Exhibit D

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James P. Allen & Associates

Dedicated to the Preservation of Trees

Boccone/Igel Residence
827 Elkhorn Road, Royal Oaks CA
APN 181-159-009

Forest Resource Analysis/
Construction Impact Assessment/
Tree Protection Plan

Mitigation Maintenance
&
Monitoring Program

Prepared for
Norman Boccone/Victoria Igel
Property Owners

Consulting Arborists

119 Surfside Avenue
Santa Cruz, CA 95060

831.426.6603 office
831.234.7739 mobile

jpallen@consultingarborists.com
www.consultingarborists.com

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ASSIGNMENT/SCOPE OF SERVICES

The construction of a single-family residence with a detached workshop, garage and guest quarters is proposed for an 18.1-acre parcel at 827 Elkhorn Road in Royal Oaks CA, APN 181-151-009.

The area proposed for construction is populated with native oak species some of which may meet "Protected" or "Landmark" criteria as defined by Monterey County Code . In order to create a design that ensures tree health/stability, minimizes tree removal and protects tree resources on this site during construction, the following tasks have been completed at the request of Mr. Norman Boccone and Ms. Victoria Igel, the property owners.

- Conduct a canopy coverage analysis
- Locate, inventory and verify mapped locations of trees greater than 4 diameter inches within and directly adjacent to project boundaries
- Attach numerical tags to each tree and document locations on the map file
- Identify each tree as to genus and species
- Measure trunk diameter at a point 2 feet above grade
- Identify trees that meet Protected and/or Landmark criteria as defined by Monterey County Code Section 16.60 and Title 20, if any.
- Rate health, structure and preservation suitability as "good", "fair" or "poor"
- Describe unique conditions of each tree, if any
- Define Critical Root Zones for each tree to be preserved
- Review project plans to determine potential impacts to tree resources
    - Geo-Technical
    - Grading
    - Drainage
    - Building
- Identify trees with active disease organisms or structural weakness that present risk to the redefined use of the site
- Provide recommendations for remedial treatments, maintenance and pre-construction treatments to improve tree condition and decrease risk in preparation for construction
- Create tree preservation specifications including a protection fencing plan
- Quantify mitigation requirements for trees removed due to construction impacts
- Define and document a Mitigation Maintenance and Monitoring Program
- Provide all findings in the form of a Forest Resource Analysis/Construction Impact Assessment Report accompanied by an inventory and Tree Location Map/Preservation Plan for submittal to Monterey County RMA

NOTE: This analysis is limited to the above-described tasks. The findings presented in this report are intended for the sole use of the current property owners (Norman Boccone and Victoria Igel) and the Monterey County Resource Management Agency (RMA) in evaluating the proposed project impacts to tree resources.

SUMMARY

The proposed project involves the construction of a single-family residence on an 18.1-acre property located at 827 Elkhorn Road in Royal Oaks CA, APN 181-151-009. Plans for this project have been reviewed and the known impacts resulting from the proposed construction as defined at this time have been evaluated.

A lot line adjustment (LLA) is currently being pursued to relocate the driveway, thereby minimizing grading and reducing impacts on tree resources. If the proposed LLA is approved, tree removal requirements will be decreased by 40% from the previous driveway alignment. This LLA will facilitate the transfer of approximately 5.12 acres of oak woodland, coastal scrub, and mixed grassland from the subject parcel (APN 181-151-009) to the Elkhorn Slough Foundation (APN 181-011-022), in exchange for approximately 0.48 acre of land adjacent to the existing access road between APN 181-151-008 and APN 181-151-009. This land donation aims to preserve the environmentally sensitive habitat area (ESHA), representing a positive outcome for the project. As a result, the total area of the subject property will be reduced to 13.53 acres.

One hundred fifty-one (151) trees growing within or adjacent to the development area have been inspected and inventoried. One-hundred thirty (130) of the trees inventoried meet “Protected” criteria, twenty-seven (27) of which are “Landmark” trees. Tree locations have been documented on the attached *Tree Location Map* file.

To construct the project as proposed, the removal of twenty (20) trees is necessary due to grading impacts that cannot be lessened. Fifteen (15) of the trees proposed for removal meet “Protected”. Each of the “Protected” trees proposed for removal is in a fair to poor state of health with poor structure and preservation suitability. One (1) of the trees proposed for removal meets the technical definition of “Landmark” trees due to trunk diameter although it has uprooted with a small percentage of live foliage remaining. The remaining three (3) trees proposed for removal do not meet “Protected” criteria. This projection is the most dramatic estimation of required tree removal given the information at hand. There is a possibility that necessary tree removal can be decreased with field adjustments once grading limits are staked in the field.

Additionally, there is one Tree #108 proposed for removal due to condition. This tree has broken at the approximate height of 36-inches above grade and regenerated small diameter sprout growth. See *Tree Removal Summary Table* page 15.

The projected loss of tree canopy represents .08-acres or 1.19% of the total property canopy coverage of 10.13 acres.

The project as proposed follows the guidelines for oak woodland protection. The first and most important strategy, avoidance of impact has been utilized. Building locations have been strategically positioned in openings that occur naturally between or at the perimeter of established tree groupings, avoiding the fragmentation of the system. This type of land use design helps maintain the continuous overstory around the development area providing the existing wildlife an interrupted route through the habitat.

SUMMARY, continued

The Project Architect has re-aligned the driveway, sewer/water lines and dispersion trenches several times saving four Landmark trees and diminishing impacts to trees to be preserved. The proposed driveway access travels through a woodland canopy bisecting smaller tree groups that includes one (1) uprooted Tree #154 which meets Landmark criteria that will need to be removed. This tree has uprooted with approximately 80% of the canopy being dead; non-functional. It meets Landmark criteria due only to the trunk diameter and not necessarily the spirit of the designation.

The following mitigation strategies have been or will be implemented; surpassing guidelines stated in Public Resources Code 21083.4:

- Project siting and design that reduced the need for tree removal thus, minimizing impacts.
- Preservation and Protection of retained trees during construction
- Implementation of Required Procedures/Special Treatments as defined by the Project Arborist
- Voluntarily preservation of the oak restoration areas and remaining sensitive habitat areas on the property (oak woodland and mixed grassland) by the property owners in perpetuity
- Collection of site-specific coast live oak acorns, propagation and planting of 40 saplings
- Salvage and Recruitment of 15 small coast live oak saplings in four designated planting areas totaling .46 acres
- Restoration of .25 acres of Oak Woodland
- Implementation of a Seven-Year Mitigation Maintenance and Monitoring Program to ensure a 60% Success Criteria is met

The implementation of the procedures as defined within this document, including the required Special Treatments as well as adherence to Tree Preservation Specifications, are required to safeguard trees proposed for retention.

BACKGROUND

I was contacted by Ms. Carol Reiwe, AIA the Project Architect during the month of April 2023. She asked of my interest and availability to assess forest resources on a property at 827 Elkhorn Road in Royal Oaks CA. She verbally described the project and stated the owner's commitment to preserving tree resources. After I conducted a brief site inspection and met with Ms. Riewe and Mr. Boccone, one of the property owners, I expressed my interest, the capability to provide service and began working on the analysis.

Ms. Riewe provided the following studies and map files for my review and use:

- Surveyed map of the development area performed by Roper Engineering, along with Topography, Building/Driveway Locations, including the Site Grading & Drainage Plan. This file included surveyed tree locations in AutoCAD format which was relied upon to create the *Tree Location Map file* and *Inventory* appended to this report. This information was used to determine the level of impacts to tree resources resulting from the proposed construction
- Geotechnical studies completed by Rock Solid Engineering dated June 5, 2023
- Elkhorn Road Parcel, APN 181-151-009 Biological Assessment prepared by Biotic Resources Group (BRG) and Brian Mori Biological Consulting Services dated November 4, 2024

After reviewing the proposed plans and conducting a brief site inspection, it became clear that four (4) Landmark trees would need to be removed to construct the driveway as proposed. After discussion with Ms. Riewe, the Project Architect the driveway was re-aligned. These revisions resulted in avoiding the removal of four key Landmark Trees, #13, 14, 21 and 22.

Throughout my site inspection periods, additional information resulted in the repositioning of the sewer and water lines and dispersion trenches to decrease impacts to tree root zones.

To complete the assessment numerous site inspections were performed between July 8 and August 1, 2023. Numbered metal tags were affixed to each tree's trunk at six feet above grade. The corresponding numbers and surveyed tree locations are documented on the attached *Tree Location Map file.*

Supplemental site inspections were conducted between July 12th and 27th of this year. Fifteen additional trees were added to the tree inventory in proximity to the re-positioned driveway.

OBSERVATIONS

Site Description

The proposed project will occur on a section of the current -acre parcel located at 827 Elkhorn Road in Royal Oaks CA, APN 181-151-009. The property is bordered by Elkhorn Road, Blohm Ranch, a conservation easement held by Elkhorn Slough Foundation and two private residential parcels.

A complete site description of botanical and wildlife resources along with soil types and applicable regulatory criteria can be found in the *Elkhorn Road Parcel, APN 181-151-009 Biological Assessment prepared by Biotic Resources Group and Brian Mori Biological Consulting Services* dated November 4, 2024 . This document will be referred to as (BRG/BMBC 2024) throughout this report.

The 1.38-acres proposed for development includes approximately .12 acres of sensitive habitat including .04 acre of oak woodland and .08-acre of annual grassland ((BRG/BMBC 2024). This area slopes gently in the upper sections, increasing as it reaches the current area driveway. The loss of woodland canopy is calculated as .08-acre as depicted on the attached *Canopy Analysis* representing 1.19% of property-wide canopy coverage.

Coast live oak (*Quercus agrifolia)* forest canopy covers approximately 6.82 acres of the property categorizing the property as an oak woodland per the Oak Woodlands Conservation Public Resources Code 21083.4. The approximate canopy coverage levels represent 50% of the total parcel area. See the attached *Canopy Coverage Analysis.*

The area of study was limited to a 1.5-acre +/- section on the Southeast slope where construction of a home, detached workshop and guest quarters are proposed. A thorough property-wide analysis of individual tree resources was not conducted. Sections of the property beyond the study limits were visually assessed by walking through woodland areas. Tree resources appear to be single species (*Quercus agrifolia),* of similar age and size class save for one, lone Monterey pine (*Pinus radiata)* sapling observed within the forest system.

