility**

Designate a responsible person or team within the project organization to oversee the implementation and enforcement of the Tree Preservation Plan. Clearly communicate the roles and responsibilities of all parties involved in the construction project regarding tree protection.

### **Emergency Procedures**

Develop clear procedures to follow in the event of emergencies that may impact tree preservation, such as severe storms, accidents, or unexpected tree health issues. Ensure that emergency response plans address prompt actions to mitigate potential risks to trees and contact qualified professionals, such as arborists or tree care companies when needed.

### **Communication and Training**

Facilitate effective communication among all project stakeholders, including contractors, subcontractors, architects, engineers, and landscape professionals, regarding the importance of tree preservation and the specific guidelines to follow. Conduct training sessions or workshops to educate personnel.

## PURPOSE & USE OF THE REPORT

This report informs tree management decisions for the construction project and provides recommendations to maximize tree survival. It serves as a valuable resource for stakeholders, facilitating informed discussions and sustainable tree management practices.

## TESTING & ANALYSIS

In order to assess the trees, a thorough examination was conducted using a variety of methods. For trees with accessible trunks, precise measurements of the Diameter at Breast Height (DBH) were taken using a specialized diameter tape measure. In cases where the trunks were not readily accessible, visual estimations were employed to determine the DBH. As part of the inventory process, all trees exceeding a specific DBH threshold stated in city code were included.

To evaluate the health of the trees, multiple factors were considered, including their overall appearance and our team's extensive experiential knowledge of each species. This holistic approach ensured a comprehensive understanding of the tree's well-being.

To accurately document the location of each tree, a GPS smartphone application was utilized during the data collection process. This enabled us to create detailed maps that are included in this report. However, it is important to note that despite our efforts to minimize errors, inherent limitations of GPS data collection, coupled with slight discrepancies between GPS data and CAD drawings, may result in approximate tree locations depicted on the map.

## TREE WORK STANDARDS AND QUALIFICATIONS

To ensure high-quality tree work, including removal, pruning, and planting, the following standards and qualifications will be adhered to:

- **Industry Standards:** All tree work will be performed in accordance with industry standards established by the International Society of Arboriculture (ISA). These standards encompass best practices and guidelines for tree care and maintenance.
- **Contractor Licensing and Insurance:** The contractor undertaking the tree work must possess a valid State of California Contractors License for Tree Service (C61-D49) or Landscaping (C-27). Additionally, they must have comprehensive general liability, worker's compensation, and commercial auto/equipment insurance coverage.
- **Workmanship Standards:** Contractors must adhere to the current Best Management Practices of the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI). These standards, including ANSI A300 and Z133.1, outline guidelines for tree pruning, fertilization, and safety. Compliance with these standards ensures the use of proper techniques and practices throughout the tree work process.

By adhering to these established standards and qualifications, we can ensure the provision of professional and safe tree services that meet the industry's best practices and promote the health and longevity of the trees.

## SCHEDULE OF INSPECTIONS

### *Kielty Arborists Services LLC:*

We will conduct the following inspections as needed for the project:

- **Pre-Equipment Mobilization, Delivery of Materials, Tree Removal, and Site Work:** Our project arborist will meet with the general contractor and owners to review tree protection measures. We will identify and mark tree-protection zone fencing, specify equipment access routes and storage areas, and assess the existing conditions of trees to determine any additional necessary protection measures.
- **Inspection after Installation of Tree-Protection Fencing:** Upon completion of tree-protection fencing installation, our project arborist will inspect the site to ensure that all protection measures are correctly implemented. We will also review any contractor requests for access within the tree protection zones and assess any changes in tree health since the previous inspection.
- **Inspection during Soil Excavation or Work Potentially Affecting Protected Trees:** During any work within non-intrusion zones of protected trees, our project arborist will inspect the site and document the implemented recommendations. We will assess any changes in tree health since the previous inspection to monitor the well-being of the trees.
- **Final Site Inspection:** Prior to project completion, our project arborist will conduct a final site inspection to evaluate tree health and provide necessary recommendations to promote their longevity. A comprehensive letter report summarizing our findings and conclusions will be provided to the City of Burlingame.

Our inspections aim to ensure proper tree protection, health, and adherence to project requirements.

## ASSUMPTIONS AND LIMITING CONDITIONS

- **Legal Descriptions and Titles:** The consultant/arborist assumes the accuracy of any legal description and titles provided. No responsibility is assumed for any legal due diligence. The consultant/arborist shall not be held liable for any discrepancies or issues arising from incorrect legal descriptions or faulty titles.
- **Compliance with Laws and Regulations:** The property is assumed to be in compliance with all applicable codes, ordinances, statutes, or other government regulations. The consultant/arborist is not responsible for identifying or rectifying any non-compliance.
- **Reliability of Information:** Though diligent efforts have been made to obtain and verify information, the consultant/arborist is not responsible for inaccuracies or incomplete data provided by external sources. The client accepts full responsibility for any decisions or actions taken based on this data.
- **Testimony or Court Attendance:** The consultant/arborist has no obligation to provide testimony or attend court regarding this report unless mutually agreed upon through separate written agreements, which may incur additional fees.
- **Report Integrity:** Unauthorized alteration, loss, or reproduction of this report renders it invalid. The consultant/arborist shall not be liable for any interpretations or conclusions made from altered reports.
- **Restricted Publication and Use:** This report is exclusively for the use of the original client. Any other use or dissemination, without prior written consent from the consultant/arborist, is strictly prohibited.
- **Non-disclosure to Public Media:** The client is prohibited from using any content of this report, including the consultant/arborist's identity, in any public communication without prior written consent.
- **Opinion-based Report:** The report represents the independent, professional judgment of the consultant/arborist. The fee is not contingent upon any predetermined outcomes, values, or events.
- **Visual Aids Limitation:** Visual aids are for illustrative purposes and should not be considered precise representations. They are not substitutes for formal engineering, architectural, or survey reports.
- **Inspection Limitations:** The consultant/arborist's inspection is limited to visible and accessible components. Non-invasive methods are used. There is no warranty or guarantee that problems will not develop in the future.

## ARBORIST DISCLOSURE STATEMENT

Arborists specialize in the assessment and care of trees using their education, knowledge, training, and experience.

- **Limitations of Tree Assessment:** Arborists cannot guarantee the detection of all conditions that could compromise a tree's structure or health. The consultant/arborist makes no warranties regarding the future condition of trees and shall not be liable for any incidents or damages resulting from tree failures.
- **Remedial Treatments Uncertainty:** Remedial treatments for trees have variable outcomes and cannot be guaranteed.
- **Considerations Beyond Scope:** The consultant/arborist's services are confined to tree assessment and care. The client assumes responsibility for matters involving property boundaries, ownership, disputes, and other non-arboricultural considerations.
- **Inherent Risks:** Living near trees inherently involves risks. The consultant/arborist is not responsible for any incidents or damages arising from such risks.
- **Client's Responsibility:** The client is responsible for considering the information and recommendations provided by the consultant/arborist and for any decisions made or actions taken.

The client acknowledges and accepts these Assumptions and Limiting Conditions and Arborist Disclosure Statement, recognizing that reliance upon this report is at their own risk. The consultant/arborist disclaims all warranties, express or implied.

## CERTIFICATION

I hereby certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

*David Beckham*

*Signature of Consultant*

David Beckham

Certified Arborist

WE#10724A TRAQ Qualified

January 5, 2026