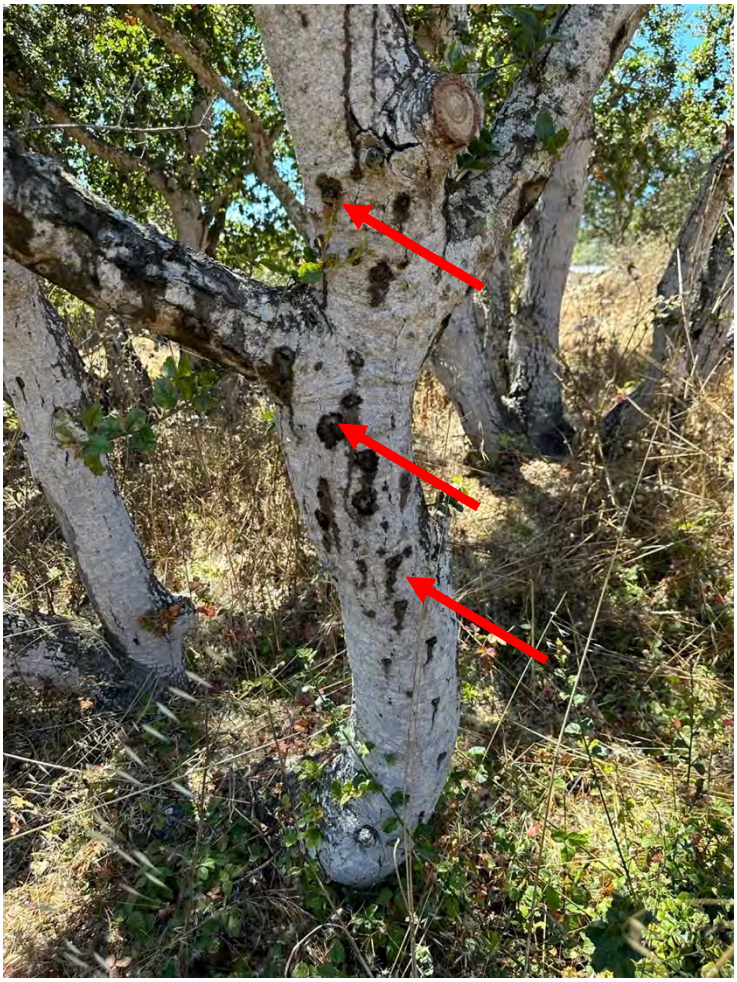
Individual tree form is low in height with wide, spreading canopies. Canopy width often exceeds tree height (often by 2-300%) which peaks at 25 to 35 feet. There are many significant individual trees which represent the spirit of the "Landmark" designation, visually and historically significant or exemplary of their species.

The photo at right depicts a Landmark tree which grows outside of the development boundaries.

There is a high degree of tree mortality, previous failure and suspected disease influences in the development area. Although the coast live oak species is prone to *Phytophthora ramorum* the causal agent of Sudden Oak Death (SOD), there are no visible symptoms of the pathogen on this site. However, there are symptoms consistent with other *Phytophthora* sp. strains, hypoxylon and canker diseases within the study area. Although none of these suspected pathogens were verified by laboratory analysis, visible evidence suggests that there are unidentified, active disease organisms present.

The owner reports that soil moisture levels are high in these areas which may explain symptoms consistent with Phytophthora and current conditions that could lead to oak root fungus attacks and kills the vascular cambium (the tissue that generates bark and wood) in woody roots, then spreads laterally to the main stem, which can girdle the base of the trunk and kill the entire tree. *Armillaria mellea* commonly referred to as oak root fungus is also a white rot wood decay fungus which destroys the strength of wood in roots and at the base of infected tree trunks, thereby increasing the likelihood of tree failure. This dual nature of Armillaria, both as a pathogen (killing the living tissues in a tree) and a saprobe (living on dead or non-functional wood after the infected host dies), presents a challenge to management because its inoculum (infective tissue or propagules) can persist for decades below ground as mycelium (vegetative fungal tissue) living in partially-decayed woody roots (residual roots) long after the infected host plants have died.

Hypoxylon canker occurs primarily on stressed trees. The fungus infects the tree through injured limbs and trunk. First evidence of the disease is from dying branches. This dieback continues from branch to branch until the whole tree dies. The fungus infects the inner bark causing the outer bark to fall off and exposing large masses of brown, dusty spores which spread to other trees. Eventually, the brown stage of the fungus becomes black, making the tree look as if the affected area was charred by fire. Symptoms of canker disease are indicated by the red arrows.



There is evidence of western oak bark beetle, (*Pseudopityopthorus pubipenis)* in a few stressed trees. This insect attacks injured and stressed trees of the *Quercus (*oak) species among others.

Points of exudation/weeping indicate ongoing insect activity.

Tree Descriptions

Of the 151 trees inventoried, 130 trees meet "Protected" criteria, of which 27 trees meet "Landmark" designation.

Many trees within the study are multi trunk with wide, spreading canopies and poorly attached codominant trunks and stems with included bark. These poor trunk/stem attachments (PTSA) are, by definition a structural weakness as depicted in the photo at right, Tree #1. In conditions such as these where the bark ridge turns inward, the union between the two stems is weakened.

These types of attachments do not form connective tissues between the stems. The stems push against one another as they develop. The weight of the rapidly growing canopies exerts additional stresses on the weak attachment point. Trees with PTSA are essentially "growing themselves apart" at the trunk/stem attachment point(s) as seen in the photo at left, Tree #117.

This tree has a High Failure Potential and should be continually monitored to assess stability.

Given the low height, wide spreading architecture of many of the trees with these weak attachments, stabilization through the installation of cable support systems would not be effective. If weakly attached branches grow over a high use area, they could be provided support through the installation of props.

Most of the trees with PTSA do not pose a risk to the safe use of the proposed development areas and can be left untreated with the awareness of the weakened conditions.

Tree Descriptions, continued

California oak moth (*Phryganidia californica)* was not active during the inspection period but can be expected in the future. This insect often defoliates tree canopies to varying degrees. The defoliation is not harmful unless it occurs year after year in succession. Our changing weather patterns have resulted in more frequent attacks. If insect activity occurs and becomes disturbing, the insect can be controlled with a variety of chemical products. If the insect is not disturbing, it should be left alone knowing it is not harming the tree and chemical control may result in the destruction other beneficial insects in the process.

Many of the trees are in low vigor with fair to poor health and structural ratings. As previously discussed, it is clear there are undiagnosed pathogens active within the area of study.

Tree #96, pictured at above is an example of a severely distressed tree that meets “Landmark” criteria . Trees in this condition will be retained for habitat value and monitored for further decline.

Of the 27 trees that meet “Landmark” criteria the majority do not meet the spirit of the designation as visually/historically significant or exemplary examples of their species. Most of the Landmark trees are small stature, multi trunk trees that meet criteria because the sum of their trunk diameters exceeds 24-inches, thus qualifying them as “Landmark”. Tree #96, pictured on the previous page is an example of a Landmark tree that doesn’t meet the spirit of the designation.

Tree #154, depicted below is required to be removed since it lies in the path of the proposed driveway.

Although this tree meets “Landmark” criteria, it has uprooted with only a small percentage of the canopy being alive and functional. This tree is another example of a “Landmark” tree that doesn’t meet the spirit of the designation.

Many of the trees have dead branches which do not pose a health or structural risk to the tree. Dead, fallen and diseased trees and branches increase flammable fuel loads and should be pruned/removed.

TREE INVENTORY METHODOLOGY

The attached inventory lists information on 151 coast live oak (*Quercus agrifolia)* trees growing within and directly adjacent to development boundaries.

Each tree was assessed visually assessed from the root crown through the foliar canopy extents. Round numbered metal tags were affixed to each tree trunk. Tree locations are documented on the attached *Tree Location Map*.

The tree inventory lists species, trunk diameter, tree health, structure and suitability ratings, level of impacts and description, observations, required procedures and whether the tree meets Protected or Landmark criteria.

Diameter: is the width of the trunk measured at 2 feet above natural grade (ground level). For trees that were unable to be measured at 2 feet above natural grade, measurement heights are provided.

Tree health and structure are separate issues that are related since both are revealed by tree anatomy. A tree's vascular system is confined in a thin layer of tissue between the bark and wood layers. This thin layer is responsible for transport of nutrients and water between the root system and the foliar canopy. When this tissue layer is functioning properly, a tree has the ability to produce foliage (leaves). As long as the tree maintains a connected vascular system, it may appear to be in good health.

When conditions conducive to decay are present, fungi, bacteria or poor compartmentalization, wood strength is degraded. As decay advances, the tree's ability to continue standing is compromised. Thus, a tree can appear to be in good health, but have poor structure.

Tree Health: This rating is determined visually. Annual growth rates, leaf size and coloration are examined. Indications of insect activity, decay and dieback percentages are also used to define health ratings.

Trees in **"good"** health are full canopied, with dark green leaf coloration. Areas of foliar dieback or discoloration are less than 10% of the canopy. Dead material in the tree is limited to small twigs and branches less than one inch in diameter. There is no evidence of insects, disease or decay.

Trees with a **"fair"** health rating have from 10% to 30% foliar dieback, with faded coloration, dead wood larger than one inch, and/or visible insect activity, disease or decay.

Trees rated as having **"poor"** health have greater than 30% foliar dieback, dead wood greater than two inches, severe decay, disease or insect activity.

Tree Structure: This rating is determined by visually assessing the roots, root crown (where the trunk meets the ground), supporting trunk, and branch structure. The presence of decay can affect both health and structural ratings.

Trees that receive a **"good"** structural rating are well rooted, with visible taper in the lower trunk, leading to buttress root development. These qualities indicate that the tree is solidly rooted in the growing site. No structural defects such as codominant stems (two stems of equal size that emerge from the same point), poorly attached branches, cavities, or decay are present.

Trees that receive a **"fair"** structural rating may have defects such as poor taper in the trunk, inadequate root development or growing site limitations. They may have multiple trunks, included bark (where bark turns inward at an attachment point), or suppressed canopies. Decay or previous limb loss (less than 2 inches in diameter) may be present in these trees. Trees with fair structure may be improved through proper maintenance procedures.

Poorly structured trees display serious defects that may lead to limb, trunk or whole tree failure due to uprooting. Trees in this condition may have had root loss or severe decay that has weakened their support structure. Trees in this condition can present a risk to people and structures. Maintenance procedures may reduce, but not eliminate these defects.

Note* Tree health and structure are separate issues that are related since both are revealed by tree anatomy. A tree's vascular system is confined in a thin layer of tissue between the bark and wood layers. This thin layer is responsible for transport of nutrients and water between the root system and the foliar canopy. When this tissue layer is functioning properly a tree has the ability to produce foliage (leaves). As long as the tree maintains a connected vascular system it may appear to be in good health.

When conditions conducive to decay are present, fungi, bacteria or poor compartmentalization, wood strength is degraded. As decay advances, the tree's ability to continue standing is compromised. Thus, a tree can appear to be in good health, but have poor structure.

Critical Root Zone: Individual tree root systems provide anchorage, absorption of water/minerals, storage of food reserves and synthesis of certain organic materials necessary for tree health and stability. The Critical Root Zone (CRZ) is the species-specific amount of roots necessary to continue to supply these elements essential for each tree to stand upright and maintain vigor. This distance reflects the minimum footage measurement from the trunk required for the protection of the tree's root zone. Construction activities proposed within these areas are subject to specific review and the implementation of recommended special treatments.

Observations: Descriptions of individual tree conditions.

LEVEL/Description of Construction Impacts

This section describes what procedures are proposed near the individual tree. The influences the proposed construction activities will have on the tree are classified as **None Known, Low, Moderate** or **High.** These classifications are defined as follows:

NONE, the tree is not near the impact area of the proposed construction.

LOW, adverse effects from the proposed construction activities are minimal.

MODERATE, this level of impacts will result in loss in tree vigor and/or stability. Recommended procedures must be implemented to decrease these impacts.

HIGH, requiring tree removal or the understanding that premature tree mortality can be anticipated. Mitigation is required for "Protected" and "Landmark" trees subject to this level of impacts.

LEVEL/Description of Construction Impacts, continued

Site inspections and review of the plans as presented identified construction impacts to individual trees. The construction of this project as presented requires the following procedures:

- **Vertical clearance** is needed where branches of trees encroach upon parking areas, the driveway or structures. Branches will need to be pruned to gain required clearance.
  - **Trees #34, 76, 77 and 102**

- **Grading for site stabilization, driveway, parking lot and building construction as well as trenching for foundations, retaining walls, drainage, and utility line construction.** These procedures require alteration of natural grade in the form of cut and/or fill (described below) at the defined "Limits of Grading". Roots shattered during this process provide openings for opportunistic decay causing organisms degrading tree support systems and vigor.

- **Alteration of natural grade**
  - Cuts, lowering of natural grade, require the removal of soil until the desired elevation is reached. A cut within the trees Critical Root Zone can remove non-woody and woody roots. Non-woody (absorbing) roots are responsible for transporting moisture and nutrients necessary for maintaining tree health. More significant cuts remove woody roots that provide structural support, compromising the tree's ability to stand upright.

  - Fill, increasing natural grade, often requires an initial cut to "knit in" and stabilize the material. This material is applied in layers and compacted in the process. Compaction breaks down soil structure by removing air and adding moisture. Anaerobic conditions may develop, promoting decay. Absorbing roots can suffocate from lack of oxygen. Structural roots may be compromised because of the decay.

- **Drainage structures and Utility line placement.** Necessary drainage structures and utility lines are to be consciously placed to avoid the Critical Root Zone of the preserved trees or brought to the attention of the Project Arborist to allow for preconstruction root severance along placement lines.

- **Planned Landscape Installation** typically requires the import of topsoil, rototilling the top 8 inches of native soils, digging planting holes, trenching for irrigation lines and increased water supply for establishing new plantings. Increased disturbance in the Critical Root Zone and elevated water levels will stress mature trees. It is recommended that landscape features planned within Critical Root Zones avoid the above-described procedures.

- **Sewer Line**
  A 12" wide by 24" deep sewer line connecting facilities to a leach field in the Southwestern meadow has been strategically placed and staked in the field to avoid tree root zones. The location of the sewer line is documented on the attached map files

Protected and Landmark Tree Definitions

Trees that meet "Protected" and "Landmark" criteria were determined as defined in Monterey County Code Chapter 16.60 - *PRESERVATION OF OAK AND OTHER PROTECTED TREES, Section 16.60.030 – Regulations* and *The Monterey County Coastal Implementation Plan Chapter 20.144*

> A. No oak or madrone tree six inches or more in diameter two feet above ground level shall be removed in the North County Area Plan or Toro Area Plan areas without approval of the permit(s) required in Section 16.60.040 of this Chapter.
>
> E. No landmark oak tree shall be removed in any area except as may be approved by the Director of Planning pursuant to Section 16.60.040 of this Chapter. Landmark oak trees are those trees which are twenty-four (24) inches or more in diameter when measured two feet above the ground, or trees which are visually significant, historically significant, or exemplary of their species.

REQUIRED PROCEDURES

Tree Removal due to Construction Impacts

Twenty (20) trees will need to be removed to construct the project as proposed. Fifteen (15) of the trees proposed for removal meet "Protected" criteria and one (1) Tree #154 meets "Landmark" designation and require replacement. Trees proposed for removal are within or directly adjacent to disturbance limits. Trees to be removed are identified on the attached spreadsheet, summarized in the table below and listed as follows:

- "Protected" Trees to Be Removed due to Construction Impacts (15)
  - Trees #31, 32, 33, 36, 37, 98, 105, 115, 124, 125, 126, 128, 129, 130 and 160
- "Landmark" Trees to Be Removed due to Construction Impacts (1)
  - Tree #154, meets the technical definition of a "Landmark" tree due to the size of its' trunk even though it is an uprooted tree with a small percentage of live foliage remaining.
- Non-Protected Trees to Be Removed due to Construction Impacts (3)
  Trees # 24, 150 and 161

Tree Removal due to Condition

- One (1) Tree #103 with a failed trunk is growing within the proposed Guest House and will need to be removed. This broken trunk has a small amount of live sprout growth remaining
  - Tree #103

Tree locations are documented on the attached *Construction Impact Assessment/Tree Location* map file.

REQUIRED PROCEDURES, continued

Tree Removal Summary Table 827 Elkhorn Road, Royal Oaks, CA, APN 181-151-009 November 1, 2024						
Quantity of Trees Inventoried	Quantity of Protected Trees Inventoried	Quantity of Landmark Trees Inventoried	"Protected" Trees to be Removed due to Construction Impacts	"Landmark" Trees to be Removed due to Construction Impacts	Trees to be Removed due to Construction Impacts Not "Protected"	Protected Trees to be Removed due to Condition
151	130	27	15	1	3	1
Quantity of Trees to be Removed			**20**			

Special Treatments

- **Monitor Stability** of trees with serious structural weaknesses, severe decline and/or those with High Failure Potential
  - **Trees #41, 96 and 117**
- **Minimize grading limits** within the Critical Root Zone where possible
  - Trees #34, 102, 106-109 and 116
- The following procedures should be implemented for any excavation proposed within Critical Root Zones that cannot be repositioned:
  - **Pre-construction root exploration is** the investigation and understanding of root trajectory and depth within Critical Root Zones of subject trees through "mindful" excavation. This procedure is necessary for trees which are adjacent to trenching and/or grade reduction that require exposure or removal of soil from the trees Critical Root Zone for the driveway, utility lines and foundation construction. Specifically, **Trees #34 and 102, depicted below**

Special Treatments, continued

- Roots should be located using non-invasive procedures when possible Exploration can be done either by hand, using small tools, or an **AirSpade©**. This tool uses compressed air to displace soil without damage to roots.
- A small excavator may begin the exploration at the furthest distance from the tree trunk
- The boom of the excavator will be in line with the tree trunk beginning in a "spoke in wheel" pattern with the tree trunk in the position of a wheel's hub
- Excavation will begin by scraping the top 6 to 10-inches of the soil surface at one to two foot "strokes beginning at the furthest point away from the tree
- Hand Excavation, without the use of motorized equipment may be necessary of root populations are high, of large diameter and dense
- Once exposed, the roots can be examined, and determinations can be made regarding the feasibility of root removal or root severance. If roots need to be pruned the following procedures shall be used:
    - **Root pruning** is to be performed by skilled labor. Roots are to be pruned cleanly. Bark should adhere to the wood without tearing. Wood fibers should remain intact without shattering. The following tools should be used:
        - Hand-pruners/Loppers
        - Handsaw
        - Reciprocating saw
        - Chainsaw

When completed, the pruned portions should be covered with burlap or similar material and kept moist.

Sewer/Water Lines, Dispersion Structures
Field location of sewer alignment and construction in densely wooded areas

- Field locate sewer and water lines to avoid tree trunks by a minimum of 12 to 15 feet
- Lay sheets of ¾" or 11/8" plywood end-to-end lengthwise on both sides of the proposed trench.
- Trench the length of the line using a Ditchwitch trencher, Briggs and Stratton Walk-Behind Trencher, or similar
- Keep equipment wheels or tracks on plywood
- Place trenching spoils on plywood
- Prune roots cleanly as described above
- Place pipe and backfill trenches through the oak woodland using the existing on-site sandy soils absent of clay.
    - Native backfill should be free of organic material and rocks over 3 inches in diameter.
    - Backfill of all exterior and interior trenches will be placed in thin lifts and mechanically compacted with compaction rammer to achieve a relative compaction of not less than 95% in paved areas and 90% in other areas per ASTM D-1557
- Remove plywood without driving on bare ground

Special Treatments, continued

A **backhoe may** also be used in some areas this project for preconstruction root severance treatments for **Trees #34 and 102** at the driveway interface as defined by and under the direction of the Project Arborist if the distance between the trees and the limit of excavation cannot be decreased. This procedure is defined below:

- Establish a "final line of disturbance" with field staking. This line represents the furthest distance from the tree trunk that will allow the proposed construction/grading/driveway construction
- Determine the depth of the cut required.
- Begin digging 8 to 10 feet from the established line in a "spoke in wheel" pattern, using the tree trunk as the hub.
- Dig to the required depth.
- Dig toward the tree trunk to determine where roots are located.
- Begin pruning roots using the techniques defined above.
- Cover pruned roots with burlap and keep moist
- Upon reaching the final line of disturbance make the final root pruning cuts.
- Install Tree Preservation fencing with straw bales to allow maximum distance from the tree while allowing construction space.

Tree Maintenance procedures are those, which are necessary to decrease risk of falling branches, provide re-enforcement for weak branch junctures and improve tree health/stability.

- **Pruning** to remove dead branches has been recommended to reduce potential fire hazards
    - Each tree to be preserved should have dead/broken branches greater than 1-inch diameter removed

- **Clearance pruning, Trees #34, 76, 77 and 102** be required to allow vertical space for driveway and building construction. A minimum number of branches are to be removed to provide this space. Individual trees requiring clearance pruning will be identified by the Project Arborist after the vertical clearance requirements are defined.
    - Pruning should not remove more foliage than necessary to accommodate proposed construction as determined by the Project Arborist.

Tree Maintenance Contractors qualifications:

A qualified, state licensed and fully insured Certified Arborist should be contracted to perform the above-described work in compliance with the most current versions of the following industry standards:

- American National Standards Institute, *A300 for Tree Care Operations-Tree, Shrub and Other Woody Plant Maintenance-Standard Practices*.
    - (Part 1)-2001 Pruning
- American National Standards Institute *Z133.1-1994 for Tree Care Operations- Pruning, Trimming, Repairing, Maintaining, and Removing Trees and Cutting Brush-Safety Requirements*
- International Society of Arboriculture: *Best Management Practices* (Pruning & Cabling)

Tree Preservation Specifications included in this report outline specifics for tree protection structures and other procedures that will provide the best opportunity for their long-term survivability.

Tree Preservation Structures shall be constructed of the following materials as field specified by the Project Arborist.

- Chain link, 72 inches in height secured to metal stakes driven at least 18 inches into the soil.
- Temporary orange snow fencing attached to "T" posts driven into the ground
- Silt fencing
- Wattle
- Rice straw bales

Tree Preservation Structure locations are documented on an attached map (Tree Location/Preservation Map).

MITIGATION MAINTENANCE AND MONITORING PROGRAM (MM&MP)

Mitigation for potential impacts to forest resources will adhere to Public Resources Code 21083.4. This Code Section provides guidelines for determining impacts to oak woodlands. Within the Code, required mitigation strategies are defined and must include at least two of the following:

- Impact avoidance
- Creation of permanent conservation easements
- Reforestation/replanting programs

Mitigation for lost canopy and woodland areas will be implemented as follows:

ARB-1. Impact Avoidance

- The Property Owners have illustrated a commitment to preserving forest resources by siting the buildings in established canopy openings or at the perimeter of tree groupings. Building locations have been strategically positioned in openings that occur naturally between established tree groupings, avoiding the fragmentation of the system. This type of land use design helps maintain the continuous overstory around the development area providing the existing wildlife an interrupted route through the habitat. The Project Architect has re-aligned the driveway, sewer, water and dispersion trenches several times saving four Landmark trees in the process and diminishing impacts to trees to be preserved.

ARB-2. Preservation and Protection of Trees to be Preserved

ARB-3. Implementation of Required Procedures as defined by the Project Arborist

ARB-4. Creation of permanent conservation easement

- The landowners shall agree to voluntarily preserve the oak restoration areas and remaining sensitive habitat areas on the property (oak woodland and mixed grassland) in perpetuity. Restoration/enhancement area(s) should be maintained and monitored for 5 years (or longer until success criteria are met), with annual monitoring results submitted to the County each year.

MITIGATION MAINTENANCE AND MONITORING PROGRAM, continued

ARB-5. Dedication of .25 acres to be protected for restoration purposes as defined in Mitigation Measure BIO-2 (BRG/BMBC 2024)

- Restoration actions would include: removal/control of invasive, non-native plant species, reduction of annual, non-native annual grasses; seasonal weeding and mowing of restored area(s), and seasonal control/removal of invasive, non-native plant species from the restored area(s). Restoration/enhancement area(s) should be maintained and monitored for 5 years (or longer until success criteria are met), with annual monitoring results submitted to the County each year, or as so indicated by County Conditions of Approval.

ARB-6. Seed Collection, Propagation and Planting in one of four designated areas totaling .46 acres as defined on the *Tree Recruitment, Replanting and Restoration Plan* Map on the following page

- The Boccone/Igel Family collected approximately 120 to 160 acorns during the month of October 2023 following established protocol such as described in *Regenerating Rangeland Oaks in California*
  - Select healthy, structurally sound individual trees as seed sources
  - Collect acorns from several suitable trees
  - Monitor 'ripeness" of acorns
  - Harvest acorns only when ripe; caps can be easily removed from the acorn with gentle twisting
  - Acorns harvested from the tree have better success than those picked up from the ground
  - Fill out USFS Seed Collection Form to verify and document provenance
  - Germinate and grow in a controlled environment
  - Propagation to tree pot size 4x4x14-inch liner size containers
  - Plant 45 saplings during the Fall of 2024 at the onset of winter rains
  - Maintain 10-foot separation in plantings in random, non-linear arrangement, mimicking natural growth patterns
  - Newly planted saplings will be protected by above ground browse cages
  - Soil moisture levels will be supplemented by hand watering during the summer months

ARB-7. Sapling Recruitment

- Fifteen, young saplings have been identified, numerically tagged and mapped in one of the four mapped "Recruitment" Areas.
- These small trees will be cleared of suppressive growth for a distance of 3' from the tree trunk
- Above ground browse cages will be installed surrounding each recruited sapling

Tree Recruitment, Replanting and Restoration Plan Map

Boccone/Igel Property 827 Elkhorn Road, Royal Oaks CA APN 181-151-00 Area Designation Summary Table		
Designation	**Map Highlight Color**	**Acreage**
Property Boundary	Lime Green Line	13.53
Land Donated to ESF	Green	5.12
Recruitment/Replanting	Yellow areas (#1-4)	.46
Restoration	Blue	.25
Total Acreage of Mitigation Areas for Recruitment, Replanting and Restoration: .71 acres		

Boccone/Igel Property 827 Elkhorn Road, Royal Oaks CA APN 181-151-009 Sapling Recruitment and Planting Summary Table				
Replanting/Recruitment Area Number	**Size (acres)**	**Sapling Recruitment Quantity**	**Sapling Replanting Quantity**	**Assigned Tag Numbers**
1	.17	2	21	801 to 823
2	.12	3	12	824 to 838
3	.06	5	0	839 to 843
4	.11	5	7	844 to 855
TOTALS	.46	15 Saplings Recruited 40 Saplings Planted from Seed Collected from the Property, Propagated and Grown to Tree Pot Size		

Sapling Recruitment Examples

Saplings #818 and 819 located in Area 1.

Sapling Recruitment Examples, continued

Saplings #826 and 828 located in Area 2.

Success Criteria To ensure the survivability and proper growth of the propagated seedlings and salvaged saplings in perpetuity, Success Criteria will be defined to meet a 60% survival rate and implemented as follows.

The Boccone/Igel Family will monitor the newly planted tree at quarterly intervals for a period of seven years.

- Tree health and growth rates will be assessed
- Trees suffering poor growth rates or declining health will be identified.
- Invigoration treatments will be provided
- Dead trees or trees in an irreversible state of decline will be replaced.
- At the end of the seven-year period the status of the new plantings will be assessed to make certain that a 60% Success Criteria has been met and the saplings are performing well.

Inspections To ensure the successful implementation of the recommended procedures Site Inspections are recommended by the Project Arborist. Site inspections will take place at the following intervals throughout the course of the project:

- Following on-site placement of grade stakes.
- During preconstruction root exploration and severance procedures.
- After Tree Preservation fencing locations have been staked.
- Following Tree Protection fencing installation and prior to the commencement of grading.
- As necessary during the excavation activities, construction and restoration planting to ensure compliance with all conditions of project approval.

Site monitoring forms will be submitted to the Monterey County Resource Management Agency (RMA) upon their request.

Please contact me at 831-426-6603 with questions regarding the tree resources on this project.

Respectfully submitted,

James P. Allen

James P. Allen
ASCA Registered Consulting Arborist #390
Certified Urban Forester #120
ISA Board Certified Master Arborist #625B
ISA Qualified Tree Risk Assessor

Tree Preservation Specifications
827 Elkhorn Road, Royal Oaks CA
APN 181-151-009

These guidelines should be printed on all pages of the development plans. Contractors and sub-contractors should be aware of tree protection guidelines and restrictions. Contracts should incorporate tree protection language that includes "damage to trees will be appraised using the Guide to Plant Appraisal 10th Edition and result in mitigation costs and monetary fines assessed".

Preconstruction meeting with the Project Arborist: A meeting with the Project Arborist, Project Manager and all contractors involved with the project shall take place prior to project initiation. All tree preservation specifications will be reviewed and discussed.

Field decisions: The Project Arborist and Contractor will work together to determine the most effective construction methods required to preserve and protect trees.

Tree Preservation Zone (TPZ) establishment: TPZ's shall be established as indicated on the attached map. The TPZ's shall be delineated by temporary orange snow or chain link fencing no less than 48 inches in height well attached to metal or wooden stakes embedded in the ground. Erosion control structures may be used as tree protection structures. Tree protection structures will be installed prior to the onset of grading under the supervision of the Project Arborist and shall not be moved.

Restrictions within the Tree Preservation Zone (TPZ): No storage of construction materials, debris or excess soil will be allowed within the TPZ. Parking of vehicles or construction equipment in this area is prohibited. Solvents, liquids or phytotoxic materials of any type shall never be stored or disposed of within the any TPZ and shall only be disposed of as prescribed by law.

Grade Alterations: Maintain the natural grade. If tree roots are encountered during the construction process, the Project Arborist will be notified immediately. Exposed roots will be immediately covered with moistened burlap (or similar material) until the Project Arborist decides as to required mitigation methods and extent of damage.

Trenching requirements: Any areas of where trenching is proposed will be evaluated with the Project Arborist and the Contractor prior to excavation or construction.

Tree canopy alterations: Unauthorized pruning of any tree on this site will not be allowed. Tree canopy alterations will be performed to the specifications established by the Project Arborist.

Supplemental irrigation: Irrigation shall be provided using "soaker" hoses or similar method of slow delivery. Supplemental irrigation requirements shall be determined by the Project Arborist and will be required prior to and after completion of the grading.

Mulch Layer: A 4-6 inch layer of tree chip mulch shall be applied within the Tree Preservation Zones (TPZ). Maintain a 12-inch distance from tree trunks that is free of chips or organic material or excess soil accumulation.

Attachment “A”
Tree Resource Inventory

James P. Allen & Associates

Boccone/Igel Residence
827 Elkhorn Road
APN 181-151-009
Construction Impact Analysis

Dedicated to the Preservation of Trees

COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
1	**Triple Trunk 18.8, 13.0 & 1.5**	Fair	Poor	Good	22	**None Known**	• **Wide, spreading canopy Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **Yes**
2	**Four Trunks 11.0, 13.0, 17.5, 11.0**	Fair	Fair	Fair	18	**None Known**	• **Divides at 3 feet above grade Canopy suppressed to the North Fallen trunk to the South has one small, living branch remaining** • **Preserve and Protect** • **Yes** • **Yes**
3	**8.8**	Fair	Poor	Poor	12	**None Known**	• **Trunk swoops dramatically to the South** • **Preserve and Protect** • **Yes** • **No**
4	**16.0**	Poor	Poor	Poor	12	**None Known**	• **Failed trunk at 6 feet above grade** • **Preserve and Protect** • **Yes** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
5	**17.0**	Fair	Poor	Good	14	**None Known**	• **Divides at 3 feet above grade** **Poor trunk/stem attachments** **Failed branch/decayed wound site at 15 feet to the North** • **Preserve and Protect** • **Yes** • **No**
6	**Triple Trunk 33.0, 24.1 & 35.1**	Fair	Fair	Good	30	**None Known**	• **Key Tree** **Wide spreading canopy** **Failed and decayed stems and branches** **Moss growth throughout outer canopy** • **Preserve and Protect** • **Yes** • **Yes**
7	**19.0**	Poor	Poor	Poor	14	**None Known**	• **Large diameter, decayed stems and pruning cuts** **Asymmetrical canopy** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
8	**10.5**	Fair	Poor	Poor	1	**None Known**	• **Trunk bows to the South Suppressed to the North** • **Preserve and Protect** • **Yes** • **No**
9	**9.3**	Fair	Poor	Poor	12	**None Known**	• **Trunk bows dramatically to the South** • **Preserve and Protect** • **Yes** • **No**
10	**10.5**	Fair	Poor	Fair	12	**None Known**	• **Trunk bows to the West Suppressed to the East Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
11	**15.2**	Fair	Poor	Poor	12	**None Known**	• **Fallen/Uprooted Trunk lies on the ground with living foliage** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
12	**18.5**	Dead	N/A	N/A	N/A	**None Known**	• **Fallen, decayed trunk** • **Preserve and Protect** • **No** • **No**
13	**21.5**	Fair	Fair	Good	18	**None Known**	• **Trunk swoops dramatically to the Southeast Failed branch with decayed wound site at 12 feet above grade** • **Preserve and Protect** • **Yes** • **No**
14	**Double Trunk 24 & 22**	Fair	Fair	Good	22	**None Known**	• **Key Tree Northwest trunk has failed Decayed wound sites** • **Preserve and Protect** • **Yes** • **Yes**
15	**13.5**	Poor	Poor	Poor	14	**None Known**	• **Decayed wound sites Severely decayed stem to the West Bark Fractures Hypoxylon fruiting bodies** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
16	**Double Trunk 8.0 & 6.0**	Fair	Poor	Fair	12	**None Known**	• **Poor trunk/stem attachments Leans to the East** • **Preserve and Protect** • **Yes** • **No**
17	**4.2**	Fair	Poor	Fair	6	**None Known**	• **Trunk swoops to the Southeast** • **Preserve and Protect** • **No** • **No**
18	**Thirteen Trunks 5.0, 8.5, 8.0, 6.5, 6.0, 4.5, 6.5, 4.0, 3.2, 5.5, 5.0, 4.3, & 4.0**	Poor	Poor	Poor	14	**HIGH/ Proximity Proposed Grading Limits**	• **Wide spreading smaller multi trunk tree In decline** • **Preserve and Protect** • **Yes** • **Yes**
19	**Four Trunks 10.0, 11.5, 6.5 & 7.7**	Fair	Poor	Fair	18	**None Known**	• **Poor trunk/stem attachments Dead branches** • **Preserve and Protect** • **Yes** • **Yes**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
20	**Seven Trunks 13.0, 15.0, 13.0, 10.5, 7.0, 10.0, & 10.0**	Fair	Fair	Fair	28	**None Known**	• **Multi trunk tree** **Swoops to the South** • **Preserve and Protect** • **Yes** • **Yes**
21	**Double Trunk 22.0 & 14.5**	Fair	Good	Good	22	**None Known**	• **Key Tree** **Main trunk bows to the northeast** **Small diameter dead branches** **Moss growth throughout canopy** • **Preserve and Protect** • **Yes** • **Yes**
22	**Five Trunks 17.3, 12.0, 13.0, 15.5, & 4.5**	Fair	Good	Good	22	**None Known**	• **Gnarled trunk** **Cankers present** • **Preserve and Protect** • **Yes** • **Yes**
23	**Double Trunk 6.0, & 7.0**	Poor	Poor	Poor	12	**LOW/ Proximity to Driveway**	• **Trunk is suppressed to the Northeast** **Low vigor** **In decline** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
24	**5.5**	Poor	Poor	Poor	6	**HIGH/ Within Proposed Driveway**	• **Trunk is suppressed to the West** **Low vigor** **In decline** • **Remove due to Construction Impacts** • **No** • **No**
25	**Double Trunk 10.0 & 9.0**	Poor	Poor	Poor	12	**MODERATE/ Proximity to Driveway**	• **Exudation at several locations** **Possible symptoms of Phytophthora** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
26	**10.0**	Poor	Poor	Poor	12	**MODERATE/ Proximity to Driveway**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
27	**13.5**	Poor	Poor	Fair	15	**LOW/ Proximity to Sewer Line**	• Trunk suppressed to the North and East Presence of cankers Poor trunk/stem attachments • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
28	**Triple Trunk 3.5, 3.0, & 7.0**	Poor	Poor	Poor	12	**LOW/ Proximity to Sewer Line**	• **Suppressed tree** **Low vigor** **In decline** • **Preserve and Protect** **Special Treatment Area** • **Yes** • **No**
29	**9.5**	Poor	Fair	Fair	12	**LOW/ Proximity to Sewer Line**	• **Trunk swoops to the West** **Small diameter dead branches** • **Preserve and Protect** **Special Treatment Area** • **Yes** • **No**
30	**Double Trunk 6.5 & 3.2**	Fair	Poor	Poor	8	**LOW/ Proximity to Sewer Line**	• **Suppressed to the West** **Small diameter dead branches** • **Preserve and Protect** **Special Treatment Area** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
31	**Double Trunk 8.0 & 7.0**	Fair	Poor	Fair	10	**HIGH/ Proximity to Sewer Line**	• **Suppressed to the East** **Small diameter dead branches** **Poor trunk/stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**
32	**13.5**	Fair	Poor	Fair	12	**HIGH/ Canopy Conflicts with Carport and Driveway**	• **Canopy develops toward and over proposed carport and driveway** **Poor trunk/stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**
33	**Double Trunk 6.0 & 7.0**	Poor	Poor	Poor	8	**HIGH/ Proximity to Sewer Line and Driveway**	• **Hypoxylon fruiting bodies present on trunk** • **Remove due to Construction Impacts** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
34	**Twelve Trunks 7.0, 9.5, 10.5, 8.5, 10.0, 9.0, 9.0, 7.0, 5.5, 12.5, 6.0 & 5.5**	Fair	Fair	Good	32	**MODERATE/ Proximity to Sewer Line and Driveway**	• **Wide spreading multi trunk tree** • **Preserve and Protect** **Special Treatment Area** **Clearance pruning required** • **Yes** • **Yes**
35	**5.0**	Poor	Poor	Poor	6	**None Known**	• **Crooked, severely decayed trunk with hypoxylon fruiting structures** • **Preserve and Protect** • **No** • **No**
36	**Double Trunk 8.3 & 9.7**	Poor	Poor	Poor	12	**HIGH/ Within Proposed Carport**	• **Severe state of decline** **Canker presence** **Poor trunk/stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
37	**Double Trunk 11.4 & 7.5**	Poor	Poor	Poor	8	**HIGH/ Proximity to Sewer & Water Lines**	• **In decline** **Canker presence** **Poor trunk/stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**
38	**Double Trunk 10.2 & 9.8**	Fair	Poor	Poor	12	**None Known**	• **Suppressed to the North and East** **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
39	**12.7**	Fair	Poor	Fair	12	**None Known**	• **Suppressed to the North** **Leans to the East** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
40	**14.0**	Fair	Poor	Fair		**None Known**	• **Poor trunk/stem attachment at 12 feet above grade** **Upper trunk leans to the Southwest** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
41	**13.5**	Fair	Poor	Fair		**None Known**	• **Failed branch at 6 feet to the South** **Severe decay in lower trunk** **HIGH FAILURE POTENTIAL** • **Preserve and Protect** **Monitor Stability** • **Yes** • **No**
42	**Double Trunk 5.5 & 7.9**	Fair	Poor	Fair	8	**None Known**	• **Divides at grade** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
43	**Triple Trunk 8.4, 4.5 & 4.6**	Good	Poor	Fair	10	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
44	**Double Trunk 10.1 & 7.7**	Fair	Poor	Fair	14	**None Known**	• **Suppressed to the East** **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
45	**7.0**	Fair	Poor	Fair	8	**None Known**	• **Leans to the East** • **Preserve and Protect** • **Yes** • **No**
46	**8.7**	Fair	Poor	Fair	8	**None Known**	• **Bowed trunk** **Asymmetrical canopy** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
47	**4.3**	Fair	Poor	Fair	6	**None Known**	• **Small suppressed tree** • **Preserve and Protect** • **Yes** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
48	**22.2**	Fair	Fair	Good	18	**None Known**	• **Divides into 2 well attached stems at 10 feet above grade** **Previous branch failure** **Decayed wound sites** • **Preserve and Protect** • **Yes** • **No**
49	**7.6**	Fair	Poor	Fair	8	**None Known**	• **Suppressed tree** **Leans to the East** • **Preserve and Protect** • **Yes** • **No**
50	**11.0**	Poor	Poor	Fair	10	**None Known**	• **Leans to the East** **Canopy suppressed by Poison Oak growth** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
51	**Four Trunks 8.3, 12.2, 11.4 & 9.9**	Fair	Poor	Fair	14	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**

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Boccone/Igel Residence
827 Elkhorn Road
APN 181-151-009
Construction Impact Analysis

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
52	**7.0**	Poor	Poor	Fair	8	**None Known**	• **Leans to the West** **Severe canker development** • **Preserve and Protect** • **Yes** • **No**
53	**14.8**	Fair	Poor	Fair	14	**None Known**	• **Poor trunk/stem attachments at 8 feet above grade** • **Preserve and Protect** • **Yes** • **No**
54	**4.5**	Fair	Fair	Good	26	**None Known**	• **Grows horizontally, near ground** • **Preserve and Protect** • **No** • **No**
55	**3.8**	Fair	Poor	Fair	6	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **No** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
56	**Double Trunk 1.8 & 3.0**	Fair	Poor	Fair	6	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
57	**6.2**	Fair	Fair	Good	15	**None Known**	• **Grows horizontal, near ground** • **Preserve and Protect** • **Yes** • **No**
58	**9.0**	Fair	Fair	Good	15	**None Known**	• **Grows horizontal, near ground** • **Preserve and Protect** • **Yes** • **No**
59	**Eleven Trunks 10.4, 9.0, 1.3, 3.3, 8.4, 10.4, 10.4, 11.2, 2.6, 6.1 & 10.1**	Fair	Poor	Good	18	**None Known**	• **Multi trunk with wide, spreading canopy** **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **Yes**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
60	**7.6**	Fair	Poor	Fair	10	**None Known**	• **Suppressed to the West** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
61	**Double Trunk 11.0 & 18.2**	Fair	Poor	Good	18	**None Known**	• **Well attached scaffold branch at 12 inches above grade** **Poor trunk/stem attachments at 4 feet** **Presence of cankers** • **Preserve and Protect** • **Yes** • **Yes**
62	**15.2**	Poor	Poor	Poor	22	**None Known**	• **Failed at codominant attachment point** • **Preserve and Protect** • **Yes** • **No**
63	**4.2**	Fair	Fair	Good	15	**None Known**	• **Grows horizontally, near ground** • **Preserve and Protect** • **No** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
64	**2.7**	Fair	Poor	Fair	12	**None Known**	• **Small suppressed tree** **Bowed trunk** **Canker at 3 feet to the Northwest** • **Preserve and Protect** • **Yes** • **No**
65	**5.5**	Poor	Poor	Fair	6	**None Known**	• **Leans to the South** **Low Live Crown Ratio** • **Preserve and Protect** • **No** • **No**
66	**4.2**	Fair	Fair	Fair	6	**None Known**	• **Small suppressed tree** • **Preserve and Protect** • **No** • **No**
67	**8.5**	Fair	Poor	Fair	8	**None Known**	• **Trunk leans dramatically to the Northeast** **Failed stem has decayed** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
68	**19.2**	Fair	Poor	Fair	14	**MODERATE/ Proximity to Sewer Line**	• **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** **Special Treatment Area** • **Yes** • **No**
69	**7.2**	Fair	Poor	Fair	8	**None Known**	• **Trunk leans dramatically to the East** **Presence of canker growth** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
70	**8.6**	Fair	Poor	Poor	8	**None Known**	• **Poorly pruned** • **Preserve and Protect** • **Yes** • **No**
71	**3.2**	Fair	Poor	Fair	4	**None Known**	• **Small suppressed tree** **Poor trunk/stem attachments** • **Preserve and Protect** • **No** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
72	**3.2**	Fair	Poor	Fair	6	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **No** • **No**
73	**4.2**	Good	Fair	Good	6	**None Known**	• **Good vigor** • **Preserve and Protect** • **No** • **No**
74	**11.8**	Fair	Poor	Fair	10	**None Known**	• **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
75	**Double Trunk 5.7 & 4.8**	Fair	Poor	Fair	8	**None Known**	• **Poorly pruned** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
76	**Four Trunks 13.4, 8.3, 6.2, & 11.1**	Fair	Poor	Fair	12	**LOW/ Proximity to Patio Foundation**	• **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** **Special Treatment Area** **Clearance Pruning Required** • **Yes** • **Yes**
77	**Double Trunk 6.4 & 4.1**	Fair	Poor	Fair	8	**Moderate/ Proximity to Patio Foundation**	• **Poorly pruned** • **Preserve and Protect** **Special Treatment Area** **Clearance Pruning Required** • **Yes** • **No**
78	**6.0**	Fair	Poor	Fair	8	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
79	**8.9**	Fair	Poor	Fair	8	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
80	**Double Trunk 6.1 & 6.9**	Fair	Poor	Fair	8	**None Known**	• **Poor trunk/stem attachments Visible cankers** • **Preserve and Protect** • **Yes** • **No**
81	**Double Trunk 7.6 & 11.3**	Poor	Poor	Poor	14	**None Known**	• **Poor trunk/stem attachments Visible cankers** • **Preserve and Protect** • **Yes** • **No**
82	**16.2**	Dead	N/A	N/A	N/A	**None Known**	• **Fallen/Dead** • **Preserve and Protect** • **No** • **No**
83	**Four Trunks 6.7, 6.9, 5.5 & 10.1**	Fair	Poor	Fair	14	**None Known**	• **Poor trunk/stem attachments Small diameter dead branches** • **Preserve and Protect** • **Yes** • **Yes**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
84	**9.7**	Fair	Poor	Fair	8	**None Known**	• **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
85	**Double Trunk 11.4 & 9.6**	Fair	Poor	Fair	12	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
86	**13.5**	Fair	Fair	Fair	12	**None Known**	• **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
87	**10.3**	Fair	Poor	Fair	12	**None Known**	• **Poor trunk/stem attachments** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
88	**6.8**	Fair	Poor	Poor	6	**None Known**	• **Bowed trunk** • **Preserve and Protect** • **Yes** • **No**
89	**Double Trunk 13.3 & 11.1**	Fair	Poor	Fair	14	**None Known**	• **Poor trunk/stem attachments Small diameter dead branches** • **Preserve and Protect** • **Yes** • **Yes**
90	**4.0**	Poor	Poor	Poor	6	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **No** • **No**
91	**22.1**	Fair	Poor	Good	35	**None Known**	• **Tree has uprooted Lower trunk has deteriorated Upper canopy section remains alive and upright** • **Preserve and Protect** • **Yes** • **No**

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92	**Double Trunk 8.2 & 2.4**	Poor	Fair	Poor	10	**None Known**	• **Severe canker development in lower trunk** • **Preserve and Protect** • **Yes** • **No**
93	**8.8**	Fair	Poor	Fair	8	**None Known**	• **Trunk swoops to the East** • **Preserve and Protect** • **Yes** • **No**
94	**5.4**	Poor	Poor	Poor	6	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **No** • **No**
95	**6.0**	Good	Poor	Fair	8	**96**	• **Leans to the North** **Mechanical wound in lower trunk** • **Preserve and Protect** • **Yes** • **No**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
96	**Eight Trunks 7.5, 9.6, 6.3, 10.2, 10.9, 6.4, 11.2 & 10.3**	Poor	Poor	Poor	18	**MODERATE/ Proximity to Driveway**	• **Severe decline** **Upper canopy sections have died** **Profuse sucker growth on lower trunk sections** **One trunk has failed/broken** **Hypoxylon fruiting bodies** • **Preserve and Protect** **MONITOR STABILITY** **Canopy pruning may be necessary** **Special Treatment Area** • **Yes** • **Yes**
97	**Three Trunks 7.5, 7.5 & 7.5**	Poor	Fair	Poor	18	**HIGH/ Proximity to Driveway**	• **Severe decline** **Hypoxylon fruiting bodies** **Bleeding cankers** **Symptoms of Oak Bark Beetle** • **Preserve and Protect** **Special Treatment Area** • **Yes** • **No**
98	**9.3**	Fair	Poor	Poor	12	**HIGH/ Proximity to Driveway**	• **Trunk swoops to the South Poor trunk/ stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**

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99	**Ten Trunks 10.1, 8.5, 5.0, 6.7, 4.5, 9.8, 9.0, 9.5, 7.8 &1 7.5**	Fair	Poor	Fair	26	**None Known**	• **Wide spreading multi trunk tree** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **No**
100	**Double Trunk 20.1 & 20.2**	Fair	Poor	Good	30	**MODERATE/ Proximity to Hammerhead**	• **Stately mature tree** **Numerous past branch failures and decayed sections** **Sprout growth on lower trunk** • **Preserve and Protect** **Special Treatment Area** **Canopy clearance pruning may be required** • **Yes** • **Yes**
101	**26.0**	Fair	Poor	Good	30	**None Known**	• **Stately mature tree** **Dog legged trunk** **Numerous past branch failures and decayed sections** **Sprout growth on lower trunk** • **Preserve and Protect** • **Yes** • **Yes**

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102	**Double Trunk 17.6 & 9.9**	Fair	Poor	Fair	14	**HIGH/ Proximity to Driveway/Grading Limits Conflicts with Canopy and Driveway Clearance**	• **Poor trunk/stem attachments** • **Preserve and Protect Special Treatment Area** • **Yes** • **Yes**
103	**23.2**	Poor	Poor	Poor	N/A	**HIGH/ Within Proposed Workshop**	• **Fallen Small amout of living sprout growth** • **Remove due to Condition** • **No** • **No**
104	**Double Trunk 6.1 & 4.8**	Poor	Poor	Poor	8	**None Known**	• **Canker presence on main trunk Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
105	**Triple Trunk 5.7, 7.0 & 5.0**	Fair	Poor	Poor	12	**HIGH/ Proximity to Driveway/Grading Limits**	• **Suppressed to the North Poor trunk/stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**

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106	**9.1**	Poor	Poor	Poor	8	**MODERATE/ Proximity to Driveway/Grading Limits**	• Decay in lower trunk Leans to the West Minimal canopy remaining • Preserve and Protect Special Treatment Area • Yes • No
107	**Double Trunk 15.1 & 11.0**	Fair	Poor	Fair	15	**HIGH/ Proximity to Grading Limits**	• Trunks lean to the West and South • Preserve and Protect Special Treatment Area • Yes • Yes
108	**7.8**	Fair	Poor	Fair	12	**HIGH/ Proximity to Grading Limits**	• Poor trunk/stem attachments • Preserve and Protect Special Treatment Area • Yes • No
109	**8.0**	Dead	N/A	N/A	N/A	**HIGH/ Proximity to Grading Limits**	• Fallen/Dead • Preserve and Protect • No • No

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110	**10.2**	Poor	Poor	Poor	12	**None Known**	• **90% Dead** **Fallen trunk with 2 living branches remaining** • **Preserve and Protect** • **Yes** • **No**
111	**12.2**	Dead	N/A	N/A	N/A	**None Known**	• **Fallen/Dead** • **Preserve and Protect** • **No** • **No**
112	**12.0**	Dead	N/A	N/A	N/A	**None Known**	• **Fallen, lying on the ground** **Still alive** • **Preserve and Protect** • **No** • **No**
113	**17.9**	Fair	Poor	Poor	18	**12**	• **Fallen** **Dead Trunks with sprout growth** **One live branch remains** • **Preserve and Protect** • **Yes** • **No**

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114	**5.4**	Good	Fair	Poor	6	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **No** • **No**
115	**20.1 @ 12" Above Grade**	Fair	Poor	Fair	6	**HIGH/ Within Driveway/Grading Limits**	• **Poor trunk/stem attachments** • **Remove due to Construction Impacts** • **Yes** • **No**
116	**Double Trunk 6.2 & 6.9**	Fair	Poor	Fair	12	**MODERATE/ Proximity to Grading Limits**	• **Poor trunk/stem attachments** • **Preserve and Protect Special Treatment Area** • **Yes** • **No**
117	**11.0**	Fair	Poor	Poor	12	**None Known**	• **Poor trunk/stem attachments In process of splitting apart High Failure Potential** • **Preserve and Protect Monitor Stability** • **Yes** • **No**

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118	**9.5**	Fair	Poor	Fair	12	**None Known**	• **Suppressed tree** • **Preserve and Protect** • **Yes** • **No**
119	**7.9**	Fair	Poor	Fair	10	**None Known**	• **Leans to the North** • **Preserve and Protect** • **Yes** • **No**
120	**Double Trunk 10.0 & 6.7**	Fair	Poor	Fair	12	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
121	**7.6**	Fair	Poor	Fair	8	**None Known**	• **Suppressed tree** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
122	**6.9**	Fair	Poor	Poor	8	**None Known**	• **Crooked trunk** • **Preserve and Protect** • **Yes** • **No**

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123	**10.6**	Fair	Poor	Fair	12	**None Known**	• Leans to the North Poor trunk/stem attachments • Preserve and Protect • Yes • No
124	**14.3**	Fair	Poor	Poor	16	**HIGH/ Within Proposed Garage**	• Leans to the North Poor trunk/stem attachments • Remove due to Construction Impacts • Yes • No
125	**11.6**	Fair	Poor	Fair	14	**HIGH/ Proximity to Grading Limits**	• Poor trunk/stem attachments • Remove due to Construction Impacts • Yes • No
126	**Double Trunk 6.5 & 10.4**	Fair	Poor	Fair	14	**HIGH/ Proximity to Grading Limits**	• Suppressed tree Poor trunk/stem attachments • Remove due to Construction Impacts • Yes • No

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
127	**Triple Trunk 5.9, 6.9 & 7.8**	Fair	Poor	Fair	12	**None Known**	• **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
128	**Double Trunk 9.8 & 8.3**	Fair	Poor	Fair	14	**None Known**	• **Poor/trunk/stem attachments Dead branches** • **Remove due to Construction Impacts** • **Yes** • **No**
129	**11.2**	Fair	Poor	Fair	12	**None Known**	• **Suppressed to the Northwest Leans to the South Dead branches** • **Remove due to Construction Impacts** • **Yes** • **No**
130	**Double Trunk 8.5 & 10.1**	Fair	Poor	Fair		**HIGH/ Proximity to Grading Limits**	• **Suppressed to the Northeast Leans to the West** • **Remove due to Construction Impacts** • **Yes** • **No**

James P. Allen & Associates

Boccone/Igel Residence
827 Elkhorn Road
APN 181-151-009
Construction Impact Analysis

Dedicated to the Preservation of Trees

COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
131	**Double Trunk 10.9 & 12.9**	Fair	Poor	Fair	16	**None Known**	• **Suppressed to the Northwest** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
132	**9.3**	Fair	Poor	Fair	10	**None Known**	• **Suppressed tree** • **Preserve and Protect** • **Yes** • **No**
133	**11.2**	Fair	Poor	Fair	12	**None Known**	• **Leans to the Southeast** **Poor trunk/stem attachments** • **Preserve and Protect** • **Yes** • **No**
134	**4.7**	Poor	Poor	Poor	6	**None Known**	• **Bowed trunk** • **Preserve and Protect** • **No** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
135	**38.2**	Fair	Poor	Fair	32	**None Known**	• **Stately mature tree** **Numerous past branch failures and decayed sections** **Small diameter dead branches** • **Preserve and Protect** • **Yes** • **Yes**
135A	**6.6**	Fair	Poor	Fair	12	**None Known**	• **Dead** • **Preserve and Protect** • **Yes** • **No**
135B	**Double Trunk 22.3 & 27.4**	Dead	N/A	N/A	N/A	**None Known**	• **Dead** • **Preserve and Protect** • **No** • **No**
136	**Double Trunk 22.3 & 27.4**	Fair	Fair	Good	22	**None Known**	• **Decayed wound sites** **Canopy swoops to the West** **Dead branches** • **Preserve and Protect** • **Yes** • **Yes**

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TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
150	**5.4**	Fair	Poor	Fair	12	**None Known**	• **Small tree with crooked trunk** • **Remove due to Construction Impacts** • **No** • **No**
151	**21.3**	Fair	Poor	Good	22	**None Known**	• **Trunk swoops dramatically to the Northwest Suppressed to the South Poor trunk/stem attachments Dead branches** • **Preserve and Protect** • **Yes** • **No**
152	**24.1**	Fair	Fair	Good	22	**None Known**	• **Suppressed to the Northwest Canopy develops to the South Poor trunk/stem attachments Dead branches** • **Preserve and Protect** • **Yes** • **Yes**
153	**23.8 @ 24-inches above grade**	N/A	N/A	N/A	N/A	**None Known**	• **Lower section of dead trunk** • **Preserve and Protect** • **Yes** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
154	**30.3**	Fair	Poor	Poor	N/A	**HIGH/ Within Proposed Driveway**	• **Uprooted** **Fallen to the Northeast @ 30 degrees** **Lying on the ground** **20% live canopy** **Infested by Batk Beetles** • **Remove due to Construction Impacts** • **Yes** • **Yes**
155	**27.9 @ 18-inches above grade**	Fair	Poor	Good	22	**None Known**	• **Trunk divides at 3-feet above grade** **Wide spreading canopy** **Poor trunk/stem attachments** **Decayed wound site from previous branch pruning or failure** **Exudation on lowere trunk** • **Preserve and Protect** • **Yes** • **Yes**
156	**7.2 @ 6-inches above grade**	Fair	Poor	Poor		**None Known**	• **Poor trunk/stem attachments** **Wetwood infection** • **Preserve and Protect** • **Yes** • **No**

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COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
157	**5.4**	Fair	Fair	Good	8	**None Known**	• **Trunk swoops to the North at 5-feet above grade** • **Preserve and Protect** • **Yes** • **No**
158	**7.4**	Fair	Fair	Fair	8	**None Known**	• **Trunk leans dramatically to the Northwest** • **Preserve and Protect** • **Yes** • **No**
159	**5.5**	Fair	Poor	Fair	6	**None Known**	• **Canker in lower trunk** • **Preserve and Protect** • **No** • **No**
160	**6.7**	Poor	Poor	Poor	8	**HIGH/ Proximity to Driveway/Grading Limits Conflicts with Canopy and Driveway Clearance**	• **Cankers throughout tree structure Pruning wounds** • **Remove due to Construction Impacts** • **Yes** • **No**

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Dedicated to the Preservation of Trees

COAST LIVE OAK TREE INVENTORY

TREE #	DIAMETER @ 2ft ABOVE NATURAL GRADE (INCHES)	HEALTH	STRUCTURE	SUITABILITY for PRESERVATION	CRITICAL ROOT ZONE (CRZ) Radial Footage	CONSTRUCTION IMPACTS LEVEL/ Description	• OBSERVATIONS • REQUIRED PROCEDURES • MEETS "PROTECTED" CRITERIA Yes/No • MEETS "LANDMARK" CRITERIA Yes/No
161	**5.2**	Fair	Poor	Poor	8	**HIGH/ Proximity to Driveway/Grading Limits Conflicts with Canopy and Driveway Clearance**	• **Bowed trunk Slightly suppressed** • **Remove due to Construction Impacts** • **No** • **No**
162	**17.4**	Good	Fair	Good	16	**None Known**	• **Wide spreading canopy** • **Preserve and Protect** • **Yes** • **No**

Attachment “B”
Canopy Coverage Analysis

Canopy Coverage

Overview of Property

Canopy Areas

Affected Areas

Canopy and Affected Combined

Area Sizes

Canopy Areas				Affected Areas		
Location	**Sq Ft**	**Grade**		**Location**	**Sq Ft**	**Grade**
Section 1	56,272	Low		Section 1	502	Low
Section 2	508	Low		Section 2	296	Low
Section 3	988	Low		Section 3	543	Low
Section 4	10,995	Low		Section 4	532	Low
Section 5	4,824	Moderate		Section 5	205	Low
Section 6	6,365	High		Section 6	1,122	Low
Section 7	29,748	Low-Moderate		Section 7	326	Low
Section 8	67,465	Moderate-High				
Section 9	17,151	Moderate				
Section 10	35,114	High				
Section 11	62,131	Moderate				
Section 12	5,454	Low				
Total	297,015			Total	3,526	
Acres	6.82			Acres	0.08	
Affected areas represent 1.19 percent of total canopy area						

Attachment “C”

USFS Seed Collection Protocol

USFS Seed Collection Form

SEED COLLECTION FORM

1) SCIENTIFIC NAME_____

2) COMMON NAME _____

3) SPECIES CODE _____ 4) SEED LOT CODE _____
4 - 6 letter from nursery form 158

5) WATERSHED_____ 6) SUBWATER_____
Name Code (2 digit) Name Code (1letter)

7) LEGAL_____ 8) QUAD NAME _____
Twnshp. Range Sec(s)

9) ROAD NUMBER(S)_____

10) CREEK OR SITE NAME _____

11) AREA RELOCATION DIRECTIONS_____
_____

ATTACH A QUAD OR ROAD MAP OF COLLECTION AREA ON BACK

12) ELEVATION(S) _____ 13) SLOPE(S)_____%

14) ASPECT(S) (N, S, E, W) _____

15) HABITAT DESCRIPTION (S)_____

16) PLANT ASSOCIATION(S)_____
Name (use key or leave blank)

17) NUMBER OF PLANTS IN EACH POPULATION _____

18) NUMBER OF POPULATIONS IN THIS SEED LOT _____

19) COLLECTOR(S) NAME_____

20) COLLECTION DATE_____21) HOURS SPENT COLLECTING _____

22) COMMENTS_____

DRYING AND TRANSPORT DATA

23) DRYING METHOD_____ 24) DRYING TIME _____

25) NURSERY NAME _____ 26) DATE SHIPPED _____

27) DISTRICT CONTACT PERSON_____

Collection Form Instructions

* Asterisk indicates data that does not need to be recorded in the field. This information can be recorded before or after collection to save field time. But be sure to do it!

1) SCIENTIFIC NAME: Be absolutely sure of the identification. Use the names In Flora of the Pacific
2) COMMON NAME: Use the names on the charts in this guide, or the ones used for stand exams.
3) * SPECIES CODE: This is the code used for stand exams. Use the CORRECT four to six letter code. Leave blank it you don't know. Refer to PNW Publication Northwest Plant Names and Symbols.for Ecosystem Inventory and Analysis.
4) * SEED LOT CODE: This Is from Nursery Lot Form 158. See instructions accompanying that form.
5) * WATERSHED NAME AND CODE: Get a map of these from the district hydrologist.
6) * SUBWATEFTSHED NAME AND CODE: Got a map of these from the district hydrologist
7)..LEGAL: This Is the Township, Range, and Section the seed was collected from. More than one entry for large batches.
8) QUAD NAME: This Is the USGS Quad map name. For large batches there can be more than one entry here.
9) ROAD NUMBER(S): List the main roads that are nearest to the area collected. This doesn't have to be real specific.
10) CREEK OR SITE NAME: General name of the area.
11) AREA RELOCATION DIRECTIONS: This can be fairly general.
12) ELEVATION(S): H more than one population is included, give the range of elevations, or list each one.
13) SLOPE(S): ff more than one population is included, give the range of slopes, or list each one.
14) ASPECT(S): ff more than one population is included, give the range of aspects, or list each one.
15) HABITAT DESCRIPTION: General habitat information, such as riparian, forested, grassland.
16) PLANT ASSOCIATION: Use the appropriate guide to determine this. If more than one population is collected, list each association name. If in doubt leave it blank.
17) NUMBER OF PLANTS IN EACH POPULATION- Estimate the number of plants (10?, 50?, 100?) that were harvested in each population. This line will have one entry only since it will be the same for all populations in a seed lot
18) NUMBER OF POPULATIONS IN SEED LOT - Number of populations, separated by 1/4 mile, that were
19) COLLECTOR(S) NAME: The person who did the collecting (or people).
20) COLLECTION DATE: Date the material was collected. Important for tracking success rates.
21) HOURS SPENT COLLECTING: Time spent actually collecting (donl count driving time).
22) COMMENTS: Any extra information that may be helpful

DRYING AND TRANSPORT

23)DRYING METHOD: Record where (sun or shade) and how.
24) DRYING TIME: How many days the material was dried.
25) NURSERY NAME: Name of the nursery the material was sent to.
26) DATE SHIPPED: Date the material was sent to the nursery.
27) DISTRICT CONTACT PERSON: Name of person nursery should contact if there are any questions.

Apendix A: Seed Collection Protocols

1. Locate indigenous sites as close to the project site as possible. Avoid areas heavy with invasive species infestations. Within each subwatershed being considered for collection, identify several sites with various elevations, aspects, and geographic locations for each species. Assess target populations and confirm a sufficient number of individual plants (typically >30) have seeds at natural dispersal stage.
2. Geneticists and ecologists emphasize that collecting from a sufficient number of individual parent plants to capture the widest possible genetic diversity within a watershed is critical to the success of planting projects. Variations among individuals makes the difference between temporary landscaping, and a healthy, self-perpetuating population that is an integral part of the ecosystem.
3. To ensure the highest possible viability at collection and maximize the potential storage, collect mature, dry seeds in either cloth or paper bags.
4. Cleaning can be processed off site to maximize available field collection time.
5. To maximize genetic diversity in the collection, capture early, mid and late bloomers. Collect seeds from a population throughout its dispersal season, seeds from a population collected in the same year can be combined as one collection.
6. For each population in a seed lot collect from at least 30 to 50 parent plants in good condition. Try to collect from as many separate populations as is feasible in each elevation band and subwatershed. Strive to collect a similar amount of seed from each population harvested. Separate populations by at least 1/4 mile, this distance should ensure that no pollen or seed exchange occur between the populations. These tactics will ensure that a representative sample of genetic variation is collected.
7. Ensure that the sampled population is not over collected and is maintainable. Leave some seed for regeneration of the native population. Collect no more than 20% of viable seed from a given area on the day of collection.
8. Select only vigorous, healthy parent plants. Avoid plants with signs of insects and disease. Be especially alert for black fungus diseases such as ergot in grass seed heads. Do not pick seed heads that are touching the ground.
9. Do not collect in research natural areas, near sensitive plant sites or other environmentally sensitive areas unless granted permission including permitted agency collection permits.
10. Collect as much seed as is available and time allows. Small seed lots are more susceptible to nursery losses than larger lots. About 500 - 1,000 seeds per species is the minimum required for Forest Service nursery processing, and to use for increasing quantities. Direct sowng will necessitate collecting the quantity of seed needed for a particular project area, plus extra to compensate for unknown germination rates. Additional mortality will occur after seeding as well.
11. NEVER combine seed of different species while collecting. The only exception to this would be to collect a mix of all natives that would then be directly reseeded back into the wild. Nurseries will not accept any mixed seed.
12. Document seed collection. Prior to collecting seed, record the parent population information on seed collection forms and include locations of collections. Clearly label all collection bags with appropriate information or appropriate collection number if using field data forms.

Attachment “D”

Map Files (2)

- Construction Impact Assessment, Tree Location Map
- Tree Protection Plan

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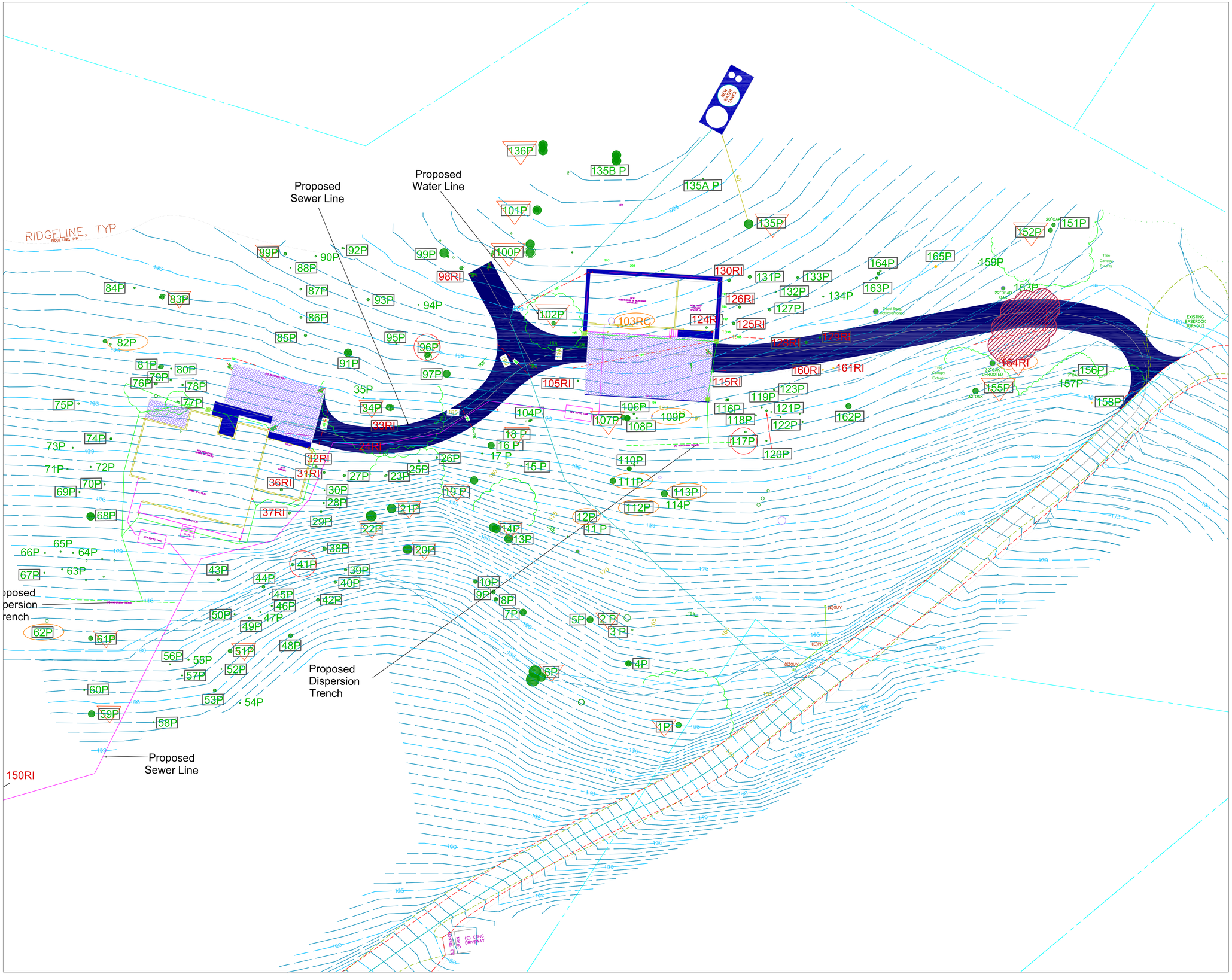


Map Key / Legend

- Surveyed Tree Trunk Location
- Field Located Tree Trunk, Approximate
- 1 — Assigned Tree Number
- 1 — Tree Meets "Protected" Criteria
- 21 — Tree Meets "Landmark" Criteria
- 1 P — Preserve and Protect
- 2 RI — Remove due to Construction Impacts
- 103RC — Remove due to Condition
- Indicates Dead/Fallen Tree
- Canopy Extents
- Canopy Extents, Fallen Tree #154
- 41 — Monitor Stability
  - Trees #41, 96 & 117

Boccone/Igel Residence Construction Project

Forest Resource Analysis/ Construction Impact Assessment Tree Protection Plan

Development Area at 20 Scale

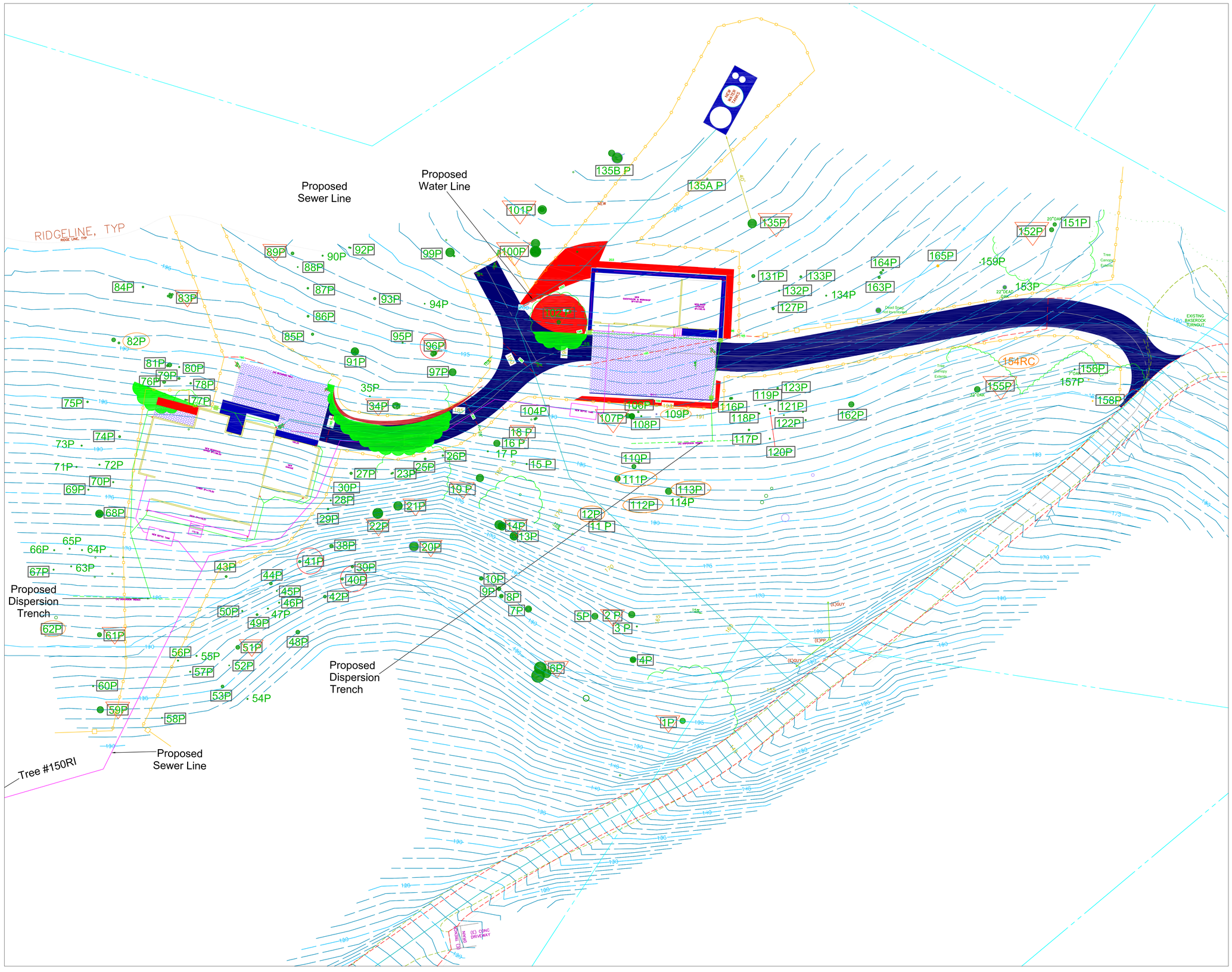
Boccone/Igel Residence Construction Project
827 Elkhorn Road, Royal Oaks CA
APN 181-151-009

Tree Location Map

James P. Allen & Associates
119 Surfside Avenue, Santa Cruz CA 95060
office 831.426.6603
email jpallen@consultingarborists.com

1 OF 1

Date: 8/14/23
Revision: 7/15/24
Revision: 11/1/24



Map Key / Legend

- **Surveyed Tree Trunk Location**
- **1P** **Assigned Tree Number Preserve and Protect**
- **1** **Tree Meets "Protected" Criteria**
- **21** **Tree Meets "Landmark" Criteria**
- **41** **Monitor Stability**
  - **Trees #41, 96 & 117**
- **Indicates Dead/Fallen Tree**
- **Special Treatment Areas (STA)**
  NOTE: Sewer, Water & Dispersion Line Trenches are defined as STA
- **Tree Preservation Structures,** shall be constructed of the following materials as field specified by the Project Arborist.
  - Chain link, 72 inches in height secured to metal stakes driven at least 18 inches into the soil.
  - Temporary orange snow fencing attached to "T" posts driven into the ground
  - Silt fencing
  - Wattle
  - Rice straw bales
- **Clearance Pruning Required**
  - **Trees #1, 14, 21, 34, 76, 77 & 102**
- **Canopy Extents**

Boccone/Igel Residence Construction Project

Forest Resource Analysis/ Tree Protection Plan

Development Area at 20 Scale

Boccone/Igel Residence Construction Project
827 Elkhorn Road, Royal Oaks CA
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Tree Location Map

James P. Allen & Associates
119 Surfside Avenue, Santa Cruz CA 95060
office 831.426.6603
email jpallen@consultingarborists.com

1 OF 1

Date: 8/14/23
Revision: 7/15/24
Revision: 11/1/24